

PRODUCER OF STAINLESS PIPING SYSTEMS  
HERSTELLER VON EDELSTAHLARMATUREN

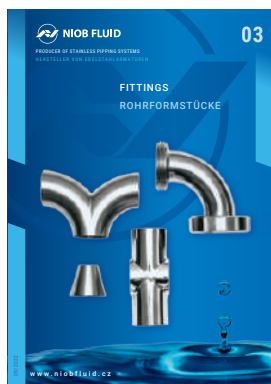
# FITTINGS ROHRFORMSTÜCKE



### 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

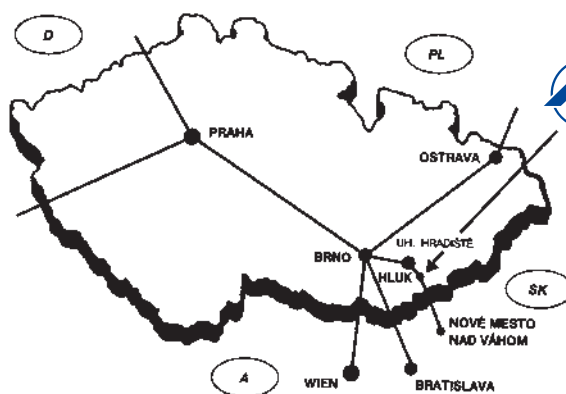


### 09 ASEPTIC PROGRAM ASEPTISCHES PROGRAMM



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.

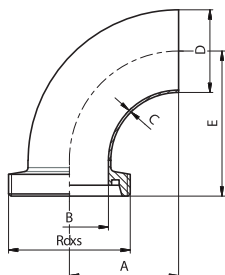


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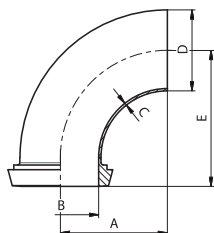
|                                   |       |                      |     |       |     |       |  |  |  |  |      |
|-----------------------------------|-------|----------------------|-----|-------|-----|-------|--|--|--|--|------|
| Bend 90° S - S<br>Bogen 90° S - S | 30010 | Dimensions • Baumaße |     |       |     |       |  |  |  |  |      |
|                                   |       | DN                   | D   | A     | C   | r     |  |  |  |  | kg   |
|                                   |       | 10                   | 12  | 26    | 1,5 | 26    |  |  |  |  | 0,02 |
|                                   |       | 10                   | 13  | 26    | 1,5 | 26    |  |  |  |  | 0,02 |
|                                   |       | 15                   | 18  | 35    | 1,5 | 35    |  |  |  |  | 0,04 |
|                                   |       | 15                   | 19  | 35    | 1,5 | 35    |  |  |  |  | 0,04 |
|                                   |       | 20                   | 22  | 40    | 1,5 | 40    |  |  |  |  | 0,04 |
|                                   |       | 20                   | 23  | 40    | 1,5 | 40    |  |  |  |  | 0,08 |
|                                   |       | 25                   | 28  | 50    | 1,5 | 50    |  |  |  |  | 0,08 |
|                                   |       | 25                   | 29  | 50    | 1,5 | 50    |  |  |  |  | 0,08 |
|                                   |       | 32                   | 34  | 55    | 1,5 | 55    |  |  |  |  | 0,10 |
|                                   |       | 32                   | 35  | 55    | 1,5 | 55    |  |  |  |  | 0,10 |
|                                   |       | 40                   | 40  | 60    | 1,5 | 60    |  |  |  |  | 0,20 |
|                                   |       | 40                   | 41  | 60    | 1,5 | 60    |  |  |  |  | 0,20 |
|                                   |       | 50                   | 52  | 70    | 1,5 | 70    |  |  |  |  | 0,20 |
|                                   |       | 50                   | 53  | 70    | 1,5 | 70    |  |  |  |  | 0,20 |
|                                   |       | 65                   | 70  | 80    | 2,0 | 80    |  |  |  |  | 0,40 |
|                                   |       | 80                   | 85  | 90    | 2,0 | 90    |  |  |  |  | 0,56 |
|                                   |       | 100                  | 104 | 100   | 2,0 | 100   |  |  |  |  | 0,76 |
|                                   |       | 125                  | 129 | 187,5 | 2,0 | 187,5 |  |  |  |  | 1,64 |
|                                   |       | 150                  | 154 | 225   | 2,0 | 225   |  |  |  |  | 2,60 |

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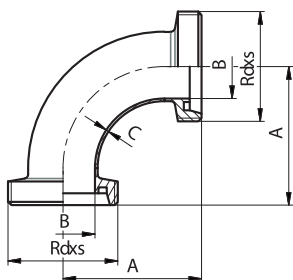
|                                   |              |                             |          |          |          |          |          |          |          |          |                            |
|-----------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 90° G - S<br>Bogen 90° G - S | <b>30040</b> | <b>Dimensions • Baumaße</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>Rd x s</b><br><b>kg</b> |
|                                   |              | 10                          | 26       | 10       | 1,5      | 13       | 43       |          |          |          | 28x1/8 0,06                |
|                                   |              | 15                          | 35       | 16       | 1,5      | 19       | 52       |          |          |          | 34x1/8 0,08                |
|                                   |              | 20                          | 40       | 20       | 1,5      | 23       | 59       |          |          |          | 44x1/6 0,12                |
|                                   |              | 25                          | 50       | 26       | 1,5      | 29       | 72       |          |          |          | 52x1/6 0,18                |
|                                   |              | 32                          | 55       | 32       | 1,5      | 35       | 77       |          |          |          | 58x1/6 0,22                |
|                                   |              | 40                          | 60       | 38       | 1,5      | 41       | 82       |          |          |          | 65x1/6 0,36                |
|                                   |              | 50                          | 70       | 50       | 1,5      | 53       | 93       |          |          |          | 78x1/6 0,42                |
|                                   |              | 65                          | 80       | 66       | 2,0      | 70       | 105      |          |          |          | 95x1/6 0,74                |
|                                   |              | 80                          | 90       | 81       | 2,0      | 85       | 116      |          |          |          | 110x1/4 1,06               |
|                                   |              | 100                         | 100      | 100      | 2,0      | 104      | 130      |          |          |          | 130x1/4 1,50               |
|                                   |              | 125                         | 187,5    | 125      | 2,0      | 129      | 223      |          |          |          | 160x1/4 1,75               |
|                                   |              | 150                         | 225      | 150      | 2,0      | 154      | 265      |          |          |          | 190x1/4 2,01               |



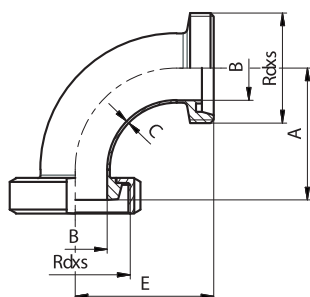
|                                   |              |                             |          |          |          |          |          |          |          |          |                            |
|-----------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 90° K - S<br>Bogen 90° K - S | <b>30050</b> | <b>Dimensions • Baumaße</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>Rd x s</b><br><b>kg</b> |
|                                   |              | 10                          | 26       | 10       | 1,5      | 13       | 40       |          |          |          | 0,04                       |
|                                   |              | 15                          | 35       | 16       | 1,5      | 19       | 49       |          |          |          | 0,06                       |
|                                   |              | 20                          | 40       | 20       | 1,5      | 23       | 56       |          |          |          | 0,10                       |
|                                   |              | 25                          | 50       | 26       | 1,5      | 29       | 68       |          |          |          | 0,16                       |
|                                   |              | 32                          | 55       | 32       | 1,5      | 35       | 73       |          |          |          | 0,20                       |
|                                   |              | 40                          | 60       | 38       | 1,5      | 41       | 78       |          |          |          | 0,34                       |
|                                   |              | 50                          | 70       | 50       | 1,5      | 53       | 89       |          |          |          | 0,40                       |
|                                   |              | 65                          | 80       | 66       | 2,0      | 70       | 101      |          |          |          | 0,72                       |
|                                   |              | 80                          | 90       | 81       | 2,0      | 85       | 111      |          |          |          | 1,04                       |
|                                   |              | 100                         | 100      | 100      | 2,0      | 104      | 125      |          |          |          | 1,48                       |
|                                   |              | 125                         | 187,5    | 125      | 2,0      | 129      | 214,5    |          |          |          | 1,73                       |
|                                   |              | 150                         | 225      | 150      | 2,0      | 154      | 254      |          |          |          | 1,89                       |



|                                   |              |                             |          |          |          |          |          |          |          |          |                            |
|-----------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 90° G - G<br>Bogen 90° G - G | <b>30060</b> | <b>Dimensions • Baumaße</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>Rd x s</b><br><b>kg</b> |
|                                   |              | 10                          | 43       | 10       | 1,5      |          |          |          |          |          | 28x1/8 0,10                |
|                                   |              | 15                          | 52       | 16       | 1,5      |          |          |          |          |          | 34x1/8 0,15                |
|                                   |              | 20                          | 59       | 20       | 1,5      |          |          |          |          |          | 44x1/6 0,26                |
|                                   |              | 25                          | 72       | 26       | 1,5      |          |          |          |          |          | 52x1/6 0,35                |
|                                   |              | 32                          | 77       | 32       | 1,5      |          |          |          |          |          | 58x1/6 0,41                |
|                                   |              | 40                          | 82       | 38       | 1,5      |          |          |          |          |          | 65x1/6 0,51                |
|                                   |              | 50                          | 93       | 50       | 1,5      |          |          |          |          |          | 78x1/6 0,72                |
|                                   |              | 65                          | 105      | 66       | 2,0      |          |          |          |          |          | 95x1/6 1,06                |
|                                   |              | 80                          | 116      | 81       | 2,0      |          |          |          |          |          | 110x1/4 1,73               |
|                                   |              | 100                         | 130      | 100      | 2,0      |          |          |          |          |          | 130x1/4 2,18               |
|                                   |              | 125                         | 223      | 125      | 2,0      |          |          |          |          |          | 160x1/4 4,21               |
|                                   |              | 150                         | 265      | 150      | 2,0      |          |          |          |          |          | 190x1/4 6,66               |



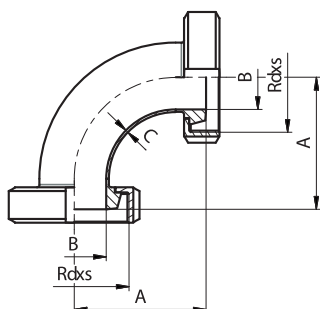
|                                       |              |                             |          |          |          |          |          |          |          |          |                            |
|---------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 90° K/M - G<br>Bogen 90° K/M - G | <b>30070</b> | <b>Dimensions • Baumaße</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>Rd x s</b><br><b>kg</b> |
|                                       |              | 10                          | 40       | 10       | 1,5      |          | 43       |          |          |          | 28x1/8 0,16                |
|                                       |              | 15                          | 49       | 16       | 1,5      |          | 52       |          |          |          | 34x1/8 0,21                |
|                                       |              | 20                          | 56       | 20       | 1,5      |          | 59       |          |          |          | 44x1/6 0,34                |
|                                       |              | 25                          | 68       | 26       | 1,5      |          | 72       |          |          |          | 52x1/6 0,47                |
|                                       |              | 32                          | 73       | 32       | 1,5      |          | 77       |          |          |          | 58x1/6 0,57                |
|                                       |              | 40                          | 78       | 38       | 1,5      |          | 82       |          |          |          | 65x1/6 0,70                |
|                                       |              | 50                          | 89       | 50       | 1,5      |          | 93       |          |          |          | 78x1/6 0,97                |
|                                       |              | 65                          | 101      | 66       | 2,0      |          | 105      |          |          |          | 95x1/6 1,52                |
|                                       |              | 80                          | 111      | 81       | 2,0      |          | 115      |          |          |          | 110x1/4 2,23               |
|                                       |              | 100                         | 125      | 100      | 2,0      |          | 130      |          |          |          | 130x1/4 3,01               |
|                                       |              | 125                         | 214,5    | 125      | 2,0      |          | 223      |          |          |          | 160x1/4 4,21               |
|                                       |              | 150                         | 254      | 150      | 2,0      |          | 265      |          |          |          | 190x1/4 8,01               |



Bend 90° K/M - K/M  
Bogen 90° K/M - K/M

**30080**

**Dimensions • Baumaße**

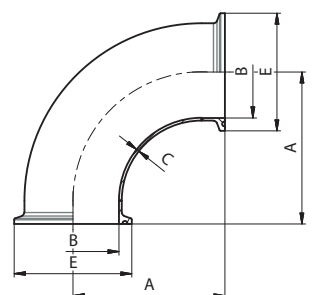


| DN  | A     | B   | C   | D | E | F | R | L | Rd x s  | kg   |
|-----|-------|-----|-----|---|---|---|---|---|---------|------|
| 10  | 40    | 10  | 1,5 |   |   |   |   |   | 28x1/8  | 0,21 |
| 15  | 49    | 16  | 1,5 |   |   |   |   |   | 34x1/8  | 0,27 |
| 20  | 56    | 20  | 1,5 |   |   |   |   |   | 44x1/6  | 0,42 |
| 25  | 68    | 26  | 1,5 |   |   |   |   |   | 52x1/6  | 0,63 |
| 32  | 73    | 32  | 1,5 |   |   |   |   |   | 58x1/6  | 0,73 |
| 40  | 78    | 38  | 1,5 |   |   |   |   |   | 65x1/6  | 0,87 |
| 50  | 89    | 50  | 1,5 |   |   |   |   |   | 78x1/6  | 1,23 |
| 65  | 101   | 66  | 2,0 |   |   |   |   |   | 95x1/6  | 1,99 |
| 80  | 111   | 81  | 2,0 |   |   |   |   |   | 110x1/4 | 2,73 |
| 100 | 125   | 100 | 2,0 |   |   |   |   |   | 130x1/4 | 3,84 |
| 125 | 214,5 | 125 | 2,0 |   |   |   |   |   | 160x1/4 | 6,37 |
| 150 | 254   | 150 | 2,0 |   |   |   |   |   | 190x1/4 | 9,36 |

