

 *Aliaxis*



**FITTINGS
FOR SOCKET WELDING**

PP-H

Fittings, metric series ISO-UNI

FITTINGS FOR SOCKET WELDING

Series of fittings designed for conveying fluids under pressure with a hot weld connection system (socket welding).

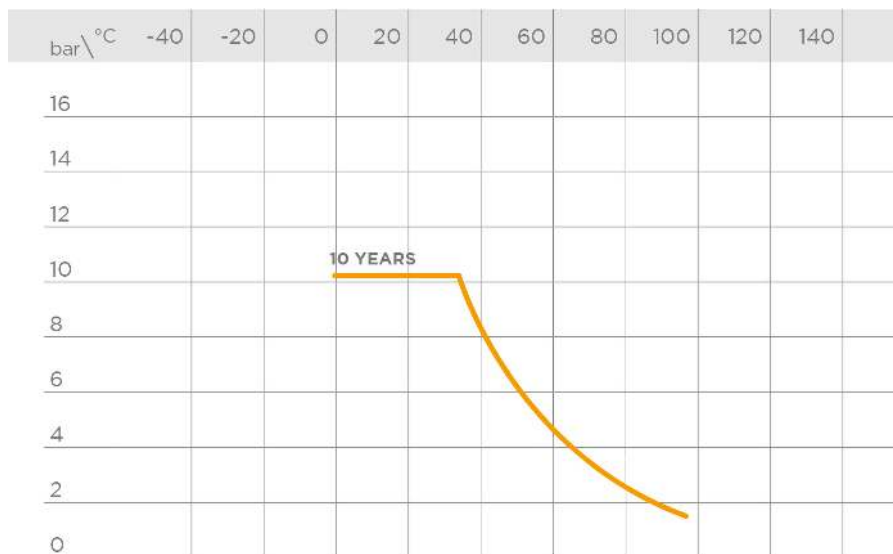
FITTINGS, METRIC SERIES ISO-UNI

| Technical specifications | |
|----------------------------|--|
| Size range | d 20 ÷ d 110 (mm) |
| Nominal pressure | PN 10 with water at 20° C |
| Temperature range | 0 °C ÷ 100 °C |
| Coupling standards | Welding: EN ISO 15494. Can be coupled to pipes according to EN ISO 15494 Flanging system: ISO 7005-1, EN 1092-1, EN ISO 15494, DIN 2501, ANSI B16.5 cl.150 |
| Reference standards | Construction criteria: EN ISO 15494 Test methods and requirements: EN ISO 15494 Installation criteria: DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318 |
| Fitting material | PP-H |
| Seal material | EPDM, FKM |

TECHNICAL DATA

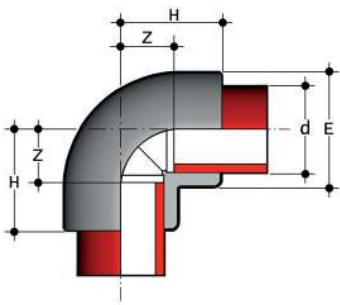
PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required.



The information in this leaflet is provided in good faith. No liability will be accepted concerning technical data that is not directly covered by recognised international standards. FIP reserves the right to carry out any modification. Products must be installed and maintained by qualified personnel.

