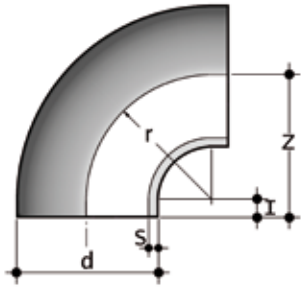


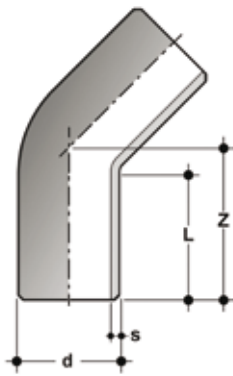
# DIMENSIONS



## GBM

90° bend, short spigot for butt welding

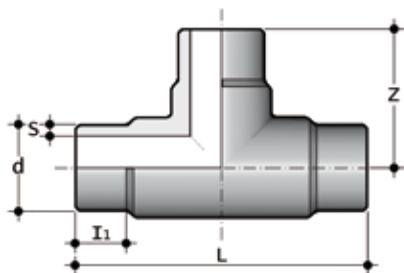
| d   | l  | r   | Z   | SDR 17.6 - S 8.3 |       | SDR 11 - S 5 |       | Code<br>SDR 17.6 - S 8.3 | Code<br>SDR 11 - S 5 |
|-----|----|-----|-----|------------------|-------|--------------|-------|--------------------------|----------------------|
|     |    |     |     | s                | g     | s            | g     |                          |                      |
| 20  | 3  | 24  | 27  | -                | -     | 1.9          | 5     | -                        | GBM11020             |
| 25  | 5  | 27  | 32  | -                | -     | 2.3          | 9     | -                        | GBM11025             |
| 32  | 5  | 35  | 40  | -                | -     | 2.9          | 17    | -                        | GBM11032             |
| 40  | 7  | 44  | 51  | 2.3              | 27    | 3.7          | 36    | GBM17040                 | GBM11040             |
| 50  | 7  | 55  | 62  | 2.9              | 47    | 4.6          | 66    | GBM17050                 | GBM11050             |
| 63  | 8  | 69  | 77  | 3.6              | 89    | 5.8          | 124   | GBM17063                 | GBM11063             |
| 75  | 10 | 75  | 85  | 4.3              | 152   | 6.8          | 210   | GBM17075                 | GBM11075             |
| 90  | 10 | 90  | 100 | 5.1              | 245   | 8.2          | 355   | GBM17090                 | GBM11090             |
| 110 | 10 | 110 | 120 | 6.3              | 422   | 10           | 616   | GBM17110                 | GBM11110             |
| 125 | 15 | 125 | 140 | 7.1              | 652   | 11.4         | 945   | GBM17125                 | GBM11125             |
| 140 | 15 | 140 | 155 | 8                | 900   | 12.7         | 1300  | GBM17140                 | GBM11140             |
| 160 | 15 | 160 | 175 | 9.1              | 1231  | 14.6         | 1870  | GBM17160                 | GBM11160             |
| 180 | 15 | 180 | 195 | 10.2             | 1875  | 16.4         | 2767  | GBM17180                 | GBM11180             |
| 200 | 15 | 200 | 215 | 11.4             | 2423  | 18.2         | 3604  | GBM17200                 | GBM11200             |
| 225 | 20 | 225 | 245 | 12.8             | 3469  | 20.5         | 5292  | GBM17225                 | GBM11225             |
| 250 | 25 | 250 | 275 | 14.2             | 4568  | 22.7         | 7210  | GBM17250                 | GBM11250             |
| 280 | 30 | 280 | 310 | 15.9             | 6550  | 25.4         | 10020 | GBM17280                 | GBM11280             |
| 315 | 35 | 315 | 350 | 17.9             | 9728  | 28.6         | 13965 | GBM17315                 | GBM11315             |
| 355 | 40 | 300 | 340 | 21.1             | 11320 | 32.2         | 17040 | GBM17355                 | GBM11355             |
| 400 | 49 | 300 | 349 | 23.7             | 14580 | 36.3         | 21980 | GBM17400                 | GBM11400             |



## HBM

45° bend, long spigot for butt welding

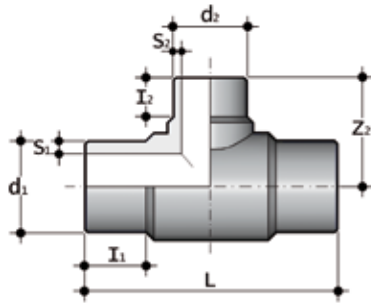
| d   | SDR 17.6 - S 8.3 |       |      |      | SDR 11 - S 5 |       |      |       | Code             | Code         |
|-----|------------------|-------|------|------|--------------|-------|------|-------|------------------|--------------|
|     | L                | Z     | s    | g    | L            | Z     | s    | g     | SDR 17.6 - S 8.3 | SDR 11 - S 5 |
| 20  | -                | -     | -    | -    | 39           | 44    | 1.9  | 10    | -                | HBM11020     |
| 25  | -                | -     | -    | -    | 42           | 48    | 2.3  | 16    | -                | HBM11025     |
| 32  | -                | -     | -    | -    | 49           | 57    | 2.9  | 33    | -                | HBM11032     |
| 40  | -                | -     | -    | -    | 53           | 63    | 3.7  | 51    | -                | HBM11040     |
| 50  | -                | -     | -    | -    | 57           | 70    | 4.6  | 91    | -                | HBM11050     |
| 63  | 66               | 80    | 3.8  | 110  | 67           | 80    | 5.8  | 169   | HBM17063         | HBM11063     |
| 75  | 70               | 90    | 4.5  | 175  | 72.5         | 90    | 6.8  | 259   | HBM17075         | HBM11075     |
| 90  | 79               | 101   | 5.4  | 291  | 82           | 104   | 8.2  | 422   | HBM17090         | HBM11090     |
| 110 | 82               | 112   | 6.6  | 481  | 85           | 114   | 10   | 668   | HBM17110         | HBM11110     |
| 125 | 99.5             | 130.5 | 7.4  | 670  | 99.5         | 132.5 | 11.4 | 1015  | HBM17125         | HBM11125     |
| 140 | 102              | 137   | 8.3  | 847  | 100          | 136   | 12.7 | 1340  | HBM17140         | HBM11140     |
| 160 | 116.5            | 156.5 | 9.5  | 1280 | 116.5        | 156.5 | 14.6 | 1960  | HBM17160         | HBM11160     |
| 180 | 133.5            | 178.5 | 10.7 | 1960 | 131.5        | 176.5 | 16.4 | 2780  | HBM17180         | HBM11180     |
| 200 | 122.5            | 166   | 11.9 | 2200 | 120.5        | 170.5 | 18.2 | 3440  | HBM17200         | HBM11200     |
| 225 | 128              | 184   | 13.4 | 3040 | 128          | 182.5 | 20.5 | 4660  | HBM17225         | HBM11225     |
| 250 | 160              | 217   | 14.8 | 4580 | 160          | 217   | 22.7 | 6760  | HBM17250         | HBM11250     |
| 280 | 175              | 232   | 16.6 | 6200 | 173          | 243   | 25.4 | 8940  | HBM17280         | HBM11280     |
| 315 | 180              | 251   | 18.7 | 8320 | 179          | 256   | 28.6 | 12260 | HBM17315         | HBM11315     |



**TBM**

90° Tee, short spigot for butt welding

| d   | I <sub>1</sub> | L   | Z   | SDR 17.6 - S 8.3 |       | SDR 11 - S 5 |       | Code            | Code        |
|-----|----------------|-----|-----|------------------|-------|--------------|-------|-----------------|-------------|
|     |                |     |     | s                | g     | s            | g     | SDR 17.6 - S8.3 | SDR 11 - S5 |
| 20  | 8              | 50  | 25  | -                | -     | 1.9          | 11    | -               | TBM11020    |
| 25  | 10             | 60  | 30  | -                | -     | 2.3          | 15    | -               | TBM11025    |
| 32  | 12             | 80  | 40  | -                | -     | 2.9          | 30    | -               | TBM11032    |
| 40  | 16             | 88  | 44  | 2.3              | 40    | 3.7          | 55    | TBM17040        | TBM11040    |
| 50  | 21             | 116 | 58  | 2.9              | 80    | 4.6          | 115   | TBM17050        | TBM11050    |
| 63  | 24             | 146 | 73  | 3.6              | 175   | 5.8          | 230   | TBM17063        | TBM11063    |
| 75  | 28             | 170 | 85  | 4.3              | 295   | 6.8          | 390   | TBM17075        | TBM11075    |
| 90  | 23             | 200 | 100 | 5.1              | 480   | 8.2          | 645   | TBM17090        | TBM11090    |
| 110 | 43             | 240 | 120 | 6.3              | 790   | 10           | 1040  | TBM17110        | TBM11110    |
| 125 | 26             | 250 | 125 | 7.1              | 1150  | 11.4         | 1480  | TBM17125        | TBM11125    |
| 140 | 32             | 280 | 140 | 8                | 1455  | 12.7         | 2060  | TBM17140        | TBM11140    |
| 160 | 40             | 320 | 160 | 9.1              | 2170  | 14.6         | 2925  | TBM17160        | TBM11160    |
| 180 | 73             | 390 | 195 | 10.2             | 3315  | 16.4         | 4665  | TBM17180        | TBM11180    |
| 200 | 64             | 430 | 215 | 11.4             | 4600  | 18.2         | 6470  | TBM17200        | TBM11200    |
| 225 | 72             | 490 | 245 | 12.8             | 6530  | 20.5         | 9220  | TBM17225        | TBM11225    |
| 250 | 86             | 550 | 275 | 14.2             | 8145  | 22.7         | 12650 | TBM17250        | TBM11250    |
| 280 | 105            | 620 | 310 | 15.9             | 13000 | 25.4         | 18205 | TBM17280        | TBM11280    |
| 315 | 111            | 700 | 350 | 17.9             | 18375 | 28.6         | 25700 | TBM17315        | TBM11315    |
| 355 | 105            | 690 | 345 | 21.1             | 19700 | 32.2         | 30620 | TBM17355        | TBM11355    |
| 400 | 103            | 700 | 355 | 23.7             | 27740 | 36.3         | 38760 | TBM17400        | TBM11400    |

