

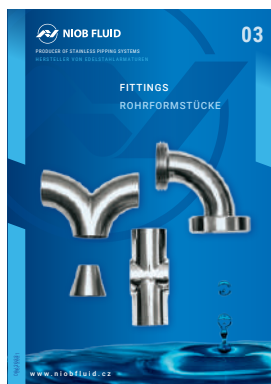
## PIPE UNIONS ROHRVERBINDUNGEN



### 02 PIPE UNIONS ROHRVERBINDUNGEN



### 03 FITTINGS ROHRFORMSTÜCKE



### 04 VALVES AND COCKS VENTILE UND HÄHNE



### 05 SPECIAL FITTINGS AND PARTS SPEZIALARMATUREN UND TEILE



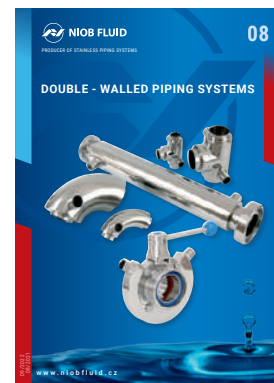
### 06 DOORS AND MANWAYS MANNLOCHTÜREN UND Klapptüren



### 07 ACCESSORIES ZUBEHÖR



### 08 DOUBLE-WALLED PIPING SYSTEMS DOPPELWANDIGE ROHRSYSTEME

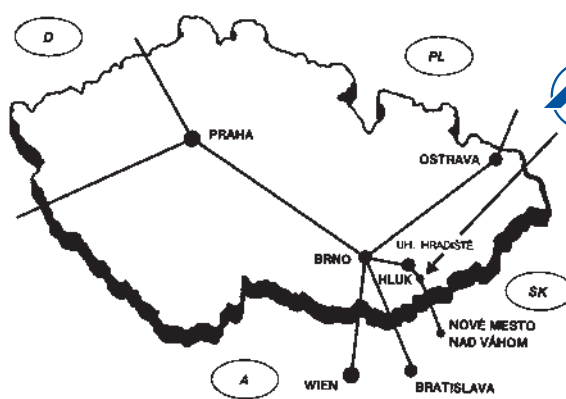


### 09 ASEPTIC PROGRAM ASEPTISCHES PROGRAMM

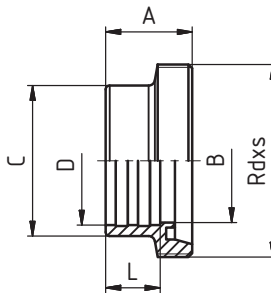


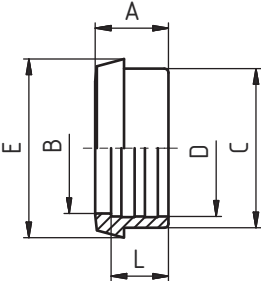
The company NIOB FLUID s. r. o. is a manufacturer focused on the production of fasteners, shut-off and control valves of stainless steels. These valves are especially designed for the transport of liquids in the food, chemical and the pharmaceutical industry. It is simultaneously also the supplier of pipe fittings and other parts needed for piping systems and components for tanks such as the lid, manwaydoor, level indicator and other components.

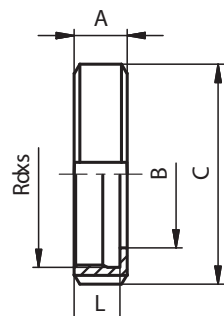
Die Gesellschaft NIOB FLUID s.r.o. ist ein Hersteller, der auf die Produktion von Verbindungs-, Absperr- und Regulierungsarmaturen aus Edelstahl orientiert ist. Diese Armaturen sind vor allem für den Transport von Flüssigkeiten in der Lebensmittel- und Chemieindustrie und in der Pharmazie bestimmt. Die Gesellschaft ist gleichzeitig auch Lieferant von Rohrverbindungsstücken und weiteren Teilen, die für die Rohrleitungen erforderlich sind, und von Behälterteilen wie Hauben, Luken, Standgläser und weitere Komponenten.

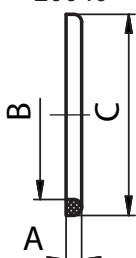
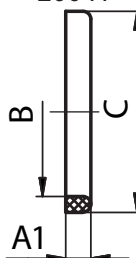


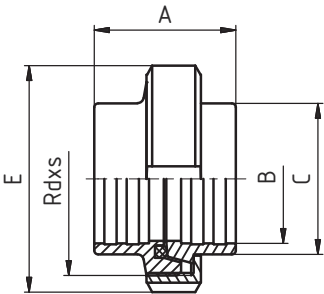
**NIOB FLUID s. r. o.**  
Ostrožská 1003, 687 25 Hluk, Czech Republic  
Phone: +420 572 419 822 – 8, Fax: +420 572 419 868  
E-mail: [marketing@niobfluid.cz](mailto:marketing@niobfluid.cz), [www.niobfluid.cz](http://www.niobfluid.cz)

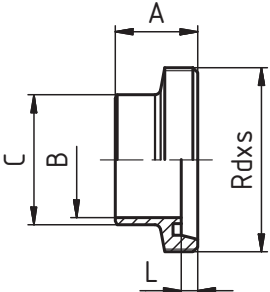
|                                                                                   |            |                      |    |    |      |   |   |   |   |    |                          |      |
|-----------------------------------------------------------------------------------|------------|----------------------|----|----|------|---|---|---|---|----|--------------------------|------|
| Expanding male<br>Einwalzgewindestutzen                                           | 20010      | Dimensions • Baumaße |    |    |      |   |   |   |   |    |                          |      |
|                                                                                   | DIN 11 851 | DN                   | A  | B  | C    | D | E | F | R | L  | thread DIN 405<br>Rd x s | kg   |
|  | 25         | 29                   | 26 | 35 | 28,2 |   |   |   |   | 15 | 52x1/6"                  | 0,16 |
|                                                                                   | 32         | 32                   | 32 | 41 | 34,2 |   |   |   |   | 18 | 58x1/6"                  | 0,19 |
|                                                                                   | 40         | 33                   | 38 | 48 | 40,3 |   |   |   |   | 20 | 65x1/6"                  | 0,24 |
|                                                                                   | 50         | 35                   | 50 | 61 | 52,3 |   |   |   |   | 22 | 78x1/6"                  | 0,34 |
|                                                                                   | 65         | 40                   | 66 | 79 | 70,4 |   |   |   |   | 25 | 95x1/6"                  | 0,51 |
|                                                                                   | 80         | 45                   | 81 | 93 | 85,4 |   |   |   |   | 28 | 110x1/4"                 | 0,72 |
|                                                                                   |            |                      |    |    |      |   |   |   |   |    |                          |      |
|                                                                                   |            |                      |    |    |      |   |   |   |   |    |                          |      |
|                                                                                   |            |                      |    |    |      |   |   |   |   |    |                          |      |
|                                                                                   |            |                      |    |    |      |   |   |   |   |    |                          |      |

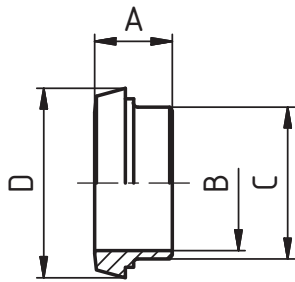
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|------------------------------------------------------------------------------------|------------|----------------------|----|----|------|------|---|---|---|----|--------------------------|------|--|
| Expanding liner<br>Einwalzkegelstutzen                                             | 20020      | Dimensions • Baumaße |    |    |      |      |   |   |   |    |                          |      |  |
|                                                                                    | DIN 11 851 | DN                   | A  | B  | C    | D    | E | F | R | L  | thread DIN 405<br>Rd x s | kg   |  |
|  | 25         | 22                   | 26 | 35 | 28,2 | 44   |   |   |   | 15 |                          | 0,09 |  |
|                                                                                    | 32         | 25                   | 32 | 41 | 34,2 | 50   |   |   |   | 18 |                          | 0,12 |  |
|                                                                                    | 40         | 26                   | 38 | 48 | 40,3 | 56   |   |   |   | 20 |                          | 0,15 |  |
|                                                                                    | 50         | 28                   | 50 | 61 | 52,3 | 68,5 |   |   |   | 22 |                          | 0,22 |  |
|                                                                                    | 65         | 32                   | 66 | 79 | 70,4 | 86   |   |   |   | 25 |                          | 0,32 |  |
|                                                                                    | 80         | 37                   | 81 | 93 | 85,4 | 100  |   |   |   | 28 |                          | 0,40 |  |
|                                                                                    |            |                      |    |    |      |      |   |   |   |    |                          |      |  |
|                                                                                    |            |                      |    |    |      |      |   |   |   |    |                          |      |  |
|                                                                                    |            |                      |    |    |      |      |   |   |   |    |                          |      |  |
|                                                                                    |            |                      |    |    |      |      |   |   |   |    |                          |      |  |

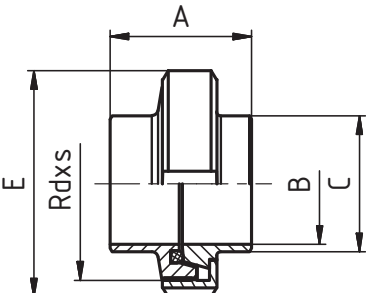
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|-------------------------------------------------------------------------------------|------------|----------------------|-----|-----|---|---|---|---|---|----|--------------------------|------|
| Nut<br>Nutmutter                                                                    | 20030      | Dimensions • Baumaße |     |     |   |   |   |   |   |    |                          |      |
|                                                                                     | DIN 11 851 | DN                   | A   | B   | C | D | E | F | R | L  | thread DIN 405<br>Rd x s | kg   |
|  | 10         | 18                   | 19  | 38  |   |   |   |   |   | 15 | 28x1/8"                  | 0,07 |
|                                                                                     | 15         | 18                   | 25  | 44  |   |   |   |   |   | 15 | 34x1/8"                  | 0,08 |
|                                                                                     | 20         | 20                   | 31  | 54  |   |   |   |   |   | 17 | 44x1/6"                  | 0,14 |
|                                                                                     | 25         | 21                   | 36  | 63  |   |   |   |   |   | 18 | 52x1/6"                  | 0,18 |
|                                                                                     | 32         | 21                   | 42  | 70  |   |   |   |   |   | 18 | 58x1/6"                  | 0,22 |
|                                                                                     | 40         | 21                   | 49  | 78  |   |   |   |   |   | 18 | 65x1/6"                  | 0,25 |
|                                                                                     | 50         | 22                   | 62  | 92  |   |   |   |   |   | 19 | 78x1/6"                  | 0,33 |
|                                                                                     | 65         | 25                   | 80  | 112 |   |   |   |   |   | 21 | 95x1/6"                  | 0,55 |
|                                                                                     | 80         | 29                   | 94  | 127 |   |   |   |   |   | 25 | 110x1/4"                 | 0,80 |
|                                                                                     | 100        | 31                   | 115 | 148 |   |   |   |   |   | 26 | 130x1/4"                 | 1,08 |
|                                                                                     | 125        | 35                   | 138 | 178 |   |   |   |   |   | 30 | 160x1/4"                 | 1,45 |
|                                                                                     | 150        | 40                   | 164 | 210 |   |   |   |   |   | 34 | 190x1/4"                 | 1,88 |
|                                                                                     |            |                      |     |     |   |   |   |   |   |    |                          |      |
|                                                                                     |            |                      |     |     |   |   |   |   |   |    |                          |      |
|                                                                                     |            |                      |     |     |   |   |   |   |   |    |                          |      |

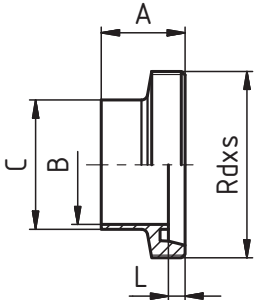
| Gasket<br>Dichtung                                                                                                                                                                                                                      | 20040      | 20041 | Dimensions • Baumaße |     |     |   |   |   |   |   |   |                          |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------|----------------------|-----|-----|---|---|---|---|---|---|--------------------------|----|
|                                                                                                                                                                                                                                         | DIN 11 851 |       | DN                   | A   | A1  | B | C | E | F | R | L | thread DIN 405<br>Rd x s | kg |
| <div><div><div>20040</div></div><div><div>20041</div></div></div> | 10         | 4,5   | -                    | 12  | 20  |   |   |   |   |   |   | 0,0012                   |    |
|                                                                                                                                                                                                                                         | 15         | 4,5   | -                    | 18  | 26  |   |   |   |   |   |   | 0,0016                   |    |
|                                                                                                                                                                                                                                         | 20         | 4,5   | -                    | 23  | 33  |   |   |   |   |   |   | 0,0026                   |    |
|                                                                                                                                                                                                                                         | 25         | 5     | 8                    | 30  | 40  |   |   |   |   |   |   | 0,0036                   |    |
|                                                                                                                                                                                                                                         | 32         | 5     | 8                    | 36  | 46  |   |   |   |   |   |   | 0,0040                   |    |
|                                                                                                                                                                                                                                         | 40         | 5     | 8                    | 42  | 52  |   |   |   |   |   |   | 0,0048                   |    |
|                                                                                                                                                                                                                                         | 50         | 5     | 8                    | 54  | 64  |   |   |   |   |   |   | 0,0062                   |    |
|                                                                                                                                                                                                                                         | 65         | 5     | 8                    | 71  | 81  |   |   |   |   |   |   | 0,0070                   |    |
|                                                                                                                                                                                                                                         | 80         | 5     | 8                    | 85  | 95  |   |   |   |   |   |   | 0,0080                   |    |
|                                                                                                                                                                                                                                         | 100        | 6     | 8                    | 104 | 114 |   |   |   |   |   |   | 0,0134                   |    |
|                                                                                                                                                                                                                                         | 125        | 7     | 8                    | 130 | 142 |   |   |   |   |   |   | 0,0236                   |    |
|                                                                                                                                                                                                                                         | 150        | 7     | 8                    | 155 | 167 |   |   |   |   |   |   | 0,0276                   |    |
|                                                                                                                                                                                                                                         |            |       |                      |     |     |   |   |   |   |   |   |                          |    |
|                                                                                                                                                                                                                                         |            |       |                      |     |     |   |   |   |   |   |   |                          |    |

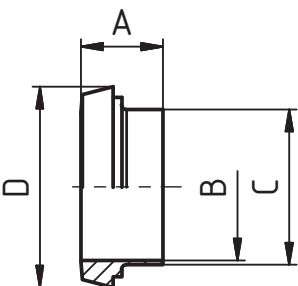
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|-----------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Expanding union - complete<br>Einwalzverschraubung - komplett                     | <b>20090</b>      | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                   | <b>DIN 11 851</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 25                          | 45       | 28,2     | 35       |          | 63       |          |          |          | 52x1/6"                          | 0,16      |
|                                                                                   |                   | 32                          | 51       | 34,2     | 41       |          | 70       |          |          |          | 58x1/6"                          | 0,19      |
|                                                                                   |                   | 40                          | 53       | 40,3     | 48       |          | 78       |          |          |          | 65x1/6"                          | 0,24      |
|                                                                                   |                   | 50                          | 57       | 52,3     | 61       |          | 92       |          |          |          | 78x1/6"                          | 0,34      |
|                                                                                   |                   | 65                          | 65       | 70,4     | 79       |          | 112      |          |          |          | 95x1/6"                          | 0,51      |
|                                                                                   |                   | 80                          | 75       | 85,4     | 93       |          | 127      |          |          |          | 110x1/4"                         | 0,72      |
|                                                                                   |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                   |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                   |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                   |                   |                             |          |          |          |          |          |          |          |          |                                  |           |

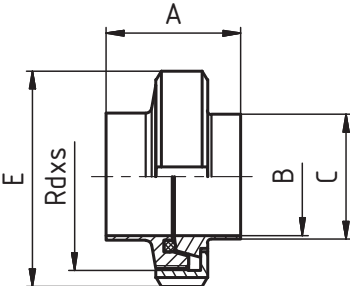
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|------------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding male<br>Anschweißgewindestutzen                                            | <b>20100</b>      | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                    | <b>DIN 11 851</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 21       | 10       | 15       |          |          |          |          | 4        | 28 x 1/8"                        | 0,044     |
|                                                                                    |                   | 15                          | 21       | 16       | 21       |          |          |          |          | 4        | 34 x 1/8"                        | 0,046     |
|                                                                                    |                   | 20                          | 24       | 20       | 25       |          |          |          |          | 6        | 44 x 1/6"                        | 0,084     |
|                                                                                    |                   | 25                          | 29       | 26       | 31       |          |          |          |          | 7        | 52 x 1/6"                        | 0,104     |
|                                                                                    |                   | 32                          | 32       | 32       | 37       |          |          |          |          | 7        | 58 x 1/6"                        | 0,112     |
|                                                                                    |                   | 40                          | 33       | 38       | 43       |          |          |          |          | 7        | 65 x 1/6"                        | 0,164     |
|                                                                                    |                   | 50                          | 35       | 50       | 55       |          |          |          |          | 7        | 78 x 1/6"                        | 0,296     |
|                                                                                    |                   | 65                          | 40       | 66       | 72       |          |          |          |          | 8        | 95 x 1/6"                        | 0,280     |
|                                                                                    |                   | 80                          | 45       | 81       | 87       |          |          |          |          | 8        | 110 x 1/4"                       | 0,540     |
|                                                                                    |                   | 100                         | 54       | 100      | 106      |          |          |          |          | 10       | 130 x 1/4"                       | 0,780     |
|                                                                                    |                   | 125                         | 46       | 125      | 132      |          |          |          |          | 12       | 160 x 1/4"                       | 1,140     |
|                                                                                    |                   | 150                         | 50       | 150      | 157      |          |          |          |          | 13       | 190 x 1/4"                       | 1,800     |
|                                                                                    |                   |                             |          |          |          |          |          |          |          |          |                                  |           |

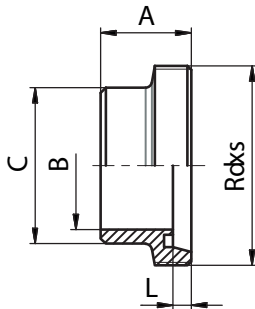
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|-------------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding liner<br>Anschweißkegelstutzen                                              | <b>20110</b>      | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     | <b>DIN 11 851</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 17       | 10       | 15       | 22,5     |          |          |          |          |                                  | 0,060     |
|                                                                                     |                   | 15                          | 17       | 16       | 21       | 28,5     |          |          |          |          |                                  | 0,062     |
|                                                                                     |                   | 20                          | 18       | 20       | 25       | 36,5     |          |          |          |          |                                  | 0,100     |
|                                                                                     |                   | 25                          | 22       | 26       | 31       | 44       |          |          |          |          |                                  | 0,120     |
|                                                                                     |                   | 32                          | 25       | 32       | 37       | 50       |          |          |          |          |                                  | 0,160     |
|                                                                                     |                   | 40                          | 26       | 38       | 43       | 56       |          |          |          |          |                                  | 0,165     |
|                                                                                     |                   | 50                          | 28       | 50       | 55       | 68,5     |          |          |          |          |                                  | 0,220     |
|                                                                                     |                   | 65                          | 32       | 66       | 72       | 86       |          |          |          |          |                                  | 0,320     |
|                                                                                     |                   | 80                          | 37       | 81       | 87       | 100      |          |          |          |          |                                  | 0,400     |
|                                                                                     |                   | 100                         | 44       | 100      | 106      | 121      |          |          |          |          |                                  | 0,600     |
|                                                                                     |                   | 125                         | 34       | 125      | 132      | 150      |          |          |          |          |                                  | 0,930     |
|                                                                                     |                   | 150                         | 37       | 150      | 157      | 176      |          |          |          |          |                                  | 1,060     |
|                                                                                     |                   |                             |          |          |          |          |          |          |          |          |                                  |           |

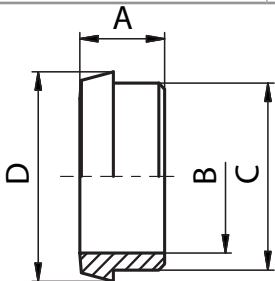
|                                                                                     |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|-------------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding union - complete<br>Anschweißverschraubung - komplett                       | <b>20120</b>      | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     | <b>DIN 11 851</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 35       | 10       | 15       |          | 38       |          |          |          | 28 x 1/8"                        | 0,17      |
|                                                                                     |                   | 15                          | 35       | 16       | 21       |          | 44       |          |          |          | 34 x 1/8"                        | 0,18      |
|                                                                                     |                   | 20                          | 37       | 20       | 25       |          | 54       |          |          |          | 44 x 1/6"                        | 0,32      |
|                                                                                     |                   | 25                          | 45       | 26       | 31       |          | 63       |          |          |          | 52 x 1/6"                        | 0,40      |
|                                                                                     |                   | 32                          | 51       | 32       | 37       |          | 70       |          |          |          | 58 x 1/6"                        | 0,49      |
|                                                                                     |                   | 40                          | 53       | 38       | 43       |          | 78       |          |          |          | 65 x 1/6"                        | 0,58      |
|                                                                                     |                   | 50                          | 57       | 50       | 55       |          | 92       |          |          |          | 78 x 1/6"                        | 0,84      |
|                                                                                     |                   | 65                          | 65       | 66       | 72       |          | 112      |          |          |          | 95 x 1/6"                        | 1,15      |
|                                                                                     |                   | 80                          | 75       | 81       | 87       |          | 127      |          |          |          | 110 x 1/4"                       | 1,74      |
|                                                                                     |                   | 100                         | 89       | 100      | 106      |          | 148      |          |          |          | 130 x 1/4"                       | 2,46      |
|                                                                                     |                   | 125                         | 69       | 125      | 132      |          | 178      |          |          |          | 160 x 1/4"                       | 3,52      |
|                                                                                     |                   | 150                         | 74       | 150      | 157      |          | 210      |          |          |          | 190 x 1/4"                       | 4,74      |
|                                                                                     |                   |                             |          |          |          |          |          |          |          |          |                                  |           |

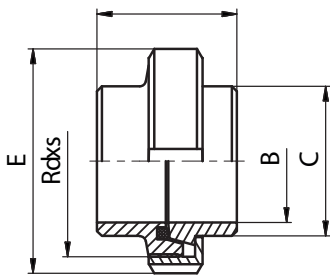
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|-----------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding male<br>Anschweißgewindestutzen                                           | <b>20100 R</b>    | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                   | <b>DIN 11 851</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 21       | 10       | 13       |          |          |          |          | 4        | 28 x 1/8"                        | 0,04      |
|                                                                                   |                   | 15                          | 21       | 16       | 19       |          |          |          |          | 4        | 34 x 1/8"                        | 0,05      |
|                                                                                   |                   | 20                          | 24       | 20       | 23       |          |          |          |          | 6        | 44 x 1/6"                        | 0,09      |
|                                                                                   |                   | 25                          | 29       | 26       | 29       |          |          |          |          | 7        | 52 x 1/6"                        | 0,11      |
|                                                                                   |                   | 32                          | 32       | 32       | 35       |          |          |          |          | 7        | 58 x 1/6"                        | 0,13      |
|                                                                                   |                   | 40                          | 33       | 38       | 41       |          |          |          |          | 7        | 65 x 1/6"                        | 0,16      |
|                                                                                   |                   | 50                          | 35       | 50       | 53       |          |          |          |          | 7        | 78 x 1/6"                        | 0,22      |
|                                                                                   |                   | 65                          | 40       | 66       | 70       |          |          |          |          | 8        | 95 x 1/6"                        | 0,35      |
|                                                                                   |                   | 80                          | 45       | 81       | 85       |          |          |          |          | 8        | 110 x 1/4"                       | 0,52      |
|                                                                                   |                   | 100                         | 54       | 100      | 104      |          |          |          |          | 10       | 130 x 1/4"                       | 0,67      |
|                                                                                   |                   | 125                         | 46       | 125      | 129      |          |          |          |          | 12       | 160 x 1/4"                       | 0,99      |
|                                                                                   |                   | 150                         | 50       | 150      | 154      |          |          |          |          | 13       | 190 x 1/4"                       | 1,71      |

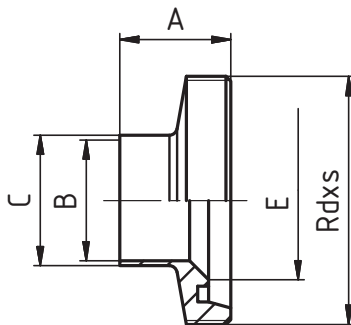
|                                                                                    |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|------------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding liner<br>Anschweißkegelstutzen                                             | <b>20110 R</b>    | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                    | <b>DIN 11 851</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 17       | 10       | 13       | 22,5     |          |          |          |          |                                  | 0,02      |
|                                                                                    |                   | 15                          | 17       | 16       | 19       | 28,5     |          |          |          |          |                                  | 0,03      |
|                                                                                    |                   | 20                          | 18       | 20       | 23       | 36,5     |          |          |          |          |                                  | 0,06      |
|                                                                                    |                   | 25                          | 22       | 26       | 29       | 44       |          |          |          |          |                                  | 0,08      |
|                                                                                    |                   | 32                          | 25       | 32       | 35       | 50       |          |          |          |          |                                  | 0,10      |
|                                                                                    |                   | 40                          | 26       | 38       | 41       | 56       |          |          |          |          |                                  | 0,12      |
|                                                                                    |                   | 50                          | 28       | 50       | 53       | 68,5     |          |          |          |          |                                  | 0,17      |
|                                                                                    |                   | 65                          | 32       | 66       | 70       | 86       |          |          |          |          |                                  | 0,29      |
|                                                                                    |                   | 80                          | 37       | 81       | 85       | 100      |          |          |          |          |                                  | 0,35      |
|                                                                                    |                   | 100                         | 44       | 100      | 104      | 121      |          |          |          |          |                                  | 0,57      |
|                                                                                    |                   | 125                         | 34       | 125      | 129      | 150      |          |          |          |          |                                  | 0,77      |
|                                                                                    |                   | 150                         | 37       | 150      | 154      | 176      |          |          |          |          |                                  | 1,01      |

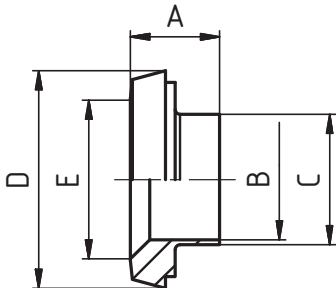
|                                                                                     |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|-------------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding union - complete<br>Anschweißverschraubung - komplett                       | <b>20120 R</b>    | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     | <b>DIN 11 851</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 35       | 10       | 13       |          | 38       |          |          |          | 28 x 1/8"                        | 0,13      |
|                                                                                     |                   | 15                          | 35       | 16       | 19       |          | 44       |          |          |          | 34 x 1/4"                        | 0,16      |
|                                                                                     |                   | 20                          | 37       | 20       | 23       |          | 54       |          |          |          | 44 x 1/6"                        | 0,28      |
|                                                                                     |                   | 25                          | 45       | 26       | 29       |          | 63       |          |          |          | 52 x 1/6"                        | 0,37      |
|                                                                                     |                   | 32                          | 51       | 32       | 35       |          | 70       |          |          |          | 58 x 1/6"                        | 0,45      |
|                                                                                     |                   | 40                          | 53       | 38       | 41       |          | 78       |          |          |          | 65 x 1/6"                        | 0,53      |
|                                                                                     |                   | 50                          | 57       | 50       | 53       |          | 92       |          |          |          | 78 x 1/6"                        | 0,67      |
|                                                                                     |                   | 65                          | 65       | 66       | 70       |          | 112      |          |          |          | 95 x 1/6"                        | 1,19      |
|                                                                                     |                   | 80                          | 75       | 81       | 85       |          | 127      |          |          |          | 110 x 1/4"                       | 1,67      |
|                                                                                     |                   | 100                         | 89       | 100      | 104      |          | 148      |          |          |          | 130 x 1/4"                       | 2,32      |
|                                                                                     |                   | 125                         | 69       | 125      | 129      |          | 178      |          |          |          | 160 x 1/4"                       | 3,21      |
|                                                                                     |                   | 150                         | 74       | 150      | 154      |          | 210      |          |          |          | 190 x 1/4"                       | 4,60      |

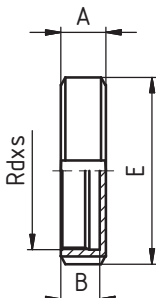
| Welding male<br>Anschweißgewindestutzen                                           | 20100 T | Dimensions • Baumaße |     |     |   |   |   |   |   |    |                          |      |
|-----------------------------------------------------------------------------------|---------|----------------------|-----|-----|---|---|---|---|---|----|--------------------------|------|
|                                                                                   |         | DN                   | A   | B   | C | D | E | F | R | L  | thread DIN 405<br>Rd x s | kg   |
|  | 10      | 21                   | 10  | 18  |   |   |   |   |   | 4  | 28x1/8"                  | 0,05 |
|                                                                                   | 15      | 21                   | 16  | 24  |   |   |   |   |   | 4  | 34x1/8"                  | 0,07 |
|                                                                                   | 20      | 24                   | 20  | 30  |   |   |   |   |   | 6  | 44x1/6"                  | 0,13 |
|                                                                                   | 25      | 29                   | 26  | 35  |   |   |   |   |   | 7  | 52x1/6"                  | 0,17 |
|                                                                                   | 32      | 32                   | 32  | 41  |   |   |   |   |   | 7  | 58x1/6"                  | 0,21 |
|                                                                                   | 40      | 33                   | 38  | 48  |   |   |   |   |   | 7  | 65x1/6"                  | 0,27 |
|                                                                                   | 50      | 35                   | 50  | 61  |   |   |   |   |   | 7  | 78x1/6"                  | 0,38 |
|                                                                                   | 65      | 40                   | 66  | 79  |   |   |   |   |   | 8  | 95x1/6"                  | 0,61 |
|                                                                                   | 80      | 45                   | 81  | 93  |   |   |   |   |   | 8  | 110x1/4"                 | 0,86 |
|                                                                                   | 100     | 54                   | 100 | 114 |   |   |   |   |   | 10 | 130x1/4"                 | 1,15 |
|                                                                                   |         |                      |     |     |   |   |   |   |   |    |                          |      |
|                                                                                   |         |                      |     |     |   |   |   |   |   |    |                          |      |

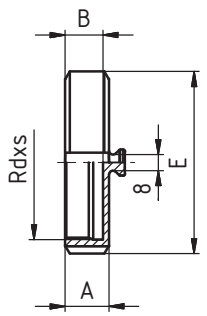
|                                                                                    |         |                      |     |     |      |   |   |   |   |   |                          |      |
|------------------------------------------------------------------------------------|---------|----------------------|-----|-----|------|---|---|---|---|---|--------------------------|------|
| Welding liner<br>Anschweißkegelstutzen                                             | 20110 T | Dimensions • Baumaße |     |     |      |   |   |   |   |   |                          |      |
|                                                                                    |         | DN                   | A   | B   | C    | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10      | 17                   | 10  | 18  | 22,5 |   |   |   |   |   |                          | 0,03 |
|                                                                                    | 15      | 17                   | 16  | 24  | 28,5 |   |   |   |   |   |                          | 0,04 |
|                                                                                    | 20      | 18                   | 20  | 30  | 36,5 |   |   |   |   |   |                          | 0,07 |
|                                                                                    | 25      | 22                   | 26  | 35  | 44   |   |   |   |   |   |                          | 0,10 |
|                                                                                    | 32      | 25                   | 32  | 41  | 50   |   |   |   |   |   |                          | 0,14 |
|                                                                                    | 40      | 26                   | 38  | 48  | 56   |   |   |   |   |   |                          | 0,17 |
|                                                                                    | 50      | 28                   | 50  | 61  | 68,5 |   |   |   |   |   |                          | 0,25 |
|                                                                                    | 65      | 32                   | 66  | 79  | 86   |   |   |   |   |   |                          | 0,42 |
|                                                                                    | 80      | 37                   | 81  | 93  | 100  |   |   |   |   |   |                          | 0,54 |
|                                                                                    | 100     | 44                   | 100 | 114 | 121  |   |   |   |   |   |                          | 0,89 |
|                                                                                    |         |                      |     |     |      |   |   |   |   |   |                          |      |
|                                                                                    |         |                      |     |     |      |   |   |   |   |   |                          |      |

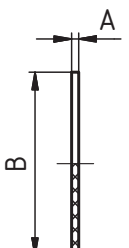
| Welding union - complete<br>Anschweißverschraubung - komplett                       | 20120 T | Dimensions • Baumaße |     |     |   |   |     |   |   |   |                          |      |
|-------------------------------------------------------------------------------------|---------|----------------------|-----|-----|---|---|-----|---|---|---|--------------------------|------|
|                                                                                     |         | DN                   | A   | B   | C | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10      | 35                   | 10  | 18  |   |   | 38  |   |   |   | 28x1/8"                  | 0,19 |
|                                                                                     | 15      | 35                   | 16  | 24  |   |   | 44  |   |   |   | 34x1/4"                  | 0,19 |
|                                                                                     | 20      | 37                   | 20  | 30  |   |   | 54  |   |   |   | 44x1/6"                  | 0,34 |
|                                                                                     | 25      | 45                   | 26  | 35  |   |   | 63  |   |   |   | 52x1/6"                  | 0,45 |
|                                                                                     | 32      | 51                   | 32  | 41  |   |   | 70  |   |   |   | 58x1/6"                  | 0,57 |
|                                                                                     | 40      | 53                   | 38  | 48  |   |   | 78  |   |   |   | 65x1/6"                  | 0,69 |
|                                                                                     | 50      | 57                   | 50  | 61  |   |   | 92  |   |   |   | 78x1/6"                  | 0,96 |
|                                                                                     | 65      | 65                   | 66  | 79  |   |   | 112 |   |   |   | 95x1/6"                  | 1,58 |
|                                                                                     | 80      | 75                   | 81  | 93  |   |   | 127 |   |   |   | 110x1/4"                 | 2,20 |
|                                                                                     | 100     | 89                   | 100 | 114 |   |   | 148 |   |   |   | 130x1/4"                 | 3,12 |
|                                                                                     |         |                      |     |     |   |   |     |   |   |   |                          |      |
|                                                                                     |         |                      |     |     |   |   |     |   |   |   |                          |      |