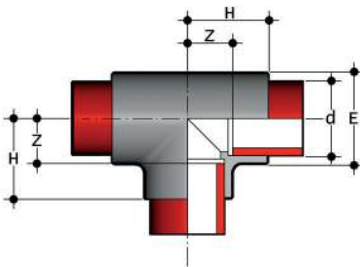
DIMENSIONS



GIM

90° elbow for socket welding

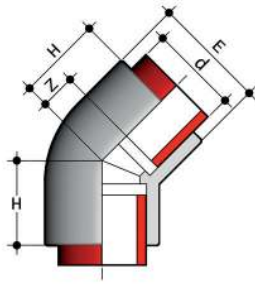
| d | E | H | Z | g | Code |
|-----|-----|-----|----|-----|--------|
| 20 | 28 | 28 | 13 | 14 | GIM020 |
| 25 | 34 | 32 | 16 | 23 | GIM025 |
| 32 | 42 | 37 | 20 | 37 | GIM032 |
| 40 | 52 | 43 | 22 | 64 | GIM040 |
| 50 | 64 | 51 | 28 | 105 | GIM050 |
| 63 | 79 | 61 | 34 | 180 | GIM063 |
| 75 | 93 | 73 | 42 | 300 | GIM075 |
| 90 | 111 | 85 | 49 | 455 | GIM090 |
| 110 | 135 | 101 | 59 | 815 | GIM110 |



TIM

90° Tee for socket welding

| d | E | H | Z | g | Code |
|-----|-----|-----|----|-----|--------|
| 20 | 28 | 28 | 13 | 19 | TIM020 |
| 25 | 34 | 32 | 16 | 30 | TIM025 |
| 32 | 42 | 37 | 19 | 47 | TIM032 |
| 40 | 52 | 43 | 23 | 80 | TIM040 |
| 50 | 64 | 52 | 29 | 145 | TIM050 |
| 63 | 80 | 63 | 35 | 250 | TIM063 |
| 75 | 93 | 71 | 40 | 370 | TIM075 |
| 90 | 111 | 82 | 46 | 560 | TIM090 |
| 110 | 135 | 100 | 58 | 990 | TIM110 |

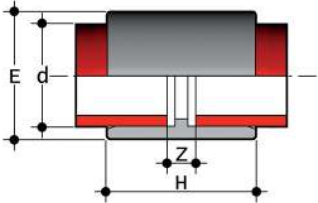


HIM

45° elbow for socket welding

| d | E | H | Z | g | Code |
|------|-----|----|------|-----|--------|
| 20 | 28 | 21 | 7 | 12 | HIM020 |
| 25 | 34 | 25 | 9 | 19 | HIM025 |
| 32 | 42 | 29 | 12 | 33 | HIM032 |
| 40 | 52 | 36 | 15 | 57 | HIM040 |
| 50 | 63 | 43 | 19 | 105 | HIM050 |
| 63 | 79 | 51 | 24 | 182 | HIM063 |
| *75 | 92 | 53 | 20 | 240 | HIM075 |
| *90 | 113 | 61 | 23,5 | 430 | HIM090 |
| *110 | 135 | 71 | 28 | 660 | HIM110 |

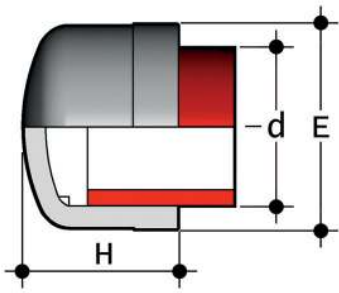
*Resale product



MIM

End connector for socket welding

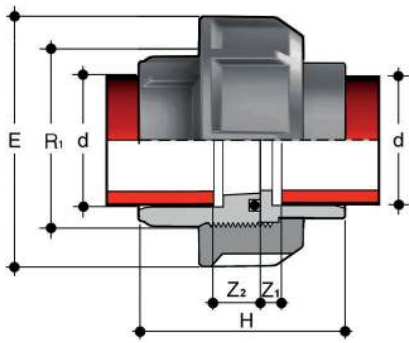
| d | E | H | Z | g | Code |
|-----|-----|----|----|-----|--------|
| 20 | 28 | 36 | 8 | 10 | MIM020 |
| 25 | 34 | 39 | 8 | 16 | MIM025 |
| 32 | 42 | 43 | 9 | 25 | MIM032 |
| 40 | 52 | 47 | 8 | 39 | MIM040 |
| 50 | 63 | 55 | 8 | 62 | MIM050 |
| 63 | 78 | 61 | 9 | 96 | MIM063 |
| 75 | 91 | 70 | 10 | 145 | MIM075 |
| 90 | 109 | 80 | 10 | 230 | MIM090 |
| 110 | 132 | 93 | 12 | 370 | MIM110 |