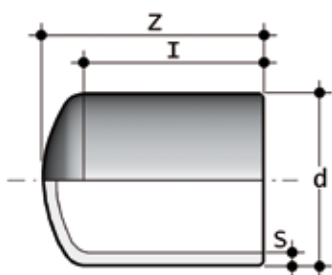


## TRBM

90° reducing Tee, short spigot for butt welding

| d <sub>1</sub> | d <sub>2</sub> | SDR 17.6 - S 8.3 |                |     |                |                |                |      |                | SDR 11 - S 5   |     |                |                |                |      |                  |              | Code | Code |
|----------------|----------------|------------------|----------------|-----|----------------|----------------|----------------|------|----------------|----------------|-----|----------------|----------------|----------------|------|------------------|--------------|------|------|
|                |                | I <sub>1</sub>   | I <sub>2</sub> | L   | s <sub>1</sub> | s <sub>2</sub> | Z <sub>2</sub> | g    | I <sub>1</sub> | I <sub>2</sub> | L   | s <sub>1</sub> | s <sub>2</sub> | Z <sub>2</sub> | g    | SDR 17.6 - S 8.3 | SDR 11 - S 5 |      |      |
| *63            | 50             | 63               | 56             | 220 | 3.8            | 3              | 103            | 210  | 63             | 56             | 220 | 5.8            | 4.6            | 103            | 300  | TRBM17063050     | TRBM11063050 |      |      |
| *75            | 32             | -                | -              | -   | -              | -              | -              | -    | 70             | 46             | 256 | 6.8            | 2.9            | 103            | 500  | -                | TRBM11075032 |      |      |
| *75            | 50             | 70               | 55             | 253 | 4.5            | 3              | 113            | 410  | 70             | 56             | 253 | 6.8            | 4.6            | 113            | 510  | TRBM17075050     | TRBM11075050 |      |      |
| *75            | 63             | 70               | 63             | 260 | 4.5            | 3.8            | 117            | 420  | 70             | 63             | 260 | 6.8            | 5.8            | 117            | 430  | TRBM17075063     | TRBM11075063 |      |      |
| 90             | 32             | -                | -              | -   | -              | -              | -              | -    | 53             | 23             | 213 | 8.2            | 2.9            | 85             | 560  | -                | TRBM11090032 |      |      |
| 90             | 50             | -                | -              | -   | -              | -              | -              | -    | 53             | 28             | 213 | 8.2            | 4.6            | 100            | 580  | -                | TRBM11090050 |      |      |
| *90            | 63             | 79               | 63             | 275 | 5.4            | 3.8            | 137            | 570  | 79             | 64             | 272 | 8.2            | 5.8            | 139            | 780  | TRBM17090063     | TRBM11090063 |      |      |
| *90            | 75             | 74               | 70             | 278 | 5.4            | 4.5            | 138            | 570  | 73             | 68             | 272 | 8.2            | 6.8            | 138            | 790  | TRBM17090075     | TRBM11090075 |      |      |
| 110            | 32             | -                | -              | -   | -              | -              | -              | -    | 66             | 22             | 244 | 10             | 2.9            | 94             | 920  | -                | TRBM11110032 |      |      |
| 110            | 50             | -                | -              | -   | -              | -              | -              | -    | 66             | 27             | 244 | 10             | 4.6            | 103            | 1000 | -                | TRBM11110050 |      |      |
| *110           | 63             | 85               | 66             | 315 | 6.6            | 3.8            | 159            | 960  | 87             | 65             | 315 | 10             | 5.8            | 159            | 1210 | TRBM17110063     | TRBM11110063 |      |      |
| *110           | 75             | 82               | 70             | 315 | 6.6            | 4.5            | 157            | 850  | 87             | 65             | 315 | 10             | 6.8            | 157            | 1180 | TRBM17110075     | TRBM11110075 |      |      |
| *110           | 90             | 82               | 79             | 315 | 6.6            | 5.4            | 155            | 900  | 84             | 79             | 315 | 10             | 8.2            | 155            | 1240 | TRBM17110090     | TRBM11110090 |      |      |
| 125            | 63             | 70               | 31             | 271 | 7.4            | 3.8            | 112            | 1030 | 70             | 31             | 278 | 11.4           | 5.8            | 112            | 1360 | TRBM17125063     | TRBM11125063 |      |      |
| *125           | 90             | -                | -              | -   | -              | -              | -              | -    | 112            | 92             | 340 | 11.4           | 8.2            | 170            | 1640 | -                | TRBM11125090 |      |      |
| *125           | 110            | 87               | 82             | 340 | 7.4            | 6.6            | 170            | 1240 | 90             | 83             | 340 | 11.4           | 10             | 169            | 1860 | TRBM17125110     | TRBM11125110 |      |      |
| 140            | 63             | 83               | 32             | 300 | 8.3            | 3.8            | 120            | 1310 | 83             | 32             | 305 | 12.7           | 5.8            | 120            | 1760 | TRBM17140063     | TRBM11140063 |      |      |
| 140            | 75             | 81               | 35             | 300 | 8.3            | 4.5            | 130            | 1400 | 81             | 35             | 305 | 12.7           | 6.8            | 130            | 2020 | TRBM17140075     | TRBM11140075 |      |      |
| 140            | 90             | 81               | 41             | 300 | 8.3            | 5.4            | 130            | 1380 | 81             | 41             | 305 | 12.7           | 8.2            | 130            | 1840 | TRBM17140090     | TRBM11140090 |      |      |
| 140            | 110            | 50               | 47             | 300 | 8.3            | 6.6            | 137            | 1640 | 50             | 47             | 305 | 12.7           | 10             | 141            | 2200 | TRBM17140110     | TRBM11140110 |      |      |
| *160           | 63             | 98               | 64             | 347 | 9.5            | 3.8            | 175            | 1850 | 100            | 67             | 347 | 14.6           | 5.8            | 175            | 2640 | TRBM17160063     | TRBM11160063 |      |      |
| *160           | 75             | 98               | 75             | 348 | 9.5            | 4.5            | 179            | 1910 | 101            | 76             | 348 | 14.6           | 6.8            | 180            | 2600 | TRBM17160075     | TRBM11160075 |      |      |
| *160           | 90             | 100              | 81             | 349 | 9.5            | 5.4            | 182            | 1940 | 101            | 80             | 349 | 14.6           | 8.2            | 182            | 2640 | TRBM17160090     | TRBM11160090 |      |      |
| *160           | 110            | 98               | 85             | 400 | 9.5            | 6.6            | 202            | 2360 | 98             | 83             | 400 | 14.6           | 10             | 202            | 3220 | TRBM17160110     | TRBM11160110 |      |      |
| 160            | 125            | 58               | 47             | 315 | 9.5            | 7.4            | 150            | 2040 | 59             | 48             | 325 | 14.6           | 11.4           | 150            | 2730 | TRBM17160125     | TRBM11160125 |      |      |
| 180            | 63             | 125              | 30             | 358 | 10.7           | 3.8            | 134            | 2060 | 125            | 30             | 358 | 16.4           | 5.8            | 134            | 3040 | TRBM17180063     | TRBM11180063 |      |      |
| 180            | 75             | 112              | 30             | 360 | 10.7           | 4.5            | 140            | 2100 | 112            | 30             | 352 | 16.4           | 6.8            | 140            | 3020 | TRBM17180075     | TRBM11180075 |      |      |
| *180           | 90             | 134              | 97             | 420 | 10.7           | 5.4            | 200            | 2800 | 136            | 95             | 395 | 16.4           | 8.2            | 202            | 4240 | TRBM17180090     | TRBM11180090 |      |      |
| 180            | 110            | 106              | 48             | 365 | 10.7           | 6.6            | 158            | 2160 | -              | -              | -   | -              | -              | -              | -    | TRBM17180110     | -            |      |      |
| *180           | 110            | -                | -              | -   | -              | -              | -              | -    | 140            | 98             | 395 | 16.4           | 10             | 210            | 4580 | -                | TRBM11180110 |      |      |
| 180            | 125            | 92               | 50             | 358 | 10.7           | 7.4            | 156            | 2240 | 96             | 101            | 366 | 16.4           | 11.4           | 166            | 3240 | TRBM17180125     | TRBM11180125 |      |      |
| *180           | 160            | 105              | 91             | 412 | 10.7           | 9.5            | 204            | 3070 | 105            | 94             | 411 | 16.4           | 14.6           | 205            | 4390 | TRBM17180160     | TRBM11180160 |      |      |
| *200           | 63             | 134              | 80             | 550 | 11.9           | 3.8            | 225            | 4960 | 145            | 32             | 388 | 18.2           | 5.8            | 144            | 6710 | TRBM1720063      | TRBM1120063  |      |      |
| *200           | 90             | 134              | 95             | 550 | 11.9           | 5.4            | 227            | 4900 | 125            | 38             | 388 | 18.2           | 8.2            | 163            | 6680 | TRBM1720090      | TRBM1120090  |      |      |
| *200           | 110            | 134              | 103            | 560 | 11.9           | 6.6            | 245            | 5110 | 120            | 40             | 388 | 18.2           | 10             | 160            | 6940 | TRBM17200110     | TRBM11200110 |      |      |
| *200           | 125            | 134              | 110            | 550 | 11.9           | 7.4            | 240            | 5060 | 115            | 43             | 388 | 18.2           | 11.4           | 165            | 6920 | TRBM17200125     | TRBM11200125 |      |      |
| *200           | 160            | 134              | 114            | 550 | 11.9           | 9.5            | 265            | 6150 | 98             | 53             | 388 | 18.2           | 14.6           | 178            | 8180 | TRBM17200160     | TRBM11200160 |      |      |
| *225           | 75             | 120              | 75             | 451 | 13.4           | 4.5            | 226            | 4630 | 120            | 75             | 451 | 20.5           | 6.8            | 227            | 6560 | TRBM1722575      | TRBM1122575  |      |      |
| *225           | 90             | 120              | 79             | 450 | 13.4           | 5.4            | 224            | 4820 | 120            | 79             | 450 | 20.5           | 8.2            | 225            | 6620 | TRBM1722590      | TRBM1122590  |      |      |
| *225           | 110            | 120              | 86             | 449 | 13.4           | 6.6            | 226            | 4960 | 120            | 85             | 449 | 20.5           | 10             | 227            | 6520 | TRBM17225110     | TRBM11225110 |      |      |
| 225            | 125            | 135              | 40             | 445 | 13.4           | 7.4            | 180            | 4190 | 135            | 40             | 456 | 20.5           | 11.4           | 178            | 6120 | TRBM17225125     | TRBM11225125 |      |      |
| *225           | 160            | 120              | 98             | 498 | 13.4           | 9.5            | 250            | 6130 | 101            | 98             | 498 | 20.5           | 14.6           | 247            | 8280 | TRBM17225160     | TRBM11225160 |      |      |
| *225           | 180            | 134              | 134            | 558 | 13.4           | 10.7           | 280            | 7100 | 135            | 135            | 558 | 20.5           | 16.4           | 280            | 9540 | TRBM17225180     | TRBM11225180 |      |      |
| 250            | 110            | 135              | 38             | 455 | 14.8           | 6.6            | 197            | 5420 | 135            | 38             | 450 | 22.7           | 10             | 197            | 7700 | TRBM17250110     | TRBM11250110 |      |      |
| 250            | 160            | 110              | 58             | 450 | 14.8           | 9.5            | 219            | 5620 | 110            | 58             | 458 | 22.7           | 14.6           | 213            | 8040 | TRBM17250160     | TRBM11250160 |      |      |