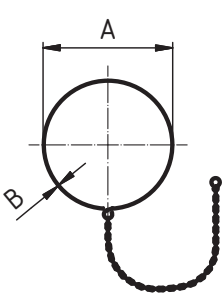
| Reducing male part<br>Reduziergewindestutzen                                      | 20230  | Dimensions • Baumaße |    |    |   |   |     |   |   |   |                          |    |
|-----------------------------------------------------------------------------------|--------|----------------------|----|----|---|---|-----|---|---|---|--------------------------|----|
|                                                                                   |        | DN                   | A  | B  | C | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 20/10  | 24                   | 10 | 13 |   |   | 20  |   |   |   | 44x1/6"                  |    |
|                                                                                   | 20/15  | 24                   | 16 | 19 |   |   | 20  |   |   |   | 44x1/6"                  |    |
|                                                                                   | 25/10  | 29                   | 10 | 13 |   |   | 26  |   |   |   | 52x1/6"                  |    |
|                                                                                   | 25/15  | 29                   | 16 | 19 |   |   | 26  |   |   |   | 52x1/6"                  |    |
|                                                                                   | 25/20  | 29                   | 20 | 23 |   |   | 26  |   |   |   | 52x1/6"                  |    |
|                                                                                   | 32/15  | 32                   | 16 | 19 |   |   | 32  |   |   |   | 58x1/6"                  |    |
|                                                                                   | 32/20  | 32                   | 20 | 23 |   |   | 32  |   |   |   | 58x1/6"                  |    |
|                                                                                   | 32/25  | 32                   | 26 | 29 |   |   | 32  |   |   |   | 58x1/6"                  |    |
|                                                                                   | 40/20  | 33                   | 20 | 23 |   |   | 38  |   |   |   | 65x1/6"                  |    |
|                                                                                   | 40/25  | 33                   | 26 | 29 |   |   | 38  |   |   |   | 65x1/6"                  |    |
|                                                                                   | 40/32  | 33                   | 32 | 35 |   |   | 38  |   |   |   | 65x1/6"                  |    |
|                                                                                   | 50/20  | 35                   | 20 | 23 |   |   | 50  |   |   |   | 78x1/6"                  |    |
|                                                                                   | 50/25  | 35                   | 26 | 29 |   |   | 50  |   |   |   | 78x1/6"                  |    |
|                                                                                   | 50/32  | 35                   | 32 | 35 |   |   | 50  |   |   |   | 78x1/6"                  |    |
|                                                                                   | 50/40  | 35                   | 38 | 41 |   |   | 50  |   |   |   | 78x1/6"                  |    |
|                                                                                   | 65/40  | 40                   | 38 | 41 |   |   | 66  |   |   |   | 95x1/6"                  |    |
|                                                                                   | 65/50  | 40                   | 50 | 53 |   |   | 66  |   |   |   | 95x1/6"                  |    |
|                                                                                   | 80/40  | 45                   | 38 | 41 |   |   | 81  |   |   |   | 110x1/4"                 |    |
|                                                                                   | 80/50  | 45                   | 50 | 53 |   |   | 81  |   |   |   | 110x1/4"                 |    |
|                                                                                   | 80/65  | 45                   | 66 | 70 |   |   | 81  |   |   |   | 110x1/4"                 |    |
|                                                                                   | 100/50 | 54                   | 50 | 53 |   |   | 100 |   |   |   | 130x1/4"                 |    |
|                                                                                   | 100/65 | 54                   | 66 | 70 |   |   | 100 |   |   |   | 130x1/4"                 |    |
|                                                                                   | 100/80 | 54                   | 81 | 85 |   |   | 100 |   |   |   | 130x1/4"                 |    |

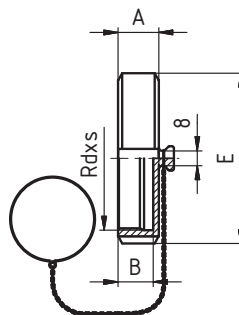
| Reducing liner<br>Reduzierkegelstutzen                                              | 20240  | Dimensions • Baumaße |    |    |      |     |   |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|--------|----------------------|----|----|------|-----|---|---|---|---|--------------------------|----|
|                                                                                     |        | DN                   | A  | B  | C    | D   | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 20/10  | 18                   | 10 | 13 | 36,5 | 20  |   |   |   |   |                          |    |
|                                                                                     | 20/15  | 18                   | 16 | 19 | 36,5 | 20  |   |   |   |   |                          |    |
|                                                                                     | 25/10  | 22                   | 10 | 13 | 44   | 26  |   |   |   |   |                          |    |
|                                                                                     | 25/15  | 22                   | 16 | 19 | 44   | 26  |   |   |   |   |                          |    |
|                                                                                     | 25/20  | 22                   | 20 | 23 | 44   | 26  |   |   |   |   |                          |    |
|                                                                                     | 32/15  | 25                   | 16 | 19 | 50   | 32  |   |   |   |   |                          |    |
|                                                                                     | 32/20  | 25                   | 20 | 23 | 50   | 32  |   |   |   |   |                          |    |
|                                                                                     | 32/25  | 25                   | 26 | 29 | 50   | 32  |   |   |   |   |                          |    |
|                                                                                     | 40/20  | 26                   | 20 | 23 | 56   | 38  |   |   |   |   |                          |    |
|                                                                                     | 40/25  | 26                   | 26 | 29 | 56   | 38  |   |   |   |   |                          |    |
|                                                                                     | 40/32  | 26                   | 32 | 35 | 56   | 38  |   |   |   |   |                          |    |
|                                                                                     | 50/20  | 28                   | 20 | 23 | 68,5 | 50  |   |   |   |   |                          |    |
|                                                                                     | 50/25  | 28                   | 26 | 29 | 68,5 | 50  |   |   |   |   |                          |    |
|                                                                                     | 50/32  | 28                   | 32 | 35 | 68,5 | 50  |   |   |   |   |                          |    |
|                                                                                     | 50/40  | 28                   | 38 | 41 | 68,5 | 50  |   |   |   |   |                          |    |
|                                                                                     | 65/40  | 32                   | 38 | 41 | 86   | 66  |   |   |   |   |                          |    |
|                                                                                     | 65/50  | 32                   | 50 | 53 | 86   | 66  |   |   |   |   |                          |    |
|                                                                                     | 80/40  | 37                   | 38 | 41 | 100  | 81  |   |   |   |   |                          |    |
|                                                                                     | 80/50  | 37                   | 50 | 53 | 100  | 81  |   |   |   |   |                          |    |
|                                                                                     | 80/65  | 37                   | 66 | 70 | 100  | 81  |   |   |   |   |                          |    |
|                                                                                     | 100/50 | 44                   | 50 | 53 | 121  | 100 |   |   |   |   |                          |    |
|                                                                                     | 100/65 | 44                   | 66 | 70 | 121  | 100 |   |   |   |   |                          |    |
|                                                                                     | 100/80 | 44                   | 81 | 85 | 121  | 100 |   |   |   |   |                          |    |

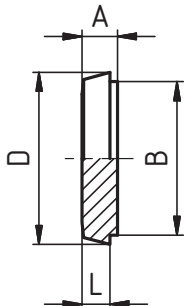
| Blind nut<br>Blindmutter                                                            | 20250 | Dimensions • Baumaße |    |   |   |   |     |   |   |   |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|----|---|---|---|-----|---|---|---|--------------------------|------|
|                                                                                     |       | DN                   | A  | B | C | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 18                   | 15 |   |   |   | 38  |   |   |   | 28x1/8"                  | 0,08 |
|                                                                                     | 15    | 18                   | 15 |   |   |   | 44  |   |   |   | 34x1/8"                  | 0,10 |
|                                                                                     | 20    | 20                   | 17 |   |   |   | 54  |   |   |   | 44x1/6"                  | 0,14 |
|                                                                                     | 25    | 21                   | 18 |   |   |   | 63  |   |   |   | 52x1/6"                  | 0,19 |
|                                                                                     | 32    | 21                   | 18 |   |   |   | 70  |   |   |   | 58x1/6"                  | 0,23 |
|                                                                                     | 40    | 21                   | 18 |   |   |   | 78  |   |   |   | 65x1/6"                  | 0,26 |
|                                                                                     | 50    | 22                   | 19 |   |   |   | 92  |   |   |   | 78x1/6"                  | 0,38 |
|                                                                                     | 65    | 25                   | 21 |   |   |   | 112 |   |   |   | 95x1/6"                  | 0,66 |
|                                                                                     | 80    | 29                   | 25 |   |   |   | 127 |   |   |   | 110x1/4"                 | 1,00 |
|                                                                                     | 100   | 31                   | 26 |   |   |   | 148 |   |   |   | 130x1/4"                 | 1,40 |
|                                                                                     | 125   | 35                   | 30 |   |   |   | 178 |   |   |   | 160x1/4"                 | 1,97 |
|                                                                                     | 150   | 40                   | 34 |   |   |   | 210 |   |   |   | 190x1/4"                 | 2,87 |

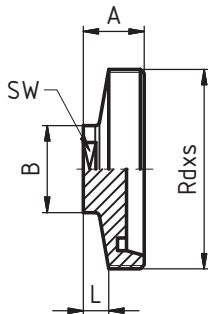
| Blind nut with boss<br>Blindmutter mit knopf                                      | 20260 | Dimensions • Baumaße |    |    |   |   |     |   |   |   |                          |      |
|-----------------------------------------------------------------------------------|-------|----------------------|----|----|---|---|-----|---|---|---|--------------------------|------|
|                                                                                   |       | DN                   | A  | B  | C | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  |       | 10                   | 18 | 15 |   |   | 38  |   |   |   | 28x1/8"                  | 0,09 |
|                                                                                   |       | 15                   | 18 | 15 |   |   | 44  |   |   |   | 34x1/8"                  | 0,11 |
|                                                                                   |       | 20                   | 20 | 17 |   |   | 54  |   |   |   | 44x1/6"                  | 0,15 |
|                                                                                   |       | 25                   | 21 | 18 |   |   | 63  |   |   |   | 52x1/6"                  | 0,20 |
|                                                                                   |       | 32                   | 21 | 18 |   |   | 70  |   |   |   | 58x1/6"                  | 0,24 |
|                                                                                   |       | 40                   | 21 | 18 |   |   | 78  |   |   |   | 65x1/6"                  | 0,27 |
|                                                                                   |       | 50                   | 22 | 19 |   |   | 92  |   |   |   | 78x1/6"                  | 0,39 |
|                                                                                   |       | 65                   | 25 | 21 |   |   | 112 |   |   |   | 95x1/6"                  | 0,67 |
|                                                                                   |       | 80                   | 29 | 25 |   |   | 127 |   |   |   | 110x1/4"                 | 1,01 |
|                                                                                   |       | 100                  | 31 | 26 |   |   | 148 |   |   |   | 130x1/4"                 | 1,41 |
|                                                                                   |       | 125                  | 35 | 30 |   |   | 178 |   |   |   | 160x1/4"                 | 1,98 |
|                                                                                   |       | 150                  | 40 | 34 |   |   | 210 |   |   |   | 190x1/4"                 | 2,88 |

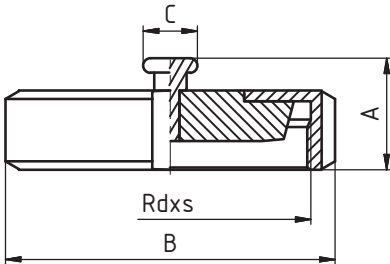
| Gasket disc - blind nut<br>Dichtscheibe - blindmutter                              | 20270 | Dimensions • Baumaße |   |     |   |   |   |   |   |   |                          |    |
|------------------------------------------------------------------------------------|-------|----------------------|---|-----|---|---|---|---|---|---|--------------------------|----|
|                                                                                    |       | DN                   | A | B   | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  |       | 10                   | 3 | 28  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 15                   | 3 | 34  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 20                   | 3 | 44  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 25                   | 3 | 52  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 32                   | 3 | 58  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 40                   | 3 | 65  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 50                   | 3 | 78  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 65                   | 3 | 95  |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 80                   | 3 | 110 |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 100                  | 3 | 130 |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 125                  | 4 | 160 |   |   |   |   |   |   |                          |    |
|                                                                                    |       | 150                  | 4 | 190 |   |   |   |   |   |   |                          |    |

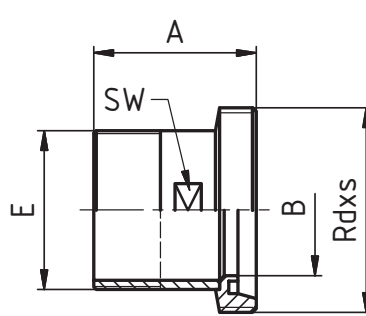
| Chain with hook and eye<br>Kette mit haken und öse                                  | 20280 | Dimensions • Baumaße |     |      |   |   |   |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|------|---|---|---|---|---|---|--------------------------|----|
|                                                                                     |       | DN                   | A   | B    | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  |       | 10                   | 18  | 1,25 |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 15                   | 24  | 1,25 |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 20                   | 28  | 1,25 |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 25                   | 34  | 1,25 |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 32                   | 41  | 1,25 |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 40                   | 46  | 1,25 |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 50                   | 57  | 1,25 |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 65                   | 75  | 1,4  |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 80                   | 93  | 1,6  |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 100                  | 113 | 1,6  |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 125                  | 136 | 3    |   |   |   |   |   |   |                          |    |
|                                                                                     |       | 150                  | 166 | 3    |   |   |   |   |   |   |                          |    |

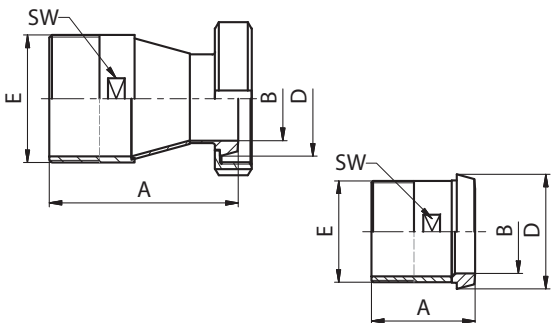
| Blind nut - complete<br>Blindmutter (komplett)                                      | 20290 | Dimensions • Baumaße |    |    |   |   |     |   |   |   |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|----|----|---|---|-----|---|---|---|--------------------------|------|
|                                                                                     |       | DN                   | A  | B  | C | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  |       | 10                   | 18 | 15 |   |   | 38  |   |   |   | 28x1/8"                  | 0,12 |
|                                                                                     |       | 15                   | 18 | 15 |   |   | 44  |   |   |   | 34x1/8"                  | 0,15 |
|                                                                                     |       | 20                   | 20 | 17 |   |   | 54  |   |   |   | 44x1/6"                  | 0,19 |
|                                                                                     |       | 25                   | 21 | 18 |   |   | 63  |   |   |   | 52x1/6"                  | 0,25 |
|                                                                                     |       | 32                   | 21 | 18 |   |   | 70  |   |   |   | 58x1/6"                  | 0,29 |
|                                                                                     |       | 40                   | 21 | 18 |   |   | 78  |   |   |   | 65x1/6"                  | 0,33 |
|                                                                                     |       | 50                   | 22 | 19 |   |   | 92  |   |   |   | 78x1/6"                  | 0,46 |
|                                                                                     |       | 65                   | 25 | 21 |   |   | 112 |   |   |   | 95x1/6"                  | 0,85 |
|                                                                                     |       | 80                   | 29 | 25 |   |   | 127 |   |   |   | 110x1/4"                 | 1,11 |
|                                                                                     |       | 100                  | 31 | 26 |   |   | 148 |   |   |   | 130x1/4"                 | 1,53 |
|                                                                                     |       | 125                  | 35 | 30 |   |   | 178 |   |   |   | 160x1/4"                 | 2,12 |
|                                                                                     |       | 150                  | 40 | 34 |   |   | 210 |   |   |   | 190x1/4"                 | 3,05 |

| Liner blank<br>Blindkegel                                                         | 20300 | Dimensions • Baumaße |     |   |   |      |   |   |   |    |                          |      |
|-----------------------------------------------------------------------------------|-------|----------------------|-----|---|---|------|---|---|---|----|--------------------------|------|
|                                                                                   |       | DN                   | A   | B | C | D    | E | F | R | L  | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 9                    | 18  |   |   | 22,5 |   |   |   | 6  |                          | 0,02 |
|                                                                                   | 15    | 9                    | 24  |   |   | 28,5 |   |   |   | 6  |                          | 0,04 |
|                                                                                   | 20    | 11                   | 30  |   |   | 36,5 |   |   |   | 8  |                          | 0,07 |
|                                                                                   | 25    | 13                   | 35  |   |   | 44   |   |   |   | 10 |                          | 0,13 |
|                                                                                   | 32    | 13                   | 41  |   |   | 50   |   |   |   | 10 |                          | 0,17 |
|                                                                                   | 40    | 13                   | 48  |   |   | 56   |   |   |   | 10 |                          | 0,22 |
|                                                                                   | 50    | 14                   | 61  |   |   | 68,5 |   |   |   | 11 |                          | 0,35 |
|                                                                                   | 65    | 16                   | 79  |   |   | 86   |   |   |   | 12 |                          | 0,67 |
|                                                                                   | 80    | 16                   | 93  |   |   | 100  |   |   |   | 12 |                          | 0,92 |
|                                                                                   | 100   | 20                   | 114 |   |   | 121  |   |   |   | 15 |                          | 1,34 |
|                                                                                   | 125   | 22                   | 137 |   |   | 150  |   |   |   | 17 |                          | 1,68 |
|                                                                                   | 150   | 24                   | 163 |   |   | 176  |   |   |   | 18 |                          | 4,30 |

| Male part blank<br>Blindgewinde                                                    | 20330 | Dimensions • Baumaße |    |   |   |   |   |   |    |    |                          |      |
|------------------------------------------------------------------------------------|-------|----------------------|----|---|---|---|---|---|----|----|--------------------------|------|
|                                                                                    |       | DN                   | A  | B | C | D | E | F | L  | SW | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 22                   | 22 |   |   |   |   |   | 10 | 19 | 28x1/8"                  | 0,06 |
|                                                                                    | 15    | 22                   | 25 |   |   |   |   |   | 10 | 22 | 34x1/8"                  | 0,09 |
|                                                                                    | 20    | 24                   | 25 |   |   |   |   |   | 10 | 22 | 44x1/6"                  | 0,13 |
|                                                                                    | 25    | 24                   | 34 |   |   |   |   |   | 10 | 27 | 52x1/6"                  | 0,19 |
|                                                                                    | 32    | 24                   | 34 |   |   |   |   |   | 10 | 27 | 58x1/6"                  | 0,22 |
|                                                                                    | 40    | 24                   | 34 |   |   |   |   |   | 10 | 27 | 65x1/6"                  | 0,25 |
|                                                                                    | 50    | 24                   | 34 |   |   |   |   |   | 10 | 27 | 78x1/6"                  | 0,35 |
|                                                                                    | 65    | 28                   | 34 |   |   |   |   |   | 10 | 27 | 95x1/6"                  | 0,64 |
|                                                                                    | 80    | 30                   | 34 |   |   |   |   |   | 10 | 27 | 110x1/4"                 | 1,30 |
|                                                                                    | 100   | 30                   | 34 |   |   |   |   |   | 10 | 27 | 130x1/4"                 | 2,10 |
|                                                                                    |       |                      |    |   |   |   |   |   |    |    |                          |      |
|                                                                                    |       |                      |    |   |   |   |   |   |    |    |                          |      |

|                                                                                     |       |                      |     |    |   |   |   |   |   |          |                          |    |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|----|---|---|---|---|---|----------|--------------------------|----|
| Blind nut with liner blank (complete)<br>Blindmutter mit blindkegel (komplett)      | 20340 | Dimensions • Baumaße |     |    |   |   |   |   |   |          |                          |    |
|                                                                                     |       | DN                   | A   | B  | C | D | E | F | L | SW       | thread DIN 405<br>Rd x s | kg |
|  | 10    | 27                   | 38  | 15 |   |   |   |   |   | 28x1/8"  | 0,12                     |    |
|                                                                                     | 15    | 27                   | 44  | 15 |   |   |   |   |   | 34x1/8"  | 0,15                     |    |
|                                                                                     | 20    | 29                   | 54  | 15 |   |   |   |   |   | 44x1/6"  | 0,22                     |    |
|                                                                                     | 25    | 30                   | 63  | 15 |   |   |   |   |   | 52x1/6"  | 0,32                     |    |
|                                                                                     | 32    | 30                   | 70  | 15 |   |   |   |   |   | 58x1/6"  | 0,40                     |    |
|                                                                                     | 40    | 30                   | 78  | 15 |   |   |   |   |   | 65x1/6"  | 0,49                     |    |
|                                                                                     | 50    | 31                   | 92  | 15 |   |   |   |   |   | 78x1/6"  | 0,73                     |    |
|                                                                                     | 65    | 34                   | 112 | 20 |   |   |   |   |   | 95x1/6"  | 1,25                     |    |
|                                                                                     | 80    | 38                   | 127 | 20 |   |   |   |   |   | 110x1/4" | 1,70                     |    |
|                                                                                     | 100   | 40                   | 148 | 20 |   |   |   |   |   | 130x1/4" | 2,79                     |    |
|                                                                                     | 125   | 44                   | 178 | 20 |   |   |   |   |   | 160x1/4" | 4,39                     |    |
|                                                                                     | 150   | 49                   | 210 | 20 |   |   |   |   |   | 190x1/4" | 6,54                     |    |

| Male threaded outside<br>Einschraub gewindestutzen                                  | 20350 | Dimensions • Baumaße |     |   |   |   |        |   |   |     |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|---|---|---|--------|---|---|-----|--------------------------|------|
|                                                                                     |       | DN                   | A   | B | C | D | E      | F | R | SW  | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 40                   | 10  |   |   |   | 3/8"   |   |   | 15  | 28x1/8"                  | 0,06 |
|                                                                                     | 15    | 43                   | 16  |   |   |   | 1/2"   |   |   | 20  | 34x1/8"                  | 0,09 |
|                                                                                     | 20    | 47                   | 20  |   |   |   | 3/4"   |   |   | 25  | 44x1/6"                  | 0,15 |
|                                                                                     | 25    | 52                   | 26  |   |   |   | 1"     |   |   | 32  | 52x1/6"                  | 0,21 |
|                                                                                     | 25    | 54                   | 26  |   |   |   | 3/4"   |   |   | 25  | 52x1/6"                  | 0,20 |
|                                                                                     | 32    | 54                   | 32  |   |   |   | 1"     |   |   | 32  | 58x1/6"                  | 0,23 |
|                                                                                     | 32    | 54                   | 32  |   |   |   | 1 1/4" |   |   | 40  | 58x1/6"                  | 0,25 |
|                                                                                     | 40    | 64                   | 38  |   |   |   | 1 1/4" |   |   | 40  | 65x1/6"                  | 0,31 |
|                                                                                     | 40    | 54                   | 38  |   |   |   | 1 1/2" |   |   | 45  | 65x1/6"                  | 0,32 |
|                                                                                     | 50    | 57                   | 50  |   |   |   | 2"     |   |   | 57  | 78x1/6"                  | 0,43 |
|                                                                                     | 65    | 66                   | 66  |   |   |   | 2 1/2" |   |   | 73  | 95x1/6"                  | 0,65 |
|                                                                                     | 80    | 75                   | 81  |   |   |   | 3"     |   |   | 86  | 110x1/4"                 | 1,00 |
|                                                                                     | 100   | 83                   | 100 |   |   |   | 4"     |   |   | 110 | 130x1/4"                 | 1,33 |

|                                                                                  |       |                      |     |   |   |      |        |   |   |     |                          |      |
|----------------------------------------------------------------------------------|-------|----------------------|-----|---|---|------|--------|---|---|-----|--------------------------|------|
| Liner threaded outside<br>Einschraub kegelstutzen                                | 20360 | Dimensions • Baumaße |     |   |   |      |        |   |   |     |                          |      |
|                                                                                  |       | DN                   | A   | B | C | D    | E      | F | R | SW  | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 37                   | 10  |   |   | 22,5 | 3/8"   |   |   | 15  |                          | 0,04 |
|                                                                                  | 15    | 40                   | 16  |   |   | 28,5 | 1/2"   |   |   | 20  |                          | 0,06 |
|                                                                                  | 20    | 47                   | 20  |   |   | 36,5 | 3/4"   |   |   | 25  |                          | 0,11 |
|                                                                                  | 25    | 50                   | 26  |   |   | 44   | 1"     |   |   | 32  |                          | 0,16 |
|                                                                                  | 32    | 54                   | 32  |   |   | 50   | 1 1/4" |   |   | 40  |                          | 0,19 |
|                                                                                  | 40    | 54                   | 38  |   |   | 56   | 1 1/2" |   |   | 45  |                          | 0,25 |
|                                                                                  | 50    | 57                   | 50  |   |   | 68,5 | 2"     |   |   | 57  |                          | 0,35 |
|                                                                                  | 65    | 66                   | 66  |   |   | 86   | 2 1/2" |   |   | 73  |                          | 0,55 |
|                                                                                  | 80    | 75                   | 81  |   |   | 100  | 3"     |   |   | 86  |                          | 0,72 |
|                                                                                  | 100   | 83                   | 100 |   |   | 121  | 4"     |   |   | 110 |                          | 1,12 |
|                                                                                  |       |                      |     |   |   |      |        |   |   |     |                          |      |
|                                                                                  |       |                      |     |   |   |      |        |   |   |     |                          |      |

Male threaded inside

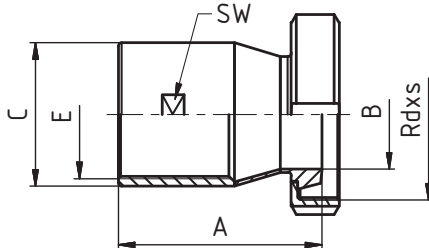
Aufschraub gewindestutzen

20370

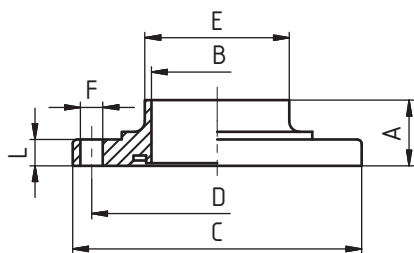
Dimensions • Baumaße

| DN  | A  | B   | C    | D | E      | F | R | SW  | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|------|---|--------|---|---|-----|--------------------------|------|
| 10  | 31 | 10  | 20,5 |   | 3/8"   |   |   | 19  | 28x1/8"                  | 0,06 |
| 15  | 31 | 16  | 25   |   | 1/2"   |   |   | 24  | 34x1/8"                  | 0,08 |
| 20  | 35 | 20  | 32   |   | 3/4"   |   |   | 30  | 44x1/6"                  | 0,15 |
| 25  | 38 | 26  | 37   |   | 1"     |   |   | 35  | 52x1/6"                  | 0,19 |
| 32  | 40 | 32  | 46   |   | 1 1/4" |   |   | 44  | 58x1/6"                  | 0,23 |
| 40  | 41 | 38  | 52,5 |   | 1 1/2" |   |   | 51  | 65x1/6"                  | 0,28 |
| 50  | 43 | 50  | 65,5 |   | 2"     |   |   | 63  | 78x1/6"                  | 0,41 |
| 65  | 50 | 66  | 81   |   | 2 1/2" |   |   | 78  | 95x1/6"                  | 0,60 |
| 80  | 56 | 81  | 95   |   | 3"     |   |   | 92  | 110x1/4"                 | 0,92 |
| 100 | 55 | 100 | 125  |   | 4"     |   |   | 120 | 130x1/4"                 | 1,32 |
|     |    |     |      |   |        |   |   |     |                          |      |
|     |    |     |      |   |        |   |   |     |                          |      |

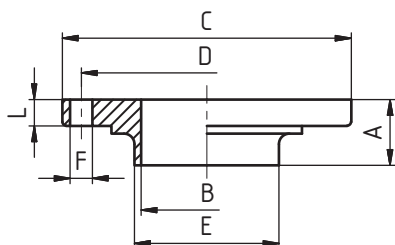
Technical drawing of a male threaded pipe fitting (Aufschraub gewindestutzen). The drawing shows a side view of the fitting with various dimensions labeled: A (total length), B (thread length), C (total height), D (flange thickness), E (flange outer diameter), F (flange inner diameter), R (flange radius), SW (flange width), and thread Rd x s (thread specification). The fitting is shown with a male thread on the inside.

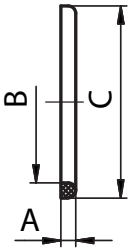
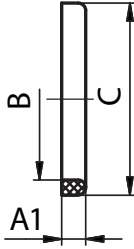
|                                                                                     |       |                      |     |      |   |   |        |   |   |     |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|------|---|---|--------|---|---|-----|--------------------------|------|
| Liner threaded inside<br>Aufschraub kegelstutzen                                    | 20380 | Dimensions • Baumaße |     |      |   |   |        |   |   |     |                          |      |
|                                                                                     |       | DN                   | A   | B    | C | D | E      | F | R | SW  | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 44                   | 10  | 20,5 |   |   | 3/8"   |   |   | 19  | 28x1/8"                  | 0,13 |
|                                                                                     | 15    | 50                   | 16  | 25   |   |   | 1/2"   |   |   | 24  | 34x1/8"                  | 0,17 |
|                                                                                     | 20    | 53                   | 20  | 32   |   |   | 3/4"   |   |   | 30  | 44x1/6"                  | 0,26 |
|                                                                                     | 25    | 53                   | 26  | 37   |   |   | 1"     |   |   | 35  | 52x1/6"                  | 0,35 |
|                                                                                     | 32    | 60                   | 32  | 46   |   |   | 1 1/4" |   |   | 44  | 58x1/6"                  | 0,43 |
|                                                                                     | 40    | 65                   | 38  | 52,5 |   |   | 1 1/2" |   |   | 51  | 65x1/6"                  | 0,52 |
|                                                                                     | 50    | 67                   | 50  | 65,5 |   |   | 2"     |   |   | 63  | 78x1/6"                  | 0,75 |
|                                                                                     | 65    | 76                   | 66  | 81   |   |   | 2 1/2" |   |   | 78  | 95x1/6"                  | 1,27 |
|                                                                                     | 80    | 80                   | 81  | 95   |   |   | 3"     |   |   | 92  | 110x1/4"                 | 1,62 |
|                                                                                     | 100   | 100                  | 100 | 125  |   |   | 4"     |   |   | 120 | 130x1/4"                 | 2,54 |
|                                                                                     |       |                      |     |      |   |   |        |   |   |     |                          |      |
|                                                                                     |       |                      |     |      |   |   |        |   |   |     |                          |      |

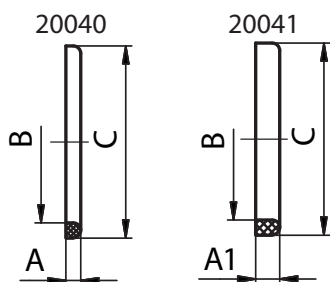
| Flange PN 10 with groove<br>Kleinflansch PN mit nut | 20400 | Dimensions • Baumaße |    |     |     |       |     |       |   |    |      |
|-----------------------------------------------------|-------|----------------------|----|-----|-----|-------|-----|-------|---|----|------|
|                                                     |       | DN                   | A  | B   | C   | D     | E   | F     | R | L  | kg   |
|                                                     |       | 10                   | 20 | 10  | 62  | 44    | 15  | 8,5x4 |   | 10 | 0,20 |
|                                                     |       | 15                   | 20 | 16  | 68  | 50    | 21  | 8,5x4 |   | 10 | 0,26 |
|                                                     |       | 20                   | 20 | 20  | 75  | 59    | 25  | 8,5x4 |   | 10 | 0,29 |
|                                                     |       | 25                   | 20 | 26  | 87  | 73    | 31  | 8,5x4 |   | 10 | 0,39 |
|                                                     |       | 32                   | 20 | 32  | 92  | 78    | 37  | 8,5x4 |   | 10 | 0,46 |
|                                                     |       | 40                   | 25 | 38  | 97  | 82,5  | 43  | 8,5x4 |   | 10 | 0,47 |
|                                                     |       | 50                   | 25 | 50  | 110 | 95,5  | 55  | 8,5x4 |   | 10 | 0,59 |
|                                                     |       | 65                   | 25 | 66  | 127 | 112,5 | 72  | 8,5x4 |   | 10 | 0,75 |
|                                                     |       | 80                   | 30 | 81  | 142 | 127,5 | 87  | 8,5x4 |   | 16 | 1,28 |
|                                                     |       | 100                  | 30 | 100 | 162 | 147,5 | 106 | 8,5x4 |   | 16 | 1,72 |
|                                                     |       | 125                  | 40 | 125 | 200 | 180   | 132 | 11x6  |   | 16 | 2,87 |
|                                                     |       | 150                  | 45 | 150 | 230 | 210   | 157 | 11x6  |   | 16 | 3,85 |

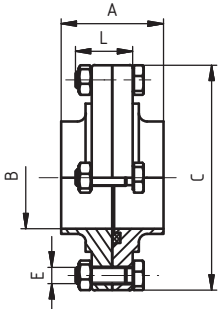


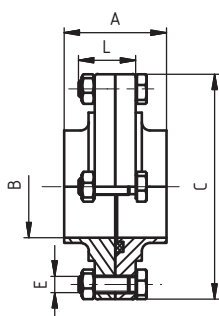
| Flange PN 10 without groove<br>Kleinflansch PN ohne nut | 20410 | Dimensions • Baumaße |    |     |     |       |     |       |   |    |      |
|---------------------------------------------------------|-------|----------------------|----|-----|-----|-------|-----|-------|---|----|------|
|                                                         |       | DN                   | A  | B   | C   | D     | E   | F     | R | L  | kg   |
|                                                         |       | 10                   | 20 | 10  | 62  | 44    | 15  | 8,5x4 |   | 10 | 0,20 |
|                                                         |       | 15                   | 20 | 16  | 68  | 50    | 21  | 8,5x4 |   | 10 | 0,26 |
|                                                         |       | 20                   | 20 | 20  | 75  | 59    | 25  | 8,5x4 |   | 10 | 0,29 |
|                                                         |       | 25                   | 20 | 26  | 87  | 73    | 31  | 8,5x4 |   | 10 | 0,39 |
|                                                         |       | 32                   | 20 | 32  | 92  | 78    | 37  | 8,5x4 |   | 10 | 0,46 |
|                                                         |       | 40                   | 25 | 38  | 97  | 82,5  | 43  | 8,5x4 |   | 10 | 0,47 |
|                                                         |       | 50                   | 25 | 50  | 110 | 95,5  | 55  | 8,5x4 |   | 10 | 0,59 |
|                                                         |       | 65                   | 25 | 66  | 127 | 112,5 | 72  | 8,5x4 |   | 10 | 0,75 |
|                                                         |       | 80                   | 30 | 81  | 142 | 127,5 | 87  | 8,5x4 |   | 16 | 1,28 |
|                                                         |       | 100                  | 30 | 100 | 162 | 147,5 | 106 | 8,5x6 |   | 16 | 1,72 |
|                                                         |       | 125                  | 40 | 125 | 200 | 180   | 132 | 11x6  |   | 16 | 2,87 |
|                                                         |       | 150                  | 45 | 150 | 230 | 210   | 157 | 11x6  |   | 16 | 3,85 |

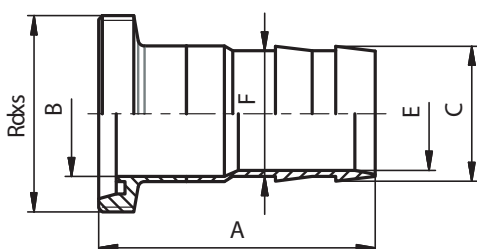


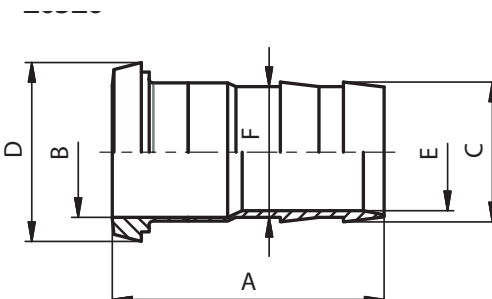
| Gasket<br>Dichtring                                                                                                                                                                                                                     | 20040 | 20041 | Dimensions • Baumaße |     |     |        |   |   |   |                          |        |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|----------------------|-----|-----|--------|---|---|---|--------------------------|--------|--|--|
|                                                                                                                                                                                                                                         |       |       |                      |     |     |        |   |   |   |                          |        |  |  |
| <div><div><div>20040</div></div><div><div>20041</div></div></div> | DN    | A     | A1                   | B   | C   | kg     | F | R | L | thread DIN 405<br>Rd x s | kg     |  |  |
|                                                                                                                                                                                                                                         | 10    | 4,5   |                      | 12  | 20  | 0,0012 |   |   |   |                          | 0,0012 |  |  |
|                                                                                                                                                                                                                                         | 15    | 4,5   |                      | 18  | 26  | 0,0016 |   |   |   |                          | 0,0016 |  |  |
|                                                                                                                                                                                                                                         | 20    | 4,5   |                      | 23  | 33  | 0,0026 |   |   |   |                          | 0,0026 |  |  |
|                                                                                                                                                                                                                                         | 25    | 5     | 8                    | 30  | 40  | 0,0036 |   |   |   |                          | 0,0036 |  |  |
|                                                                                                                                                                                                                                         | 32    | 5     | 8                    | 36  | 46  | 0,0040 |   |   |   |                          | 0,0040 |  |  |
|                                                                                                                                                                                                                                         | 40    | 5     | 8                    | 42  | 52  | 0,0048 |   |   |   |                          | 0,0048 |  |  |
|                                                                                                                                                                                                                                         | 50    | 5     | 8                    | 54  | 64  | 0,0062 |   |   |   |                          | 0,0062 |  |  |
|                                                                                                                                                                                                                                         | 65    | 5     | 8                    | 71  | 81  | 0,0070 |   |   |   |                          | 0,0070 |  |  |
|                                                                                                                                                                                                                                         | 80    | 5     | 8                    | 85  | 95  | 0,0080 |   |   |   |                          | 0,0080 |  |  |
|                                                                                                                                                                                                                                         | 100   | 6     | 8                    | 104 | 114 | 0,0134 |   |   |   |                          | 0,0134 |  |  |
|                                                                                                                                                                                                                                         | 125   | 7     | 8                    | 130 | 142 | 0,0236 |   |   |   |                          | 0,0236 |  |  |
|                                                                                                                                                                                                                                         | 150   | 7     | 8                    | 155 | 167 | 0,0276 |   |   |   |                          | 0,0276 |  |  |
|                                                                                                                                                                                                                                         |       |       |                      |     |     |        |   |   |   |                          |        |  |  |



