

# Hydraulic Filter Division Medium Pressure Filters

## Models 16P, 26P, 36P

### Specification

#### Maximum Allowable Operating Pressure (MAOP)

250 bar. Factor of safety 3:1 minimum.

#### Operating Temperature

-40°C to 120°C

#### Materials of Construction

SG Iron head, Steel bowl

#### Ports

Inlet & outlet ports are threaded internally.  
36P available with flange face.

| Port Size                     | Model   |
|-------------------------------|---------|
| G <sup>3</sup> / <sub>4</sub> | 16P-1&2 |
| G1                            | 26P-1&2 |
| G1 1/4                        | 36P-1&2 |
| 1 1/2" 3000 Flange Face       |         |

#### Bypass Valve and Indicator Settings

Table below gives bypass valve settings with their corresponding indicator settings.

| Bypass  | Indicator |
|---------|-----------|
| 1.7 bar | 1.2 bar   |
| 3.5 bar | 2.5 bar   |

#### Weights (kg)

| Model | Length 1 | Length 2 |
|-------|----------|----------|
| 16P   | 4        | 5.5      |
| 26P   | 6.5      | 9        |
| 36P   | 15.5     | 20       |

#### Fluid Compatibility

Suitable for use with mineral oils, most water glycols and other water based fluids. For other fluids, please consult Parker Filtration.

#### Seals

Nitrile or Fluoroelastomer\*

#### Element Condition Indicators (Differential Pressure Type)

1. Cartridge type visual, with manual reset.
2. Cartridge type visual and electrical, with auto reset and socket to DIN43650 (250v, 50-80Hz, 5A Max).

#### Filter Element

'Microglass' disposable inorganic fibre media. Available as 3, 6, 10 or 20µ absolute (β<sub>x</sub> > 75). Media is supported up and downstream, and the whole assembly bonded using an epoxy adhesive. End caps and support tube are tin plated giving excellent corrosion protection.

#### Element Collapse Rating

20 bar differential minimum.

#### Test Standards

Elements are tested to all relevant standards, including ISO4572 Multipass Test. Complete assemblies tested in accordance with ISO3968, "Determination of pressure drop flow characteristics of hydraulic fluidpower filters" using mineral oil fluid SAE 10 @ 30 cSt viscosity. Parker Filtration is accredited to the ISO9002 quality standard.

\*Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

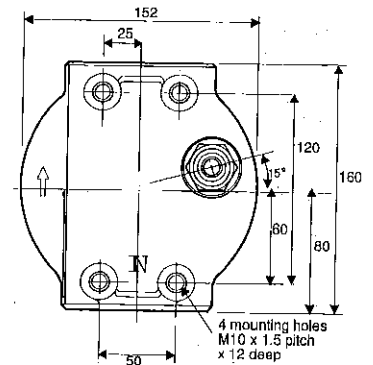
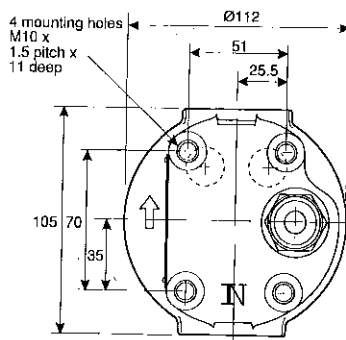
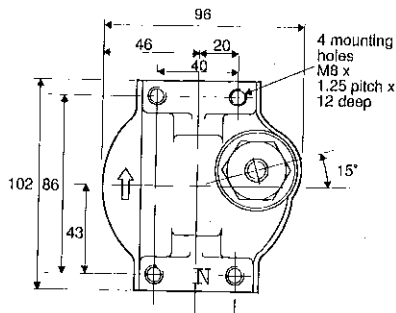
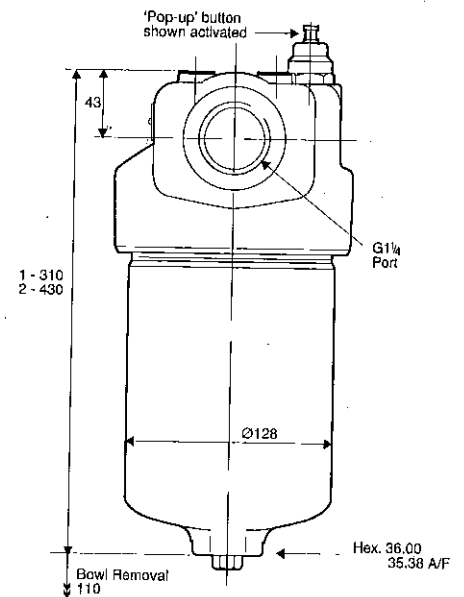
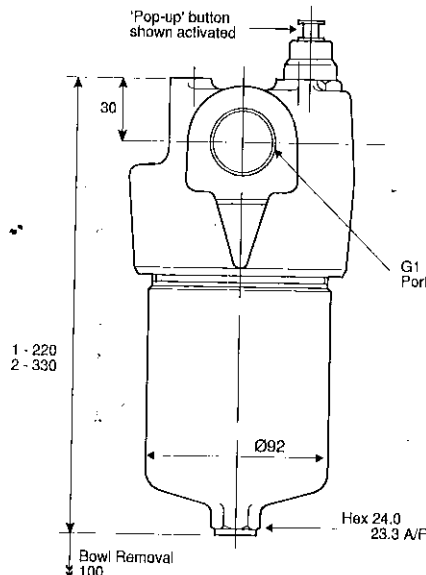
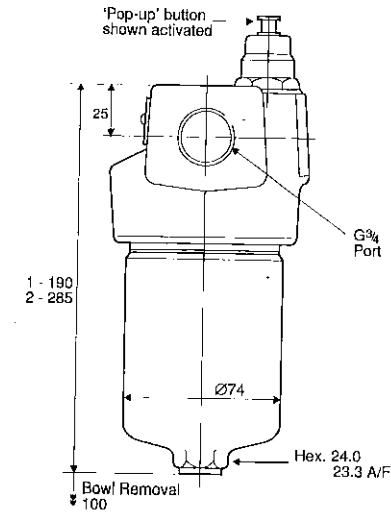
# Installation Details

