



FILTRAZIONE IDRAULICA  
HYDRAULIC FILTRATION



**FILTREC**<sup>®</sup>  
Technical Filtration

serie  
**FR-1**





# Serie FR-1

## Filtri sul ritorno Return filter



### CORPO FILTRO

#### Descrizione:

**Portata massima:**

**Pressione max di esercizio:**

**Pressione di prova:**

**Pressione di scoppio:**

**Conessioni:**

**Indicatore intasamento:**

**Temperatura di esercizio:**

**Materiali:**

**Compatibilità con fluidi:**

### ELEMENTO FILTRANTE

**Setto filtrante:**

**Pressione di collasso:**

**Valvola by-pass :**



### FILTER HOUSING

**Description:**

**Max flow rate:**

**Max working pressure:**

**Test pressure:**

**Burst pressure:**

**Connection Ports:**

**Indicator:**

**Working temperature:**

**Materials:**

**Fluids compatibility:**

### FILTER ELEMENT

**Filter media:**

**Collapse pressure:**

**By-pass:**

### Caratteristiche tecniche

Filtri da montare sul serbatoio con cartuccia rigenerabile o a perdere, da impiegare su linee di ritorno.

600 l/min

Secondo NFPA T 3.10.5.1: 8 Bar

Secondo NFPA T 3.10.5.1: 12 Bar

Secondo NFPA T 3.10.5.1: 16 Bar

BSP, NPT, SAE J514b

Visivo ed elettrico

-25°C +100°C

- Coperchio: alluminio
- Corpo: alluminio
- Contenitore: nylon rinforzato - acciaio
- Guarnizioni: Buna-N / Viton®

ISO 2943: Filtro compatibile con oli minerali ed alcuni oli sintetici e vegetali. Per altri fluidi contattare FILTREC S.p.A.

Microfibra di vetro 3,6,10,25 µm

Carta 10,25 µm

Tela metallica 60,125 µm

Secondo ISO 2941: 10 Bar

1,7 Bar

### Technical Information

Tank top mounting design return line with reusable or disposable element.

600 l/min (158 gpm)

As per NFPA T 3.10.5.1: 8 Bar (116 psi)

As per NFPA T 3.10.5.1: 12 Bar (174 psi)

As per NFPA T 3.10.5.1: 16 Bar (232 psi)

BSP, NPT, SAE J514b

Visual and electrical.

-25°C +100°C (-13°F +212°F)

- Cover: aluminium
- Head: aluminium
- Bowl: nylon - carbon steel
- Seal: Buna-N / Viton®

ISO 2943: Filter assembly compatible with mineral oils and some synthetic or vegetable oils. With other fluid applications please contact Filtrec S.p.A.

Microglass fiber 3,6,10,25 µm

Cellulose 10,25 µm

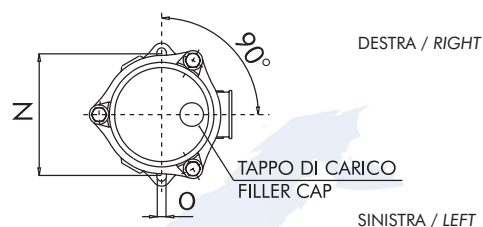
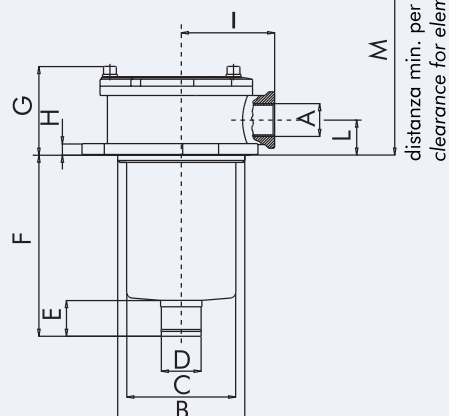
Wire mesh 60, 125 µm

As per ISO 2941: 10 Bar (145 psi)

Return line 1,7 Bar (24.6 psi)

## Informazioni dimensionali - Overall dimensions

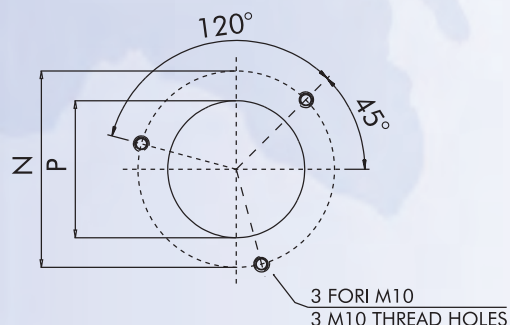
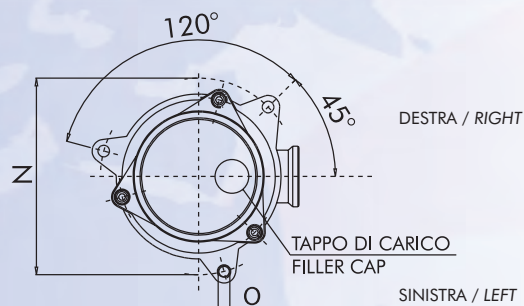
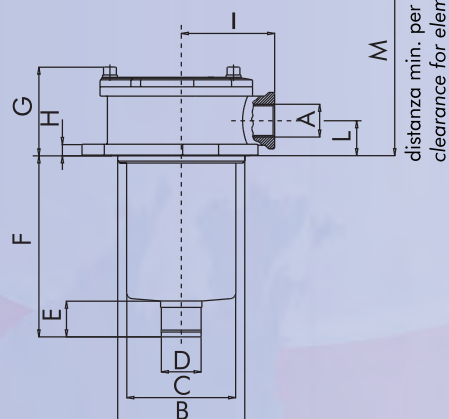
FR1-1-10 / 11 / 20 / 22 / 30



