

FEATURES

The compact WT15 in-tank filter provides a space saving solution to spin-on filters. Service elements are offered in glass and cellulose media. The bypass valve is integral with the element. An optional weld ring provides an easy solution to insure a positive seal between housing and reservoir. Four standard grades of media are offered down to 5.1μ(c).

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Technical Data:

| | |
|--------------------------|-------------------------------------|
| Maximum Working Pressure | 100 psi (7 bar) |
| Rated Burst Pressure | 250 psi max (17.2 bar) |
| Temperature Range | Operating |
| Buna N | -45°F to + 225°F (-45°C to + 107°C) |
| Viton | -20°F to + 250°F (-29°C to + 121°C) |
| Head and Cover Material | Aluminum |
| Canister Material | Steel |
| Weight | |
| Assembly | 2.35 lbs. (1,1 kg.) |

WT15 20 gpm (76 l/min)

Replacement elements are available in R-Pak[™] and P-Pak[™]

Available with reservoir mounting weld ring

Wide choice of gauges and switches

Easy to service slotted cover



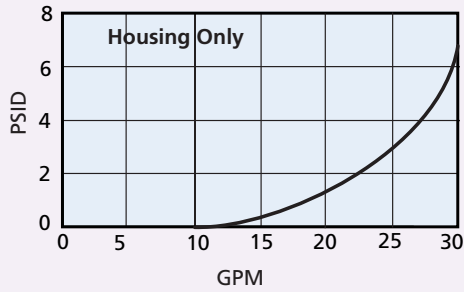
ACCESSORIES

| | |
|------------------|-------------|
| Seal Kit -Buna N | P-233054-01 |
| Seal Kit -Viton | P-233054-03 |
| Weld Ring | P-233637 |

Housing and Filter Element

Flow versus Pressure Drop

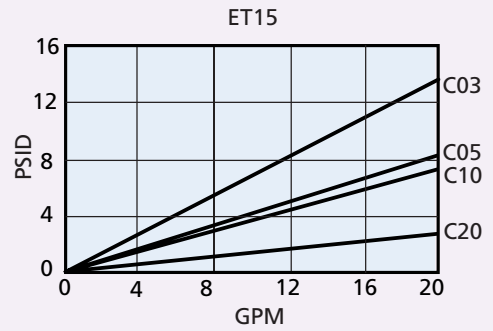
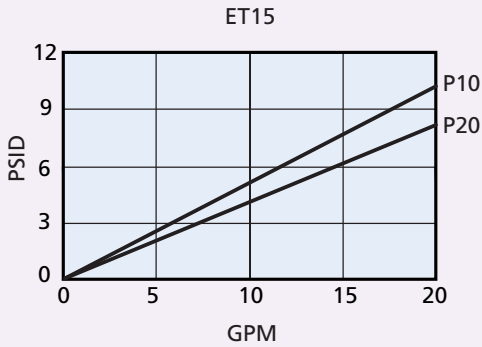
150 SUS (32 cSt.) oil with specific gravity ≤ 0.9



Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$


LOW PRESSURE SPIN-ON FILTERS

MEDIUM PRESSURE SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Filter Assembly | WT15 | 1 | A | 3 | 4 | V | 1 | C | 10 |
| | TABLE 1 | TABLE 2 | TABLE 3 | TABLE 4 | TABLE 5 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 |
| Service Element | ET15 | 1 | V | 1 | C | 10 | | | |
| | TABLE 1 | TABLE 2 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | | | |

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WT15 | Assembly |
| ET15 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|-------------|
| CODE | DESCRIPTION |
| 1 | 150 psid |

Table 3

| Port Size Options | |
|-------------------|--------------------------|
| CODE | PORT SIZE |
| A | 1-1/16" - 12 UN (SAE-12) |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|--|
| CODE | INDICATOR STYLE & SETTING |
| 1 | Gauge ports drilled, tapped and plugged |
| 4 | 0-60 psi pressure gauge* |
| 6 | Pressure switch 18 psi Brad Harrison (5-pin) |
| 8 | Pressure switch 18 psi Hirschmann (4-pin) |

Table 6

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna N |
| V | Viton |

Table 7

| Assembly & Element Length | |
|---------------------------|-----------------|
| CODE (LGTH) | CANISTER LENGTH |
| 1 (8.49") | 5" |

Table 8

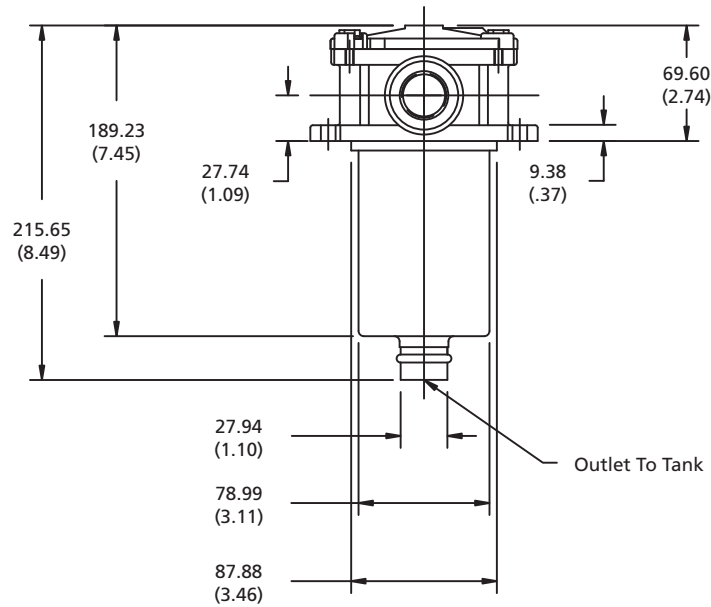
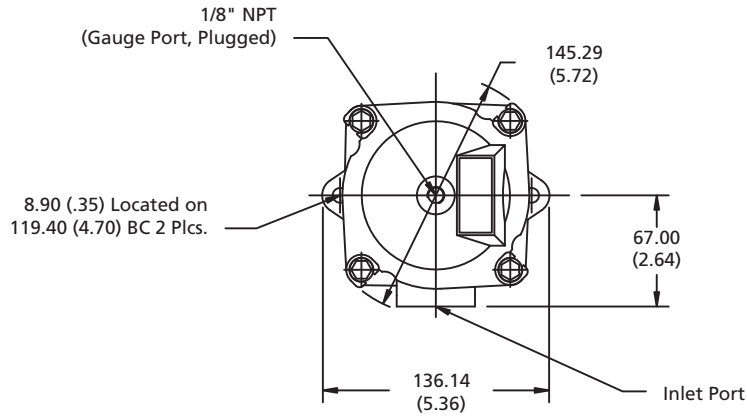
| Element Code | |
|--------------|------------------------|
| CODE | DESCRIPTION |
| C | (Glass) 03, 05, 10, 20 |
| P | (Cellulose) 10, 20 |

Table 9

| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 03 | 16/14/12 or better |
| 05 | 18/16/14 or better |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Dimensions: millimeters/(inches)



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

FEATURES

WL16 in-tank meets the HF4 automotive standard. The E4051 service elements interchange with Schroeder K series and Zinga RE-409 series. An optional weld ring provides an easy solution to insure a positive seal between housing and reservoir. The quick disconnect cover facilitates for easy and efficient element change-outs. An optional secondary inlet port offers the use of a second return line. These units can be top or side reservoir mounted. Use the optional anti-backflow valve when installing this filter assembly to side of reservoir. Five standard grades of media are offered down to 4.0µ(c). Z-Pac™ stainless steel media is also available.

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Options and configurations formerly offered in our WL15 Series have now been integrated into our WL16 Series as indicated on the following pages (Code length 3 and 9 with optional extension tube).

Technical Data:

| | |
|--------------------------|-------------------------------------|
| Maximum Working Pressure | 200 psi (14 bar) |
| Rated Burst Pressure | 300 psi max (21 bar) |
| Temperature Range | Operating |
| Buna N | -45°F to + 225°F (-45°C to + 107°C) |
| Viton | -20°F to + 250°F (-29°C to + 121°C) |
| Head and Cover Material | Aluminum |
| Canister Material | Steel |
| Weight | |
| Assembly length 3 | 5.25 lbs. (2,3 kg.) |
| Assembly length 6 | 16 lbs. (7,3 kg.) |
| Assembly length 7 | 23 lbs. (10 kg.) |
| Assembly length 9 | 6.25 lbs. (2,8 kg.) |

WL16 150 gpm (568 l/min)

Conforms to HF4 automotive specifications

Available with reservoir mounting weld ring

Replacement elements are available in C-Pak™, E-Pak™, W-Pak™, and Z-Pak™

Dual pressure gauge ports

Optional second inlet port

Optional check valve

Easy to service slotted cover



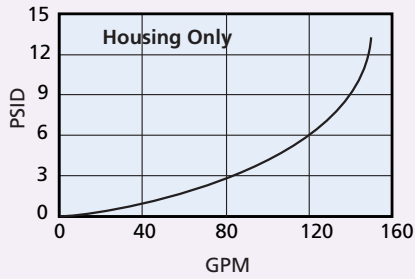
ACCESSORIES

| | |
|--------------------------------------|-------------|
| Seal Kit - Buna N | P-233055-01 |
| Seal Kit - E.P.R. | P-233055-02 |
| Seal Kit - Viton | P-232964-03 |
| Outlet Check Valve | P-137457 |
| Outlet Diffusor | P-239290 |
| Core tube assembly-Code length 3 & 9 | PW451R3BN |
| Core tube assembly-Code length 6 | PW451R6BN |
| Core tube assembly-Code length 7 | PW451R7BN |

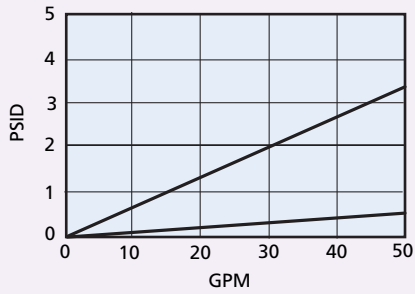
Housing and Filter Element

Flow versus Pressure Drop

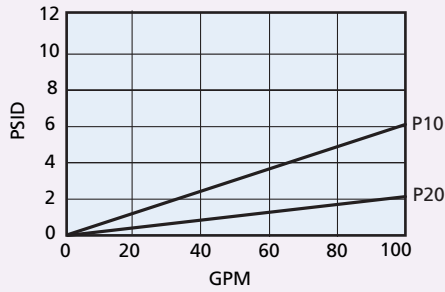
150 SUS (32 cSt.) oil with specific gravity ≤ 0.9