Bend 90° C - C  
Bogen 90° C - C

**30090**

**Dimensions • Baumaße**

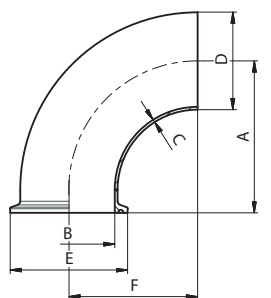


| DN  | A     | B   | C   | D | E    | F | r | L | Rd x s | kg   |
|-----|-------|-----|-----|---|------|---|---|---|--------|------|
| 10  | 38,7  | 10  | 1,5 |   | 34   |   |   |   |        | 0,08 |
| 15  | 47,7  | 16  | 1,5 |   | 34   |   |   |   |        | 0,09 |
| 20  | 52,7  | 20  | 1,5 |   | 34   |   |   |   |        | 0,10 |
| 25  | 62,7  | 26  | 1,5 |   | 50,5 |   |   |   |        | 0,20 |
| 32  | 67,7  | 32  | 1,5 |   | 50,5 |   |   |   |        | 0,23 |
| 40  | 72,7  | 38  | 1,5 |   | 50,5 |   |   |   |        | 0,28 |
| 50  | 82,7  | 50  | 1,5 |   | 64   |   |   |   |        | 0,32 |
| 65  | 92,7  | 66  | 2,0 |   | 91   |   |   |   |        | 0,62 |
| 80  | 102,7 | 81  | 2,0 |   | 106  |   |   |   |        | 0,92 |
| 100 | 115,8 | 100 | 2,0 |   | 119  |   |   |   |        | 1,13 |
|     |       |     |     |   |      |   |   |   |        |      |
|     |       |     |     |   |      |   |   |   |        |      |
|     |       |     |     |   |      |   |   |   |        |      |

Bend 90° C - S  
Bogen 90° C - S

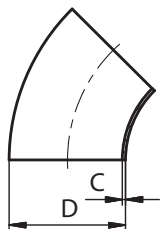
**30091**

**Dimensions • Baumaße**

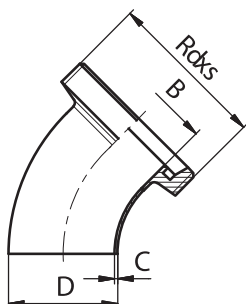


| DN  | A | B   | C   | D   | E    | F | r | L | Rd x s | kg   |
|-----|---|-----|-----|-----|------|---|---|---|--------|------|
| 10  |   | 10  | 1,5 | 13  | 34   |   |   |   |        | 0,04 |
| 15  |   | 16  | 1,5 | 19  | 34   |   |   |   |        | 0,05 |
| 20  |   | 20  | 1,5 | 23  | 34   |   |   |   |        | 0,06 |
| 25  |   | 26  | 1,5 | 29  | 50,5 |   |   |   |        | 0,08 |
| 32  |   | 32  | 1,5 | 35  | 50,5 |   |   |   |        | 0,10 |
| 40  |   | 38  | 1,5 | 41  | 50,5 |   |   |   |        | 0,11 |
| 50  |   | 50  | 1,5 | 53  | 64   |   |   |   |        | 0,15 |
| 65  |   | 66  | 2,0 | 70  | 91   |   |   |   |        | 0,34 |
| 80  |   | 81  | 2,0 | 85  | 106  |   |   |   |        | 0,46 |
| 100 |   | 100 | 2,0 | 104 | 119  |   |   |   |        | 0,56 |
|     |   |     |     |     |      |   |   |   |        |      |
|     |   |     |     |     |      |   |   |   |        |      |
|     |   |     |     |     |      |   |   |   |        |      |

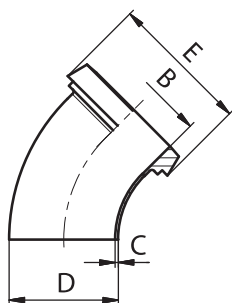
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|-----------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° S - S<br>Bogen 45° S - S | <b>30100</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|                                   |              | 10                          |          |          | 1,5      | 12       |          |          |          |          |               | 0,01      |
|                                   |              | 10                          |          |          | 1,5      | 13       |          |          |          |          |               | 0,01      |
|                                   |              | 15                          |          |          | 1,5      | 18       |          |          |          |          |               | 0,02      |
|                                   |              | 15                          |          |          | 1,5      | 19       |          |          |          |          |               | 0,02      |
|                                   |              | 20                          |          |          | 1,5      | 22       |          |          |          |          |               | 0,02      |
|                                   |              | 20                          |          |          | 1,5      | 23       |          |          |          |          |               | 0,02      |
|                                   |              | 25                          |          |          | 1,5      | 28       |          |          |          |          |               | 0,04      |
|                                   |              | 25                          |          |          | 1,5      | 29       |          |          |          |          |               | 0,04      |
|                                   |              | 32                          |          |          | 1,5      | 34       |          |          |          |          |               | 0,05      |
|                                   |              | 32                          |          |          | 1,5      | 35       |          |          |          |          |               | 0,05      |
|                                   |              | 40                          |          |          | 1,5      | 40       |          |          |          |          |               | 0,07      |
|                                   |              | 40                          |          |          | 1,5      | 41       |          |          |          |          |               | 0,07      |
|                                   |              | 50                          |          |          | 1,5      | 52       |          |          |          |          |               | 0,10      |
|                                   |              | 50                          |          |          | 1,5      | 53       |          |          |          |          |               | 0,10      |
|                                   |              | 65                          |          |          | 2,0      | 70       |          |          |          |          |               | 0,21      |
|                                   |              | 80                          |          |          | 2,0      | 85       |          |          |          |          |               | 0,30      |
|                                   |              | 100                         |          |          | 2,0      | 104      |          |          |          |          |               | 0,40      |
|                                   |              | 125                         |          |          | 2,0      | 129      |          |          |          |          |               | 0,95      |
|                                   |              | 150                         |          |          | 2,0      | 154      |          |          |          |          |               | 1,40      |

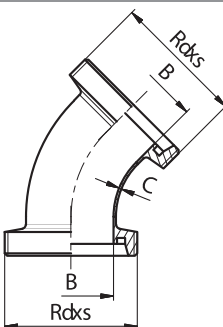


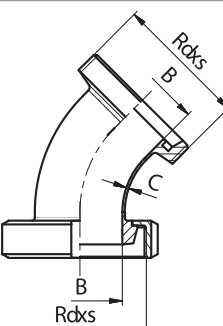
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|-----------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° G - S<br>Bogen 45° G - S | <b>30130</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|                                   |              | 10                          |          | 10       | 1,5      | 13       |          |          |          |          | 28x1/8        | 0,05      |
|                                   |              | 15                          |          | 16       | 1,5      | 19       |          |          |          |          | 34x1/8        | 0,07      |
|                                   |              | 20                          |          | 20       | 1,5      | 23       |          |          |          |          | 44x1/6        | 0,13      |
|                                   |              | 25                          |          | 26       | 1,5      | 29       |          |          |          |          | 52x1/6        | 0,17      |
|                                   |              | 32                          |          | 32       | 1,5      | 35       |          |          |          |          | 58x1/6        | 0,21      |
|                                   |              | 40                          |          | 38       | 1,5      | 41       |          |          |          |          | 65x1/6        | 0,25      |
|                                   |              | 50                          |          | 50       | 1,5      | 53       |          |          |          |          | 78x1/6        | 0,35      |
|                                   |              | 65                          |          | 66       | 2,0      | 70       |          |          |          |          | 95x1/6        | 0,58      |
|                                   |              | 80                          |          | 81       | 2,0      | 85       |          |          |          |          | 110x1/4       | 0,86      |
|                                   |              | 100                         |          | 100      | 2,0      | 104      |          |          |          |          | 130x1/4       | 1,09      |
|                                   |              | 125                         |          | 125      | 2,0      | 129      |          |          |          |          | 160x1/4       | 2,10      |
|                                   |              | 150                         |          | 150      | 2,0      | 154      |          |          |          |          | 190x1/4       | 3,33      |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |

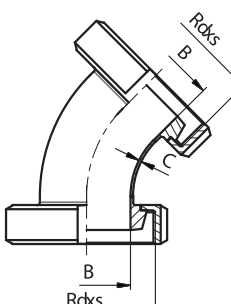


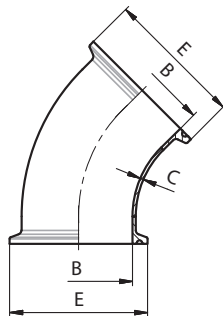
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|-----------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° K - S<br>Bogen 45° K - S | <b>30140</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|                                   |              | 10                          |          | 10       | 1,5      | 13       | 22,5     |          |          |          |               | 0,03      |
|                                   |              | 15                          |          | 16       | 1,5      | 19       | 28,5     |          |          |          |               | 0,04      |
|                                   |              | 20                          |          | 20       | 1,5      | 23       | 36,5     |          |          |          |               | 0,08      |
|                                   |              | 25                          |          | 26       | 1,5      | 29       | 44       |          |          |          |               | 0,12      |
|                                   |              | 32                          |          | 32       | 1,5      | 35       | 50       |          |          |          |               | 0,15      |
|                                   |              | 40                          |          | 38       | 1,5      | 41       | 56       |          |          |          |               | 0,18      |
|                                   |              | 50                          |          | 50       | 1,5      | 53       | 68,5     |          |          |          |               | 0,26      |
|                                   |              | 65                          |          | 66       | 2,0      | 70       | 86       |          |          |          |               | 0,47      |
|                                   |              | 80                          |          | 81       | 2,0      | 85       | 100      |          |          |          |               | 0,58      |
|                                   |              | 100                         |          | 100      | 2,0      | 104      | 121      |          |          |          |               | 0,87      |
|                                   |              | 125                         |          | 125      | 2,0      | 129      | 150      |          |          |          |               | 1,66      |
|                                   |              | 150                         |          | 150      | 2,0      | 154      | 176      |          |          |          |               | 2,31      |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                   |              |                             |          |          |          |          |          |          |          |          |               |           |

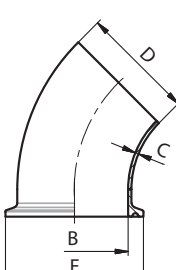


|                                                                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° G - G<br>Bogen 45° G - G                                                 | <b>30150</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|  |              | 10                          |          | 10       | 1,5      |          |          |          |          |          | 28x1/8        | 0,09      |
|                                                                                   |              | 15                          |          | 16       | 1,5      |          |          |          |          |          | 34x1/8        | 0,13      |
|                                                                                   |              | 20                          |          | 20       | 1,5      |          |          |          |          |          | 44x1/6        | 0,24      |
|                                                                                   |              | 25                          |          | 26       | 1,5      |          |          |          |          |          | 52x1/6        | 0,31      |
|                                                                                   |              | 32                          |          | 32       | 1,5      |          |          |          |          |          | 58x1/6        | 0,36      |
|                                                                                   |              | 40                          |          | 38       | 1,5      |          |          |          |          |          | 65x1/6        | 0,44      |
|                                                                                   |              | 50                          |          | 50       | 1,5      |          |          |          |          |          | 78x1/6        | 0,60      |
|                                                                                   |              | 65                          |          | 66       | 2,0      |          |          |          |          |          | 95x1/6        | 0,95      |
|                                                                                   |              | 80                          |          | 81       | 2,0      |          |          |          |          |          | 110x1/4       | 1,43      |
|                                                                                   |              | 100                         |          | 100      | 2,0      |          |          |          |          |          | 130x1/4       | 1,77      |
|                                                                                   |              | 125                         |          | 125      | 2,0      |          |          |          |          |          | 160x1/4       | 3,26      |
|                                                                                   |              | 150                         |          | 150      | 2,0      |          |          |          |          |          | 190x1/4       | 5,31      |

|                                                                                    |              |                             |          |          |          |          |          |          |          |          |               |           |
|------------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° K/M - G<br>Bogen 45° K/M - G                                              | <b>30160</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|  |              | 10                          |          | 10       | 1,5      |          |          |          |          |          | 28x1/8        | 0,15      |
|                                                                                    |              | 15                          |          | 16       | 1,5      |          |          |          |          |          | 34x1/8        | 0,19      |
|                                                                                    |              | 20                          |          | 20       | 1,5      |          |          |          |          |          | 44x1/6        | 0,32      |
|                                                                                    |              | 25                          |          | 26       | 1,5      |          |          |          |          |          | 52x1/6        | 0,43      |
|                                                                                    |              | 32                          |          | 32       | 1,5      |          |          |          |          |          | 58x1/6        | 0,52      |
|                                                                                    |              | 40                          |          | 38       | 1,5      |          |          |          |          |          | 65x1/6        | 0,62      |
|                                                                                    |              | 50                          |          | 50       | 1,5      |          |          |          |          |          | 78x1/6        | 0,86      |
|                                                                                    |              | 65                          |          | 66       | 2,0      |          |          |          |          |          | 95x1/6        | 1,41      |
|                                                                                    |              | 80                          |          | 81       | 2,0      |          |          |          |          |          | 110x1/4       | 1,93      |
|                                                                                    |              | 100                         |          | 100      | 2,0      |          |          |          |          |          | 130x1/4       | 2,61      |
|                                                                                    |              | 125                         |          | 125      | 2,0      |          |          |          |          |          | 160x1/4       | 4,34      |
|                                                                                    |              | 150                         |          | 150      | 2,0      |          |          |          |          |          | 190x1/4       | 6,66      |

|                                                                                     |              |                             |          |          |          |          |          |          |          |          |               |           |
|-------------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° K/M - K/M<br>Bogen 45° K/M - K/M                                           | <b>30170</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|  |              | 10                          |          | 10       | 1,5      |          |          |          |          |          | 28x1/8        | 0,20      |
|                                                                                     |              | 15                          |          | 16       | 1,5      |          |          |          |          |          | 34x1/8        | 0,25      |
|                                                                                     |              | 20                          |          | 20       | 1,5      |          |          |          |          |          | 44x1/6        | 0,40      |
|                                                                                     |              | 25                          |          | 26       | 1,5      |          |          |          |          |          | 52x1/6        | 0,56      |
|                                                                                     |              | 32                          |          | 32       | 1,5      |          |          |          |          |          | 58x1/6        | 0,67      |
|                                                                                     |              | 40                          |          | 38       | 1,5      |          |          |          |          |          | 65x1/6        | 0,81      |
|                                                                                     |              | 50                          |          | 50       | 1,5      |          |          |          |          |          | 78x1/6        | 1,12      |
|                                                                                     |              | 65                          |          | 66       | 2,0      |          |          |          |          |          | 95x1/6        | 1,88      |
|                                                                                     |              | 80                          |          | 81       | 2,0      |          |          |          |          |          | 110x1/4       | 2,43      |
|                                                                                     |              | 100                         |          | 100      | 2,0      |          |          |          |          |          | 130x1/4       | 3,44      |
|                                                                                     |              | 125                         |          | 125      | 2,0      |          |          |          |          |          | 160x1/4       | 5,43      |
|                                                                                     |              | 150                         |          | 150      | 2,0      |          |          |          |          |          | 190x1/4       | 8,01      |