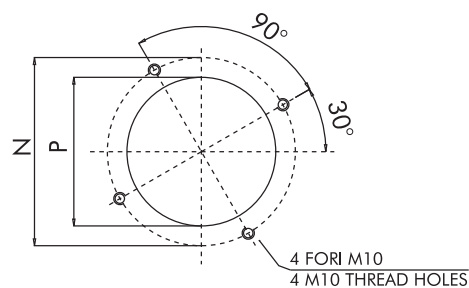
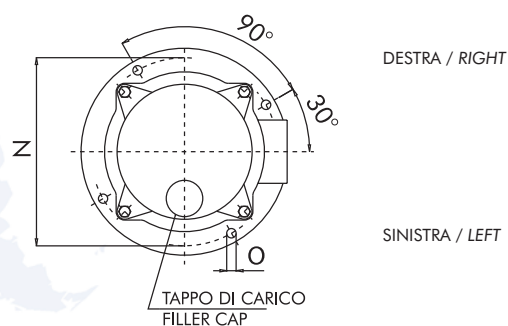
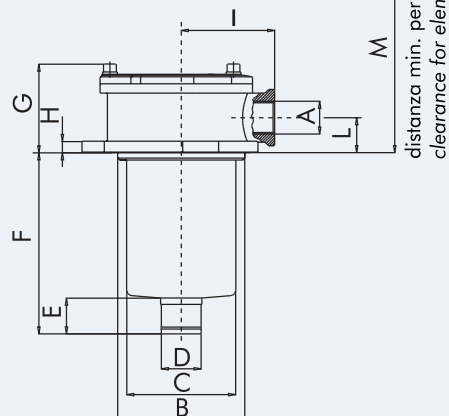
FORATURA SERBATOIO  
TANK HOLE DIMENSIONS



FR1-1-40 / 43



FR-1-1-50 / 51 / 60 / 64



## 1) Grandezza nominale - Nominal size

| Codice - Code  | A                                                                                        | B    | C   | D    | E  | F   | G   | H  | I   | L    | M   | N     | O   | P    | Cart. ricambio - Element |
|----------------|------------------------------------------------------------------------------------------|------|-----|------|----|-----|-----|----|-----|------|-----|-------|-----|------|--------------------------|
| <b>FR-1-10</b> | 3/8" - 1/2" - 3/4" BSP<br>3/8" - 1/2" - 3/4" NPT                                         | 66,5 | 62  | 24   | 22 | 83  | 54  | 8  | 51  | 20,5 | 150 | 89±1  | 7   | 67,5 | R-1-10                   |
| <b>FR-1-11</b> | 9/16" - 18 UNF - SAE J514b<br>3/4"-16 UNF - SAE J514b<br>1 1/16"-12 UN-SAE J514b         | 66,5 | 62  | 24   | 22 | 152 | 54  | 8  | 51  | 20,5 | 220 | 89±1  | 7   | 67,5 | R-1-11                   |
| <b>FR-1-20</b> | 1/2" - 3/4" BSP<br>1/2" - 3/4" NPT<br>3/4"-16 UNF - SAE J514b<br>1 1/16"-12 UN-SAE J514b | 87,5 | 80  | 27,5 | 27 | 106 | 73  | 11 | 67  | 28,5 | 190 | 115±1 | 8,5 | 88,5 | R-1-20                   |
| <b>FR-1-22</b> | 3/4" - 1" BSP<br>3/4" - 1" NPT                                                           | 87,5 | 80  | 27,5 | 27 | 151 | 73  | 11 | 67  | 28,5 | 230 | 115±1 | 8,5 | 88,5 | R-1-22                   |
| <b>FR-1-30</b> | 1 1/16"-12 UN-SAE J514b<br>1 5/16"-12 UN-SAE J514b                                       | 87,5 | 80  | 40   | 29 | 232 | 73  | 11 | 67  | 28,5 | 310 | 115±1 | 8,5 | 88,5 | R-1-30                   |
| <b>FR-1-40</b> | 1" - 1 1/4" - 1 1/2" BSP<br>1" - 1 1/4" - 1 1/2" NPT                                     | 129  | 111 | 40   | 36 | 230 | 87  | 11 | 95  | 35,5 | 320 | 175   | 11  | 130  | R-1-40                   |
| <b>FR-1-43</b> | 1 5/16"-12 UN-SAE J514b<br>1 5/8"-12 UN-SAE J514b<br>1 7/8"-12 UN-SAE J514b              | 129  | 111 | 40   | 36 | 273 | 87  | 11 | 95  | 35,5 | 360 | 175   | 11  | 130  | R-1-43                   |
| <b>FR-1-50</b> | 1 1/4" - 1 1/2" - 2" BSP<br>1 1/4" - 1 1/2" - 2" NPT                                     | 174  | 151 | 50   | 41 | 171 | 108 | 11 | 119 | 41   | 270 | 220   | 11  | 175  | R-1-50                   |
| <b>FR-1-51</b> | 1 5/8"-12 UN-SAE J514b                                                                   | 174  | 151 | 50   | 41 | 238 | 108 | 11 | 119 | 41   | 340 | 220   | 11  | 175  | R-1-51                   |
| <b>FR-1-60</b> | 1 7/8"-12 UN-SAE J514b<br>2 1/2"-12 UN-SAE J514b                                         | 174  | 151 | 64   | 41 | 238 | 108 | 11 | 119 | 41   | 340 | 220   | 11  | 175  | R-1-60                   |
| <b>FR-1-64</b> | 1 1/2" - 2" BSP<br>1 1/2" - 2" NPT<br>1 7/8"-12 UN-SAE J514b<br>2 1/2"-12 UN-SAE J514b   | 174  | 151 | 64   | 41 | 298 | 108 | 11 | 119 | 41   | 380 | 220   | 11  | 175  | R-1-64                   |