# Medium Pressure Filters 16, 26, 36P

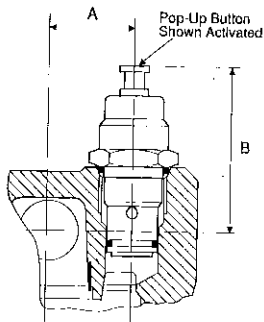
## 16P

## 26P

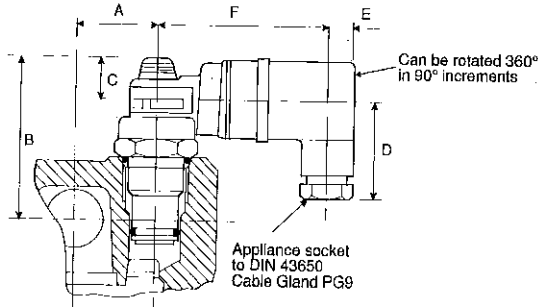
## 36P



## Indicator Options



1. Cartridge type visual



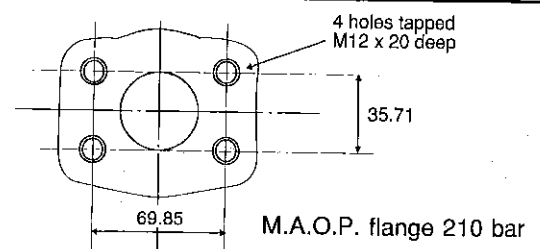
2. Cartridge type visual and electrical

| Plug Pin Code |           |
|---------------|-----------|
| 1             | Common    |
| 2             | N. Closed |
| 3             | N. Open   |

## Indicator Dimensions (mm)

| Model | A  | B  | C  | D  | E  | F  | G  |
|-------|----|----|----|----|----|----|----|
| 16P   | 30 | 60 | 15 | 35 | 10 | 62 | 30 |
| 26P   | 32 | 60 | 15 | 35 | 10 | 62 | 32 |
| 36P   | 48 | 70 | 15 | 35 | 10 | 62 | 48 |