CIM

End cap for socket welding

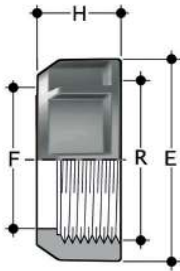
| d | H | L | g | Code |
|-----|-----|----|-----|--------|
| 20 | 28 | 25 | 7 | CIM020 |
| 25 | 34 | 27 | 11 | CIM025 |
| 32 | 42 | 32 | 19 | CIM032 |
| 40 | 51 | 36 | 31 | CIM040 |
| 50 | 63 | 41 | 50 | CIM050 |
| 63 | 78 | 44 | 88 | CIM063 |
| 75 | 91 | 48 | 116 | CIM075 |
| 90 | 109 | 65 | 212 | CIM090 |
| 110 | 132 | 71 | 349 | CIM110 |



BIGM

Union for socket welding with O-Ring in EPDM or FKM

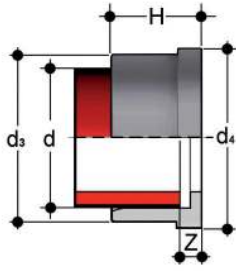
| d | R ₁ | PN | E | H | Z ₁ | Z ₂ | g | EPDM code | FKM code |
|----|----------------|----|-----|------|----------------|----------------|-----|-----------|----------|
| 20 | 1" | 10 | 47 | 45,5 | 12 | 5,5 | 34 | BIGM020E | BIGM020F |
| 25 | 1"1/4 | 10 | 58 | 49,5 | 12 | 5,5 | 59 | BIGM025E | BIGM025F |
| 32 | 1"1/2 | 10 | 65 | 53,5 | 12 | 5,5 | 73 | BIGM032E | BIGM032F |
| 40 | 2" | 10 | 78 | 59,5 | 14 | 5,5 | 115 | BIGM040E | BIGM040F |
| 50 | 2"1/4 | 10 | 85 | 67,5 | 16 | 5,5 | 146 | BIGM050E | BIGM050F |
| 63 | 2"3/4 | 10 | 103 | 79,5 | 20 | 5,5 | 249 | BIGM063E | BIGM063F |



EFGM

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

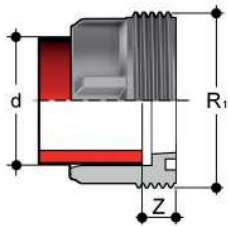
| R | d BIGM | PN | E | F | H | g | Code |
|-------|--------|----|-----|----|----|-----|---------|
| 1" | 20 | 10 | 47 | 28 | 22 | 19 | EFGM100 |
| 1"1/4 | 25 | 10 | 58 | 36 | 25 | 29 | EFGM114 |
| 1"1/2 | 32 | 10 | 65 | 42 | 27 | 40 | EFGM112 |
| 2" | 40 | 10 | 78 | 53 | 30 | 57 | EFGM200 |
| 2"1/4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



Q/BIGM

Union end for socket welding, metric series

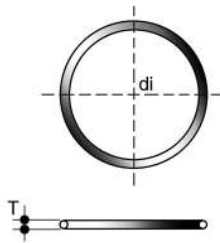
| d | PN | d_3 | d_4 | H | Z | g | Code |
|----|----|-------|-------|------|-----|----|----------|
| 20 | 10 | 27,5 | 30,1 | 19,5 | 5,5 | 7 | QBIGM020 |
| 25 | 10 | 36 | 38,8 | 21,5 | 5,5 | 14 | QBIGM025 |
| 32 | 10 | 41,5 | 44,7 | 23,5 | 5,5 | 17 | QBIGM032 |
| 40 | 10 | 53 | 56,5 | 25,5 | 5,5 | 30 | QBIGM040 |
| 50 | 10 | 59 | 62,6 | 28,5 | 5,5 | 30 | QBIGM050 |
| 63 | 10 | 74 | 78,4 | 32,5 | 5,5 | 51 | QBIGM063 |



