

| Diámetro exterior mm. | Espesor mm. | Diámetro interior mm. | Presión de trabajo Kg/cm <sup>2</sup> | Racores DIN-2353 series | Sección de flujo cm <sup>2</sup> | Negro Bicro |
|-----------------------|-------------|-----------------------|---------------------------------------|-------------------------|----------------------------------|-------------|
| 4                     | 0,50        | 3,0                   | 346                                   | ML                      | 0,07                             | ●           |
|                       | 0,75        | 2,5                   | 518                                   | ML                      | 0,05                             | ●           |
|                       | 1,00        | 2,0                   | 691                                   | ML                      | 0,03                             | ● ●         |
| 5                     | 0,75        | 3,5                   | 415                                   |                         | 0,10                             | ●           |
|                       | 1,00        | 3,0                   | 553                                   |                         | 0,07                             | ● ●         |
| 6                     | 0,75        | 4,5                   | 346                                   |                         | 0,16                             | ●           |
|                       | 1,00        | 4,0                   | 461                                   | ML/L/S                  | 0,13                             | ● ●         |
|                       | 1,50        | 3,0                   | 691                                   | S                       | 0,07                             | ● ●         |
|                       | 2,00        | 2,0                   | 922                                   | S                       | 0,03                             | ● ●         |
|                       | 2,25        | 1,5                   | 1037                                  | S                       | 0,02                             | ●           |
| 7                     | 1,00        | 5,0                   | 395                                   |                         | 0,20                             | ●           |
|                       | 1,50        | 4,0                   | 592                                   |                         | 0,13                             | ●           |
|                       | 2,00        | 3,0                   | 790                                   |                         | 0,07                             | ●           |
| 8                     | 1,00        | 6,0                   | 346                                   | ML/L/S                  | 0,28                             | ● ●         |
|                       | 1,50        | 5,0                   | 518                                   | S                       | 0,20                             | ● ●         |
|                       | 2,00        | 4,0                   | 691                                   | S                       | 0,13                             | ● ●         |
|                       | 2,50        | 3,0                   | 864                                   | S                       | 0,07                             | ●           |
| 10                    | 1,00        | 8,0                   | 276                                   | L                       | 0,50                             | ● ●         |
|                       | 1,50        | 7,0                   | 415                                   | L/S                     | 0,38                             | ● ●         |
|                       | 2,00        | 6,0                   | 553                                   | S                       | 0,28                             | ● ●         |
|                       | 2,50        | 5,0                   | 691                                   | S                       | 0,20                             | ● ●         |
|                       | 3,00        | 4,0                   | 829                                   | S                       | 0,13                             | ●           |
| 11                    | 1,00        | 9,0                   | 251                                   |                         | 0,64                             | ●           |
|                       | 1,50        | 8,0                   | 377                                   |                         | 0,50                             | ●           |
|                       | 2,00        | 7,0                   | 503                                   |                         | 0,38                             | ●           |
|                       | 2,50        | 6,0                   | 628                                   |                         | 0,28                             | ●           |
|                       | 3,00        | 5,0                   | 754                                   |                         | 0,20                             | ●           |
| 12                    | 1,00        | 10,0                  | 230                                   | L                       | 0,79                             | ● ●         |
|                       | 1,50        | 9,0                   | 346                                   | L/S                     | 0,64                             | ● ●         |
|                       | 2,00        | 8,0                   | 461                                   | S                       | 0,50                             | ● ●         |