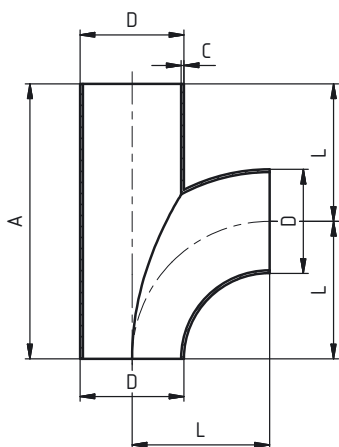
|                                                                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° C - C<br>Bogen 45° C - C                                                 | <b>30190</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|  | <b>10</b>    |                             |          | 10       | 1,5      |          | 34       |          |          |          |               | 0,07      |
|                                                                                   | <b>15</b>    |                             |          | 16       | 1,5      |          | 34       |          |          |          |               | 0,08      |
|                                                                                   | <b>20</b>    |                             |          | 20       | 1,5      |          | 34       |          |          |          |               | 0,10      |
|                                                                                   | <b>25</b>    |                             |          | 26       | 1,5      |          | 50,5     |          |          |          |               | 0,12      |
|                                                                                   | <b>32</b>    |                             |          | 32       | 1,5      |          | 50,5     |          |          |          |               | 0,15      |
|                                                                                   | <b>40</b>    |                             |          | 38       | 1,5      |          | 50,5     |          |          |          |               | 0,15      |
|                                                                                   | <b>50</b>    |                             |          | 50       | 1,5      |          | 64       |          |          |          |               | 0,20      |
|                                                                                   | <b>65</b>    |                             |          | 66       | 2,0      |          | 91       |          |          |          |               | 0,47      |
|                                                                                   | <b>80</b>    |                             |          | 81       | 2,0      |          | 106      |          |          |          |               | 0,62      |
|                                                                                   | <b>100</b>   |                             |          | 100      | 2,0      |          | 119      |          |          |          |               | 0,72      |
|                                                                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                                                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                                                                   |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                                                                   |              |                             |          |          |          |          |          |          |          |          |               |           |

|                                                                                    |              |                             |          |          |          |          |          |          |          |          |               |           |
|------------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|-----------|
| Bend 45° S - C<br>Bogen 45° S - C                                                  | <b>30191</b> | <b>Dimensions • Baumaße</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>Rd x s</b> | <b>kg</b> |
|  | <b>10</b>    |                             |          | 10       | 1,5      | 13       | 34       |          |          |          |               | 0,04      |
|                                                                                    | <b>15</b>    |                             |          | 16       | 1,5      | 19       | 34       |          |          |          |               | 0,05      |
|                                                                                    | <b>20</b>    |                             |          | 20       | 1,5      | 23       | 34       |          |          |          |               | 0,06      |
|                                                                                    | <b>25</b>    |                             |          | 26       | 1,5      | 29       | 50,5     |          |          |          |               | 0,08      |
|                                                                                    | <b>32</b>    |                             |          | 32       | 1,5      | 35       | 50,5     |          |          |          |               | 0,10      |
|                                                                                    | <b>40</b>    |                             |          | 38       | 1,5      | 41       | 50,5     |          |          |          |               | 0,11      |
|                                                                                    | <b>50</b>    |                             |          | 50       | 1,5      | 53       | 64       |          |          |          |               | 0,15      |
|                                                                                    | <b>65</b>    |                             |          | 66       | 2,0      | 70       | 91       |          |          |          |               | 0,34      |
|                                                                                    | <b>80</b>    |                             |          | 81       | 2,0      | 85       | 106      |          |          |          |               | 0,46      |
|                                                                                    | <b>100</b>   |                             |          | 100      | 2,0      | 104      | 119      |          |          |          |               | 0,56      |
|                                                                                    |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                                                                    |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                                                                    |              |                             |          |          |          |          |          |          |          |          |               |           |
|                                                                                    |              |                             |          |          |          |          |          |          |          |          |               |           |

Tee bend S - S - S  
T - Bogen S - S - S

**30300**

**Dimensions • Baumaße**

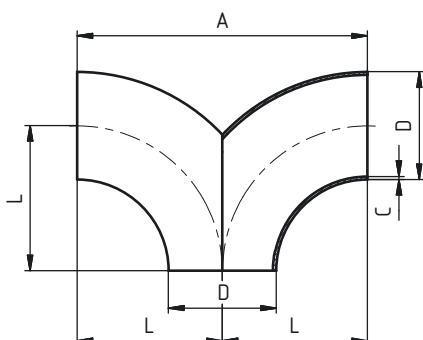


| DN  | A   | B | C   | D   | E | F | R | L     | Rd x s | kg   |
|-----|-----|---|-----|-----|---|---|---|-------|--------|------|
| 15  | 70  |   | 1,5 | 18  |   |   |   | 35    |        | 0,07 |
| 15  | 70  |   | 1,5 | 19  |   |   |   | 35    |        | 0,07 |
| 20  | 80  |   | 1,5 | 22  |   |   |   | 40    |        | 0,08 |
| 20  | 80  |   | 1,5 | 23  |   |   |   | 40    |        | 0,08 |
| 25  | 100 |   | 1,5 | 28  |   |   |   | 50    |        | 0,14 |
| 25  | 100 |   | 1,5 | 29  |   |   |   | 50    |        | 0,14 |
| 32  | 110 |   | 1,5 | 34  |   |   |   | 55    |        | 0,18 |
| 32  | 110 |   | 1,5 | 35  |   |   |   | 55    |        | 0,18 |
| 40  | 120 |   | 1,5 | 40  |   |   |   | 60    |        | 0,23 |
| 40  | 120 |   | 1,5 | 41  |   |   |   | 60    |        | 0,23 |
| 50  | 140 |   | 1,5 | 52  |   |   |   | 70    |        | 0,34 |
| 50  | 140 |   | 1,5 | 53  |   |   |   | 70    |        | 0,34 |
| 65  | 160 |   | 2,0 | 70  |   |   |   | 80    |        | 0,51 |
| 80  | 180 |   | 2,0 | 85  |   |   |   | 90    |        | 0,91 |
| 100 | 200 |   | 2,0 | 104 |   |   |   | 100   |        | 1,21 |
| 125 | 375 |   | 2,0 | 129 |   |   |   | 187,5 |        | 3,14 |
| 150 | 450 |   | 2,0 | 154 |   |   |   | 225   |        | 5,38 |

Double tee bend S - S - S  
T - Doppelbogen S - S - S

**30320**

**Dimensions • Baumaße**

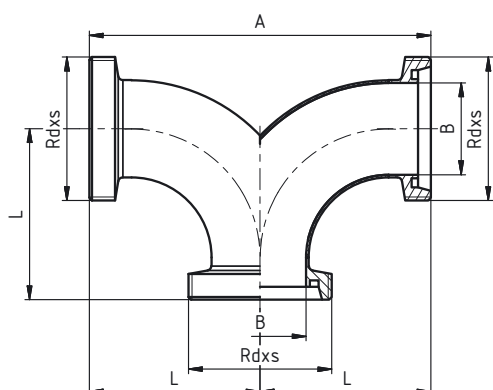


| DN  | A   | B | C   | D   | E | F | R | L     | Rd x s | kg   |
|-----|-----|---|-----|-----|---|---|---|-------|--------|------|
| 15  | 70  |   | 1,5 | 18  |   |   |   | 35    |        | 0,06 |
| 15  | 70  |   | 1,5 | 19  |   |   |   | 35    |        | 0,06 |
| 20  | 80  |   | 1,5 | 22  |   |   |   | 40    |        | 0,08 |
| 20  | 80  |   | 1,5 | 23  |   |   |   | 40    |        | 0,08 |
| 25  | 100 |   | 1,5 | 28  |   |   |   | 50    |        | 0,15 |
| 25  | 100 |   | 1,5 | 29  |   |   |   | 50    |        | 0,15 |
| 32  | 110 |   | 1,5 | 34  |   |   |   | 55    |        | 0,20 |
| 32  | 110 |   | 1,5 | 35  |   |   |   | 55    |        | 0,20 |
| 40  | 120 |   | 1,5 | 40  |   |   |   | 60    |        | 0,26 |
| 40  | 120 |   | 1,5 | 41  |   |   |   | 60    |        | 0,26 |
| 50  | 140 |   | 1,5 | 52  |   |   |   | 70    |        | 0,40 |
| 50  | 140 |   | 1,5 | 53  |   |   |   | 70    |        | 0,40 |
| 65  | 160 |   | 2,0 | 70  |   |   |   | 80    |        | 0,81 |
| 80  | 180 |   | 2,0 | 85  |   |   |   | 90    |        | 1,12 |
| 100 | 200 |   | 2,0 | 104 |   |   |   | 100   |        | 1,52 |
| 125 | 375 |   | 2,0 | 129 |   |   |   | 187,5 |        | 3,62 |
| 150 | 450 |   | 2,0 | 154 |   |   |   | 225   |        | 5,22 |

Double tee bend G - G - G  
T - Doppelbogen G - G - G

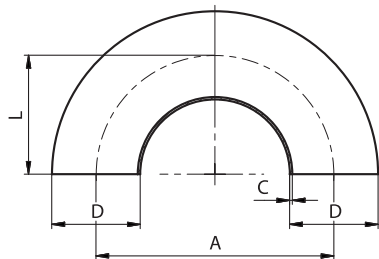
**30330**

**Dimensions • Baumaße**

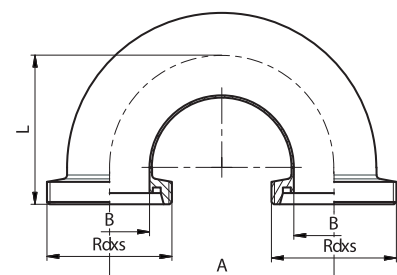


| DN  | A   | B   | C   | D | E | F | L   | Rd x s  | kg    |
|-----|-----|-----|-----|---|---|---|-----|---------|-------|
| 25  | 144 | 26  | 1,5 |   |   |   | 72  | 52x1/6  | 0,55  |
| 32  | 154 | 32  | 1,5 |   |   |   | 77  | 58x1/6  | 0,66  |
| 40  | 164 | 38  | 1,5 |   |   |   | 82  | 65x1/6  | 0,82  |
| 50  | 186 | 50  | 1,5 |   |   |   | 93  | 78x1/6  | 1,14  |
| 65  | 210 | 66  | 2,0 |   |   |   | 105 | 95x1/6  | 1,92  |
| 80  | 230 | 81  | 2,0 |   |   |   | 116 | 110x1/4 | 2,83  |
| 100 | 260 | 100 | 2,0 |   |   |   | 130 | 130x1/4 | 3,57  |
| 125 | 446 | 125 | 2,0 |   |   |   | 223 | 160x1/4 | 7,11  |
| 150 | 530 | 150 | 2,0 |   |   |   | 265 | 190x1/4 | 11,15 |

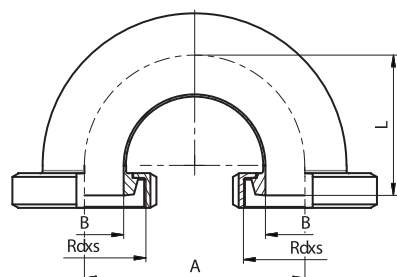
|                                     |              |                             |          |          |          |          |          |          |          |          |                            |
|-------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 180° S - S<br>Bogen 180° S - S | <b>30340</b> | <b>Dimensions • Baumaße</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>Rd x s</b><br><b>kg</b> |
|                                     |              | 10                          | 52       |          | 1,5      | 12       |          |          |          | 26       | 0,04                       |
|                                     |              | 15                          | 70       |          | 1,5      | 18       |          |          |          | 35       | 0,08                       |
|                                     |              | 20                          | 80       |          | 1,5      | 22       |          |          |          | 40       | 0,08                       |
|                                     |              | 25                          | 100      |          | 1,5      | 28       |          |          |          | 50       | 0,16                       |
|                                     |              | 32                          | 112      |          | 1,5      | 34       |          |          |          | 56       | 0,20                       |
|                                     |              | 40                          | 126      |          | 1,5      | 40       |          |          |          | 63       | 0,40                       |
|                                     |              | 50                          | 144      |          | 1,5      | 52       |          |          |          | 72       | 0,40                       |
|                                     |              | 65                          | 170      |          | 2,0      | 70       |          |          |          | 85       | 0,80                       |
|                                     |              | 80                          | 186      |          | 2,0      | 85       |          |          |          | 93       | 1,12                       |
|                                     |              | 100                         | 220      |          | 2,0      | 104      |          |          |          | 110      | 1,52                       |
| rozměry řada 2 na vyžádání          |              |                             |          |          |          |          |          |          |          |          |                            |



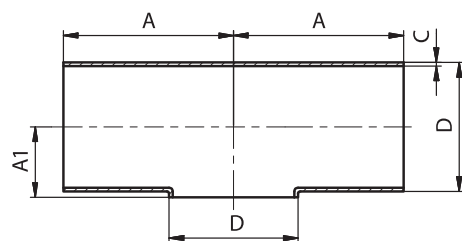
|                                     |              |                             |          |          |          |          |          |          |          |          |                            |
|-------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 180° G - G<br>Bogen 180° G - G | <b>30350</b> | <b>Dimensions • Baumaße</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>Rd x s</b><br><b>kg</b> |
|                                     |              | 10                          | 52       | 10       |          |          |          |          |          | 43       | 28x1/8 0,12                |
|                                     |              | 15                          | 70       | 16       |          |          |          |          |          | 52       | 34x1/8 0,18                |
|                                     |              | 20                          | 80       | 20       |          |          |          |          |          | 59       | 44x1/6 0,31                |
|                                     |              | 25                          | 100      | 26       |          |          |          |          |          | 72       | 52x1/6 0,43                |
|                                     |              | 32                          | 112      | 32       |          |          |          |          |          | 77       | 58x1/6 0,52                |
|                                     |              | 40                          | 126      | 38       |          |          |          |          |          | 82       | 65x1/6 0,65                |
|                                     |              | 50                          | 144      | 50       |          |          |          |          |          | 93       | 78x1/6 0,92                |
|                                     |              | 65                          | 170      | 66       |          |          |          |          |          | 105      | 95x1/6 1,39                |
|                                     |              | 80                          | 186      | 81       |          |          |          |          |          | 116      | 110x1/4 2,32               |
|                                     |              | 100                         | 220      | 100      |          |          |          |          |          | 130      | 130x1/4 2,98               |
|                                     |              | 125                         | 375      | 125      |          |          |          |          |          | 223      | 160x1/4 6,09               |
|                                     |              | 150                         | 450      | 150      |          |          |          |          |          | 265      | 190x1/4 9,37               |



|                                             |              |                             |          |          |          |          |          |          |          |          |                            |
|---------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 180° K/M - K/M<br>Bogen 180° K/M - K/M | <b>30360</b> | <b>Dimensions • Baumaße</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>Rd x s</b><br><b>kg</b> |
|                                             |              | 10                          | 52       | 10       |          |          |          |          |          | 40       | 28x1/8 0,23                |
|                                             |              | 15                          | 70       | 16       |          |          |          |          |          | 49       | 34x1/8 0,31                |
|                                             |              | 20                          | 80       | 20       |          |          |          |          |          | 56       | 44x1/6 0,48                |
|                                             |              | 25                          | 100      | 26       |          |          |          |          |          | 68       | 52x1/6 0,54                |
|                                             |              | 32                          | 112      | 32       |          |          |          |          |          | 73       | 58x1/6 0,83                |
|                                             |              | 40                          | 126      | 38       |          |          |          |          |          | 78       | 65x1/6 1,02                |
|                                             |              | 50                          | 144      | 50       |          |          |          |          |          | 89       | 78x1/6 1,44                |
|                                             |              | 65                          | 170      | 66       |          |          |          |          |          | 101      | 95x1/6 2,31                |
|                                             |              | 80                          | 186      | 81       |          |          |          |          |          | 111      | 110x1/4 3,32               |
|                                             |              | 100                         | 220      | 100      |          |          |          |          |          | 125      | 130x1/4 4,65               |
|                                             |              | 125                         | 375      | 125      |          |          |          |          |          | 214,5    | 160x1/4 8,25               |
|                                             |              | 150                         | 450      | 150      |          |          |          |          |          | 254      | 190x1/4 12,07              |



