

The **Smith Meter® GLS Type Steel Strainers** are necessary to provide protection for metering systems against dirt and other foreign material. The large screen area and streamlined flow path minimize pressure drop. The sturdy basket can withstand a 3.3 bar differential pressure without bursting and is easily removed for cleaning.

## Features

- **Streamlined Flow Path** – For lower pressure drop.
- **Large Screen Area** – For less frequent cleaning.
- **Separable Inner Basket** – For easy cleaning.

## Standard Specifications

### Design and Fabrication

Fabricated according to DIN / EN, AD 2000 specifications.

### Temperature Range

-29°C to +65°C with Buna-N Sealing.

### Body Material

Carbon steel to EN Standard.

### Flanges

Carbon steel raised face according to DIN/EN or ANSI B16.5.

### Supports

Three (3) legs are standard on models 240-350 Strainers.

### Closure

Blind flange (type-B for models 10-170, as shown in the "Closures" section below).

Convexed-Blind Flange (for models 240-350).

### Elastomer Seals

Buna-N.

### Basket(s)

Stainless steel perforated plate 10 mm diameter holes on 13 mm staggered centers.

Multiple baskets are standard on Models 70-350 Strainers.

### Air Vent

1/2" NPT plugged.

### Differential Pressure Taps

1/2" NPT plugged.



**Model GLS-50-2-6-E**

### Drain

1-1/2" NPT plugged, Model 10 to 50.

2" NPT plugged, Model 70 to 350.

## Options

- **Temperature Range**  
-12° to +65°C with Viton sealing.
- **Temperatures/ Sealings other than specified**  
Consult factory.
- **High Pressure Ranges -**
  - (5) 64 bar/960 psi, consult factory.
  - (6) 100 bar/1,440 psi, consult factory.
- **Special Painting** – consult factory.
- **Swing-Arm Assist** – To aid in removal of blind flange covers without the need for lifting equipment (recommended for high pressure and/or large/heavy strainer covers).
- **Air Release Kit** – For static air elimination.
- **Differential Pressure Gauge Kit** – with isolation valves to monitor basket cleanliness.
- **Inner Liner** – Choice of 10, 20, 40, or 80 mesh stainless steel.

## Selection Guide

| Basic Meter<br>(P.D./Turbine)        | Normal Maximum<br>Flow (Lpm)   | Intermittent/Extended<br>Maximum Flow<br>(Lpm)      | Model<br>Designation*<br>GLS | Inlet/Outlet<br>Flange**<br>(Std. Available) |
|--------------------------------------|--------------------------------|---|------------------------------|--|
| ST-40<br>SC-13/C2<br>1/1/2" T.M.     | 320<br>475<br>530              | 400<br>570<br>640                                   | 10                           | 1-1/2"-2" - 2-1/2"                           |
| ST-75<br>2" T.M.                     | 750<br>1,060                   | 1,000<br>See next larger size vessel.               |                              |  |
| 2" T.M.<br>ST-160<br>SD30/SD3<br>E3  | —<br>1,200<br>1,200<br>1,600   | 1,285<br>1,600<br>1,500<br>1,900                    | 20                           | 2", 2-1/2", 3"                               |
| E4, PRIME 4<br>SF-60/F4<br>3" T.M.   | 1,600<br>2,250<br>2,460        | 2,250<br>2,750<br>3,030                             | 30                           | 3", 4", 6"                                   |
| G6<br>4" T.M.                        | 3,750<br>4,540                 | 4,600<br>See next larger size vessel.               | 50                           | 4", 6"                                       |
| 4" T.M.<br>H8<br>LF6" T.M.           | —<br>6,080<br>6,830            | 5,565<br>N/A<br>See next larger size vessel.        | 70                           | 4", 6", 8"                                   |
| LF6" T.M.<br>JA10<br>JB10<br>6" T.M. | —<br>9,170<br>12,330<br>10,580 | 8,500<br>N/A<br>N/A<br>See next larger size vessel. | 110                          | 6", 8", 10"                                  |
| 6" T.M.<br>K12                       | —<br>19,000                    | 13,250<br>N/A                                       | 170                          | 6", 8", 10", 12"                             |
| 8" T.M.                              | 19,920                         | 24,420  | 240                          | 8", 10", 12"                                 |
| M16<br>10" T.M.                      | 33,330<br>31,830               | N/A<br>See next larger size vessel.                 | 350                          | 10", 12", 16"                                |

\*Model/Type x 100 lpm denotes maximum design flow capacity of equipment for product viscosity 20 cP @ 20°C.