## 2) Grado di filtrazione - Filtration ratings

| Codice - Code | Materiale - Media                            | Efficienza - Efficiency |
|---------------|----------------------------------------------|-------------------------|
| <b>0</b>      | senza cartuccia / no element                 | -----                   |
| <b>G03</b>    | microfibra inorganica / microglass fiber     | $\beta_3 \geq 1000$     |
| <b>G06</b>    | microfibra inorganica / microglass fiber     | $\beta_6 \geq 1000$     |
| <b>G10</b>    | microfibra inorganica / microglass fiber     | $\beta_{10} \geq 1000$  |
| <b>G25</b>    | microfibra inorganica / microglass fiber     | $\beta_{25} \geq 1000$  |
| <b>C10</b>    | carta trattata / resin impregnated cellulose | $\beta_{10} \geq 2$     |
| <b>C25</b>    | carta trattata / resin impregnated cellulose | $\beta_{25} \geq 2$     |
| <b>T60</b>    | tela metallica / wire mesh                   | -----                   |
| <b>T125</b>   | tela metallica / wire mesh                   | -----                   |

### 3) Guarnizioni - Seals

| Codice - Code | Tipo - Type |
|---------------|-------------|
| ---           | NBR         |
| V             | Viton®      |

### 4) Conessioni - Connection port

| Codice - Code | Connessione - Connection     |
|---------------|------------------------------|
| B2            | 3/8" BSP                     |
| B3            | 1/2" BSP                     |
| B4            | 3/4" BSP                     |
| B5            | 1" BSP                       |
| B6            | 1 1/4" BSP                   |
| B7            | 1 1/2" BSP                   |
| B8            | 2" BSP                       |
| N2            | 3/8" NPT                     |
| N3            | 1/2" NPT                     |
| N4            | 3/4" NPT                     |
| N5            | 1" NPT                       |
| N6            | 1 1/4" NPT                   |
| N7            | 1 1/2" NPT                   |
| N8            | 2" NPT                       |
| R2            | 9/16" - 18 UNF-2B SAE J514b  |
| R3            | 3/4" - 16 UNF-2B SAE J514b   |
| R4            | 1 1/16" - 12 UN-2B SAE J514b |
| R5            | 1 5/16" - 12 UN-2B SAE J514b |
| R6            | 1 5/8" - 12 UN-2B SAE J514b  |
| R7            | 1 7/8" - 12 UN-2B SAE J514b  |
| R8            | 2 1/2" - 12 UN-2B SAE J514b  |

### 5) Tappo di carico - Filler cap

| Codice - Code | Tipo - Type     |
|---------------|-----------------|
| 0             | senza / without |
| T             | con / with      |

### 6) Posizione indicatore

Indicator position

| Codice - Code | Posizione - Position |
|---------------|----------------------|
| 0             | senza / without      |
| C             | coperchio / cover *  |
| D             | destra / right **    |
| S             | sinistra / left      |

\* Non disponibile per FR-1-10 con tappo di carico

\* Not available for FR-1-10 with filler cap

\*\* Non disponibile per FR-1-10 ed FR-1-40

\*\* Not available for FR-1-10 and FR-1-40

### 7) Indicatori - Indicators

| Codice Code | Tipo indicatore - Indicator type                  | Taratura Setting               |
|-------------|---------------------------------------------------|--------------------------------|
| 0           | senza / without                                   |                                |
| R1          | manometro scala<br>pressure gauge indicator scale | 0 ÷ 10 Bar<br>0 ÷ 145 psi      |
| R2          | pressostato n.a. taratura<br>pressure switch O.C. | 1,3 Bar<br>8,85 psi O.C.       |
| R3          | pressostato n.c. taratura<br>pressure switch C.C. | 1,3 Bar<br>18,85 psi C.C.      |
| R6          | pressostato visivo<br>visual pressure             | 1,2 Bar<br>17,4 Psi            |
| R7          | manovuotometro taratura<br>pressure vacuum gauge  | -1 ÷ 5 Bar<br>-14,5 ÷ 72,5 Psi |

### Codici per l'ordinazione - Ordering information

Filtro completo  
Filter assembly

FR-1

|    |     |   |    |    |    |    |    |
|----|-----|---|----|----|----|----|----|
| 20 | C10 | B | V  | B3 | T  | C  | R1 |
| 1* | 2*  |   | 3* | 4* | 5* | 6* | 7* |

