Environmentally friendly alternative for spin-on filtration

Lightweight, non-metallic element that can be incinerated

The 12CS Series features a Parker, replaceable coreless Ecoglass III element in a re-usable bowl for easy used element removal and disposal. Maximum pressure 35 bar and the Ecoglass element offers a low environmental impact in landfills.

Product Features:

- 12CS features a Parker quality, replaceable coreless Ecoglass III element.
- Re-usable bowl design for easy element removal.
- Maximum pressure 35 bar.
- An eco filter solution for hydraulic systems.

Contact Information:

Parker Hannifin
Hydraulic Filter Division Europe

European Product Information Centre
Freephone: 00800 27 27 5374
(from AT, BE, CH, CZ, DE, EE, ES, FI, FR, IE, IT, PT, SE, SK, UK)
filtrationinfo@parker.com

www.parker.com/hfde
Coreless Spin-on Filters
12CS Series

The Smart Alternative to Spin-on Cans!

Features:
Parker engineers have developed an innovative alternative to the age old spin-on style can. This new design provides all of the benefits of high efficiency, long life Ecoglass III filtration, without the environmental impact.

The new environmentally-friendly 12CS hydraulic filters feature a reusable bowl and a quality filter element constructed primarily of nylon and fiberglass. The element core is permanently attached as part of the filter bowl. When replaced, the element reduces costs, eliminates hot drain requirements, can be easily incinerated, and is better-suited for most landfills.

The 35 bar filter is rated up to 220 l/min, with premium Ecoglass III elements as standard offerings. The element design also prevents filter operation if the proper element is not in place.

Applications:
Mobile Ag
Mobile Construction
Material Handlers
Aerial Lifts
Pilot lines
Charge pump hydrostatic drives
Industrial power units
Machine tools

<table>
<thead>
<tr>
<th>Feature</th>
<th>Advantage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 35 bar operating pressure</td>
<td>• Withstands pressure surges, allows application versatility.</td>
<td>• Broader applications compared to lower rated spin-on cans.</td>
</tr>
<tr>
<td>• Parker quality element</td>
<td>• Provides head-to-bowl seal.</td>
<td>• Provides optimum leak-free performance.</td>
</tr>
<tr>
<td></td>
<td>• Must be installed for operation.</td>
<td>• Meets system cleanliness requirements.</td>
</tr>
<tr>
<td></td>
<td>• Ensures original element must be used.</td>
<td></td>
</tr>
<tr>
<td>• Coreless Ecoglass elements</td>
<td>• Lightweight, non-metallic.</td>
<td>• Reduces disposal costs.</td>
</tr>
<tr>
<td></td>
<td>• Ease of service and disposal.</td>
<td>• Can be incinerated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low environmental impact in landfills.</td>
</tr>
<tr>
<td>• Spin-on filter assembly w/re-usable bowl</td>
<td>• Improved, cost-effective design.</td>
<td>• Easy to maintain.</td>
</tr>
</tbody>
</table>
Specifications

Pressure Ratings:
- Maximum Allowable
  - Operating Pressure (MAOP): 35 bar (500 psi)
  - Fatigue: 27.6 bar (400 psi)
- 1,000,000 cycles: 27.6 bar
- Design Safety Factor: 2.5:1

Operating Temperatures:
- Buna: -40ºC to 107ºC

Element Collapse Rating:
- 10.3 bar (150 psid)

Element Condition Indicators:
For predictive maintenance, 3 types of indicator are available: An electrical analogue or switch type indicator or a battery operated visual LED indicator.

Materials:
- Head: die cast aluminium
- Bypass valve: nylon with steel spring
- Filter element: fibreglass and polyester with nylon endcaps
- Bowl: steel
- Permanent core: steel

Weights (approximate):
- 12CS-2................. 1.4 kg (3lbs.)

12CS-2

Drawings are for reference only. Contact factory for current version.

<table>
<thead>
<tr>
<th>Port Option</th>
<th>Port Thread</th>
<th>Mounting Thread Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>S12</td>
<td>1-1/16”-12</td>
<td>3/8” x 16 x 5/8”</td>
</tr>
<tr>
<td>N12</td>
<td>3/4”-14 NPTF-1</td>
<td>3/8” x 16 x 5/8”</td>
</tr>
<tr>
<td>G12</td>
<td>G3/4” BSPP</td>
<td>3/8” x 16 x 5/8”</td>
</tr>
</tbody>
</table>
Coreless Spin-on Filters
12CS Series

12CS-2 Performance

Efficiency

Beta Rating

Micron Size (c)

Efficiency %

Capacity

Psid

Capacity grams

Results typical from Multi-pass tests run per test standard ISO 16889 @ 15 gpm to 50 psid terminal - 10 mg/L BUGL
Refer to Appendix for relationship to test standard ISO 4572.