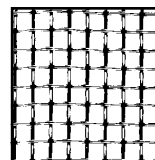
\*\*Inlet and/or outlet flange sizes other than those listed, consult factory.

## Basket(s)

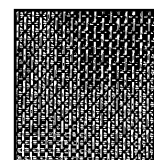
| Outer Basket, Perforated Plate (Opening Size 10 mm / 0,394") |          |                                   |                      |
|--|----------|-----------------------------------|----------------------|
| Model  | Quantity | Basket Area<br>(cm <sup>2</sup> ) | Percent Open<br>Area |
| GLS-10   | 1        | 1 112                             | 44,7                 |
| GLS-20   | 1        | 2 234                             | 47,5                 |
| GLS-30   | 1        | 2 986                             | 48,2                 |
| GLS-50   | 1        | 4 863                             | 49,7                 |
| GLS-70   | 2        | 6 949                             | 50,9                 |
| GLS-110  | 3        | 10 424                            | 50,9                 |
| GLS-170  | 3        | 13 759                            | 51,4                 |
| GLS-240  | 5        | 22 932                            | 51,4                 |
| GLS-350  | 7        | 32 105                            | 51,4                 |

| Permanent Inner Liner, Screen |                              |                   |
|-------------------------------|------------------------------|-------------------|
| Mesh                          | Opening Size, mm<br>(inches) | Percent Open Area |
| 10                            | 2,0 (0,079)                  | 61                |
| 20                            | 1,0 (0,039)                  | 61                |
| 40 (Std.)                     | 0,4 (0,016)                  | 42                |
| 80                            | 0,2 (0,008)                  | 38                |

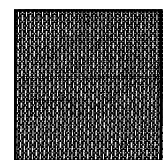
Screens shown actual size:



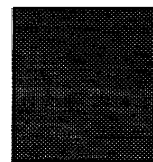
10 Mesh



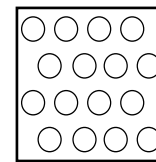
20 Mesh



40 Mesh



80 Mesh



Perforated Plate

# Modeling

**Example: GLS — 110 — 2 — 04A — B — 40 — T0 — B — 00 — G0**

## Type of Equipment

GLS – "G" Line Strainer

## GLS Model

010 – GLS-10 \*  
 020 – GLS-20 \*  
 030 – GLS-30 \*  
 050 – GLS-50 \*  
 070 – GLS-70  
 110 – GLS-110  
 170 – GLS-170  
 240 – GLS-240  
 350 – GLS-350

## Working Pressure

1 – PN 10 or 150 PSI  
 2 – PN 16 or 232 PSI  
 3 – PN 25 or 362 PSI  
 4 – PN 40 or 580 PSI  
 5 – PN 64 or 928 PSI  
 6 – PN 100 or 1,440 PSI

## Flange Size

02A 2" ANSI  
 25A 2.5" ANSI  
 03A 3" ANSI  
 04A 4" ANSI  
 06A 6" ANSI  
 08A 8" ANSI  
 10A 10" ANSI  
 12A 12" ANSI  
 16A 16" ANSI  
 02D DIN DN 50  
 25D DIN DN 65  
 03D DIN DN 80  
 04D DIN DN 100  
 06D DIN DN 150  
 08D DIN DN 200  
 10D DIN DN 250  
 12D DIN DN 300  
 16D DIN DN 400

## Closure Style

B – Blind Flange  
 E – Blind Flange with Swing Arm Assist

## Miscellaneous Options

G0 - Not Required  
 G1 - Differential Pressure Gauge Bu  
 G2 - Differential Pressure Gauge Vi  
 G3 - Other Gauge

## Air Release Kit

00 - Not Required  
 R1 - RB Air Release Kit AVD-1 NPT Bu  
 R2 - RB Air Release Kit AVD-1 NPT Vi  
 R3 - RB Air Release Kit AVD-1 FLG Bu  
 R4 - RB Air Release Kit AVD-1 FLG Vi  
 R5 - RB Air Release Kit AVD-2 FLG Bu  
 R6 - RB Air Release Kit AVD-2 FLG Vi  
  