Cartuccia  
Filter element

R-1

|    |     |   |    |
|----|-----|---|----|
| 20 | C10 | B | V  |
| 1* | 2*  |   | 3* |



## Curve di portata - Pressure drop charts

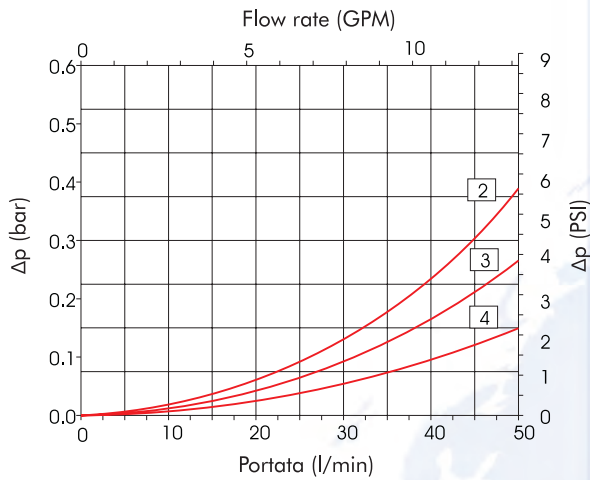
Le curve (secondo ISO 3968 classe B) sono ottenute con olio minerale avente viscosità di 30 cSt e densità di 0,86 Kg/dm<sup>3</sup>. Per viscosità e densità diverse i dati variano.

Il numero relativo alla curva di portata è riferito all'attacco del filtro; es.: 2 indica attacco B2 o N2.

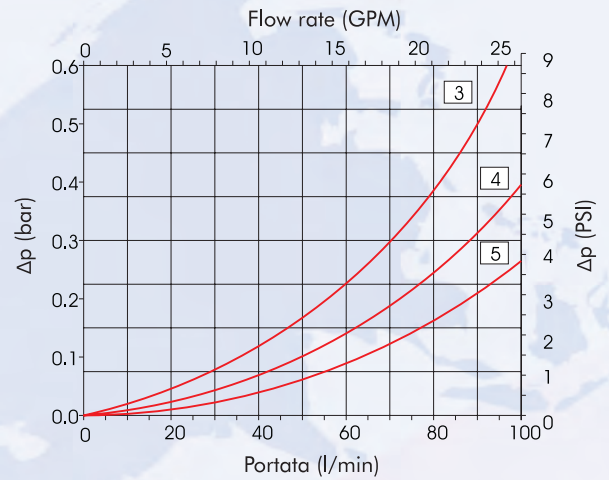
Pressure drop charts (as per ISO 3968 class B) are obtained using mineral oil with 30 cSt viscosity and 0,86 Kg/dm<sup>3</sup> density. With different values of viscosity and density data may vary.

The numbers indicate connection of the filters: i.e. 2 means B2 or N2 connections.