|                       | 2,50        | 7,0                   | 576                                   | S                       | 0,38                             | ● ●         |
|                       | 3,00        | 6,0                   | 691                                   | S                       | 0,28                             | ● ●         |
| 13                    | 1,00        | 11,0                  | 213                                   |                         | 0,95                             | ●           |
|                       | 1,50        | 10,0                  | 319                                   |                         | 0,79                             | ●           |
|                       | 2,00        | 9,0                   | 425                                   |                         | 0,64                             | ●           |
|                       | 2,50        | 8,0                   | 532                                   |                         | 0,50                             | ●           |
|                       | 3,00        | 7,0                   | 638                                   |                         | 0,38                             | ●           |
| 14                    | 1,00        | 12,0                  | 197                                   | S                       | 1,13                             | ● ●         |
|                       | 1,50        | 11,0                  | 296                                   | S                       | 0,95                             | ● ●         |
|                       | 2,00        | 10,0                  | 395                                   | S                       | 0,79                             | ● ●         |
|                       | 2,50        | 9,0                   | 494                                   | S                       | 0,64                             | ● ●         |
|                       | 3,00        | 8,0                   | 592                                   | S                       | 0,50                             | ● ●         |
|                       | 3,50        | 7,0                   | 691                                   | S                       | 0,38                             | ●           |
| 15                    | 1,00        | 13,0                  | 184                                   | L                       | 1,33                             | ● ●         |
|                       | 1,50        | 12,0                  | 276                                   | L                       | 1,13                             | ● ●         |
|                       | 2,00        | 11,0                  | 369                                   | L                       | 0,95                             | ● ●         |
|                       | 2,50        | 10,0                  | 461                                   | L                       | 0,79                             | ● ●         |
|                       | 3,00        | 9,0                   | 553                                   | L                       | 0,64                             | ● ●         |
| 16                    | 1,00        | 14,0                  | 173                                   | S                       | 1,54                             | ● ●         |
|                       | 1,50        | 13,0                  | 259                                   | S                       | 1,33                             | ● ●         |
|                       | 2,00        | 12,0                  | 346                                   | S                       | 1,13                             | ● ●         |
|                       | 2,50        | 11,0                  | 432                                   | S                       | 0,95                             | ● ●         |
|                       | 3,00        | 10,0                  | 518                                   | S                       | 0,79                             | ● ●         |
| 17                    | 1,00        | 15,0                  | 163                                   |                         | 1,77                             | ●           |
|                       | 1,50        | 14,0                  | 244                                   |                         | 1,54                             | ●           |
|                       | 2,00        | 13,0                  | 325                                   |                         | 1,33                             | ●           |
|                       | 2,50        | 12,0                  | 407                                   |                         | 1,13                             | ●           |
|                       | 3,00        | 11,0                  | 488                                   |                         | 0,95                             | ●           |
| 18                    | 1,00        | 16,0                  | 154                                   | L                       | 2,01                             | ● ●         |
|                       | 1,50        | 15,0                  | 230                                   | L                       | 1,77                             | ● ●         |
|                       | 2,00        | 14,0                  | 307                                   | L                       | 1,54                             | ● ●         |
|                       | 2,50        | 13,0                  | 384                                   | L                       | 1,33                             | ● ●         |
|                       | 3,00        | 12,0                  | 461                                   | L                       | 1,13                             | ● ●         |

