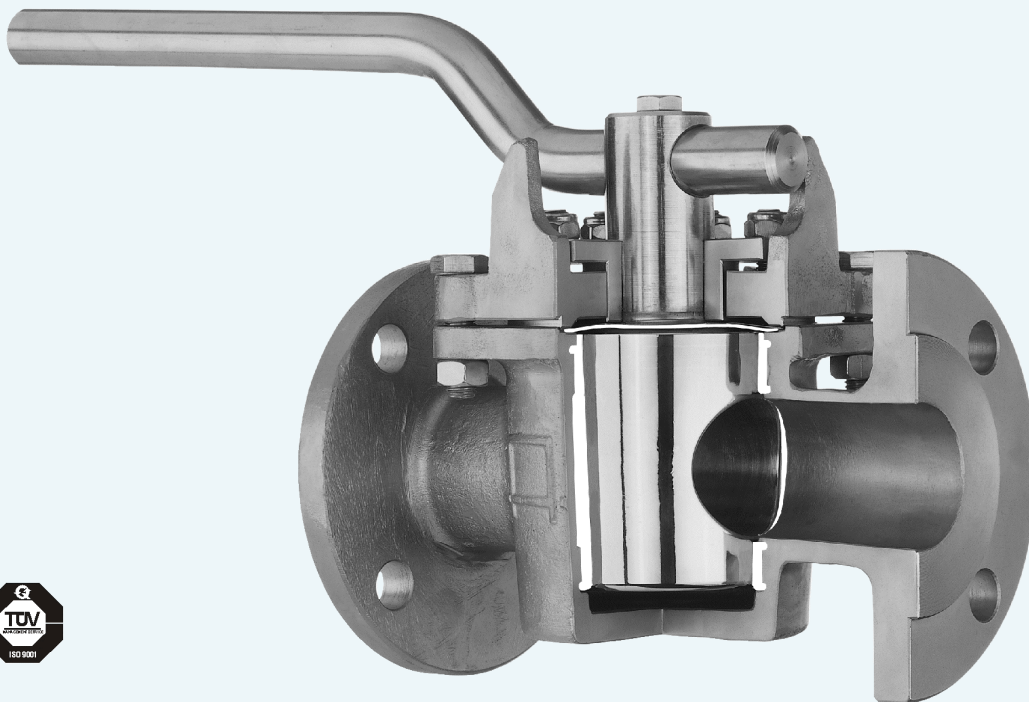


## **TIPO "Extra"**

**Válvula Macho com passagem plena circular DN 15 - 250 / ½" - 10"**



**1.6**

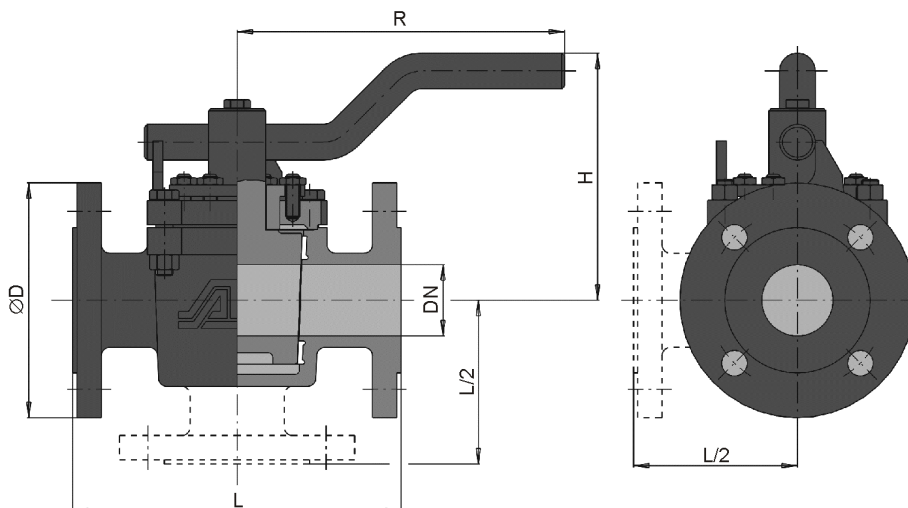
- **Sem espaço morto**
- **Dispensa manutenção é auto-lubrificada**
- **Indicada para vácuo**
- **Acesso simples para a reajustagem do macho**
- **Classe de pressão até PN100 ou ANSI 900**
- **Sem perda de carga**
- **Homologação conforme DGRL-97/23/EG, TRD 801-NR.45**
- **FIRESAFE execução conforme API 607**
- **Com aprovação "TA-Luft 2002"**



## Tipo “Extra”

### Válvula Macho com passagem plena circular

Fig. 1



As Válvulas AZ, sem espaço morto, com passagem plena circular e bucha de vedação de PTFE possuem a vantagem de não existir qualquer restrição na passagem. Deste modo nenhum perigo de entupimento com meios cristalizantes ou polimerizantes.