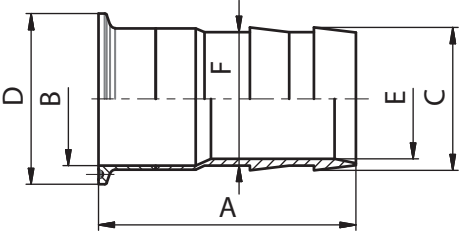
| Flange connection PN 10 - complete<br>Flanschverbindung PN 10 - komplett            | 20420 | Dimensions • Baumaße |     |     |   |         |   |   |    |   |                          |    |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|-----|---|---------|---|---|----|---|--------------------------|----|
|                                                                                     |       | DN                   | A   | B   | C | D       | E | F | R  | L | thread DIN 405<br>Rd x s | kg |
|  | 10    | 40                   | 10  | 62  |   | 4 x M8  |   |   | 28 |   | 0,40                     |    |
|                                                                                     | 15    | 40                   | 16  | 68  |   | 4 x M8  |   |   | 28 |   | 0,52                     |    |
|                                                                                     | 20    | 40                   | 20  | 75  |   | 4 x M8  |   |   | 28 |   | 0,58                     |    |
|                                                                                     | 25    | 40                   | 26  | 87  |   | 4 x M8  |   |   | 28 |   | 0,78                     |    |
|                                                                                     | 32    | 40                   | 32  | 92  |   | 4 x M8  |   |   | 28 |   | 0,92                     |    |
|                                                                                     | 40    | 50                   | 38  | 97  |   | 4 x M8  |   |   | 28 |   | 0,94                     |    |
|                                                                                     | 50    | 50                   | 50  | 110 |   | 4 x M8  |   |   | 28 |   | 1,18                     |    |
|                                                                                     | 65    | 50                   | 66  | 127 |   | 4 x M8  |   |   | 28 |   | 1,50                     |    |
|                                                                                     | 80    | 60                   | 81  | 142 |   | 4 x M8  |   |   | 40 |   | 2,56                     |    |
|                                                                                     | 100   | 60                   | 100 | 162 |   | 4 x M8  |   |   | 40 |   | 3,44                     |    |
|                                                                                     | 125   | 80                   | 125 | 200 |   | 6 x M10 |   |   | 45 |   | 5,74                     |    |
|                                                                                     | 150   | 90                   | 150 | 230 |   | 6 x M10 |   |   | 45 |   | 7,70                     |    |



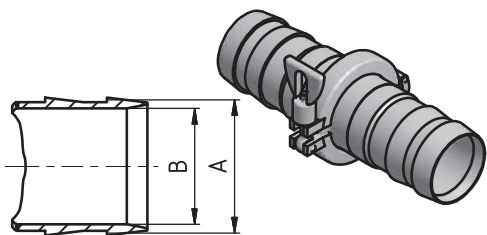
|                                                                                   |       |                      |     |       |   |   |    |     |   |   |                          |      |
|-----------------------------------------------------------------------------------|-------|----------------------|-----|-------|---|---|----|-----|---|---|--------------------------|------|
| Liner hose fitting - P<br>Schlauchstutzen - G                                     | 20510 | Dimensions • Baumaße |     |       |   |   |    |     |   |   |                          |      |
|                                                                                   |       | DN                   | A   | B     | C | D | E  | F   | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 60                   | 10  | 12    |   |   | 7  | 10  |   |   | 28x1/8"                  | 0,05 |
|                                                                                   | 15    | 61                   | 16  | 18,5  |   |   | 13 | 15  |   |   | 34x1/8"                  | 0,08 |
|                                                                                   | 20    | 65                   | 20  | 23    |   |   | 16 | 20  |   |   | 44x1/6"                  | 0,17 |
|                                                                                   | 25    | 70                   | 26  | 28    |   |   | 20 | 25  |   |   | 52x1/6"                  | 0,23 |
|                                                                                   | 32    | 84                   | 32  | 35,6  |   |   | 27 | 32  |   |   | 58x1/6"                  | 0,33 |
|                                                                                   | 40    | 95                   | 38  | 43,6  |   |   | 35 | 40  |   |   | 65x1/6"                  | 0,52 |
|                                                                                   | 50    | 110                  | 50  | 53,6  |   |   | 45 | 50  |   |   | 78x1/6"                  | 0,66 |
|                                                                                   | 65    | 133                  | 66  | 66,6  |   |   | 58 | 65  |   |   | 95x1/6"                  | 1,14 |
|                                                                                   | 80    | 145                  | 81  | 83,6  |   |   | 75 | 80  |   |   | 110x1/4"                 | 1,50 |
|                                                                                   | 100   | 161                  | 100 | 103,6 |   |   | 95 | 100 |   |   | 130x1/4"                 | 2,40 |
|                                                                                   |       |                      |     |       |   |   |    |     |   |   |                          |      |
|                                                                                   |       |                      |     |       |   |   |    |     |   |   |                          |      |

|                                                                                    |       |                      |     |       |      |    |     |   |   |   |                          |    |
|------------------------------------------------------------------------------------|-------|----------------------|-----|-------|------|----|-----|---|---|---|--------------------------|----|
| Liner hose fitting - K<br>Schlauchstutzen - K                                      | 20520 | Dimensions • Baumaße |     |       |      |    |     |   |   |   |                          |    |
|                                                                                    |       | DN                   | A   | B     | C    | D  | E   | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 10    | 60                   | 10  | 12    | 22,5 | 7  | 10  |   |   |   | 0,04                     |    |
|                                                                                    | 15    | 61                   | 16  | 18,5  | 28,5 | 13 | 15  |   |   |   | 0,06                     |    |
|                                                                                    | 20    | 65                   | 20  | 23    | 36,5 | 16 | 20  |   |   |   | 0,13                     |    |
|                                                                                    | 25    | 70                   | 26  | 28    | 44   | 20 | 25  |   |   |   | 0,19                     |    |
|                                                                                    | 32    | 77                   | 32  | 35,6  | 50   | 27 | 32  |   |   |   | 0,27                     |    |
|                                                                                    | 40    | 88                   | 38  | 43,6  | 56   | 35 | 40  |   |   |   | 0,42                     |    |
|                                                                                    | 50    | 103                  | 50  | 53,6  | 68,5 | 45 | 50  |   |   |   | 0,58                     |    |
|                                                                                    | 65    | 125                  | 66  | 66,6  | 86   | 58 | 65  |   |   |   | 1,08                     |    |
|                                                                                    | 80    | 137                  | 81  | 83,6  | 100  | 75 | 80  |   |   |   | 1,32                     |    |
|                                                                                    | 100   | 151                  | 100 | 103,6 | 121  | 95 | 100 |   |   |   | 2,13                     |    |
|                                                                                    |       |                      |     |       |      |    |     |   |   |   |                          |    |

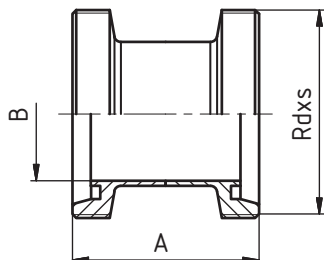
|                                               |       |                      |     |       |     |    |     |   |   |   |                          |    |
|-----------------------------------------------|-------|----------------------|-----|-------|-----|----|-----|---|---|---|--------------------------|----|
| Liner hose fitting - S<br>Schlauchstutzen - S | 20530 | Dimensions • Baumaße |     |       |     |    |     |   |   |   |                          |    |
|                                               |       | DN                   | A   | B     | C   | D  | E   | F | R | L | thread DIN 405<br>Rd x s | kg |
|                                               | 10    | 43                   | 10  | 12    | 13  | 7  | 10  |   |   |   | 0,02                     |    |
|                                               | 15    | 44                   | 16  | 18,5  | 19  | 13 | 15  |   |   |   | 0,04                     |    |
|                                               | 20    | 47                   | 20  | 23    | 23  | 16 | 20  |   |   |   | 0,06                     |    |
|                                               | 25    | 48                   | 26  | 28    | 29  | 20 | 25  |   |   |   | 0,06                     |    |
|                                               | 32    | 52                   | 32  | 35,6  | 35  | 27 | 32  |   |   |   | 0,08                     |    |
|                                               | 40    | 62                   | 38  | 43,6  | 41  | 35 | 40  |   |   |   | 0,12                     |    |
|                                               | 50    | 75                   | 50  | 53,6  | 53  | 45 | 50  |   |   |   | 0,22                     |    |
|                                               | 65    | 93                   | 66  | 66,6  | 70  | 58 | 65  |   |   |   | 0,58                     |    |
|                                               | 80    | 100                  | 81  | 83,6  | 85  | 75 | 80  |   |   |   | 0,68                     |    |
|                                               | 100   | 107                  | 100 | 103,6 | 104 | 95 | 100 |   |   |   | 1,72                     |    |
|                                               |       |                      |     |       |     |    |     |   |   |   |                          |    |

|                                                                                     |       |                      |     |       |      |    |     |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|-------|------|----|-----|---|---|---|--------------------------|----|
| Liner hose fitting - C<br>Schlauchstutzen - C                                       | 20540 | Dimensions • Baumaße |     |       |      |    |     |   |   |   |                          |    |
|                                                                                     |       | DN                   | A   | B     | C    | D  | E   | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 10    | 61                   | 10  | 12    | 34   | 7  | 10  |   |   |   | 0,05                     |    |
|                                                                                     | 15    | 62                   | 16  | 18,5  | 34   | 13 | 15  |   |   |   | 0,08                     |    |
|                                                                                     | 20    | 65                   | 20  | 23    | 34   | 16 | 20  |   |   |   | 0,17                     |    |
|                                                                                     | 25    | 69,5                 | 26  | 28    | 50,5 | 20 | 25  |   |   |   | 0,23                     |    |
|                                                                                     | 32    | 73,5                 | 32  | 35,6  | 50,5 | 27 | 32  |   |   |   | 0,33                     |    |
|                                                                                     | 40    | 83,5                 | 38  | 43,6  | 50,5 | 35 | 40  |   |   |   | 0,52                     |    |
|                                                                                     | 50    | 96,5                 | 50  | 53,6  | 64   | 45 | 50  |   |   |   | 0,66                     |    |
|                                                                                     | 65    | 121                  | 66  | 66,6  | 91   | 58 | 65  |   |   |   | 1,14                     |    |
|                                                                                     | 80    | 128                  | 81  | 83,6  | 106  | 75 | 80  |   |   |   | 1,50                     |    |
|                                                                                     | 100   | 135                  | 100 | 103,6 | 119  | 95 | 100 |   |   |   | 2,40                     |    |
|                                                                                     |       |                      |     |       |      |    |     |   |   |   |                          |    |
|                                                                                     |       |                      |     |       |      |    |     |   |   |   |                          |    |
|                                                                                     |       |                      |     |       |      |    |     |   |   |   |                          |    |

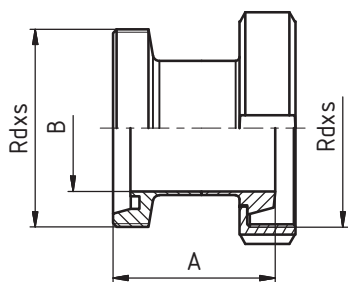
|                                                                    |              |       |                             |   |   |   |   |   |   |                          |      |
|--------------------------------------------------------------------|--------------|-------|-----------------------------|---|---|---|---|---|---|--------------------------|------|
| Connecting clamp/clamp for hoses<br>Cupplungsstück C/C zu schlauch | <b>20549</b> |       | <b>Dimensions • Baumaße</b> |   |   |   |   |   |   |                          |      |
|                                                                    | DN           | A     | B                           | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|                                                                    | 10           | 12    | 7                           |   |   |   |   |   |   |                          | 0,30 |
|                                                                    | 15           | 18,5  | 13                          |   |   |   |   |   |   |                          | 0,32 |
|                                                                    | 20           | 23    | 16                          |   |   |   |   |   |   |                          | 0,36 |
|                                                                    | 25           | 28    | 20                          |   |   |   |   |   |   |                          | 0,41 |
|                                                                    | 32           | 35,6  | 27                          |   |   |   |   |   |   |                          | 0,43 |
|                                                                    | 40           | 43,6  | 35                          |   |   |   |   |   |   |                          | 0,49 |
|                                                                    | 50           | 53,6  | 45                          |   |   |   |   |   |   |                          | 0,61 |
|                                                                    | 65           | 66,6  | 58                          |   |   |   |   |   |   |                          | 1,47 |
|                                                                    | 80           | 83,6  | 75                          |   |   |   |   |   |   |                          | 1,63 |
|                                                                    | 100          | 103,6 | 95                          |   |   |   |   |   |   |                          | 2,71 |
|                                                                    |              |       |                             |   |   |   |   |   |   |                          |      |
|                                                                    |              |       |                             |   |   |   |   |   |   |                          |      |
|                                                                    |              |       |                             |   |   |   |   |   |   |                          |      |



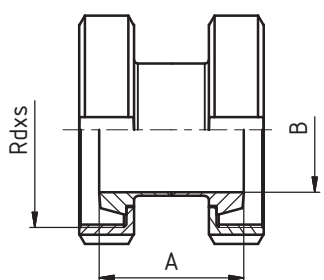
|                                                |              |     |                             |   |   |   |   |   |   |                          |      |
|------------------------------------------------|--------------|-----|-----------------------------|---|---|---|---|---|---|--------------------------|------|
| Connecting piece G - G<br>Kupplungsstück G - G | <b>20570</b> |     | <b>Dimensions • Baumaße</b> |   |   |   |   |   |   |                          |      |
|                                                | DN           | A   | B                           | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|                                                | 10           | 42  | 10                          |   |   |   |   |   |   | 28x1/8"                  | 0,09 |
|                                                | 15           | 42  | 16                          |   |   |   |   |   |   | 34x1/8"                  | 0,11 |
|                                                | 20           | 48  | 20                          |   |   |   |   |   |   | 44x1/6"                  | 0,21 |
|                                                | 25           | 58  | 26                          |   |   |   |   |   |   | 52x1/6"                  | 0,28 |
|                                                | 32           | 64  | 32                          |   |   |   |   |   |   | 58x1/6"                  | 0,36 |
|                                                | 40           | 66  | 38                          |   |   |   |   |   |   | 65x1/6"                  | 0,46 |
|                                                | 50           | 70  | 50                          |   |   |   |   |   |   | 78x1/6"                  | 0,67 |
|                                                | 65           | 80  | 66                          |   |   |   |   |   |   | 95x1/6"                  | 1,06 |
|                                                | 80           | 90  | 81                          |   |   |   |   |   |   | 110x1/4"                 | 1,41 |
|                                                | 100          | 108 | 100                         |   |   |   |   |   |   | 130x1/4"                 | 2,13 |
|                                                |              |     |                             |   |   |   |   |   |   |                          |      |
|                                                |              |     |                             |   |   |   |   |   |   |                          |      |
|                                                |              |     |                             |   |   |   |   |   |   |                          |      |

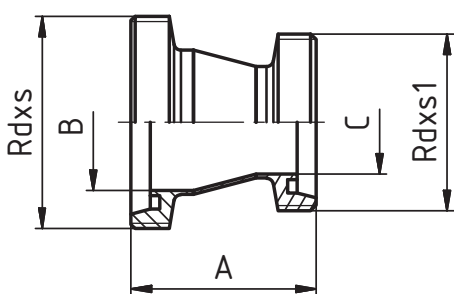


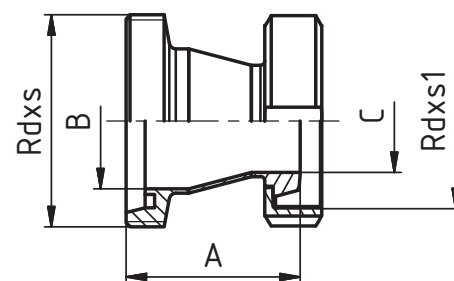
|                                                    |              |     |                             |   |   |   |   |   |   |                          |      |
|----------------------------------------------------|--------------|-----|-----------------------------|---|---|---|---|---|---|--------------------------|------|
| Connecting piece K/M - G<br>Kupplungsstück K/M - G | <b>20580</b> |     | <b>Dimensions • Baumaße</b> |   |   |   |   |   |   |                          |      |
|                                                    | DN           | A   | B                           | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|                                                    | 10           | 42  | 10                          |   |   |   |   |   |   | 28x1/8"                  | 0,13 |
|                                                    | 15           | 42  | 16                          |   |   |   |   |   |   | 34x1/8"                  | 0,16 |
|                                                    | 20           | 48  | 20                          |   |   |   |   |   |   | 44x1/6"                  | 0,28 |
|                                                    | 25           | 58  | 26                          |   |   |   |   |   |   | 52x1/6"                  | 0,39 |
|                                                    | 32           | 64  | 32                          |   |   |   |   |   |   | 58x1/6"                  | 0,47 |
|                                                    | 40           | 66  | 38                          |   |   |   |   |   |   | 65x1/6"                  | 0,55 |
|                                                    | 50           | 70  | 50                          |   |   |   |   |   |   | 78x1/6"                  | 0,77 |
|                                                    | 65           | 80  | 66                          |   |   |   |   |   |   | 95x1/6"                  | 1,24 |
|                                                    | 80           | 90  | 81                          |   |   |   |   |   |   | 110x1/4"                 | 1,73 |
|                                                    | 100          | 108 | 100                         |   |   |   |   |   |   | 130x1/4"                 | 2,40 |
|                                                    |              |     |                             |   |   |   |   |   |   |                          |      |
|                                                    |              |     |                             |   |   |   |   |   |   |                          |      |
|                                                    |              |     |                             |   |   |   |   |   |   |                          |      |

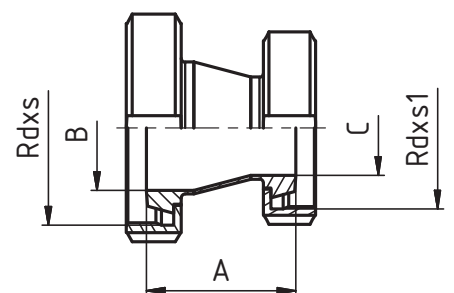


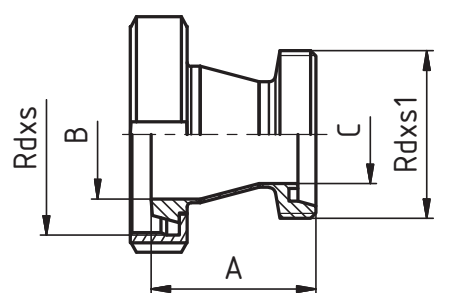
|                                                        |              |    |                             |   |   |   |   |   |   |                          |      |
|--------------------------------------------------------|--------------|----|-----------------------------|---|---|---|---|---|---|--------------------------|------|
| Connecting piece K/M - K/M<br>Kupplungsstück K/M - K/M | <b>20590</b> |    | <b>Dimensions • Baumaße</b> |   |   |   |   |   |   |                          |      |
|                                                        | DN           | A  | B                           | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|                                                        | 10           | 34 | 10                          |   |   |   |   |   |   | 28x1/8"                  | 0,18 |
|                                                        | 15           | 34 | 16                          |   |   |   |   |   |   | 34x1/8"                  | 0,22 |
|                                                        | 20           | 36 | 20                          |   |   |   |   |   |   | 44x1/6"                  | 0,38 |
|                                                        | 25           | 44 | 26                          |   |   |   |   |   |   | 52x1/6"                  | 0,54 |
|                                                        | 32           | 50 | 32                          |   |   |   |   |   |   | 58x1/6"                  | 0,66 |
|                                                        | 40           | 52 | 38                          |   |   |   |   |   |   | 65x1/6"                  | 0,76 |
|                                                        | 50           | 56 | 50                          |   |   |   |   |   |   | 78x1/6"                  | 1,06 |
|                                                        | 65           | 64 | 66                          |   |   |   |   |   |   | 95x1/6"                  | 1,72 |
|                                                        | 80           | 74 | 81                          |   |   |   |   |   |   | 110x1/4"                 | 2,36 |
|                                                        | 100          | 88 | 100                         |   |   |   |   |   |   | 130x1/4"                 | 3,38 |
|                                                        |              |    |                             |   |   |   |   |   |   |                          |      |
|                                                        |              |    |                             |   |   |   |   |   |   |                          |      |
|                                                        |              |    |                             |   |   |   |   |   |   |                          |      |

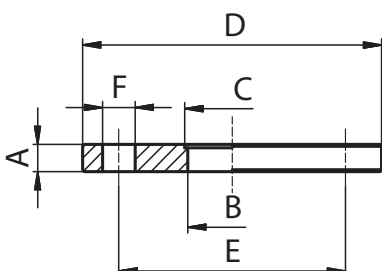


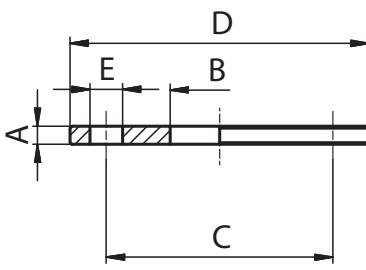
| Reducing piece G - G<br>Reduzierstück G - G                                       | 20630 | Dimensions • Baumaße |     |     |    |   |   |   |                          |                           |      |
|-----------------------------------------------------------------------------------|-------|----------------------|-----|-----|----|---|---|---|--------------------------|---------------------------|------|
|                                                                                   |       | DN                   | A   | B   | C  | D | E | F | thread DIN 405<br>Rd x s | thread DIN 405<br>Rd x s1 | kg   |
|  |       | 32/25                | 55  | 32  | 26 |   |   |   | 58x1/6"                  | 52x1/6"                   | 0,36 |
|                                                                                   |       | 40/25                | 66  | 38  | 25 |   |   |   | 65x1/6"                  | 52x1/6"                   | 0,40 |
|                                                                                   |       | 40/32                | 55  | 38  | 32 |   |   |   | 65x1/6"                  | 58x1/6"                   | 0,46 |
|                                                                                   |       | 50/32                | 78  | 50  | 32 |   |   |   | 78x1/6"                  | 58x1/6"                   | 0,61 |
|                                                                                   |       | 50/40                | 68  | 50  | 38 |   |   |   | 78x1/6"                  | 65x1/6"                   | 0,67 |
|                                                                                   |       | 65/40                | 98  | 66  | 38 |   |   |   | 95x1/6"                  | 65x1/6"                   | 1,00 |
|                                                                                   |       | 65/50                | 77  | 66  | 50 |   |   |   | 95x1/6"                  | 78x1/6"                   | 1,06 |
|                                                                                   |       | 80/50                | 104 | 81  | 50 |   |   |   | 110x1/4"                 | 78x1/6"                   | 1,37 |
|                                                                                   |       | 80/65                | 77  | 81  | 66 |   |   |   | 110x1/4"                 | 95x1/6"                   | 1,41 |
|                                                                                   |       | 100/65               | 116 | 100 | 66 |   |   |   | 130x1/4"                 | 95x1/6"                   | 2,08 |
|                                                                                   |       | 100/80               | 89  | 100 | 81 |   |   |   | 130x1/4"                 | 110x1/4"                  | 2,13 |
|                                                                                   |       |                      |     |     |    |   |   |   |                          |                           |      |

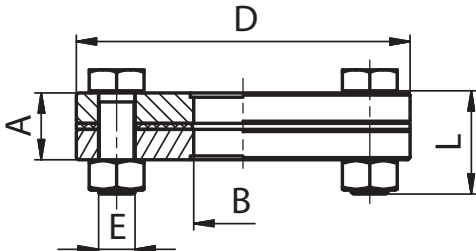
| Reducing piece G - K/M<br>Reduzierstück G - K/M                                    | 20640 | Dimensions • Baumaße |     |     |    |   |   |   |                          |                           |      |
|------------------------------------------------------------------------------------|-------|----------------------|-----|-----|----|---|---|---|--------------------------|---------------------------|------|
|                                                                                    |       | DN                   | A   | B   | C  | D | E | F | thread DIN 405<br>Rd x s | thread DIN 405<br>Rd x s1 | kg   |
|  |       | 32/25                | 51  | 32  | 26 |   |   |   | 58x1/6"                  | 52x1/6"                   | 0,47 |
|                                                                                    |       | 40/25                | 62  | 38  | 26 |   |   |   | 65x1/6"                  | 52x1/6"                   | 0,50 |
|                                                                                    |       | 40/32                | 59  | 38  | 32 |   |   |   | 65x1/6"                  | 58x1/6"                   | 0,55 |
|                                                                                    |       | 50/32                | 74  | 50  | 32 |   |   |   | 78x1/6"                  | 58x1/6"                   | 0,71 |
|                                                                                    |       | 50/40                | 64  | 50  | 38 |   |   |   | 78x1/6"                  | 65x1/6"                   | 0,77 |
|                                                                                    |       | 65/40                | 94  | 66  | 38 |   |   |   | 95x1/6"                  | 65x1/6"                   | 1,19 |
|                                                                                    |       | 65/50                | 73  | 66  | 50 |   |   |   | 95x1/6"                  | 78x1/6"                   | 1,24 |
|                                                                                    |       | 80/50                | 100 | 81  | 50 |   |   |   | 110x1/4"                 | 78x1/6"                   | 1,68 |
|                                                                                    |       | 80/65                | 73  | 81  | 66 |   |   |   | 110x1/4"                 | 95x1/6"                   | 1,73 |
|                                                                                    |       | 100/65               | 112 | 100 | 66 |   |   |   | 130x1/4"                 | 95x1/6"                   | 2,35 |
|                                                                                    |       | 100/80               | 85  | 100 | 81 |   |   |   | 130x1/4"                 | 110x1/4"                  | 2,40 |
|                                                                                    |       |                      |     |     |    |   |   |   |                          |                           |      |

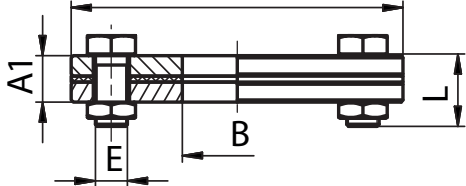
| Reducing piece K/M - K/M<br>Reduzierstück K/M - K/M                                 | 20650 | Dimensions • Baumaße |     |     |    |   |   |   |                          |                           |      |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|-----|----|---|---|---|--------------------------|---------------------------|------|
|                                                                                     |       | DN                   | A   | B   | C  | D | E | F | thread DIN 405<br>Rd x s | thread DIN 405<br>Rd x s1 | kg   |
|  |       | 32/25                | 47  | 32  | 26 |   |   |   | 58x1/6"                  | 52x1/6"                   | 0,66 |
|                                                                                     |       | 40/25                | 58  | 38  | 26 |   |   |   | 65x1/6"                  | 52x1/6"                   | 0,71 |
|                                                                                     |       | 40/32                | 47  | 38  | 32 |   |   |   | 65x1/6"                  | 58x1/6"                   | 0,76 |
|                                                                                     |       | 50/32                | 70  | 50  | 32 |   |   |   | 78x1/6"                  | 58x1/6"                   | 1,01 |
|                                                                                     |       | 50/40                | 60  | 50  | 38 |   |   |   | 78x1/6"                  | 65x1/6"                   | 1,06 |
|                                                                                     |       | 65/40                | 90  | 66  | 38 |   |   |   | 95x1/6"                  | 65x1/6"                   | 1,67 |
|                                                                                     |       | 65/50                | 69  | 66  | 50 |   |   |   | 95x1/6"                  | 78x1/6"                   | 1,72 |
|                                                                                     |       | 80/50                | 96  | 81  | 50 |   |   |   | 110x1/4"                 | 78x1/6"                   | 2,30 |
|                                                                                     |       | 80/65                | 69  | 81  | 66 |   |   |   | 110x1/4"                 | 95x1/6"                   | 2,36 |
|                                                                                     |       | 100/65               | 107 | 100 | 66 |   |   |   | 130x1/4"                 | 95x1/6"                   | 3,32 |
|                                                                                     |       | 100/80               | 80  | 100 | 81 |   |   |   | 130x1/4"                 | 110x1/4"                  | 3,38 |
|                                                                                     |       |                      |     |     |    |   |   |   |                          |                           |      |

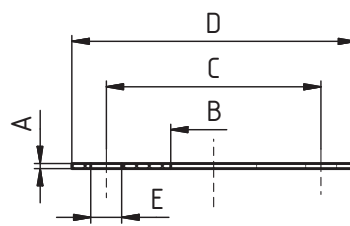
| Reducing piece K/M - G<br>Reduzierstück K/M - G                                     | 20660 | Dimensions • Baumaße |     |     |    |   |   |   |                          |                           |      |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|-----|----|---|---|---|--------------------------|---------------------------|------|
|                                                                                     |       | DN                   | A   | B   | C  | D | E | F | thread DIN 405<br>Rd x s | thread DIN 405<br>Rd x s1 | kg   |
|  |       | 32/25                | 51  | 32  | 26 |   |   |   | 58x1/6"                  | 52x1/6"                   | 0,47 |
|                                                                                     |       | 40/25                | 62  | 38  | 25 |   |   |   | 65x1/6"                  | 52x1/6"                   | 0,50 |
|                                                                                     |       | 40/32                | 59  | 38  | 32 |   |   |   | 65x1/6"                  | 58x1/6"                   | 0,55 |
|                                                                                     |       | 50/32                | 74  | 50  | 32 |   |   |   | 78x1/6"                  | 58x1/6"                   | 0,71 |
|                                                                                     |       | 50/40                | 64  | 50  | 38 |   |   |   | 78x1/6"                  | 65x1/6"                   | 0,77 |
|                                                                                     |       | 65/40                | 94  | 66  | 38 |   |   |   | 95x1/6"                  | 65x1/6"                   | 1,19 |
|                                                                                     |       | 65/50                | 73  | 66  | 50 |   |   |   | 95x1/6"                  | 78x1/6"                   | 1,24 |
|                                                                                     |       | 80/50                | 100 | 81  | 50 |   |   |   | 110x1/4"                 | 78x1/6"                   | 1,68 |
|                                                                                     |       | 80/65                | 73  | 81  | 66 |   |   |   | 110x1/4"                 | 95x1/6"                   | 1,73 |
|                                                                                     |       | 100/65               | 112 | 100 | 66 |   |   |   | 130x1/4"                 | 95x1/6"                   | 2,35 |
|                                                                                     |       | 100/80               | 85  | 100 | 81 |   |   |   | 130x1/4"                 | 110x1/4"                  | 2,40 |
|                                                                                     |       |                      |     |     |    |   |   |   |                          |                           |      |

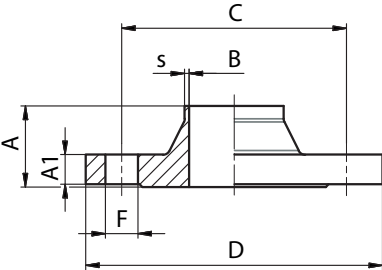
|                                                                                   |          |                      |     |       |     |     |      |   |   |   |                          |      |
|-----------------------------------------------------------------------------------|----------|----------------------|-----|-------|-----|-----|------|---|---|---|--------------------------|------|
| Flange PN 10<br>Flansch PN 10                                                     | 20700    | Dimensions • Baumaße |     |       |     |     |      |   |   |   |                          |      |
|                                                                                   | DIN 2576 | DN                   | A   | B     | C   | D   | E    | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10       | 14                   | 10  | 12,2  | 90  | 60  | 14x4 |   |   |   |                          | 0,50 |
|                                                                                   | 15       | 14                   | 16  | 18,2  | 95  | 65  | 14x4 |   |   |   |                          | 0,60 |
|                                                                                   | 20       | 14                   | 20  | 22,2  | 105 | 75  | 14x4 |   |   |   |                          | 0,85 |
|                                                                                   | 25       | 14                   | 26  | 28,2  | 115 | 85  | 14x4 |   |   |   |                          | 1,11 |
|                                                                                   | 32       | 14                   | 32  | 34,2  | 140 | 100 | 18x4 |   |   |   |                          | 1,64 |
|                                                                                   | 40       | 14                   | 38  | 40,2  | 150 | 110 | 18x4 |   |   |   |                          | 1,80 |
|                                                                                   | 50       | 14                   | 50  | 52,2  | 165 | 125 | 18x4 |   |   |   |                          | 2,30 |
|                                                                                   | 65       | 14                   | 66  | 70,3  | 185 | 145 | 18x4 |   |   |   |                          | 2,88 |
|                                                                                   | 80       | 16                   | 81  | 85,3  | 200 | 160 | 18x8 |   |   |   |                          | 3,20 |
|                                                                                   | 100      | 16                   | 100 | 104,3 | 220 | 180 | 18x8 |   |   |   |                          | 4,00 |
|                                                                                   | 125      | 20                   | 125 | 129,5 | 250 | 210 | 18x8 |   |   |   |                          | 5,00 |
|                                                                                   | 150      | 24                   | 150 | 154,5 | 285 | 240 | 22x8 |   |   |   |                          | 6,70 |