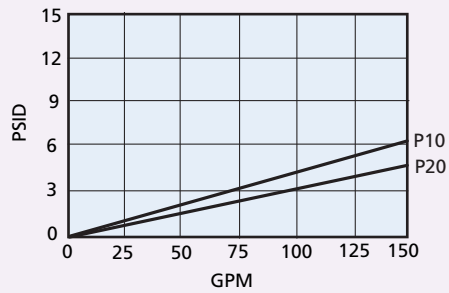
E405 - 9"



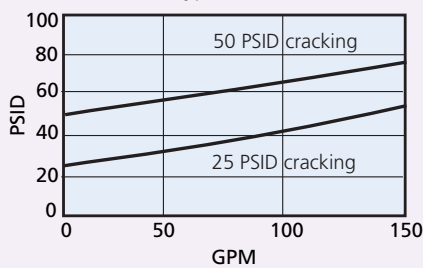
E405 - 18"



E405 - 27"



Bypass Valve



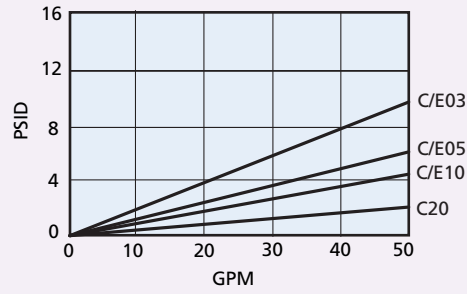
Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

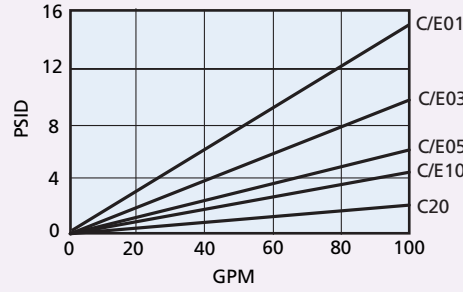
$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$

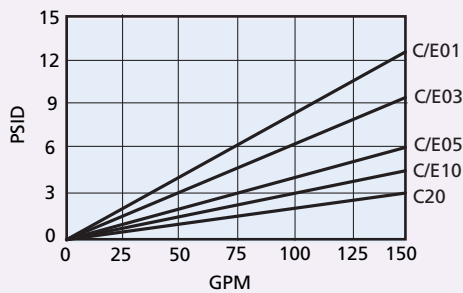
E405 - 9"



E405 - 18"



E405 - 27"



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | | |
|-----------------|---------|---------|---------|---------|---------|----------|---------|---------|---------|----------|
| Filter Assembly | WL16 | 1 | D | 4 | 2 | 6 | N | B | C | 10 |
| | TABLE 1 | TABLE 2 | TABLE 3 | TABLE 4 | TABLE 5 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | TABLE 10 |
| Service Element | E405 | 1 | B | 6 | C | 10 | | | | |
| | TABLE 1 | TABLE 2 | TABLE 8 | TABLE 6 | TABLE 9 | TABLE 10 | | | | |

Order model code WL161E346NBC10 for same day shipment.

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WL16 | Assembly |
| E405 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|-------------|
| CODE | DESCRIPTION |
| 1 | 150 psid |

Table 3

| Port Size Options | |
|-------------------|-------------------------------------|
| CODE | PORT SIZE |
| D | 1-7/8" - 12 UN (SAE-24) |
| E | 1-1/2" SAE 4 Bolt Flange Code 61 |
| U | 1-1/2" NPT |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |
| 4 | 50 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|---|
| CODE | INDICATOR STYLE & SETTING |
| 1 | No indicator |
| 2 | 0-200 psi pressure gauge** |
| 3 | 0-60 psi pressure gauge** |
| 4 | 0-60 psi pressure gauge* |
| 6 | Pressure switch 18 psi Brad Harrison (5-pin) |
| 7 | Pressure switch 35 psi Brad Harrison (5-pin) |
| 8 | Pressure switch 18 psi Hirschmann (4-pin) |
| 9 | Pressure switch 35 psi Hirschmann (4-pin) |

*Bypass setting option code 3 only
**Bypass setting option code 4 only

Table 6

| Assembly & Element Length | |
|---------------------------|----------------|
| CODE (LGTH) | ELEMENT LENGTH |
| 3 (12.76") | 9" |
| 6 (16.94") | 18" |
| 7 (26.31") | 27" |
| 9 (24.88")* | 9" |

*With 12" extension tube.

Note: Code length 6, 7 & 9 may be stacked using connector part # P-227567-01 and code length 3 elements

Table 7

| Secondary Port Options | |
|------------------------|-------------------------------------|
| CODE | PORT SIZE |
| T | 1-7/8" - 12 UN (SAE-24) |
| Z | 1-1/2" SAE 4 Bolt Flange Code 61 |
| N | None |
| V | 1-1/2" NPT |

Table 8

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna N |
| E | E.P.R. |
| V | Viton |

Table 9

| Element Code | |
|--------------|--------------------------------|
| CODE | DESCRIPTION |
| C | (Glass) 01, 03, 05, 10, 20 |
| E | (Coreless) 01, 03, 05, 10 |
| P | (Cellulose) 10, 20 |
| W | (Water removal) 10 |
| Z | (Stainless Steel)* 60, 25, 260 |

*Only available in code 3 element length. Elements may be stacked for 18" and 27" assemblies.

Table 10

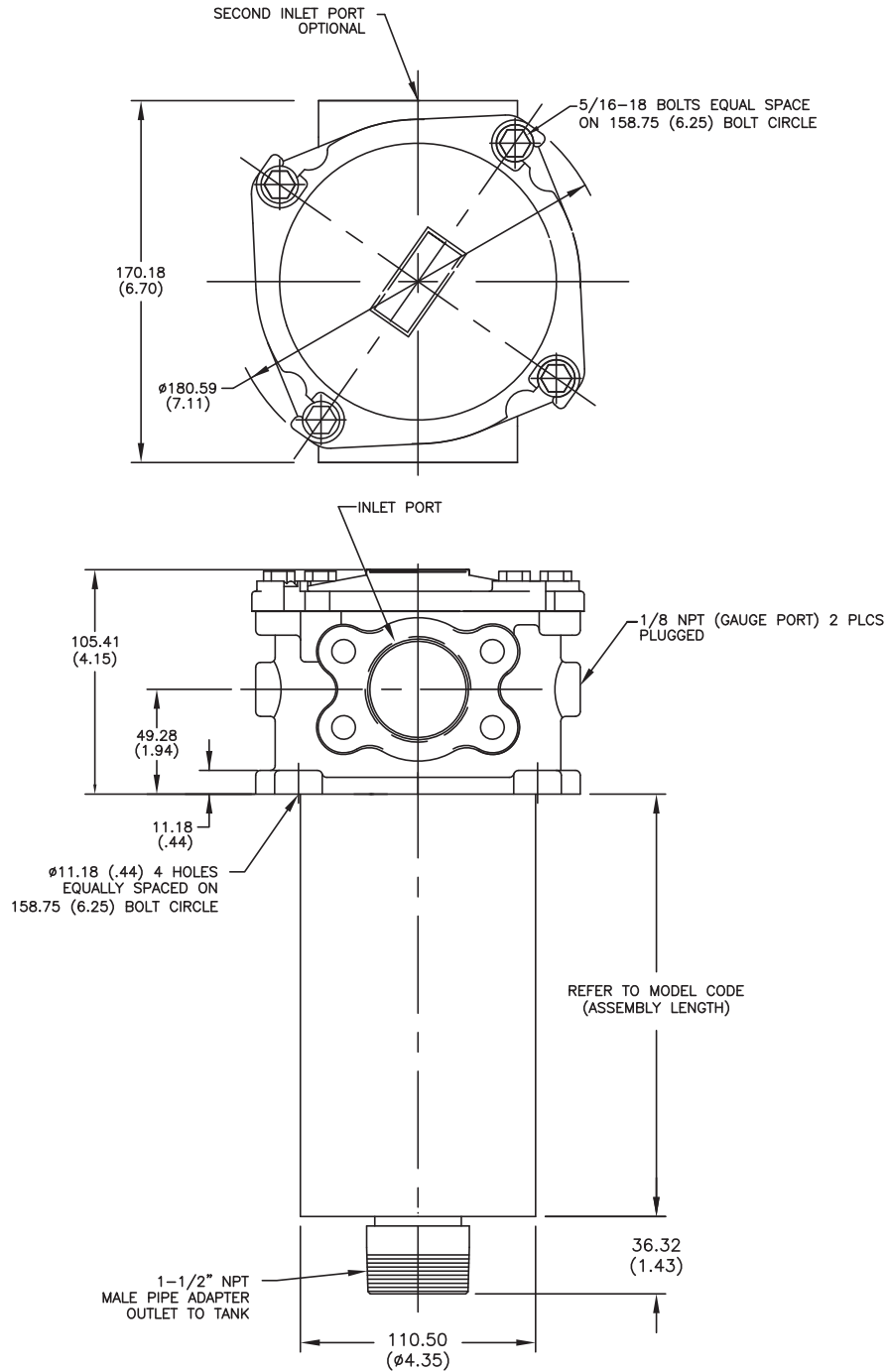
| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 01 | Flushing only |
| 03 | 16/14/12 or better |
| 05 | 18/16/14 or better |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Metric Porting Available

Change WL16 to GL16
Porting code D becomes 1-1/2" ISO 223 BSPP
Porting code E becomes 1-1/2" SAE 4 bolt flange with M12 threads

Dimensions: millimeters/(inches)



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

FEATURES

The WL18 in-tank filter unit is an ideal choice for flows up to 200 gpm. The E018 service elements are interchangeable with Schroeder's 18L series elements. An optional weld ring provides an easy solution to insure a positive seal between housing and reservoir. The slotted cover makes for easy and efficient element change-outs. An optional secondary inlet port offers the use of a second return line or placement of a quick disconnect to add pre-filtered initial fill or make-up oil. These units can be top or side reservoir mounted. Use the optional anti-backflow valve when installing this filter assembly to side of reservoir. Five standard grades of media are offered down to 4.0µ(c).

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Our WL18 Series is interchangeable with similar competitive units but is capable of higher flow rates by utilizing Western Filter's new high-flow bypass valve.