F/BIGM

Union bush for socket welding, metric series

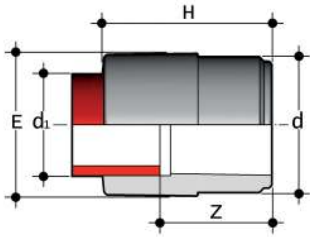
| d | R_1 | PN | Z | g | Code |
|----|-------|----|----|----|----------|
| 20 | 1" | 10 | 12 | 10 | FBIGM020 |
| 25 | 1"1/4 | 10 | 12 | 17 | FBIGM025 |
| 32 | 1"1/2 | 10 | 12 | 24 | FBIGM032 |
| 40 | 2" | 10 | 14 | 39 | FBIGM040 |
| 50 | 2"1/4 | 10 | 16 | 47 | FBIGM050 |
| 63 | 2"3/4 | 10 | 18 | 89 | FBIGM063 |



O-RING

Seals for union types BIGM, BIFGM, BIFOM, BIROM, BIFXM, BIRXM

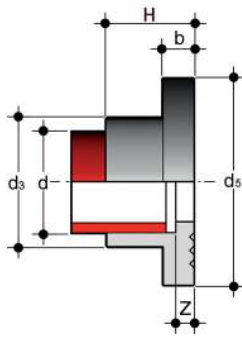
| d union | C | di | T | EPDM Code | FKM Code |
|---------|------|--------|------|-----------|----------|
| 16 | 3062 | 15,54 | 2,62 | OR3062E | OR3062F |
| 20 | 4081 | 20,22 | 3,53 | OR4081E | OR4081F |
| 25 | 4112 | 28,17 | 3,53 | OR4112E | OR4112F |
| 32 | 4131 | 32,93 | 3,53 | OR4131E | OR4131F |
| 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 |



RIM

Reducer: spigot (d), reduced socket for socket welding (d1)

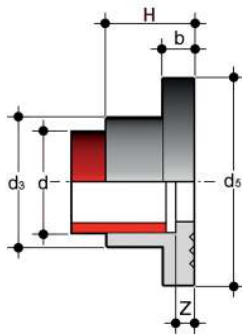
| d x d ₁ | E | H | Z | g | Code |
|--------------------|-----|-----|----|-----|-----------|
| 25 x 20 | 28 | 39 | 25 | 10 | RIM025020 |
| 32 x 20 | 36 | 43 | 30 | 13 | RIM032020 |
| 32 x 25 | 34 | 46 | 30 | 17 | RIM032025 |
| 40 x 25 | 42 | 48 | 33 | 24 | RIM040025 |
| 40 x 32 | 42 | 51 | 33 | 27 | RIM040032 |
| 50 x 32 | 52 | 54 | 36 | 39 | RIM050032 |
| 50 x 40 | 52 | 57 | 36 | 44 | RIM050040 |
| 63 x 32 | 65 | 61 | 44 | 69 | RIM063032 |
| 63 x 50 | 65 | 68 | 44 | 76 | RIM063050 |
| 75 x 50 | 78 | 69 | 47 | 106 | RIM075050 |
| 75 x 63 | 78 | 75 | 47 | 115 | RIM075063 |
| 90 x 63 | 92 | 82 | 56 | 156 | RIM090063 |
| 90 x 75 | 92 | 88 | 56 | 175 | RIM090075 |
| 110 x 63 | 112 | 93 | 66 | 290 | RIM110063 |
| 110 x 90 | 112 | 102 | 66 | 305 | RIM110090 |



QRNM

Stub with serrated face (according to DIN standards) for socket welding, for use with backing rings ODB