| Diámetro exterior mm. | Espesor mm. | Diámetro interior mm. | Presión de trabajo Kg/cm <sup>2</sup> | Racores DIN-2353 series | Sección de flujo cm <sup>2</sup> | Negro Bicro |
|-----------------------|-------------|-----------------------|---------------------------------------|-------------------------|----------------------------------|-------------|
| 20                    | 1,00        | 18,0                  | 138                                   | S                       | 2,54                             | ● ●         |
|                       | 1,50        | 17,0                  | 207                                   | S                       | 2,27                             | ● ●         |
|                       | 2,00        | 16,0                  | 276                                   | S                       | 2,01                             | ● ●         |
|                       | 2,50        | 15,0                  | 346                                   | S                       | 1,77                             | ● ●         |
|                       | 3,00        | 14,0                  | 415                                   | S                       | 1,54                             | ● ●         |
|                       | 3,50        | 13,0                  | 484                                   | S                       | 1,33                             | ● ●         |
|                       | 4,00        | 12,0                  | 553                                   | S                       | 1,13                             | ●           |
|                       | 5,00        | 10,0                  | 691                                   | S                       | 0,79                             | ●           |
| 22                    | 1,00        | 20,0                  | 126                                   | L                       | 3,14                             | ●           |
|                       | 1,50        | 19,0                  | 189                                   | L                       | 2,84                             | ● ●         |
|                       | 2,00        | 18,0                  | 251                                   | L                       | 2,54                             | ● ●         |
|                       | 2,50        | 17,0                  | 314                                   | L                       | 2,27                             | ● ●         |
|                       | 3,00        | 16,0                  | 377                                   | L                       | 2,01                             | ● ●         |
|                       | 3,50        | 15,0                  | 440                                   | L                       | 1,77                             | ● ●         |
|                       | 4,00        | 14,0                  | 503                                   | L                       | 1,54                             | ●           |
| 24                    | 1,00        | 22,0                  | 115                                   |                         | 3,80                             | ●           |
|                       | 1,50        | 21,0                  | 173                                   |                         | 3,46                             | ●           |
|                       | 2,00        | 20,0                  | 230                                   |                         | 3,14                             | ●           |
|                       | 2,50        | 19,0                  | 288                                   |                         | 2,84                             | ●           |
|                       | 3,00        | 18,0                  | 346                                   |                         | 2,54                             | ●           |
|                       | 3,50        | 17,0                  | 403                                   |                         | 2,27                             | ●           |
|                       | 4,00        | 16,0                  | 461                                   |                         | 2,01                             | ●           |
| 25                    | 1,00        | 23,0                  | 111                                   | S                       | 4,15                             | ● ●         |
|                       | 1,50        | 22,0                  | 166                                   | S                       | 3,80                             | ● ●         |
|                       | 2,00        | 21,0                  | 221                                   | S                       | 3,46                             | ● ●         |
|                       | 2,50        | 20,0                  | 276                                   | S                       | 3,14                             | ● ●         |
|                       | 3,00        | 19,0                  | 332                                   | S                       | 2,84                             | ● ●         |
|                       | 3,50        | 18,0                  | 387                                   | S                       | 2,54                             | ● ●         |
|                       | 4,00        | 17,0                  | 442                                   | S                       | 2,27                             | ● ●         |
|                       | 4,50        | 16,0                  | 498                                   | S                       | 2,01                             | ●           |
| 26                    | 5,00        | 15,0                  | 553                                   | S                       | 1,77                             | ●           |