\* long spigot

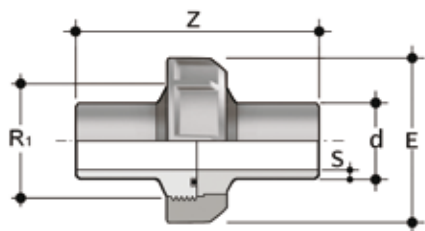


## CBM

Long spigot end cap for butt welding

| d    | SDR 17.6 - S 8.3 |      |     |      | SDR 11 - S 5 |      |     |      | Code             | Code         |
|------|------------------|------|-----|------|--------------|------|-----|------|------------------|--------------|
|      | I                | S    | Z   | g    | I            | S    | Z   | g    | SDR 17.6 - S 8.3 | SDR 11 - S 5 |
| 20   | -                | -    | -   | -    | 35           | 1.9  | 45  | 10   | -                | CBM11020     |
| 25   | -                | -    | -   | -    | 40           | 2.3  | 52  | 10   | -                | CBM11025     |
| 32   | -                | -    | -   | -    | 44           | 2.9  | 58  | 20   | -                | CBM11032     |
| 40   | -                | -    | -   | -    | 50           | 3.7  | 67  | 30   | -                | CBM11040     |
| 50   | -                | -    | -   | -    | 55           | 4.6  | 75  | 50   | -                | CBM11050     |
| 63   | 62               | 3.6  | 85  | 70   | 62           | 5.8  | 85  | 90   | CBM17063         | CBM11063     |
| 75   | 63               | 4.3  | 95  | 100  | 63           | 6.8  | 95  | 130  | CBM17075         | CBM11075     |
| 90   | 79               | 5.1  | 110 | 190  | 79           | 8.2  | 110 | 230  | CBM17090         | CBM11090     |
| 110  | 88               | 6.3  | 127 | 300  | 88           | 10.0 | 127 | 400  | CBM17110         | CBM11110     |
| 125  | 95               | 7.1  | 124 | 160  | 102          | 11.4 | 138 | 210  | CBM17125         | CBM11125     |
| 140  | 110              | 8.0  | 140 | 180  | 106          | 12.7 | 144 | 320  | CBM17140         | CBM11140     |
| 160  | 121              | 9.1  | 152 | 400  | 119          | 14.6 | 167 | 570  | CBM17160         | CBM11160     |
| 180  | 134              | 10.2 | 169 | 500  | 141          | 16.4 | 191 | 730  | CBM17180         | CBM11180     |
| 200  | 140              | 11.4 | 184 | 690  | 127          | 18.2 | 181 | 1060 | CBM17200         | CBM11200     |
| 225  | 160              | 12.8 | 200 | 960  | 141          | 20.5 | 211 | 1360 | CBM17225         | CBM11225     |
| 250  | 160              | 14.2 | 230 | 1500 | 152          | 22.7 | 230 | 3760 | CBM17250         | CBM11250     |
| 280  | 162              | 15.9 | 257 | 2100 | 162          | 25.4 | 257 | 5240 | CBM17280         | CBM11280     |
| 315  | 171              | 17.9 | 262 | 2900 | 180          | 28.6 | 262 | 6870 | CBM17315         | CBM11315     |
| *355 | -                | -    | -   | -    | 63           | 32.2 | 124 | 6060 | -                | CBM11355     |
| *400 | -                | -    | -   | -    | 72           | 36.3 | 132 | 8220 | -                | CBM11400     |

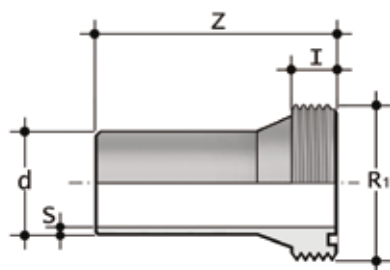
\* short spigot



## BBM-L

Long spigot union for butt welding with seal in EPDM or FPM

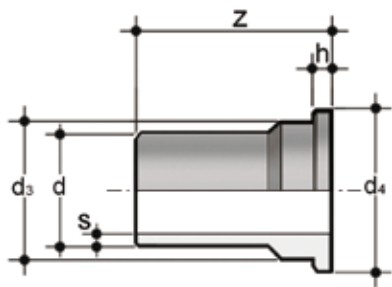
| d  | DN | R <sub>1</sub> | E   | Z   | SDR 11 - S 5<br>S | g   | EPDM Code  | FPM Code   |
|----|----|----------------|-----|-----|-------------------|-----|------------|------------|
| 20 | 15 | 1"             | 46  | 190 | 1.9               | 70  | BBML11020E | BBML11020F |
| 25 | 20 | 1 1/4"         | 56  | 190 | 2.3               | 105 | BBML11025E | BBML11025F |
| 32 | 25 | 1 1/2"         | 66  | 190 | 2.9               | 140 | BBML11032E | BBML11032F |
| 40 | 32 | 2"             | 79  | 190 | 3.7               | 210 | BBML11040E | BBML11040F |
| 50 | 40 | 2 1/4"         | 87  | 190 | 4.6               | 295 | BBML11050E | BBML11050F |
| 63 | 50 | 2 3/4"         | 107 | 190 | 5.8               | 480 | BBML11063E | BBML11063F |