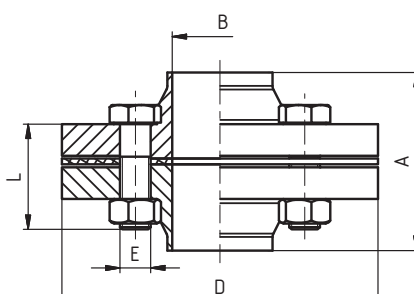
|                                                                                    |           |                      |       |     |     |      |   |   |   |   |                          |      |
|------------------------------------------------------------------------------------|-----------|----------------------|-------|-----|-----|------|---|---|---|---|--------------------------|------|
| Flange PN 10 ECO<br>Flansch PN 10 ECO                                              | 20700 ECO | Dimensions • Baumaße |       |     |     |      |   |   |   |   |                          |      |
|                                                                                    | DIN 2576  | DN                   | A     | B   | C   | D    | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 25        | 10                   | 29    | 85  | 115 | 14x4 |   |   |   |   |                          | 0,69 |
|                                                                                    | 32        | 10                   | 35    | 100 | 140 | 18x4 |   |   |   |   |                          | 1,00 |
|                                                                                    | 40        | 10                   | 41,5  | 110 | 150 | 18x4 |   |   |   |   |                          | 1,16 |
|                                                                                    | 50        | 10                   | 52,8  | 125 | 165 | 18x4 |   |   |   |   |                          | 1,23 |
|                                                                                    | 65        | 10                   | 71,2  | 145 | 185 | 18x4 |   |   |   |   |                          | 1,68 |
|                                                                                    | 80        | 10                   | 86,5  | 160 | 200 | 18x8 |   |   |   |   |                          | 1,62 |
|                                                                                    | 100       | 10                   | 105,5 | 180 | 220 | 18x8 |   |   |   |   |                          | 1,89 |
|                                                                                    | 125       | 12                   | 131   | 210 | 250 | 18x8 |   |   |   |   |                          | 3,33 |
|                                                                                    | 150       | 12                   | 155,5 | 240 | 285 | 22x8 |   |   |   |   |                          | 4,12 |
|                                                                                    |           |                      |       |     |     |      |   |   |   |   |                          |      |
|                                                                                    |           |                      |       |     |     |      |   |   |   |   |                          |      |
|                                                                                    |           |                      |       |     |     |      |   |   |   |   |                          |      |

|                                                                                     |          |                      |     |   |   |     |         |   |   |    |        |       |
|-------------------------------------------------------------------------------------|----------|----------------------|-----|---|---|-----|---------|---|---|----|--------|-------|
| Flange connection PN 10 - complete<br>Flanschverbindung PN 10 - komplett            | 20720    | Dimensions • Baumaße |     |   |   |     |         |   |   |    |        |       |
|                                                                                     | DIN 2576 | DN                   | A   | B | C | D   | E       | F | R | L  | Rd x s | kg    |
|  | 10       | 31                   | 10  |   |   | 90  | 4 x M12 |   |   | 40 |        | 1,30  |
|                                                                                     | 15       | 31                   | 16  |   |   | 95  | 4 x M12 |   |   | 40 |        | 1,40  |
|                                                                                     | 20       | 31                   | 20  |   |   | 105 | 4 x M12 |   |   | 45 |        | 2,00  |
|                                                                                     | 25       | 31                   | 26  |   |   | 115 | 4 x M12 |   |   | 45 |        | 2,30  |
|                                                                                     | 32       | 31                   | 32  |   |   | 140 | 4 x M16 |   |   | 50 |        | 3,50  |
|                                                                                     | 40       | 31                   | 38  |   |   | 150 | 4 x M16 |   |   | 50 |        | 4,00  |
|                                                                                     | 50       | 31                   | 50  |   |   | 165 | 4 x M16 |   |   | 55 |        | 5,10  |
|                                                                                     | 65       | 32                   | 66  |   |   | 185 | 4 x M16 |   |   | 55 |        | 6,00  |
|                                                                                     | 80       | 36                   | 81  |   |   | 200 | 8 x M16 |   |   | 55 |        | 7,50  |
|                                                                                     | 100      | 36                   | 100 |   |   | 220 | 8 x M16 |   |   | 55 |        | 8,30  |
|                                                                                     | 125      | 44                   | 125 |   |   | 250 | 8 x M16 |   |   | 60 |        | 13,00 |
|                                                                                     | 150      | 52                   | 150 |   |   | 285 | 8 x M20 |   |   | 65 |        | 16,70 |

|                                                                                     |           |                      |       |   |   |     |         |   |   |    |                          |       |
|-------------------------------------------------------------------------------------|-----------|----------------------|-------|---|---|-----|---------|---|---|----|--------------------------|-------|
| Flange connection PN 10 ECO - complete<br>Flanschverbindung PN 10 ECO - komplett    | 20720 ECO | Dimensions • Baumaße |       |   |   |     |         |   |   |    |                          |       |
|                                                                                     | DIN 2576  | DN                   | A1    | B | C | D   | E       | F | R | L  | thread DIN 405<br>Rd x s | kg    |
|  | 10        | 23                   | 17,7  |   |   | 90  | 4 x M12 |   |   | 35 |                          | 1,20  |
|                                                                                     | 15        | 23                   | 18,6  |   |   | 95  | 4 x M12 |   |   | 35 |                          | 1,30  |
|                                                                                     | 20        | 23                   | 26    |   |   | 105 | 4 x M12 |   |   | 35 |                          | 1,60  |
|                                                                                     | 25        | 23                   | 31    |   |   | 115 | 4 x M12 |   |   | 35 |                          | 1,80  |
|                                                                                     | 32        | 23                   | 39    |   |   | 140 | 4 x M16 |   |   | 40 |                          | 2,80  |
|                                                                                     | 40        | 23                   | 45,5  |   |   | 150 | 4 x M16 |   |   | 40 |                          | 3,10  |
|                                                                                     | 50        | 23                   | 54,5  |   |   | 165 | 4 x M16 |   |   | 40 |                          | 3,80  |
|                                                                                     | 65        | 24                   | 71    |   |   | 185 | 4 x M16 |   |   | 40 |                          | 4,20  |
|                                                                                     | 80        | 24                   | 85    |   |   | 200 | 8 x M16 |   |   | 40 |                          | 4,80  |
|                                                                                     | 100       | 24                   | 105,5 |   |   | 220 | 8 x M16 |   |   | 40 |                          | 5,30  |
|                                                                                     | 125       | 28                   | 130,5 |   |   | 250 | 8 x M16 |   |   | 45 |                          | 8,30  |
|                                                                                     | 150       | 28                   | 155,5 |   |   | 285 | 8 x M20 |   |   | 50 |                          | 11,00 |

|                                                                                   |          |                      |     |     |     |      |   |   |   |   |                          |    |
|-----------------------------------------------------------------------------------|----------|----------------------|-----|-----|-----|------|---|---|---|---|--------------------------|----|
| Flat seal for flange PN 10<br>Flanschdichtung PN 10                               | 20710    | Dimensions • Baumaße |     |     |     |      |   |   |   |   |                          |    |
|                                                                                   | DIN 2576 | DN                   | A   | B   | C   | D    | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 10       | 3                    | 10  | 60  | 90  | 14x4 |   |   |   |   |                          |    |
|                                                                                   | 15       | 3                    | 16  | 65  | 95  | 14x4 |   |   |   |   |                          |    |
|                                                                                   | 20       | 3                    | 20  | 75  | 105 | 14x4 |   |   |   |   |                          |    |
|                                                                                   | 25       | 3                    | 26  | 85  | 115 | 14x4 |   |   |   |   |                          |    |
|                                                                                   | 32       | 3                    | 32  | 100 | 140 | 18x4 |   |   |   |   |                          |    |
|                                                                                   | 40       | 3                    | 38  | 110 | 150 | 18x4 |   |   |   |   |                          |    |
|                                                                                   | 50       | 3                    | 50  | 125 | 165 | 18x4 |   |   |   |   |                          |    |
|                                                                                   | 65       | 4                    | 66  | 145 | 185 | 18x4 |   |   |   |   |                          |    |
|                                                                                   | 80       | 4                    | 81  | 160 | 200 | 18x8 |   |   |   |   |                          |    |
|                                                                                   | 100      | 4                    | 100 | 180 | 220 | 18x8 |   |   |   |   |                          |    |
|                                                                                   | 125      | 4                    | 125 | 210 | 250 | 18x8 |   |   |   |   |                          |    |
|                                                                                   | 150      | 4                    | 150 | 240 | 285 | 22x8 |   |   |   |   |                          |    |

|                                                                                    |                 |                             |          |           |          |          |          |          |          |  |           |
|------------------------------------------------------------------------------------|-----------------|-----------------------------|----------|-----------|----------|----------|----------|----------|----------|--|-----------|
| Flange PN 16<br>Flansch PN 16                                                      | <b>20730</b>    | <b>Dimensions • Baumaße</b> |          |           |          |          |          |          |          |  |           |
|                                                                                    | <b>DIN 2633</b> | <b>DN</b>                   | <b>A</b> | <b>A1</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>F</b> | <b>s</b> |  | <b>kg</b> |
|  |                 | 10                          | 35       | 14        | 10       | 60       | 90       | 14x4     | 1,5      |  | 0,58      |
|                                                                                    |                 | 15                          | 35       | 14        | 16       | 65       | 95       | 14x4     | 1,5      |  | 0,65      |
|                                                                                    |                 | 20                          | 38       | 16        | 20       | 75       | 105      | 14x4     | 1,5      |  | 0,95      |
|                                                                                    |                 | 25                          | 38       | 16        | 26       | 85       | 115      | 14x4     | 1,5      |  | 1,14      |
|                                                                                    |                 | 32                          | 40       | 16        | 32       | 100      | 140      | 18x4     | 1,5      |  | 1,60      |
|                                                                                    |                 | 40                          | 42       | 16        | 38       | 110      | 150      | 18x4     | 1,5      |  | 1,80      |
|                                                                                    |                 | 50                          | 45       | 18        | 50       | 125      | 165      | 18x4     | 1,5      |  | 2,53      |
|                                                                                    |                 | 65                          | 45       | 18        | 66       | 145      | 185      | 18x4     | 2        |  | 3,06      |
|                                                                                    |                 | 80                          | 50       | 20        | 81       | 160      | 200      | 18x8     | 2,5      |  | 3,70      |
|                                                                                    |                 | 100                         | 52       | 20        | 100      | 180      | 220      | 18x8     | 2,5      |  | 4,62      |
|                                                                                    |                 | 125                         | 55       | 22        | 125      | 210      | 250      | 18x8     | 2,5      |  | 6,30      |
|                                                                                    |                 | 150                         | 55       | 22        | 150      | 240      | 285      | 22x8     | 2,5      |  | 7,75      |

|                                                                                     |          |                      |     |   |     |         |   |   |   |    |                          |       |
|-------------------------------------------------------------------------------------|----------|----------------------|-----|---|-----|---------|---|---|---|----|--------------------------|-------|
| Flange connection PN 16 - complete<br>Flanschverbindung PN 16 - komplett            | 20740    | Dimensions • Baumaße |     |   |     |         |   |   |   |    |                          |       |
|                                                                                     | DIN 2633 | DN                   | A   | B | C   | D       | E | F | R | L  | thread DIN 405<br>Rd x s | kg    |
|  | 10       | 73                   | 10  |   | 90  | 4 x M12 |   |   |   | 45 |                          | 1,16  |
|                                                                                     | 15       | 73                   | 16  |   | 95  | 4 x M12 |   |   |   | 45 |                          | 1,30  |
|                                                                                     | 20       | 79                   | 20  |   | 105 | 4 x M12 |   |   |   | 45 |                          | 1,90  |
|                                                                                     | 25       | 79                   | 26  |   | 115 | 4 x M12 |   |   |   | 50 |                          | 2,28  |
|                                                                                     | 32       | 83                   | 32  |   | 140 | 4 x M16 |   |   |   | 50 |                          | 3,20  |
|                                                                                     | 40       | 88                   | 38  |   | 150 | 4 x M16 |   |   |   | 50 |                          | 3,60  |
|                                                                                     | 50       | 94                   | 50  |   | 165 | 4 x M16 |   |   |   | 55 |                          | 5,06  |
|                                                                                     | 65       | 94                   | 66  |   | 185 | 4 x M16 |   |   |   | 55 |                          | 6,12  |
|                                                                                     | 80       | 104                  | 81  |   | 200 | 8 x M16 |   |   |   | 60 |                          | 7,40  |
|                                                                                     | 100      | 108                  | 100 |   | 220 | 8 x M16 |   |   |   | 60 |                          | 9,24  |
|                                                                                     | 125      | 114                  | 125 |   | 250 | 8 x M16 |   |   |   | 65 |                          | 12,60 |
|                                                                                     | 150      | 114                  | 150 |   | 285 | 8 x M20 |   |   |   | 70 |                          | 15,5  |

Flange AL

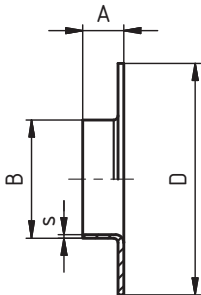
Flansch AL

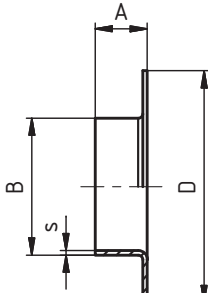
20780 AL

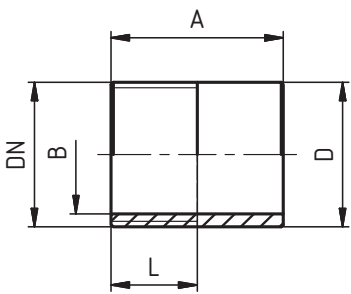
Dimensions • Baumaße

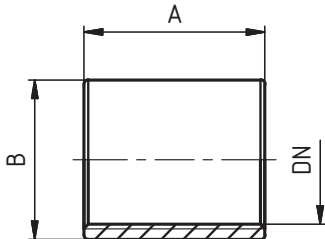
| DN  | A  | B   | C   | D   | E    | F | R | L | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|-----|------|---|---|---|--------------------------|------|
| 10  | 14 | 19  | 60  | 90  | 14x4 |   |   |   |                          | 0,59 |
| 15  | 14 | 24  | 65  | 95  | 14x4 |   |   |   |                          | 0,68 |
| 20  | 16 | 24  | 75  | 105 | 14x4 |   |   |   |                          | 0,80 |
| 25  | 16 | 36  | 85  | 115 | 14x4 |   |   |   |                          | 1,11 |
| 32  | 16 | 46  | 100 | 140 | 18x4 |   |   |   |                          | 1,64 |
| 40  | 16 | 54  | 110 | 150 | 18x4 |   |   |   |                          | 1,86 |
| 50  | 16 | 65  | 125 | 165 | 18x4 |   |   |   |                          | 2,20 |
| 65  | 16 | 81  | 145 | 185 | 18x4 |   |   |   |                          | 2,62 |
| 80  | 18 | 94  | 160 | 200 | 18x8 |   |   |   |                          | 3,32 |
| 100 | 18 | 119 | 180 | 220 | 18x8 |   |   |   |                          | 3,67 |
| 125 | 18 | 145 | 210 | 250 | 18x8 |   |   |   |                          | 4,54 |
| 150 | 18 | 173 | 240 | 285 | 22x8 |   |   |   |                          | 5,60 |

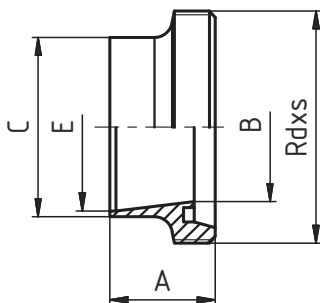
Technical drawing of a flange. The drawing shows a side view of a flange with a central hole. The dimensions are labeled as follows: A is the thickness of the flange; B is the radius of the central hole; C is the distance from the center of the hole to the outer edge of the flange; D is the total diameter of the flange; E is the diameter of the central hole; F is the diameter of the outer edge of the flange; R is the radius of the outer edge of the flange; L is the length of the flange.

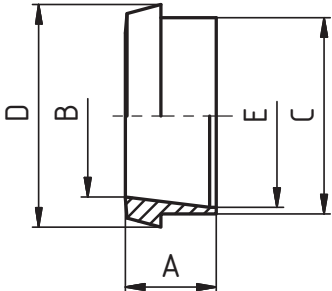
|                                                                                    |       |                      |     |   |   |     |   |   |   |     |                          |    |
|------------------------------------------------------------------------------------|-------|----------------------|-----|---|---|-----|---|---|---|-----|--------------------------|----|
| Welding neck DIN<br>Vorschweissbördel DIN                                          | 20790 | Dimensions • Baumaße |     |   |   |     |   |   |   |     |                          |    |
|                                                                                    | DIN   | DN                   | A   | B | C | D   | E | F | R | s   | thread DIN 405<br>Rd x s | kg |
|  | 10    |                      | 12  |   |   | 40  |   |   |   | 1,5 |                          |    |
|                                                                                    | 15    |                      | 18  |   |   | 45  |   |   |   | 1,5 |                          |    |
|                                                                                    | 20    |                      | 23  |   |   | 58  |   |   |   | 1,5 |                          |    |
|                                                                                    | 25    |                      | 28  |   |   | 68  |   |   |   | 1,5 |                          |    |
|                                                                                    | 32    |                      | 35  |   |   | 78  |   |   |   | 1,5 |                          |    |
|                                                                                    | 40    |                      | 40  |   |   | 88  |   |   |   | 1,5 |                          |    |
|                                                                                    | 50    |                      | 52  |   |   | 102 |   |   |   | 1,5 |                          |    |
|                                                                                    | 65    |                      | 70  |   |   | 122 |   |   |   | 2,0 |                          |    |
|                                                                                    | 80    |                      | 85  |   |   | 138 |   |   |   | 2,0 |                          |    |
|                                                                                    | 100   |                      | 104 |   |   | 158 |   |   |   | 2,0 |                          |    |
|                                                                                    | 125   |                      | 129 |   |   | 188 |   |   |   | 2,0 |                          |    |
|                                                                                    | 150   |                      | 154 |   |   | 212 |   |   |   | 2,0 |                          |    |

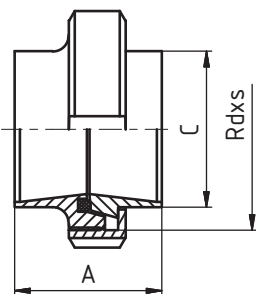
|                                                                                     |       |                      |       |   |   |     |   |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|-------|----------------------|-------|---|---|-----|---|---|---|---|--------------------------|----|
| Welding neck ISO<br>Vorschweissbördel ISO                                           | 20795 | Dimensions • Baumaße |       |   |   |     |   |   |   |   |                          |    |
|                                                                                     | ISO   | DN                   | A     | B | C | D   | E | F | R | s | thread DIN 405<br>Rd x s | kg |
|  | 10    |                      | 17,2  |   |   | 40  |   |   |   | 2 |                          |    |
|                                                                                     | 15    |                      | 21,3  |   |   | 45  |   |   |   | 2 |                          |    |
|                                                                                     | 20    |                      | 26,9  |   |   | 58  |   |   |   | 2 |                          |    |
|                                                                                     | 25    |                      | 33,7  |   |   | 68  |   |   |   | 2 |                          |    |
|                                                                                     | 32    |                      | 42,4  |   |   | 78  |   |   |   | 2 |                          |    |
|                                                                                     | 40    |                      | 48,3  |   |   | 88  |   |   |   | 2 |                          |    |
|                                                                                     | 50    |                      | 60,3  |   |   | 102 |   |   |   | 2 |                          |    |
|                                                                                     | 65    |                      | 76,1  |   |   | 122 |   |   |   | 2 |                          |    |
|                                                                                     | 80    |                      | 88,9  |   |   | 138 |   |   |   | 3 |                          |    |
|                                                                                     | 100   |                      | 114,3 |   |   | 158 |   |   |   | 3 |                          |    |
|                                                                                     | 125   |                      | 139,7 |   |   | 188 |   |   |   | 3 |                          |    |
|                                                                                     | 150   |                      | 168,3 |   |   | 212 |   |   |   | 3 |                          |    |

|                                                                                     |        |                      |       |   |   |       |   |   |   |      |                          |      |
|-------------------------------------------------------------------------------------|--------|----------------------|-------|---|---|-------|---|---|---|------|--------------------------|------|
| Nipple<br>Nippel                                                                    | 20800  | Dimensions • Baumaße |       |   |   |       |   |   |   |      |                          |      |
|                                                                                     |        | DN                   | A     | B | C | D     | E | F | R | L    | thread DIN 405<br>Rd x s | kg   |
|  | 1/8"   | 30                   | 7     |   |   | 10,5  |   |   |   | 10   |                          | 0,02 |
|                                                                                     | 1/4"   | 30                   | 9,3   |   |   | 13,6  |   |   |   | 11   |                          | 0,02 |
|                                                                                     | 3/8"   | 30                   | 13    |   |   | 17,1  |   |   |   | 10,5 |                          | 0,03 |
|                                                                                     | 1/2"   | 35                   | 16    |   |   | 21,5  |   |   |   | 15,5 |                          | 0,04 |
|                                                                                     | 3/4"   | 40                   | 21,6  |   |   | 27    |   |   |   | 16,5 |                          | 0,06 |
|                                                                                     | 1"     | 40                   | 27,5  |   |   | 33,6  |   |   |   | 20   |                          | 0,10 |
|                                                                                     | 1 1/4" | 50                   | 36,6  |   |   | 42,2  |   |   |   | 20   |                          | 0,15 |
|                                                                                     | 1 1/2" | 50                   | 41,5  |   |   | 48,5  |   |   |   | 22,5 |                          | 0,16 |
|                                                                                     | 2"     | 50                   | 53,6  |   |   | 60,6  |   |   |   | 25,5 |                          | 0,22 |
|                                                                                     | 2 1/2" | 60                   | 68,9  |   |   | 76,1  |   |   |   | 30   |                          | 0,42 |
|                                                                                     | 3"     | 70                   | 81,5  |   |   | 89,4  |   |   |   | 34   |                          | 0,68 |
|                                                                                     | 4"     | 80                   | 105,8 |   |   | 114,3 |   |   |   | 39   |                          | 0,97 |

| Muff<br>Muffe                                                                     | 20840 | Dimensions • Baumaße |    |       |   |   |   |   |   |   |                          |      |
|-----------------------------------------------------------------------------------|-------|----------------------|----|-------|---|---|---|---|---|---|--------------------------|------|
|                                                                                   |       | DN                   | A  | B     | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  |       | 1/8"                 | 15 | 15    |   |   |   |   |   |   |                          | 0,02 |
|                                                                                   |       | 1/4"                 | 25 | 18    |   |   |   |   |   |   |                          | 0,02 |
|                                                                                   |       | 3/8"                 | 26 | 20,5  |   |   |   |   |   |   |                          | 0,03 |
|                                                                                   |       | 1/2"                 | 33 | 25    |   |   |   |   |   |   |                          | 0,08 |
|                                                                                   |       | 3/4"                 | 35 | 32    |   |   |   |   |   |   |                          | 0,11 |
|                                                                                   |       | 1"                   | 42 | 37    |   |   |   |   |   |   |                          | 0,17 |
|                                                                                   |       | 1 1/4"               | 45 | 46    |   |   |   |   |   |   |                          | 0,32 |
|                                                                                   |       | 1 1/2"               | 45 | 52,5  |   |   |   |   |   |   |                          | 0,40 |
|                                                                                   |       | 2"                   | 55 | 65,5  |   |   |   |   |   |   |                          | 0,48 |
|                                                                                   |       | 2 1/2"               | 63 | 81    |   |   |   |   |   |   |                          | 1,20 |
|                                                                                   |       | 3"                   | 69 | 95    |   |   |   |   |   |   |                          | 1,57 |
|                                                                                   |       | 4"                   | 80 | 114,6 |   |   |   |   |   |   |                          | 2,40 |

| Welding male ISO<br>Anschweißgewindestutzen ISO                                    | 21010 | Dimensions • Baumaße |     |       |   |   |       |   |   |    |                          |      |
|------------------------------------------------------------------------------------|-------|----------------------|-----|-------|---|---|-------|---|---|----|--------------------------|------|
|                                                                                    | ISO   | DN                   | A   | B     | C | D | E     | F | R | L  | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 21                   | 10  | 18    |   |   | 14    |   |   | 4  | 28x1/8"                  | 0,04 |
|                                                                                    | 15    | 21                   | 16  | 21,3  |   |   | 18,1  |   |   | 4  | 34x1/8"                  | 0,05 |
|                                                                                    | 20    | 24                   | 20  | 26,9  |   |   | 23,7  |   |   | 6  | 44x1/6"                  | 0,10 |
|                                                                                    | 25    | 29                   | 26  | 33,7  |   |   | 29,7  |   |   | 7  | 52x1/6"                  | 0,13 |
|                                                                                    | 32    | 32                   | 32  | 42,4  |   |   | 38,4  |   |   | 7  | 58x1/6"                  | 0,16 |
|                                                                                    | 40    | 33                   | 38  | 48,3  |   |   | 44,3  |   |   | 7  | 65x1/6"                  | 0,21 |
|                                                                                    | 50    | 35                   | 50  | 60,3  |   |   | 56,3  |   |   | 7  | 78x1/6"                  | 0,30 |
|                                                                                    | 65    | 40                   | 66  | 76,1  |   |   | 71,5  |   |   | 8  | 95x1/6"                  | 0,45 |
|                                                                                    | 80    | 45                   | 81  | 88,9  |   |   | 84,3  |   |   | 8  | 110x1/4"                 | 0,60 |
|                                                                                    | 100   | 54                   | 100 | 114,3 |   |   | 109,1 |   |   | 10 | 130x1/4"                 | 0,78 |
|                                                                                    |       |                      |     |       |   |   |       |   |   |    |                          |      |
|                                                                                    |       |                      |     |       |   |   |       |   |   |    |                          |      |

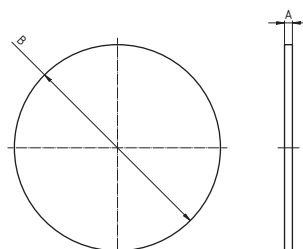
| Welding liner ISO<br>Anschweißkegelstutzen ISO                                      | 21020 | Dimensions • Baumaße |     |       |      |       |   |   |   |   |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|-----|-------|------|-------|---|---|---|---|--------------------------|------|
|                                                                                     | ISO   | DN                   | A   | B     | C    | D     | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 17                   | 10  | 18    | 22,5 | 14    |   |   |   |   |                          | 0,02 |
|                                                                                     | 15    | 17                   | 16  | 21,3  | 28,5 | 18,1  |   |   |   |   |                          | 0,03 |
|                                                                                     | 20    | 18                   | 20  | 26,9  | 36,5 | 23,7  |   |   |   |   |                          | 0,06 |
|                                                                                     | 25    | 22                   | 26  | 33,7  | 44   | 29,7  |   |   |   |   |                          | 0,09 |
|                                                                                     | 32    | 25                   | 32  | 42,4  | 50   | 38,4  |   |   |   |   |                          | 0,11 |
|                                                                                     | 40    | 26                   | 38  | 48,3  | 56   | 44,3  |   |   |   |   |                          | 0,14 |
|                                                                                     | 50    | 28                   | 50  | 60,3  | 68,5 | 56,3  |   |   |   |   |                          | 0,21 |
|                                                                                     | 65    | 32                   | 66  | 76,1  | 86   | 71,5  |   |   |   |   |                          | 0,32 |
|                                                                                     | 80    | 37                   | 81  | 88,9  | 100  | 84,3  |   |   |   |   |                          | 0,39 |
|                                                                                     | 100   | 44                   | 100 | 114,3 | 121  | 109,1 |   |   |   |   |                          | 0,59 |
|                                                                                     |       |                      |     |       |      |       |   |   |   |   |                          |      |

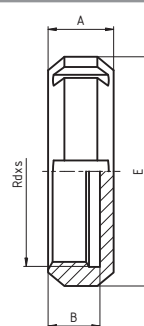
|                                                                                     |       |                      |   |   |       |   |   |   |   |   |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|---|---|-------|---|---|---|---|---|--------------------------|------|
| Welding union - complete ISO<br>Anschweißverschraubung - komplett ISO               | 21030 | Dimensions • Baumaße |   |   |       |   |   |   |   |   |                          |      |
|                                                                                     | ISO   | DN                   | A | B | C     | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10    | 34                   |   |   | 18    |   |   |   |   |   | 28x1/8"                  | 0,15 |
|                                                                                     | 15    | 34                   |   |   | 21,3  |   |   |   |   |   | 34x1/8"                  | 0,18 |
|                                                                                     | 20    | 36                   |   |   | 26,9  |   |   |   |   |   | 44x1/6"                  | 0,30 |
|                                                                                     | 25    | 45                   |   |   | 33,7  |   |   |   |   |   | 52x1/6"                  | 0,42 |
|                                                                                     | 32    | 51                   |   |   | 42,4  |   |   |   |   |   | 58x1/6"                  | 0,51 |
|                                                                                     | 40    | 53                   |   |   | 48,3  |   |   |   |   |   | 65x1/6"                  | 0,61 |
|                                                                                     | 50    | 57                   |   |   | 60,3  |   |   |   |   |   | 78x1/6"                  | 0,84 |
|                                                                                     | 65    | 65                   |   |   | 76,1  |   |   |   |   |   | 95x1/6"                  | 1,31 |
|                                                                                     | 80    | 75                   |   |   | 88,9  |   |   |   |   |   | 110x1/4"                 | 1,80 |
|                                                                                     | 100   | 89                   |   |   | 114,3 |   |   |   |   |   | 130x1/4"                 | 2,66 |
|                                                                                     |       |                      |   |   |       |   |   |   |   |   |                          |      |

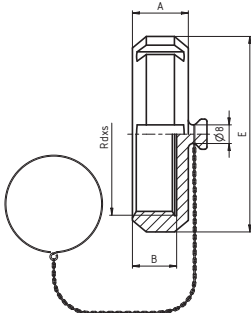
Technical drawing of a tapered roller bearing showing dimensions A, C, E, L, and Rdxs.

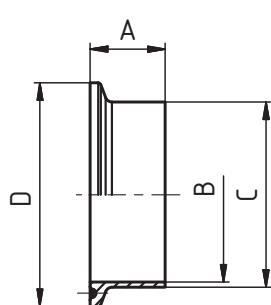
Technical drawing of a mechanical part showing dimensions A, B, C, and Rdxs. The drawing is a cross-section of a component with a central hole. Dimension A is the width of the base. Dimension B is the height of the central section. Dimension C is the total height. Dimension Rdxs is the radius of the rounded top edge.

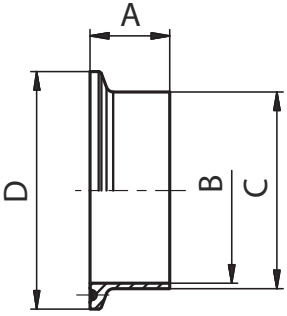
A technical drawing of a stepped shaft. The shaft has a total length  $A$  and a total diameter  $D$ . It features a step of diameter  $B$  and a shoulder of height  $C$ . The drawing shows the shaft in a cross-sectional view, with the step and shoulder clearly defined.

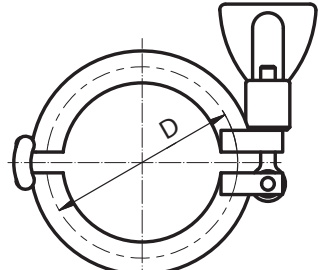
|                                                                                   |            |                      |     |   |   |   |   |   |   |   |                          |    |
|-----------------------------------------------------------------------------------|------------|----------------------|-----|---|---|---|---|---|---|---|--------------------------|----|
| Gasket for SMS blind nuts<br>Dichtung für SMS-Blindmuttern                        | 21170      | Dimensions • Baumaße |     |   |   |   |   |   |   |   |                          |    |
|                                                                                   | DIN 11 851 | DN                   | A   | B | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 25         | 3                    | 39  |   |   |   |   |   |   |   |                          |    |
|                                                                                   | 38         | 3                    | 58  |   |   |   |   |   |   |   |                          |    |
|                                                                                   | 51         | 3                    | 68  |   |   |   |   |   |   |   |                          |    |
|                                                                                   | 63,5       | 3                    | 84  |   |   |   |   |   |   |   |                          |    |
|                                                                                   | 76         | 3                    | 97  |   |   |   |   |   |   |   |                          |    |
|                                                                                   | 101,6      | 3                    | 125 |   |   |   |   |   |   |   |                          |    |
|                                                                                   | 104        | 3                    | 130 |   |   |   |   |   |   |   |                          |    |
|                                                                                   |            |                      |     |   |   |   |   |   |   |   |                          |    |
|                                                                                   |            |                      |     |   |   |   |   |   |   |   |                          |    |
|                                                                                   |            |                      |     |   |   |   |   |   |   |   |                          |    |

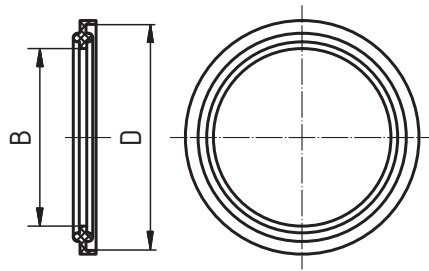
|                                                                                    |            |                      |    |   |   |   |     |   |   |   |                          |    |
|------------------------------------------------------------------------------------|------------|----------------------|----|---|---|---|-----|---|---|---|--------------------------|----|
| Blind nut SMS<br>Blindmutter SMS                                                   | 21180      | Dimensions • Baumaße |    |   |   |   |     |   |   |   |                          |    |
|                                                                                    | DIN 11 851 | DN                   | A  | B | C | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 25         | 19                   | 15 |   |   |   | 51  |   |   |   | 40x1/6                   |    |
|                                                                                    | 38         | 23                   | 19 |   |   |   | 74  |   |   |   | 60x1/6                   |    |
|                                                                                    | 51         | 24                   | 19 |   |   |   | 84  |   |   |   | 70x1/6                   |    |
|                                                                                    | 63,5       | 28                   | 23 |   |   |   | 100 |   |   |   | 85x1/6                   |    |
|                                                                                    | 76         | 30                   | 24 |   |   |   | 114 |   |   |   | 98x1/6                   |    |
|                                                                                    | 101,6      | 31                   | 26 |   |   |   | 138 |   |   |   | 124x1/4                  |    |
|                                                                                    |            |                      |    |   |   |   |     |   |   |   |                          |    |
|                                                                                    |            |                      |    |   |   |   |     |   |   |   |                          |    |
|                                                                                    |            |                      |    |   |   |   |     |   |   |   |                          |    |
|                                                                                    |            |                      |    |   |   |   |     |   |   |   |                          |    |

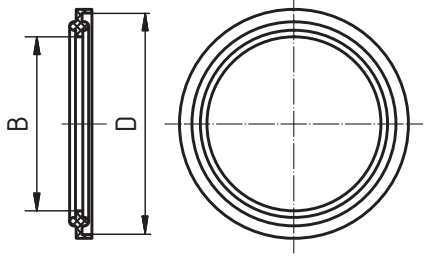
|                                                                                     |            |                      |    |   |   |     |   |   |   |   |                          |    |  |
|-------------------------------------------------------------------------------------|------------|----------------------|----|---|---|-----|---|---|---|---|--------------------------|----|--|
| Blind nut SMS with chain<br>Blindmutter SMS mit Kette                               | 21190      | Dimensions • Baumaße |    |   |   |     |   |   |   |   |                          |    |  |
|                                                                                     | DIN 11 851 | DN                   | A  | B | C | D   | E | F | R | L | thread DIN 405<br>Rd x s | kg |  |
|  | 25         | 19                   | 15 |   |   | 51  |   |   |   |   | 40x1/6                   |    |  |
|                                                                                     | 38         | 23                   | 19 |   |   | 74  |   |   |   |   | 60x1/6                   |    |  |
|                                                                                     | 51         | 24                   | 19 |   |   | 84  |   |   |   |   | 70x1/6                   |    |  |
|                                                                                     | 63,5       | 28                   | 23 |   |   | 100 |   |   |   |   | 85x1/6                   |    |  |
|                                                                                     | 76         | 30                   | 24 |   |   | 114 |   |   |   |   | 98x1/6                   |    |  |
|                                                                                     | 101,6      | 31                   | 26 |   |   | 138 |   |   |   |   | 124x1/4                  |    |  |
|                                                                                     |            |                      |    |   |   |     |   |   |   |   |                          |    |  |
|                                                                                     |            |                      |    |   |   |     |   |   |   |   |                          |    |  |
|                                                                                     |            |                      |    |   |   |     |   |   |   |   |                          |    |  |
|                                                                                     |            |                      |    |   |   |     |   |   |   |   |                          |    |  |