|                       | 1,00        | 24,0                  | 106                                   |                         | 4,52                             | ●           |
|                       | 1,50        | 23,0                  | 160                                   |                         | 4,15                             | ●           |
|                       | 2,00        | 22,0                  | 213                                   |                         | 3,80                             | ●           |
|                       | 2,50        | 21,0                  | 266                                   |                         | 3,46                             | ●           |
|                       | 3,00        | 20,0                  | 319                                   |                         | 3,14                             | ●           |
|                       | 3,50        | 19,0                  | 372                                   |                         | 2,84                             | ●           |
|                       | 4,00        | 18,0                  | 425                                   |                         | 2,54                             | ●           |
| 27                    | 4,50        | 17,0                  | 479                                   |                         | 2,27                             | ●           |
|                       | 5,00        | 16,0                  | 532                                   |                         | 2,01                             | ●           |
|                       | 1,00        | 25,0                  | 102                                   |                         | 4,91                             | ●           |
|                       | 1,50        | 24,0                  | 154                                   |                         | 4,52                             | ●           |
|                       | 2,00        | 23,0                  | 205                                   |                         | 4,15                             | ●           |
|                       | 2,50        | 22,0                  | 256                                   |                         | 3,80                             | ●           |
|                       | 3,00        | 21,0                  | 307                                   |                         | 3,46                             | ●           |
|                       | 3,50        | 20,0                  | 358                                   |                         | 3,14                             | ●           |
| 28                    | 4,00        | 19,0                  | 410                                   |                         | 2,84                             | ●           |
|                       | 4,50        | 18,0                  | 461                                   |                         | 2,54                             | ●           |
|                       | 5,00        | 17,0                  | 512                                   |                         | 2,27                             | ●           |
|                       | 1,00        | 26,0                  | 99                                    | L                       | 5,31                             | ●           |
|                       | 1,50        | 25,0                  | 148                                   | L                       | 4,91                             | ●           |
|                       | 2,00        | 24,0                  | 197                                   | L                       | 4,52                             | ●           |
|                       | 2,50        | 23,0                  | 247                                   | L                       | 4,15                             | ●           |
|                       | 3,00        | 22,0                  | 296                                   | L                       | 3,80                             | ●           |
| 29                    | 3,50        | 21,0                  | 346                                   | L                       | 3,46                             | ●           |
|                       | 4,00        | 20,0                  | 395                                   | L                       | 3,14                             | ●           |
|                       | 4,50        | 19,0                  | 444                                   | L                       | 2,84                             | ●           |
|                       | 5,00        | 18,0                  | 494                                   | L                       | 2,54                             | ●           |
| 30                    | 1,00        | 28,0                  | 92                                    | S                       | 6,16                             | ●           |
|                       | 1,50        | 27,0                  | 138                                   | S                       | 5,73                             | ●           |
|                       | 2,00        | 26,0                  | 184                                   | S                       | 5,31                             | ● ●         |
|                       | 2,50        | 25,0                  | 230                                   | S                       | 4,91                             | ● ●         |
|                       | 3,00        | 24,0                  | 276                                   | S                       | 4,52                             | ● ●         |