## F/BBM-L

Union bush, long spigot, for butt welding for union BBM-L

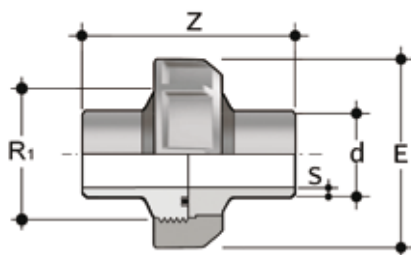
| d   | R <sub>1</sub> | I  | SDR 11 - S 5<br>S | Z   | g   | Code       |
|-----|----------------|----|-------------------|-----|-----|------------|
| 20  | 1"             | 13 | 1.9               | 95  | 25  | FBBML11020 |
| 25  | 1 1/4"         | 13 | 2.3               | 95  | 40  | FBBML11025 |
| 32  | 1 1/2"         | 14 | 2.9               | 95  | 50  | FBBML11032 |
| 40  | 2"             | 16 | 3.7               | 95  | 80  | FBBML11040 |
| 50  | 2 1/4"         | 18 | 4.6               | 95  | 115 | FBBML11050 |
| 63  | 2 3/4"         | 20 | 5.8               | 95  | 185 | FBBML11063 |
| 75  | 3 1/2"         | 24 | 6.8               | 130 | 250 | FBBML11075 |
| 90  | 4"             | 25 | 8.2               | 150 | 380 | FBBML11090 |
| 110 | 5"             | 28 | 10                | 170 | 630 | FBBML11110 |



## Q/BBM-L

Union end, long spigot, for butt welding for union BBM-L

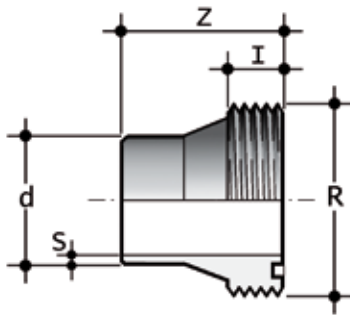
| d   | d <sub>3</sub> | d <sub>4</sub> | h  | SDR 11 - S 5<br>S | Z   | g   | Code       |
|-----|----------------|----------------|----|-------------------|-----|-----|------------|
| 20  | 25             | 29.6           | 5  | 1.9               | 95  | 20  | QBBML11020 |
| 25  | 33             | 38.5           | 6  | 2.3               | 95  | 40  | QBBML11025 |
| 32  | 39             | 44.2           | 6  | 2.9               | 95  | 45  | QBBML11032 |
| 40  | 51             | 56             | 7  | 3.7               | 95  | 75  | QBBML11040 |
| 50  | 57             | 62.2           | 7  | 4.6               | 95  | 110 | QBBML11050 |
| 63  | 72             | 77.9           | 8  | 5.8               | 95  | 160 | QBBML11063 |
| 75  | 83             | 96.7           | 9  | 6.8               | 130 | 290 | QBBML11075 |
| 90  | 98             | 109.4          | 10 | 8.2               | 150 | 357 | QBBML11090 |
| 110 | 118            | 134.8          | 11 | 10                | 170 | 630 | QBBML11110 |



## BBM-C

Short spigot union for butt welding with seal in EPDM or FPM

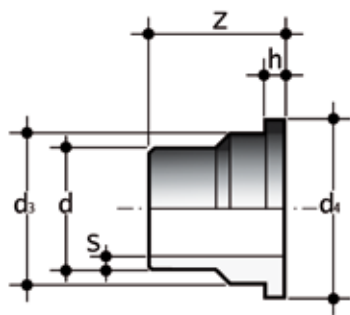
| d  | DN | E   | Z   | S   | g   | EPDM Code  | FPM Code   |
|----|----|-----|-----|-----|-----|------------|------------|
| 20 | 15 | 46  | 110 | 1.9 | 80  | BBMC11020E | BBMC11020F |
| 25 | 20 | 56  | 110 | 2.3 | 75  | BBMC11025E | BBMC11025F |
| 32 | 25 | 66  | 110 | 2.9 | 120 | BBMC11032E | BBMC11032F |
| 40 | 32 | 79  | 110 | 3.7 | 175 | BBMC11040E | BBMC11040F |
| 50 | 40 | 87  | 110 | 4.6 | 240 | BBMC11050E | BBMC11050F |
| 63 | 50 | 107 | 110 | 5.8 | 440 | BBMC11063E | BBMC11063F |



## F/BBM-C

Union bush, short spigot, for butt welding for union BBM-C

| d   | R      | I  | Z  | S   | g   | Code       |
|-----|--------|----|----|-----|-----|------------|
| 20  | 1"     | 13 | 55 | 1.9 | 20  | FBBMC11020 |
| 25  | 1 1/4" | 13 | 55 | 2.3 | 27  | FBBMC11025 |
| 32  | 1 1/2" | 14 | 55 | 2.9 | 40  | FBBMC11032 |
| 40  | 2"     | 16 | 55 | 3.7 | 60  | FBBMC11040 |
| 50  | 2 1/4" | 18 | 55 | 4.6 | 86  | FBBMC11050 |
| 63  | 2 3/4" | 20 | 55 | 5.8 | 147 | FBBMC11063 |
| 75  | 3 1/2" | 24 | 55 | 6.8 | 200 | FBBMC11075 |
| 90  | 4"     | 25 | 90 | 8.2 | 310 | FBBMC11090 |
| 110 | 5"     | 28 | 90 | 10  | 600 | FBBMC11110 |

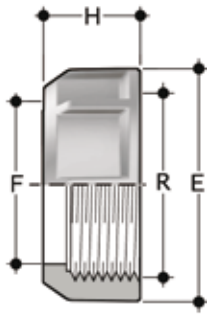


## Q/BBM-C

Union end, short spigot, for butt welding for union BBM-C

| d   | d <sub>3</sub> | d <sub>4</sub> | h  | Z  | S   | g   | Code       |
|-----|----------------|----------------|----|----|-----|-----|------------|
| 20  | 25             | 30             | 5  | 55 | 1.9 | 20  | QBBMC11020 |
| 25  | 33.5           | 38.5           | 6  | 55 | 2.3 | 22  | QBBMC11025 |
| 32  | 38             | 44.5           | 6  | 55 | 2.9 | 36  | QBBMC11032 |
| 40  | 49.5           | 56.2           | 7  | 55 | 3.7 | 54  | QBBMC11040 |
| 50  | 55             | 62.2           | 7  | 55 | 4.6 | 76  | QBBMC11050 |
| 63  | 70             | 78.3           | 8  | 55 | 5.8 | 118 | QBBMC11063 |
| 75  | 82.5           | 96.5           | 9  | 55 | 6.8 | 250 | QBBMC11075 |
| 90  | 97.5           | 109.5          | 10 | 90 | 8.2 | 310 | QBBMC11090 |
| 110 | 117.5          | 134.5          | 11 | 90 | 10  | 610 | QBBMC11110 |

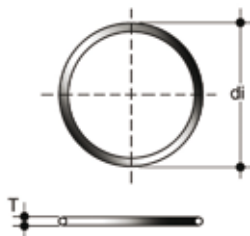




## EFGM

Union nut with BSP thread for union types BIGM, BIFGM, BIFOM, BIROM, BIFXM, BIRXM

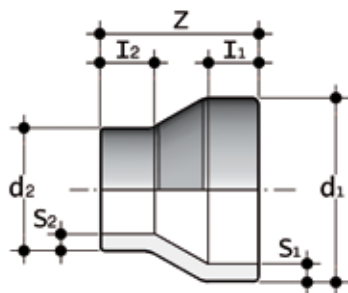
| R      | d BIGM | PN | E   | F  | H  | g   | Code    |
|--------|--------|----|-----|----|----|-----|---------|
| 1"     | 20     | 10 | 47  | 28 | 22 | 19  | EFGM100 |
| 1 1/4" | 25     | 10 | 58  | 36 | 25 | 29  | EFGM114 |
| 1 1/2" | 32     | 10 | 65  | 42 | 27 | 40  | EFGM112 |
| 2"     | 40     | 10 | 78  | 53 | 30 | 57  | EFGM200 |
| 2 1/4" | 50     | 10 | 85  | 59 | 33 | 74  | EFGM214 |
| 2 3/4" | 63     | 10 | 103 | 74 | 38 | 119 | EFGM234 |