## 36P Flange Face Details



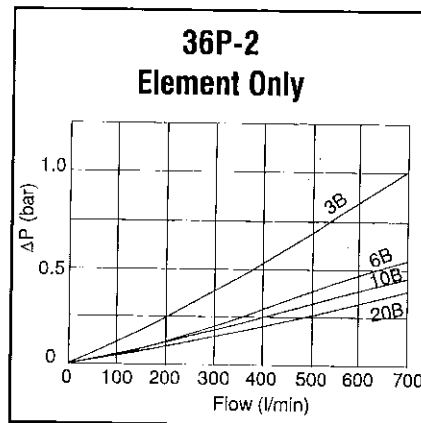
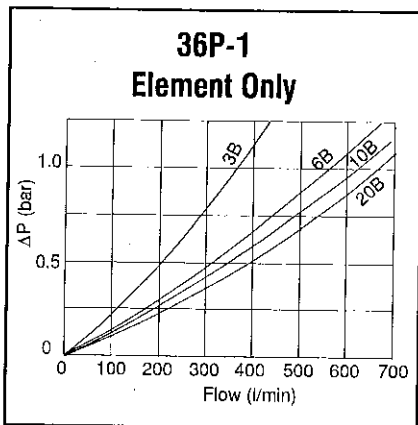
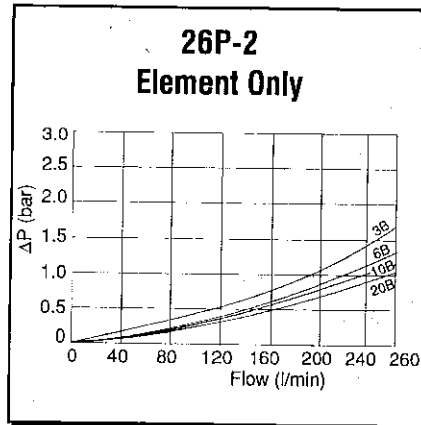
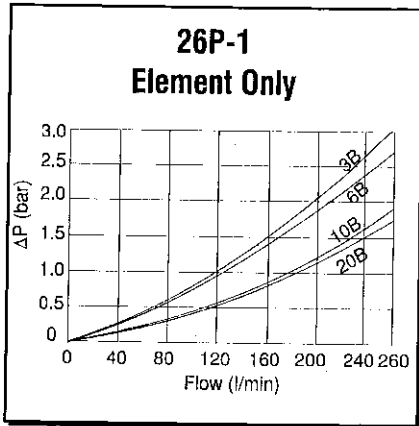
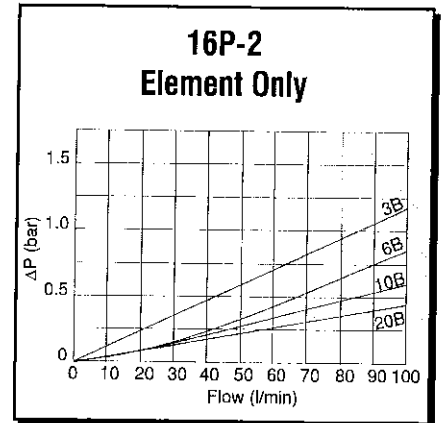
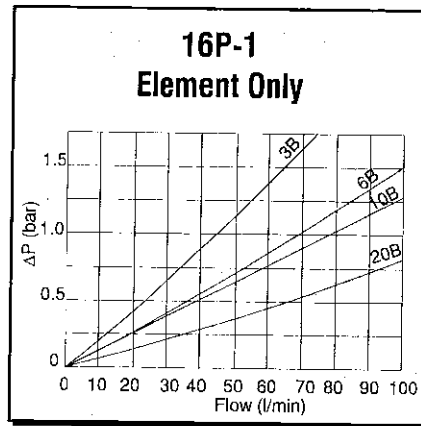
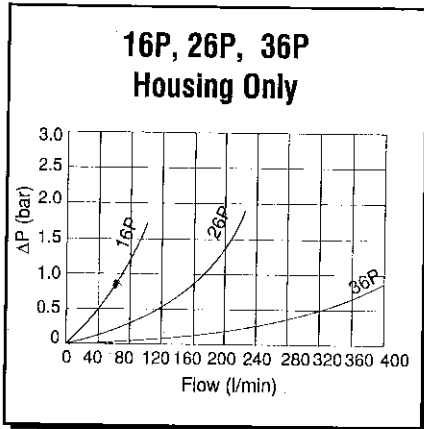
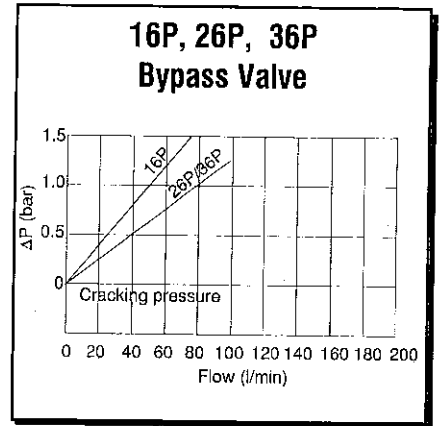
# Filter Performance

# Medium Pressure Filters 16, 26, 36P

To select the correct housing and element, it is recommended that the ratio between the bypass setting and the differential pressure across the filter with a clean element, at the rated flow, should be at least 2:1.

To find total pressure differential through the filter assembly, add the 'housing only' pressure differential to the 'element only' pressure differential, at the rated flow.

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



**Operating & Element Service Instructions**

*Installation*

The 16P, 26P, 36P medium pressure filters are designed to operate in systems where the operating pressure does not exceed 250 Bar.

The filter should be mounted with the bowl down and secured to a suitable bracket using the mounting holes provided on the filter head. Ensure that the filter is orientated so that the visual indicator if fitted is clearly visible.

See page 3 of this brochure for mounting hole and port connection detail. When connecting to the system the arrow stamped on the filter head should coincide with the flow direction.