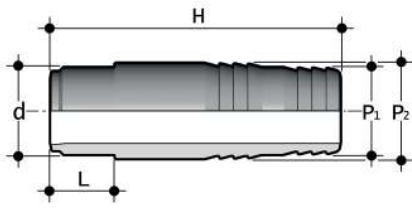
| d | DN | b | d_3 | d_4 | H | Z | g | Code |
|-----|-----|----|-------|-------|----|---|-----|---------|
| 20 | 15 | 7 | 27 | 45 | 20 | 6 | 12 | QRNM020 |
| 25 | 20 | 9 | 33 | 58 | 22 | 6 | 24 | QRNM025 |
| 32 | 25 | 10 | 41 | 68 | 25 | 6 | 36 | QRNM032 |
| 40 | 32 | 11 | 50 | 78 | 27 | 6 | 47 | QRNM040 |
| 50 | 40 | 12 | 61 | 88 | 30 | 6 | 63 | QRNM050 |
| 63 | 50 | 14 | 76 | 102 | 34 | 6 | 94 | QRNM063 |
| 75 | 65 | 16 | 90 | 122 | 38 | 6 | 149 | QRNM075 |
| 90 | 80 | 17 | 108 | 138 | 44 | 8 | 213 | QRNM090 |
| 110 | 110 | 18 | 131 | 158 | 50 | 8 | 297 | QRNM110 |



GRAM

Stub with serrated face for socket welding, for used with backing rings OAB (for other dimensions use QRNM)

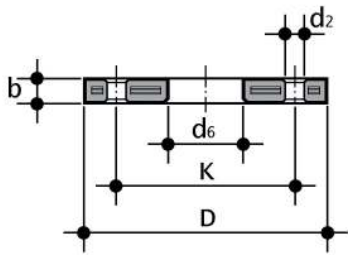
| d | DN | OAB size | b | d_3 | d_5 | H | Z | g | Code |
|----|----|----------|----|-------|-------|----|---|-----|---------|
| 25 | 20 | 3/4" | 9 | 33 | 54 | 22 | 6 | 24 | GRAM034 |
| 32 | 25 | 1" | 10 | 41 | 63 | 25 | 6 | 36 | GRAM100 |
| 40 | 32 | 1 1/4" | 11 | 50 | 72 | 27 | 6 | 47 | GRAM114 |
| 50 | 40 | 1 1/2" | 12 | 61 | 82 | 30 | 6 | 63 | GRAM112 |
| 90 | 80 | 3" | 17 | 108 | 132 | 44 | 8 | 213 | GRAM300 |



AIM

Hose adaptor with male end for socket welding

| $d \times P_2 \times P_1$ | H | L | g | Code |
|---------------------------|-----|----|-----|--------------|
| 20 x 22 x 20 | 67 | 16 | 11 | AIM020022020 |
| 25 x 27 x 25 | 81 | 18 | 20 | AIM025027025 |
| 32 x 32 x 30 | 95 | 20 | 33 | AIM032032030 |
| 40 x 42 x 40 | 104 | 22 | 68 | AIM040042040 |
| 50 x 52 x 50 | 111 | 25 | 100 | AIM050052050 |
| 63 x 64 x 60 | 122 | 29 | 150 | AIM063064060 |



ODB

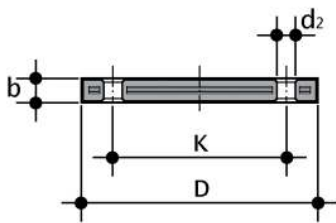
Steel core backing ring, PP/FRP coated, according to EN/ISO/DIN for stub QRNM.
Drilling: PN 10/16

