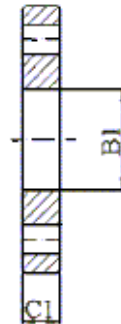
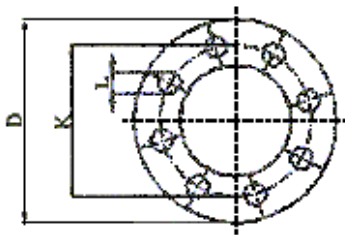


### Flange Facing Dimensions EN 1092-1

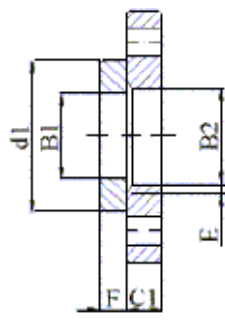
| DN   | $d_1$               |      |                       |       | $f_1$ | $f_2$ | $f_3$ | $f_4$ | $w$  | $x$  | $y$  | $z$ | $\alpha \approx$ | $R$ |
|------|---------------------|------|-----------------------|-------|-------|-------|-------|-------|------|------|------|-----|------------------|-----|
|      | PN 2,5              | PN 6 | PN 10                 | PN 16 |       |       |       |       |      |      |      |     |                  |     |
|      | mm                  | mm   | mm                    | mm    |       |       |       |       |      |      |      |     |                  |     |
| 10   | Use PN 6 dimensions | 35   | Use PN 100 dimensions |       | 2     | 4,5   | 4,0   | 2,0   | 24   | 34   | 35   | 23  | -                | 2,5 |
| 15   |                     | 40   |                       |       |       |       |       |       | 29   | 40   | 28   | -   |                  |     |
| 20   |                     | 50   |                       |       |       |       |       |       | 36   | 50   | 35   |     |                  |     |
| 25   |                     | 60   |                       |       |       |       |       |       | 43   | 57   | 42   |     |                  |     |
| 32   |                     | 70   |                       |       |       |       |       |       | 51   | 65   | 50   |     |                  |     |
| 40   |                     | 80   |                       |       |       |       |       |       | 61   | 75   | 60   |     |                  |     |
| 50   |                     | 90   |                       |       |       |       |       |       | 73   | 87   | 72   |     |                  |     |
| 65   |                     | 110  |                       |       |       |       |       |       | 95   | 109  | 94   |     |                  |     |
| 80   |                     | 128  | 106                   | 120   |       | 105   |       |       |      |      |      |     |                  |     |
| 100  |                     | 148  | 129                   | 149   |       | 128   |       |       |      |      |      |     |                  |     |
| 125  |                     | 178  | 155                   | 175   |       | 154   |       |       |      |      |      |     |                  |     |
| 150  |                     | 202  | 183                   | 203   |       | 182   | 32°   |       |      |      |      |     |                  |     |
| 200  |                     | 258  | 239                   | 259   |       | 238   |       |       |      |      |      |     |                  |     |
| 250  |                     | 312  | 292                   | 312   |       | 291   |       |       |      |      |      |     |                  |     |
| 300  |                     | 365  | 343                   | 363   |       | 342   |       |       |      |      |      |     |                  |     |
| 350  | Use PN 6 dimensions | 415  | 430                   | 438   | 5,5   | 5,0   | 3,0   | 395   | 421  | 422  | 394  | 27° | 3,5              |     |
| 400  |                     | 465  | 482                   | 490   |       |       |       | 447   | 473  | 474  | 446  |     |                  |     |
| 450  |                     | 520  | 532                   | 550   |       |       |       | 497   | 523  | 524  | 496  |     |                  |     |
| 500  |                     | 570  | 585                   | 610   |       |       |       | 549   | 575  | 576  | 548  |     |                  |     |
| 600  |                     | 670  | 685                   | 725   |       |       |       | 649   | 675  | 676  | 648  |     |                  |     |
| 700  |                     | 775  | 800                   | 795   |       |       |       | 751   | 777  | 778  | 750  |     |                  |     |
| 800  |                     | 880  | 905                   | 900   |       |       |       | 856   | 882  | 883  | 855  |     |                  |     |
| 900  |                     | 980  | 1005                  | 1000  |       |       |       | 961   | 987  | 988  | 960  |     |                  |     |
| 1000 |                     | 1080 | 1110                  | 1115  |       |       |       |       |      |      |      |     |                  |     |
| 1200 |                     | 1280 | 1295                  | 1330  |       |       |       | 1062  | 1092 | 1094 | 1060 |     |                  |     |
| 1400 | 1480                | 1510 | 1535                  | 1262  | 1292  | 1294  | 1260  | 28°   | 4    |      |      |     |                  |     |
| 1600 | 1690                | 1710 | 1760                  | 1462  | 1492  | 1494  | 1460  |       |      |      |      |     |                  |     |
| 1800 | 1890                | 1920 | 1960                  | 1662  | 1692  | 1694  | 1660  |       |      |      |      |     |                  |     |
| 1800 | 1890                | 1920 | 1960                  | 1862  | 1892  | 1894  | 1860  |       |      |      |      |     |                  |     |
| 2000 | 2090                | 2125 | 2170                  | 2062  | 2092  | 2094  | 2060  |       |      |      |      |     |                  |     |
| 2000 | 2090                | 2125 | 2170                  | 2150  |       |       |       |       |      |      |      |     |                  |     |