A perda de pressão ou o valor Kv corresponde a de um tubo da mesma dimensão nominal e comprimento.

|                     | DN | ØD    |     |     | H      | L     |        | L/2   |        | R      | K <sub>V</sub> /C <sub>V</sub> -Wert [m³/h] f.H <sub>2</sub> O Δp=1bar |                |                |                |                |                |
|---------------------|----|-------|-----|-----|--------|-------|--------|-------|--------|--------|------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|
| DIN 3202 / EN 558-1 | PN | 10-40 | 64  | 100 | 10-100 | 10-40 | 64-100 | 10-40 | 64-100 | 10-100 | F-2                                                                    |                | F-3-S          |                | F-3-W          |                |
|                     |    |       |     |     |        |       |        |       |        |        | K <sub>V</sub>                                                         | C <sub>V</sub> | K <sub>V</sub> | C <sub>V</sub> | K <sub>V</sub> | C <sub>V</sub> |
|                     | 15 | 95    | 105 |     | 102,2  | 130   | 210    | 65    | 105    | 200    | 18                                                                     | 20             | 11             | 13             | 13,5           | 15,7           |
|                     | 20 | 105   | 130 |     | 102,5  | 150   | 230    | 75    | 115    | 200    | 26                                                                     | 30             | 16             | 19             | 18,2           | 21             |
|                     | 25 | 115   | 140 |     | 119,0  | 160   | 230    | 80    | 115    | 320    | 45                                                                     | 52             | 28             | 33             | 32             | 37             |
|                     | 32 | 140   | 155 |     | 137,0  | 180   | 260    | 90    | 130    | 420    | 75                                                                     | 87             | 47             | 54             | 53             | 61             |
|                     | 40 | 150   | 170 |     | 145,0  | 200   | 260    | 100   | 130    | 420    | 122                                                                    | 141            | 76             | 88             | 85             | 99             |
|                     | 50 | 165   | 180 | 195 | 173,5  | 230   | 300    | 115   | 150    | 700    | 204                                                                    | 237            | 128            | 150            | 142            | 166            |

|                                                           |        | ØD    |       | H       | L   |     | L/2 |     | R       | K <sub>V</sub> /C <sub>V</sub> -Wert [m <sup>3</sup> /h] f.H <sub>2</sub> O Δp=1bar |                |                |                |                |                |
|-----------------------------------------------------------|--------|-------|-------|---------|-----|-----|-----|-----|---------|-------------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Comprimento<br>DIN 3202/EN 558-1<br>Flange<br>ANSI B 16.5 | ANSI   | 150   | 300   | 150/300 | 150 | 300 | 150 | 300 | 150/300 | F-2                                                                                 |                | F-3-S          |                | F-3-W          |                |
|                                                           |        |       |       |         |     |     |     |     |         | K <sub>V</sub>                                                                      | C <sub>V</sub> | K <sub>V</sub> | C <sub>V</sub> | K <sub>V</sub> | C <sub>V</sub> |
|                                                           | 1/2"   | 88,9  | 95,2  | 102,5   | 130 | 130 | 65  | 65  | 200     | 18                                                                                  | 20             | 11             | 13             | 13,5           | 15,7           |
|                                                           | 3/4"   | 98,6  | 117,3 | 102,5   | 150 | 230 | 75  | 115 | 200     | 26                                                                                  | 30             | 16             | 19             | 18,2           | 21             |
|                                                           | 1      | 108,0 | 123,9 | 119,0   | 160 | 230 | 80  | 115 | 320     | 45                                                                                  | 52             | 28             | 33             | 32             | 37             |
|                                                           | 1 1/4" | 117,3 | 133,3 | 137,0   | 180 | 260 | 90  | 130 | 420     | 75                                                                                  | 87             | 47             | 54             | 53             | 61             |
|                                                           | 1 1/2" | 127,0 | 155,4 | 145,0   | 200 | 260 | 100 | 130 | 420     | 122                                                                                 | 141            | 76             | 88             | 85             | 99             |
|                                                           | 2"     | 152,4 | 165,1 | 173,5   | 230 | 300 | 115 | 150 | 700     | 204                                                                                 | 237            | 128            | 150            | 142            | 166            |