| d | DN | *PMA (bar) | b | D | d ₂ | d ₆ | K | M | ** (Nm) | n | g | Code |
|--------|-----|------------|----|-----|----------------|----------------|-----|-----|---------|---|------|--------|
| 20 | 15 | 16 | 12 | 95 | 14 | 28 | 65 | M12 | 15 | 4 | 232 | ODB020 |
| 25 | 20 | 16 | 14 | 105 | 14 | 34 | 75 | M12 | 15 | 4 | 288 | ODB025 |
| 32 | 25 | 16 | 16 | 115 | 14 | 42 | 85 | M12 | 15 | 4 | 544 | ODB032 |
| 40 | 32 | 16 | 16 | 140 | 18 | 51 | 100 | M16 | 20 | 4 | 836 | ODB040 |
| 50 | 40 | 16 | 16 | 150 | 18 | 62 | 110 | M16 | 30 | 4 | 902 | ODB050 |
| 63 | 50 | 16 | 19 | 165 | 18 | 78 | 125 | M16 | 35 | 4 | 1074 | ODB063 |
| 75 | 65 | 16 | 19 | 188 | 18 | 92 | 145 | M16 | 40 | 4 | 1368 | ODB075 |
| **90 | 80 | 16 | 21 | 200 | 18 | 109 | 160 | M16 | 40 | 8 | 1516 | ODB090 |
| ***125 | 100 | 16 | 20 | 220 | 18 | 135 | 180 | M16 | 45 | 8 | 1938 | ODB125 |

*PMA maximum admissible working pressure

**nominal tightening torque

***d125: for stubs QRNM d 110



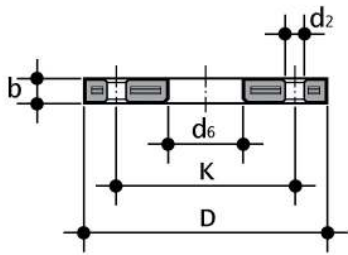
ODBC

Steel core blind flange, PP/FRP according to EN/ISO/DIN. Drilling: PN 10/16

| d | DN | *PMA (bar) | b | d ₂ | D | k | M | n | ** (Nm) | g | Code |
|-----|-----|------------|----|----------------|-----|-----|-----|---|---------|------|----------|
| 20 | 15 | 10 | 16 | 14 | 95 | 65 | M12 | 4 | 15 | 290 | ODBC020S |
| 25 | 20 | 10 | 12 | 18 | 105 | 75 | M12 | 4 | 15 | 390 | ODBC025S |
| 32 | 25 | 10 | 18 | 14 | 115 | 85 | M12 | 4 | 15 | 600 | ODBC032S |
| 40 | 32 | 10 | 17 | 18 | 140 | 100 | M16 | 4 | 25 | 830 | ODBC040S |
| 50 | 40 | 10 | 18 | 18 | 150 | 110 | M16 | 4 | 35 | 1105 | ODBC050S |
| 63 | 50 | 10 | 18 | 18 | 165 | 125 | M16 | 4 | 35 | 1308 | ODBC063S |
| 75 | 65 | 10 | 18 | 18 | 185 | 145 | M16 | 4 | 40 | 1580 | ODBC075S |
| 90 | 80 | 10 | 20 | 18 | 200 | 160 | M16 | 4 | 40 | 2244 | ODBC090S |
| 110 | 100 | 10 | 20 | 18 | 220 | 180 | M16 | 4 | 45 | 2829 | ODBC110S |