Technical Data:

| | |
|--------------------------|--|
| Maximum Working Pressure | 200 psi (14 bar) |
| Rated Burst Pressure | 300 psi max (21 bar) |
| Temperature Range | Operating |
| Buna N | -45°F to + 225°F (-45°C to + 107°C) |
| Viton | -20°F to + 250°F (-29°C to + 121°C) |
| Head and Cover Material | Aluminum |
| Canister Material | Steel |
| Weight | |
| Assembly length | 6 16 lbs. (7,3 kg.) |

WL18

200 gpm (568 l/min)

Available with reservoir
mounting weld ring

Replacement elements
available in C-Pak™

Dual pressure gauge ports

Optional second inlet port

Wide choice of gauges
and switches

Optional check valve

Easy to service
slotted cover



ACCESSORIES

| | |
|-------------------|-------------|
| Seal Kit - Buna N | P-233055-01 |
| Seal Kit - E.P.R. | P-233055-02 |
| Seal Kit - Viton | P-233055-03 |
| Weld Ring | P-232964-01 |
| Check Valve | P-138761 |
| Diffusor | P-239291 |

Housing and Filter Element

Flow versus Pressure Drop

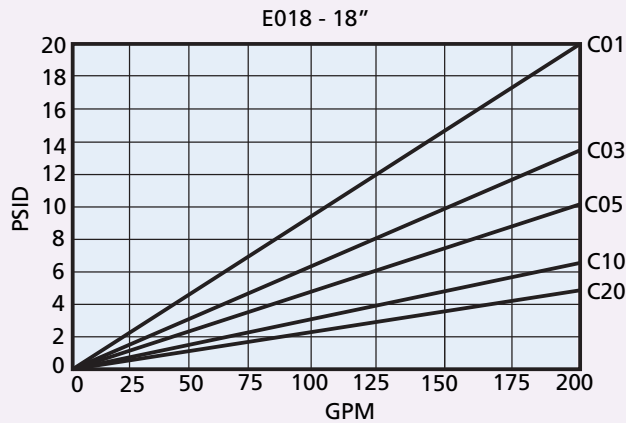
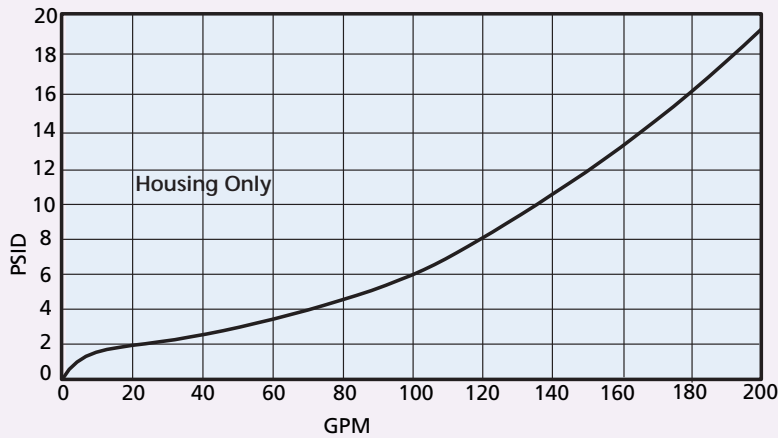
150 SUS (32 cSt.) oil with specific gravity ≤ 0.9

Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$



LOW PRESSURE SPIN-ON FILTERS

MEDIUM PRESSURE SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | | |
|-----------------|---------|---------|---------|---------|---------|----------|---------|---------|---------|----------|
| Filter Assembly | WL18 | 1 | D | 4 | 3 | 6 | N | B | C | 10 |
| | TABLE 1 | TABLE 2 | TABLE 3 | TABLE 4 | TABLE 5 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | TABLE 10 |
| Service Element | E018 | 1 | B | 6 | C | 10 | | | | |
| | TABLE 1 | TABLE 2 | TABLE 8 | TABLE 6 | TABLE 9 | TABLE 10 | | | | |

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WL18 | Assembly |
| E018 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|-------------|
| CODE | DESCRIPTION |
| 1 | 150 psid |

Table 3

| Port Size Options | |
|-------------------|---------------------------------|
| CODE | PORT SIZE |
| J | 2" SAE 4 Bolt Flange Code 61 |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |
| 4 | 50 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|---|
| CODE | INDICATOR STYLE & SETTING |
| 1 | No indicator |
| 2 | 0-200 psi pressure gauge |
| 3 | 0-60 psi pressure gauge** |
| 4 | 0-60 psi pressure gauge* |
| 6 | Pressure switch 18 psi Brad Harrison (5-pin) |
| 7 | Pressure switch 35 psi Brad Harrison (5-pin) |
| 8 | Pressure switch 18 psi Hirschmann (4-pin) |
| 9 | Pressure switch 35 psi Hirschmann (4-pin) |

*Bypass setting option code 3 only
**Bypass setting option code 4 only

Table 6

| Assembly & Element Length | |
|---------------------------|----------------|
| CODE (LGTH) | ELEMENT LENGTH |
| 6 (16.7") | 18" |

Table 7

| Secondary Port Options | |
|------------------------|---------------------------------|
| CODE | PORT SIZE |
| N | None |
| J | 2" SAE 4 Bolt Flange Code 61 |

Table 8

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna N |
| E | E.P.R. |
| V | Viton |

Table 9

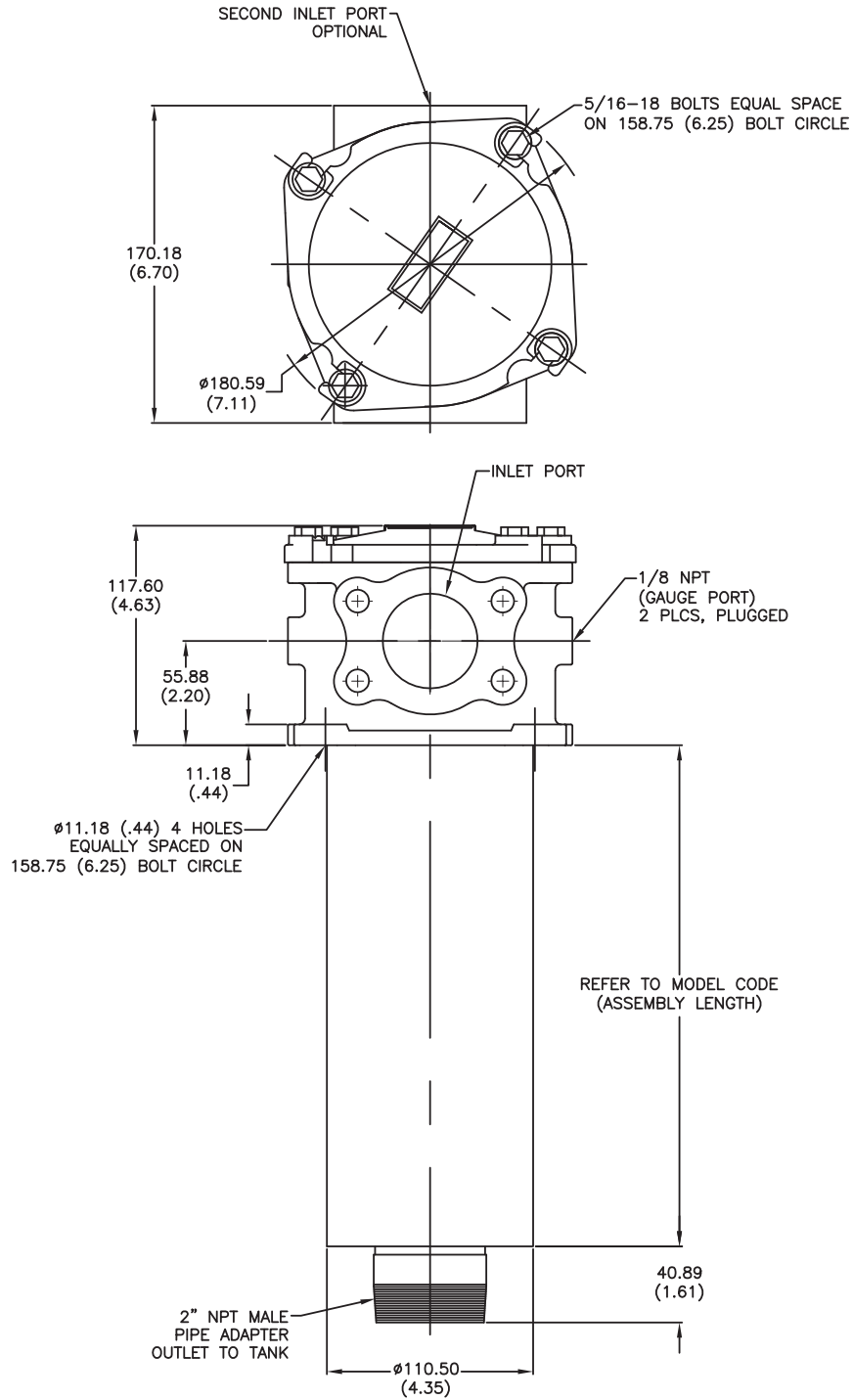
| Element Code | |
|--------------|----------------------------|
| CODE | DESCRIPTION |
| C | (Glass) 01, 03, 05, 10, 20 |

Table 10

| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 01 | Flushing only |
| 03 | 16/14/12 or better |
| 05 | 18/16/14 or better |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Dimensions: millimeters/(inches)



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

FEATURES

WR10 in-tank filters offer a space saving feature of combining a filter and breather. A compact and economical design made of aluminum head and glass filled plastic screw-on cover allows flows up to 40 GPM. Several port options are available. Two standard grades of media are offered, 10µ(c) and 20µ(c).