## O-Ring

Seal for union types BIV, BIFV, BFV, BLV, BIRV, BIFOV, BIROV, BIFXV, BIRXV

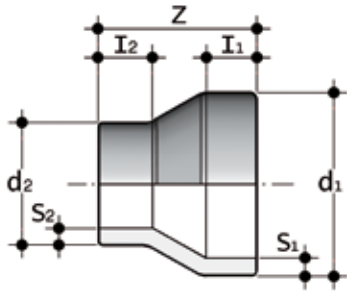
| d Union | C    | di     | T    | EPDM Code | FPM Code |
|---------|------|--------|------|-----------|----------|
| 16      | 3062 | 15.54  | 2.62 | OR3062E   | OR3062F  |
| 20      | 4081 | 20.22  | 3.53 | OR4081E   | OR4081F  |
| 25      | 4112 | 28.17  | 3.53 | OR4112E   | OR4112F  |
| 32      | 4131 | 32.93  | 3.53 | OR4131E   | OR4131F  |
| 40      | 6162 | 40.65  | 5.34 | OR6162E   | OR6162F  |
| 50      | 6187 | 47     | 5.34 | OR6187E   | OR6187F  |
| 63      | 6237 | 59.69  | 5.34 | OR6237E   | OR6237F  |
| 75      | 6300 | 75.57  | 5.34 | OR6300E   | OR6300F  |
| 90      | 6362 | 91.45  | 5.34 | OR6362E   | OR6362F  |
| 110     | 6450 | 113.67 | 5.34 | OR6450E   | OR6450F  |



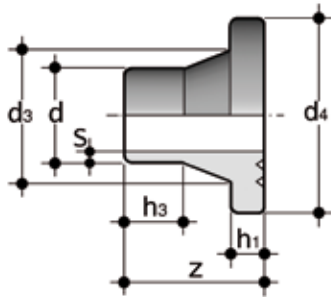
## RBM

Concentric reducer, short spigot, for butt welding

| d <sub>1</sub> | d <sub>2</sub> | I <sub>1</sub> | I <sub>2</sub> | Z   | SDR 17.6 - S 8.3 |                |     | SDR 11 - S 5   |                |      | Code             | Code         |
|----------------|----------------|----------------|----------------|-----|------------------|----------------|-----|----------------|----------------|------|------------------|--------------|
|                |                |                |                |     | s <sub>1</sub>   | s <sub>2</sub> | g   | s <sub>1</sub> | s <sub>2</sub> | g    | SDR 17.6 - S 8.3 | SDR 11 - S 5 |
| 25             | 20             | 12             | 12             | 37  | -                | -              | -   | 2.3            | 1.9            | 5    | -                | RBM11025020  |
| 32             | 20             | 12             | 12             | 43  | -                | -              | -   | 2.9            | 1.9            | 8    | -                | RBM11032020  |
| 32             | 25             | 12             | 12             | 43  | -                | -              | -   | 2.9            | 2.3            | 10   | -                | RBM11032025  |
| 40             | 20             | 12             | 12             | 50  | 2.3              | 1.9            | 9   | 3.7            | 1.9            | 13   | RBM17040020      | RBM11040020  |
| 40             | 25             | 12             | 12             | 50  | 2.3              | 2              | 10  | 3.7            | 2.3            | 15   | RBM17040025      | RBM11040025  |
| 40             | 32             | 12             | 12             | 50  | 2.3              | 2              | 11  | 3.7            | 3              | 18   | RBM17040032      | RBM11040032  |
| 50             | 25             | 12             | 12             | 55  | 2.9              | 2              | 10  | 4.6            | 2.3            | 23   | RBM17050025      | RBM11050025  |
| 50             | 32             | 12             | 12             | 55  | 2.9              | 2              | 17  | 4.6            | 3              | 25   | RBM17050032      | RBM11050032  |
| 50             | 40             | 12             | 12             | 55  | 2.9              | 2.3            | 20  | 4.6            | 3.7            | 29   | RBM17050040      | RBM11050040  |
| 63             | 32             | 16             | 12             | 65  | 3.6              | 2              | 32  | 5.8            | 3              | 43   | RBM17063032      | RBM11063032  |
| 63             | 40             | 16             | 12             | 65  | 3.6              | 2.3            | 36  | 5.8            | 3.7            | 50   | RBM17063040      | RBM11063040  |
| 63             | 50             | 16             | 12             | 65  | 3.6              | 2.9            | 38  | 5.8            | 4.6            | 55   | RBM17063050      | RBM11063050  |
| 75             | 32             | 19             | 12             | 80  | 4.3              | 2              | 55  | 6.8            | 3              | 70   | RBM17075032      | RBM11075032  |
| 75             | 40             | 19             | 12             | 71  | 4.3              | 2.3            | 50  | 6.8            | 3.7            | 71   | RBM17075040      | RBM11075040  |
| 75             | 50             | 19             | 12             | 71  | 4.3              | 2.9            | 54  | 6.8            | 4.6            | 79   | RBM17075050      | RBM11075050  |
| 75             | 63             | 19             | 16             | 71  | 4.3              | 3.6            | 60  | 6.8            | 5.8            | 89   | RBM17075063      | RBM11075063  |
| 90             | 50             | 22             | 12             | 80  | 5.1              | 2.9            | 86  | 8.2            | 4.6            | 125  | RBM17090050      | RBM11090050  |
| 90             | 63             | 22             | 16             | 80  | 5.1              | 3.6            | 82  | 8.2            | 5.8            | 129  | RBM17090063      | RBM11090063  |
| 90             | 75             | 22             | 19             | 80  | 5.1              | 4.3            | 102 | 8.2            | 6.9            | 155  | RBM17090075      | RBM11090075  |
| 110            | 50             | 28             | 12             | 105 | 6.3              | 2.9            | 100 | 10             | 4.6            | 150  | RBM17110050      | RBM11110050  |
| 110            | 63             | 28             | 16             | 97  | 6.3              | 3.6            | 100 | 10             | 5.8            | 200  | RBM17110063      | RBM11110063  |
| 110            | 75             | 28             | 19             | 97  | 6.3              | 4.3            | 90  | 10             | 6.9            | 160  | RBM17110075      | RBM11110075  |
| 110            | 90             | 28             | 22             | 97  | 6.3              | 5.1            | 160 | 10             | 8.2            | 140  | RBM17110090      | RBM11110090  |
| 125            | 63             | 30             | 16             | 112 | 7.1              | 3.6            | 120 | 11.4           | 5.8            | 180  | RBM17125063      | RBM11125063  |
| 125            | 75             | 32             | 19             | 108 | 7.1              | 4.3            | 130 | 11.4           | 6.9            | 200  | RBM17125075      | RBM11125075  |
| 125            | 90             | 32             | 22             | 108 | 7.1              | 5.1            | 130 | 11.4           | 8.2            | 200  | RBM17125090      | RBM11125090  |
| 125            | 110            | 32             | 28             | 108 | 7.1              | 6.3            | 150 | 11.4           | 10             | 220  | RBM17125110      | RBM11125110  |
| 140            | 75             | 35             | 19             | 123 | 8                | 4.3            | 160 | 12.7           | 6.9            | 240  | RBM17140075      | RBM11140075  |
| 140            | 90             | 35             | 22             | 115 | 8                | 5.1            | 170 | 12.7           | 8.2            | 260  | RBM17140090      | RBM11140090  |
| 140            | 110            | 35             | 28             | 115 | 8                | 6.3            | 140 | 12.7           | 10             | 210  | RBM17140110      | RBM11140110  |
| 140            | 125            | 35             | 32             | 115 | 8                | 7.1            | 150 | 12.7           | 11.4           | 220  | RBM17140125      | RBM11140125  |
| 160            | 90             | 40             | 22             | 135 | 9.1              | 5.1            | 400 | 14.6           | 8.2            | 700  | RBM17160090      | RBM11160090  |
| 160            | 110            | 40             | 28             | 124 | 9.1              | 6.3            | 350 | 14.6           | 10             | 430  | RBM17160110      | RBM11160110  |
| 160            | 125            | 40             | 32             | 124 | 9.1              | 7.1            | 400 | 14.6           | 11.4           | 700  | RBM17160125      | RBM11160125  |
| 160            | 140            | 40             | 35             | 124 | 9.1              | 8              | 250 | 14.6           | 12.8           | 370  | RBM17160140      | RBM11160140  |
| 180            | 90             | 45             | 22             | 157 | 10.2             | 5.1            | 600 | 16.4           | 8.2            | 660  | RBM17180090      | RBM11180090  |
| 180            | 110            | 45             | 28             | 157 | 10.2             | 6.3            | 630 | 16.4           | 10             | 900  | RBM17180110      | RBM11180110  |
| 180            | 125            | 45             | 32             | 136 | 10.2             | 7.1            | 370 | 16.4           | 11.4           | 510  | RBM17180125      | RBM11180125  |
| 180            | 140            | 45             | 35             | 136 | 10.2             | 8              | 510 | 16.4           | 12.8           | 610  | RBM17180140      | RBM11180140  |
| 180            | 160            | 45             | 40             | 136 | 10.2             | 9.1            | 500 | 16.4           | 14.6           | 700  | RBM17180160      | RBM11180160  |
| 200            | 140            | 50             | 35             | 154 | 11.4             | 8              | 750 | 18.2           | 12.8           | 730  | RBM17200140      | RBM11200140  |
| 200            | 160            | 50             | 40             | 151 | 11.4             | 9.1            | 670 | 18.2           | 14.6           | 700  | RBM17200160      | RBM11200160  |
| 200            | 180            | 50             | 45             | 151 | 11.4             | 10.2           | 920 | 18.2           | 16.4           | 1300 | RBM17200180      | RBM11200180  |