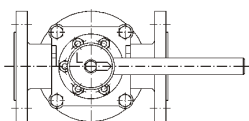
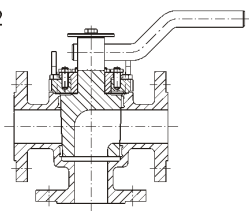


## Tipo “Extra”

### Válvula Macho com passagem plena circular

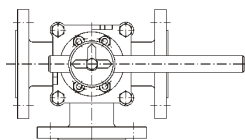
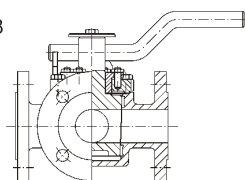
#### Construção da Válvula Macho: Tipo “EXTRA”

Fig. 2



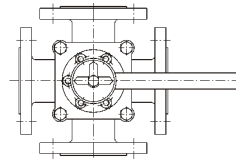
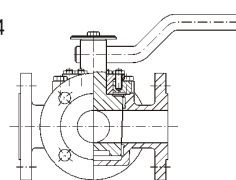
**Tipo F-3-“EXTRA”**

Fig. 3



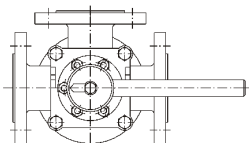
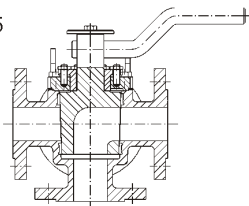
**Tipo F-3-“EXTRA”-W**

Fig. 4



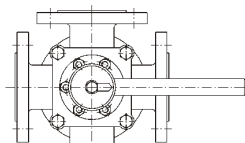
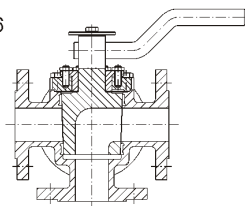
**Tipo F-4-“EXTRA”**

Fig. 5



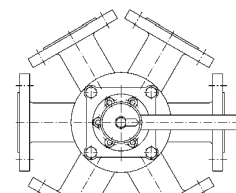
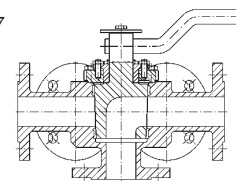
**Tipo F-4-“EXTRA”-Spezial**

Fig. 6



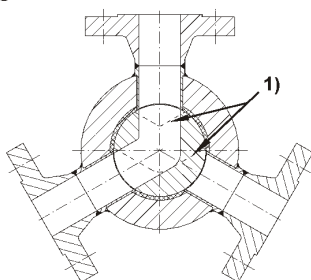
**Tipo F-5-“EXTRA”**

Fig. 7



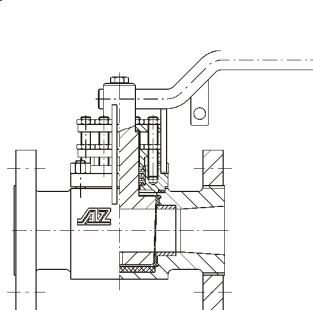
**Tipo F-7-“EXTRA”**

Fig.8



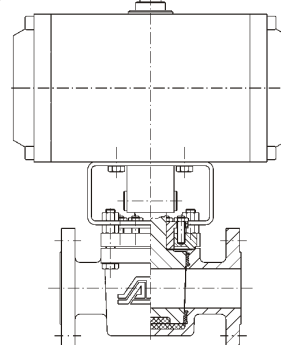
**Tipo F-3-“EXTRA”-120°**

Fig.9



**Tipo F-2-“EXTRA”-B-FSN**

Fig.10



**Tipo F-2-“EXTRA”-AT  
com atuador**

#### Exemplos para consulta:

F - 3 - 50 - W - Extra - PN25

F = Flange, 3 = Três vias, 50 = Dimensão Nominal, Extra = passagem plena circular, W = Horizontal, PN25 = Pressão nominal 25 bar