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Technical Data:

| | |
|--------------------------|--|
| Maximum Working Pressure | 100 psi (6.9 bar) |
| Rated Burst Pressure | 300 psi max (20.7 bar) |
| Temperature Range | Operating |
| Buna N | -15°F to + 230°F (-26°C to + 110°C) |
| Viton | -15°F to + 230°F (-26°C to + 110°C) |
| Head Material | Aluminum |
| Bowl and Cover | Glass filled plastic |
| Weight | |
| Assembly length 2 | 0.85 lbs. (0,84 kg.) |

WR10

20 GPM (75.7 l/min)

Both electrical pressure switch and gauge available

Available with reservoir mounted weld ring

Built in air breather

Replacement elements available in C-Pak™ and P-Pak™

Easy to service threaded cover



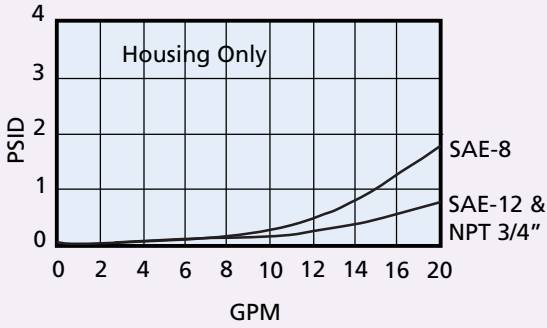
ACCESSORIES

| | |
|-------------------|-------------|
| Seal Kit - Buna N | P-236854-01 |
| Seal Kit - E.P.R. | P-236854-02 |
| Seal Kit - Viton | P-236854-03 |
| Weld Ring | P-236926 |

Housing and Filter Element

Flow versus Pressure Drop

150 SUS (32 cSt.) oil with specific gravity ≤ 0.9

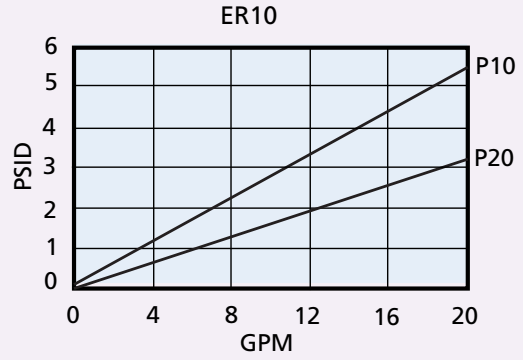
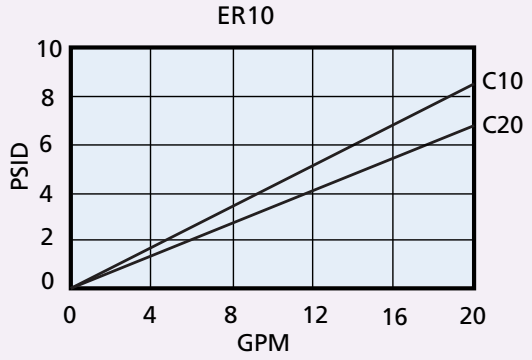


Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$



LOW PRESSURE SPIN-ON FILTERS

MEDIUM PRESSURE SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | | |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Filter Assembly | WR10 | 1 | A | 3 | 4 | B | 2 | C | 10 | C |
| | TABLE 1 | TABLE 2 | TABLE 3 | TABLE 4 | TABLE 5 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | TABLE 10 |
| Service Element | ER10 | 1 | B | 2 | C | 10 | | | | |
| | TABLE 1 | TABLE 2 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | | | | |

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WR10 | Assembly |
| ER10 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|-------------|
| CODE | DESCRIPTION |
| 1 | 45 psid |

Table 3

| Port Size Options | |
|-------------------|--------------------------|
| CODE | PORT SIZE |
| O | 3/4" - 16 UNF (SAE-8) |
| A | 1-1/16" - 12 UN (SAE-12) |
| I | 3/4" NPT |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|--|
| CODE | UPSTREAM PRESSURE GAUGE AND SWITCH OPTIONS |
| 1 | No indicator |
| 4 | 0-60 psi pressure gauge |
| 6 | Electrical switch 18 psi Brad Harrison (5-pin) |
| 8 | Electrical switch 18 psi Hirschmann (4-pin) |

Table 6

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna |
| E | E.P.R. |
| V | Viton A |

Table 7

| Assembly & Element Length | |
|---------------------------|----------------|
| CODE (LGTH) | ELEMENT LENGTH |
| 2 (9.57") | 8" |

Table 8

| Element Code | |
|--------------|----------------------|
| CODE | MEDIA TYPE |
| C | (Glass media) 10, 20 |
| P | (Cellulose) 10, 20 |

Table 9

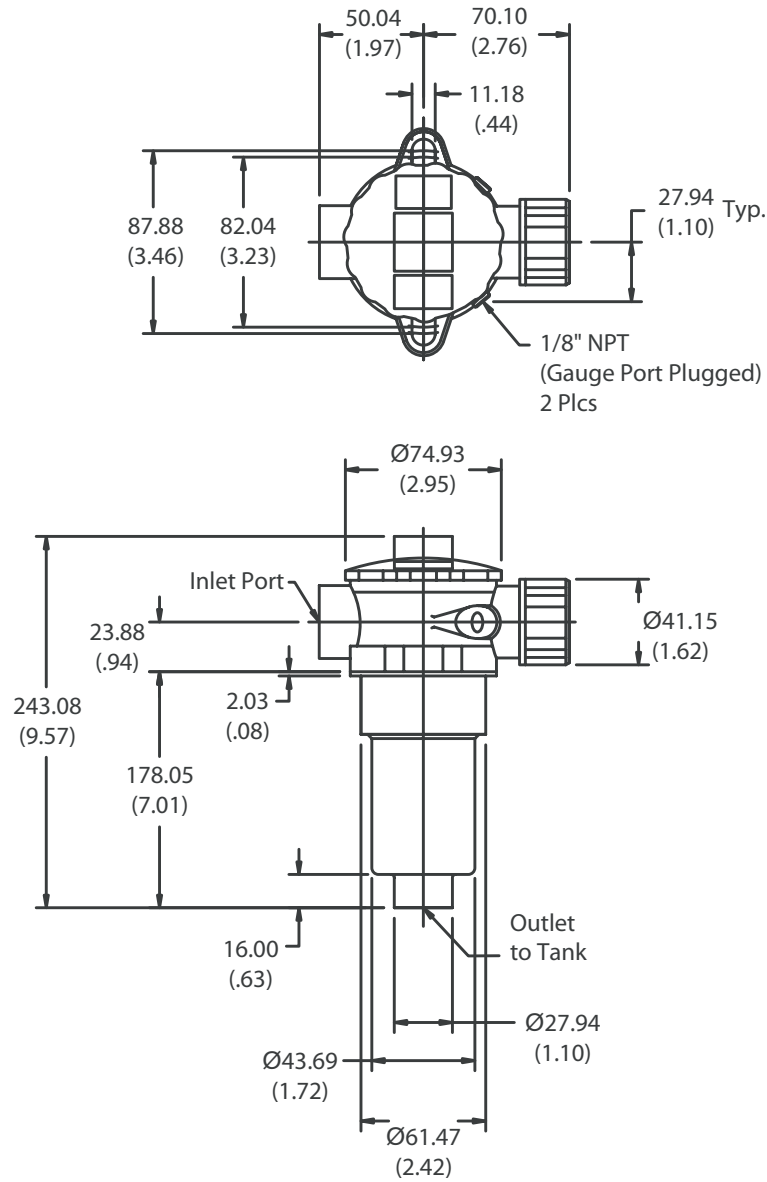
| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Table 10

| Accessories | |
|-------------|------------------------|
| CODE | DESCRIPTION |
| OMIT | No accessories |
| C | 7 micron air breather |
| D | 40 micron air breather |

Dimensions: millimeters/(inches)



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

FEATURES

WR11 in-tank filters offer a space saving feature of combining a filter and breather. A compact and economical design made of aluminum head and glass filled plastic screw-on cover allows flows up to 40 GPM. Several port options and three bowl lengths are available. Two standard grades of media are offered.

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Technical Data:

| | |
|--------------------------|-------------------------------------|
| Maximum Working Pressure | 100 psi (6.9 bar) |
| Rated Burst Pressure | 300 psi max (20.7 bar) |
| Temperature Range | Operating |
| Buna N | -15°F to + 230°F (-26°C to + 110°C) |
| Viton | -15°F to + 230°F (-26°C to + 110°C) |
| Head Material | Aluminum |
| Bowl and Cover | Glass filled plastic |
| Weight | |
| Assembly length 1 | 1.78 lbs. (0,81 kg.) |
| Assembly length 2 | 1.84 lbs. (0,84 kg.) |
| Assembly length 3 | 1.94 lbs. (0,88 kg.) |

WR11

40 gpm (151 l/min)

Reservoir can be filled through the filter

Replacement elements available in C-Pak™ and P-Pak™

Both electrical pressure switch and gauge available

Available with reservoir mounted weld ring

Built in air breather

Easy to service quick disconnect cover without tooling



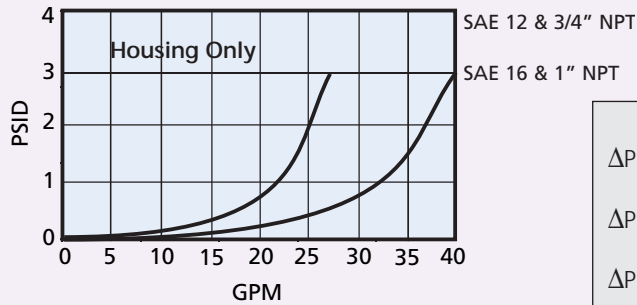
ACCESSORIES

| | |
|-------------------|-------------|
| Seal Kit - Buna N | P-236855-01 |
| Seal Kit - E.P.R. | P-236855-02 |
| Seal Kit - Viton | P-236855-03 |
| Weld Ring | P-236927 |

Housing and Filter Element

Flow versus Pressure Drop

150 SUS (32 cSt.) oil with specific gravity ≤ 0.9

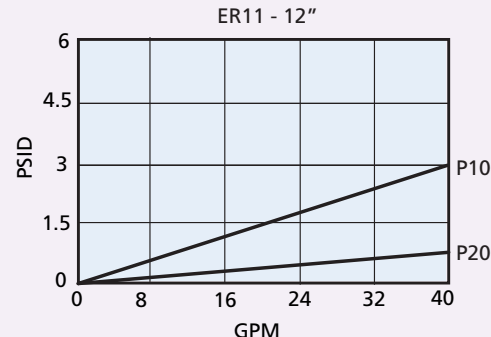
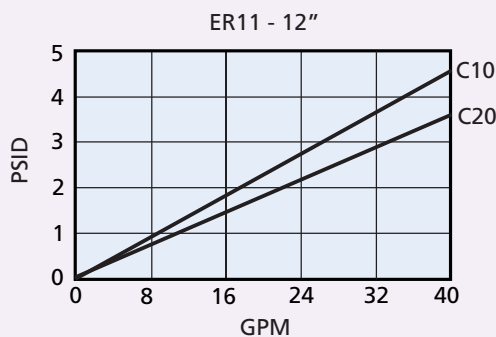
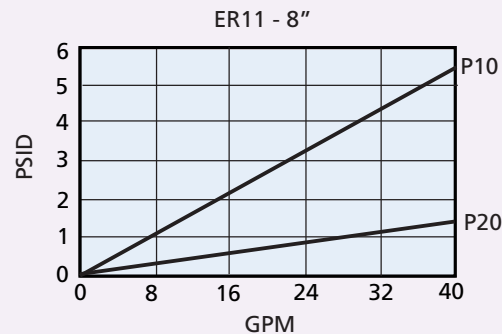
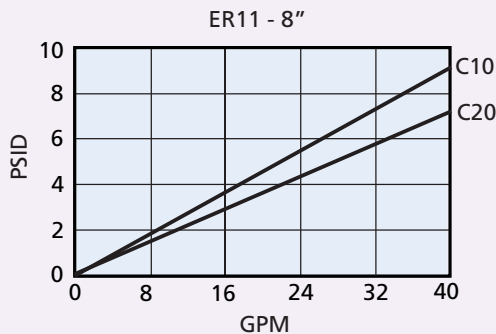
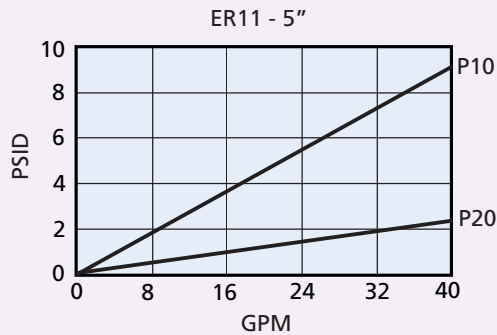
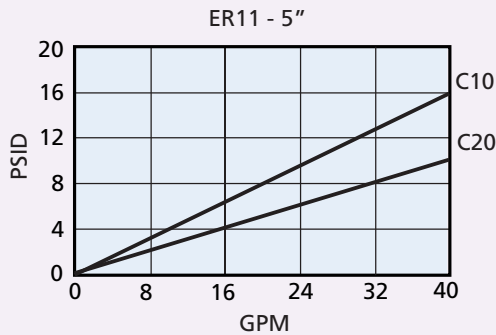


Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | | |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Filter Assembly | WR11 | 1 | A | 3 | 4 | 6 | 2 | C | 10 | C |
| | TABLE 1 | TABLE 2 | TABLE 3 | TABLE 4 | TABLE 5 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | TABLE 10 |
| Service Element | ER11 | 1 | B | 2 | C | 10 | | | | |
| | TABLE 1 | TABLE 2 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | | | | |

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WR11 | Assembly |
| ER11 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|-------------|
| CODE | DESCRIPTION |
| 1 | 45 psid |

Table 3

| Port Size Options | |
|-------------------|--------------------------|
| CODE | PORT SIZE |
| A | 1-1/16" - 12 UN (SAE-12) |
| B | 1-5/16" - 12 UN (SAE-16) |
| I | 3/4" NPT |
| Y | 1" NPT |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|--|
| CODE | UPSTREAM PRESSURE GAUGE AND SWITCH OPTIONS |
| 1 | No indicator |
| 4 | 0-60 psi pressure gauge |
| 6 | Electrical switch 18 psi Brad Harrison (5-pin) |
| 8 | Electrical switch 18 psi Hirschmann (4-pin) |

Table 6

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna N |
| E | E.P.R. |
| V | Viton |

Table 7

| Assembly & Element Length | |
|---------------------------|----------------|
| CODE (LGTH) | ELEMENT LENGTH |
| 1 (4.33") | 5" |
| 2 (6.89") | 8" |
| 3 (10.83") | 12" |

Table 8

| Element Code | |
|--------------|----------------|
| CODE | DESCRIPTION |
| C | (Glass) 10, 20 |
| P | (Cellulose) 10 |

Table 9

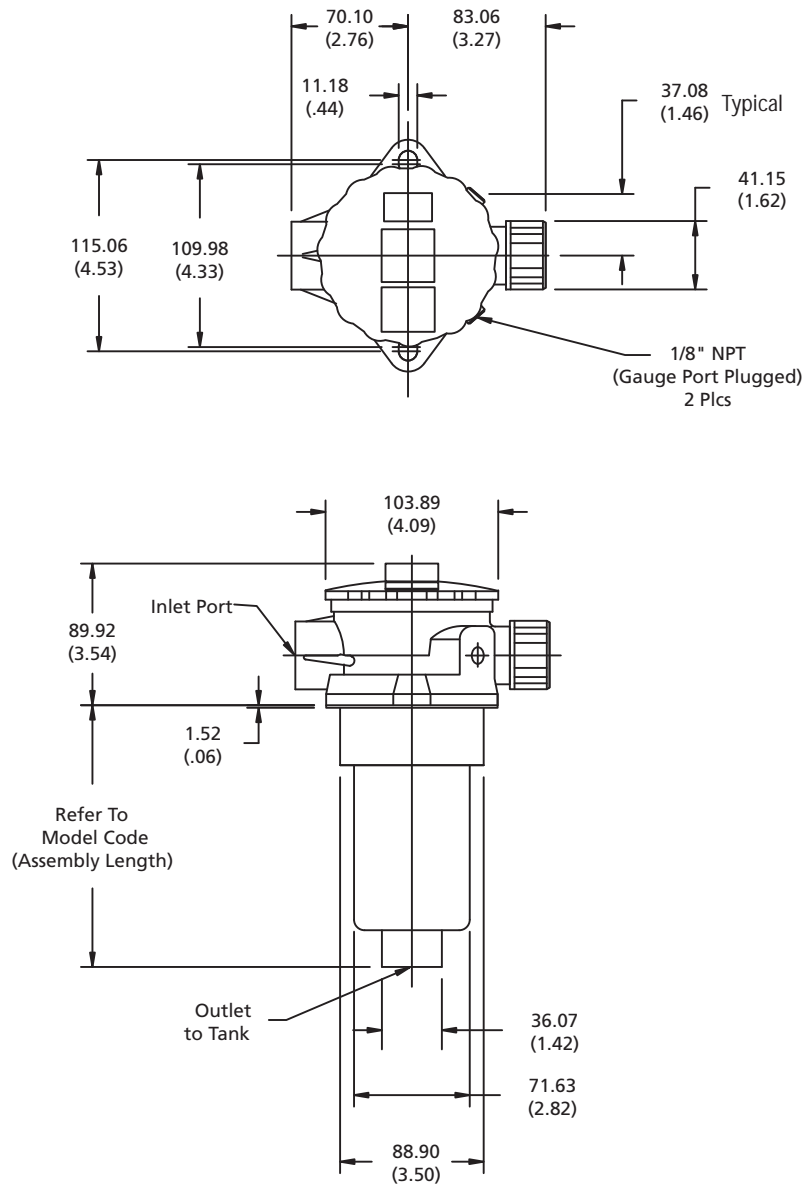
| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Table 10

| Accessories | |
|-------------|------------------------|
| CODE | BREATHER |
| OMIT | No breather |
| C | 7 micron air breather |
| D | 40 micron air breather |

Dimensions: millimeters/(inches)



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

FEATURES

The WR series of in-tanks feature inside-to-out flow through the element, which means that dirt is collected inside the filter cartridge. This ensures that contamination is retained inside the cartridge when the element is serviced. A heavy duty magnetic core is attached to the element retention rod ensuring pre-filtration of ferrous particles entering the reservoir. An optional weld ring provides an easy solution to insure a positive seal between housing and reservoir. The slotted cover makes for easy and efficient element change-outs. Fluid aeration in large flow applications can be minimized by the use of our optional diffuser. Three standard grades of media are offered down to 6.4µ(c).

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Technical Data:

| | |
|---------------------------|--|
| Maximum Working Pressure | 150 psi (10.3 bar) |
| Rated Burst Pressure | 420 psi max (28.9 bar) |
| Temperature Range | Operating |
| Buna N | -15°F to + 230°F (-26 C to + 110°C) |
| Viton | -15°F to + 230 F (-26°C to + 110°C) |
| Head and Cover Material | Aluminum |
| Diffusor Material | Steel |
| Weight (without elements) | |
| Assembly length 1 | 2.6 lbs. (1,18 kg.) |
| Assembly length 2 | 3.1 lbs. (1,41 kg.) |
| Assembly length 3 | 3.3 lbs. (1,50 kg.) |
| Assembly length 4 | 3.7 lbs. (1,68 kg.) |

WR14

160 gpm (606 l/min)

Diffusor helps prevent aeration of the fluid and may also eliminate reservoir baffle plate

Replacement elements available in C-Pak™ and P-Pak™

Wide choice of service gauges and switches

Four element lengths available

Return line application inside out flow

Magnetic "pre-filtration" of ferrous particles

Reservoir can be filled through the filter

Optional weld ring

Simplified bypass design prevents flushing previously collected contaminants back into the system



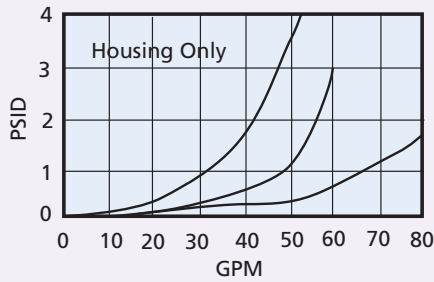
ACCESSORIES

| | |
|-------------------|-------------|
| Seal Kit - Buna N | P-236856-01 |
| Seal Kit - E.P.R. | P-236856-02 |
| Seal Kit - Viton | P-236856-03 |
| Weld Ring | P-236928 |