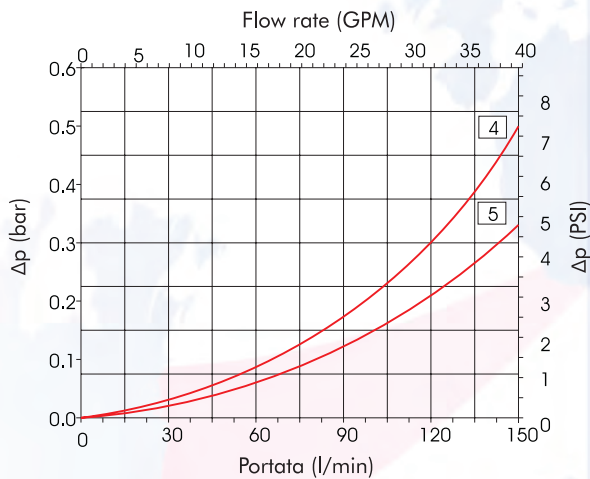
**FR-1-10 / 11**



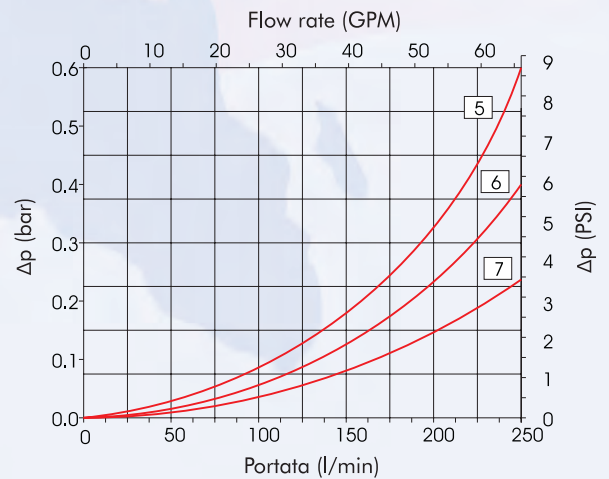
**FR-1-20 / 22**



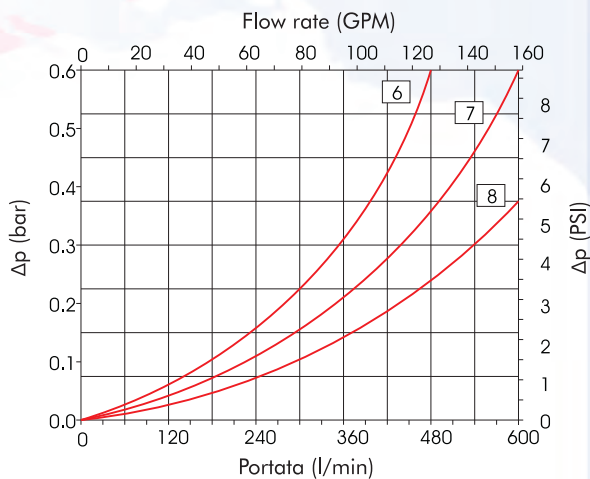
**FR-1-30**



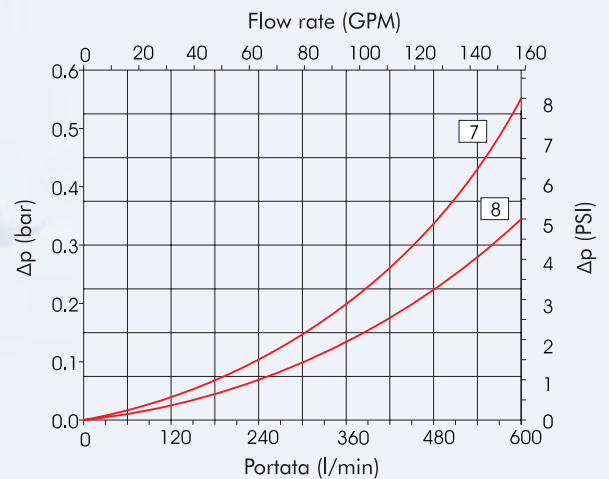
**FR-1-40 / 43**



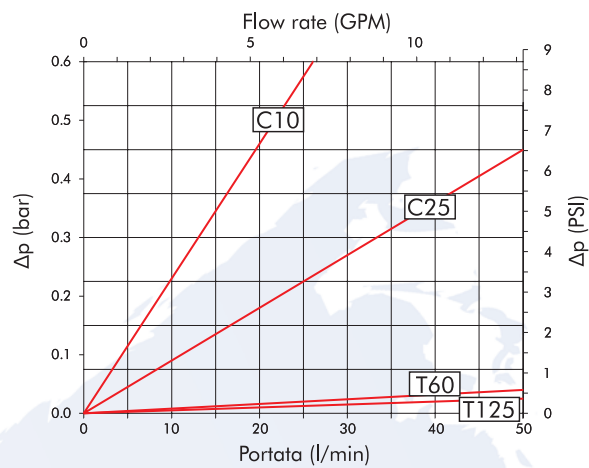
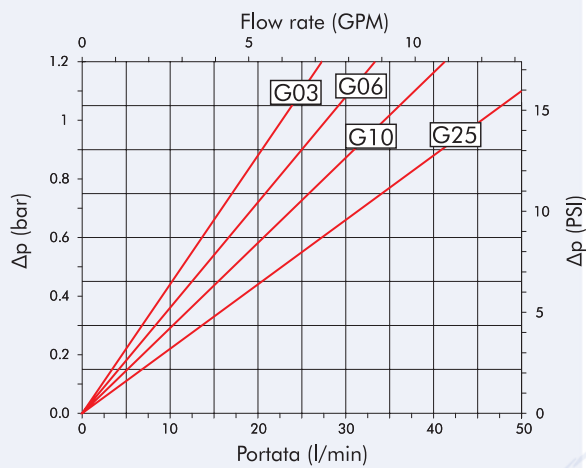
**FR-1-50 / 51 / 60**



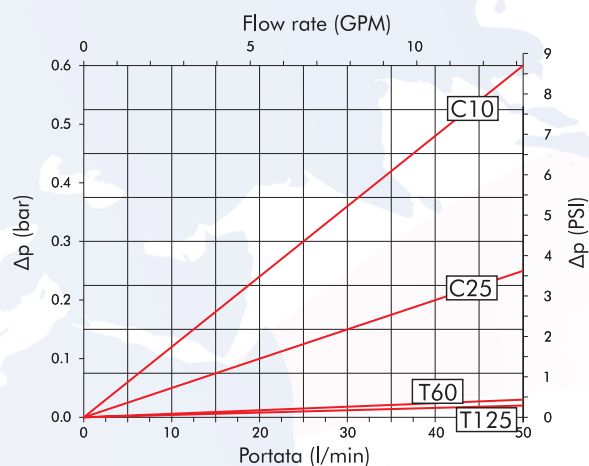
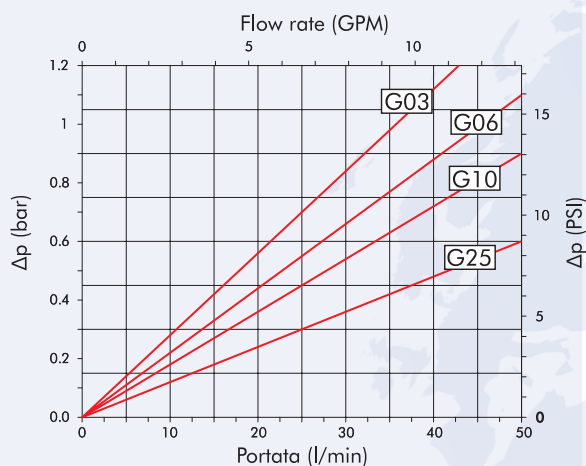
**FR-1-64**