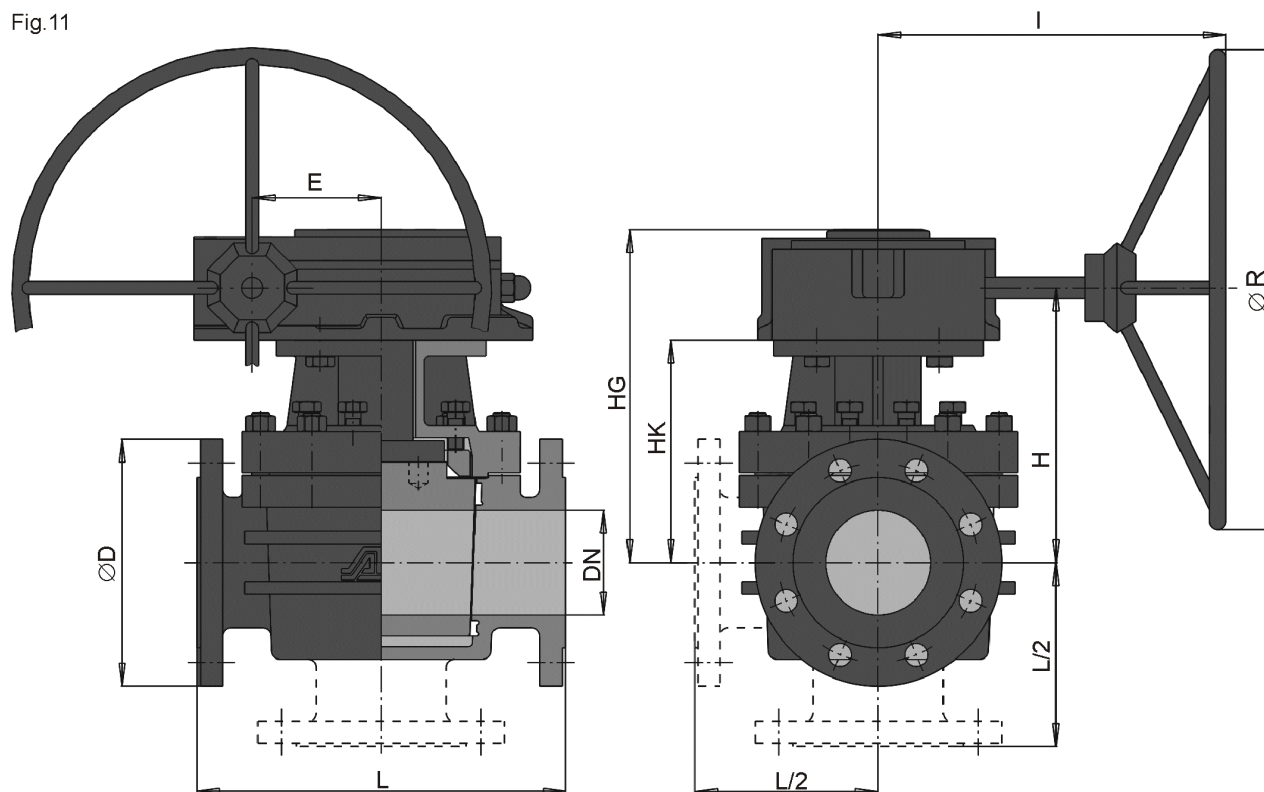


## Tipo "Extra"

### Válvula Macho com passagem plena circular e redutor

#### Medidas e Informações Técnicas

Fig.11



|                    |     |       | ØD  | E   | H     | HG    | HK  | I     | L   | L/2   | R   | Getr. Typ | K <sub>V</sub> /C <sub>V</sub> -Wert [m³/h] f.H <sub>2</sub> O Δp=1bar |     |       |     |     |          |      |      |       |      |       |      |
|--------------------|-----|-------|-----|-----|-------|-------|-----|-------|-----|-------|-----|-----------|------------------------------------------------------------------------|-----|-------|-----|-----|----------|------|------|-------|------|-------|------|
| DIN 3202 / 558 - 1 | DN  | PN    |     | 64  | 10-64 | 10-40 | 64  | 10-40 | 64  | 10-40 | 64  | 10-64     | 10-40                                                                  | 64  | 10-40 | 64  |     |          | F-2  |      | F-3-S |      | F-3-W |      |
|                    | 65  | 10-40 | 185 | 205 | 67    | 242   | --  | 280   | --  | 200   | --  | 230       | 290                                                                    | 290 | 145   | 145 | 350 | M12      | 519  | 602  | 327   | 378  | 363   | 422  |
|                    | 80  | 10-40 | 200 | 215 | 67    | 248   | 217 | 290   | 260 | 205   | 175 | 230       | 310                                                                    | 310 | 155   | 155 | 350 | M12      | 519  | 602  | 327   | 378  | 363   | 422  |
|                    | 100 | 10-16 | 220 |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |
|                    | 100 | 25-40 | 235 | 250 | 89,5  | 265   | 285 | 325   | 340 | 215   | 235 | 280       | 350                                                                    | 430 | 175   | 215 | 457 | M14      | 884  | 1025 | 553   | 641  | 618   | 717  |
|                    | 150 | 10-16 | 285 |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |
|                    | 150 | 25-40 | 300 |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |
|                    | 200 | 10-16 | 340 |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |
|                    | 200 | 25    | 360 | 415 | 60    | 350   | --  | 420   | --  | 290   | --  | 435       | 600                                                                    | 650 | 300   | 325 | 610 | MFF57/S3 | 3840 | 4554 | 2400  | 2784 | 2688  | 3118 |
|                    | 200 | 40    | 375 |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |
|                    | 250 | 10    | 395 |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |
|                    | 250 | 16    | 405 | 470 | 60    | 390   | --  | 450   | --  | 320   | --  | 435       | 730                                                                    | 775 | 365   | 388 | 610 | MFF57/S3 | 6085 | 7058 | 3803  | 4412 | 4259  | 4941 |
|                    | 250 | 25    | 425 |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |
| 250                | 40  | 450   |     |     |       |       |     |       |     |       |     |           |                                                                        |     |       |     |     |          |      |      |       |      |       |      |