Housing and Filter Element

Flow versus Pressure Drop

150 SUS (32 cSt.) oil with specific gravity ≤ 0.9

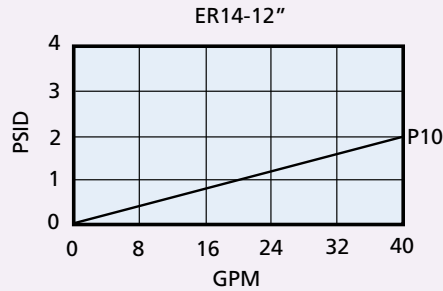
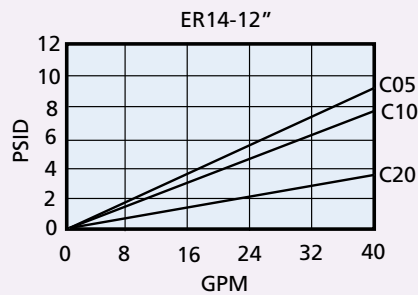
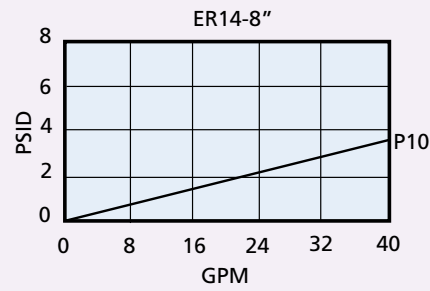
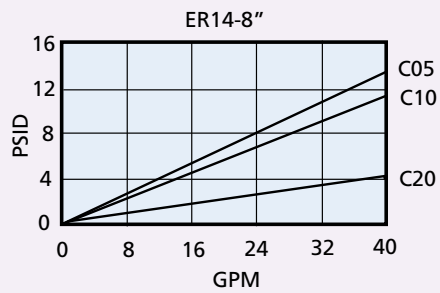
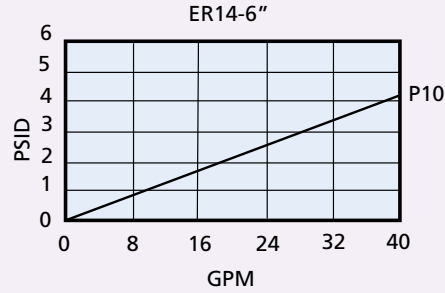
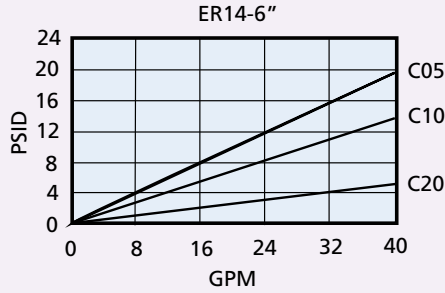
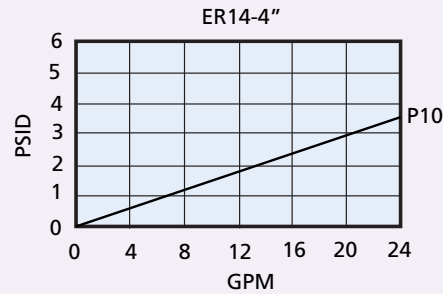
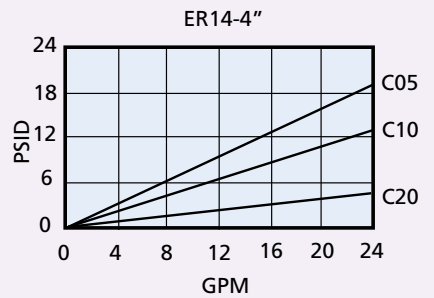


SAE-12/
3/4" NPT
SAE-16/
1" NPT
SAE-20/
1-1/4" NPT

Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$


LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | | |
|-----------------|-----------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|---------------|---------------|
| Filter Assembly | WR14 TABLE 1 | 1 TABLE 2 | A TABLE 3 | 3 TABLE 4 | 4 TABLE 5 | B TABLE 6 | 1 TABLE 7 | C TABLE 8 | 10 TABLE 9 | F TABLE 10 |
| Service Element | ER14 TABLE 1 | 1 TABLE 2 | B TABLE 6 | 2 TABLE 7 | C TABLE 8 | 10 TABLE 9 | | | | |

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WR14 | Assembly |
| ER14 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|---------------------|
| CODE | DESCRIPTION |
| 1 | 150 psid (10.3 BAR) |

Table 3

| Port Size Options | |
|-------------------|--------------------------|
| CODE | PORT SIZE |
| A | 1-1/16" - 12 UN (SAE-12) |
| B | 1-5/16" - 12 UN (SAE-16) |
| C | 1-5/8" - 12 UN (SAE-20) |
| I | 3/4" NPT |
| P | 1-1/4" NPT |
| Y | 1" NPT |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|--|
| CODE | UPSTREAM PRESSURE GAUGE AND SWITCH OPTIONS |
| 1 | No indicator |
| 2 | 0-200 psi pressure gauge |
| 4 | 0-60 psi pressure gauge |
| 6 | Electrical switch 18 psi Brad Harrison (5-pin) |
| 8 | Electrical switch 18 psi Hirschmann (4-pin) |

Table 6

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna |
| E | E.P.R. |
| V | Viton A |

Table 7

| Assembly & Element Length | |
|---------------------------|----------------|
| CODE (LGTH) | ELEMENT LENGTH |
| 1 (7.8") | 4.0" |
| 2 (7.8") | 6.0" |
| 3 (9.8") | 8.0" |
| 4 (13.8") | 12.0" |

Table 8

| Element Code | |
|--------------|--------------------|
| CODE | DESCRIPTION |
| C | (Glass) 05, 10, 20 |
| P | (Cellulose) 10 |

Table 9

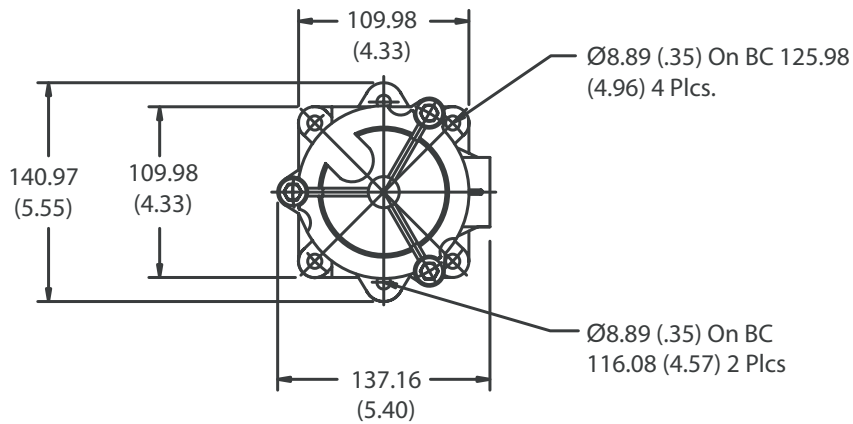
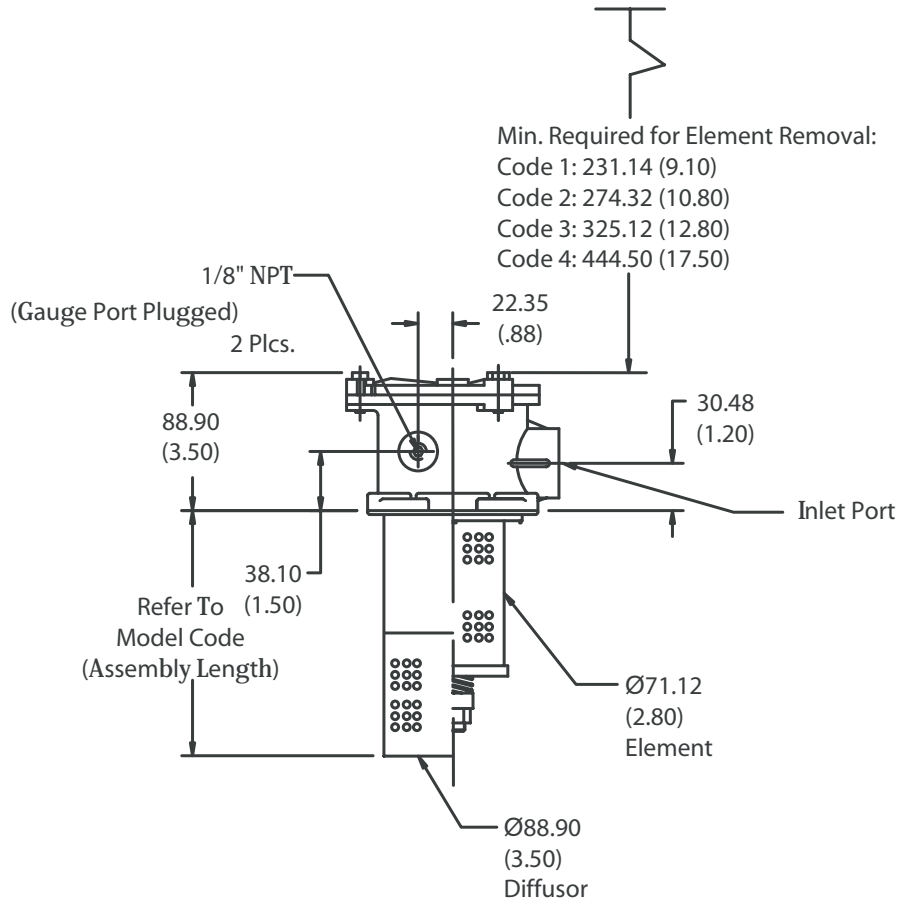
| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 05 | 18/16/14 or better |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Table 10

| Accessories | |
|-------------|---------------|
| CODE | DIFFUSOR |
| Omit | No diffusor |
| F | With diffusor |

Dimensions: millimeters/(inches)



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

FEATURES

The WR series of in-tanks feature inside-to-out flow through the element, which means that dirt is collected inside the filter cartridge. This ensures that contamination is retained inside the cartridge when the element is serviced. A heavy duty magnetic core is attached to the element retention rod ensuring pre-filtration of ferrous particles entering the reservoir. An optional weld ring provides an easy solution to insure a positive seal between housing and reservoir. The slotted cover makes for easy and efficient element change-outs. Fluid aeration in large flow applications can be minimized by the use of our optional diffuser. Three standard grades of media are offered down to 6.4µ(c).

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Technical Data:

| | |
|---------------------------|--|
| Maximum Working Pressure | 150 psi (10.3 bar) |
| Rated Burst Pressure | 420 psi max (28.9 bar) |
| Temperature Range | Operating |
| Buna N | -15°F to + 230°F (-26 C to + 110°C) |
| Viton | -15°F to + 230 F (-26°C to + 110°C) |
| Head and Cover Material | Aluminum |
| Diffusor Material | Steel |
| Weight (without elements) | |
| Assembly length 2 | 9.2 lbs. (4,18 kg.) |
| Assembly length 3 | 10.3 lbs. (4,68 kg.) |
| Assembly length 4 | 11.0 lbs. (5,00 kg.) |

WR15

160 gpm (606 l/min)

Diffusor helps prevent aeration of the fluid and may also eliminate reservoir baffle plate

Replacement elements available in C-Pak™ and P-Pak™

Wide choice of service gauges and switches

Three element lengths available

Return line application inside out flow

Magnetic "pre-filtration" of ferrous particles

Reservoir can be filled through the filter

Optional weld ring



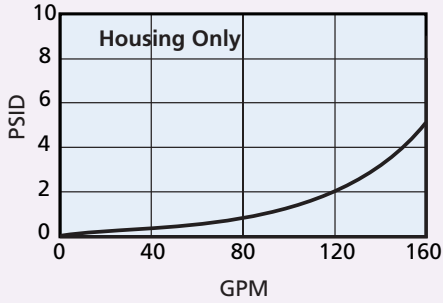
ACCESSORIES

| | |
|-------------------|-------------|
| Seal Kit - Buna N | P-236857-01 |
| Seal Kit - E.P.R. | P-236857-02 |
| Seal Kit - Viton | P-236857-03 |
| Weld Ring | P-236929 |