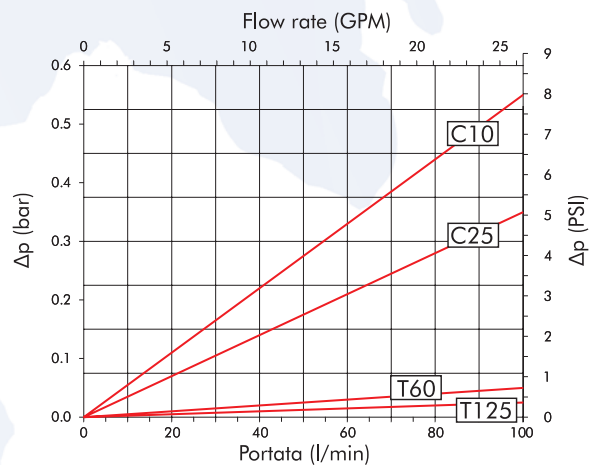
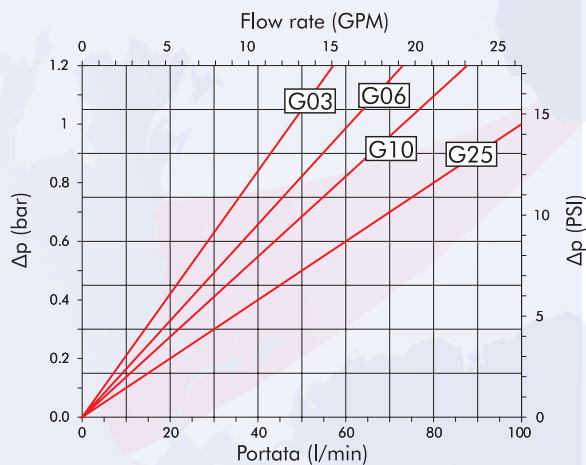
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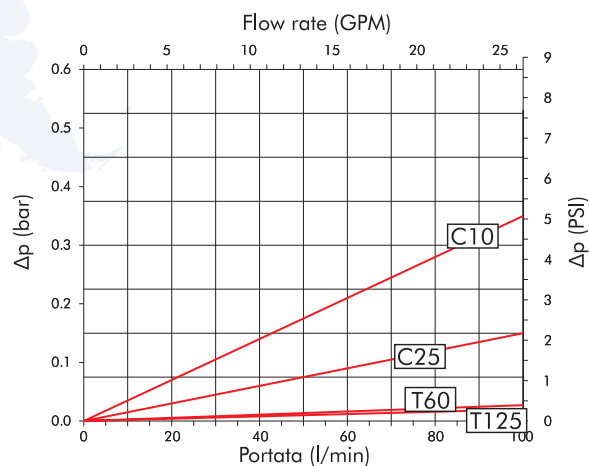
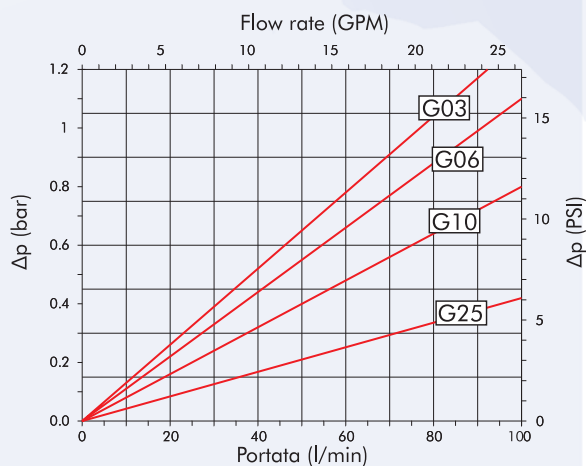
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## R-1-20

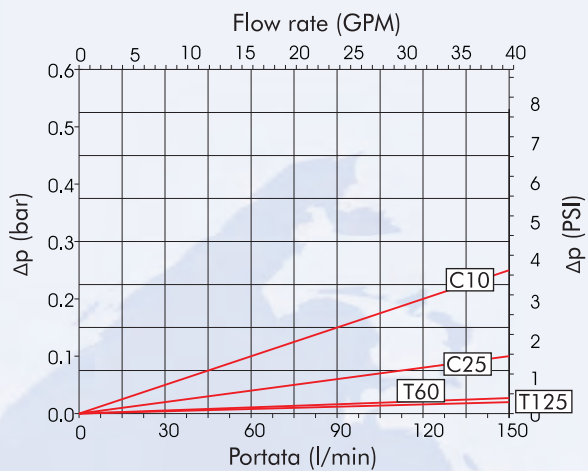
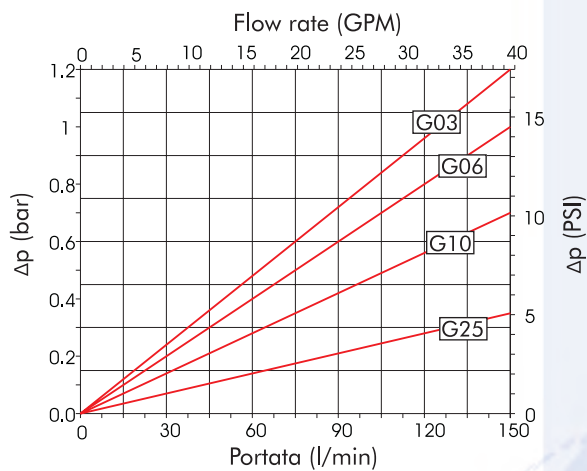