Las dimensiones indicadas únicamente con acabado negro, bajo demanda, también pueden suministrarse en bicromatado.



| Diámetro exterior mm. | Espesor mm. | Diámetro interior mm. | Presión de trabajo Kg/cm <sup>2</sup> | Rácores DIN-2353 series | Sección de flujo cm <sup>2</sup> | Negro Bicro |
|-----------------------|-------------|-----------------------|---------------------------------------|-------------------------|----------------------------------|-------------|
| → 30                  | 3,50        | 23,0                  | 323                                   | S                       | 4,15                             | ● ●         |
|                       | 4,00        | 22,0                  | 369                                   | S                       | 3,80                             | ● ●         |
|                       | 4,50        | 21,0                  | 415                                   | S                       | 3,46                             | ●           |
|                       | 5,00        | 20,0                  | 461                                   | S                       | 3,14                             | ● ●         |
|                       | 6,00        | 18,0                  | 553                                   | S                       | 2,54                             | ●           |
| 32                    | 1,50        | 29,0                  | 130                                   |                         | 6,61                             | ●           |
|                       | 2,00        | 28,0                  | 173                                   |                         | 6,16                             | ●           |
|                       | 2,50        | 27,0                  | 216                                   |                         | 5,73                             | ●           |
|                       | 3,00        | 26,0                  | 259                                   |                         | 5,31                             | ●           |
|                       | 3,50        | 25,0                  | 302                                   |                         | 4,91                             | ●           |
|                       | 4,00        | 24,0                  | 346                                   |                         | 4,52                             | ●           |
|                       | 4,50        | 23,0                  | 389                                   |                         | 4,15                             | ●           |
|                       | 5,00        | 22,0                  | 432                                   |                         | 3,80                             | ●           |
| 34                    | 6,00        | 20,0                  | 518                                   |                         | 3,14                             | ●           |
|                       | 1,50        | 31,0                  | 122                                   |                         | 7,55                             | ●           |
|                       | 2,00        | 30,0                  | 163                                   |                         | 7,07                             | ●           |
|                       | 2,50        | 29,0                  | 203                                   |                         | 6,61                             | ●           |
|                       | 3,00        | 28,0                  | 244                                   |                         | 6,16                             | ●           |
|                       | 3,50        | 27,0                  | 285                                   |                         | 5,73                             | ●           |
|                       | 4,00        | 26,0                  | 325                                   |                         | 5,31                             | ●           |
|                       | 4,50        | 25,0                  | 366                                   |                         | 4,91                             | ●           |
| 35                    | 5,00        | 24,0                  | 407                                   |                         | 4,52                             | ●           |
|                       | 6,00        | 22,0                  | 488                                   |                         | 3,80                             | ●           |
|                       | 1,50        | 32,0                  | 118                                   |                         | 8,04                             | ●           |
|                       | 2,00        | 31,0                  | 158                                   | L                       | 7,55                             | ● ●         |
|                       | 2,50        | 30,0                  | 197                                   | L                       | 7,07                             | ● ●         |
|                       | 3,00        | 29,0                  | 237                                   | L                       | 6,61                             | ● ●         |
|                       | 3,50        | 28,0                  | 276                                   | L                       | 6,16                             | ●           |
|                       | 4,00        | 27,0                  | 316                                   | L                       | 5,73                             | ● ●         |
| 36                    | 4,50        | 26,0                  | 355                                   | L                       | 5,31                             | ●           |