Housing and Filter Element

Flow versus Pressure Drop

150 SUS (32 cSt.) oil with specific gravity ≤ 0.9

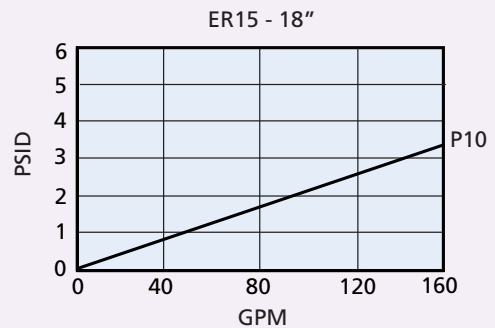
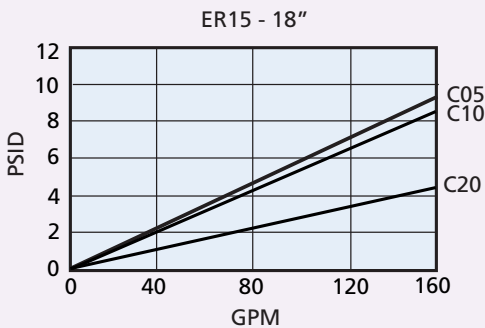
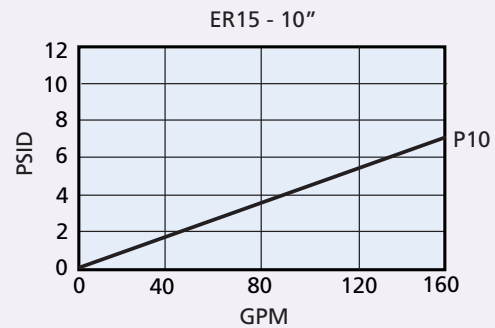
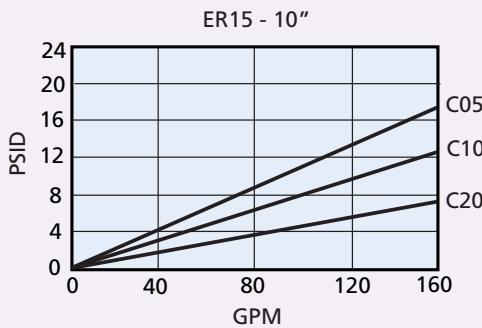
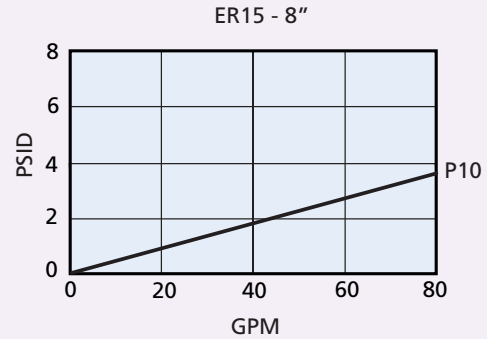
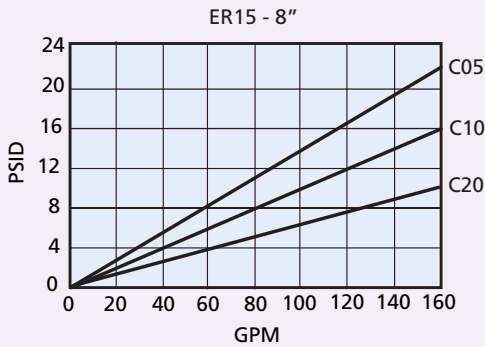


Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | | |
|-----------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
| Filter Assembly | WR15 TABLE 1 | 1 TABLE 2 | D TABLE 3 | 3 TABLE 4 | 4 TABLE 5 | B TABLE 6 | 2 TABLE 7 | C TABLE 8 | 10 TABLE 9 | F TABLE 10 |
|-----------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|

| | | | | | | |
|-----------------|-----------------|--------------|--------------|--------------|--------------|---------------|
| Service Element | ER15 TABLE 1 | 1 TABLE 2 | B TABLE 6 | 2 TABLE 7 | C TABLE 8 | 10 TABLE 9 |
|-----------------|-----------------|--------------|--------------|--------------|--------------|---------------|

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WR15 | Assembly |
| ER15 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|-------------|
| CODE | DESCRIPTION |
| 1 | 150 psid |

Table 3

| Port Size Options | |
|-------------------|-------------------------------------|
| CODE | PORT SIZE |
| D | 1-7/8" - 12 UN (SAE-24) |
| U | 1-1/2" NPT |
| E | 1-1/2" SAE 4 Bolt Flange Code 61 |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|---|
| CODE | UPSTREAM PRESSURE GAUGE AND SWITCH OPTIONS |
| 1 | No indicator |
| 2 | 0-200 psi pressure gauge |
| 4 | 0-60 psi pressure gauge |
| 6 | Electrical switch 18 psi Brad Harrison (5-pin) |
| 8 | Electrical switch 18 psi Hirschmann (4-pin) |

Table 6

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna N |
| E | E.P.R. |
| V | Viton |

Table 7

| Assembly & Element Length | |
|---------------------------|----------------|
| CODE (LGTH) | ELEMENT LENGTH |
| 2 (9.8") | 8.0" |
| 3 (12.6") | 10.0" |
| 4 (20.7") | 18.0" |

Table 8

| Element Code | |
|--------------|--------------------|
| CODE | DESCRIPTION |
| C | (Glass) 05, 10, 20 |
| P | (Cellulose) 10 |

Table 9

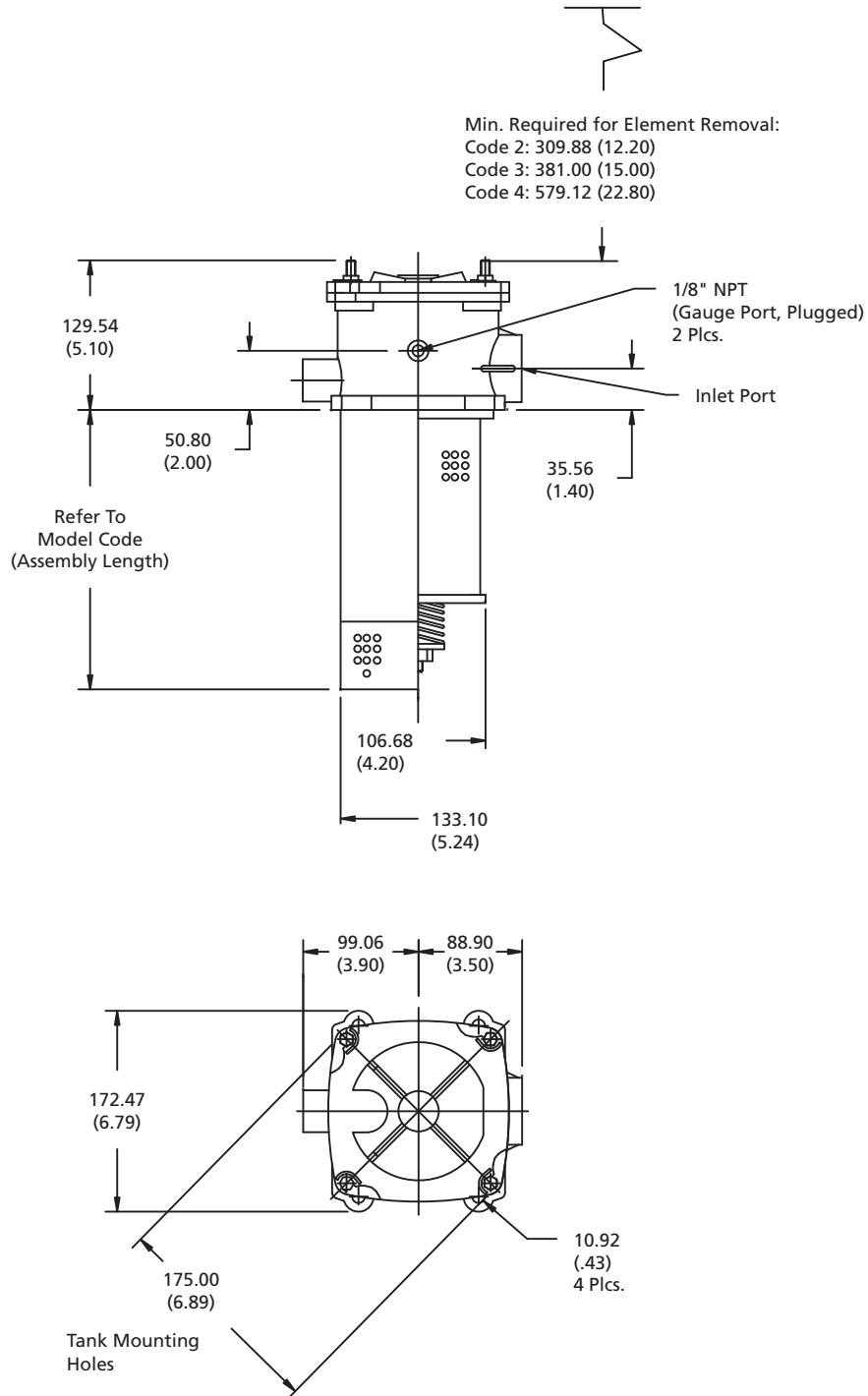
| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 03 | 16/14/12 or better |
| 05 | 18/16/14 or better |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Table 10

| Accessories | |
|-------------|---------------|
| CODE | DIFFUSOR |
| Omit | No diffusor |
| F | With diffusor |

Dimensions: millimeters/(inches)



LOW PRESSURE SPIN-ON FILTERS

MEDIUM PRESSURE SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

FEATURES

The WR17 series in-tank features inside-to-out flow through the element which means dirt is collected inside the filter cartridge. This ensures that contamination is retained inside the cartridge when the element is serviced. A heavy duty magnetic core is attached to the element retention rod ensuring pre-filtration of ferrous particles entering the reservoir. An optional weld ring provides an easy solution to insure a positive seal between housing and reservoir. The slotted cover makes for easy and efficient element change-outs. Fluid aeration in large flow applications can be minimized by the use of our optional diffusor. Three standard grades of media are offered down to 6.4µ(c).