| Comprimeto<br>DIN 3202/EN 558-1<br>Flange<br>ANSI B 16.5 | ØD     |       | E     | H       | HG  |                  | HK  |                  | I       |                  | L   |     | L/2 |         | R   | Getr. Typ | K <sub>v</sub> /C <sub>v</sub> -Wert [m³/h] f.H <sub>2</sub> O Δp=1bar |                |                |                |                |                |      |
|----------------------------------------------------------|--------|-------|-------|---------|-----|------------------|-----|------------------|---------|------------------|-----|-----|-----|---------|-----|-----------|------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|------|
|                                                          | ANSI   | 150   | 300   | 150/300 | 150 | 300              | 150 | 300              | 150/300 | 150              | 300 | 150 | 300 | 150/300 |     |           | F-2                                                                    |                | F-3-S          |                | F-3-W          |                |      |
|                                                          |        |       |       |         |     |                  |     |                  |         |                  |     |     |     |         |     |           | K <sub>v</sub>                                                         | C <sub>v</sub> | K <sub>v</sub> | C <sub>v</sub> | K <sub>v</sub> | C <sub>v</sub> |      |
|                                                          | 2 1/2" | 177,8 | 190,5 | 67,0    | 242 | -- <sup>1)</sup> | 280 | -- <sup>1)</sup> | 200     | -- <sup>1)</sup> | 230 | 290 | 290 | 145     | 145 | 350       | M12                                                                    | 343            | 398            | 214            | 249            | 240            | 278  |
|                                                          | 3"     | 190,5 | 209,5 | 67,0    | 248 | 217              | 290 | 260              | 205     | 175              | 230 | 310 | 310 | 155     | 155 | 350       | M12                                                                    | 343            | 398            | 214            | 249            | 240            | 278  |
|                                                          | 4"     | 228,6 | 254,0 | 89,5    | 265 | 285              | 325 | 340              | 215     | 235              | 280 | 350 | 430 | 175     | 215 | 457       | M14                                                                    | 884            | 1025           | 553            | 641            | 618            | 717  |
|                                                          | 6"     | 279,4 | 317,5 | 59,0    | 310 | 313              | 350 | 395              | 260     | 265              | 425 | 480 | 550 | 240     | 275 | 610       | MCF72/S3                                                               | 2079           | 2412           | 1299           | 1507           | 1455           | 1688 |
|                                                          | 8"     | 342,9 | 381,0 | 60,0    | 350 | -- <sup>1)</sup> | 420 | -- <sup>1)</sup> | 290     | -- <sup>1)</sup> | 435 | 600 | 650 | 300     | 325 | 610       | MFF57/S3                                                               | 3840           | 4554           | 2400           | 2784           | 2688           | 3118 |
|                                                          | 10"    | 406,4 | 444,5 | 60,0    | 390 | -- <sup>1)</sup> | 450 | -- <sup>1)</sup> | 320     | -- <sup>1)</sup> | 435 | 730 | 775 | 265     | 388 | 610       | MFF57/S3                                                               | 6085           | 7058           | 3803           | 4412           | 4259           | 4941 |

1) PN64, PN100 e ANSI 300, 600, 900 sob consulta.



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