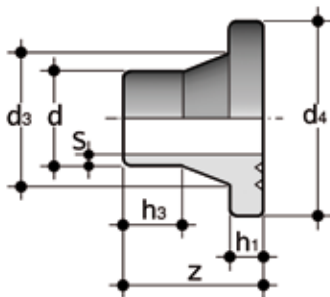
| d <sub>1</sub> | d <sub>2</sub> | l <sub>1</sub> | l <sub>2</sub> | Z   | SDR 17.6 - S 8.3 |                |      | SDR 11 - S 5   |                |      | Code             | Code         |
|----------------|----------------|----------------|----------------|-----|------------------|----------------|------|----------------|----------------|------|------------------|--------------|
|                |                |                |                |     | s <sub>1</sub>   | s <sub>2</sub> | g    | s <sub>1</sub> | s <sub>2</sub> | g    | SDR 17.6 - S 8.3 | SDR 11 - S 5 |
| 225            | 140            | 60             | 50             | 160 | 12.8             | 8              | 1400 | 20.5           | 12.8           | 1800 | RBM17225140      | RBM11225140  |
| 225            | 160            | 55             | 40             | 171 | 12.8             | 9.1            | 700  | 20.5           | 14.6           | 960  | RBM17225160      | RBM11225160  |
| 225            | 180            | 55             | 45             | 171 | 12.8             | 10.2           | 580  | 20.5           | 16.4           | 1020 | RBM17225180      | RBM11225180  |
| 225            | 200            | 55             | 50             | 171 | 12.8             | 11.4           | 700  | 20.5           | 18.2           | 1200 | RBM17225200      | RBM11225200  |
| 250            | 160            | 60             | 40             | 194 | 14.2             | 9.1            | 880  | 22.7           | 14.6           | 1480 | RBM17250160      | RBM11250160  |
| 250            | 180            | 60             | 45             | 182 | 14.2             | 10.2           | 660  | 22.7           | 16.4           | 1200 | RBM17250180      | RBM11250180  |
| 250            | 200            | 60             | 50             | 182 | 14.2             | 11.4           | 730  | 22.7           | 18.2           | 1110 | RBM17250200      | RBM11250200  |
| 250            | 225            | 60             | 55             | 182 | 14.2             | 12.8           | 680  | 22.7           | 20.5           | 1040 | RBM17250225      | RBM11250225  |
| 280            | 200            | 85             | 70             | 200 | 15.9             | 11.4           | 2400 | 25.4           | 18.2           | 3600 | RBM17280200      | RBM11280200  |
| 280            | 225            | 85             | 72             | 200 | 15.9             | 12.8           | 2500 | 25.4           | 20.5           | 3700 | RBM17280225      | RBM11280225  |
| 280            | 250            | 85             | 80             | 200 | 15.9             | 14.2           | 2600 | 25.4           | 22.8           | 3800 | RBM17280250      | RBM11280250  |
| 315            | 200            | 95             | 85             | 230 | 17.9             | 11.4           | 3400 | 28.6           | 18.2           | 5100 | RBM17315200      | RBM11315200  |
| 315            | 225            | 95             | 88             | 230 | 17.9             | 12.8           | 3400 | 28.6           | 20.5           | 5200 | RBM17315225      | RBM11315225  |
| 315            | 250            | 95             | 95             | 230 | 17.9             | 14.2           | 3500 | 28.6           | 22.8           | 3500 | RBM17315250      | RBM11315250  |
| 315            | 280            | 95             | 107            | 230 | 17.9             | 15.9           | 3500 | 28.6           | 25.5           | 5400 | RBM17315280      | RBM11315280  |
| 355            | 200            | 57             | 40             | 160 | 20.1             | 11.4           | 3220 | 32.3           | 18.2           | 4400 | RBM17355200      | RBM11355200  |
| 355            | 225            | 57             | 40             | 140 | 20.1             | 12.8           | 3400 | 32.3           | 20.5           | 4390 | RBM17355225      | RBM11355225  |
| 355            | 250            | 54             | 40             | 130 | 20.1             | 14.2           | 2300 | 32.3           | 22.8           | 3560 | RBM17355250      | RBM11355250  |
| 355            | 280            | 53             | 40             | 120 | 20.1             | 15.9           | 1900 | 32.3           | 25.5           | 2950 | RBM17355280      | RBM11355280  |
| 355            | 315            | 53             | 40             | 110 | 20.1             | 17.9           | 1520 | 32.3           | 28.7           | 2170 | RBM17355315      | RBM11355315  |
| 400            | 225            | 64             | 40             | 160 | 22.7             | 12.8           | 5300 | 36.3           | 20.5           | 6300 | RBM17400225      | RBM11400225  |
| 400            | 250            | 61             | 40             | 150 | 22.7             | 14.2           | 4800 | 36.3           | 22.8           | 6000 | RBM17400250      | RBM11400250  |
| 400            | 280            | 60             | 40             | 140 | 22.7             | 15.9           | 4000 | 36.3           | 25.5           | 5800 | RBM17400280      | RBM11400280  |
| 400            | 315            | 50             | 40             | 120 | 22.7             | 17.9           | 3600 | 36.3           | 28.7           | 4800 | RBM17400315      | RBM11400315  |
| 400            | 355            | 51             | 40             | 110 | 22.7             | 20.1           | 3100 | 36.3           | 32.3           | 3400 | RBM17400355      | RBM11400355  |



## QBM

Short spigot stub for butt welding for backing rings ISO/DIN ODB

| d   | d <sub>3</sub> | d <sub>4</sub> | Z   | SDR 17.6 - S 8.3 |                |      |      | SDR 11 - S 5   |                |      |      | Code             |              |
|-----|----------------|----------------|-----|------------------|----------------|------|------|----------------|----------------|------|------|------------------|--------------|
|     |                |                |     | h <sub>1</sub>   | h <sub>3</sub> | S    | g    | h <sub>1</sub> | h <sub>3</sub> | S    | g    | SDR 17.6 - S 8.3 | SDR 11 - S 5 |
| 20  | 27             | 45             | 50  | -                | -              | -    | -    | 7              | 30             | 1.9  | 15   | -                | QBM11020     |
| 25  | 33             | 58             | 50  | -                | -              | -    | -    | 9              | 26             | 2.3  | 30   | -                | QBM11025     |
| 32  | 40             | 68             | 50  | -                | -              | -    | -    | 10             | 25             | 2.9  | 45   | -                | QBM11032     |
| 40  | 50             | 78             | 50  | 11               | 24             | 2.3  | 60   | 11             | 24             | 3.7  | 66   | QBM17040         | QBM11040     |
| 50  | 61             | 88             | 50  | 12               | 23             | 2.9  | 77   | 12             | 21             | 4.6  | 87   | QBM17050         | QBM11050     |
| 63  | 75             | 102            | 50  | 14               | 18             | 3.6  | 115  | 14             | 16             | 5.8  | 129  | QBM17063         | QBM11063     |
| 75  | 89             | 122            | 50  | 16               | 35             | 4.3  | 180  | 16             | 14             | 6.8  | 200  | QBM17075         | QBM11075     |
| 90  | 105            | 138            | 80  | 17               | 43             | 5.1  | 280  | 17             | 33             | 8.2  | 322  | QBM17090         | QBM11090     |
| 110 | 125            | 158            | 80  | 18               | 37             | 6.3  | 365  | 18             | 27             | 10   | 430  | QBM17110         | QBM11110     |
| 125 | 132            | 158            | 80  | 18               | 42             | 7.1  | 390  | 25             | 35             | 11.4 | 490  | QBM17125         | QBM11125     |
| 140 | 155            | 188            | 80  | 18               | 34             | 8    | 530  | 25             | 27             | 12.7 | 715  | QBM17140         | QBM11140     |
| 160 | 175            | 212            | 80  | 18               | 34             | 9.1  | 660  | 25             | 27             | 14.6 | 915  | QBM17160         | QBM11160     |
| 180 | 182            | 212            | 80  | 20               | 30             | 10.2 | 610  | 30             | 50             | 16.4 | 890  | QBM17180         | QBM11180     |
| 200 | 232            | 268            | 100 | 24               | 36             | 11.4 | 1440 | 32             | 28             | 18.2 | 1900 | QBM17200         | QBM11200     |
| 225 | 235            | 268            | 100 | 24               | 46             | 12.8 | 1290 | 32             | 38             | 20.5 | 1780 | QBM17225         | QBM11225     |
| 250 | 285            | 320            | 100 | 25               | 35             | 14.2 | 2035 | 35             | 25             | 22.7 | 2865 | QBM17250         | QBM11250     |
| 280 | 291            | 320            | 100 | 25               | 45             | 15.9 | 1825 | 35             | 35             | 25.4 | 2600 | QBM17280         | QBM11280     |
| 315 | 335            | 370            | 100 | 25               | 35             | 17.9 | 2525 | 35             | 25             | 28.6 | 3500 | QBM17315         | QBM11315     |
| 355 | 373            | 430            | 120 | 30               | 30             | 21.1 | 3400 | 40             | 20             | 32.2 | 4720 | QBM17355         | QBM11355     |
| 400 | 427            | 482            | 120 | 33               | 42             | 23.7 | 4920 | 46             | 29             | 36.3 | 7320 | QBM17400         | QBM11400     |