 U1 - UB Air Release Kit AVD-1 FLG Vi  
 U2 - UB Air Release Kit AVD-1 FLG Ch  
 U3 - UB Air Release Kit AVD-2 FLG Vi  
 U4 - UB Air Release Kit AVD-2 FLG Ch

\*Bu = Buna; Ch = Chemraz; Vi = Viton

## Design Standards

see bulletin ABOA003E

## Elastomer Seals

see bulletin ABOA003E

## Inner Liner Mesh Size

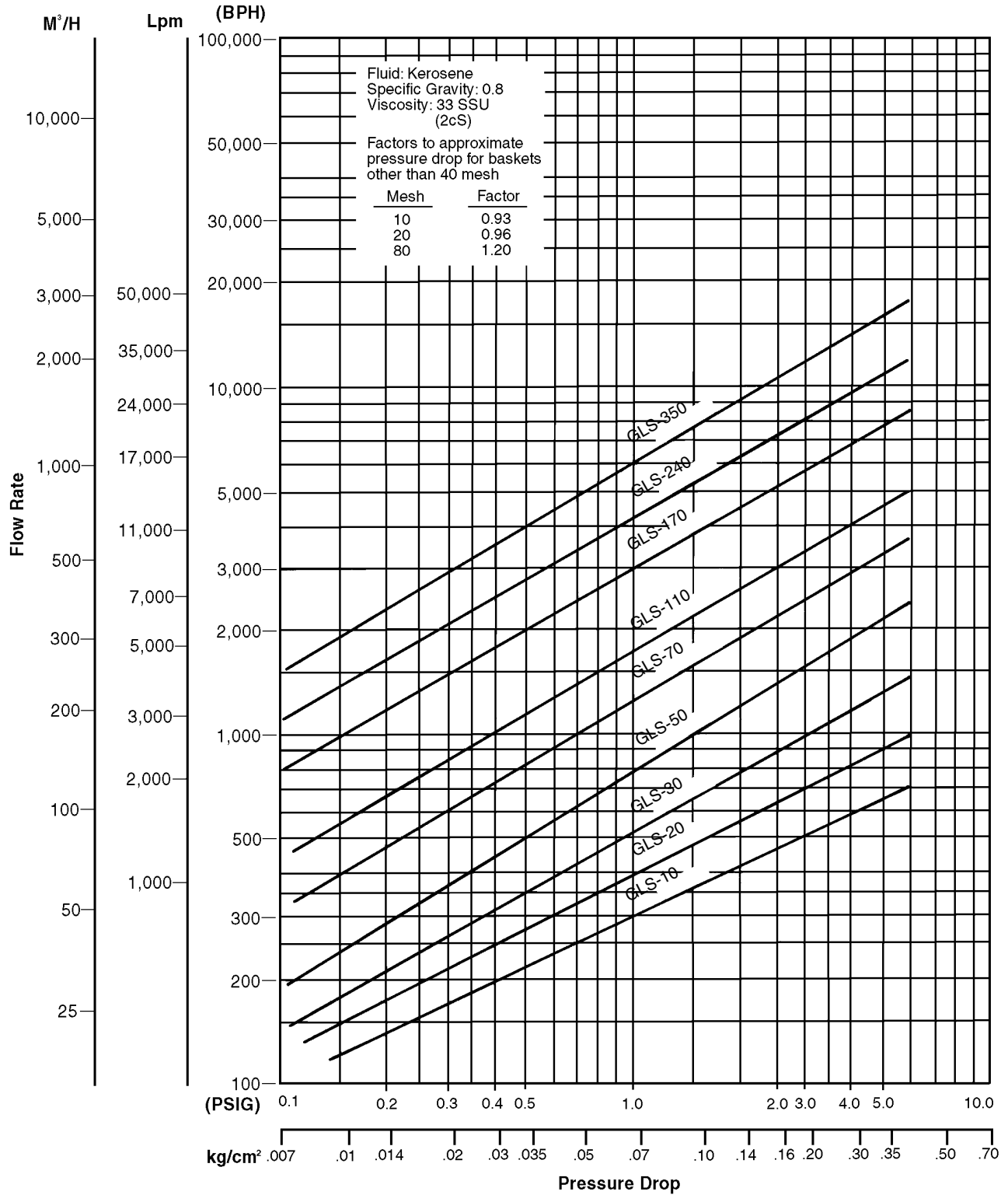
10 – 10 Mesh  
 20 – 20 Mesh  
 40 – 40 Mesh  
 80 – 80 Mesh