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Technical Data:

| | |
|---------------------------|-------------------------------------|
| Maximum Working Pressure | 150 psi (10.3 bar) |
| Rated Burst Pressure | 420 psi max (28.9 bar) |
| Temperature Range | Operating |
| Buna N | -15°F to + 230°F (-26°C to + 110°C) |
| Viton | -15°F to + 230°F (-26°C to + 110°C) |
| Head and Cover Material | Aluminum |
| Diffusor Material | Steel |
| Weight (without elements) | |
| Assembly length 2 | 17.6 lbs. (8 kg.) |
| Assembly length 3 | 18.5 lbs. (8,4 kg.) |
| Assembly length 4 | 18.9 lbs. (8,6 kg.) |
| Assembly length 5 | 20.0 lbs. (9,1 kg.) |

WR17

320 gpm (1211 l/min)

Simplified bypass design prevents flushing previously collected contaminants back into the system

Diffusor helps prevent aeration of the fluid and may also eliminate reservoir baffle plate

Replacement elements available in C-Pak™ and P-Pak™

Return line application inside out flow

Magnetic "pre-filtration" of ferrous particles

Reservoir can be filled through the filter

Wide choice of service gauges and switches

Four element lengths available



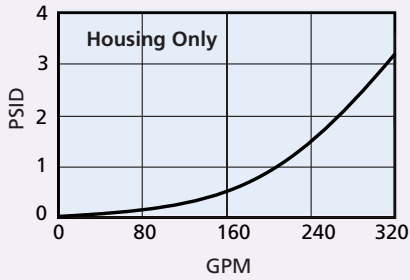
ACCESSORIES

| | |
|-------------------|-------------|
| Seal Kit - Buna N | P-236858-01 |
| Seal Kit - E.P.R. | P-236858-02 |
| Seal Kit - Viton | P-236858-03 |
| Weld Ring | P-236930 |

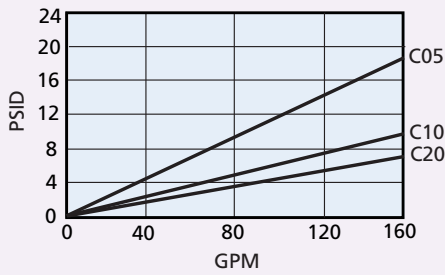
Housing and Filter Element

Flow versus Pressure Drop

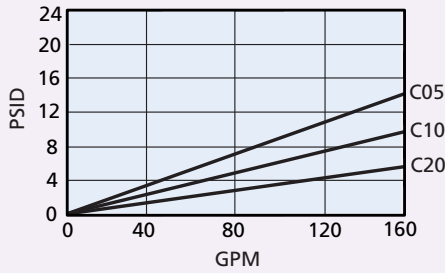
150 SUS (32 cSt.) oil with specific gravity ≤ 0.9



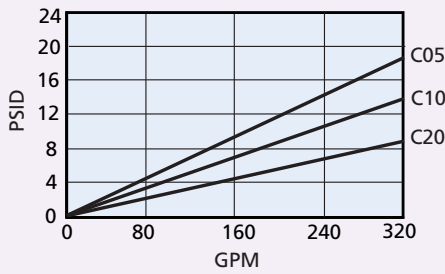
ER17 - 8"



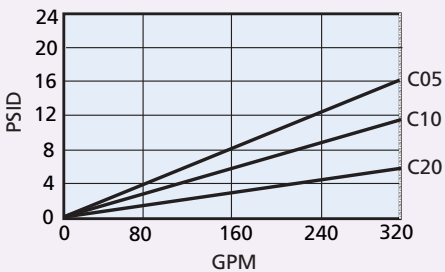
ER17 - 11"



ER17 - 15"



ER17 - 19"



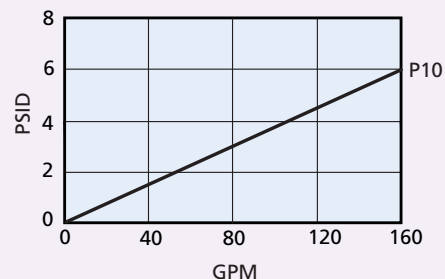
Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

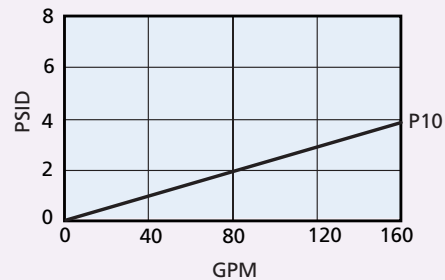
$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Assembly} = \Delta P \text{ Element} + \Delta P \text{ Housing}$$

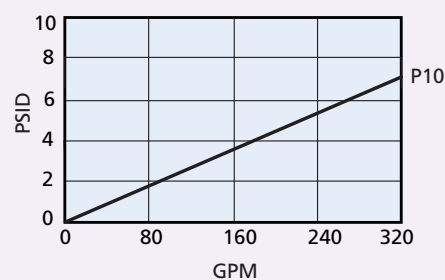
ER17 - 8"



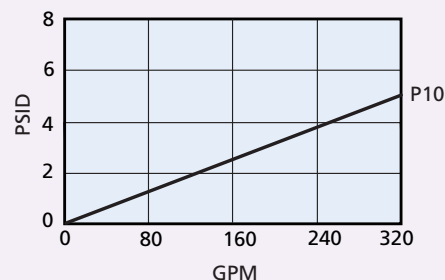
ER17 - 11"



ER17 - 15"



ER17 - 19"



LOW PRESSURE
SPIN-ON FILTERS

MEDIUM PRESSURE
SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

| | | | | | | | | | | |
|-----------------|-----------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|---------------|---------------|
| Filter Assembly | WR17 TABLE 1 | 1 TABLE 2 | K TABLE 3 | 3 TABLE 4 | 4 TABLE 5 | B TABLE 6 | 2 TABLE 7 | C TABLE 8 | 10 TABLE 9 | F TABLE 10 |
| | ER17 TABLE 1 | 1 TABLE 2 | B TABLE 6 | 3 TABLE 7 | C TABLE 8 | 10 TABLE 9 | | | | |

Table 1

| Filter Assembly / Service Element | |
|-----------------------------------|-------------|
| CODE | DESCRIPTION |
| WR17 | Assembly |
| ER17 | Element |

Table 2

| Element Collapse Options | |
|--------------------------|-------------|
| CODE | DESCRIPTION |
| 1 | 150 psid |

Table 3

| Port Size Options | |
|-------------------|----------------------------------|
| CODE | PORT SIZE |
| K | 2-1/2" SAE 4 Bolt Flange Code 61 |

Table 4

| Bypass Setting Options | |
|------------------------|----------------|
| CODE | BYPASS SETTING |
| 3 | 25 psid |

Table 5

| Upstream Pressure Gauge and Switch Option | |
|---|--|
| CODE | UPSTREAM PRESSURE GAUGE AND SWITCH OPTIONS |
| 1 | No indicator |
| 2 | 0-200 psi pressure gauge |
| 4 | 0-60 psi pressure gauge |
| 6 | Electrical switch 18 psi Brad Harrison (5-pin) |
| 8 | Electrical switch 18 psi Hirschmann (4-pin) |

Table 6

| Seal Options | |
|--------------|----------|
| CODE | MATERIAL |
| B | Buna N |
| E | E.P.R. |
| V | Viton |

Table 7

| Assembly & Element Length | |
|---------------------------|----------------|
| CODE (LGTH) | ELEMENT LENGTH |
| 2 (11.4") | 8.00" |
| 3 (14.6") | 11.00" |
| 4 (18.5") | 15.00" |
| 5 (22.0") | 19.00" |

Table 8

| Element Code | |
|--------------|--------------------|
| CODE | DESCRIPTION |
| C | (Glass) 05, 10, 20 |
| P | (Cellulose) 10 |

Table 9

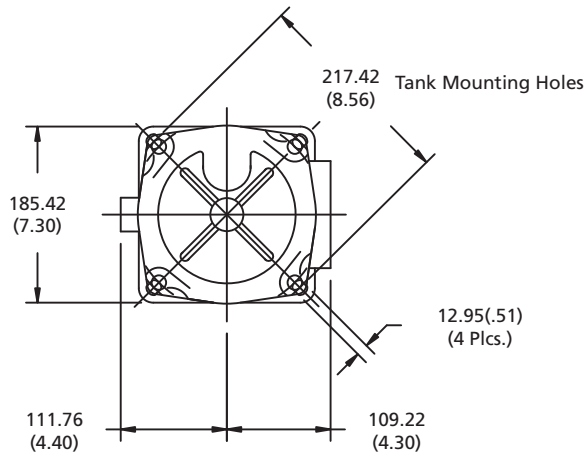
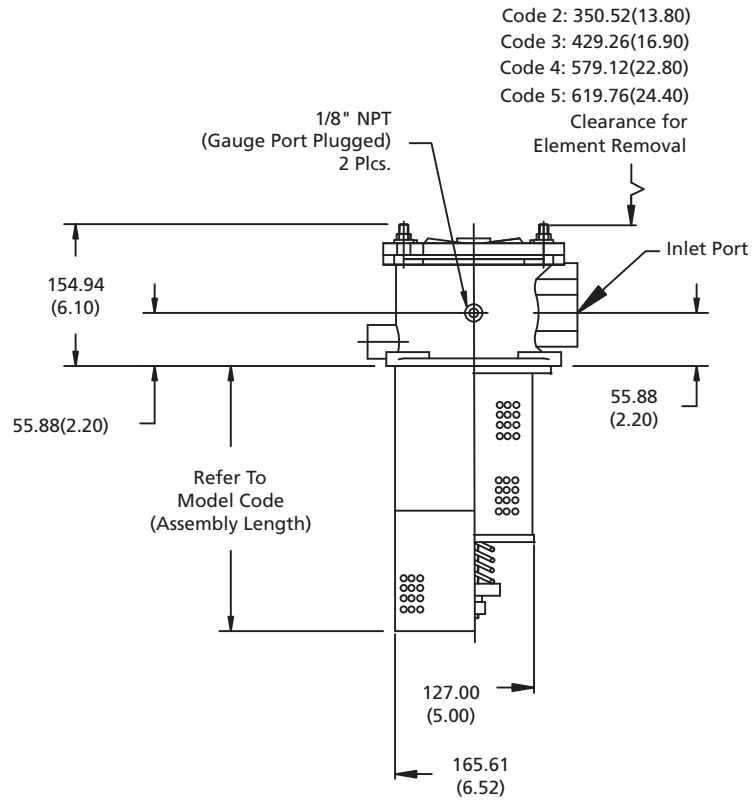
| Media Rating | |
|--------------|--------------------------------|
| CODE | TARGET FLUID CLEANLINESS LEVEL |
| 03 | 16/14/12 or better |
| 05 | 18/16/14 or better |
| 10 | 20/18/15 or better |
| 20 | 22/19/16 or better |

Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Table 10

| Accessories | |
|-------------|---------------|
| CODE | DIFFUSOR |
| Omit | No diffusor |
| F | With diffusor |

Dimensions: millimeters/(inches)



LOW PRESSURE
SPIN-ON FILTERS

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SPIN-ON FILTERS

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HIGH PRESSURE FILTERS