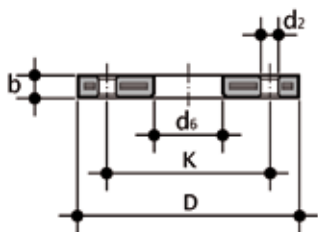


## QBAM

Short spigot stub for butt welding for backing rings ANSI B16.5 cl.150 OAB\*

| d  | OAB size | d <sub>3</sub> | d <sub>4</sub> | Z  | SDR 17.6 - S 8.3 |                |     |     | SDR 11 - S 5   |                |     |     | Code             |              |
|----|----------|----------------|----------------|----|------------------|----------------|-----|-----|----------------|----------------|-----|-----|------------------|--------------|
|    |          |                |                |    | h <sub>1</sub>   | h <sub>3</sub> | S   | g   | h <sub>1</sub> | h <sub>3</sub> | S   | g   | SDR 17.6 - S 8.3 | SDR 11 - S 5 |
| 25 | 3/4"     | 33             | 54             | 50 | -                | -              | -   | -   | 9              | 26             | 2.3 | 30  | -                | QBAM11034    |
| 32 | 1"       | 40             | 63.5           | 50 | -                | -              | -   | -   | 10             | 25             | 2.9 | 45  | -                | QBAM11100    |
| 40 | 1 1/4"   | 50             | 72             | 50 | 11               | 24             | 2.3 | 60  | 11             | 24             | 3.7 | 66  | QBAM17114        | QBAM11114    |
| 50 | 1 1/2"   | 61             | 84.5           | 50 | 12               | 23             | 2.9 | 77  | 12             | 21             | 4.6 | 87  | QBAM17112        | QBAM11112    |
| 90 | 3"       | 105            | 132            | 80 | 17               | 43             | 5.1 | 280 | 17             | 33             | 8.2 | 322 | QBAM17300        | QBAM11300    |

\* for other dimensions use QBM



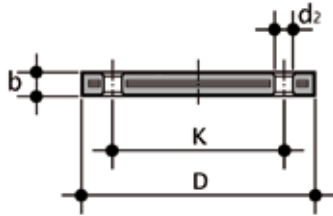
## ODB

Steel core backing ring, PP/FRP coated, according to EN/ISO/DIN for stub QBM.  
Drilling PN 10/16 up to d180, PN 10 from d200 to d400

| d   | DN  | *PMA<br>(bar) | b  | d <sub>2</sub> | d <sub>6</sub> | D   | K   | M   | n  | ** (Nm) | g     | Code   |
|-----|-----|---------------|----|----------------|----------------|-----|-----|-----|----|---------|-------|--------|
| 20  | 15  | 16            | 12 | 14             | 28             | 95  | 65  | M12 | 4  | 15      | 232   | ODB020 |
| 25  | 20  | 16            | 14 | 14             | 34             | 105 | 75  | M12 | 4  | 15      | 288   | ODB025 |
| 32  | 25  | 16            | 14 | 14             | 42             | 115 | 85  | M12 | 4  | 15      | 544   | ODB032 |
| 40  | 32  | 16            | 16 | 18             | 51             | 140 | 100 | M16 | 4  | 20      | 836   | ODB040 |
| 50  | 40  | 16            | 16 | 18             | 62             | 150 | 110 | M16 | 4  | 30      | 902   | ODB050 |
| 63  | 50  | 16            | 19 | 18             | 78             | 165 | 125 | M16 | 4  | 35      | 1074  | ODB063 |
| 75  | 65  | 16            | 19 | 18             | 92             | 188 | 145 | M16 | 4  | 40      | 1368  | ODB075 |
| 90  | 80  | 16            | 21 | 18             | 109            | 200 | 160 | M16 | 8  | 40      | 1516  | ODB090 |
| 110 | 100 | 16            | 22 | 18             | 128            | 220 | 180 | M16 | 8  | 40      | 1960  | ODB110 |
| 125 | 100 | 16            | 22 | 18             | 134            | 220 | 180 | M16 | 8  | 40      | 1938  | ODB125 |
| 140 | 125 | 16            | 26 | 18             | 158            | 250 | 210 | M16 | 8  | 50      | 2866  | ODB140 |
| 160 | 150 | 16            | 27 | 22             | 178            | 285 | 240 | M20 | 8  | 60      | 3576  | ODB160 |
| 180 | 150 | 16            | 27 | 22             | 191            | 285 | 240 | M20 | 8  | 60      | 3298  | ODB180 |
| 200 | 200 | 16            | 28 | 22             | 235            | 340 | 295 | M20 | 8  | 70      | 5032  | ODB200 |
| 225 | 200 | 16            | 28 | 22             | 238            | 340 | 295 | M20 | 8  | 70      | 4900  | ODB225 |
| 250 | 250 | 16            | 31 | 22             | 288            | 395 | 350 | M20 | 12 | 80      | 10182 | ODB250 |
| 280 | 250 | 16            | 31 | 22             | 294            | 395 | 350 | M20 | 12 | 80      | 9860  | ODB280 |
| 315 | 300 | 16            | 34 | 22             | 338            | 445 | 400 | M20 | 12 | 100     | 13150 | ODB315 |
| 355 | 350 | 16            | 40 | 22             | 376            | 514 | 460 | M20 | 16 | 160     | 22200 | ODB355 |
| 400 | 400 | 16            | 40 | 26             | 430            | 571 | 515 | M24 | 16 | 170     | 26214 | ODB400 |

\*PMA maximum admissible working pressure

\*\*nominal tightening torque

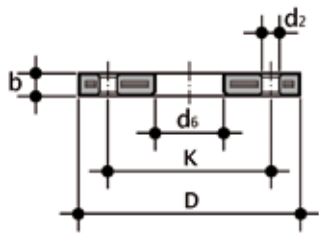


## ODBC

Steel core blind flange, PP/FRP coated, according to EN/ISO/DIN.  
Drilling PN 10/16 up to d160/180, PN 10 from d200/225 to d400

| d       | DN  | *PMA<br>(bar) | b  | d <sub>2</sub> | D   | K   | M   | n  | ** (Nm) | g     | Code    |
|---------|-----|---------------|----|----------------|-----|-----|-----|----|---------|-------|---------|
| 20      | 15  | 16            | 12 | 14             | 95  | 65  | M12 | 4  | 15      | 290   | ODBC020 |
| 25      | 20  | 16            | 12 | 14             | 105 | 75  | M12 | 4  | 15      | 390   | ODBC025 |
| 32      | 25  | 16            | 16 | 14             | 115 | 85  | M12 | 4  | 15      | 520   | ODBC032 |
| 40      | 32  | 16            | 16 | 18             | 140 | 100 | M16 | 4  | 25      | 800   | ODBC040 |
| 50      | 40  | 16            | 16 | 18             | 150 | 110 | M16 | 4  | 35      | 940   | ODBC050 |
| 63      | 50  | 16            | 16 | 18             | 165 | 125 | M16 | 4  | 35      | 1150  | ODBC063 |
| 75      | 65  | 16            | 18 | 18             | 185 | 145 | M16 | 4  | 40      | 1640  | ODBC075 |
| 90      | 80  | 16            | 18 | 18             | 200 | 160 | M16 | 8  | 40      | 1960  | ODBC090 |
| 110/125 | 100 | 16            | 20 | 18             | 220 | 180 | M16 | 8  | 45      | 2720  | ODBC110 |
| 140     | 125 | 16            | 24 | 18             | 250 | 210 | M16 | 8  | 50      | 3920  | ODBC140 |
| 160/180 | 150 | 16            | 24 | 22             | 285 | 240 | M20 | 8  | 60      | 5060  | ODBC160 |
| 200/225 | 200 | 16            | 24 | 22             | 340 | 295 | M20 | 8  | 70      | 7800  | ODBC200 |
| 250/280 | 250 | 10            | 30 | 22             | 409 | 350 | M20 | 12 | 100     | 15400 | ODBC250 |
| 315     | 300 | 10            | 34 | 22             | 463 | 400 | M20 | 12 | 110     | 26000 | ODBC315 |
| 355     | 350 | 10            | 42 | 22             | 515 | 460 | M20 | 16 | 160     | 39620 | ODBC355 |
| 400     | 400 | 10            | 46 | 27             | 574 | 515 | M24 | 16 | 170     | 50080 | ODBC400 |