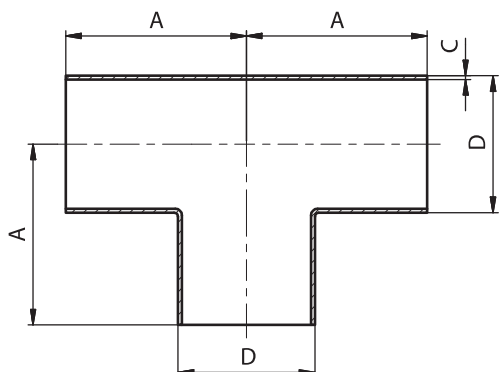
|                                                     |              |                             |          |           |          |          |          |          |          |          |                            |
|-----------------------------------------------------|--------------|-----------------------------|----------|-----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Tee S - S - S (short)<br>T - Stück S - S - S (kurz) | <b>30400</b> | <b>Dimensions • Baumaße</b> |          |           |          |          |          |          |          |          |                            |
|                                                     |              | <b>DN</b>                   | <b>A</b> | <b>A1</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>Rd x s</b><br><b>kg</b> |
|                                                     |              | 10                          | 26       | 8         | 1,5      | 12       |          |          |          |          | 0,02                       |
|                                                     |              | 10                          | 26       | 8         | 1,5      | 13       |          |          |          |          | 0,02                       |
|                                                     |              | 15                          | 35       | 11        | 1,5      | 18       |          |          |          |          | 0,04                       |
|                                                     |              | 15                          | 35       | 11        | 1,5      | 19       |          |          |          |          | 0,04                       |
|                                                     |              | 20                          | 40       | 13        | 1,5      | 22       |          |          |          |          | 0,06                       |
|                                                     |              | 20                          | 40       | 13        | 1,5      | 23       |          |          |          |          | 0,06                       |
|                                                     |              | 25                          | 50       | 16        | 1,5      | 28       |          |          |          |          | 0,10                       |
|                                                     |              | 25                          | 50       | 16        | 1,5      | 29       |          |          |          |          | 0,10                       |
|                                                     |              | 32                          | 55       | 18        | 1,5      | 34       |          |          |          |          | 0,13                       |
|                                                     |              | 32                          | 55       | 18        | 1,5      | 35       |          |          |          |          | 0,13                       |
|                                                     |              | 40                          | 60       | 23        | 1,5      | 40       |          |          |          |          | 0,17                       |
|                                                     |              | 40                          | 60       | 23        | 1,5      | 41       |          |          |          |          | 0,17                       |
|                                                     |              | 50                          | 70       | 29        | 1,5      | 52       |          |          |          |          | 0,26                       |
|                                                     |              | 50                          | 70       | 29        | 1,5      | 53       |          |          |          |          | 0,26                       |
|                                                     |              | 65                          | 80       | 38        | 2,0      | 70       |          |          |          |          | 0,53                       |
|                                                     |              | 80                          | 90       | 45,5      | 2,0      | 85       |          |          |          |          | 0,72                       |
|                                                     |              | 100                         | 100      | 55        | 2,0      | 104      |          |          |          |          | 0,98                       |
|                                                     |              | 125                         | 187,5    | 66,5      | 2,0      | 129      |          |          |          |          | 2,32                       |
|                                                     |              | 150                         | 225      | 79        | 2,0      | 154      |          |          |          |          | 3,32                       |



Tee S - S - S (long)  
T - Stück S - S - S (lang)

**30410**

**Dimensions • Baumaße**

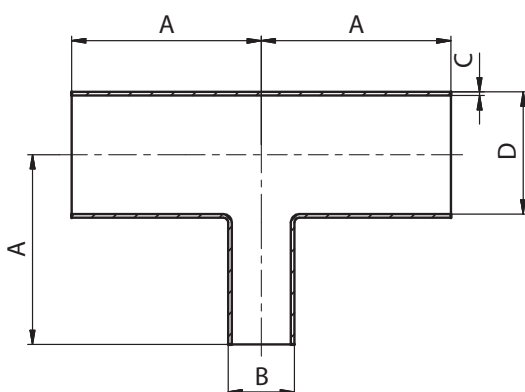


| DN  | A     | B | C   | D   | E | F | R | L | Rd x s | kg   |
|-----|-------|---|-----|-----|---|---|---|---|--------|------|
| 10  | 26    |   | 1,5 | 12  |   |   |   |   |        | 0,03 |
| 10  | 26    |   | 1,5 | 13  |   |   |   |   |        | 0,03 |
| 15  | 35    |   | 1,5 | 18  |   |   |   |   |        | 0,06 |
| 15  | 35    |   | 1,5 | 19  |   |   |   |   |        | 0,06 |
| 20  | 40    |   | 1,5 | 22  |   |   |   |   |        | 0,08 |
| 20  | 40    |   | 1,5 | 23  |   |   |   |   |        | 0,08 |
| 25  | 50    |   | 1,5 | 28  |   |   |   |   |        | 0,13 |
| 25  | 50    |   | 1,5 | 29  |   |   |   |   |        | 0,13 |
| 32  | 55    |   | 1,5 | 34  |   |   |   |   |        | 0,18 |
| 32  | 55    |   | 1,5 | 35  |   |   |   |   |        | 0,18 |
| 40  | 60    |   | 1,5 | 40  |   |   |   |   |        | 0,22 |
| 40  | 60    |   | 1,5 | 41  |   |   |   |   |        | 0,22 |
| 50  | 70    |   | 1,5 | 52  |   |   |   |   |        | 0,34 |
| 50  | 70    |   | 1,5 | 53  |   |   |   |   |        | 0,34 |
| 65  | 80    |   | 2,0 | 70  |   |   |   |   |        | 0,67 |
| 80  | 90    |   | 2,0 | 85  |   |   |   |   |        | 0,91 |
| 100 | 100   |   | 2,0 | 104 |   |   |   |   |        | 1,21 |
| 125 | 187,5 |   | 2,0 | 129 |   |   |   |   |        | 3,08 |
| 150 | 225   |   | 2,0 | 154 |   |   |   |   |        | 4,43 |

Tee S - S - S (long)  
T - Stück S - S - S (lang)

**30430**

**Dimensions • Baumaße**



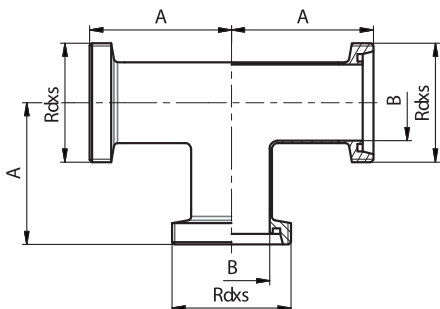
| DN    | A  | B  | C   | D  | E | kg |
|-------|----|----|-----|----|---|----|
| 15/10 | 35 | 13 | 1,5 | 19 |   |    |
| 20/10 | 40 | 13 | 1,5 | 23 |   |    |
| 20/15 | 40 | 19 | 1,5 | 23 |   |    |
| 25/10 | 50 | 13 | 1,5 | 29 |   |    |
| 25/15 | 50 | 19 | 1,5 | 29 |   |    |
| 25/20 | 50 | 23 | 1,5 | 29 |   |    |
| 32/10 | 55 | 13 | 1,5 | 35 |   |    |
| 32/15 | 55 | 19 | 1,5 | 35 |   |    |
| 32/20 | 55 | 23 | 1,5 | 35 |   |    |
| 32/25 | 55 | 29 | 1,5 | 35 |   |    |
| 40/10 | 60 | 13 | 1,5 | 41 |   |    |
| 40/15 | 60 | 19 | 1,5 | 41 |   |    |
| 40/20 | 60 | 23 | 1,5 | 41 |   |    |
| 40/25 | 60 | 29 | 1,5 | 41 |   |    |
| 40/32 | 60 | 35 | 1,5 | 41 |   |    |
| 50/10 | 70 | 13 | 1,5 | 53 |   |    |
| 50/15 | 70 | 19 | 1,5 | 53 |   |    |
| 50/20 | 70 | 23 | 1,5 | 53 |   |    |
| 50/25 | 70 | 29 | 1,5 | 53 |   |    |
| 50/32 | 70 | 35 | 1,5 | 53 |   |    |
| 50/40 | 70 | 41 | 1,5 | 53 |   |    |
| 65/15 | 80 | 19 | 2   | 70 |   |    |
| 65/20 | 80 | 23 | 2   | 70 |   |    |
| 65/25 | 80 | 29 | 2   | 70 |   |    |

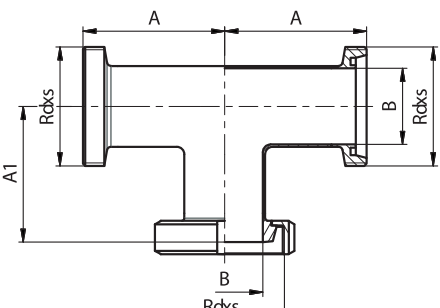
| DN      | A     | B   | C | D   | E | kg |
|---------|-------|-----|---|-----|---|----|
| 65/32   | 80    | 35  | 2 | 70  |   |    |
| 65/40   | 80    | 41  | 2 | 70  |   |    |
| 65/50   | 80    | 53  | 2 | 70  |   |    |
| 80/15   | 90    | 19  | 2 | 85  |   |    |
| 80/25   | 90    | 29  | 2 | 85  |   |    |
| 80/32   | 90    | 35  | 2 | 85  |   |    |
| 80/40   | 90    | 41  | 2 | 85  |   |    |
| 80/50   | 90    | 53  | 2 | 85  |   |    |
| 80/65   | 90    | 70  | 2 | 85  |   |    |
| 100/25  | 100   | 29  | 2 | 104 |   |    |
| 100/32  | 100   | 35  | 2 | 104 |   |    |
| 100/40  | 100   | 41  | 2 | 104 |   |    |
| 100/50  | 100   | 53  | 2 | 104 |   |    |
| 100/65  | 100   | 70  | 2 | 104 |   |    |
| 100/80  | 100   | 85  | 2 | 104 |   |    |
| 125/65  | 187,5 | 70  | 2 | 125 |   |    |
| 125/80  | 187,5 | 85  | 2 | 125 |   |    |
| 150/40  | 225   | 41  | 2 | 150 |   |    |
| 150/80  | 225   | 85  | 2 | 150 |   |    |
| 150/100 | 225   | 104 | 2 | 150 |   |    |
| 150/125 | 225   | 129 | 2 | 150 |   |    |

Tee S - S - S (reducing)  
T - Stück S - S - S (reduziert)

30440

Dimensions • Baumaße

|                                                                                   |       |                      |     |     |   |   |   |   |   |   |         |       |
|-----------------------------------------------------------------------------------|-------|----------------------|-----|-----|---|---|---|---|---|---|---------|-------|
| Tee G - G - G<br>T - Stück G - G - G                                              | 30450 | Dimensions • Baumaße |     |     |   |   |   |   |   |   |         |       |
|                                                                                   |       | DN                   | A   | B   | C | D | E | F | R | L | Rd x s  | kg    |
|  |       | 10                   | 43  | 10  |   |   |   |   |   |   | 28x1/8  | 0,16  |
|                                                                                   |       | 15                   | 52  | 16  |   |   |   |   |   |   | 34x1/8  | 0,23  |
|                                                                                   |       | 20                   | 59  | 20  |   |   |   |   |   |   | 44x1/6  | 0,40  |
|                                                                                   |       | 25                   | 72  | 26  |   |   |   |   |   |   | 52x1/6  | 0,53  |
|                                                                                   |       | 32                   | 77  | 32  |   |   |   |   |   |   | 58x1/6  | 0,64  |
|                                                                                   |       | 40                   | 82  | 38  |   |   |   |   |   |   | 65x1/6  | 0,79  |
|                                                                                   |       | 50                   | 93  | 50  |   |   |   |   |   |   | 78x1/6  | 1,08  |
|                                                                                   |       | 65                   | 105 | 66  |   |   |   |   |   |   | 95x1/6  | 1,78  |
|                                                                                   |       | 80                   | 116 | 81  |   |   |   |   |   |   | 110x1/4 | 2,62  |
|                                                                                   |       | 100                  | 130 | 100 |   |   |   |   |   |   | 130x1/4 | 3,26  |
|                                                                                   |       | 125                  | 223 | 125 |   |   |   |   |   |   | 160x1/4 | 6,57  |
|                                                                                   |       | 150                  | 265 | 150 |   |   |   |   |   |   | 190x1/4 | 10,38 |

|                                                                                    |       |                      |     |       |     |   |   |   |   |   |         |      |
|------------------------------------------------------------------------------------|-------|----------------------|-----|-------|-----|---|---|---|---|---|---------|------|
| Tee G - G - K/M<br>T - Stück G - G - K/M                                           | 30460 | Dimensions • Baumaße |     |       |     |   |   |   |   |   |         |      |
|                                                                                    |       | DN                   | A   | A1    | B   | D | E | F | R | L | Rd x s  | kg   |
|  |       | 10                   | 43  | 40    | 10  |   |   |   |   |   | 28x1/8  | 0,21 |
|                                                                                    |       | 15                   | 52  | 49    | 16  |   |   |   |   |   | 34x1/8  | 0,29 |
|                                                                                    |       | 20                   | 59  | 56    | 20  |   |   |   |   |   | 44x1/6  | 0,48 |
|                                                                                    |       | 25                   | 72  | 68    | 26  |   |   |   |   |   | 52x1/6  | 0,62 |
|                                                                                    |       | 32                   | 77  | 73    | 32  |   |   |   |   |   | 58x1/6  | 0,80 |
|                                                                                    |       | 40                   | 82  | 78    | 38  |   |   |   |   |   | 65x1/6  | 0,97 |
|                                                                                    |       | 50                   | 93  | 89    | 50  |   |   |   |   |   | 78x1/6  | 1,35 |
|                                                                                    |       | 65                   | 105 | 101   | 66  |   |   |   |   |   | 95x1/6  | 2,24 |
|                                                                                    |       | 80                   | 116 | 111   | 81  |   |   |   |   |   | 110x1/4 | 3,11 |
|                                                                                    |       | 100                  | 130 | 125   | 100 |   |   |   |   |   | 130x1/4 | 4,10 |
|                                                                                    |       | 125                  | 223 | 214,5 | 125 |   |   |   |   |   | 160x1/4 | 7,65 |
|                                                                                    |       | 150                  | 265 | 254   | 150 |   |   |   |   |   | 190x1/4 | 9,34 |