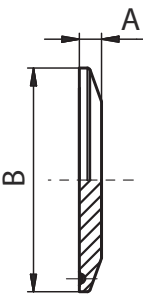
|                                                                                     |            |                      |     |     |      |   |   |   |   |   |                          |      |
|-------------------------------------------------------------------------------------|------------|----------------------|-----|-----|------|---|---|---|---|---|--------------------------|------|
| Clamp ferrule - S<br>TC-Klemmstutzen - S                                            | 21200      | Dimensions • Baumaße |     |     |      |   |   |   |   |   |                          |      |
|                                                                                     | DIN 32 676 | DN                   | A   | B   | C    | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 10         | 18                   | 10  | 13  | 34   |   |   |   |   |   |                          | 0,03 |
|                                                                                     | 15         | 18                   | 16  | 19  | 34   |   |   |   |   |   |                          | 0,03 |
|                                                                                     | 20         | 18                   | 20  | 23  | 34   |   |   |   |   |   |                          | 0,03 |
|                                                                                     | 25         | 21,5                 | 26  | 29  | 50,5 |   |   |   |   |   |                          | 0,07 |
|                                                                                     | 32         | 21,5                 | 32  | 35  | 50,5 |   |   |   |   |   |                          | 0,07 |
|                                                                                     | 40         | 21,5                 | 38  | 41  | 50,5 |   |   |   |   |   |                          | 0,07 |
|                                                                                     | 50         | 21,5                 | 50  | 53  | 64   |   |   |   |   |   |                          | 0,07 |
|                                                                                     | 65         | 28                   | 66  | 70  | 91   |   |   |   |   |   |                          | 0,10 |
|                                                                                     | 80         | 28                   | 81  | 85  | 106  |   |   |   |   |   |                          | 0,20 |
|                                                                                     | 100        | 28                   | 100 | 104 | 119  |   |   |   |   |   |                          | 0,22 |
|                                                                                     | 125        | 28                   | 125 | 129 | 155  |   |   |   |   |   |                          | 0,52 |
|                                                                                     | 150        | 28                   | 150 | 154 | 183  |   |   |   |   |   |                          | 0,70 |
|                                                                                     |            |                      |     |     |      |   |   |   |   |   |                          |      |

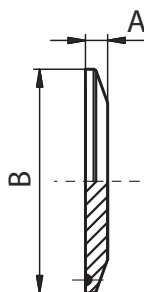
| Clamp ferrule - S SMS<br>TC-Klemmstutzen - S SMS                                  | 21202 | Dimensions • Baumaße |      |       |       |      |   |   |   |                          |      |
|-----------------------------------------------------------------------------------|-------|----------------------|------|-------|-------|------|---|---|---|--------------------------|------|
|                                                                                   | SMS   | DN - SMS             | A    | B     | C     | D    | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  |       | 1/2" - 12,7          | 21,5 | 9,4   | 12,7  | 25   |   |   |   |                          | 0,03 |
|                                                                                   |       | 1/2" - 12,7          | 28,6 | 9,4   | 12,7  | 25   |   |   |   |                          | 0,03 |
|                                                                                   |       | 3/4" - 19,05         | 21,5 | 15,75 | 19,05 | 25   |   |   |   |                          | 0,03 |
|                                                                                   |       | 3/4" - 19,05         | 28,6 | 15,75 | 19,05 | 25   |   |   |   |                          | 0,03 |
|                                                                                   |       | 1" - 25,4            | 21,5 | 22,1  | 25,4  | 50,5 |   |   |   |                          | 0,07 |
|                                                                                   |       | 1" - 25,4            | 28,6 | 22,1  | 25,4  | 50,5 |   |   |   |                          | 0,07 |
|                                                                                   |       | 1 1/2" - 38,1        | 28   | 35,5  | 38,1  | 50,5 |   |   |   |                          | 0,07 |
|                                                                                   |       | 2" - 51              | 28   | 48,5  | 51    | 64   |   |   |   |                          | 0,07 |
|                                                                                   |       | 2 1/2" - 63,5        | 28   | 60,5  | 63,5  | 77,5 |   |   |   |                          | 0,1  |
|                                                                                   |       | 3" - 76,1            | 28   | 72,9  | 76,1  | 91   |   |   |   |                          | 0,2  |
|                                                                                   |       | 4" - 101,6           | 28   | 97,6  | 101,6 | 119  |   |   |   |                          | 0,22 |
|                                                                                   |       |                      |      |       |       |      |   |   |   |                          |      |

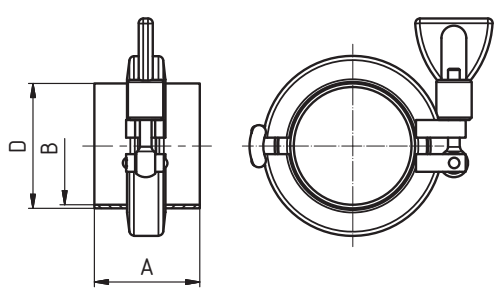
| Clamp SMS<br>TC-Klammer leichte Ausführung SMS                                     | 21220      | Dimensions • Baumaße |       |       |      |     |     |     |       |
|------------------------------------------------------------------------------------|------------|----------------------|-------|-------|------|-----|-----|-----|-------|
|                                                                                    | DIN 32 676 | DN                   | SMS   | DIN   | D    | DN  | SMS | DIN | D     |
|  |            | 1/2"-3/4"            | 12,7  | -     | 25   | 125 | -   | 125 | 155   |
|                                                                                    |            | 1/2"-3/4"            | 19,05 | -     | 25   | 6"  | -   | -   | 166,8 |
|                                                                                    |            | 10-20                | -     | 10-20 | 34   | 150 | -   | 150 | 183   |
|                                                                                    |            | 1"-1 1/2"            | 25    | 25    | 50,5 | 8"  | -   | -   | 217,6 |
|                                                                                    |            | 1"-1 1/2"            | -     | 32    | 50,5 | 200 | -   | 200 | 233,5 |
|                                                                                    |            | 1"-1 1/2"            | 38    | 40    | 50,5 | 250 | -   | 250 | 268   |
|                                                                                    |            | 2"                   | 51    | 50    | 64   | 300 | -   | 300 | 318,5 |
|                                                                                    |            | 2 1/2"               | 63,5  | -     | 77,5 |     |     |     |       |
|                                                                                    |            | 3"                   | 76,1  | 65    | 91   |     |     |     |       |
|                                                                                    |            | 80                   | -     | 80    | 106  |     |     |     |       |
|                                                                                    |            | 4"                   | 101,6 | 100   | 119  |     |     |     |       |
|                                                                                    |            |                      |       |       |      |     |     |     |       |

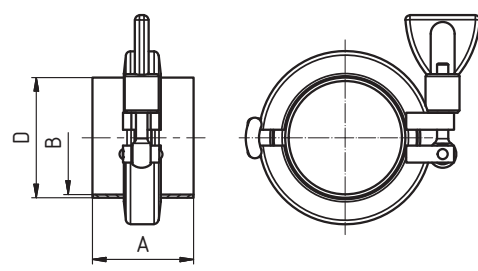
| Clamp gasket<br>Clamp Dichtung                                                      | 21230      | Dimensions • Baumaße |   |       |   |      |   |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|------------|----------------------|---|-------|---|------|---|---|---|---|--------------------------|----|
|                                                                                     | DIN 32 676 | DN                   | A | B     | C | D    | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 10         |                      |   | 10,2  |   | 34   |   |   |   |   |                          |    |
|                                                                                     | 15         |                      |   | 16,2  |   | 34   |   |   |   |   |                          |    |
|                                                                                     | 20         |                      |   | 20,2  |   | 34   |   |   |   |   |                          |    |
|                                                                                     | 25         |                      |   | 26,2  |   | 50,5 |   |   |   |   |                          |    |
|                                                                                     | 32         |                      |   | 32,2  |   | 50,5 |   |   |   |   |                          |    |
|                                                                                     | 40         |                      |   | 38,2  |   | 50,5 |   |   |   |   |                          |    |
|                                                                                     | 50         |                      |   | 50,2  |   | 64   |   |   |   |   |                          |    |
|                                                                                     | 65         |                      |   | 66,2  |   | 91   |   |   |   |   |                          |    |
|                                                                                     | 80         |                      |   | 81,2  |   | 106  |   |   |   |   |                          |    |
|                                                                                     | 100        |                      |   | 100,2 |   | 119  |   |   |   |   |                          |    |
|                                                                                     |            |                      |   |       |   |      |   |   |   |   |                          |    |
|                                                                                     |            |                      |   |       |   |      |   |   |   |   |                          |    |

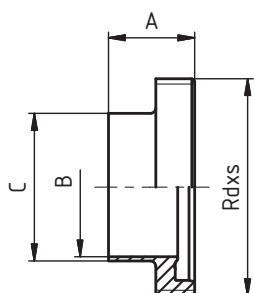
| Clamp gasket SMS<br>Clamp Dichtung SMS                                              | 21232 | Dimensions • Baumaße |      |      |  |   |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|-------|----------------------|------|------|--|---|---|---|---|--------------------------|----|
|                                                                                     | SMS   | DN - SMS             | B    | D    |  | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  |       | 1/2" - 12,7          | 9,3  | 25   |  |   |   |   |   |                          |    |
|                                                                                     |       | 3/4" - 19,05         | 15,7 | 25   |  |   |   |   |   |                          |    |
|                                                                                     |       | 1" - 25              | 22,3 | 50,5 |  |   |   |   |   |                          |    |
|                                                                                     |       | 1 1/2" - 38,1        | 35   | 50,5 |  |   |   |   |   |                          |    |
|                                                                                     |       | 2" - 51              | 47,7 | 64   |  |   |   |   |   |                          |    |
|                                                                                     |       | 2 1/2" - 63,5        | 60,4 | 77,5 |  |   |   |   |   |                          |    |
|                                                                                     |       | 3" - 76,1            | 73,1 | 91   |  |   |   |   |   |                          |    |
|                                                                                     |       | 4" - 101,6           | 97,6 | 119  |  |   |   |   |   |                          |    |
|                                                                                     |       |                      |      |      |  |   |   |   |   |                          |    |
|                                                                                     |       |                      |      |      |  |   |   |   |   |                          |    |
|                                                                                     |       |                      |      |      |  |   |   |   |   |                          |    |
|                                                                                     |       |                      |      |      |  |   |   |   |   |                          |    |

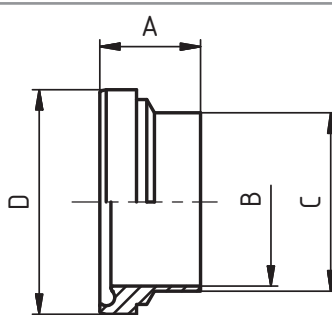
|                                                                                   |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|-----------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Clamp blank<br>TC-Blindklemmstutzen                                               | <b>21240</b>      | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                   | <b>DIN 32 676</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 6,35     | 34       |          |          |          |          |          |          |                                  | 0,04      |
|                                                                                   |                   | 15                          | 6,35     | 34       |          |          |          |          |          |          |                                  | 0,04      |
|                                                                                   |                   | 20                          | 6,35     | 34       |          |          |          |          |          |          |                                  | 0,04      |
|                                                                                   |                   | 25                          | 6,35     | 50,5     |          |          |          |          |          |          |                                  | 0,08      |
|                                                                                   |                   | 32                          | 6,35     | 50,5     |          |          |          |          |          |          |                                  | 0,08      |
|                                                                                   |                   | 40                          | 6,35     | 50,5     |          |          |          |          |          |          |                                  | 0,08      |
|                                                                                   |                   | 50                          | 6,35     | 64       |          |          |          |          |          |          |                                  | 0,14      |
|                                                                                   |                   | 65                          | 6,35     | 91       |          |          |          |          |          |          |                                  | 0,28      |
|                                                                                   |                   | 80                          | 6,35     | 106      |          |          |          |          |          |          |                                  | 0,46      |
|                                                                                   |                   | 100                         | 7,95     | 119      |          |          |          |          |          |          |                                  | 0,60      |
|                                                                                   |                   | 125                         | 7,95     | 155      |          |          |          |          |          |          |                                  | 1,15      |
|                                                                                   |                   | 150                         | 11,00    | 183      |          |          |          |          |          |          |                                  | 2,20      |
|                                                                                   |                   |                             |          |          |          |          |          |          |          |          |                                  |           |

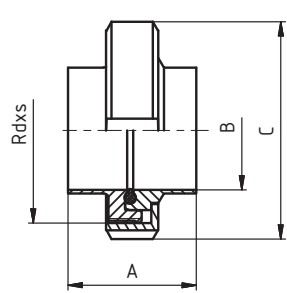
|                                                                                    |       |                      |      |      |   |   |   |   |   |                          |      |      |
|------------------------------------------------------------------------------------|-------|----------------------|------|------|---|---|---|---|---|--------------------------|------|------|
| Clamp blank DIN/SMS<br>TC-Blindklemmstutzen DIN/SMS                                | 21242 | Dimensions • Baumaße |      |      |   |   |   |   |   |                          |      |      |
|                                                                                    | SMS   | DN - SMS             | A    | B    | C | E | F | R | L | thread DIN 405<br>Rd x s | kg   |      |
|  |       | 1/2" - 12,7          | 6,35 | 25   |   |   |   |   |   |                          | 0,04 |      |
|                                                                                    |       | 3/4" - 19,05         | 6,35 | 25   |   |   |   |   |   |                          |      | 0,04 |
|                                                                                    |       | 1" - 25              | 6,35 | 50,5 |   |   |   |   |   |                          |      | 0,08 |
|                                                                                    |       | 1 1/2" - 38,1        | 6,35 | 50,5 |   |   |   |   |   |                          |      | 0,08 |
|                                                                                    |       | 2" - 51              | 6,35 | 64   |   |   |   |   |   |                          |      | 0,14 |
|                                                                                    |       | 2 1/2" - 63,5        | 6,35 | 77,5 |   |   |   |   |   |                          |      | 0,28 |
|                                                                                    |       | 3" - 76,1            | 6,35 | 91   |   |   |   |   |   |                          |      | 0,46 |
|                                                                                    |       | 4" - 101,6           | 7,95 | 119  |   |   |   |   |   |                          |      | 0,6  |
|                                                                                    |       |                      |      |      |   |   |   |   |   |                          |      |      |
|                                                                                    |       |                      |      |      |   |   |   |   |   |                          |      |      |
|                                                                                    |       |                      |      |      |   |   |   |   |   |                          |      |      |
|                                                                                    |       |                      |      |      |   |   |   |   |   |                          |      |      |

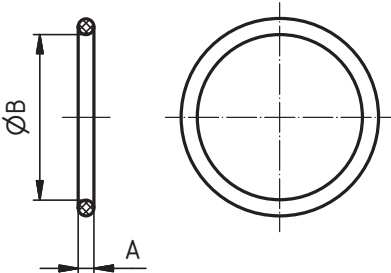
|                                                                                     |                   |                             |          |          |          |          |          |          |          |          |                                  |           |
|-------------------------------------------------------------------------------------|-------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Clamp union - S - DIN - complete<br>Clampverbindung - S - DIN - komplett            | <b>21250</b>      | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     | <b>DIN 32 676</b> | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |                   | 10                          | 45       | 10       |          | 13       |          |          |          |          |                                  | 0,28      |
|                                                                                     |                   | 15                          | 45       | 16       |          | 19       |          |          |          |          |                                  | 0,28      |
|                                                                                     |                   | 20                          | 45       | 20       |          | 23       |          |          |          |          |                                  | 0,30      |
|                                                                                     |                   | 25                          | 45       | 26       |          | 29       |          |          |          |          |                                  | 0,35      |
|                                                                                     |                   | 32                          | 45       | 32       |          | 35       |          |          |          |          |                                  | 0,35      |
|                                                                                     |                   | 40                          | 45       | 38       |          | 41       |          |          |          |          |                                  | 0,37      |
|                                                                                     |                   | 50                          | 45       | 50       |          | 53       |          |          |          |          |                                  | 0,39      |
|                                                                                     |                   | 65                          | 58       | 66       |          | 70       |          |          |          |          |                                  | 0,89      |
|                                                                                     |                   | 80                          | 58       | 81       |          | 85       |          |          |          |          |                                  | 0,95      |
|                                                                                     |                   | 100                         | 58       | 100      |          | 104      |          |          |          |          |                                  | 0,99      |
|                                                                                     |                   | 125                         | 58       | 125      |          | 129      |          |          |          |          |                                  | 1,15      |
|                                                                                     |                   | 150                         | 58       | 150      |          | 154      |          |          |          |          |                                  | 1,30      |
|                                                                                     |                   |                             |          |          |          |          |          |          |          |          |                                  |           |

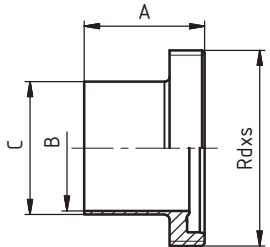
|                                                                                     |              |                             |          |          |          |          |          |          |          |          |                                  |           |
|-------------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Clamp union - S - SMS - complete<br>Clampverbindung - S - SMS - komplett            | <b>21252</b> | <b>Dimensions • Baumaße</b> |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     | <b>SMS</b>   | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
|  |              | 25                          | 43       | 22,5     |          | 25       |          |          |          |          |                                  | 0,35      |
|                                                                                     |              | 38                          | 43       | 35,5     |          | 38,1     |          |          |          |          |                                  | 0,37      |
|                                                                                     |              | 51                          | 43       | 48,5     |          | 51       |          |          |          |          |                                  | 0,39      |
|                                                                                     |              | 63,5                        | 56       | 60,5     |          | 63,5     |          |          |          |          |                                  | 0,89      |
|                                                                                     |              | 76                          | 56       | 72,9     |          | 76,1     |          |          |          |          |                                  | 0,95      |
|                                                                                     |              | 101,6                       | 56       | 97,6     |          | 101,6    |          |          |          |          |                                  | 0,99      |
|                                                                                     |              |                             |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |              |                             |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |              |                             |          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |              |                             |          |          |          |          |          |          |          |          |                                  |           |

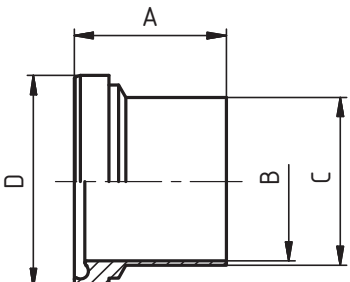
|                                                                                   |            |                                                                                 |     |     |   |   |   |   |   |                         |      |  |
|-----------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------|-----|-----|---|---|---|---|---|-------------------------|------|--|
| Welding male<br>Anschweißgewindestutzen                                           | 22300      | Welding union 22320, DIN 11 853-1<br>Anschweißverschraubung 22320, DIN 11 853-1 |     |     |   |   |   |   |   |                         |      |  |
|                                                                                   | DIN 11 853 |                                                                                 |     |     |   |   |   |   |   |                         |      |  |
|  | DN         | A                                                                               | B   | C   | D | E | F | R | L | závit DIN 405<br>Rd x s | kg   |  |
|                                                                                   | 10         | 19                                                                              | 10  | 13  |   |   |   |   |   | 28 x 1/8"               | 0,04 |  |
|                                                                                   | 15         | 19                                                                              | 16  | 19  |   |   |   |   |   | 34 x 1/8"               | 0,06 |  |
|                                                                                   | 20         | 21                                                                              | 20  | 23  |   |   |   |   |   | 44 x 1/6"               | 0,11 |  |
|                                                                                   | 25         | 26                                                                              | 26  | 29  |   |   |   |   |   | 52 x 1/6"               | 0,15 |  |
|                                                                                   | 32         | 30                                                                              | 32  | 35  |   |   |   |   |   | 58 x 1/6"               | 0,17 |  |
|                                                                                   | 40         | 31                                                                              | 38  | 41  |   |   |   |   |   | 65 x 1/6"               | 0,20 |  |
|                                                                                   | 50         | 31                                                                              | 50  | 53  |   |   |   |   |   | 78 x 1/6"               | 0,26 |  |
|                                                                                   | 65         | 36                                                                              | 66  | 70  |   |   |   |   |   | 95 x 1/6"               | 0,40 |  |
|                                                                                   | 80         | 42                                                                              | 81  | 85  |   |   |   |   |   | 110 x 1/4"              | 0,63 |  |
|                                                                                   | 100        | 50                                                                              | 100 | 104 |   |   |   |   |   | 130 x 1/4"              | 0,76 |  |
|                                                                                   |            |                                                                                 |     |     |   |   |   |   |   |                         |      |  |

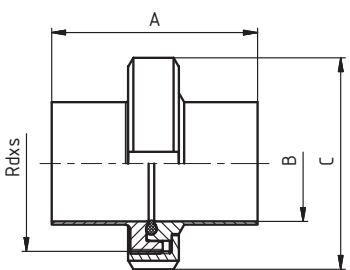
|                                                                                    |            |                                            |     |     |       |   |   |   |  |                         |      |
|------------------------------------------------------------------------------------|------------|--------------------------------------------|-----|-----|-------|---|---|---|--|-------------------------|------|
| Welding liner<br>Anschweißkegelstutzen                                             | 22310      | Welding union 22320, DIN 11 853-1          |     |     |       |   |   |   |  |                         |      |
|                                                                                    | DIN 11 853 | Anschweißverschraubung 22320, DIN 11 853-1 |     |     |       |   |   |   |  |                         |      |
|  | DN         | A                                          | B   | C   | D     | E | F | R |  | závit DIN 405<br>Rd x s | kg   |
|                                                                                    | 10         | 17                                         | 10  | 13  | 21,9  |   |   |   |  |                         | 0,02 |
|                                                                                    | 15         | 17                                         | 16  | 19  | 27,9  |   |   |   |  |                         | 0,03 |
|                                                                                    | 20         | 18                                         | 20  | 23  | 35,9  |   |   |   |  |                         | 0,05 |
|                                                                                    | 25         | 22                                         | 26  | 29  | 42,9  |   |   |   |  |                         | 0,08 |
|                                                                                    | 32         | 25                                         | 32  | 35  | 48,9  |   |   |   |  |                         | 0,09 |
|                                                                                    | 40         | 26                                         | 38  | 41  | 54,9  |   |   |   |  |                         | 0,11 |
|                                                                                    | 50         | 30                                         | 50  | 53  | 66,9  |   |   |   |  |                         | 0,16 |
|                                                                                    | 65         | 34                                         | 66  | 70  | 84,9  |   |   |   |  |                         | 0,30 |
|                                                                                    | 80         | 38                                         | 81  | 85  | 98,9  |   |   |   |  |                         | 0,35 |
|                                                                                    | 100        | 46                                         | 100 | 104 | 118,9 |   |   |   |  |                         | 0,57 |

|                                                                                     |            |                                                                                 |     |     |   |   |   |   |   |                         |      |  |
|-------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------|-----|-----|---|---|---|---|---|-------------------------|------|--|
| Welding union - complete<br>Anschweißverschraubung - komplett                       | 22320      | Welding union 22320, DIN 11 853-1<br>Anschweißverschraubung 22320, DIN 11 853-1 |     |     |   |   |   |   |   |                         |      |  |
|                                                                                     | DIN 11 853 |                                                                                 |     |     |   |   |   |   |   |                         |      |  |
|  | DN         | A                                                                               | B   | C   | D | E | F | R | L | závit DIN 405<br>Rd x s | kg   |  |
|                                                                                     | 10         | 32                                                                              | 10  | 38  |   |   |   |   |   | 28 x 1/8"               | 0,14 |  |
|                                                                                     | 15         | 32                                                                              | 16  | 44  |   |   |   |   |   | 34 x 1/8"               | 0,18 |  |
|                                                                                     | 20         | 34                                                                              | 20  | 54  |   |   |   |   |   | 44 x 1/6"               | 0,30 |  |
|                                                                                     | 25         | 42                                                                              | 26  | 63  |   |   |   |   |   | 52 x 1/6"               | 0,41 |  |
|                                                                                     | 32         | 48                                                                              | 32  | 70  |   |   |   |   |   | 58 x 1/6"               | 0,48 |  |
|                                                                                     | 40         | 50                                                                              | 38  | 78  |   |   |   |   |   | 65 x 1/6"               | 0,57 |  |
|                                                                                     | 50         | 54                                                                              | 50  | 92  |   |   |   |   |   | 78 x 1/6"               | 0,78 |  |
|                                                                                     | 65         | 62                                                                              | 66  | 112 |   |   |   |   |   | 95 x 1/6"               | 1,27 |  |
|                                                                                     | 80         | 72                                                                              | 81  | 127 |   |   |   |   |   | 110 x 1/4"              | 1,76 |  |
|                                                                                     | 100        | 86                                                                              | 100 | 148 |   |   |   |   |   | 130 x 1/4"              | 2,40 |  |
|                                                                                     |            |                                                                                 |     |     |   |   |   |   |   |                         |      |  |

|                                                                                     |            |                      |     |   |   |   |   |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|------------|----------------------|-----|---|---|---|---|---|---|---|--------------------------|----|
| Gasket<br>Dichtung                                                                  | 72020      | Dimensions • Baumaße |     |   |   |   |   |   |   |   |                          |    |
|                                                                                     | DIN 11 853 | DN                   | A   | B | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 10         | 3,5                  | 12  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 15         | 3,5                  | 18  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 20         | 3,5                  | 22  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 25         | 3,5                  | 28  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 32         | 5                    | 34  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 40         | 5                    | 40  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 50         | 5                    | 52  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 65         | 5                    | 68  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 80         | 5                    | 83  |   |   |   |   |   |   |   |                          |    |
|                                                                                     | 100        | 5                    | 102 |   |   |   |   |   |   |   |                          |    |
|                                                                                     |            |                      |     |   |   |   |   |   |   |   |                          |    |

|                                                                                   |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|-----------------------------------------------------------------------------------|-----------------------|--------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding male<br>Anschweißgewindestutzen                                           | <b>22460</b>          | Welding union 22490, DIN 11 864-1          |          |          |          |          |          |          |          |                                  |           |
|                                                                                   | <b>DIN 11 864-1-A</b> | Anschweißverschraubung 22490, DIN 11 864-1 |          |          |          |          |          |          |          |                                  |           |
|  | <b>DN</b>             | <b>A</b>                                   | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
| 10                                                                                | 41                    | 10                                         | 13       |          |          |          |          |          |          | 28 x 1/8"                        | 0,05      |
| 15                                                                                | 41                    | 16                                         | 19       |          |          |          |          |          |          | 34 x 1/8"                        | 0,07      |
| 20                                                                                | 43                    | 20                                         | 23       |          |          |          |          |          |          | 44 x 1/6"                        | 0,13      |
| 25                                                                                | 43                    | 26                                         | 29       |          |          |          |          |          |          | 52 x 1/6"                        | 0,16      |
| 32                                                                                | 48                    | 32                                         | 35       |          |          |          |          |          |          | 58 x 1/6"                        | 0,19      |
| 40                                                                                | 48                    | 38                                         | 41       |          |          |          |          |          |          | 65 x 1/6"                        | 0,22      |
| 50                                                                                | 48                    | 50                                         | 53       |          |          |          |          |          |          | 78 x 1/6"                        | 0,30      |
| 65                                                                                | 60                    | 66                                         | 70       |          |          |          |          |          |          | 95 x 1/6"                        | 0,48      |
| 80                                                                                | 64                    | 81                                         | 85       |          |          |          |          |          |          | 110 x 1/4"                       | 0,72      |
| 100                                                                               | 64                    | 100                                        | 104      |          |          |          |          |          |          | 130 x 1/4"                       | 0,84      |
|                                                                                   |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                   |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                   |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                   |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                   |                       |                                            |          |          |          |          |          |          |          |                                  |           |

|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|-------------------------------------------------------------------------------------|-----------------------|--------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding liner<br>Anschweißkegelstutzen                                              | <b>22470</b>          | Welding union 22490, DIN 11 864-1          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     | <b>DIN 11 864-1-A</b> | Anschweißverschraubung 22490, DIN 11 864-1 |          |          |          |          |          |          |          |                                  |           |
|  | <b>DN</b>             | <b>A</b>                                   | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
| 10                                                                                  | 39                    | 10                                         | 13       | 21,9     |          |          |          |          |          |                                  | 0,03      |
| 15                                                                                  | 39                    | 16                                         | 19       | 27,9     |          |          |          |          |          |                                  | 0,04      |
| 20                                                                                  | 38                    | 20                                         | 23       | 35,9     |          |          |          |          |          |                                  | 0,06      |
| 25                                                                                  | 40                    | 26                                         | 29       | 42,9     |          |          |          |          |          |                                  | 0,10      |
| 32                                                                                  | 47                    | 32                                         | 35       | 48,9     |          |          |          |          |          |                                  | 0,12      |
| 40                                                                                  | 47                    | 38                                         | 41       | 54,9     |          |          |          |          |          |                                  | 0,14      |
| 50                                                                                  | 48                    | 50                                         | 53       | 66,9     |          |          |          |          |          |                                  | 0,20      |
| 65                                                                                  | 61                    | 66                                         | 70       | 84,9     |          |          |          |          |          |                                  | 0,38      |
| 80                                                                                  | 61                    | 81                                         | 85       | 98,9     |          |          |          |          |          |                                  | 0,44      |
| 100                                                                                 | 66                    | 100                                        | 104      | 118,9    |          |          |          |          |          |                                  | 0,67      |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |

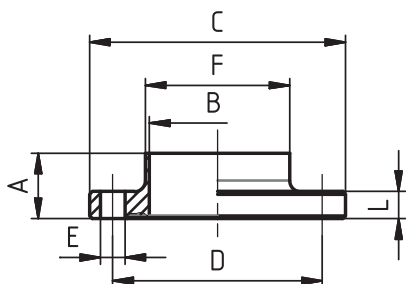
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|-------------------------------------------------------------------------------------|-----------------------|--------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------------------------------|-----------|
| Welding union - complete<br>Anschweißverschraubung - komplett                       | <b>22490</b>          | Welding union 22490, DIN 11 864-1          |          |          |          |          |          |          |          |                                  |           |
|                                                                                     | <b>DIN 11 864-1-A</b> | Anschweißverschraubung 22490, DIN 11 864-1 |          |          |          |          |          |          |          |                                  |           |
|  | <b>DN</b>             | <b>A</b>                                   | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>thread DIN 405<br/>Rd x s</b> | <b>kg</b> |
| 10                                                                                  | 76                    | 10                                         | 38       |          |          |          |          |          |          | 28x1/8"                          | 0,08      |
| 15                                                                                  | 76                    | 16                                         | 44       |          |          |          |          |          |          | 34x1/8"                          | 0,11      |
| 20                                                                                  | 76                    | 20                                         | 54       |          |          |          |          |          |          | 44x1/6"                          | 0,19      |
| 25                                                                                  | 77                    | 26                                         | 63       |          |          |          |          |          |          | 52x1/6"                          | 0,26      |
| 32                                                                                  | 88                    | 32                                         | 70       |          |          |          |          |          |          | 58x1/6"                          | 0,31      |
| 40                                                                                  | 88                    | 38                                         | 78       |          |          |          |          |          |          | 65x1/6"                          | 0,36      |
| 50                                                                                  | 89                    | 50                                         | 92       |          |          |          |          |          |          | 78x1/6"                          | 0,50      |
| 65                                                                                  | 113                   | 66                                         | 112      |          |          |          |          |          |          | 95x1/6"                          | 0,86      |
| 80                                                                                  | 117                   | 81                                         | 127      |          |          |          |          |          |          | 110x1/4"                         | 1,16      |
| 100                                                                                 | 120                   | 100                                        | 148      |          |          |          |          |          |          | 130x1/4"                         | 1,51      |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |
|                                                                                     |                       |                                            |          |          |          |          |          |          |          |                                  |           |

Hygienic flange "BF"  
Hygiene Bundflansch "BF"

**22850 (BF)**

**DIN 11 853**

Hygienic flange connection PN10 DIN 11853  
Hygiene flanschverbindung PN 10 DIN 11853



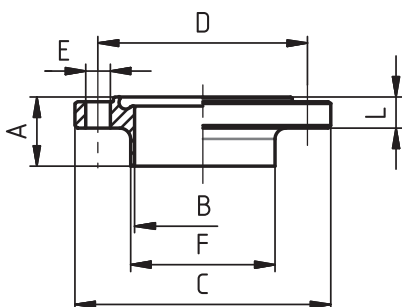
| DN  | A  | B   | C   | D   | E    | F   | R | L  | závit DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|-----|------|-----|---|----|-------------------------|------|
| 10  | 24 | 10  | 54  | 37  | 9x4  | 13  |   | 10 |                         | 0,16 |
| 15  | 24 | 16  | 59  | 42  | 9x4  | 19  |   | 10 |                         | 0,18 |
| 20  | 24 | 20  | 64  | 47  | 9x4  | 23  |   | 10 |                         | 0,21 |
| 25  | 24 | 26  | 70  | 53  | 9x4  | 29  |   | 10 |                         | 0,25 |
| 32  | 24 | 32  | 76  | 59  | 9x4  | 35  |   | 10 |                         | 0,28 |
| 40  | 24 | 38  | 82  | 65  | 9x4  | 41  |   | 10 |                         | 0,32 |
| 50  | 24 | 50  | 94  | 77  | 9x4  | 53  |   | 10 |                         | 0,39 |
| 65  | 24 | 66  | 113 | 95  | 9x8  | 70  |   | 10 |                         | 0,52 |
| 80  | 26 | 81  | 133 | 112 | 11x8 | 85  |   | 12 |                         | 0,80 |
| 100 | 26 | 100 | 159 | 137 | 11x8 | 104 |   | 14 |                         | 1,29 |
| 125 | 28 | 125 | 183 | 161 | 11x8 | 129 |   | 14 |                         | 1,54 |
| 150 | 28 | 150 | 213 | 188 | 14x8 | 154 |   | 16 |                         | 2,19 |
|     |    |     |     |     |      |     |   |    |                         |      |
|     |    |     |     |     |      |     |   |    |                         |      |
|     |    |     |     |     |      |     |   |    |                         |      |
|     |    |     |     |     |      |     |   |    |                         |      |

Hygienic flange "NF"  
Hygiene Bundflansch "NF"

**22860 (NF)**

**DIN 11 853**

Hygienic flange connection PN10 DIN 11853  
Hygiene flanschverbindung PN 10 DIN 11853



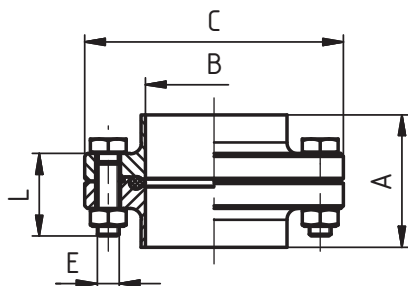
| DN  | A    | B   | C   | D   | E    | F   | R | L    | závit DIN 405<br>Rd x s | kg   |
|-----|------|-----|-----|-----|------|-----|---|------|-------------------------|------|
| 10  | 25,5 | 10  | 54  | 37  | 9x4  | 13  |   | 11,5 |                         | 0,16 |
| 15  | 25,5 | 16  | 59  | 42  | 9x4  | 19  |   | 11,5 |                         | 0,18 |
| 20  | 25,5 | 20  | 64  | 47  | 9x4  | 23  |   | 11,5 |                         | 0,21 |
| 25  | 25,5 | 26  | 70  | 53  | 9x4  | 29  |   | 11,5 |                         | 0,25 |
| 32  | 25,5 | 32  | 76  | 59  | 9x4  | 35  |   | 11,5 |                         | 0,28 |
| 40  | 25,5 | 38  | 82  | 65  | 9x4  | 41  |   | 11,5 |                         | 0,32 |
| 50  | 25,5 | 50  | 94  | 77  | 9x4  | 53  |   | 11,5 |                         | 0,39 |
| 65  | 25,5 | 66  | 113 | 95  | 9x8  | 70  |   | 11,5 |                         | 0,52 |
| 80  | 27,5 | 81  | 133 | 112 | 11x8 | 85  |   | 13,5 |                         | 0,80 |
| 100 | 27,5 | 100 | 159 | 137 | 11x8 | 104 |   | 15,5 |                         | 1,29 |
| 125 | 29,5 | 125 | 183 | 161 | 11x8 | 129 |   | 15,5 |                         | 1,54 |
| 150 | 29,5 | 150 | 213 | 188 | 14x8 | 154 |   | 17,5 |                         | 2,19 |
|     |      |     |     |     |      |     |   |      |                         |      |
|     |      |     |     |     |      |     |   |      |                         |      |
|     |      |     |     |     |      |     |   |      |                         |      |
|     |      |     |     |     |      |     |   |      |                         |      |

Hygienic flange connection PN10 -  
complete  
Hygiene flanschverbindung PN 10 - komplett