\* **Note:** GLS-10...50 starts with pressure rating -2 = 16 bar (-1 n/a)

# Pressure Drop

## GLS Strainer

(Based on standard basket with 40 mesh liner.) Measured over the whole strainer (inlet and outlet nozzle).

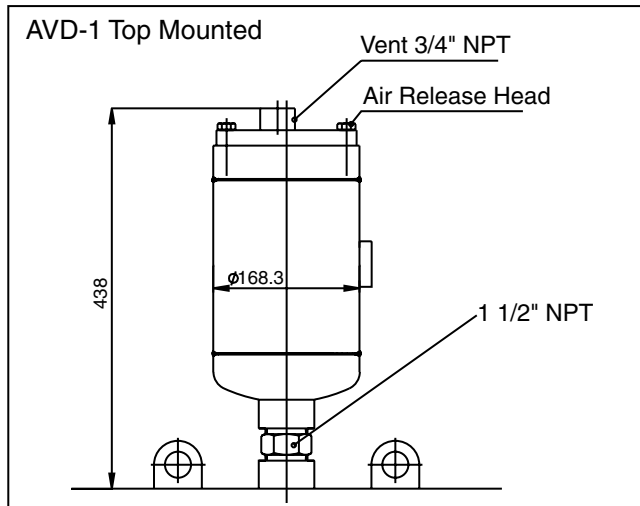


## Accessories

### Automatic Air Venting Devices

**F1, F2 – AVD-1 with RB – Air Release Head**  
Maximum working pressure 19.7 bar (285 psi).

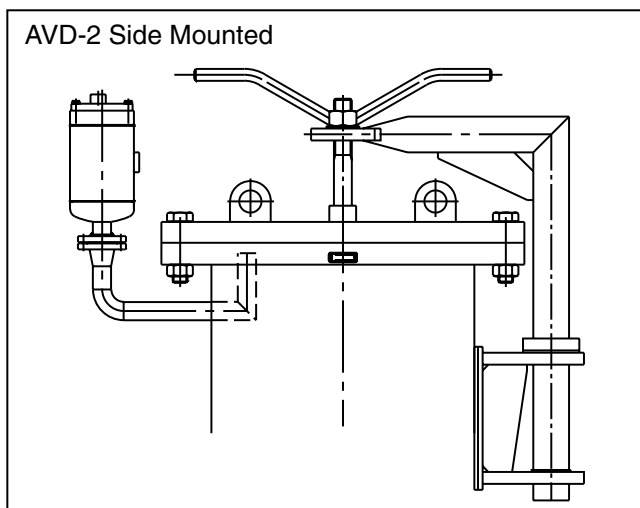
**F3, F4 – AVD-1 with UB – Air Release Head**  
Maximum working pressure 50 bar (720 psi).



**Top Mounted AVD with Coupling 1 1/2" NPT or flanged**

**F5, F6 - AVD-2 with RB - Air Release Head**  
Maximum working pressure 19.7 bar (285 psi).

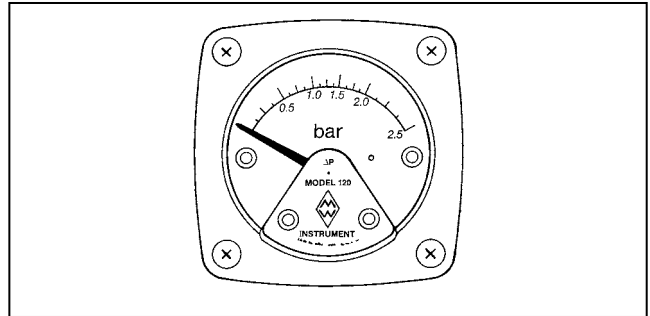
**F7, F8 - AVD-2 with UB - Air Release Head**  
Maximum working pressure 50 bar (720 psi).