Tee G - K/M - G

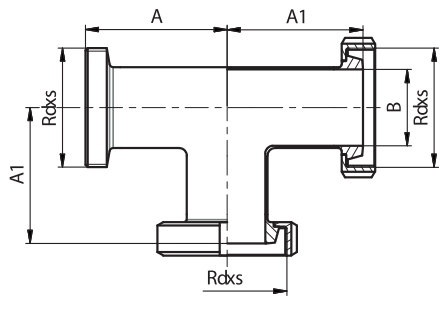
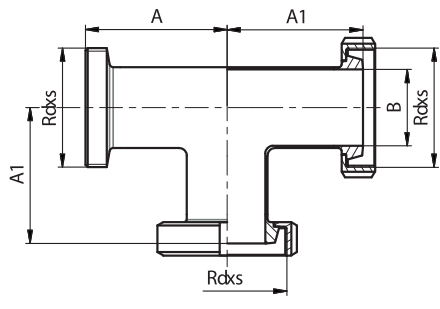
T - Stück G - K/M - G

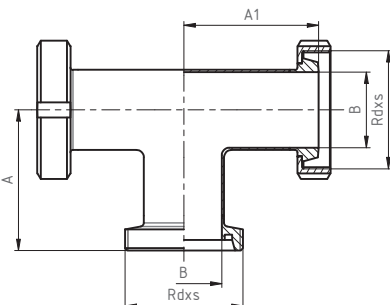
30470

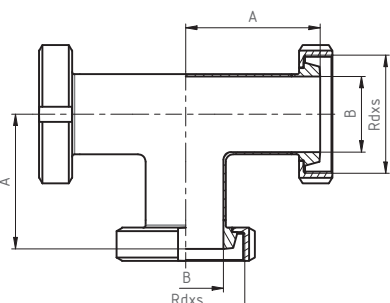
Dimensions • Baumaße

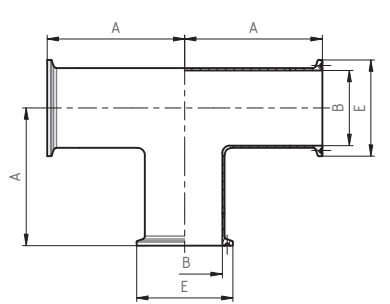
| DN  | A   | A1    | B   | D | E | F | R | L | Rd x s  | kg   |
|-----|-----|-------|-----|---|---|---|---|---|---------|------|
| 10  | 43  | 40    | 10  |   |   |   |   |   | 28x1/8  | 0,21 |
| 15  | 52  | 49    | 16  |   |   |   |   |   | 34x1/8  | 0,29 |
| 20  | 59  | 56    | 20  |   |   |   |   |   | 44x1/6  | 0,48 |
| 25  | 72  | 68    | 26  |   |   |   |   |   | 52x1/6  | 0,62 |
| 32  | 77  | 73    | 32  |   |   |   |   |   | 58x1/6  | 0,80 |
| 40  | 82  | 78    | 38  |   |   |   |   |   | 65x1/6  | 0,97 |
| 50  | 93  | 89    | 50  |   |   |   |   |   | 78x1/6  | 1,35 |
| 65  | 105 | 101   | 66  |   |   |   |   |   | 95x1/6  | 2,24 |
| 80  | 116 | 111   | 81  |   |   |   |   |   | 110x1/4 | 3,11 |
| 100 | 130 | 125   | 100 |   |   |   |   |   | 130x1/4 | 4,10 |
| 125 | 223 | 214,5 | 125 |   |   |   |   |   | 160x1/4 | 7,65 |
| 150 | 265 | 254   | 150 |   |   |   |   |   | 190x1/4 | 9,34 |

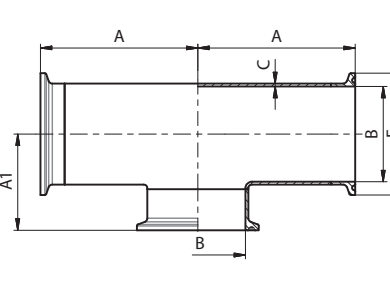
Technical drawing of Tee G-K/M-G (30470) showing dimensions A, A1, B, Rd, and s. The drawing includes a side view and a top view. The side view shows the main body of the tee with dimensions A (total height), A1 (height of the top flange), B (width of the top flange), and Rd (radius of the top flange). The top view shows the base of the tee with dimensions B (width of the base) and Rd (radius of the base). The drawing also shows the thickness of the flange and base, labeled as s.

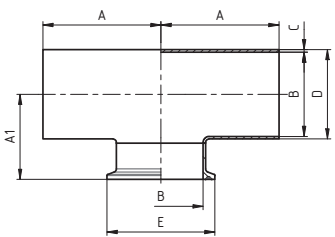
|                                                                                     |                                                                                     |                      |     |       |     |   |   |   |   |   |         |       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------|-----|-------|-----|---|---|---|---|---|---------|-------|
| Tee G - K/M - K/M<br>T - Stück G - K/M - K/M                                        | 30480                                                                               | Dimensions • Baumaße |     |       |     |   |   |   |   |   |         |       |
|                                                                                     |  | DN                   | A   | A1    | B   | D | E | F | R | L | Rd x s  | kg    |
|  |                                                                                     | 10                   | 43  | 40    | 10  |   |   |   |   |   | 28x1/8  | 0,27  |
|                                                                                     |                                                                                     | 15                   | 52  | 49    | 16  |   |   |   |   |   | 34x1/8  | 0,35  |
|                                                                                     |                                                                                     | 20                   | 59  | 56    | 20  |   |   |   |   |   | 44x1/6  | 0,56  |
|                                                                                     |                                                                                     | 25                   | 72  | 68    | 26  |   |   |   |   |   | 52x1/6  | 0,79  |
|                                                                                     |                                                                                     | 32                   | 77  | 73    | 32  |   |   |   |   |   | 58x1/6  | 0,95  |
|                                                                                     |                                                                                     | 40                   | 82  | 78    | 38  |   |   |   |   |   | 65x1/6  | 1,16  |
|                                                                                     |                                                                                     | 50                   | 93  | 89    | 50  |   |   |   |   |   | 78x1/6  | 1,60  |
|                                                                                     |                                                                                     | 65                   | 105 | 101   | 66  |   |   |   |   |   | 95x1/6  | 2,70  |
|                                                                                     |                                                                                     | 80                   | 116 | 111   | 81  |   |   |   |   |   | 110x1/4 | 3,61  |
|                                                                                     |                                                                                     | 100                  | 130 | 125   | 100 |   |   |   |   |   | 130x1/4 | 4,93  |
|                                                                                     |                                                                                     | 125                  | 223 | 214,5 | 125 |   |   |   |   |   | 160x1/4 | 8,73  |
|                                                                                     |                                                                                     | 150                  | 265 | 254   | 150 |   |   |   |   |   | 190x1/4 | 13,06 |

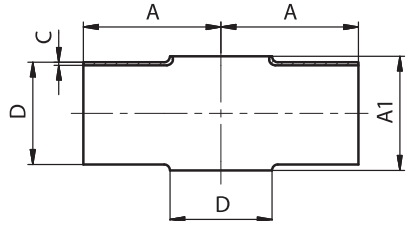
|                                                                                   |              |                             |     |       |     |   |   |   |   |   |         |       |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|-----|-------|-----|---|---|---|---|---|---------|-------|
| Tee K/M - K/M - G<br>T - Stück K/M - K/M - G                                      | <b>30490</b> | <b>Dimensions • Baumaße</b> |     |       |     |   |   |   |   |   |         |       |
|                                                                                   |              | DN                          | A   | A1    | B   | D | E | F | R | L | Rd x s  | kg    |
|  |              | 10                          | 43  | 40    | 10  |   |   |   |   |   | 28x1/8  | 0,27  |
|                                                                                   |              | 15                          | 52  | 49    | 16  |   |   |   |   |   | 34x1/8  | 0,35  |
|                                                                                   |              | 20                          | 59  | 56    | 20  |   |   |   |   |   | 44x1/6  | 0,56  |
|                                                                                   |              | 25                          | 72  | 68    | 26  |   |   |   |   |   | 52x1/6  | 0,79  |
|                                                                                   |              | 32                          | 77  | 73    | 32  |   |   |   |   |   | 58x1/6  | 0,95  |
|                                                                                   |              | 40                          | 82  | 78    | 38  |   |   |   |   |   | 65x1/6  | 1,16  |
|                                                                                   |              | 50                          | 93  | 89    | 50  |   |   |   |   |   | 78x1/6  | 1,60  |
|                                                                                   |              | 65                          | 105 | 101   | 66  |   |   |   |   |   | 95x1/6  | 2,70  |
|                                                                                   |              | 80                          | 115 | 111   | 81  |   |   |   |   |   | 110x1/4 | 3,61  |
|                                                                                   |              | 100                         | 130 | 125   | 100 |   |   |   |   |   | 130x1/4 | 4,93  |
|                                                                                   |              | 125                         | 223 | 214,5 | 125 |   |   |   |   |   | 160x1/4 | 8,73  |
|                                                                                   |              | 150                         | 265 | 254   | 150 |   |   |   |   |   | 190x1/4 | 13,06 |

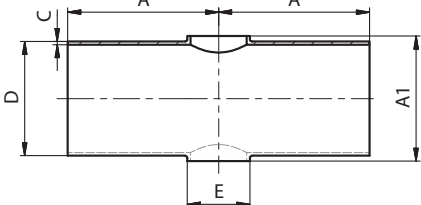
|                                                                                    |              |                             |       |     |   |   |   |   |   |   |         |       |
|------------------------------------------------------------------------------------|--------------|-----------------------------|-------|-----|---|---|---|---|---|---|---------|-------|
| Tee K/M - K/M - K/M<br>T - Stück K/M - K/M - K/M                                   | <b>30500</b> | <b>Dimensions • Baumaße</b> |       |     |   |   |   |   |   |   |         |       |
|                                                                                    |              | DN                          | A     | B   | C | D | E | F | R | L | Rd x s  | kg    |
|  |              | 10                          | 40    | 10  |   |   |   |   |   |   | 28x1/8  | 0,32  |
|                                                                                    |              | 15                          | 49    | 16  |   |   |   |   |   |   | 34x1/8  | 0,41  |
|                                                                                    |              | 20                          | 56    | 20  |   |   |   |   |   |   | 44x1/6  | 0,64  |
|                                                                                    |              | 25                          | 68    | 26  |   |   |   |   |   |   | 52x1/6  | 0,92  |
|                                                                                    |              | 32                          | 73    | 32  |   |   |   |   |   |   | 58x1/6  | 1,11  |
|                                                                                    |              | 40                          | 78    | 38  |   |   |   |   |   |   | 65x1/6  | 1,34  |
|                                                                                    |              | 50                          | 89    | 50  |   |   |   |   |   |   | 78x1/6  | 1,86  |
|                                                                                    |              | 65                          | 101   | 66  |   |   |   |   |   |   | 95x1/6  | 3,17  |
|                                                                                    |              | 80                          | 111   | 81  |   |   |   |   |   |   | 110x1/4 | 4,11  |
|                                                                                    |              | 100                         | 125   | 100 |   |   |   |   |   |   | 130x1/4 | 5,76  |
|                                                                                    |              | 125                         | 214,5 | 125 |   |   |   |   |   |   | 160x1/4 | 9,81  |
|                                                                                    |              | 150                         | 254   | 150 |   |   |   |   |   |   | 190x1/4 | 14,41 |