**22870**

**DIN 11 853**

Hygienic flange connection PN10 DIN 11853  
Hygiene flanschverbindung PN 10 DIN 11853



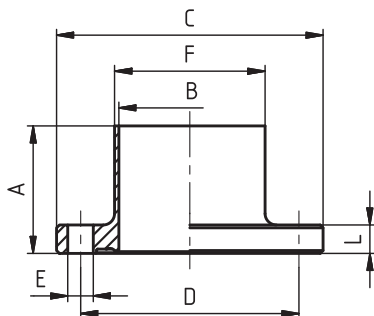
| DN  | A  | B   | C   | D | E       | F | R | L  | závit DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|---|---------|---|---|----|-------------------------|------|
| 10  | 48 | 10  | 54  |   | 4 x M8  |   |   | 28 |                         | 0,41 |
| 15  | 48 | 16  | 59  |   | 4 x M8  |   |   | 28 |                         | 0,46 |
| 20  | 48 | 20  | 64  |   | 4 x M8  |   |   | 28 |                         | 0,52 |
| 25  | 48 | 26  | 70  |   | 4 x M8  |   |   | 28 |                         | 0,60 |
| 32  | 48 | 32  | 76  |   | 4 x M8  |   |   | 28 |                         | 0,66 |
| 40  | 48 | 38  | 82  |   | 4 x M8  |   |   | 28 |                         | 0,73 |
| 50  | 48 | 50  | 94  |   | 4 x M8  |   |   | 28 |                         | 0,87 |
| 65  | 48 | 66  | 113 |   | 8 x M8  |   |   | 28 |                         | 1,21 |
| 80  | 52 | 81  | 133 |   | 8 x M10 |   |   | 35 |                         | 1,96 |
| 100 | 52 | 100 | 159 |   | 8 x M10 |   |   | 40 |                         | 2,97 |
| 125 | 56 | 125 | 183 |   | 8 x M10 |   |   | 40 |                         | 3,47 |
| 150 | 56 | 150 | 213 |   | 8 x M12 |   |   | 45 |                         | 5,02 |
|     |    |     |     |   |         |   |   |    |                         |      |
|     |    |     |     |   |         |   |   |    |                         |      |
|     |    |     |     |   |         |   |   |    |                         |      |
|     |    |     |     |   |         |   |   |    |                         |      |

Welding aseptic flange "NF"  
Aseptic Bundflansch "NF"

**22910 (BF)**

**DIN 11 864-2-A**

Aseptic flange connection PN 10 DIN 11864  
Aseptic flanschverbindung PN 10 DIN 11864



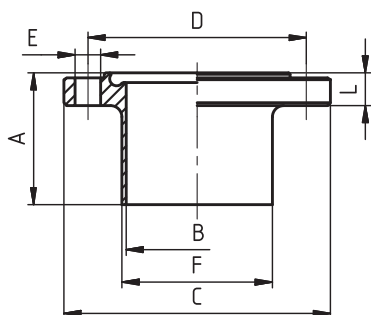
| DN  | A  | B   | C   | D   | E    | F   | R | L  | závit DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|-----|------|-----|---|----|-------------------------|------|
| 10  | 40 | 10  | 54  | 37  | 9x4  | 13  |   | 10 |                         | 0,16 |
| 15  | 40 | 16  | 59  | 42  | 9x4  | 19  |   | 10 |                         | 0,18 |
| 20  | 40 | 20  | 64  | 47  | 9x4  | 23  |   | 10 |                         | 0,21 |
| 25  | 40 | 26  | 70  | 53  | 9x4  | 29  |   | 10 |                         | 0,25 |
| 32  | 45 | 32  | 76  | 59  | 9x4  | 35  |   | 10 |                         | 0,28 |
| 40  | 45 | 38  | 82  | 65  | 9x4  | 41  |   | 10 |                         | 0,32 |
| 50  | 45 | 50  | 94  | 77  | 9x4  | 53  |   | 10 |                         | 0,39 |
| 65  | 54 | 66  | 113 | 95  | 9x8  | 70  |   | 10 |                         | 0,52 |
| 80  | 58 | 81  | 133 | 112 | 11x8 | 85  |   | 12 |                         | 0,80 |
| 100 | 58 | 100 | 159 | 137 | 11x8 | 104 |   | 14 |                         | 1,29 |
| 125 | 60 | 125 | 183 | 161 | 11x8 | 129 |   | 14 |                         | 1,54 |
| 150 | 60 | 150 | 213 | 188 | 14x8 | 154 |   | 16 |                         | 2,19 |
|     |    |     |     |     |      |     |   |    |                         |      |
|     |    |     |     |     |      |     |   |    |                         |      |
|     |    |     |     |     |      |     |   |    |                         |      |
|     |    |     |     |     |      |     |   |    |                         |      |

Welding aseptic neck "NF"  
Aseptic Bundflansch "NF"

**22920 (NF)**

**DIN 11 864-2-A**

Aseptic flange connection PN 10 DIN 11864  
Aseptic flanschverbindung PN 10 DIN 11864



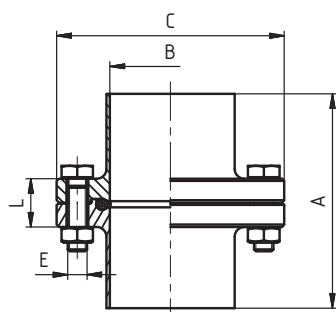
| DN  | A    | B   | C   | D   | E    | F   | R | L    | závit DIN 405<br>Rd x s | kg   |
|-----|------|-----|-----|-----|------|-----|---|------|-------------------------|------|
| 10  | 41,5 | 10  | 54  | 37  | 9x4  | 13  |   | 11,5 |                         | 0,16 |
| 15  | 41,5 | 16  | 59  | 42  | 9x4  | 19  |   | 11,5 |                         | 0,18 |
| 20  | 41,5 | 20  | 64  | 47  | 9x4  | 23  |   | 11,5 |                         | 0,21 |
| 25  | 41,5 | 26  | 70  | 53  | 9x4  | 29  |   | 11,5 |                         | 0,25 |
| 32  | 46,5 | 32  | 76  | 59  | 9x4  | 35  |   | 11,5 |                         | 0,28 |
| 40  | 46,5 | 38  | 82  | 65  | 9x4  | 41  |   | 11,5 |                         | 0,32 |
| 50  | 46,5 | 50  | 94  | 77  | 9x4  | 53  |   | 11,5 |                         | 0,39 |
| 65  | 55,5 | 66  | 113 | 95  | 9x8  | 70  |   | 11,5 |                         | 0,52 |
| 80  | 59,5 | 81  | 133 | 112 | 11x8 | 85  |   | 13,5 |                         | 0,80 |
| 100 | 59,5 | 100 | 159 | 137 | 11x8 | 104 |   | 15,5 |                         | 1,29 |
| 125 | 61,5 | 125 | 183 | 161 | 11x8 | 129 |   | 15,5 |                         | 1,54 |
| 150 | 61,5 | 150 | 213 | 188 | 14x8 | 154 |   | 17,5 |                         | 2,19 |
|     |      |     |     |     |      |     |   |      |                         |      |
|     |      |     |     |     |      |     |   |      |                         |      |
|     |      |     |     |     |      |     |   |      |                         |      |
|     |      |     |     |     |      |     |   |      |                         |      |

Aseptic flange connection PN10 -  
complete  
Aseptic flanschverbindung PN 10  
- komplett

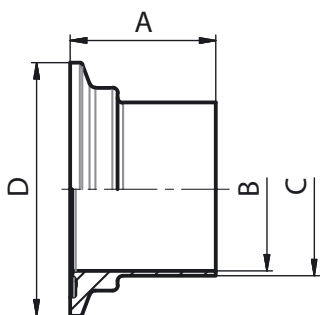
**22930**

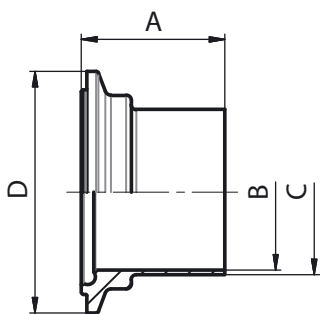
**DIN 11 864-2-A**

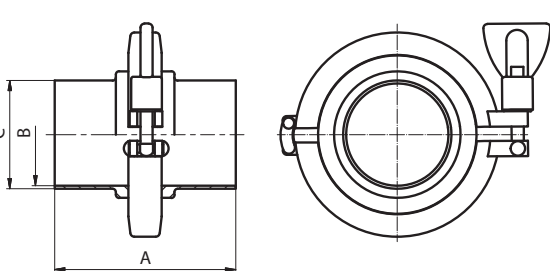
Aseptic flange connection PN 10 DIN 11864  
Aseptic flanschverbindung PN 10 DIN 11864

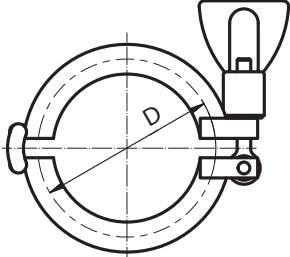


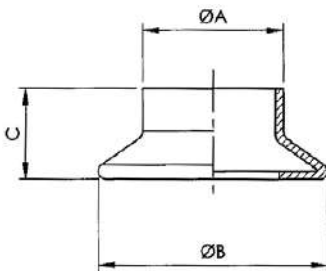
| DN  | A   | B   | C   | D | E       | F | R | L  | závit DIN 405<br>Rd x s | kg |
|-----|-----|-----|-----|---|---------|---|---|----|-------------------------|----|
| 10  | 80  | 10  | 54  |   | 4 x M8  |   |   | 28 |                         |    |
| 15  | 80  | 16  | 59  |   | 4 x M8  |   |   | 28 |                         |    |
| 20  | 80  | 20  | 64  |   | 4 x M8  |   |   | 28 |                         |    |
| 25  | 80  | 26  | 70  |   | 4 x M8  |   |   | 28 |                         |    |
| 32  | 90  | 32  | 76  |   | 4 x M8  |   |   | 28 |                         |    |
| 40  | 90  | 38  | 82  |   | 4 x M8  |   |   | 28 |                         |    |
| 50  | 90  | 50  | 94  |   | 4 x M8  |   |   | 28 |                         |    |
| 65  | 108 | 66  | 113 |   | 8 x M8  |   |   | 28 |                         |    |
| 80  | 116 | 81  | 133 |   | 8 x M10 |   |   | 35 |                         |    |
| 100 | 116 | 100 | 159 |   | 8 x M10 |   |   | 40 |                         |    |
| 125 | 120 | 125 | 183 |   | 8 x M10 |   |   | 40 |                         |    |
| 150 | 120 | 150 | 213 |   | 8 x M12 |   |   | 45 |                         |    |
|     |     |     |     |   |         |   |   |    |                         |    |
|     |     |     |     |   |         |   |   |    |                         |    |
|     |     |     |     |   |         |   |   |    |                         |    |
|     |     |     |     |   |         |   |   |    |                         |    |

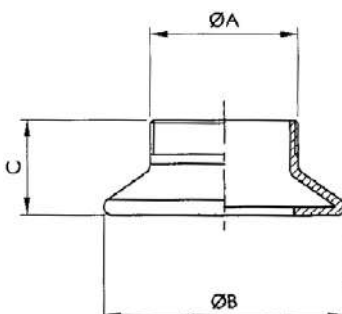
| Clamp ferrule S (BKS)<br>Klampsutzen S (BKS)                                      | 22950 (BKS) | Clamp union - S - DIN 11864-3<br>Clampverbindung - S - DIN 11864-3 |     |     |      |   |   |   |   |                          |    |
|-----------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------|-----|-----|------|---|---|---|---|--------------------------|----|
|                                                                                   | DIN 11864-3 |                                                                    |     |     |      |   |   |   |   |                          |    |
|  | DN          | A                                                                  | B   | C   | D    | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|                                                                                   | 10          | 38                                                                 | 10  | 13  | 34   |   |   |   |   |                          |    |
|                                                                                   | 15          | 38                                                                 | 16  | 19  | 34   |   |   |   |   |                          |    |
|                                                                                   | 20          | 38                                                                 | 20  | 23  | 50,5 |   |   |   |   |                          |    |
|                                                                                   | 25          | 38,5                                                               | 26  | 29  | 50,5 |   |   |   |   |                          |    |
|                                                                                   | 32          | 44                                                                 | 32  | 35  | 50,5 |   |   |   |   |                          |    |
|                                                                                   | 40          | 44                                                                 | 38  | 41  | 64   |   |   |   |   |                          |    |
|                                                                                   | 50          | 44,5                                                               | 50  | 53  | 77,5 |   |   |   |   |                          |    |
|                                                                                   | 65          | 56,5                                                               | 66  | 70  | 91   |   |   |   |   |                          |    |
|                                                                                   | 80          | 58,5                                                               | 81  | 85  | 106  |   |   |   |   |                          |    |
|                                                                                   | 100         | 60                                                                 | 100 | 104 | 130  |   |   |   |   |                          |    |

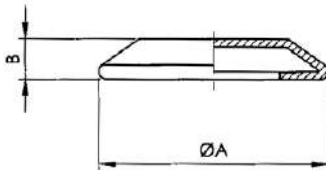
| Clamp ferrule S (NKS)<br>Klampsutzen S (NKS)                                       | 22960 (NKS) | Clamp union - S - DIN 11864-3<br>Clampverbindung - S - DIN 11864-3 |     |     |      |   |   |   |   |                          |    |
|------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------|-----|-----|------|---|---|---|---|--------------------------|----|
|                                                                                    | DIN 11864-3 |                                                                    |     |     |      |   |   |   |   |                          |    |
|  | DN          | A                                                                  | B   | C   | D    | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|                                                                                    | 10          | 39,5                                                               | 10  | 13  | 34   |   |   |   |   |                          |    |
|                                                                                    | 15          | 39,5                                                               | 16  | 19  | 34   |   |   |   |   |                          |    |
|                                                                                    | 20          | 39,5                                                               | 20  | 23  | 50,5 |   |   |   |   |                          |    |
|                                                                                    | 25          | 40                                                                 | 26  | 29  | 50,5 |   |   |   |   |                          |    |
|                                                                                    | 32          | 45,5                                                               | 32  | 35  | 50,5 |   |   |   |   |                          |    |
|                                                                                    | 40          | 45,5                                                               | 38  | 41  | 64   |   |   |   |   |                          |    |
|                                                                                    | 50          | 46                                                                 | 50  | 53  | 77,5 |   |   |   |   |                          |    |
|                                                                                    | 65          | 58                                                                 | 66  | 70  | 91   |   |   |   |   |                          |    |
|                                                                                    | 80          | 60                                                                 | 81  | 85  | 106  |   |   |   |   |                          |    |
|                                                                                    | 100         | 61,5                                                               | 100 | 104 | 130  |   |   |   |   |                          |    |

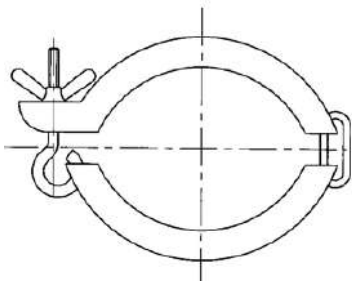
| Clamp union S DIN 11864-3<br>- complete<br>Clampverbindungen S DIN 11864-3<br>- komplett | 22970       | Clamp union - S - DIN 11864-3<br>Clampverbindung - S - DIN 11864-3 |       |     |     |   |   |   |   |   |                          |    |
|------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------|-------|-----|-----|---|---|---|---|---|--------------------------|----|
|                                                                                          | DIN 11864-3 |                                                                    |       |     |     |   |   |   |   |   |                          |    |
|        |             | DN                                                                 | A     | B   | C   | D | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|                                                                                          |             | 10                                                                 | 77,5  | 10  | 13  |   |   |   |   |   |                          |    |
|                                                                                          |             | 15                                                                 | 77,5  | 16  | 19  |   |   |   |   |   |                          |    |
|                                                                                          |             | 20                                                                 | 77,5  | 20  | 23  |   |   |   |   |   |                          |    |
|                                                                                          |             | 25                                                                 | 78,5  | 26  | 29  |   |   |   |   |   |                          |    |
|                                                                                          |             | 32                                                                 | 89,5  | 32  | 35  |   |   |   |   |   |                          |    |
|                                                                                          |             | 40                                                                 | 89,5  | 38  | 41  |   |   |   |   |   |                          |    |
|                                                                                          |             | 50                                                                 | 90,5  | 50  | 53  |   |   |   |   |   |                          |    |
|                                                                                          |             | 65                                                                 | 114,5 | 66  | 70  |   |   |   |   |   |                          |    |
|                                                                                          |             | 80                                                                 | 118,5 | 81  | 85  |   |   |   |   |   |                          |    |
|                                                                                          |             | 100                                                                | 121,5 | 100 | 104 |   |   |   |   |   |                          |    |

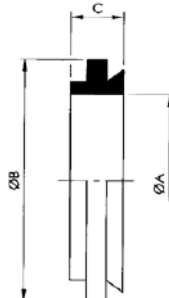
|                                                                                     |           |                      |       |      |       |             |   |   |                         |    |  |
|-------------------------------------------------------------------------------------|-----------|----------------------|-------|------|-------|-------------|---|---|-------------------------|----|--|
| Clamp<br>TC-Klammer leichte Ausführung                                              | 21220     | Dimensions • Baumaße |       |      |       |             |   |   |                         |    |  |
|                                                                                     |           | DN                   | SMS   | DIN  | D     | DIN 11864-3 | R | L | závit DIN 405<br>Rd x s | kg |  |
|  | 10-20     | -                    | 10-20 | 34   | 10-15 |             |   |   |                         |    |  |
|                                                                                     | 1"-1 1/2" | 25                   | 25    | 50,5 | 20    |             |   |   |                         |    |  |
|                                                                                     | 1"-1 1/2" | -                    | 32    | 50,5 | 25    |             |   |   |                         |    |  |
|                                                                                     | 1"-1 1/2" | 38                   | 40    | 50,5 | 32    |             |   |   |                         |    |  |
|                                                                                     | 2"        | 51                   | 50    | 64   | 40    |             |   |   |                         |    |  |
|                                                                                     | 2 1/2"    | 63,5                 | -     | 77,5 | 50    |             |   |   |                         |    |  |
|                                                                                     | 3"        | 76,1                 | 65    | 91   | 65    |             |   |   |                         |    |  |
|                                                                                     | 80        | -                    | 80    | 106  | 80    |             |   |   |                         |    |  |
|                                                                                     | 115       | -                    | -     | 130  | 100   |             |   |   |                         |    |  |
|                                                                                     |           |                      |       |      |       |             |   |   |                         |    |  |
|                                                                                     |           |                      |       |      |       |             |   |   |                         |    |  |
|                                                                                     |           |                      |       |      |       |             |   |   |                         |    |  |

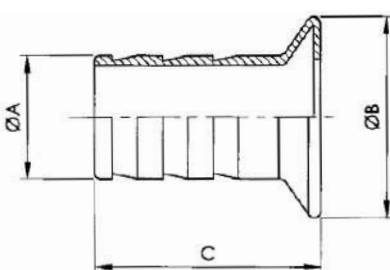
|                                                                                   |       |                      |     |    |   |   |   |   |   |   |                          |      |  |
|-----------------------------------------------------------------------------------|-------|----------------------|-----|----|---|---|---|---|---|---|--------------------------|------|--|
| Long welding garolla fitting<br>Anschw. Garollastutzen                            | 23400 | Dimensions • Baumaße |     |    |   |   |   |   |   |   |                          |      |  |
|                                                                                   |       | DN                   | A   | B  | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |  |
|  | 40    | 41                   | 65  | 31 |   |   |   |   |   |   |                          | 0,12 |  |
|                                                                                   | 50    | 46                   | 76  | 34 |   |   |   |   |   |   |                          | 0,20 |  |
|                                                                                   | 60    | 58                   | 87  | 35 |   |   |   |   |   |   |                          | 0,20 |  |
|                                                                                   | 70    | 73                   | 97  | 35 |   |   |   |   |   |   |                          | 0,24 |  |
|                                                                                   | 80    | 86                   | 108 | 36 |   |   |   |   |   |   |                          | 0,28 |  |
|                                                                                   | 100   | 101                  | 129 | 40 |   |   |   |   |   |   |                          |      |  |
|                                                                                   | 120   | 124                  | 158 | 46 |   |   |   |   |   |   |                          |      |  |
|                                                                                   |       |                      |     |    |   |   |   |   |   |   |                          |      |  |
|                                                                                   |       |                      |     |    |   |   |   |   |   |   |                          |      |  |
|                                                                                   |       |                      |     |    |   |   |   |   |   |   |                          |      |  |
|                                                                                   |       |                      |     |    |   |   |   |   |   |   |                          |      |  |

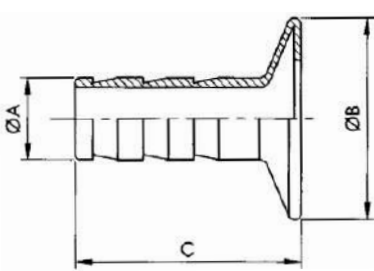
|                                                                                    |       |                      |     |    |   |   |   |   |   |   |                          |    |
|------------------------------------------------------------------------------------|-------|----------------------|-----|----|---|---|---|---|---|---|--------------------------|----|
| Half garolla fitting ext. thread<br>Garollastutzen mit außengewinde                | 23440 | Dimensions • Baumaße |     |    |   |   |   |   |   |   |                          |    |
|                                                                                    |       | DN                   | A   | B  | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 40    | 1¼" G                | 65  | 31 |   |   |   |   |   |   |                          |    |
|                                                                                    | 50    | 1½" G                | 76  | 34 |   |   |   |   |   |   |                          |    |
|                                                                                    | 60    | 2" G                 | 87  | 35 |   |   |   |   |   |   |                          |    |
|                                                                                    | 70    | 2½" G                | 97  | 35 |   |   |   |   |   |   |                          |    |
|                                                                                    | 80    | 3" G                 | 108 | 36 |   |   |   |   |   |   |                          |    |
|                                                                                    | 100   | 4" G                 | 129 | 40 |   |   |   |   |   |   |                          |    |
|                                                                                    | 120   | 5" G                 | 158 | 46 |   |   |   |   |   |   |                          |    |
|                                                                                    |       |                      |     |    |   |   |   |   |   |   |                          |    |
|                                                                                    |       |                      |     |    |   |   |   |   |   |   |                          |    |
|                                                                                    |       |                      |     |    |   |   |   |   |   |   |                          |    |
|                                                                                    |       |                      |     |    |   |   |   |   |   |   |                          |    |

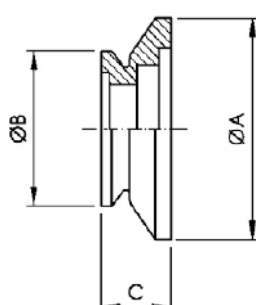
|                                                                                     |       |                      |    |   |   |   |   |   |   |   |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|----|---|---|---|---|---|---|---|--------------------------|------|
| Garolla cap<br>Klemmstöpsel                                                         | 23480 | Dimensions • Baumaße |    |   |   |   |   |   |   |   |                          |      |
|                                                                                     |       | DN                   | A  | B | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 40    | 65                   | 19 |   |   |   |   |   |   |   |                          | 0,10 |
|                                                                                     | 50    | 76                   | 19 |   |   |   |   |   |   |   |                          | 0,14 |
|                                                                                     | 60    | 87                   | 19 |   |   |   |   |   |   |   |                          |      |
|                                                                                     | 70    | 97                   | 19 |   |   |   |   |   |   |   |                          |      |
|                                                                                     | 80    | 108                  | 19 |   |   |   |   |   |   |   |                          |      |
|                                                                                     | 100   | 129                  | 20 |   |   |   |   |   |   |   |                          | 0,38 |
|                                                                                     | 120   | 158                  | 25 |   |   |   |   |   |   |   |                          |      |
|                                                                                     |       |                      |    |   |   |   |   |   |   |   |                          |      |
|                                                                                     |       |                      |    |   |   |   |   |   |   |   |                          |      |
|                                                                                     |       |                      |    |   |   |   |   |   |   |   |                          |      |
|                                                                                     |       |                      |    |   |   |   |   |   |   |   |                          |      |

|                                                                                     |       |                      |   |   |   |   |   |   |   |    |                          |      |
|-------------------------------------------------------------------------------------|-------|----------------------|---|---|---|---|---|---|---|----|--------------------------|------|
| Clamp for connectors<br>Klemmen für anschluss                                       | 23520 | Dimensions • Baumaße |   |   |   |   |   |   |   |    |                          |      |
|                                                                                     |       | DN                   | A | B | C | D | E | F | R | SW | thread DIN 405<br>Rd x s | kg   |
|  | 40    |                      |   |   |   |   |   |   |   |    |                          | 0,26 |
|                                                                                     | 50    |                      |   |   |   |   |   |   |   |    |                          | 0,28 |
|                                                                                     | 60    |                      |   |   |   |   |   |   |   |    |                          | 0,28 |
|                                                                                     | 70    |                      |   |   |   |   |   |   |   |    |                          | 0,30 |
|                                                                                     | 80    |                      |   |   |   |   |   |   |   |    |                          | 0,36 |
|                                                                                     | 100   |                      |   |   |   |   |   |   |   |    |                          | 0,40 |
|                                                                                     | 120   |                      |   |   |   |   |   |   |   |    |                          |      |
|                                                                                     |       |                      |   |   |   |   |   |   |   |    |                          |      |
|                                                                                     |       |                      |   |   |   |   |   |   |   |    |                          |      |
|                                                                                     |       |                      |   |   |   |   |   |   |   |    |                          |      |
|                                                                                     |       |                      |   |   |   |   |   |   |   |    |                          |      |

|                                                                                   |        |                      |     |   |   |   |   |   |   |    |                          |       |
|-----------------------------------------------------------------------------------|--------|----------------------|-----|---|---|---|---|---|---|----|--------------------------|-------|
| Winery sealing ring<br>Dichtung                                                   | 2352 B | Dimensions • Baumaße |     |   |   |   |   |   |   |    |                          |       |
|                                                                                   |        | DN                   | A   | B | C | D | E | F | R | SW | thread DIN 405<br>Rd x s | kg    |
|  | 40     | 40                   | 62  |   |   |   |   |   |   |    |                          | 0,018 |
|                                                                                   | 50     | 50                   | 72  |   |   |   |   |   |   |    |                          | 0,018 |
|                                                                                   | 60     | 60                   | 82  |   |   |   |   |   |   |    |                          | 0,028 |
|                                                                                   | 70     | 70                   | 94  |   |   |   |   |   |   |    |                          | 0,040 |
|                                                                                   | 80     | 80                   | 104 |   |   |   |   |   |   |    |                          | 0,040 |
|                                                                                   | 100    | 100                  | 124 |   |   |   |   |   |   |    |                          |       |
|                                                                                   | 120    | 120                  | 154 |   |   |   |   |   |   |    |                          |       |
|                                                                                   |        |                      |     |   |   |   |   |   |   |    |                          |       |
|                                                                                   |        |                      |     |   |   |   |   |   |   |    |                          |       |
|                                                                                   |        |                      |     |   |   |   |   |   |   |    |                          |       |
|                                                                                   |        |                      |     |   |   |   |   |   |   |    |                          |       |
|                                                                                   |        |                      |     |   |   |   |   |   |   |    |                          |       |

|                                                                                    |       |                      |     |     |   |   |   |   |   |   |                          |      |
|------------------------------------------------------------------------------------|-------|----------------------|-----|-----|---|---|---|---|---|---|--------------------------|------|
| Garolla hose holder<br>Halber klemmasnschluss                                      | 23600 | Dimensions • Baumaße |     |     |   |   |   |   |   |   |                          |      |
|                                                                                    |       | DN                   | A   | B   | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|  | 40    | 40                   | 65  | 80  |   |   |   |   |   |   |                          | 0,22 |
|                                                                                    | 50    | 50                   | 76  | 90  |   |   |   |   |   |   |                          | 0,32 |
|                                                                                    | 60    | 60                   | 87  | 95  |   |   |   |   |   |   |                          |      |
|                                                                                    | 70    | 70                   | 97  | 100 |   |   |   |   |   |   |                          | 0,44 |
|                                                                                    | 80    | 80                   | 108 | 120 |   |   |   |   |   |   |                          | 0,54 |
|                                                                                    | 100   | 100                  | 129 | 140 |   |   |   |   |   |   |                          |      |
|                                                                                    | 120   | 120                  | 158 | 150 |   |   |   |   |   |   |                          |      |
|                                                                                    |       |                      |     |     |   |   |   |   |   |   |                          |      |
|                                                                                    |       |                      |     |     |   |   |   |   |   |   |                          |      |
|                                                                                    |       |                      |     |     |   |   |   |   |   |   |                          |      |
|                                                                                    |       |                      |     |     |   |   |   |   |   |   |                          |      |

|                                                                                     |       |                                        |     |     |   |   |                          |    |
|-------------------------------------------------------------------------------------|-------|----------------------------------------|-----|-----|---|---|--------------------------|----|
| Garolla hose holder for reduction<br>Reduziert schlauchgarollastutzen               | 23640 | Dimensions • Baumaße                   |     |     |   |   |                          |    |
|                                                                                     |       | DN                                     | A   | B   | C | L | thread DIN 405<br>Rd x s | kg |
|  | 40    | 40 x 20, 40 x 25, 40 x 30, 40 x 35     | 65  | 80  |   |   |                          |    |
|                                                                                     | 50    | 50 x 20, 50 x 25, 50 x 30, 50 x 35     | 76  | 90  |   |   |                          |    |
|                                                                                     | 60    | 60 x 30, 60 x 35, 60 x 40, 60 x 50     | 87  | 95  |   |   |                          |    |
|                                                                                     | 70    | 70 x 35, 70 x 40, 70 x 50, 70 x 60     | 97  | 100 |   |   |                          |    |
|                                                                                     | 80    | 80 x 40, 80 x 50, 80 x 60, 80 x 70     | 108 | 120 |   |   |                          |    |
|                                                                                     | 100   | 100 x 50, 100 x 60, 100 x 70, 100 x 80 | 129 | 140 |   |   |                          |    |
|                                                                                     | 120   | 120 x 80, 120 x 100                    | 158 | 150 |   |   |                          |    |
|                                                                                     |       |                                        |     |     |   |   |                          |    |
|                                                                                     |       |                                        |     |     |   |   |                          |    |
|                                                                                     |       |                                        |     |     |   |   |                          |    |

|                                                                                     |         |                      |     |    |   |   |   |   |   |   |                          |    |
|-------------------------------------------------------------------------------------|---------|----------------------|-----|----|---|---|---|---|---|---|--------------------------|----|
| Garolla reduction<br>Garolla-reduzierstück                                          | 23680   | Dimensions • Baumaße |     |    |   |   |   |   |   |   |                          |    |
|                                                                                     |         | DN                   | A   | B  | C | D | E | F | R | L | thread DIN 405<br>Rd x s | kg |
|  | 50/40   | 76                   | 65  | 55 |   |   |   |   |   |   |                          |    |
|                                                                                     | 60/50   | 87                   | 76  | 60 |   |   |   |   |   |   |                          |    |
|                                                                                     | 70/50   | 98                   | 76  | 62 |   |   |   |   |   |   |                          |    |
|                                                                                     | 70/60   | 98                   | 87  | 64 |   |   |   |   |   |   |                          |    |
|                                                                                     | 80/70   | 108                  | 98  | 68 |   |   |   |   |   |   |                          |    |
|                                                                                     | 100/70  | 129                  | 98  | 70 |   |   |   |   |   |   |                          |    |
|                                                                                     | 100/80  | 129                  | 108 | 75 |   |   |   |   |   |   |                          |    |
|                                                                                     | 120/100 | 158                  | 129 | 85 |   |   |   |   |   |   |                          |    |
|                                                                                     |         |                      |     |    |   |   |   |   |   |   |                          |    |
|                                                                                     |         |                      |     |    |   |   |   |   |   |   |                          |    |
|                                                                                     |         |                      |     |    |   |   |   |   |   |   |                          |    |

## Expanding union

### Einwalzverschraubung

20090

DIN 11 851

## Description



## Expanding union 20090, DIN 11 851

- Simple instalation
- Easy gasket exchange

## Einwalzverschraubung 20090, DIN 11 851

- Einfache die Dichtung austauschen
- Einfache Installation

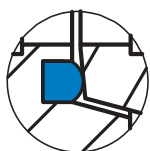
**Dimensions/Baumaße:** DN 10 - DN 150

**Thread / Gewinde:** DIN 405

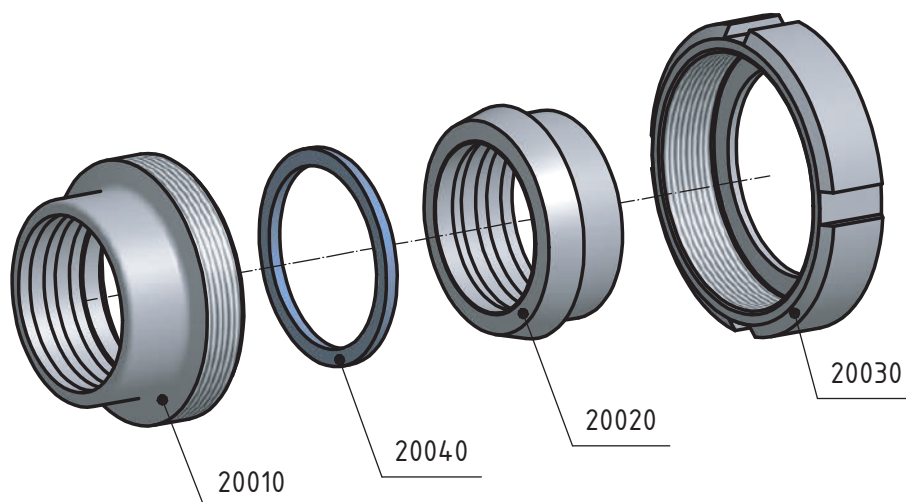
**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtung:** NBR  
EPDM  
Viton  
Silikon  
PTFE

## Komponents / Komponenten



Detail gasket  
Detail der Dichtung



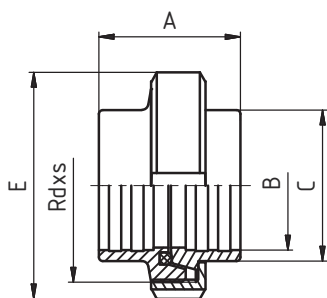
Standard gasket / Standard dichtung - NBR

Expanding union - complete  
Einwalzverschraubung - komplett

20090

DIN 11 851

### Dimensions • Baumaße

[illegible]

**Welding union**

Anschweißverschraubung

**20120**
**DIN 11 851**
**Description**

Beschreibung


**Expanding union 20120, DIN 11 851**

- Simple instalation
- Easy gasket exchange

**Einwalzverschraubung 20120, DIN 11 851**

- Einfache die Dichtung austauschen
- Einfache Installation

**Dimensions/Baumaße:** DN 10 - DN 150

**Thread / Gewinde:** DIN 405

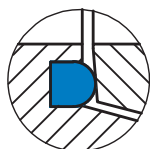
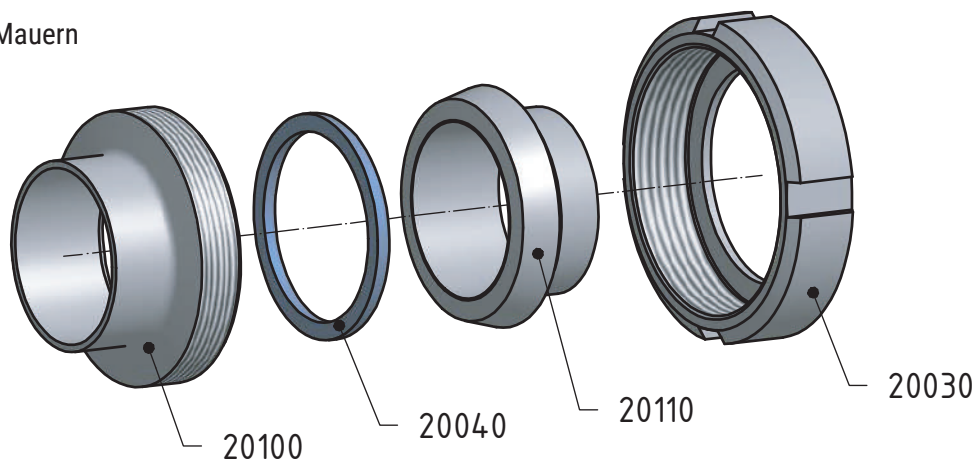
**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtung:** NBR  
EPDM  
Viton  
Silikon  
PTFE