*PMA maximum admissible working pressure

**nominal tightening torque

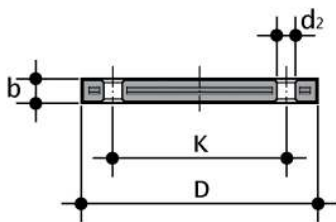


OAB

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

| d (inch) | DN | *PMA (bar) | b | D | d2 mm | d2 inch | d ₆ | kmm | k inch | ** (Nm) | n | g | Code |
|----------|-----|------------|----|-----|-------|---------|----------------|--------|--------|---------|---|------|--------|
| 1/2" | 15 | 16 | 12 | 95 | 16 | 5/8" | 28 | 60,45 | 2"3/8 | 15 | 4 | 220 | OAB012 |
| 3/4" | 20 | 16 | 12 | 102 | 16 | 5/8" | 34 | 69,85 | 2"3/4 | 15 | 4 | 240 | OAB034 |
| 1" | 25 | 16 | 16 | 114 | 16 | 5/8" | 42 | 79,25 | 3"1/8 | 15 | 4 | 390 | OAB100 |
| 1"1/4 | 32 | 16 | 16 | 130 | 16 | 5/8" | 51 | 88,9 | 3"1/2 | 25 | 4 | 510 | OAB114 |
| 1"1/2 | 40 | 16 | 18 | 133 | 16 | 5/8" | 62 | 98,55 | 3"7/8 | 35 | 4 | 580 | OAB112 |
| 2" | 50 | 16 | 18 | 162 | 20 | 3/4" | 78 | 120,65 | 4"3/4 | 35 | 4 | 860 | OAB200 |
| 2"1/2 | 65 | 16 | 18 | 184 | 20 | 3/4" | 92 | 139,7 | 5"1/2 | 40 | 4 | 1100 | OAB212 |
| 3" | 80 | 16 | 18 | 194 | 20 | 3/4" | 111 | 152,4 | 6" | 40 | 4 | 1040 | OAB300 |
| 4" | 100 | 16 | 18 | 229 | 20 | 3/4" | 133 | 190,5 | 7"1/2 | 40 | 8 | 1620 | OAB400 |

*PMA maximum admissible working pressure
 **nominal tightening torque

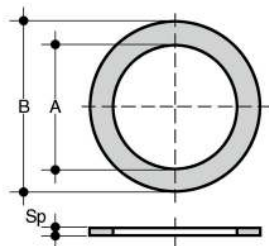


OABC

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

| d (inch) | DN | *PMA (bar) | B | D | d2 mm | d2 inch | Kmm | Kinch | ** (Nm) | n | g | Code |
|----------|-----|------------|----|-----|-------|---------|--------|-------|---------|---|------|---------|
| 1/2" | 15 | 16 | 12 | 95 | 16 | 5/8" | 60,45 | 2"3/8 | 15 | 4 | 200 | OABC012 |
| 3/4" | 20 | 16 | 12 | 102 | 16 | 5/8" | 69,85 | 2"3/4 | 15 | 4 | 240 | OABC034 |
| 1" | 25 | 16 | 16 | 114 | 16 | 5/8" | 79,25 | 3"1/8 | 15 | 4 | 370 | OABC100 |
| 1"1/4 | 32 | 16 | 16 | 130 | 16 | 5/8" | 88,90 | 3"1/2 | 25 | 4 | 530 | OABC114 |
| 1"1/2 | 40 | 16 | 18 | 133 | 16 | 5/8" | 98,55 | 3"7/8 | 35 | 4 | 560 | OABC112 |
| 2" | 50 | 16 | 18 | 162 | 20 | 3/4" | 120,65 | 4"3/4 | 35 | 4 | 810 | OABC200 |
| 2"1/2 | 65 | 16 | 18 | 184 | 20 | 3/4" | 139,70 | 5"1/2 | 40 | 4 | 1070 | OABC212 |
| 3" | 80 | 16 | 18 | 194 | 20 | 3/4" | 152,40 | 6" | 40 | 4 | 1030 | OABC300 |
| 4" | 100 | 16 | 18 | 229 | 20 | 3/4" | 190,50 | 7"1/2 | 40 | 8 | 1570 | OABC400 |

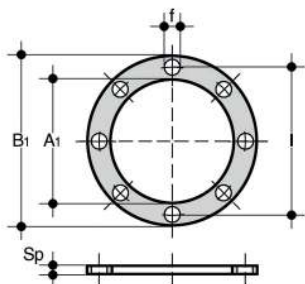
*PMA maximum admissible working pressure
 **nominal tightening torque



QHV/X

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

| d | DN | A | B | Sp | EPDM code | FKM 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 ₁ | B ₁ | 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 |