## EN 1092-1 PN10 Flanges

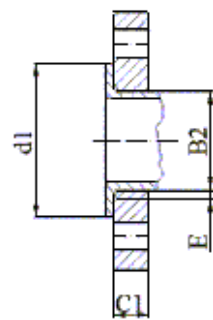
| Flange type (typ) as in EN 1092-1                  |                              |
|--|------------------------------|
| 01 (Plate [slip-on] flanges for welding)           | 13 (Hubbed threaded flanges) |
| 02 (Loose plate flanges with weld-on plate collar) | 21 (Integral flanges)        |
| 04 (Loose plate flanges with weld-neck collar)     | 32 (Weld-on plate collars)   |
| 05 (Blank [blind] flanges)                         | 33 (Lapped pipe ends)        |
| 11 (Weld-neck flanges)                             | 34 (Weld-neck collars)       |
| 12 (Hubbed slip-on flanges for welding)            |                              |



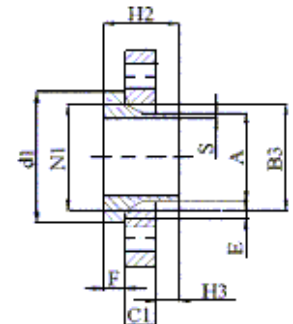
Typ 01



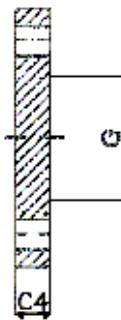
Typ 02 in 32



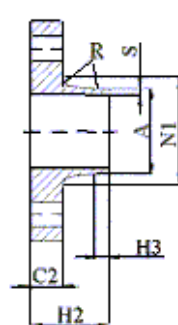
Typ 02 in 33



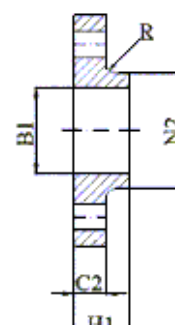
Typ 04 in 34



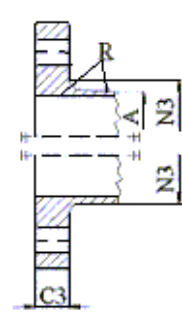
Typ 05



Typ 11



Typ 12



Typ 21

### EN 1092-1 PN10 Flanges

| Nominal diameter<br>DN              | Mating dimensions      |                         |                       |         |      | Outside diameter of neck | Bore diameters |     |     | Flange thickness |          |    |    | Chamfer  | Collar thickness | Diameter of shoulders | Length |          |          | Neck diameters |     |      | Corner radius  | Neck thickness (preferred value) |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
|-------------------------------------|------------------------|-------------------------|-----------------------|---------|------|--------------------------|----------------|-----|-----|------------------|----------|----|----|----------|------------------|-----------------------|--------|----------|----------|----------------|-----|------|----------------|----------------------------------|---|----|----|----|----|----|----|----|---|---|--------|----|----|----|----|----|----|---|---|
|                                     | Outside diameter       | Diameter of bolt circle | Diameter of bolt hole | Bolting |      |                          |                |     |     |                  |          |    |    |          |                  |                       |        |          |          |                |     |      |                |                                  |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
|                                     | D                      | K                       | L                     | No      | Size |                          |                |     |     |                  |          |    |    |          |                  |                       |        |          |          |                |     |      |                |                                  | A | B1 | B2 | B3 | C1 | C2 | C3 | C4 | E | F | G max. | H1 | H2 | H3 | N1 | N2 | N3 | R | S |
|                                     | Flange Type            |                         |                       |         |      |                          |                |     |     |                  |          |    |    |          |                  |                       |        |          |          |                |     |      |                |                                  |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
|                                     | 01, 02, 05, 11, 12, 21 |                         |                       |         |      | 11<br>21*<br>34          | 01<br>12<br>32 | 02  | 04  | 01<br>02<br>04   | 11<br>12 | 21 | 05 | 02<br>04 | 32<br>34         | 05                    | 12     | 11<br>34 | 11<br>34 | 11<br>34       | 12  | 21   | 11<br>12<br>21 | 11<br>34                         |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 10<br>15<br>20<br>25<br>32<br>40    | Use PN40 dimensions    |                         |                       |         |      |                          |                |     |     |                  |          |    |    |          |                  |                       |        |          |          |                |     |      |                |                                  |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 50<br>65<br>80<br>100<br>125<br>150 | Use PN 16 dimensions   |                         |                       |         |      |                          |                |     |     |                  |          |    |    |          |                  |                       |        |          |          |                |     |      |                |                                  |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 200                                 | 340                    | 295                     | 22                    | 8       | M20  | 219,1                    | 221,5          | 226 | 240 | 24               | 24       | 24 | 24 | 6        | 20               | 190                   | 44     | 62       | 16       | 234            | 246 | 246  | 10             | 5,9                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 250                                 | 395                    | 350                     | 22                    | 12      | M20  | 273,0                    | 276,5          | 218 | 294 | 26               | 26       | 26 | 26 | 8        | 22               | 235                   | 46     | 68       | 16       | 292            | 298 | 298  | 12             | 6,3                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 300                                 | 445                    | 400                     | 22                    | 12      | M20  | 323,9                    | 327,5          | 333 | 348 | 26               | 26       | 26 | 26 | 8        | 22               | 285                   | 46     | 68       | 16       | 342            | 350 | 348  | 12             | 7,1                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 350                                 | 505                    | 460                     | 22                    | 16      | M20  | 335,6                    | 359,5          | 365 | 400 | 28               | 26       | 26 | 26 | 8        | 22               | 330                   | 53     | 68       | 16       | 385            | 400 | 408  | 12             | 7,1                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 400                                 | 565                    | 515                     | 26                    | 16      | M24  | 406,4                    | 411,0          | 416 | 450 | 32               | 26       | 26 | 26 | 8        | 24               | 380                   | 57     | 72       | 16       | 440            | 456 | 456  | 12             | 7,1                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 450                                 | 615                    | 565                     | 26                    | 20      | M24  | 457,0                    | 462,0          | 467 | 498 | 36               | 28       | 28 | 28 | 8        | 24               | 425                   | 63     | 72       | 16       | 488            | 502 | 502  | 12             | 7,1                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 500                                 | 670                    | 620                     | 26                    | 20      | M24  | 508,0                    | 513,5          | 519 | 550 | 38               | 28       | 28 | 28 | 8        | 26               | 475                   | 67     | 75       | 16       | 542            | 559 | 559  | 12             | 7,1                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 600                                 | 780                    | 725                     | 30                    | 20      | M27  | 610,0                    | 616,5          | 622 | 650 | 42               | 34       | 34 | 34 | 8        | 26               | 575                   | 75     | 80       | 18       | 642            | 658 | 658  | 12             | 7,1                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 700                                 | 895                    | 840                     | 30                    | 24      | M27  | 711,1                    | -              | -   | -   | -                | 30       | 34 | 38 | -        | -                | 670                   | -      | 80       | 18       | 746            | -   | 772  | 12             | 8,0                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 800                                 | 1015                   | 950                     | 33                    | 24      | M30  | 813                      | -              | -   | -   | -                | 32       | 36 | 42 | -        | -                | 770                   | -      | 90       | 18       | 850            | -   | 876  | 12             | 8,0                              |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 900                                 | 1115                   | 1050                    | 33                    | 28      | M30  | 914                      | -              | -   | -   | -                | 34       | 38 | 46 | -        | -                | 860                   | -      | 95       | 20       | 950            | -   | 976  | 12             | 10,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 1000                                | 1230                   | 1160                    | 36                    | 28      | M33  | 1016                     | -              | -   | -   | -                | 34       | 38 | 52 | -        | -                | 960                   | -      | 95       | 20       | 1052           | -   | 1080 | 16             | 10,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 1200                                | 1455                   | 1380                    | 39                    | 32      | M36  | 1219                     | -              | -   | -   | -                | 38       | 44 | 60 | -        | -                | 1160                  | -      | 115      | 25       | 1256           | -   | 1292 | 16             | 11,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 1400                                | 1675                   | 1590                    | 42                    | 36      | M39  | 1422                     | -              | -   | -   | -                | 42       | 48 | -  | -        | -                | 1346                  | -      | 120      | 25       | 1460           | -   | 1496 | 16             | 12,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 1600                                | 1915                   | 1820                    | 48                    | 40      | M45  | 1626                     | -              | -   | -   | -                | 46       | 52 | -  | -        | -                | 1546                  | -      | 130      | 25       | 4666           | -   | 1712 | 16             | 14,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 1800                                | 2115                   | 2020                    | 48                    | 44      | M45  | 1829                     | -              | -   | -   | -                | 50       | 56 | -  | -        | -                | 1746                  | -      | 140      | 30       | 4868           | -   | 1910 | 16             | 15,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 2000                                | 2325                   | 2230                    | 48                    | 48      | M45  | 2032                     | -              | -   | -   | -                | 54       | 60 | -  | -        | -                | 1950                  | -      | 150      | 30       | 2072           | -   | 2120 | 16             | 16,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 2200                                | 2550                   | 2440                    | 56                    | 52      | M52  | 2235                     | -              | -   | -   | -                | 58       | -  | -  | -        | -                | -                     | -      | 160      | 35       | 2275           | -   | -    | 18             | 18,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 2400                                | 2760                   | 2650                    | 56                    | 56      | M52  | 2438                     | -              | -   | -   | -                | 62       | -  | -  | -        | -                | -                     | -      | 170      | 35       | 2478           | -   | -    | 18             | 20,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 2600                                | 2960                   | 2850                    | 56                    | 60      | M52  | 2620                     | -              | -   | -   | -                | 66       | -  | -  | -        | -                | -                     | -      | 180      | 40       | 2680           | -   | -    | 18             | 22,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 2800                                | 3180                   | 3070                    | 56                    | 64      | M52  | 2820                     | -              | -   | -   | -                | 70       | -  | -  | -        | -                | -                     | -      | 190      | 40       | 2882           | -   | -    | 18             | 22,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |
| 3000                                | 3405                   | 3290                    | 62                    | 68      | M56  | 3020                     | -              | -   | -   | -                | 75       | -  | -  | -        | -                | -                     | -      | 200      | 45       | 3085           | -   | -    | 18             | 24,0                             |   |    |    |    |    |    |    |    |   |   |        |    |    |    |    |    |    |   |   |

Note 1: Dimensions N1, N2 and N3 are measured at the intersection of the hub draft angle and the back face of the flange.

Note 2: For d1 dimensions see document "Flange Facing Dimensions EN 1092-1".