**Side Mounted AVD with Flange Connection and Blind Flange with Swing Arm Assist**

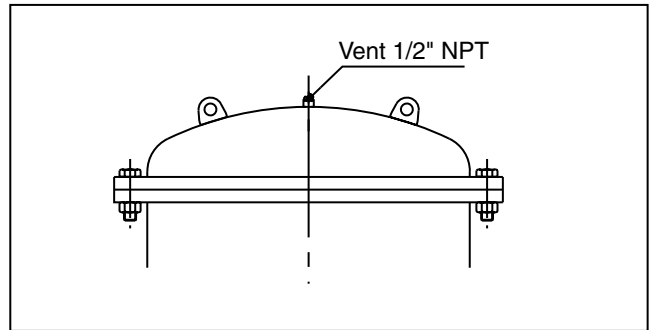
### Differential Pressure Gauge Specifications

Type: Piston type  $\Delta P$  – Gauge.  
Maximum Working Pressure: 340 bar.  
Scale: 0-2.5 bar, nominal diameter 63 mm.  
Accuracy:  $\pm 2 - 3\%$ .  
Connections: 1/4" FNPT.  
Seals: Buna-N, Viton, or PTFE<sup>1</sup>.

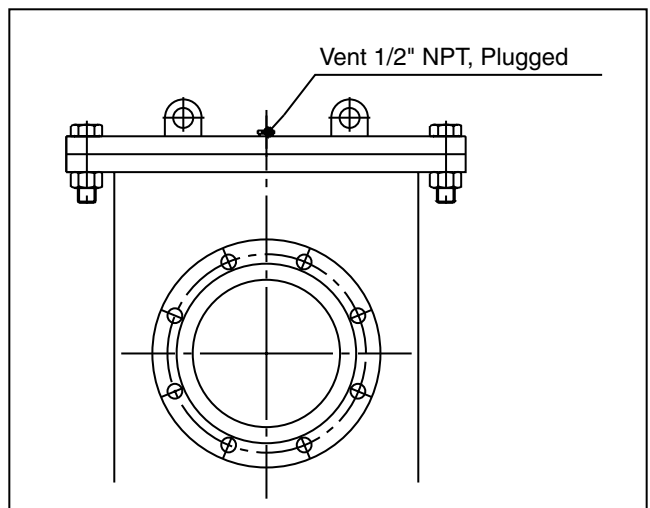


**G1 – Differential Pressure Gauge**

### Closures



**Convexed Blind Flange Closure Models 240-350**

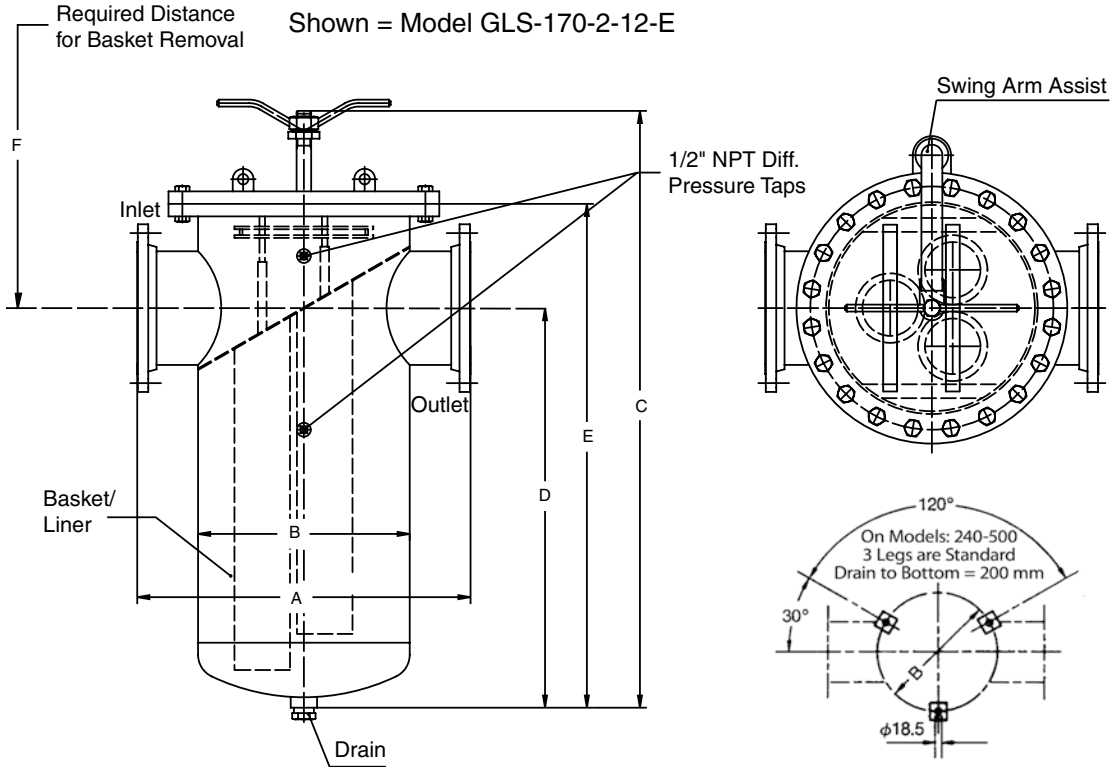


**Flat Plate Blind Flange Closure Models 10-170 with Vent Connection 1/2" NPT Plugged**

<sup>1</sup> Polytetrafluoroethylene (PTFE).

## Dimensions

Millimetres



| Model GLS | A DIN/ASA | B   | C     | D     | E     | F     | Flange Sizes | Basket(s) |           | Drain NPT |
|-----------|-----------|-----|-------|-------|-------|-------|--------------|-----------|-----------|-----------|
|           |           |     |       |       |       |       |              | Quantity  | Length mm |           |
| 10        | 380       | 168 | 600   | 350   | 510   | 460   | 1,5"-2,5"    | 1         | 300       | 1-1/2"    |
| 20        | 450/500   | 219 | 770   | 520   | 680   | 610   | 2"-3"        | 1         | 450       | 1-1/2"    |
| 30        | 560/610   | 273 | 840   | 560   | 750   | 670   | 3"-4"        | 1         | 480       | 1-1/2"    |
| 50        | 650/700   | 356 | 995   | 700   | 900   | 800   | 4"-6"        | 1         | 600       | 1-1/2"    |
| 70        | 770/820   | 457 | 1,200 | 800   | 1,100 | 1,000 | 4"-8"        | 2         | 700       | 2"        |