|                       | 5,00        | 25,0                  | 395                                   | L                       | 4,91                             | ● ●         |
|                       | 6,00        | 23,0                  | 474                                   | L                       | 4,15                             | ● ●         |
|                       | 1,50        | 33,0                  | 115                                   |                         | 8,55                             | ●           |
|                       | 2,00        | 32,0                  | 154                                   |                         | 8,04                             | ●           |
|                       | 2,50        | 31,0                  | 192                                   |                         | 7,55                             | ●           |
|                       | 3,00        | 30,0                  | 230                                   |                         | 7,07                             | ●           |
|                       | 3,50        | 29,0                  | 269                                   |                         | 6,61                             | ●           |
| 38                    | 4,00        | 28,0                  | 307                                   |                         | 6,16                             | ●           |
|                       | 4,50        | 27,0                  | 346                                   |                         | 5,73                             | ●           |
|                       | 5,00        | 26,0                  | 384                                   |                         | 5,31                             | ●           |
|                       | 6,00        | 24,0                  | 461                                   |                         | 4,52                             | ●           |
|                       | 1,50        | 35,0                  | 109                                   | S                       | 9,62                             | ●           |
|                       | 2,00        | 34,0                  | 146                                   | S                       | 9,08                             | ● ●         |
|                       | 2,50        | 33,0                  | 182                                   | S                       | 8,55                             | ●           |
|                       | 3,00        | 32,0                  | 218                                   | S                       | 8,04                             | ● ●         |
| 40                    | 3,50        | 31,0                  | 255                                   | S                       | 7,55                             | ●           |
|                       | 4,00        | 30,0                  | 291                                   | S                       | 7,07                             | ● ●         |
|                       | 4,50        | 29,0                  | 327                                   | S                       | 6,61                             | ●           |
|                       | 5,00        | 28,0                  | 364                                   | S                       | 6,16                             | ● ●         |
|                       | 6,00        | 26,0                  | 437                                   | S                       | 5,31                             | ● ●         |
|                       | 7,00        | 24,0                  | 509                                   | S                       | 4,52                             | ●           |
|                       | 2,00        | 36,0                  | 138                                   |                         | 10,18                            | ●           |
|                       | 2,50        | 35,0                  | 173                                   |                         | 9,62                             | ●           |
| 42                    | 3,00        | 34,0                  | 207                                   |                         | 9,08                             | ●           |
|                       | 3,50        | 33,0                  | 242                                   |                         | 8,55                             | ●           |
|                       | 4,00        | 32,0                  | 276                                   |                         | 8,04                             | ●           |
|                       | 4,50        | 31,0                  | 311                                   |                         | 7,55                             | ●           |
|                       | 5,00        | 30,0                  | 346                                   |                         | 7,07                             | ●           |
|                       | 6,00        | 28,0                  | 415                                   |                         | 6,16                             | ●           |
|                       | 8,00        | 24,0                  | 553                                   |                         | 4,52                             | ●           |
|                       | 2,00        | 38,0                  | 132                                   | L                       | 11,34                            | ● ●         |
| → sigue               | 2,50        | 37,0                  | 165                                   | L                       | 10,75                            | ●           |
|                       | 3,00        | 36,0                  | 197                                   | L                       | 10,18                            | ● ●         |