## Komponents / Komponenten

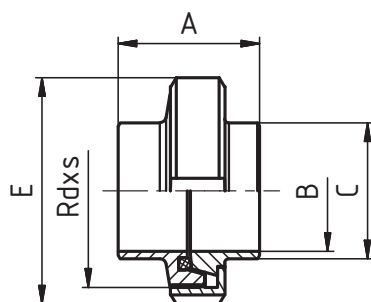
## Strength of the walls / Stärke der Mauern

|              |        |
|--------------|--------|
| DN 10        | 1,5 mm |
| DN 15 - 50   | 2,5 mm |
| DN 65 - 100  | 3,0 mm |
| DN 125 - 150 | 3,5 mm |


 Detail gasket  
Detail der Dichtung


Standard gasket / Standard dichtung - NBR

 Welding union - complete  
Anschweißverschraubung - komplett

**20120**
**DIN 11 851**
**Dimensions • Baumaße**


| DN  | A  | B   | C   | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|---|-----|---|---|---|--------------------------|------|
| 10  | 35 | 10  | 15  |   | 38  |   |   |   | 28 x 1/8"                | 0,17 |
| 15  | 35 | 16  | 21  |   | 44  |   |   |   | 34 x 1/8"                | 0,18 |
| 20  | 37 | 20  | 25  |   | 54  |   |   |   | 44 x 1/6"                | 0,32 |
| 25  | 45 | 26  | 31  |   | 63  |   |   |   | 52 x 1/6"                | 0,40 |
| 32  | 51 | 32  | 37  |   | 70  |   |   |   | 58 x 1/6"                | 0,49 |
| 40  | 53 | 38  | 43  |   | 78  |   |   |   | 65 x 1/6"                | 0,58 |
| 50  | 57 | 50  | 55  |   | 92  |   |   |   | 78 x 1/6"                | 0,84 |
| 65  | 65 | 66  | 72  |   | 112 |   |   |   | 95 x 1/6"                | 1,15 |
| 80  | 75 | 81  | 87  |   | 127 |   |   |   | 110 x 1/4"               | 1,74 |
| 100 | 89 | 100 | 106 |   | 148 |   |   |   | 130 x 1/4"               | 2,46 |
| 125 | 69 | 125 | 132 |   | 178 |   |   |   | 160 x 1/4"               | 3,52 |
| 150 | 74 | 150 | 157 |   | 210 |   |   |   | 190 x 1/4"               | 4,74 |

## Welding union - Type "R" Anschweißverschraubung - Typ "R"

**20120 R**
**DIN 11 851**

### Description Beschreibung



#### Welding union 20120 - R, DIN 11 851

- Simple installation
- Easy gasket exchange

#### Anschweißverschraubung 20120 - R, DIN 11 851

- Einfache die Dichtung austauschen
- Einfache Installation

**Dimensions/Bau Maße:** DN 10 - DN 150

**Thread / Gewinde:** DIN 405

**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

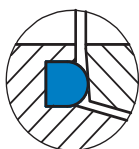
**Gasket / Dichtung:** NBR  
EPDM  
Viton  
Silikon  
PTFE

### Komponents / Komponenten

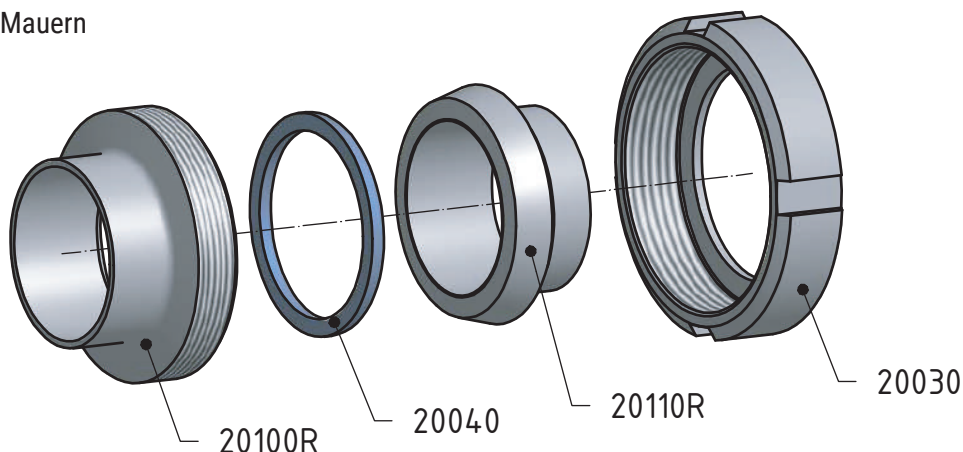
### Strength of the walls / Stärke der Mauern

DN 10 - 50 1,5 mm

DN 50 - 150 2,0 mm



Detail gasket  
Detail der Dichtung

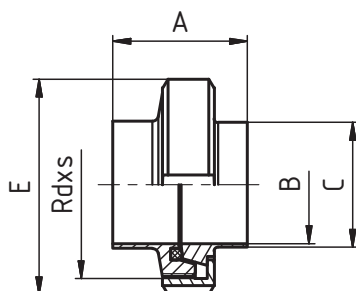


Standard gasket / Standard dichtung - NBR

## Welding union - complete Anschweißverschraubung - komplett

**20120 R**
**DIN 11 851**

### Dimensions • Bau Maße



| DN  | A  | B   | C   | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|---|-----|---|---|---|--------------------------|------|
| 10  | 35 | 10  | 13  |   | 38  |   |   |   | 28 x 1/8"                | 0,13 |
| 15  | 35 | 16  | 19  |   | 44  |   |   |   | 34 x 1/4"                | 0,16 |
| 20  | 37 | 20  | 23  |   | 54  |   |   |   | 44 x 1/6"                | 0,28 |
| 25  | 45 | 26  | 29  |   | 63  |   |   |   | 52 x 1/6"                | 0,37 |
| 32  | 51 | 32  | 35  |   | 70  |   |   |   | 58 x 1/6"                | 0,45 |
| 40  | 53 | 38  | 41  |   | 78  |   |   |   | 65 x 1/6"                | 0,53 |
| 50  | 57 | 50  | 53  |   | 92  |   |   |   | 78 x 1/6"                | 0,67 |
| 65  | 65 | 66  | 70  |   | 112 |   |   |   | 95 x 1/6"                | 1,19 |
| 80  | 75 | 81  | 85  |   | 127 |   |   |   | 110 x 1/4"               | 1,67 |
| 100 | 89 | 100 | 104 |   | 148 |   |   |   | 130 x 1/4"               | 2,32 |
| 125 | 69 | 125 | 129 |   | 178 |   |   |   | 160 x 1/4"               | 3,21 |
| 150 | 74 | 150 | 154 |   | 210 |   |   |   | 190 x 1/4"               | 4,60 |

## Welding union - Type "T" Anschweißverschraubung - Typ "T"

**20120 T**
**Description**  
Beschreibung


### Welding union 20120 - T, DIN 11 851

- Simple installation
- Easy gasket exchange

### Anschweißverschraubung 20120 - T, DIN 11 851

- Einfache die Dichtung austauschen
- Einfache Installation

**Dimensions/Baumaße:** DN 10 - DN 150

**Thread / Gewinde:** DIN 405

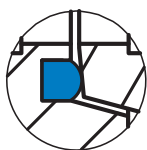
**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtung:** NBR  
EPDM  
Viton  
Silikon  
PTFE

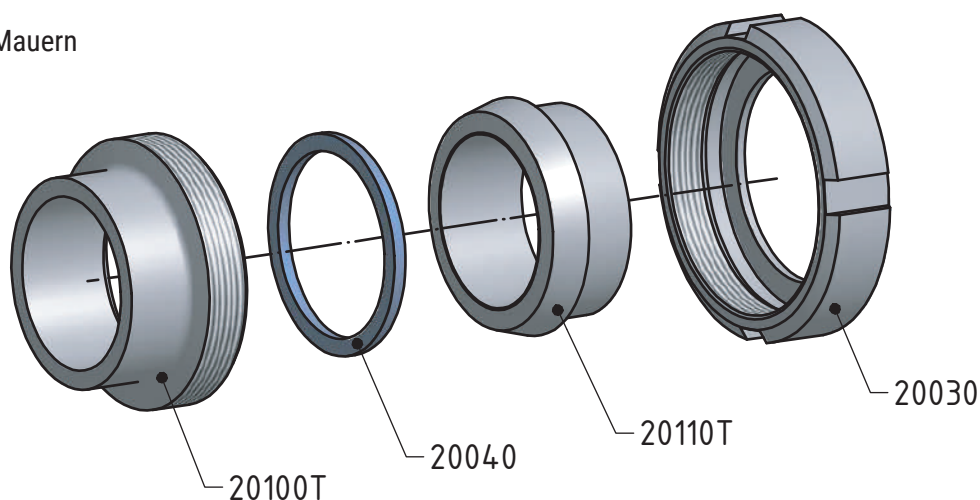
## Komponents / Komponenten

## Strength of the walls / Stärke der Mauern

|            |        |
|------------|--------|
| DN 10 - 15 | 4,0 mm |
| DN 20      | 5,0 mm |
| DN 25 - 32 | 4,5 mm |
| DN 40      | 5,0 mm |
| DN 50      | 5,5 mm |
| DN 65      | 6,5 mm |
| DN 80      | 6,0 mm |
| DN 100     | 7,0 mm |

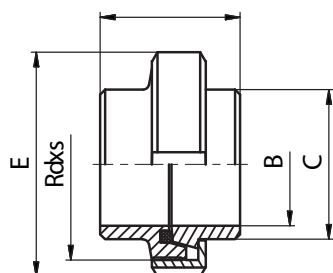


Detail gasket  
Detail der Dichtung



Standard gasket / Standard dichtung - NBR

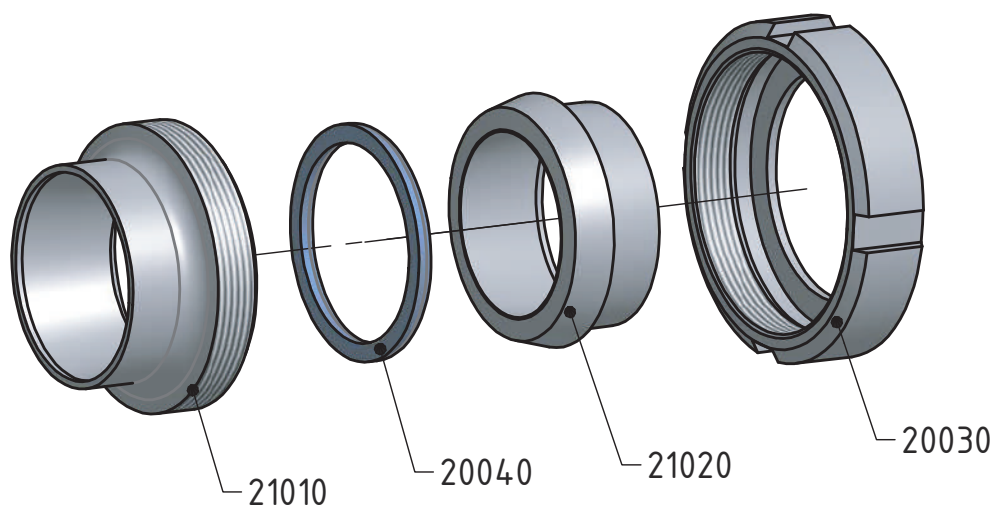
## Welding union - complete Anschweißverschraubung - komplett

**20120 T**
**Dimensions • Baumaße**


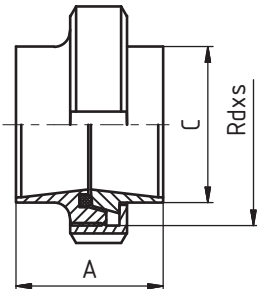
| DN  | A  | B   | C   | D | E   | F | R | L | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|---|-----|---|---|---|--------------------------|------|
| 10  | 35 | 10  | 18  |   | 38  |   |   |   | 28x1/8"                  | 0,19 |
| 15  | 35 | 16  | 24  |   | 44  |   |   |   | 34x1/4"                  | 0,19 |
| 20  | 37 | 20  | 30  |   | 54  |   |   |   | 44x1/6"                  | 0,34 |
| 25  | 45 | 26  | 35  |   | 63  |   |   |   | 52x1/6"                  | 0,45 |
| 32  | 51 | 32  | 41  |   | 70  |   |   |   | 58x1/6"                  | 0,57 |
| 40  | 53 | 38  | 48  |   | 78  |   |   |   | 65x1/6"                  | 0,69 |
| 50  | 57 | 50  | 61  |   | 92  |   |   |   | 78x1/6"                  | 0,96 |
| 65  | 65 | 66  | 79  |   | 112 |   |   |   | 95x1/6"                  | 1,58 |
| 80  | 75 | 81  | 93  |   | 127 |   |   |   | 110x1/4"                 | 2,20 |
| 100 | 89 | 100 | 114 |   | 148 |   |   |   | 130x1/4"                 | 3,12 |
|     |    |     |     |   |     |   |   |   |                          |      |
|     |    |     |     |   |     |   |   |   |                          |      |

| Welding union ISO<br>Anschweißverschraubung ISO                                   | 21030 | Description<br>Beschreibung                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                   | ISO   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|  |       | <b>Welding union 21030 ISO</b> <ul style="list-style-type: none"> <li>- Simple instalation</li> <li>- Easy gasket exchange</li> </ul> <b>Anschweißverschraubung 21030 ISO</b> <ul style="list-style-type: none"> <li>- Einfache die Dichtung austauschen</li> <li>- Einfache Installation</li> </ul> <b>Dimensions/Baumaße:</b> DN 10 - DN 150<br><b>Thread / Gewinde:</b> DIN 405<br><b>Material / Material:</b> 1.4301 (AISI 304)<br>1.4404 (AISI 316L)<br><b>Gasket / Dichtung:</b> NBR<br>EPDM<br>Viton<br>Silikon<br>PTFE |

## Komponents / Komponenten



Standard gasket /Standard Dichtring - EPDM

|                                                                                     |       |                      |   |   |       |   |   |   |   |   |                          |      |  |
|-------------------------------------------------------------------------------------|-------|----------------------|---|---|-------|---|---|---|---|---|--------------------------|------|--|
| Welding union - complete ISO<br>Anschweißverschraubung - komplett ISO               | 21030 | Dimensions • Baumaße |   |   |       |   |   |   |   |   |                          |      |  |
|                                                                                     | ISO   | DN                   | A | B | C     | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |  |
|  | 10    | 34                   |   |   | 18    |   |   |   |   |   | 28x1/8"                  | 0,15 |  |
|                                                                                     | 15    | 34                   |   |   | 21,3  |   |   |   |   |   | 34x1/8"                  | 0,18 |  |
|                                                                                     | 20    | 36                   |   |   | 26,9  |   |   |   |   |   | 44x1/6"                  | 0,30 |  |
|                                                                                     | 25    | 45                   |   |   | 33,7  |   |   |   |   |   | 52x1/6"                  | 0,42 |  |
|                                                                                     | 32    | 51                   |   |   | 42,4  |   |   |   |   |   | 58x1/6"                  | 0,51 |  |
|                                                                                     | 40    | 53                   |   |   | 48,3  |   |   |   |   |   | 65x1/6"                  | 0,61 |  |
|                                                                                     | 50    | 57                   |   |   | 60,3  |   |   |   |   |   | 78x1/6"                  | 0,84 |  |
|                                                                                     | 65    | 65                   |   |   | 76,1  |   |   |   |   |   | 95x1/6"                  | 1,31 |  |
|                                                                                     | 80    | 75                   |   |   | 88,9  |   |   |   |   |   | 110x1/4"                 | 1,80 |  |
|                                                                                     | 100   | 89                   |   |   | 114,3 |   |   |   |   |   | 130x1/4"                 | 2,66 |  |
|                                                                                     |       |                      |   |   |       |   |   |   |   |   |                          |      |  |
|                                                                                     |       |                      |   |   |       |   |   |   |   |   |                          |      |  |

## Welding union SMS

### Anschweißverschraubung SMS

21120

## SMS

### Description

### Beschreibung



## Welding union SMS 21120

- Simple instalation
- Easy gasket exchange

## Anschweißverschraubung SMS 21120

- Einfache die Dichtung austauschen
- Einfache Installation

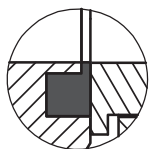
**Dimensions / Baumaße:** DN 10 - DN 150

**Thread / Gewinde:** DIN 405

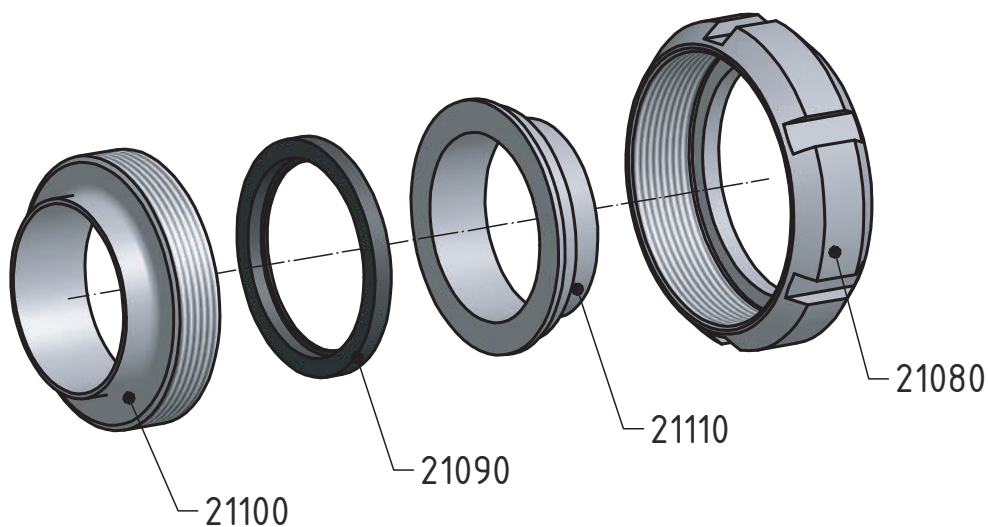
**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtring:** NBR  
EPDM  
Viton  
Silikon  
PTFE

## Komponents / Komponenten



Detail gasket  
Detail der Dichtung



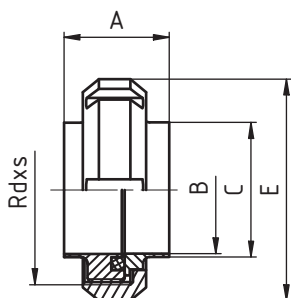
Standard gasket /Standard Dichtring - EPDM

Welding union - complete  
Anschweißverschraubung - komplett

21120

## SMS

## Dimensions • Baumaße

[illegible]

**Clamp union - S - DIN**  
 Clampverbindung - S - DIN

**21250**
**DIN 32 676**
**Description**  
 Beschreibung

**Clamp union - S - DIN 21250**

- Simple instalation
- Easy gasket exchange

**Clampverbindung - S - DIN 21250**

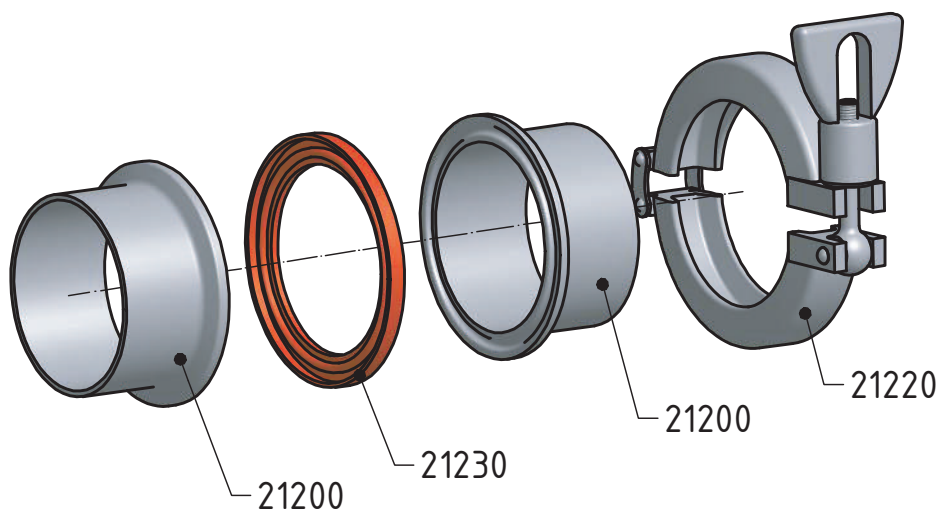
- Einfache die Dichtung austauschen
- Einfache Installation

**Dimensions / Baumaße:** DN 10 - DN 150

**Material / Material:** 1.4301 (AISI 304)  
 1.4404 (AISI 316L)

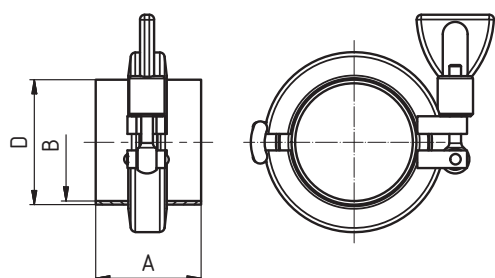
**Gasket / Dichtring:** Silikon  
 PTFE - Viton  
 Viton  
 EPDM

## Komponents / Komponenten


 Detail gasket  
 Detail der Dichtung


Standard gasket /Standard Dichtring - Silikon

**Clamp union - S - DIN - complete**  
 Clampverbindung - S - DIN - komplett

**21250**
**DIN 32 676**
**Dimensions • Baumaße**


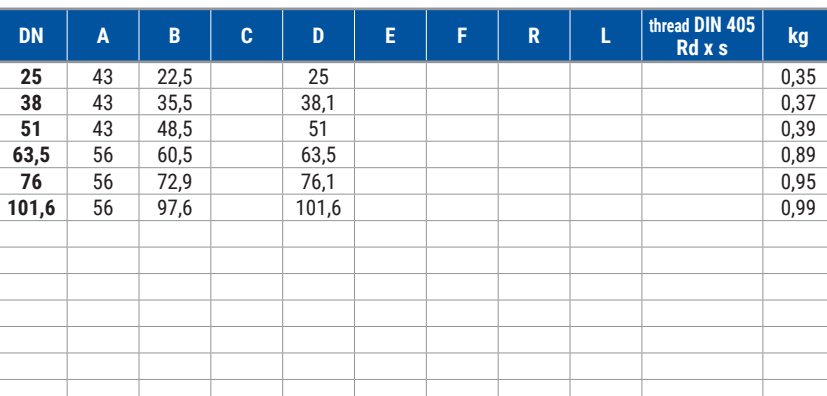
| DN  | A  | B   | C | D   | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|---|-----|---|---|---|---|--------------------------|------|
| 10  | 45 | 10  |   | 13  |   |   |   |   |                          | 0,28 |
| 15  | 45 | 16  |   | 19  |   |   |   |   |                          | 0,28 |
| 20  | 45 | 20  |   | 23  |   |   |   |   |                          | 0,30 |
| 25  | 45 | 26  |   | 29  |   |   |   |   |                          | 0,35 |
| 32  | 45 | 32  |   | 35  |   |   |   |   |                          | 0,35 |
| 40  | 45 | 38  |   | 41  |   |   |   |   |                          | 0,37 |
| 50  | 45 | 50  |   | 53  |   |   |   |   |                          | 0,39 |
| 65  | 58 | 66  |   | 70  |   |   |   |   |                          | 0,89 |
| 80  | 58 | 81  |   | 85  |   |   |   |   |                          | 0,95 |
| 100 | 58 | 100 |   | 104 |   |   |   |   |                          | 0,99 |
| 125 | 58 | 125 |   | 129 |   |   |   |   |                          | 1,15 |
| 150 | 58 | 150 |   | 154 |   |   |   |   |                          | 1,30 |

## Description



Standard gasket /Standard Dichtring - Silikon

### Dimensions • Baumaße



**Welding union**

Anschweißverschraubung

**22320**
**DIN 11 853**
**Description**

Beschreibung


**Welding union 22320, DIN 11 853-1**

- Simple instalation
- Easy gasket exchange

**Anschweißverschraubung 22320, DIN 11 853-1**

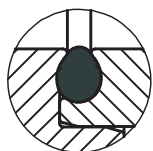
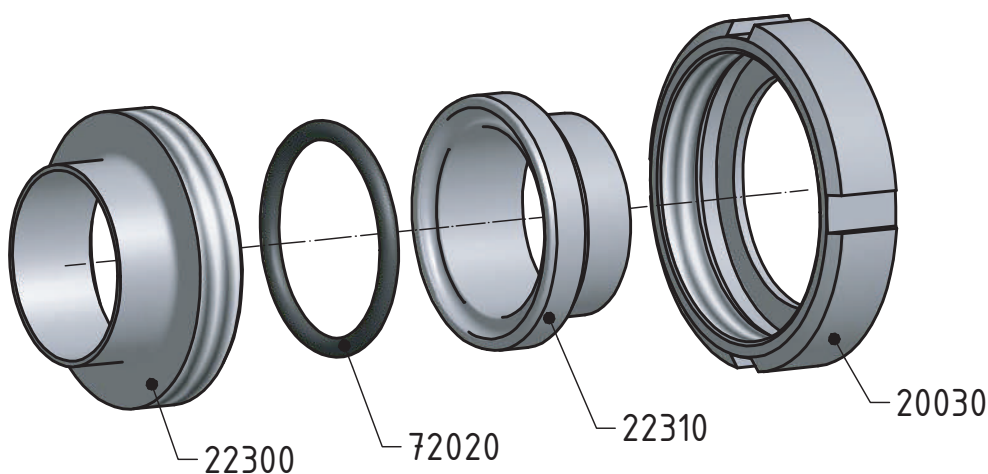
- Einfache die Dichtung austauschen
- Einfache Installation

**Baumaße / Dimensions: DN 10 - DN 100**
**Thread / Gewinde:** DIN 405

**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

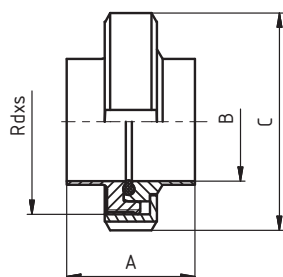
**Dichtring / Gasket:** NBR  
EPDM  
Viton

## Komponents / Komponenten


 Detail gasket  
Detail der Dichtung


Standard gasket /Standard Dichtring - EPDM

 Welding union - complete  
Anschweißverschraubung - komplett

**22320**
**DIN 11 853**
**Dimensions • Baumaße**


| DN  | A  | B   | C   | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|---|---|---|---|---|--------------------------|------|
| 10  | 32 | 10  | 38  |   |   |   |   |   | 28 x 1/8"                | 0,14 |
| 15  | 32 | 16  | 44  |   |   |   |   |   | 34 x 1/8"                | 0,18 |
| 20  | 34 | 20  | 54  |   |   |   |   |   | 44 x 1/6"                | 0,30 |
| 25  | 42 | 26  | 63  |   |   |   |   |   | 52 x 1/6"                | 0,41 |
| 32  | 48 | 32  | 70  |   |   |   |   |   | 58 x 1/6"                | 0,48 |
| 40  | 50 | 38  | 78  |   |   |   |   |   | 65 x 1/6"                | 0,57 |
| 50  | 54 | 50  | 92  |   |   |   |   |   | 78 x 1/6"                | 0,78 |
| 65  | 62 | 66  | 112 |   |   |   |   |   | 95 x 1/6"                | 1,27 |
| 80  | 72 | 81  | 127 |   |   |   |   |   | 110 x 1/4"               | 1,76 |
| 100 | 86 | 100 | 148 |   |   |   |   |   | 130 x 1/4"               | 2,40 |
|     |    |     |     |   |   |   |   |   |                          |      |
|     |    |     |     |   |   |   |   |   |                          |      |

**Welding union**

Anschweißverschraubung

**22490**
**DIN 11 864-1-A**
**Description**

Beschreibung


**Welding union 22490, DIN 11 864-1**

- Simple instalation
- Easy gasket exchange

**Anschweißverschraubung 22490, DIN 11 864-1**

- Einfache die Dichtung austauschen
- Einfache Installation

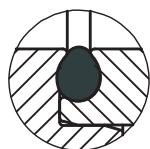
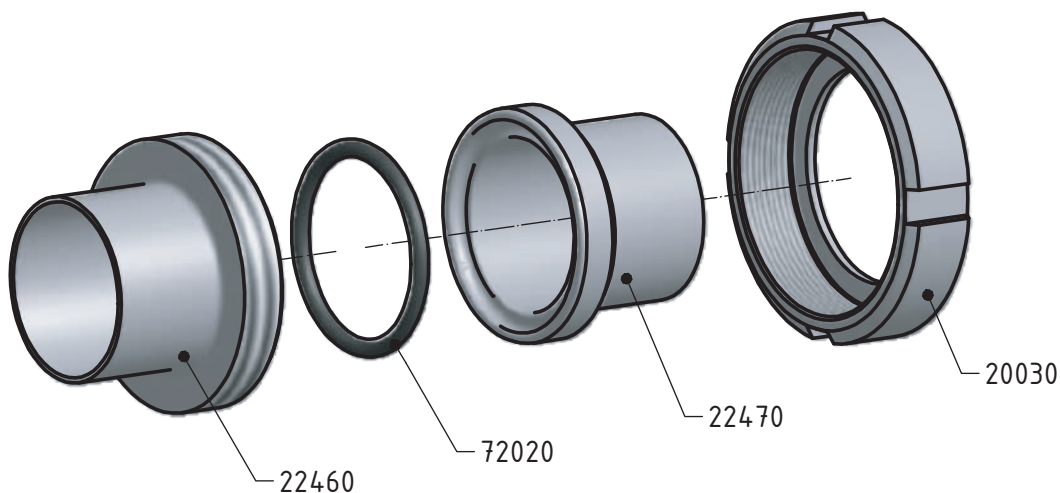
**Baumaße / Dimensions:** DN 10 - DN 100

**Thread / Gewinde:** DIN 405

**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

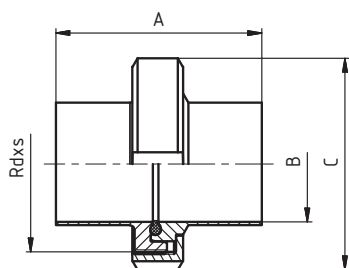
**Dichtring / Gasket:** NBR  
EPDM  
Viton

## Komponents / Komponenten


 Detail gasket  
Detail der Dichtung


Standard gasket /Standard Dichtring - EPDM

 Welding union - complete  
Anschweißverschraubung - komplett

**22490**
**DIN 11 864-1-A**
**Dimensions • Baumaße**


| DN  | A   | B   | C   | D | E | F | R | L | thread DIN 405<br>Rd x s | kg   |
|-----|-----|-----|-----|---|---|---|---|---|--------------------------|------|
| 10  | 76  | 10  | 38  |   |   |   |   |   | 28x1/8"                  | 0,08 |
| 15  | 76  | 16  | 44  |   |   |   |   |   | 34x1/8"                  | 0,11 |
| 20  | 76  | 20  | 54  |   |   |   |   |   | 44x1/6"                  | 0,19 |
| 25  | 77  | 26  | 63  |   |   |   |   |   | 52x1/6"                  | 0,26 |
| 32  | 88  | 32  | 70  |   |   |   |   |   | 58x1/6"                  | 0,31 |
| 40  | 88  | 38  | 78  |   |   |   |   |   | 65x1/6"                  | 0,36 |
| 50  | 89  | 50  | 92  |   |   |   |   |   | 78x1/6"                  | 0,50 |
| 65  | 113 | 66  | 112 |   |   |   |   |   | 95x1/6"                  | 0,86 |
| 80  | 117 | 81  | 127 |   |   |   |   |   | 110x1/4"                 | 1,16 |
| 100 | 120 | 100 | 148 |   |   |   |   |   | 130x1/4"                 | 1,51 |
|     |     |     |     |   |   |   |   |   |                          |      |
|     |     |     |     |   |   |   |   |   |                          |      |

## Flange connection PN 10 Flanschverbindung PN 10

**20720**
**DIN 2576**

### Description Beschreibung



#### Flange connection PN 10

- Simple instalation
- Easy gasket exchange

#### Flanschverbindung PN 10

- Einfache installation
- Einfache die Dichtung austauschen

**Dimensions / Baumaße:** DN 10 - DN 150

**Material / Material:** 1.4301 (AISI 304)

1.4404 (AISI 316L)

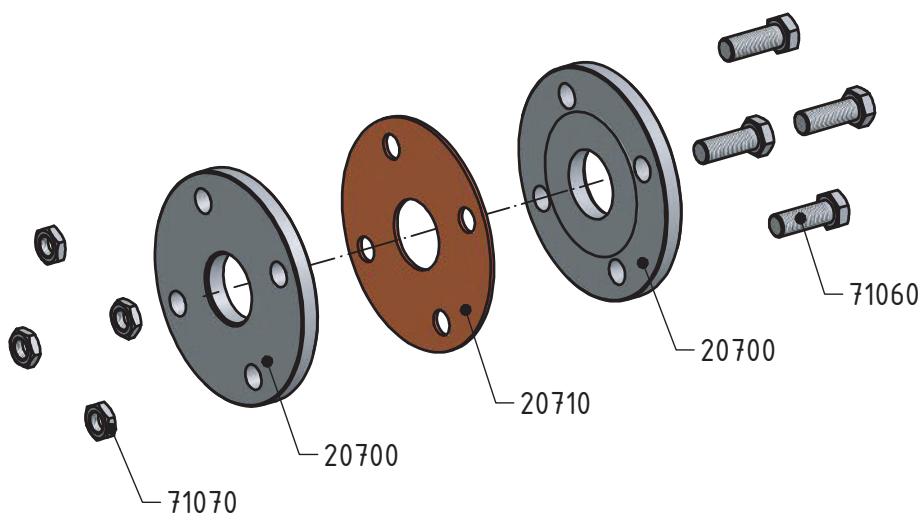
**Gasket / Dichtring:**

NBR

EPDM

Viton

### Komponents / Komponenten

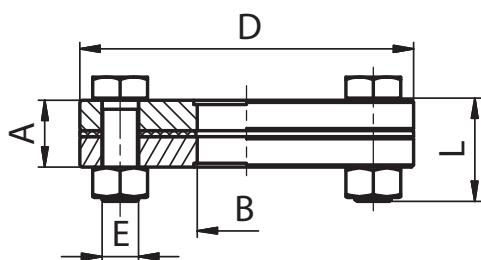


Standard gasket / Standard Dichtring - NBR

## Flange connection PN 10 - complete Flanschverbindung PN 10 - komplett

**20720**
**DIN 2576**

### Dimensions • Baumaße



| DN  | A  | B   | C | D   | E       | F | R | L  | Rd x s | kg    |
|-----|----|-----|---|-----|---------|---|---|----|--------|-------|
| 10  | 31 | 10  |   | 90  | 4 x M12 |   |   | 40 |        | 1,30  |
| 15  | 31 | 16  |   | 95  | 4 x M12 |   |   | 40 |        | 1,40  |
| 20  | 31 | 20  |   | 105 | 4 x M12 |   |   | 45 |        | 2,00  |
| 25  | 31 | 26  |   | 115 | 4 x M12 |   |   | 45 |        | 2,30  |
| 32  | 31 | 32  |   | 140 | 4 x M16 |   |   | 50 |        | 3,50  |
| 40  | 31 | 38  |   | 150 | 4 x M16 |   |   | 50 |        | 4,00  |
| 50  | 31 | 50  |   | 165 | 4 x M16 |   |   | 55 |        | 5,10  |
| 65  | 32 | 66  |   | 185 | 4 x M16 |   |   | 55 |        | 6,00  |
| 80  | 36 | 81  |   | 200 | 8 x M16 |   |   | 55 |        | 7,50  |
| 100 | 36 | 100 |   | 220 | 8 x M16 |   |   | 55 |        | 8,30  |
| 125 | 44 | 125 |   | 250 | 8 x M16 |   |   | 60 |        | 13,00 |
| 150 | 52 | 150 |   | 285 | 8 x M20 |   |   | 65 |        | 16,70 |