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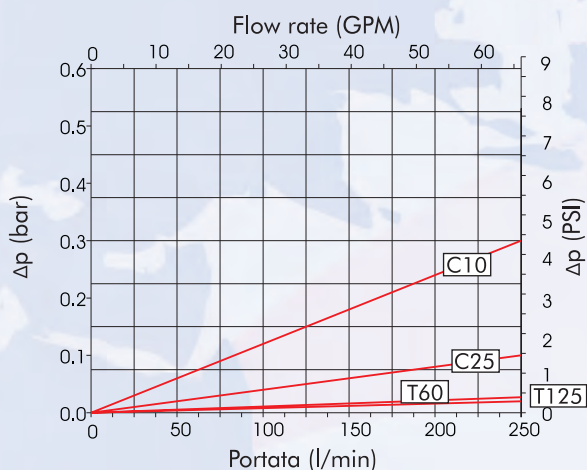
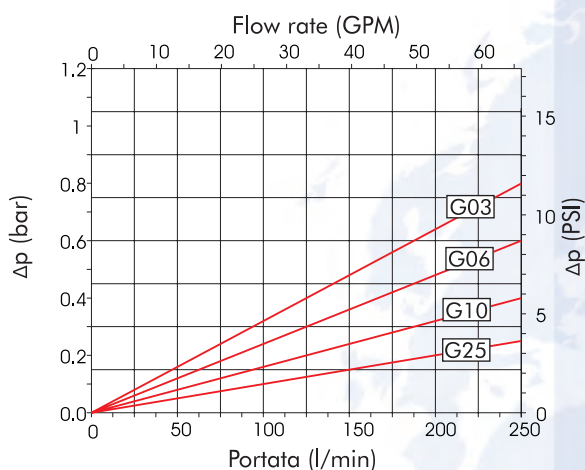