Otras dimensiones y espesores fuera de tabla bajo demanda.

| Diámetro exterior mm. | Espesor mm. | Diámetro interior mm. | Precisión de trabajo Kg/cm <sup>2</sup> | Rácores DIN-2353 series | Sección de flujo cm <sup>2</sup> | Negro Bicro |
|-----------------------|-------------|-----------------------|-----------------------------------------|-------------------------|----------------------------------|-------------|
| → 42                  | 3,50        | 35,0                  | 230                                     | L                       | 9,62                             | ●           |
|                       | 4,00        | 34,0                  | 263                                     | L                       | 9,08                             | ● ●         |
|                       | 4,50        | 33,0                  | 296                                     | L                       | 8,55                             | ●           |
|                       | 5,00        | 32,0                  | 329                                     | L                       | 8,04                             | ●           |
|                       | 6,00        | 30,0                  | 395                                     | L                       | 7,07                             | ●           |
|                       | 8,00        | 26,0                  | 527                                     | L                       | 5,31                             | ●           |
| 45                    | 2,00        | 41,0                  | 123                                     |                         | 13,20                            | ●           |
|                       | 2,50        | 40,0                  | 154                                     |                         | 12,57                            | ●           |
|                       | 3,00        | 39,0                  | 184                                     |                         | 11,95                            | ●           |
|                       | 3,50        | 38,0                  | 215                                     |                         | 11,34                            | ●           |
|                       | 4,00        | 37,0                  | 246                                     |                         | 10,75                            | ●           |
|                       | 4,50        | 36,0                  | 276                                     |                         | 10,18                            | ●           |
|                       | 5,00        | 35,0                  | 307                                     |                         | 9,62                             | ●           |
|                       | 6,00        | 33,0                  | 369                                     |                         | 8,55                             | ●           |
|                       | 8,00        | 29,0                  | 492                                     |                         | 6,61                             | ●           |
| 48                    | 2,00        | 44,0                  | 115                                     |                         | 15,21                            | ●           |
|                       | 2,50        | 43,0                  | 144                                     |                         | 14,52                            | ●           |
|                       | 3,00        | 42,0                  | 173                                     |                         | 13,85                            | ●           |
|                       | 3,50        | 41,0                  | 202                                     |                         | 13,20                            | ●           |
|                       | 4,00        | 40,0                  | 230                                     |                         | 12,57                            | ●           |
|                       | 4,50        | 39,0                  | 259                                     |                         | 11,95                            | ●           |
|                       | 5,00        | 38,0                  | 288                                     |                         | 11,34                            | ●           |
|                       | 6,00        | 36,0                  | 346                                     |                         | 10,18                            | ●           |
|                       | 8,00        | 32,0                  | 461                                     |                         | 8,04                             | ●           |
| 50                    | 1,50        | 47,0                  | 83                                      |                         | 17,35                            | ●           |
|                       | 2,00        | 46,0                  | 111                                     |                         | 16,62                            | ●           |
|                       | 2,50        | 45,0                  | 138                                     |                         | 15,90                            | ●           |
|                       | 3,00        | 44,0                  | 166                                     |                         | 15,21                            | ●           |
|                       | 3,50        | 43,0                  | 194                                     |                         | 14,52                            | ●           |
|                       | 4,00        | 42,0                  | 221                                     |                         | 13,85                            | ●           |
|                       | 4,50        | 41,0                  | 249                                     |                         | 13,20                            | ●           |
|                       | 5,00        | 40,0                  | 276                                     |                         | 12,57                            | ●           |
|                       | 6,00        | 38,0                  | 332                                     |                         | 11,34                            | ●           |
|                       | 7,50        | 35,0                  | 415                                     |                         | 9,62                             | ●           |
| 60                    | 8,00        | 34,0                  | 442                                     |                         | 9,08                             | ●           |
|                       | 9,00        | 32,0                  | 498                                     |                         | 8,04                             | ●           |
|                       | 10,00       | 30,0                  | 553                                     |                         | 7,07                             | ●           |
|                       | 1,50        | 57,0                  | 69                                      |                         | 25,52                            | ●           |
|                       | 2,00        | 56,0                  | 92                                      |                         | 24,63                            | ●           |
|                       | 2,50        | 55,0                  | 115                                     |                         | 23,76                            | ●           |
|                       | 3,00        | 54,0                  | 138                                     |                         | 22,90                            | ●           |
|                       | 4,00        | 52,0                  | 184                                     |                         | 21,24                            | ●           |
|                       | 5,00        | 50,0                  | 230                                     |                         | 19,63                            | ●           |
| 65                    | 8,00        | 49,0                  | 340                                     |                         | 18,86                            | ●           |
| 70                    | 1,50        | 67,0                  | 59                                      |                         | 35,26                            | ●           |
|                       | 2,00        | 66,0                  | 79                                      |                         | 34,21                            | ●           |
|                       | 2,50        | 65,0                  | 99                                      |                         | 33,18                            | ●           |
| 80                    | 2,00        | 76,0                  | 69                                      |                         | 45,36                            | ●           |
|                       | 2,50        | 75,0                  | 86                                      |                         | 44,18                            | ●           |
|                       | 3,00        | 74,0                  | 104                                     |                         | 43,01                            | ●           |
|                       | 4,00        | 72,0                  | 138                                     |                         | 40,72                            | ●           |
|                       | 5,00        | 70,0                  | 173                                     |                         | 38,48                            | ●           |
|                       | 10,00       | 60,0                  | 346                                     |                         | 28,27                            | ●           |
| 90                    | 2,50        | 85,0                  | 77                                      |                         | 56,75                            | ●           |
|                       | 3,00        | 84,0                  | 92                                      |                         | 55,42                            | ●           |
|                       | 5,00        | 80,0                  | 154                                     |                         | 50,27                            | ●           |
| 100                   | 2,50        | 95,0                  | 69                                      |                         | 70,88                            | ●           |
|                       | 5,00        | 90,0                  | 138                                     |                         | 63,62                            | ●           |