## Flange connection PN 16 Flanschverbindung PN 16

**20740**
**DIN 2633**

### Description Beschreibung

#### Flange connection PN 16 DIN 2633

- Simple installation
- Easy gasket exchange

#### Flanschverbindung PN 16 DIN 2633

- Einfache installation
- Einfache die Dichtung austauschen

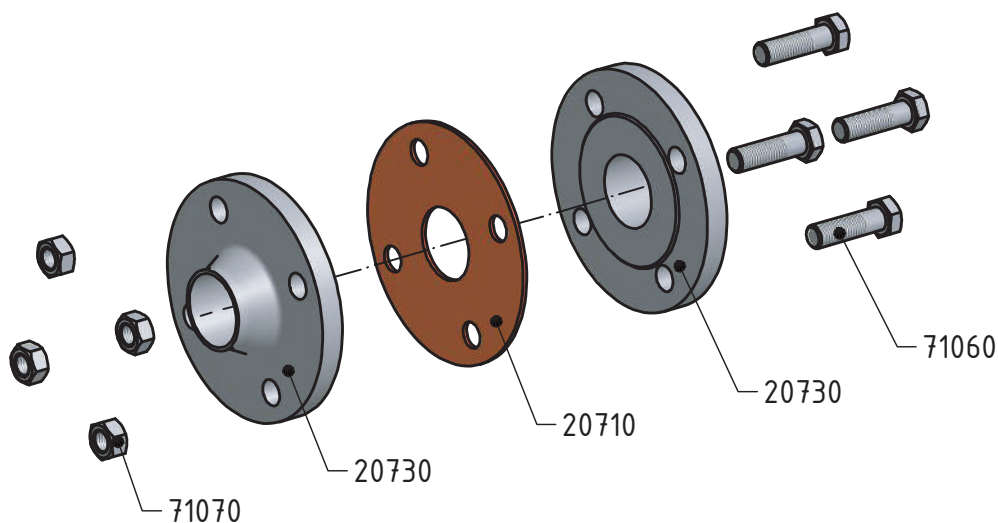
#### Dimensions / Baumaße: DN 10 - DN 150

**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtring:** NBR  
EPDM  
Viton



### Komponents / Komponenten

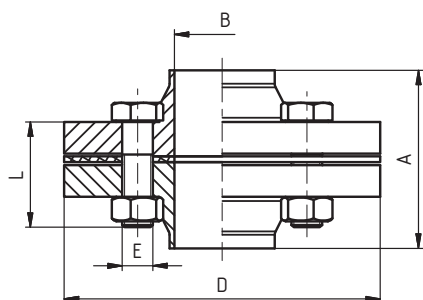


Standard gasket /Standard Dichtring - NBR

## Flange connection PN 16 - complete Flanschverbindung PN 16 - komplett

**20740**
**DIN 2633**

### Dimensions • Baumaße



| DN  | A   | B   | C | D   | E       | F | R | L  | thread DIN 405<br>Rd x s | kg    |
|-----|-----|-----|---|-----|---------|---|---|----|--------------------------|-------|
| 10  | 73  | 10  |   | 90  | 4 x M12 |   |   | 45 |                          | 1,16  |
| 15  | 73  | 16  |   | 95  | 4 x M12 |   |   | 45 |                          | 1,30  |
| 20  | 79  | 20  |   | 105 | 4 x M12 |   |   | 45 |                          | 1,90  |
| 25  | 79  | 26  |   | 115 | 4 x M12 |   |   | 50 |                          | 2,28  |
| 32  | 83  | 32  |   | 140 | 4 x M16 |   |   | 50 |                          | 3,20  |
| 40  | 88  | 38  |   | 150 | 4 x M16 |   |   | 50 |                          | 3,60  |
| 50  | 94  | 50  |   | 165 | 4 x M16 |   |   | 55 |                          | 5,06  |
| 65  | 94  | 66  |   | 185 | 4 x M16 |   |   | 55 |                          | 6,12  |
| 80  | 104 | 81  |   | 200 | 8 x M16 |   |   | 60 |                          | 7,40  |
| 100 | 108 | 100 |   | 220 | 8 x M16 |   |   | 60 |                          | 9,24  |
| 125 | 114 | 125 |   | 250 | 8 x M16 |   |   | 65 |                          | 12,60 |
| 150 | 114 | 150 |   | 285 | 8 x M20 |   |   | 70 |                          | 15,5  |

## Flange connection complete PN 10 Flanschverbindung komplett PN10

**20420**

### Description Beschreibung



#### Flange connection PN 10

- Simple installation
- Easy gasket exchange

#### Flanschverbindung PN 10

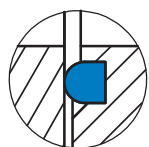
- Einfache installation
- Einfache die Dichtung austauschen

**Dimensions / Baumaße:** DN 10 - DN 150

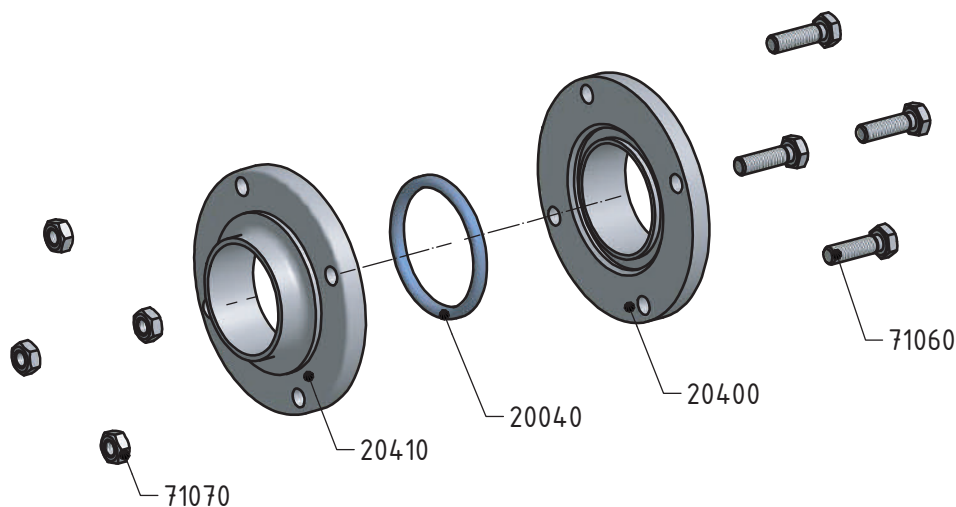
**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtring:** NBR  
EPDM  
Viton

### Komponents / Komponenten



Detail gasket  
Detail der Dichtung

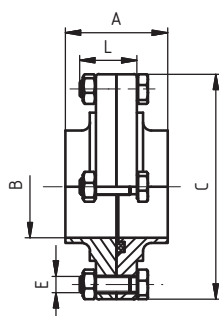


Standard gasket /Standard Dichtring - NBR

## Flange connection PN 10 - complete Flanschverbindung PN 10 - komplett

**20420**

### Dimensions • Baumaße



| DN  | A  | B   | C   | D | E       | F | R | L  | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|---|---------|---|---|----|--------------------------|------|
| 10  | 40 | 10  | 62  |   | 4 x M8  |   |   | 28 |                          | 0,40 |
| 15  | 40 | 16  | 68  |   | 4 x M8  |   |   | 28 |                          | 0,52 |
| 20  | 40 | 20  | 75  |   | 4 x M8  |   |   | 28 |                          | 0,58 |
| 25  | 40 | 26  | 87  |   | 4 x M8  |   |   | 28 |                          | 0,78 |
| 32  | 40 | 32  | 92  |   | 4 x M8  |   |   | 28 |                          | 0,92 |
| 40  | 50 | 38  | 97  |   | 4 x M8  |   |   | 28 |                          | 0,94 |
| 50  | 50 | 50  | 110 |   | 4 x M8  |   |   | 28 |                          | 1,18 |
| 65  | 50 | 66  | 127 |   | 4 x M8  |   |   | 28 |                          | 1,50 |
| 80  | 60 | 81  | 142 |   | 4 x M8  |   |   | 40 |                          | 2,56 |
| 100 | 60 | 100 | 162 |   | 4 x M8  |   |   | 40 |                          | 3,44 |
| 125 | 80 | 125 | 200 |   | 6 x M10 |   |   | 45 |                          | 5,74 |
| 150 | 90 | 150 | 230 |   | 6 x M10 |   |   | 45 |                          | 7,70 |

## Hygienic flange connection PN10 Hygiene flanschverbindung PN 10

**22870**
**DIN 11 853**

### Description Beschreibung



### Hygienic flange connection PN10 DIN 11853

- Simple installation
- Easy gasket exchange

### Hygiene flanschverbindung PN 10 DIN 11853

- Einfache installation
- Einfache die Dichtung austauschen

**Dimensions / Baumaße:** DN 10 - DN 150

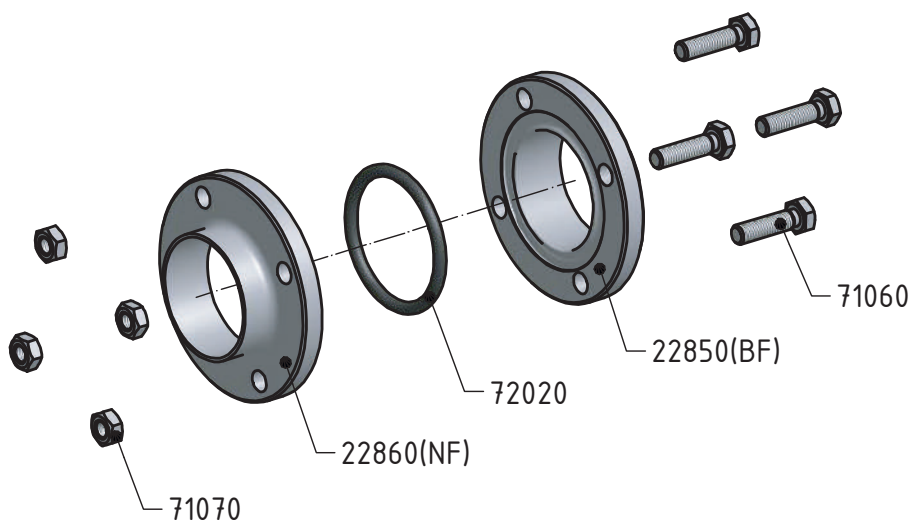
**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtring:** EPDM  
Viton

## Komponents / Komponenten



Detail gasket  
Detail der Dichtung

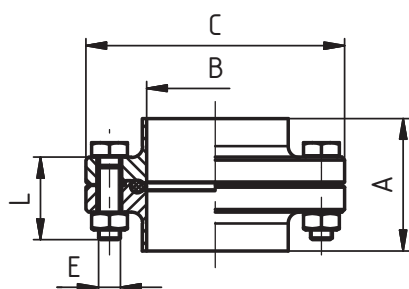


Standard gasket /Standard Dichtring - EPDM

## Hygienic flange connection PN10 - complete Hygiene flanschverbindung PN 10 -komplett

**22870**
**DIN 11 853**

### Dimensions • Baumaße



| DN  | A  | B   | C   | D | E       | F | R | L  | thread DIN 405<br>Rd x s | kg   |
|-----|----|-----|-----|---|---------|---|---|----|--------------------------|------|
| 10  | 48 | 10  | 54  |   | 4 x M8  |   |   | 28 |                          | 0,41 |
| 15  | 48 | 16  | 59  |   | 4 x M8  |   |   | 28 |                          | 0,46 |
| 20  | 48 | 20  | 64  |   | 4 x M8  |   |   | 28 |                          | 0,52 |
| 25  | 48 | 26  | 70  |   | 4 x M8  |   |   | 28 |                          | 0,60 |
| 32  | 48 | 32  | 76  |   | 4 x M8  |   |   | 28 |                          | 0,66 |
| 40  | 48 | 38  | 82  |   | 4 x M8  |   |   | 28 |                          | 0,73 |
| 50  | 48 | 50  | 94  |   | 4 x M8  |   |   | 28 |                          | 0,87 |
| 65  | 48 | 66  | 113 |   | 8 x M8  |   |   | 28 |                          | 1,21 |
| 80  | 52 | 81  | 133 |   | 8 x M10 |   |   | 35 |                          | 1,96 |
| 100 | 52 | 100 | 159 |   | 8 x M10 |   |   | 40 |                          | 2,97 |
| 125 | 56 | 125 | 183 |   | 8 x M10 |   |   | 40 |                          | 3,47 |
| 150 | 56 | 150 | 213 |   | 8 x M12 |   |   | 45 |                          | 5,02 |

## Aseptic flange connection PN 10 Aseptic flanschverbindung PN 10

**22930**  
**DIN 11 864-2-A**

### Description Beschreibung



#### Aseptic flange connection PN 10 DIN 11864

- Simple installation
- Easy gasket exchange

#### Aseptic flanschverbindung PN 10 DIN 11864

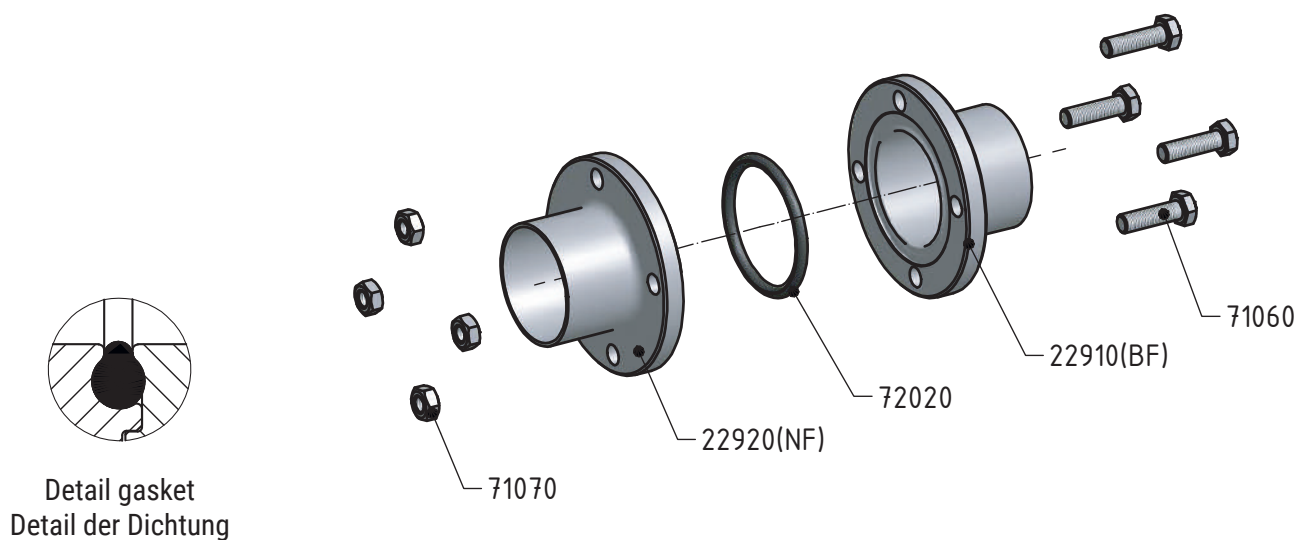
- Einfache installation
- Einfache die Dichtung austauschen

**Dimensions / Baumaße:** DN 10 - DN 150

**Material / Material:** 1.4301 (AISI 304)  
1.4404 (AISI 316L)

**Gasket / Dichtring:** EPDM  
Viton

### Komponents / Komponenten

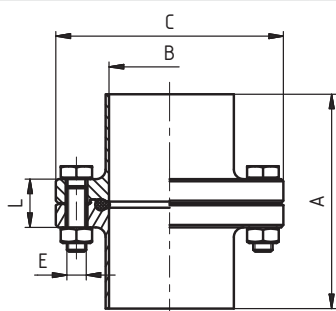


Standard gasket /Standard Dichtring - EPDM

## Aseptic flange connection PN10 - complete Aseptic flanschverbindung PN 10 - komplett

**22930**  
**DIN 11 864-2-A**

### Dimensions • Baumaße



| DN  | A   | B   | C   | D | E       | F | R | L  | thread DIN 405<br>Rd x s | kg |
|-----|-----|-----|-----|---|---------|---|---|----|--------------------------|----|
| 10  | 80  | 10  | 54  |   | 4 x M8  |   |   | 28 |                          |    |
| 15  | 80  | 16  | 59  |   | 4 x M8  |   |   | 28 |                          |    |
| 20  | 80  | 20  | 64  |   | 4 x M8  |   |   | 28 |                          |    |
| 25  | 80  | 26  | 70  |   | 4 x M8  |   |   | 28 |                          |    |
| 32  | 90  | 32  | 76  |   | 4 x M8  |   |   | 28 |                          |    |
| 40  | 90  | 38  | 82  |   | 4 x M8  |   |   | 28 |                          |    |
| 50  | 90  | 50  | 94  |   | 4 x M8  |   |   | 28 |                          |    |
| 65  | 108 | 66  | 113 |   | 8 x M8  |   |   | 28 |                          |    |
| 80  | 116 | 81  | 133 |   | 8 x M10 |   |   | 35 |                          |    |
| 100 | 116 | 100 | 159 |   | 8 x M10 |   |   | 40 |                          |    |
| 125 | 120 | 125 | 183 |   | 8 x M10 |   |   | 40 |                          |    |
| 150 | 120 | 150 | 213 |   | 8 x M12 |   |   | 45 |                          |    |

## Clamp union S DIN 11964-3

### Clampverbindungen S DIN 11864-3

22970

# DIN 11864-3

## Description



### Clamp union - S - DIN 11864-3

- Simple instalation
- Easy gasket exchange

### Clampverbindung - S - DIN 11864-3

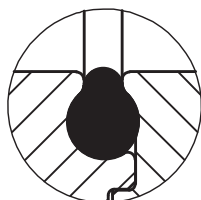
- Einfache die Dichtung austauschen
- Einfache Installation

**Dimensions / Baumaße:** DN 10 - DN 100

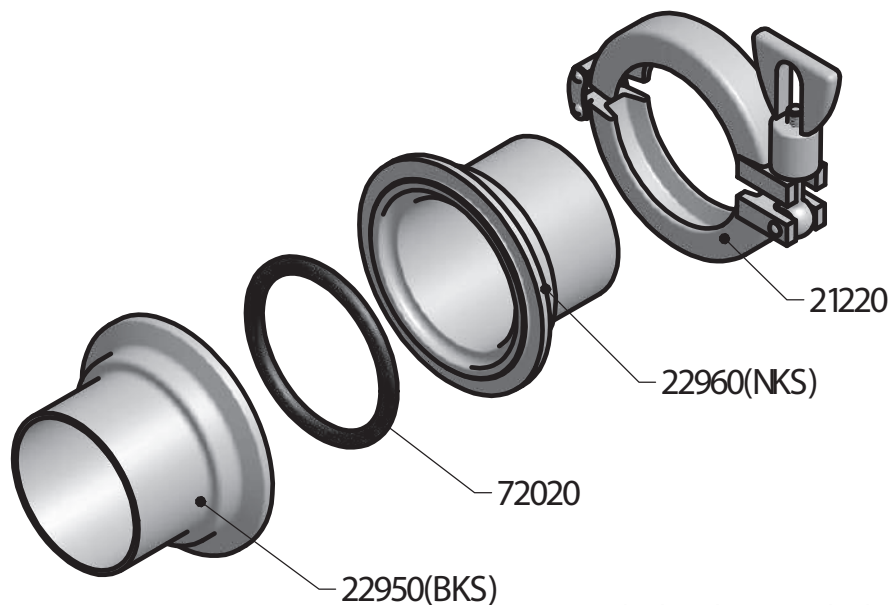
**Material / Material:** 1.4404 (AISI 316L)

**Gasket / Dichtring:** Silikon, EPDM, PTFE / Viton

## Komponents / Komponenten



Detail gasket  
Detail der Dichtung



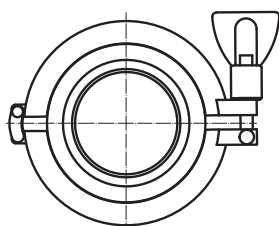
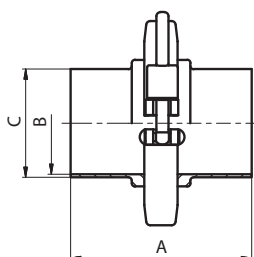
Standard gasket /Standard Dichtring  
- Silikon, EPDM, PTFE – Viton

Clamp union S DIN 11964-3  
- complete  
Clampverbindungen S DIN 11864-3  
- komplett

22970

DIN 11864-3

### Dimensions • Baumaße

[illegible]

| CONVERSION TABLE |        | UMRECHNUNGSTABELLE |
|------------------|--------|--------------------|
| DN               | (inch) | (mm)               |
| 8                | 1/4"   | 6,35               |
| 10               | 3/8"   | 9,25               |
| 15               | 1/2"   | 12,7               |
| 20               | 3/4"   | 19,0               |
| 25               | 1"     | 25,4               |
| 32               | 1 1/4" | 31,7               |
| 40               | 1 1/2" | 38,1               |
| 50               | 2"     | 51,0               |
| 65               | 2 1/2" | 63,5               |
| 80               | 3"     | 76,1               |
| 100              | 4"     | 104,0              |

| BAR CONVERSION CHARTS | BAR UMPRECHNUNGSTABELLE           |
|-----------------------|-----------------------------------|
| <b>1 Bar</b>          | 100000 Pascals                    |
|                       | 100 Kilopascals                   |
|                       | 1000 Milibars                     |
|                       | 1000000 Microbars                 |
|                       | ~0,98 Atmospheres                 |
|                       | ~401,46 Inches of water           |
|                       | 10 Meters of water                |
|                       | ~29,53 Inches of mercury          |
|                       | ~750 Milimeters of mercury        |
|                       | ~14,5 Pounds per square inches    |
|                       | ~1,02 Kilograms per square inches |

## MATERIALS USED

All units and parts listed in this catalogue are produced from non-corrosive acid-resistant Cr – Ni steel ČSN 17 240, which is the equivalent of the German standard DIN 1.4301. If the corrosion-proof requirements of the parts are higher they are produced from non-corrosive Cr-Ni-Mo steel ČSN 17 349 which conforms to DIN 1.4404.

## Chemical composition of the most frequently used non-corrosive steels

| ČSN<br>PN     | %C<br>max. | %Si<br>max. | %Mn<br>max. | %P<br>max. | %S<br>max. | %Cr<br>max. | %Mo<br>max. | %Ni<br>max. | %Ti<br>max. |
|---------------|------------|-------------|-------------|------------|------------|-------------|-------------|-------------|-------------|
| <b>17 240</b> | 0.07       | 1.00        | 2.00        | 0.045      | 0.030      | 17.0-20.0   | -           | 9.0 -11.5   | -           |
| <b>17 249</b> | 0.03       | 1.00        | 2.00        | 0.045      | 0.030      | 17.0-20.0   | -           | 10.0-12.5   | -           |
| <b>17 346</b> | 0.07       | 1.00        | 2.00        | 0.045      | 0.030      | 16.5-18.5   | 2.0-2.5     | 10.5-13.5   | -           |
| <b>17349</b>  | 0.03       | 1.00        | 2.00        | 0.045      | 0.030      | 16.5-18.5   | 2.0-2.5     | 11.0-14.0   | -           |
| <b>17 248</b> | 0.10       | 1.00        | 2.00        | 0.045      | 0.030      | 17.0-19.0   | -           | 9.5-12.0    | >=5xC       |
| <b>17 348</b> | 0.10       | 1.00        | 2.00        | 0.045      | 0.030      | 16.5-18.5   | 2.0-2.5     | 11.0-14.0   | >=5xC       |

## International standards conversion table for marking steels

| Poldi     | Czech Rep.<br>PN | Germany<br>DIN (W. Nr.) | USA<br>ASTM | Italy<br>UNI   | France<br>AFNOR | Russia<br>GOST |
|-----------|------------------|-------------------------|-------------|----------------|-----------------|----------------|
| AKV7      | 17240            | 1.4301                  | AISI 304    | X5CrNi1810     | Z7CN18-09       | 08Ch18N10      |
| AKV2      | 17249            | 1.4306                  | AISI304L    | X2CrNi1811     | Z3CN19-121      | 03Ch18N11      |
| AKV EX7   | 17346            | 1.4401                  | AISI 316    | X5CrNiMo1712.2 | Z7CND17-12-02   | -              |
| AKV EX2   | 17349            | 1.4404                  | AISI 316L   | X2CrNiMo1713.2 | Z3CND18-12-02   | 03Ch12N14M2    |
| AKVS7     | 17248            | 1.4541                  | AISI 321    | X6CrNiTi1811   | Z6CNT18-10      | 08Ch18N10T     |
| AKV EX S9 | 17348            | 1.4571                  | AISI 316Ti  | X6CrNiMoTi1712 | Z6CNDT17-12     | 08Ch17N13M2    |

## DESIGN

The bulk of products are produced from bars or forged material. The material is in such a state that after welding it is not necessary to carry out further treatment. Tubular adapting pipes in their basic finish are pickled – matt, or treated – ground (brushed).

## PIPE CONNECTING PARTS – DIN SCREW COUPLINGS

These are produced according to the DIN 11 851 standard and the screw thread according to the DIN 405 (ČSN 01 4037) standard. Connection of the sockets (screw thread or ring) to the tubes can be done in two ways:

- butt welding
- flaring the inside diameter

From diameters of 50mm and above it is necessary to ensure flaring of connections with a seam weld. Flared connections with a seam weld are hygienically unobjectionable and are suitable for pressures of 1 MPa (tested at a pressure of 2 MPa). Parts which do not correspond to any standards are produced according to branch or factory standards, and possibly workshop standards, and in some cases to approved technical drawings.

## SEALING

Seals listed in this catalogue are produced from the following materials – SILICON, PERBUNAN, EPDM or VITON. They are supplied separately or as part of the set. Prices for tubular adapting pipes and sets of screw couplings do not include sealing rings.

## MAINTENANCE

Without exception the materials used are suitable for general use in the food-processing industry. These materials are sensitive to high concentrations of chloride solutions and therefore we recommend that the instructions and recommendations of the manufacturer are heeded. Corrosion can only be prevented if these instructions are adhered to.

**SPECIAL DESIGN**

Apart from the standard parts listed in this catalogue we also supply special designs according to customer requirements and their technical documentation.

**INSTRUCTIONS FOR ORDERING**

For quick and simple processing of your order please supply the following data:

| <b>1</b>                     | <b>2</b>      | <b>3</b> | <b>4</b> |
|------------------------------|---------------|----------|----------|
| numerical labelling of goods | dimension(DN) | material | amount   |

If group „3” is not listed in the order we automatically supply material 17 240 (DIN 1.4301)

If you require other parts and units than those in this catalogue please send your specific requirements.

This issue nullifies all previous catalogues and delivery conditions listed in them.

We would be pleased to discuss your specific requirements and answer your questions in person. We look forward to your visit.

| Technical Information for Gaskets                                                                                                               |                                                                                                                                                                   |                                                                                                                                                                           |                                                                                                                                                                                                                                                                 |                                                                                                                                                                  |                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title                                                                                                                                           | Silicon<br>(VMQ silicon rubber)                                                                                                                                   | EPDM<br>(ethylene-propylene-diene rubber)                                                                                                                                 | Viton<br>(FPM fluorine rubber)                                                                                                                                                                                                                                  | Perbunan<br>(NBR nitrile rubber)                                                                                                                                 | PTFE<br>(polytetrafluorethylene)                                                                                                                                                                                          |
| Temperature of use                                                                                                                              | It is stable in water up to 100 °C<br><br>Possibility of sterilisation by steam short-term up to 120 °C to 130 °C                                                 | Permanent operating use from 40 °C to +140 °C<br><br>Possibility of sterilisation by steam up to 130 °C                                                                   | Permanent operating use from 20 °C to +200 °C<br><br>Possibility of sterilisation by steam short-term up to 130 °C to 140 °C                                                                                                                                    | Permanent operating use from 25 °C to +110 °C<br><br>Possibility of sterilisation by steam short-term up to 130 °C                                               | Up to +200 °C it is physiologically harmless, use from 200 °C to +260 °C                                                                                                                                                  |
| Recommended use                                                                                                                                 | High temperature load capacity<br><br>It has good resistance to cold, suitable for food, it has dielectric properties.<br><br>It has good resistance to alcohols. | It has good resistance to swelling for:<br><br>• Diluted inorganic and organic acids, media, oxidising media, lyes, and ketones<br><br>• Hot water and steam up to 130 °C | It has good resistance to swelling for:<br><br>• Mineral oils<br>• Plant and animal oils<br>• Lubricants (also some additives)<br>• Fuels                                                                                                                       | It has good resistance to swelling for:<br><br>• Aliphatic hydrocarbons (such as propane, butane, benzene, mineral oil)<br><br>• Lubricants based on mineral oil | It has good resistance to swelling in almost all parts. It has a smooth and repellent surface so sticking does not occur.<br><br>It has better chemical resistance than in all other elastomers<br>Non-flammable material |
| Limited use (border)                                                                                                                            | Shows high swelling for:<br><br>• Low-molecular esters and ethers<br>• Aliphatic and aromatic hydrocarbons<br>• Concentrated acids and alkali                     | Cannot be used for:<br><br>• Plant and animal oils<br>• Aliphatic, aromatic, and chlorinated hydrocarbons<br>• Mineral oils                                               | Shows high swelling for:<br><br>• Polar solvents, such as acetone, methyl ketone, ethyl acetate, diethyl ether, and dioxane<br>• Low-molecular organic acids (formic acid and acetic acid)<br>• Gaseous ammonia, amines and alkanes<br>• Overheated water steam | Not resistant to:<br><br>• Polar solvents<br>• Chlorinated hydrocarbons<br>• Ketones<br>• Aromatic hydrocarbons (benzol)<br>• Esters                             | Not resistant to:<br><br>• Liquid alkaline metals and some compounds of fluorine in connection with higher pressure and temperature<br><br>The material does not show the flexibility of rubber.                          |
| Material approval                                                                                                                               | BGA/FDA                                                                                                                                                           | BGA/FDA                                                                                                                                                                   | BGA/FDA                                                                                                                                                                                                                                                         | BGA/FDA                                                                                                                                                          | BGA/FDA                                                                                                                                                                                                                   |
| BGA = approval of the "Federal Health Authority" in Germany ("Bundesgesundheitsamt")<br>FDA = approval of the "US Food and Drug Administration" |                                                                                                                                                                   |                                                                                                                                                                           |                                                                                                                                                                                                                                                                 |                                                                                                                                                                  |                                                                                                                                                                                                                           |

| Technische Informationen für Dichtringe                             |                                                                                                                                                                                      |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name                                                                | Silikon<br>(VMQ)                                                                                                                                                                     | EPDM<br>(Ethylen-Propylen-Dien-<br>Kautschuk)                                                                                                                                                       | Viton<br>(FPM)                                                                                                                                                                                                                                                                                   | Perbunan<br>(NBR)                                                                                                                                               | PTFE<br>(Polytetrafluoräthylen)                                                                                                                                                                                                               |
| Einsatztemperatur                                                   | in Wasser bis 100°C<br>beständig<br><br>Dampfsterilisierbar<br>kurzfristig<br>bis 120°C - 130°C                                                                                      | Dauereinsatz von minus<br>40°C bis 140°C<br><br>Dampfsterilisierbar<br>bis 130°C                                                                                                                    | Dauereinsatz von minus<br>20°C bis 200°C<br><br>Dampfsterilisierbar<br>kurzfristig<br>bis 130°C - 140°C                                                                                                                                                                                          | Dauereinsatz von minus<br>25°C bis 110°C<br><br>Dampfsterilisierbar<br>kurzfristig bis 130°C                                                                    | bis 200°C physiologisch<br>unbedenklich,<br><br>Einsatz von<br>-200°C bis +260°C                                                                                                                                                              |
| typ. Einsatzbereich                                                 | hohe thermische<br>Belastbarkeit<br><br>gute Kältebeständigkeit,<br>für lebensmittel gut<br>geeignet, dielektrische<br>Eigenshaften<br><br>gute Beständigkeit<br>gegenüber Alkoholen | gute Quellbeständigkeit<br>bei:<br><br>• verdünnte anorg.- und<br>organische Säuren,<br>Medien, oxidierend<br>wirkende Medien,<br>Laugen und Kentonen<br><br>• in Heißwasser und<br>Dampf bis 130°C | gute Quellbeständigkeit<br>bei:<br><br>• Mineralölen<br><br>• pflanzlichen und<br>tierischen Ölen<br><br>• Fetten (auch<br>bestimmte Additive)<br><br>• Kraftstoffe                                                                                                                              | gute Quellbeständigkeit<br><br>• aliphatischen<br>Kohlenwasserstoffen<br>(wie Propan, Butan,<br>Benzin, Mineralölen)<br><br>• Fett auf<br>Mineralölbasis        | gute Quellbeständigkeit<br>in nahezu allen Teilen<br><br>Oberfläche glatt und<br>abweisend, dadurch<br>kein Haften von<br>Rückständen<br><br>chemische Beständig-<br>keit besser als bei allen<br>anderen<br>Elastomeren<br><br>kaum brennbar |
| Einsatzgrenzen                                                      | hohe Quellung bei:<br><br>• niedermolekularen<br>Estern und Ethern<br><br>• aliphatischen und<br>aromatischen Kohlen-<br>wasserstoffen<br><br>• konz. Säuren und<br>Alkalien         | nicht einzusetzen bei:<br><br>• pflanzlichen und<br>tierischen Ölen<br><br>• aliphatischen<br>aromatischen und<br>chlorierten kohlen-<br>wasserstoffen<br><br>• Mineralöle                          | stark quellend bei:<br><br>• polaren<br>Lösungsmitteln<br>wie Aceton, Methyl-<br>keton, Ethylacetat,<br>Diethylether u.<br>Dioxane<br><br>• niedermolekularen<br>organ. Säuren<br>(Ameisen - und<br>Essigsäuren)<br><br>• Ammoniakgase,<br>Amine u. Alkanien<br><br>• überhitzter<br>Wasserdampf | nicht beständig bei:<br><br>• polaren<br>Lösungsmitteln<br><br>• chlorierten Kohlen-<br>wasserstoffen<br><br>• Ketone<br><br>• Aromaten (Benzol)<br><br>• Ester | nicht beständig bei:<br><br>• flüssigen<br>Alkalimetallen<br>und einigen<br>Flourverbindungen<br>in Verbindung mit<br>hohem Druck und<br>Temperatur<br><br>kein gummielastischer<br>Werkstoff                                                 |
| Werkstoffzulassung                                                  | BGA/FDA                                                                                                                                                                              | BGA/FDA                                                                                                                                                                                             | BGA/FDA                                                                                                                                                                                                                                                                                          | BGA/FDA                                                                                                                                                         | BGA/FDA                                                                                                                                                                                                                                       |
| BGA = Bundesgesundheitsamt<br>FDA = US Food and Drug Administration |                                                                                                                                                                                      |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |                                                                                                                                                                                                                                               |



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