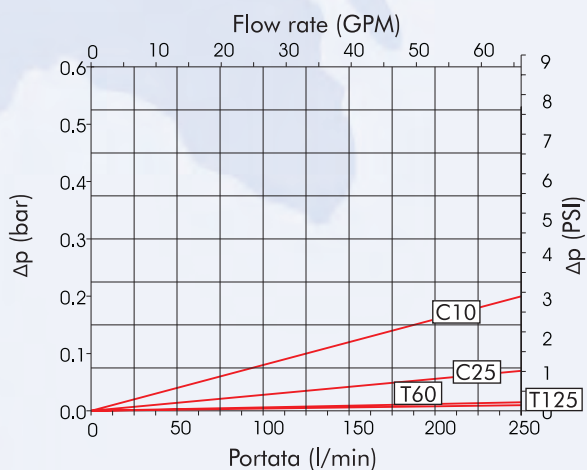
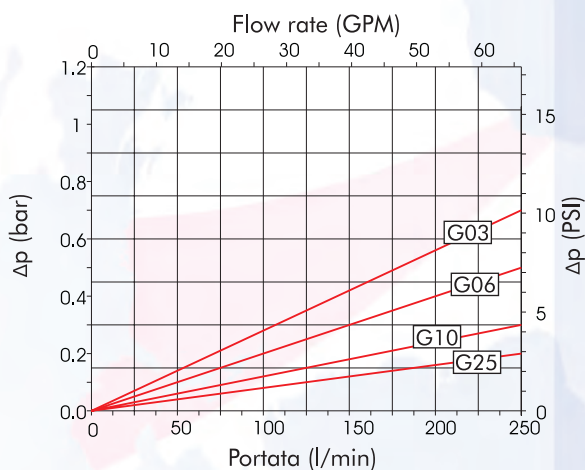
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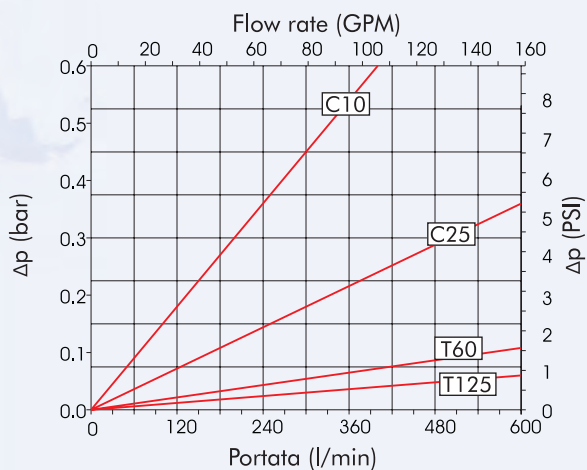
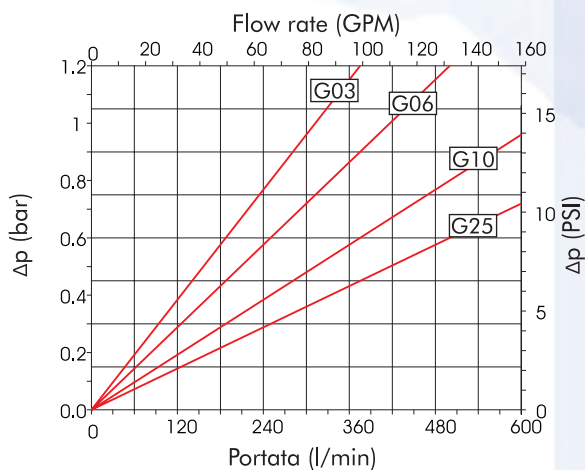
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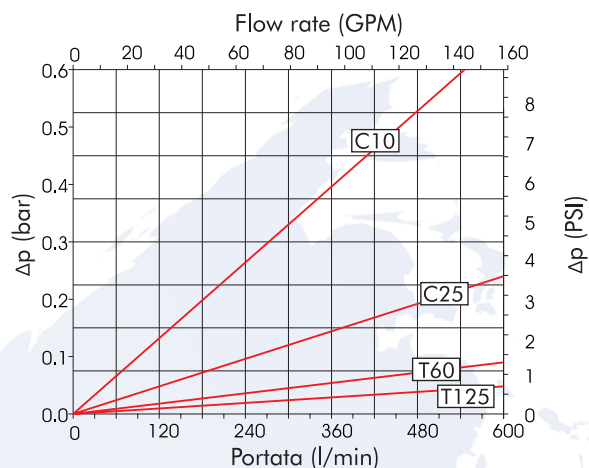
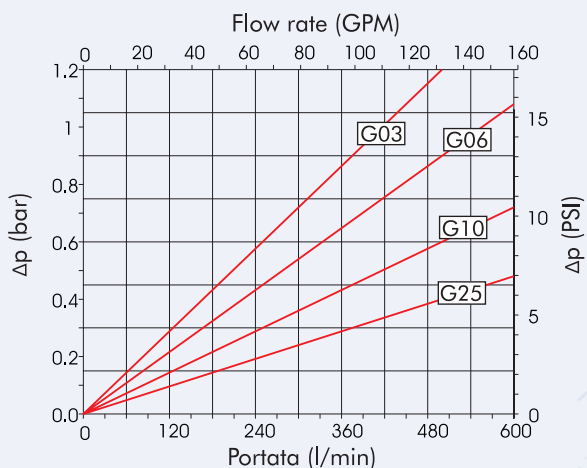
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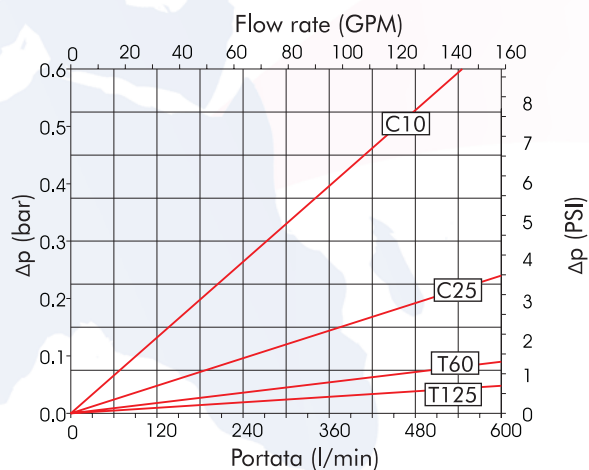
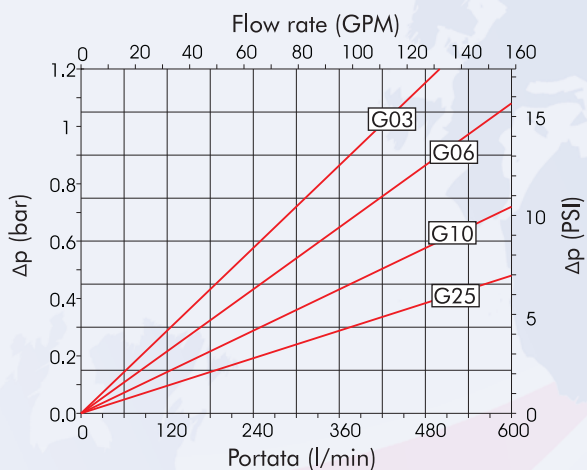
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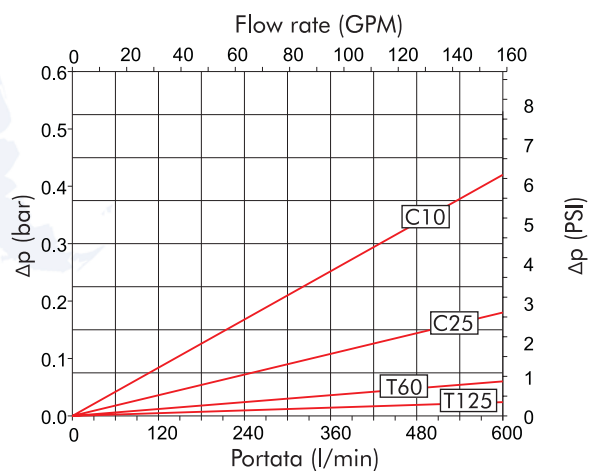
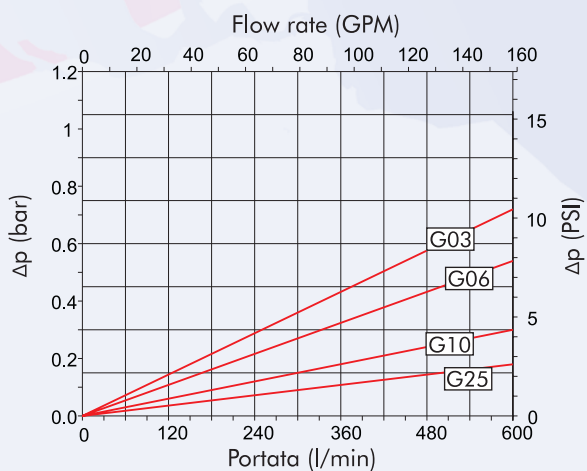
## R-1-51



## R-1-60



## R-1-64





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