*Operation*

Fluid enters the inlet port on the head and flows around the annular area of the bowl outside the filter element, passes through the filter media and exits the housing via the outlet port. The pressure differential across the filter will be at its lowest when the element is clean. See the flow curves on page 4 for differential pressure detail at rated flow. Contaminants removed from the fluid system build up both on and within the filter media. The pressure differential across the filter increases as the amount of trapped contaminant increases.

This increase in pressure differential is reflected on the visual or electrical indicator if fitted. If no indicator is fitted then it is suggested that the element be changed at predetermined intervals.

When the pressure differential across the filter element meets the bypass valve spring rate the valve opens preventing over pressurisation of the element. Filter elements should be changed before the bypass valve opens as shown externally by either the visual or electrical indicator.

*Element Servicing*

Ensure that the hydraulic system is switched off and that the pipework is de-pressurised. Drain fluid from filter bowl by removing bowl drain plug if fitted. With suitable spanner unscrew the bowl from the filter head revealing the dirty element. Grasp the element and pull downwards with a slight twisting movement to remove. Discard used element and check head and bowl for damage. Clean inside bowl with a cleaning agent (do not use cloth or paper towels). Check that the appropriate seal is fitted to the element, lubricate and replace the element in the filter head. Check the condition of the head to bowl seal, replace if necessary, lubricate and refit the bowl to the head. On repressurising the filter check for leaks.

**Replacement Element Part Numbers**

*Nitrile Seals*

| Model | 3B     | 6B     | 10B    | 20B    |
|-------|--------|--------|--------|--------|
| 16P-1 | G04342 | G04343 | G04344 | G04345 |
| 16P-2 | G04350 | G04351 | G04352 | G04353 |
| 26P-1 | G04358 | G04359 | G04360 | G04361 |
| 26P-2 | G04366 | G04367 | G04368 | G04369 |
| 36P-1 | G04374 | G04375 | G04376 | G04377 |
| 36P-2 | G04382 | G04383 | G04384 | G04385 |

**Seal Kits**

| Model | Nitrile | Fluoroelastomer |
|-------|---------|-----------------|
| 16P   | S03534  | S03536          |
| 26P   | S03537  | S03539          |
| 36P   | S04153  | S04155          |

*Fluoroelastomer Seals*

| Model | 3B     | 6B     | 10B    | 20B    |
|-------|--------|--------|--------|--------|
| 16P-1 | G04346 | G04347 | G04348 | G04349 |
| 16P-2 | G04354 | G04355 | G04356 | G04357 |
| 26P-1 | G04362 | G04363 | G04364 | G04365 |
| 26P-2 | G04370 | G04371 | G04372 | G04373 |
| 36P-1 | G04378 | G04379 | G04380 | G04381 |
| 36P-2 | G04386 | G04387 | G04388 | G04389 |

**Spare Indicators**

| Setting | Visual | Visual/Electrical |
|---------|--------|-------------------|
| 2.5 bar | 929561 | 929599            |
| 1.2 bar | 929608 | 931153            |

**Ordering Information -  
16P, 26P, 36P**

**Medium  
Pressure Filters  
16, 26, 36P**

Box 1    Box 2    Box 3    Box 4    Box 5    Box 6    Box 7    Box 8    Box 9  
**F3**    **26P**    **1**    **10B**    **E2**    **50**    **C2C2**    **1**    **-**

**Box 1**  
  
**Seals**  
O    Nitrile  
F3    Fluoroelastomer

**Box 5**  
  
**Indicator Options**  
N    No Indication  
M    Cartridge type visual  
E2    Cartridge type visual and electrical

**Box 2**  
  
**Model Number**  
16P  
26P  
36P

**Box 6**  
  
**Bypass Setting**  
25    1.7 bar  
50    3.5 bar

**Box 3**  
  
**Bowl Length**  
1    Length 1  
2    Length 2

**Box 7**  
  
**Ports**

| Model | Symbol | Description                         |
|-------|--------|-------------------------------------|
| 16P   | B2B2   | G <sup>3/4</sup>                    |
| 26P   | C2C2   | G1                                  |
| 36P   | D2D2   | G1 <sup>1/4</sup>                   |
|       | YY     | 1 <sup>1/2</sup> " 3000 Flange Face |

**Box 4**  
  
**Element Media**  
Microglass media (βx > 75)  
3B    3μ absolute  
6B    6μ absolute  
10B    10μ absolute  
20B    20μ absolute

**Box 8**  
  
**Options**  
1    With bypass

**Box 9**  
  
**Design Number**  
Applied to the filter assembly by Parker Filtration.

NB. Please use the full model code, including design number, when ordering replacement parts and elements.