Disponibilidad en stock de acabado Negro (●),Bicromatado (●●)

Presiones de trabajo coeficiente de seguridad 1,7

Rácores Series DIN-2353:

(ML: Muy ligera) (L: Ligera) (S: Pesada)



# Versiones disponibles de tubos de acero de precisión calibrados sin soldadura “NBK” para circuitos oleodinámicos

CALIDAD HABITUAL St-37.4 (DIN-2391-C) MALEABLES Y ABOCARDABLES EN FRIO.

| VERSIONES                                                 | DESCRIPCIÓN - ESTADO SUMINISTRO - RESISTENCIA CORROSIÓN                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SSCIRN</b><br><b>St-37.4</b><br>en stock               | NORMALIZADO Y FOSFATADO. Acabado negro exterior por protección de fosfatado. Diámetros interiores ≤ 6 mm. tratados interior y exteriormente con aceite mineral, diámetros superiores fosfatados y tratados interior y exteriormente con aceite mineral (bonderizados).                                                                                                                                                                                                                                           |
| <b>SSCIRA</b><br><b>St-37.4</b><br>en stock               | NORMALIZADO Y BICROMATADO. Acabado amarillo exterior por tratamiento de bicromatado. Capa bicromatado con espesor ≥ 9 µ. Resistencia niebla salina s/ASTM B-117: a las 200 horas presenta oxidación blanca al 50% de la superficie expuesta, sin presencia de oxidación roja.                                                                                                                                                                                                                                    |
| <b>SSCIRB</b><br><b>St-37.4</b><br>bajo demanda           | NORMALIZADO Y ZINCADO. Acabado blanco exterior por tratamiento de zincado. Capa zincado con espesor ≥ 9 µ. A las 100 horas no se aprecia oxidación roja.                                                                                                                                                                                                                                                                                                                                                         |
| <b>SSCIR500</b><br><b>St-37.4</b><br>bajo demanda         | NORMALIZADO Y CROMATADO. Acabado blanco exterior por tratamiento de cromatado. Capa cromatado con espesor ~ 10 µ. Resistencia niebla salina s/ASTM B-117: a las 500 horas no se observa presencia de oxidación roja. Este tratamiento confiere a los tubos una excepcional dureza superficial y desgaste al uso. Soporta el contacto con aceites, anticongelantes, alcohol, gasolina, etc ... Está especialmente indicado en la industria naval, química, automoción y maquinaria expuesta a agentes corrosivos. |
| <b>SSCIRINOX</b><br><b>AISI-304L/316L</b><br>bajo demanda | NORMALIZADO INOXIDABLE. Particularmente aptos para industrias químicas, petroquímicas y alimentarias.                                                                                                                                                                                                                                                                                                                                                                                                            |

Nuestro sistema de calidad garantiza la calidad de origen y nos permite poder facilitar certificados de calidad 2.2. y 3.1.B., bajo petición, al cursar sus pedidos.

| COMPOSICIÓN QUÍMICA | C %    | Mn %   | Si %        | P %     | S %     | Cr %    | Ni %    | Mo %    |
|---------------------|--------|--------|-------------|---------|---------|---------|---------|---------|
| Calidad St-37.4     | ≤ 0,17 | ≥ 0,40 | 0,10 ± 0,35 | ≤ 0,050 | ≤ 0,050 | --      | --      | --      |
| Calidad AISI-304L   | ≤ 0,03 | ≤ 2,00 | ≤ 1,00      | ≤ 0,045 | ≤ 0,030 | 18 ± 20 | 8 ± 12  | --      |
| Calidad AISI-316L   | ≤ 0,03 | ≤ 2,00 | ≤ 1,00      | ≤ 0,045 | ≤ 0,030 | 16 ± 18 | 10 ± 15 | 2 ± 2,5 |

| CARACTERÍSTICAS MECÁNICAS | Carga de Rotura ( R )       | Límite elástico mínimo ( RS ) | Límite elástico mínimo ( RS ) |
|---------------------------|-----------------------------|-------------------------------|-------------------------------|
| Calidad St-37.4           | 340 ± 440 N/mm <sup>2</sup> | 235 N/mm <sup>2</sup>         | 25 %                          |

Otras calidades bajo demanda.

| NORMAS DE REFERENCIA | Descripción norma                     |
|----------------------|---------------------------------------|
| DIN-2445             | Gama dimensional                      |
| DIN-2391-C           | Tolerancias dimensionales             |
| DIN-1630-C           | Calidades y condiciones de suministro |
| DIN-50049            | Certificados de calidad               |
| EN-10204             | Norma europea de certificados         |
| ASTM A-269/00        | Norma aceros inoxidables              |

| CONTROLES DE CALIDAD:                                                               |
|-------------------------------------------------------------------------------------|
| La calidad del producto está garantizada por los exámenes y los ensayos siguientes: |
| - Verificación dimensional del 100% de los tubos.                                   |
| - Ensayos de tracción para cada lote.                                               |
| - Ensayos de abocardado para cada lote.                                             |
| - Control no destructivo de tipo electromagnético del 100% de los tubos.            |