\*PMA maximum admissible working pressure  
\*\*nominal tightening torque

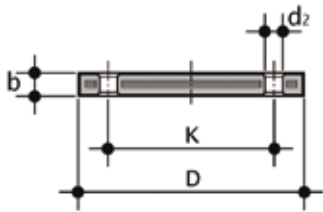


## OAB

Steel core backing ring, PP/FRP coated, according to ANSI B16.5 cl.150 for stubs QBM and QBAM

| Size   | DN  | *PMA<br>(bar) | b  | d <sub>2</sub><br>mm | d <sub>2</sub><br>inch | d <sub>6</sub> | D   | K<br>mm | K<br>inch | n  | ** (Nm) | g     | Code   |
|--------|-----|---------------|----|----------------------|------------------------|----------------|-----|---------|-----------|----|---------|-------|--------|
| 1/2"   | 15  | 16            | 12 | 16                   | 5/8"                   | 28             | 95  | 60.45   | 2 3/8     | 4  | 15      | 200   | OAB012 |
| 3/4"   | 20  | 16            | 12 | 16                   | 5/8"                   | 34             | 102 | 69.85   | 2 3/4     | 4  | 15      | 240   | OAB034 |
| 1"     | 25  | 16            | 16 | 16                   | 5/8"                   | 42             | 114 | 79.25   | 3 1/8     | 4  | 15      | 490   | OAB100 |
| 1 1/4" | 32  | 16            | 16 | 16                   | 5/8"                   | 51             | 130 | 88.9    | 3 1/2     | 4  | 25      | 670   | OAB114 |
| 1 1/2" | 40  | 16            | 18 | 16                   | 5/8"                   | 62             | 133 | 98.55   | 3 7/8     | 4  | 35      | 640   | OAB112 |
| 2"     | 50  | 16            | 18 | 20                   | 3/4"                   | 78             | 162 | 120.65  | 4 3/4     | 4  | 35      | 1000  | OAB200 |
| 2 1/2" | 65  | 16            | 18 | 20                   | 3/4"                   | 92             | 184 | 139.7   | 5 1/2     | 4  | 40      | 1310  | OAB212 |
| 3"     | 80  | 16            | 18 | 20                   | 3/4"                   | 111            | 194 | 152.4   | 6"        | 4  | 40      | 1250  | OAB300 |
| 4"     | 100 | 16            | 18 | 20                   | 3/4"                   | 133            | 229 | 190.5   | 7 1/2     | 8  | 40      | 1660  | OAB400 |
| 6"     | 150 | 16            | 24 | 22                   | 7/8"                   | 178            | 283 | 241.3   | 9 1/2     | 8  | 60      | 3750  | OAB600 |
| 8"     | 200 | 10            | 24 | 22                   | 7/8"                   | 236            | 345 | 298.45  | 11 3/4    | 8  | 70      | 5140  | OAB800 |
| 10"    | 250 | 10            | 27 | 25                   | 1"                     | 288            | 412 | 361.95  | 14 1/4    | 12 | 100     | 8080  | OAB810 |
| 12"    | 315 | 10            | 32 | 25                   | 1"                     | 338            | 487 | 431.8   | 17"       | 12 | 110     | 15380 | OAB812 |
| 14"    | 355 | 10            | 42 | 28.5                 | 1 1/8"                 | 376            | 533 | 476.2   | 17 3/4    | 12 | 110     | 24940 | OAB814 |
| 16"    | 400 | 10            | 44 | 28.5                 | 1 1/8"                 | 430            | 596 | 539.7   | 18 13/32  | 16 | 110     | 34770 | OAB816 |

\*PMA maximum admissible working pressure  
\*\*nominal tightening torque



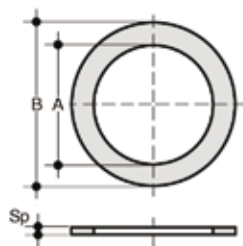
## OABC

Steel core blind flange, PP/FRP coated, according to ANSI B16.5 cl.150

| Size   | DN  | *PMA<br>(bar) | b  | d <sub>2</sub><br>mm | d <sub>2</sub><br>inch | D   | K<br>mm | K<br>inch | n  | ** (Nm) | g     | Code    |
|--------|-----|---------------|----|----------------------|------------------------|-----|---------|-----------|----|---------|-------|---------|
| 1/2"   | 15  | 16            | 12 | 16                   | 5/8"                   | 95  | 60.45   | 2 3/8     | 4  | 15      | 200   | OABC012 |
| 3/4"   | 20  | 16            | 12 | 16                   | 5/8"                   | 102 | 69.85   | 2 3/4     | 4  | 15      | 240   | OABC034 |
| 1"     | 25  | 16            | 16 | 16                   | 5/8"                   | 114 | 79.25   | 3 1/8     | 4  | 15      | 370   | OABC100 |
| 1 1/4" | 32  | 16            | 16 | 16                   | 5/8"                   | 130 | 88.90   | 3 1/2     | 4  | 25      | 530   | OABC114 |
| 1 1/2" | 40  | 16            | 18 | 16                   | 5/8"                   | 133 | 98.55   | 3 7/8     | 4  | 35      | 560   | OABC112 |
| 2"     | 50  | 16            | 18 | 20                   | 3/4"                   | 162 | 120.65  | 4 3/4     | 4  | 35      | 810   | OABC200 |
| 2 1/2" | 65  | 16            | 18 | 20                   | 3/4"                   | 184 | 139.70  | 5 1/2     | 4  | 40      | 1070  | OABC212 |
| 3"     | 80  | 16            | 18 | 20                   | 3/4"                   | 194 | 152.40  | 6"        | 4  | 40      | 1030  | OABC300 |
| 4"     | 100 | 16            | 18 | 20                   | 3/4"                   | 229 | 190.50  | 7 1/2     | 8  | 40      | 1570  | OABC400 |
| 6"     | 150 | 16            | 24 | 22                   | 7/8"                   | 283 | 241.30  | 9 1/2     | 8  | 60      | 2400  | OABC600 |
| 8"     | 200 | 16            | 24 | 22                   | 7/8"                   | 345 | 298.45  | 11 3/4    | 8  | 70      | 3500  | OABC800 |
| 10"    | 250 | 16            | 27 | 25                   | 1"                     | 412 | 361.95  | 14 1/4    | 12 | 100     | 6200  | OABC810 |
| 12"    | 300 | 16            | 32 | 25                   | 1"                     | 487 | 431.80  | 17"       | 12 | 110     | 13040 | OABC812 |

\*PMA maximum admissible working pressure

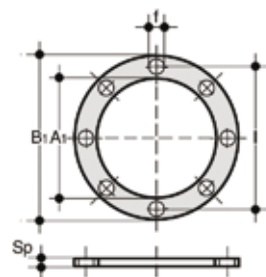
\*\*nominal tightening torque



## QHV/X

Flat gasket in EPDM and FPM for flanges according to DIN 2501, EN 1092

| d           | DN  | A   | B    | Sp | EPDM Code | FPM Code |
|-------------|-----|-----|------|----|-----------|----------|
| 20 - 1/2"   | 15  | 20  | 32   | 2  | QHVX020E  | QHVX020F |
| 25 - 3/4"   | 20  | 24  | 38.5 | 2  | QHVX025E  | QHVX025F |
| 32 - 1"     | 25  | 32  | 48   | 2  | QHVX032E  | QHVX032F |
| 40 - 1" 1/4 | 32  | 40  | 59   | 2  | QHVX040E  | QHVX040F |
| 50 - 1" 1/2 | 40  | 50  | 71   | 2  | QHVX050E  | QHVX050F |
| 63 - 2"     | 50  | 63  | 88   | 2  | QHVX063E  | QHVX063F |
| 75 - 2" 1/2 | 65  | 75  | 104  | 2  | QHVX075E  | QHVX075F |
| 90 - 3"     | 80  | 90  | 123  | 2  | QHVX090E  | QHVX090F |
| 110 - 4"    | 100 | 110 | 148  | 3  | QHVX110E  | QHVX110F |



## QHV/Y

Flat gasket in EPDM for flanges according to DIN 2501, EN 1092, self-centring for flanges drilled PN 10/16

| d           | DN  | A <sub>1</sub> | B <sub>1</sub> | f  | I     | U | Sp | Code     |
|-------------|-----|----------------|----------------|----|-------|---|----|----------|
| 20 - 1/2"   | 15  | 17             | 95             | 14 | 65    | 4 | 2  | QHVY020E |
| 25 - 3/4"   | 20  | 22             | 107            | 14 | 76.3  | 4 | 2  | QHVY025E |
| 32 - 1"     | 25  | 28             | 117            | 14 | 86.5  | 4 | 2  | QHVY032E |
| 40 - 1" 1/4 | 32  | 36             | 142.5          | 18 | 101   | 4 | 2  | QHVY040E |
| 50 - 1" 1/2 | 40  | 45             | 153.3          | 18 | 111   | 4 | 2  | QHVY050E |
| 63 - 2"     | 50  | 57             | 168            | 18 | 125.5 | 4 | 2  | QHVY063E |
| 75 - 2" 1/2 | 65  | 71             | 187.5          | 18 | 145.5 | 4 | 3  | QHVY075E |
| 90 - 3"     | 80  | 84             | 203            | 18 | 160   | 8 | 3  | QHVY090E |
| 110 - 4"    | 100 | 102            | 223            | 18 | 181   | 8 | 3  | QHVY110E |