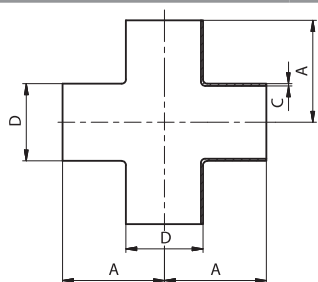
|                                                                                     |              |                             |       |     |   |   |      |   |   |   |        |      |
|-------------------------------------------------------------------------------------|--------------|-----------------------------|-------|-----|---|---|------|---|---|---|--------|------|
| Tee C - C - C (long)<br>T - Stück C - C - C (lang)                                  | <b>30520</b> | <b>Dimensions • Baumaße</b> |       |     |   |   |      |   |   |   |        |      |
|                                                                                     |              | DN                          | A     | B   | C | D | E    | F | R | L | Rd x s | kg   |
|  |              | 10                          | 38,7  | 10  |   |   | 34   |   |   |   |        | 0,13 |
|                                                                                     |              | 15                          | 47,7  | 16  |   |   | 34   |   |   |   |        | 0,15 |
|                                                                                     |              | 20                          | 52,7  | 20  |   |   | 50,5 |   |   |   |        | 0,16 |
|                                                                                     |              | 25                          | 62,7  | 26  |   |   | 50,5 |   |   |   |        | 0,34 |
|                                                                                     |              | 32                          | 67,7  | 32  |   |   | 50,5 |   |   |   |        | 0,40 |
|                                                                                     |              | 40                          | 72,7  | 38  |   |   | 50,5 |   |   |   |        | 0,40 |
|                                                                                     |              | 50                          | 82,7  | 50  |   |   | 64   |   |   |   |        | 0,54 |
|                                                                                     |              | 65                          | 92,7  | 66  |   |   | 91   |   |   |   |        | 1,24 |
|                                                                                     |              | 80                          | 102,7 | 81  |   |   | 106  |   |   |   |        | 1,59 |
|                                                                                     |              | 100                         | 115,8 | 100 |   |   | 119  |   |   |   |        | 1,88 |
|                                                                                     |              | 125                         | 203,3 | 125 |   |   | 155  |   |   |   |        | 4,64 |
|                                                                                     |              | 150                         | 240,8 | 150 |   |   | 183  |   |   |   |        | 6,53 |

|                                                                                     |              |                             |       |      |     |     |      |   |   |   |        |      |
|-------------------------------------------------------------------------------------|--------------|-----------------------------|-------|------|-----|-----|------|---|---|---|--------|------|
| Tee C - C - C (short)<br>T - Stück C - C - C (kurz)                                 | <b>30521</b> | <b>Dimensions • Baumaße</b> |       |      |     |     |      |   |   |   |        |      |
|                                                                                     |              | DN                          | A     | A1   | B   | C   | E    | F | R | L | Rd x s | kg   |
|  |              | 10                          | 38,7  | 26   | 10  | 1,5 | 34   |   |   |   |        | 0,13 |
|                                                                                     |              | 15                          | 47,7  | 29   | 16  | 1,5 | 34   |   |   |   |        | 0,15 |
|                                                                                     |              | 20                          | 52,7  | 31   | 20  | 1,5 | 50,5 |   |   |   |        | 0,16 |
|                                                                                     |              | 25                          | 62,7  | 37,5 | 26  | 1,5 | 50,5 |   |   |   |        | 0,34 |
|                                                                                     |              | 32                          | 67,7  | 39,5 | 32  | 1,5 | 50,5 |   |   |   |        | 0,40 |
|                                                                                     |              | 40                          | 72,7  | 44,5 | 38  | 1,5 | 50,5 |   |   |   |        | 0,40 |
|                                                                                     |              | 50                          | 82,7  | 50,5 | 50  | 1,5 | 64   |   |   |   |        | 0,54 |
|                                                                                     |              | 65                          | 92,7  | 66   | 66  | 2,0 | 91   |   |   |   |        | 1,24 |
|                                                                                     |              | 80                          | 102,7 | 73,5 | 81  | 2,0 | 106  |   |   |   |        | 1,59 |
|                                                                                     |              | 100                         | 112,7 | 80   | 100 | 2,0 | 119  |   |   |   |        | 1,88 |
|                                                                                     |              |                             |       |      |     |     |      |   |   |   |        |      |
|                                                                                     |              |                             |       |      |     |     |      |   |   |   |        |      |

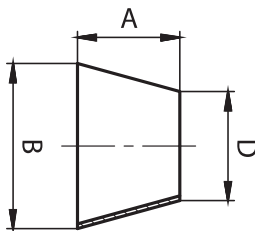
| Tee S - S - C (short)<br>T - Stück S - S - C (kurz)                               | <b>30522</b> | <b>Dimensions • Baumaße</b> |     |      |     |     |     |      |   |   |        |      |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|-----|------|-----|-----|-----|------|---|---|--------|------|
|                                                                                   |              | DN                          | A   | A1   | B   | C   | D   | E    | F | L | Rd x s | kg   |
|  |              | 10                          | 26  | 26   | 10  | 1,5 | 13  | 34   |   |   |        | 0,07 |
|                                                                                   |              | 15                          | 35  | 29   | 16  | 1,5 | 19  | 34   |   |   |        | 0,09 |
|                                                                                   |              | 20                          | 40  | 31   | 20  | 1,5 | 23  | 34   |   |   |        | 0,10 |
|                                                                                   |              | 25                          | 50  | 37,5 | 26  | 1,5 | 29  | 50,5 |   |   |        | 0,28 |
|                                                                                   |              | 32                          | 55  | 39,5 | 32  | 1,5 | 35  | 50,5 |   |   |        | 0,34 |
|                                                                                   |              | 40                          | 60  | 44,5 | 38  | 1,5 | 41  | 50,5 |   |   |        | 0,34 |
|                                                                                   |              | 50                          | 70  | 50,5 | 50  | 1,5 | 53  | 64   |   |   |        | 0,48 |
|                                                                                   |              | 65                          | 80  | 66   | 66  | 2,0 | 70  | 91   |   |   |        | 1,18 |
|                                                                                   |              | 80                          | 90  | 73,5 | 81  | 2,0 | 85  | 106  |   |   |        | 1,53 |
|                                                                                   |              | 100                         | 100 | 80   | 100 | 2,0 | 104 | 119  |   |   |        | 1,82 |

| Cross piece S - S - S - S (short)<br>Kreuzstück S - S - S - S (kurz)              | <b>30540</b> | <b>Dimensions • Baumaße</b> |     |     |     |     |   |   |   |   |        |      |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|-----|-----|-----|-----|---|---|---|---|--------|------|
|                                                                                   |              | DN                          | A   | A1  | C   | D   | E | F | R | L | Rd x s | kg   |
|  |              | 25                          | 50  | 30  | 1,5 | 28  |   |   |   |   |        | 0,09 |
|                                                                                   |              | 25                          | 50  | 30  | 1,5 | 29  |   |   |   |   |        | 0,09 |
|                                                                                   |              | 32                          | 55  | 36  | 1,5 | 34  |   |   |   |   |        | 0,13 |
|                                                                                   |              | 32                          | 55  | 36  | 1,5 | 35  |   |   |   |   |        | 0,13 |
|                                                                                   |              | 40                          | 60  | 44  | 1,5 | 40  |   |   |   |   |        | 0,17 |
|                                                                                   |              | 40                          | 60  | 44  | 1,5 | 41  |   |   |   |   |        | 0,17 |
|                                                                                   |              | 50                          | 70  | 58  | 1,5 | 52  |   |   |   |   |        | 0,25 |
|                                                                                   |              | 50                          | 70  | 58  | 1,5 | 53  |   |   |   |   |        | 0,25 |
|                                                                                   |              | 65                          | 80  | 76  | 2,0 | 70  |   |   |   |   |        | 0,51 |
|                                                                                   |              | 80                          | 90  | 91  | 2,0 | 85  |   |   |   |   |        | 0,69 |
|                                                                                   |              | 100                         | 100 | 110 | 2,0 | 104 |   |   |   |   |        | 0,93 |

|                                                                                     |       |                      |    |     |    |    |      |         |       |     |     |     |     |      |    |
|-------------------------------------------------------------------------------------|-------|----------------------|----|-----|----|----|------|---------|-------|-----|-----|-----|-----|------|----|
| Cross reduced short S - S - S - S<br>Kreuz reduziert kurz S - S - S - S             | 30550 | Dimensions • Baumaße |    |     |    |    |      |         |       |     |     |     |     |      |    |
|                                                                                     |       | DN                   | A  | A1  | C  | D  | E    | kg      | DN    | A   | A1  | C   | D   | E    | kg |
|  | 15/10 | 35                   | 22 | 1,5 | 19 | 13 | 0,03 | 50/40   | 70    | 56  | 1,5 | 53  | 41  | 0,23 |    |
|                                                                                     | 20/10 | 40                   | 26 | 1,5 | 23 | 13 | 0,05 | 65/25   | 80    | 76  | 2,0 | 70  | 29  | 0,41 |    |
|                                                                                     | 20/15 | 40                   | 26 | 1,5 | 23 | 19 | 0,05 | 65/32   | 80    | 76  | 2,0 | 70  | 35  | 0,44 |    |
|                                                                                     | 25/10 | 50                   | 32 | 1,5 | 29 | 13 | 0,07 | 65/40   | 80    | 76  | 2,0 | 70  | 41  | 0,46 |    |
|                                                                                     | 25/15 | 50                   | 32 | 1,5 | 29 | 19 | 0,09 | 65/50   | 80    | 76  | 2,0 | 70  | 53  | 0,46 |    |
|                                                                                     | 25/20 | 50                   | 32 | 1,5 | 29 | 23 | 0,09 | 80/40   | 90    | 92  | 2,0 | 85  | 41  | 0,64 |    |
|                                                                                     | 32/10 | 55                   | 38 | 1,5 | 35 | 13 | 0,10 | 80/50   | 90    | 92  | 2,0 | 85  | 53  | 0,62 |    |
|                                                                                     | 32/15 | 55                   | 38 | 1,5 | 35 | 19 | 0,10 | 80/65   | 90    | 92  | 2,0 | 85  | 70  | 0,75 |    |
|                                                                                     | 32/20 | 55                   | 38 | 1,5 | 35 | 23 | 0,09 | 100/50  | 100   | 110 | 2,0 | 104 | 53  | 0,91 |    |
|                                                                                     | 32/25 | 55                   | 38 | 1,5 | 35 | 29 | 0,09 | 100/65  | 100   | 110 | 2,0 | 104 | 70  | 0,89 |    |
|                                                                                     | 40/15 | 60                   | 44 | 1,5 | 41 | 19 | 0,13 | 100/80  | 100   | 110 | 2,0 | 104 | 85  | 0,81 |    |
|                                                                                     | 40/20 | 60                   | 44 | 1,5 | 41 | 23 | 0,13 | 125/65  | 187,5 | 133 | 2,0 | 129 | 70  | 2,19 |    |
|                                                                                     | 40/25 | 60                   | 44 | 1,5 | 41 | 29 | 0,14 | 125/80  | 187,5 | 133 | 2,0 | 129 | 85  | 2,01 |    |
|                                                                                     | 40/32 | 60                   | 44 | 1,5 | 41 | 35 | 0,14 | 125/100 | 187,5 | 133 | 2,0 | 129 | 104 | 1,85 |    |
|                                                                                     | 50/20 | 70                   | 56 | 1,5 | 53 | 23 | 0,22 | 150/80  | 225   | 158 | 2,0 | 154 | 85  | 3,03 |    |
|                                                                                     | 50/25 | 70                   | 56 | 1,5 | 53 | 29 | 0,23 | 150/100 | 225   | 158 | 2,0 | 154 | 104 | 2,85 |    |
|                                                                                     | 50/32 | 70                   | 56 | 1,5 | 53 | 35 | 0,23 | 150/125 | 225   | 158 | 2,0 | 154 | 129 | 2,63 |    |

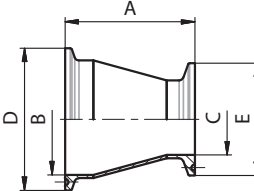
| Cross piece S - S - S - S (long)<br>Kreuzstück S - S - S - S (lang)                 | <b>30560</b> | <b>Dimensions • Baumaße</b> |     |   |     |     |   |   |   |   |        |      |
|-------------------------------------------------------------------------------------|--------------|-----------------------------|-----|---|-----|-----|---|---|---|---|--------|------|
|                                                                                     |              | DN                          | A   | B | C   | D   | E | F | R | L | Rd x s | kg   |
|  |              | 25                          | 50  |   | 1,5 | 28  |   |   |   |   |        | 0,18 |
|                                                                                     |              | 25                          | 50  |   | 1,5 | 29  |   |   |   |   |        | 0,18 |
|                                                                                     |              | 32                          | 55  |   | 1,5 | 34  |   |   |   |   |        | 0,22 |
|                                                                                     |              | 32                          | 55  |   | 1,5 | 35  |   |   |   |   |        | 0,22 |
|                                                                                     |              | 40                          | 60  |   | 1,5 | 40  |   |   |   |   |        | 0,28 |
|                                                                                     |              | 40                          | 60  |   | 1,5 | 41  |   |   |   |   |        | 0,28 |
|                                                                                     |              | 50                          | 70  |   | 1,5 | 52  |   |   |   |   |        | 0,42 |
|                                                                                     |              | 50                          | 70  |   | 1,5 | 53  |   |   |   |   |        | 0,42 |
|                                                                                     |              | 65                          | 80  |   | 2,0 | 70  |   |   |   |   |        | 0,80 |
|                                                                                     |              | 80                          | 90  |   | 2,0 | 85  |   |   |   |   |        | 1,01 |
|                                                                                     |              | 100                         | 100 |   | 2,0 | 104 |   |   |   |   |        | 1,39 |

| Reducing piece concentric S - S<br>Reduzierstück konzentrisch S - S | 30600 | Dimensions • Baumaße |    |    |    |      |
|---------------------------------------------------------------------|-------|----------------------|----|----|----|------|
|                                                                     |       | DN                   | A  | B  | D  | kg   |
|                                                                     |       | 15/10                | 11 | 19 | 13 | 0,01 |
|                                                                     |       | 20/10                | 18 | 23 | 13 | 0,01 |
|                                                                     |       | 20/15                | 7  | 23 | 19 | 0,01 |
|                                                                     |       | 25/15                | 18 | 29 | 19 | 0,02 |
|                                                                     |       | 25/20                | 11 | 29 | 23 | 0,01 |
|                                                                     |       | 32/20                | 22 | 35 | 23 | 0,02 |
|                                                                     |       | 32/25                | 11 | 35 | 29 | 0,01 |
|                                                                     |       | 40/20                | 33 | 41 | 23 | 0,02 |
|                                                                     |       | 40/25                | 22 | 41 | 29 | 0,03 |
|                                                                     |       | 40/32                | 11 | 41 | 35 | 0,01 |
|                                                                     |       | 50/25                | 44 | 53 | 29 | 0,06 |
|                                                                     |       | 50/32                | 33 | 53 | 35 | 0,05 |
|                                                                     |       | 50/40                | 23 | 53 | 41 | 0,04 |

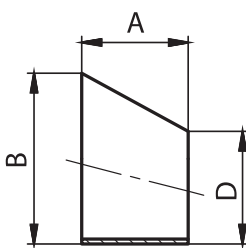


| DN      | A   | B   | D   | kg   |
|---------|-----|-----|-----|------|
| 65/40   | 52  | 70  | 41  | 0,12 |
| 65/50   | 30  | 70  | 53  | 0,08 |
| 80/50   | 56  | 85  | 53  | 0,20 |
| 80/65   | 27  | 85  | 70  | 0,11 |
| 100/65  | 60  | 104 | 70  | 0,26 |
| 100/80  | 35  | 104 | 85  | 0,16 |
| 125/80  | 79  | 129 | 85  | 0,42 |
| 125/100 | 45  | 129 | 104 | 0,27 |
| 150/100 | 90  | 154 | 104 | 0,60 |
| 150/125 | 45  | 154 | 129 | 0,33 |
| 200/150 | 90  | 204 | 154 | 0,80 |
| 250/150 | 297 | 253 | 154 | 2,90 |