| 110       | 850/900   | 508 | 1,200 | 800   | 1,100 | 1,000 | 6"-10"       | 3         | 700       | 2"        |
| 170       | 960       | 610 | 1,550 | 1,150 | 1,450 | 1,270 | 6"-12"       | 3         | 970       | 2"        |
| 240       | 1,100     | 660 | 1,960 | 1,150 | 1,500 | 1,320 | 8"-12"       | 5         | 970       | 2"        |
| 350       | 1,300     | 812 | 2,065 | 1,150 | 1,550 | 1,370 | 10"-16"      | 7         | 970       | 2"        |

\*NPT threaded and plugged drains are standard. Piped and flanged drain connections available on request.

### Approximate Net Weight (kg)

| Model | 10 Bar (-1)     | 16 Bar (-2) | 25 Bar (-3) | 40 Bar (-4) |
|-------|-----------------|-------------|-------------|-------------|
| 10    | N/A             | 59          | 66          | 80          |
| 20    | N/A             | 75          | 84          | 98          |
| 30    | N/A             | 100         | 114         | 145         |
| 50    | N/A             | 171         | 200         | 300         |
| 70    | 210             | 228         | 265         | 420         |
| 110   | 295             | 325         | 385         | 590         |
| 170   | 360             | 400         | 500         | 785         |
| 240   | 400             | 480         | 590         | 862         |
| 350   | 556             | 670         | 840         | 1,150       |
| 500   | Consult Factory |             |             |             |

### Conversion Factors (bar/kPa/psi)

1 psi = 6,895 kPa      1 kPa = 0,145 psi  
 1 psi = 0,06895 bar      1 bar = 14,5 psi  
 1 bar = 100 kPa      1 kPa = 0,01 bar



**Editorial Change:** 12/13: Seals - material reference changed to PTFE.

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