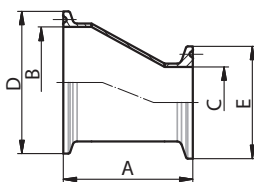
| Reducing piece concentric C - C<br>Reduzierstück konzentrisch C - C | 30609 | Dimensions • Baumaße |      |     |    |      |      |   |   |   |        |      |
|---------------------------------------------------------------------|-------|----------------------|------|-----|----|------|------|---|---|---|--------|------|
|                                                                     |       | DN                   | A    | B   | C  | D    | E    | F | R | L | Rd x s | kg   |
|                                                                     |       | 32/25                | 36,4 | 32  | 26 | 50,5 | 50,5 |   |   |   |        | 0,11 |
|                                                                     |       | 40/25                | 47,4 | 38  | 26 | 50,5 | 50,5 |   |   |   |        | 0,11 |
|                                                                     |       | 40/32                | 36,4 | 38  | 32 | 50,5 | 50,5 |   |   |   |        | 0,11 |
|                                                                     |       | 50/25                | 69,4 | 50  | 26 | 64   | 50,5 |   |   |   |        | 0,14 |
|                                                                     |       | 50/32                | 58,4 | 50  | 32 | 64   | 50,5 |   |   |   |        | 0,15 |
|                                                                     |       | 50/40                | 48,4 | 50  | 38 | 64   | 50,5 |   |   |   |        | 0,13 |
|                                                                     |       | 65/40                | 77,4 | 66  | 38 | 91   | 50,5 |   |   |   |        | 0,31 |
|                                                                     |       | 65/50                | 55,4 | 66  | 50 | 91   | 64   |   |   |   |        | 0,18 |
|                                                                     |       | 80/50                | 81,4 | 81  | 50 | 106  | 64   |   |   |   |        | 0,40 |
|                                                                     |       | 80/65                | 52,4 | 81  | 66 | 106  | 91   |   |   |   |        | 0,39 |
|                                                                     |       | 100/65               | 88,5 | 100 | 66 | 119  | 91   |   |   |   |        | 0,55 |
|                                                                     |       | 100/80               | 63,5 | 100 | 81 | 119  | 106  |   |   |   |        | 0,48 |



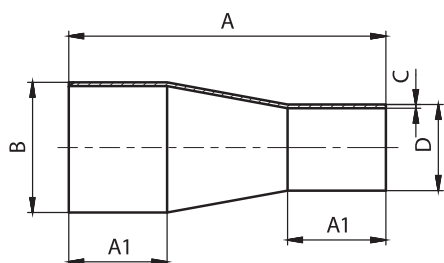
| Reducing piece eccentric S - S<br>Reduzierstück exzentrisch S - S | 30610 | Dimensions • Baumaße |      |     |   |    |   |   |   |   |        |      |
|-------------------------------------------------------------------|-------|----------------------|------|-----|---|----|---|---|---|---|--------|------|
|                                                                   |       | DN                   | A    | B   | C | D  | E | F | R | L | Rd x s | kg   |
|                                                                   |       | 32/25                | 16,5 | 35  |   | 29 |   |   |   |   |        | 0,02 |
|                                                                   |       | 40/25                | 33   | 41  |   | 29 |   |   |   |   |        | 0,03 |
|                                                                   |       | 40/32                | 16,5 | 41  |   | 35 |   |   |   |   |        | 0,02 |
|                                                                   |       | 50/25                | 44   | 53  |   | 29 |   |   |   |   |        | 0,05 |
|                                                                   |       | 50/32                | 33   | 53  |   | 35 |   |   |   |   |        | 0,05 |
|                                                                   |       | 50/40                | 33   | 53  |   | 41 |   |   |   |   |        | 0,04 |
|                                                                   |       | 65/40                | 51   | 70  |   | 41 |   |   |   |   |        | 0,14 |
|                                                                   |       | 65/50                | 44   | 70  |   | 53 |   |   |   |   |        | 0,09 |
|                                                                   |       | 80/50                | 56   | 85  |   | 53 |   |   |   |   |        | 0,19 |
|                                                                   |       | 80/65                | 41,2 | 85  |   | 70 |   |   |   |   |        | 0,10 |
|                                                                   |       | 100/65               | 61   | 104 |   | 70 |   |   |   |   |        | 0,26 |
|                                                                   |       | 100/80               | 52,5 | 104 |   | 85 |   |   |   |   |        | 0,16 |



| Reducing piece eccentric C - C<br>Reduzierstück exzentrisch C - C | 30619 | Dimensions • Baumaße |      |     |    |      |      |   |   |   |        |      |
|-------------------------------------------------------------------|-------|----------------------|------|-----|----|------|------|---|---|---|--------|------|
|                                                                   |       | DN                   | A    | B   | C  | D    | E    | F | R | L | Rd x s | kg   |
|                                                                   |       | 32/25                | 41,9 | 32  | 26 | 50,5 | 50,5 |   |   |   |        | 0,11 |
|                                                                   |       | 40/25                | 58,4 | 38  | 26 | 50,5 | 50,5 |   |   |   |        | 0,11 |
|                                                                   |       | 40/32                | 41,9 | 38  | 32 | 50,5 | 50,5 |   |   |   |        | 0,11 |
|                                                                   |       | 50/25                | 69,4 | 50  | 26 | 64   | 50,5 |   |   |   |        | 0,14 |
|                                                                   |       | 50/32                | 58,4 | 50  | 32 | 64   | 50,5 |   |   |   |        | 0,15 |
|                                                                   |       | 50/40                | 58,4 | 50  | 38 | 64   | 50,5 |   |   |   |        | 0,13 |
|                                                                   |       | 65/40                | 76,4 | 66  | 38 | 91   | 50,5 |   |   |   |        | 0,31 |
|                                                                   |       | 65/50                | 69,4 | 66  | 50 | 91   | 64   |   |   |   |        | 0,18 |
|                                                                   |       | 80/50                | 81,4 | 81  | 50 | 106  | 64   |   |   |   |        | 0,40 |
|                                                                   |       | 80/65                | 66,6 | 81  | 66 | 106  | 91   |   |   |   |        | 0,39 |
|                                                                   |       | 100/65               | 89,5 | 100 | 66 | 119  | 91   |   |   |   |        | 0,55 |
|                                                                   |       | 100/80               | 81   | 100 | 81 | 119  | 106  |   |   |   |        | 0,48 |

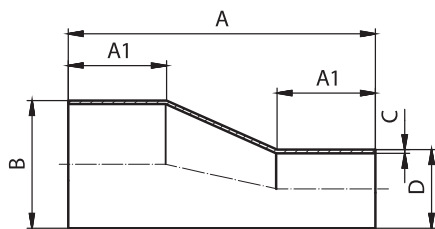


Reducing piece concentric S - S  
(long)  
Reduzierstück konzentrisch S - S  
(lang)

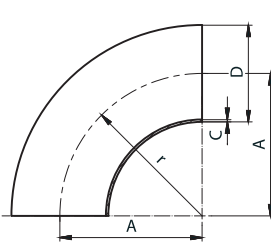
**30620**
**Dimensions • Baumaße**


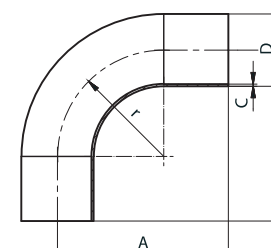
| DN     | A   | A1 | B   | C   | D  | F | R | L | Rd x s | kg   |
|--------|-----|----|-----|-----|----|---|---|---|--------|------|
| 15/10  | 45  | 18 | 18  | 1,5 | 12 |   |   |   |        | 0,02 |
| 20/10  | 63  | 18 | 22  | 1,5 | 12 |   |   |   |        | 0,04 |
| 20/15  | 60  | 20 | 22  | 1,5 | 18 |   |   |   |        | 0,04 |
| 25/15  | 60  | 20 | 28  | 1,5 | 18 |   |   |   |        | 0,05 |
| 25/20  | 60  | 20 | 28  | 1,5 | 22 |   |   |   |        | 0,05 |
| 32/25  | 80  | 30 | 34  | 1,5 | 28 |   |   |   |        | 0,09 |
| 40/25  | 102 | 35 | 40  | 1,5 | 28 |   |   |   |        | 0,12 |
| 40/32  | 88  | 35 | 40  | 1,5 | 34 |   |   |   |        | 0,12 |
| 50/25  | 115 | 40 | 52  | 1,5 | 28 |   |   |   |        | 0,17 |
| 50/32  | 129 | 40 | 52  | 1,5 | 34 |   |   |   |        | 0,20 |
| 50/40  | 113 | 40 | 52  | 1,5 | 40 |   |   |   |        | 0,19 |
| 65/32  | 125 | 40 | 70  | 2,0 | 34 |   |   |   |        | 0,24 |
| 65/40  | 120 | 40 | 70  | 2,0 | 40 |   |   |   |        | 0,33 |
| 65/50  | 130 | 40 | 70  | 2,0 | 52 |   |   |   |        | 0,39 |
| 80/40  | 140 | 40 | 85  | 2,0 | 40 |   |   |   |        | 0,44 |
| 80/50  | 125 | 40 | 85  | 2,0 | 52 |   |   |   |        | 0,43 |
| 80/65  | 120 | 40 | 85  | 2,0 | 70 |   |   |   |        | 0,46 |
| 100/50 | 160 | 40 | 104 | 2,0 | 52 |   |   |   |        | 0,63 |
| 100/65 | 127 | 40 | 104 | 2,0 | 70 |   |   |   |        | 0,56 |
| 100/85 | 120 | 40 | 104 | 2,0 | 85 |   |   |   |        | 0,56 |

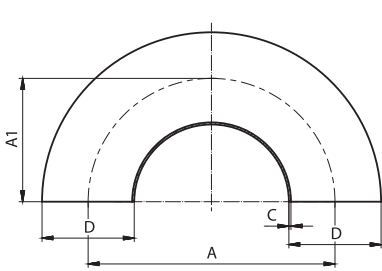
Reducing piece eccentric S - S (long)  
Reduzierstück exzentrisch S - S  
(lang)

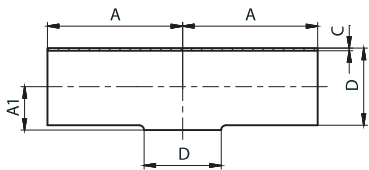
**30630**
**Dimensions • Baumaße**


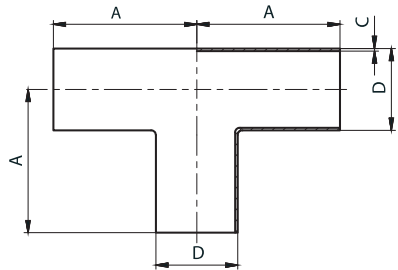
| DN     | A   | A1 | B   | C   | D  | F | R | L | Rd x s | kg   |
|--------|-----|----|-----|-----|----|---|---|---|--------|------|
| 20/15  | 60  | 20 | 22  | 1,5 | 18 |   |   |   |        | 0,04 |
| 25/15  | 60  | 20 | 28  | 1,5 | 18 |   |   |   |        | 0,05 |
| 25/20  | 60  | 20 | 28  | 1,5 | 22 |   |   |   |        | 0,05 |
| 32/25  | 100 | 40 | 34  | 1,5 | 28 |   |   |   |        | 0,11 |
| 40/25  | 100 | 40 | 40  | 1,5 | 28 |   |   |   |        | 0,13 |
| 40/32  | 100 | 40 | 40  | 1,5 | 34 |   |   |   |        | 0,13 |
| 50/25  | 130 | 40 | 52  | 1,5 | 28 |   |   |   |        | 0,20 |
| 50/32  | 125 | 40 | 52  | 1,5 | 34 |   |   |   |        | 0,20 |
| 50/40  | 100 | 40 | 52  | 1,5 | 40 |   |   |   |        | 0,17 |
| 65/40  | 140 | 40 | 70  | 2,0 | 40 |   |   |   |        | 0,39 |
| 65/50  | 125 | 40 | 70  | 2,0 | 52 |   |   |   |        | 0,38 |
| 80/50  | 130 | 40 | 85  | 2,0 | 52 |   |   |   |        | 0,46 |
| 80/65  | 110 | 40 | 85  | 2,0 | 70 |   |   |   |        | 0,43 |
| 100/65 | 155 | 40 | 104 | 2,0 | 70 |   |   |   |        | 0,70 |
| 100/85 | 130 | 40 | 104 | 2,0 | 85 |   |   |   |        | 0,62 |
| 80/50  | 125 | 40 | 85  | 2,0 | 52 |   |   |   |        | 0,43 |
| 80/65  | 120 | 40 | 85  | 2,0 | 70 |   |   |   |        | 0,46 |
| 100/50 | 160 | 40 | 104 | 2,0 | 52 |   |   |   |        | 0,63 |
| 100/65 | 127 | 40 | 104 | 2,0 | 70 |   |   |   |        | 0,56 |
| 100/85 | 120 | 40 | 104 | 2,0 | 85 |   |   |   |        | 0,56 |

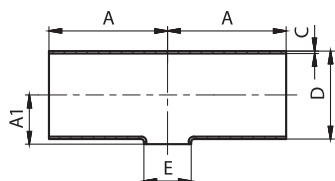
|                                                                                   |              |                             |          |          |          |          |          |          |          |                            |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 90° S - S, SMS<br>Bogen 90° S - S, SMS                                       | <b>31010</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>r</b> | <b>L</b> | <b>Rd x s</b><br><b>kg</b> |
|  |              | 25                          | 37,5     |          | 1,25     | 25       |          | 37,5     |          | 0,05                       |
|                                                                                   |              | 38                          | 57       |          | 1,25     | 38       |          | 57       |          | 0,12                       |
|                                                                                   |              | 51                          | 76,5     |          | 1,25     | 51       |          | 76,5     |          | 0,18                       |
|                                                                                   |              | 63,5                        | 95,25    |          | 1,5      | 63,5     |          | 95,25    |          | 0,33                       |
|                                                                                   |              | 76                          | 114,15   |          | 1,6      | 76,1     |          | 114,15   |          | 0,50                       |
|                                                                                   |              | 101,6                       | 150      |          | 2,0      | 101,6    |          | 150      |          | 0,87                       |
|                                                                                   |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |          |          |          |          |          |          |                            |

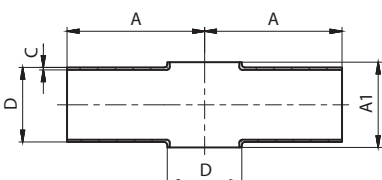
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|------------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 90° W - W, SMS<br>Bogen 90° W - W, SMS                                        | <b>31020</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>r</b> | <b>L</b> | <b>Rd x s</b><br><b>kg</b> |
|  |              | 25                          | 75       |          | 1,25     | 25       |          | 38       |          | 0,15                       |
|                                                                                    |              | 38                          | 90       |          | 1,25     | 38       |          | 56       |          | 0,21                       |
|                                                                                    |              | 51                          | 100      |          | 1,25     | 51       |          | 72       |          | 0,31                       |
|                                                                                    |              | 63,5                        | 115      |          | 1,5      | 63,5     |          | 84       |          | 0,45                       |
|                                                                                    |              | 76                          | 130      |          | 1,6      | 76,1     |          | 85       |          | 0,67                       |
|                                                                                    |              | 101,6                       | 150      |          | 2,0      | 101,6    |          | 110      |          | 1,27                       |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |

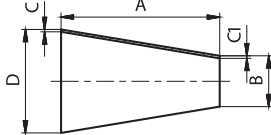
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|-------------------------------------------------------------------------------------|--------------|-----------------------------|----------|-----------|----------|----------|----------|----------|----------|----------------------------|
| Bend 180° S - S<br>Bogen 180° S - S                                                 | <b>31340</b> | <b>Dimensions • Baumaße</b> |          |           |          |          |          |          |          |                            |
|                                                                                     | <b>SMS</b>   | <b>DN</b>                   | <b>A</b> | <b>A1</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>R</b> | <b>L</b> | <b>Rd x s</b><br><b>kg</b> |
|  |              | 25                          | 75       | 37,5      | 1,25     | 25       |          |          |          | 0,05                       |
|                                                                                     |              | 38                          | 114      | 57        | 1,25     | 38       |          |          |          | 0,12                       |
|                                                                                     |              | 51                          | 153      | 76,5      | 1,25     | 51       |          |          |          | 0,18                       |
|                                                                                     |              | 63,5                        | 190,5    | 95,25     | 1,5      | 63,5     |          |          |          | 0,33                       |
|                                                                                     |              | 76                          | 228,3    | 114,15    | 1,6      | 76,1     |          |          |          | 0,50                       |
|                                                                                     |              | 101,6                       | 304,2    | 152,1     | 2,0      | 101,6    |          |          |          | 0,87                       |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |

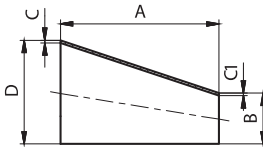
|                                                                                   |              |                             |          |           |          |          |          |          |          |                            |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|----------|-----------|----------|----------|----------|----------|----------|----------------------------|
| Tee S - S - S, SMS (short)<br>T - Stück S - S - S, SMS (kurz)                     | <b>31400</b> | <b>Dimensions • Baumaße</b> |          |           |          |          |          |          |          |                            |
|                                                                                   | <b>SMS</b>   | <b>DN</b>                   | <b>A</b> | <b>A1</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>R</b> | <b>L</b> | <b>Rd x s</b><br><b>kg</b> |
|  |              | 25                          | 55       | 14        | 1,25     | 25       |          |          |          | 0,11                       |
|                                                                                   |              | 38                          | 70       | 21        | 1,25     | 38       |          |          |          | 0,25                       |
|                                                                                   |              | 51                          | 82       | 28,5      | 1,25     | 51       |          |          |          | 0,47                       |
|                                                                                   |              | 63,5                        | 105      | 36        | 1,5      | 63,5     |          |          |          | 0,75                       |
|                                                                                   |              | 76                          | 110      | 43        | 1,6      | 76,1     |          |          |          | 1,07                       |
|                                                                                   |              | 101,6                       | 150      | 58        | 2,0      | 101,6    |          |          |          | 2,30                       |
|                                                                                   |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                   |              |                             |          |           |          |          |          |          |          |                            |

|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|------------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------------------------|
| Tee S - S - S, SMS (long)<br>T - Stück S - S - S, SMS (lang)                       | <b>31410</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>R</b> | <b>L</b> | <b>Rd x s</b><br><b>kg</b> |
|  |              | 1" - 25,4                   | 55       |          | 1,5      | 25,4     |          |          |          | 0,11                       |
|                                                                                    |              | 1 1/2" - 38,1               | 70       |          | 1,5      | 38,1     |          |          |          | 0,25                       |
|                                                                                    |              | 2" - 50,8                   | 82       |          | 1,5      | 50,8     |          |          |          | 0,47                       |
|                                                                                    |              | 2 1/2" - 63,5               | 105      |          | 1,5      | 63,5     |          |          |          | 0,75                       |
|                                                                                    |              | 3" - 76,1                   | 110      |          | 2,0      | 76,1     |          |          |          | 1,07                       |
|                                                                                    |              | 4" - 101,6                  | 150      |          | 2,0      | 101,6    |          |          |          | 2,30                       |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |
|                                                                                    |              |                             |          |          |          |          |          |          |          |                            |

|                                                                                     |        |                      |      |      |       |      |   |   |   |   |        |      |  |
|-------------------------------------------------------------------------------------|--------|----------------------|------|------|-------|------|---|---|---|---|--------|------|--|
| Tee S - S - S, SMS (short)<br>T - Stück S - S - S, SMS (kurz)                       | 31440  | Dimensions • Baumaße |      |      |       |      |   |   |   |   |        |      |  |
|                                                                                     | SMS    | DN                   | A    | A1   | C     | D    | E | F | r | L | Rd x s | kg   |  |
|  | 38/25  | 70                   | 21   | 1,25 | 38    | 25   |   |   |   |   |        | 0,17 |  |
|                                                                                     | 51/25  | 82                   | 29   | 1,25 | 51    | 25   |   |   |   |   |        | 0,26 |  |
|                                                                                     | 51/38  | 82                   | 29   | 1,25 | 51    | 38   |   |   |   |   |        | 0,27 |  |
|                                                                                     | 63/25  | 105                  | 34,5 | 1,5  | 63,5  | 25   |   |   |   |   |        | 0,49 |  |
|                                                                                     | 63/38  | 105                  | 35   | 1,5  | 63,5  | 38   |   |   |   |   |        | 0,51 |  |
|                                                                                     | 63/51  | 105                  | 36   | 1,5  | 63,5  | 51   |   |   |   |   |        | 0,51 |  |
|                                                                                     | 76/25  | 110                  | 41   | 1,6  | 76,1  | 25   |   |   |   |   |        | 0,60 |  |
|                                                                                     | 76/38  | 110                  | 42   | 1,6  | 76,1  | 38   |   |   |   |   |        | 0,68 |  |
|                                                                                     | 76/51  | 110                  | 43   | 1,6  | 76,1  | 51   |   |   |   |   |        | 0,68 |  |
|                                                                                     | 76/63  | 110                  | 43   | 1,6  | 76,1  | 63,5 |   |   |   |   |        | 0,81 |  |
|                                                                                     | 101/25 | 150                  | 56   | 2,0  | 101,6 | 25   |   |   |   |   |        | 0,82 |  |
|                                                                                     | 101/38 | 150                  | 56   | 2,0  | 101,6 | 38   |   |   |   |   |        | 0,90 |  |
|                                                                                     | 101/51 | 150                  | 57   | 2,0  | 101,6 | 51   |   |   |   |   |        | 0,95 |  |
|                                                                                     | 101/63 | 150                  | 58   | 2,0  | 101,6 | 63,5 |   |   |   |   |        | 0,96 |  |
|                                                                                     | 101/76 | 150                  | 58   | 2,0  | 101,6 | 76,1 |   |   |   |   |        | 0,92 |  |
|                                                                                     |        |                      |      |      |       |      |   |   |   |   |        |      |  |
|                                                                                     |        |                      |      |      |       |      |   |   |   |   |        |      |  |
|                                                                                     |        |                      |      |      |       |      |   |   |   |   |        |      |  |

|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|-------------------------------------------------------------------------------------|--------------|-----------------------------|----------|-----------|----------|----------|----------|----------|----------|----------------------------|
| Cross piece S - S - S - S, SMS<br>Kreuzstück S - S - S - S, SMS                     | <b>31540</b> | <b>Dimensions • Baumaße</b> |          |           |          |          |          |          |          |                            |
|                                                                                     | <b>SMS</b>   | <b>DN</b>                   | <b>A</b> | <b>A1</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>R</b> | <b>L</b> | <b>Rd x s</b><br><b>kg</b> |
|  |              | 1" - 25,4                   | 55       | 28        | 1,5      | 25,4     |          |          |          | 0,09                       |
|                                                                                     |              | 1 1/2" - 38,1               | 70       | 42        | 1,5      | 38,1     |          |          |          | 0,19                       |
|                                                                                     |              | 2" - 50,8                   | 82       | 57        | 1,5      | 50,8     |          |          |          | 0,25                       |
|                                                                                     |              | 2 1/2" - 63,5               | 105      | 72        | 1,5      | 63,5     |          |          |          | 0,51                       |
|                                                                                     |              | 3" - 76,1                   | 110      | 86        | 2,0      | 76,1     |          |          |          | 0,69                       |
|                                                                                     |              | 4" - 101,6                  | 150      | 116       | 2,0      | 101,6    |          |          |          | 0,93                       |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |
|                                                                                     |              |                             |          |           |          |          |          |          |          |                            |

|                                                                                   |              |                             |          |          |          |           |          |          |          |          |               |           |
|-----------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|-----------|----------|----------|----------|----------|---------------|-----------|
| Reducing piece concentric S-S, SMS<br>Reduzierstück konzentrisch S-S, SMS         | <b>31600</b> | <b>Dimensions • Baumaße</b> |          |          |          |           |          |          |          |          |               |           |
|                                                                                   | <b>SMS</b>   | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>C1</b> | <b>D</b> | <b>F</b> | <b>R</b> | <b>L</b> | <b>Rd x s</b> | <b>kg</b> |
|  |              | 38/25                       | 39       | 25       | 1,2      | 1,2       | 38       |          |          |          |               | 0,04      |
|                                                                                   |              | 51/25                       | 78       | 25       | 1,2      | 1,2       | 51       |          |          |          |               | 0,09      |
|                                                                                   |              | 51/38                       | 39       | 38       | 1,2      | 1,2       | 51       |          |          |          |               | 0,05      |
|                                                                                   |              | 63/25                       | 116      | 25       | 1,5      | 1,2       | 63,5     |          |          |          |               | 0,20      |
|                                                                                   |              | 63/38                       | 76       | 38       | 1,5      | 1,2       | 63,5     |          |          |          |               | 0,15      |
|                                                                                   |              | 63/51                       | 38       | 51       | 1,5      | 1,2       | 63,5     |          |          |          |               | 0,09      |
|                                                                                   |              | 76/25                       | 153      | 25       | 1,6      | 1,2       | 76,1     |          |          |          |               | 0,23      |
|                                                                                   |              | 76/38                       | 114      | 38       | 1,6      | 1,2       | 76,1     |          |          |          |               | 0,26      |
|                                                                                   |              | 76/51                       | 75       | 51       | 1,6      | 1,2       | 76,1     |          |          |          |               | 0,19      |
|                                                                                   |              | 76/63                       | 38       | 63,5     | 1,6      | 1,5       | 76,1     |          |          |          |               | 0,11      |
|                                                                                   |              | 104/38                      | 198      | 38       | 2,0      | 1,2       | 104      |          |          |          |               | 0,70      |
|                                                                                   |              | 104/51                      | 159      | 51       | 2,0      | 1,2       | 104      |          |          |          |               | 0,61      |
|                                                                                   |              | 104/63                      | 122      | 63,5     | 2,0      | 1,5       | 104      |          |          |          |               | 0,51      |
|                                                                                   |              | 104/76                      | 84       | 76,1     | 2,0      | 1,6       | 104      |          |          |          |               | 0,38      |

|                                                                                    |              |                             |          |          |          |           |          |          |          |          |               |           |
|------------------------------------------------------------------------------------|--------------|-----------------------------|----------|----------|----------|-----------|----------|----------|----------|----------|---------------|-----------|
| Reducing piece eccentric S-S, SMS<br>Reduzierstück exzentrisch S-S, SMS            | <b>31610</b> | <b>Dimensions • Baumaße</b> |          |          |          |           |          |          |          |          |               |           |
|                                                                                    | <b>SMS</b>   | <b>DN</b>                   | <b>A</b> | <b>B</b> | <b>C</b> | <b>C1</b> | <b>D</b> | <b>F</b> | <b>r</b> | <b>L</b> | <b>Rd x s</b> | <b>kg</b> |
|  |              | 38/25                       | 39       | 25       | 1,2      | 1,2       | 38       |          |          |          |               | 0,04      |
|                                                                                    |              | 51/25                       | 78       | 25       | 1,2      | 1,2       | 51       |          |          |          |               | 0,09      |
|                                                                                    |              | 51/38                       | 39       | 38       | 1,2      | 1,2       | 51       |          |          |          |               | 0,05      |
|                                                                                    |              | 63/25                       | 116      | 25       | 1,5      | 1,2       | 63,5     |          |          |          |               | 0,20      |
|                                                                                    |              | 63/38                       | 76       | 38       | 1,5      | 1,2       | 63,5     |          |          |          |               | 0,15      |
|                                                                                    |              | 63/51                       | 38       | 51       | 1,5      | 1,2       | 63,5     |          |          |          |               | 0,09      |
|                                                                                    |              | 76/25                       | 153      | 25       | 1,6      | 1,2       | 76,1     |          |          |          |               | 0,23      |
|                                                                                    |              | 76/38                       | 114      | 38       | 1,6      | 1,2       | 76,1     |          |          |          |               | 0,26      |
|                                                                                    |              | 76/51                       | 75       | 51       | 1,6      | 1,2       | 76,1     |          |          |          |               | 0,19      |
|                                                                                    |              | 76/63                       | 38       | 63,5     | 1,6      | 1,5       | 76,1     |          |          |          |               | 0,11      |
|                                                                                    |              | 104/38                      | 198      | 38       | 2,0      | 1,2       | 104      |          |          |          |               | 0,70      |
|                                                                                    |              | 104/51                      | 159      | 51       | 2,0      | 1,2       | 104      |          |          |          |               | 0,61      |
|                                                                                    |              | 104/63                      | 122      | 63,5     | 2,0      | 1,5       | 104      |          |          |          |               | 0,51      |
|                                                                                    |              | 104/76                      | 84       | 76,1     | 2,0      | 1,6       | 104      |          |          |          |               | 0,38      |



| 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           |
|-----------------------|-----------------------------------|
| 1 Bar                 | 100000 Pascals                    |
|                       | 100 Kilopascals                   |
|                       | 1000 Milibars                     |
|                       | 1000000 Microbars                 |
|                       | ~0,98 Atmospheres                 |
|                       | ~401,46 Inches of wather          |
|                       | 10 Meters of wather               |
|                       | ~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                                                                                                                                           | <b>Silicon</b><br>(VMQ silicon rubber)                                                                                                                            | <b>EPDM</b><br>(ethylene-propylene-diene rubber)                                                                                                                          | <b>Viton</b><br>(FPM fluorine rubber)                                                                                                                                                                                                                           | <b>Perbunan</b><br>(NBR nitrile rubber)                                                                                                                          | <b>PTFE</b><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>Eigenschaften<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 Kationen<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 |                                                                                                                                                                                       |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |                                                                                                                                                                                                                                               |



PRODUCER OF STAINLESS PIPING SYSTEMS  
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