Flow vs Pressure Loss

LPM

Psid

GPM

LPM

Psid

GPM

0 15 30 45 60 75 90 105

30cSt

2Q

5Q

10Q

20Q

0 5 10 15 20 25 30

0 0.5 1.0 1.5

0.0 0.5 1.0 1.5

3/4" Nominal Port Size

30cSt

Empty Housing
Coreless Spin-on Filters
12CS Series

Service Instructions 12CS

Filter Service

Filter element should be replaced as indicated by filter indicator gauge, or at specified service intervals recommended by the OEM.

Replacement element procedure
A. Shut down system and release pressure in the filter line.
B. Loosen bowl and remove rotating counter clockwise.
C. Remove dirty element from filter head and discard.
D. Lubricate element seals on clean element and install on filter head element locator.
E. Install reusable bowl onto element and filter head.

Parts List

<table>
<thead>
<tr>
<th>Index</th>
<th>12CS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Head</td>
<td>SAE-12, 3/4&quot; NPT, G3/4&quot; BSPP</td>
</tr>
<tr>
<td>2</td>
<td>Bypass</td>
<td>3.5 bar assembly</td>
</tr>
<tr>
<td>3</td>
<td>Element</td>
<td>02Q, 05Q, 10Q, 20Q</td>
</tr>
<tr>
<td>4</td>
<td>Bowl</td>
<td>Double</td>
</tr>
<tr>
<td>5</td>
<td>Analogue Electrical</td>
<td>941802</td>
</tr>
<tr>
<td>6</td>
<td>Reed switch (on-off)</td>
<td>941814</td>
</tr>
<tr>
<td>7</td>
<td>Visual Red-LED</td>
<td>941945</td>
</tr>
</tbody>
</table>

Element Condition Indicators

5. Analog Electrical
- Supply voltage: 4.5 to 5.5 VDC
- Main output current: 1 mA
- Output voltage: Ratiometric (see graph)
- Approvals: CE, IP68
- Connector: 12" wire leads, 18 Gauge
  Yellow (analog out)
  Black (OV)
  Red (supply +5 V)

6. Electrical Switch (Reed switch - On/Off)
- Connector: 12" wire leads, 18 Gauge
- Yellow (NC), black (NO), Red (C)
- Maximum switching voltage: 30V (DC/AC)
- Maximum switching current: 0.2A
- Maximum carry current: 0.5A
- Approvals: CE, IP68

7. Visual Indicator (Red - LED)
- Push to test
- Battery operated
- Visual LED (red = change element)
Coreless Spin-on Filters
12CS Series

How To Order
Select the desired symbol (in the correct position) to construct a model code.

Example:

<table>
<thead>
<tr>
<th>BOX 1</th>
<th>BOX 2</th>
<th>BOX 3</th>
<th>BOX 4</th>
<th>BOX 5</th>
<th>BOX 6</th>
<th>BOX 7</th>
<th>BOX 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>12CS</td>
<td>2</td>
<td>10QE</td>
<td>B</td>
<td>P</td>
<td>G</td>
<td>S12</td>
<td>1</td>
</tr>
</tbody>
</table>

BOX 1: Basic Assembly
Symbol Description
12CS Coreless Spin-On, 75 l/min nominal

BOX 2: Length
Symbol Description
2 Double

BOX 3: Element Media
Symbol Description
02QE Ecoglass III, 2µm
05QE Ecoglass III, 5µm
10QE Ecoglass III, 10µm
20QE Ecoglass III, 20µm

BOX 4: Seals
Symbol Description
B Nitrile (NBR)
Consult Parker for additional seal options

BOX 5: Indicator
Symbol Description
N None

BOX 6: Bypass
Symbol Description
K 3.5 bar (50 PSID)

BOX 7: Ports
Symbol Description
S12 SAE-12 integral threads*
N12 3/4” NPT integral threads
G12 3/4” BSPP (ISO 220) integral threads

*Porting recommended for best delivery.

BOX 8: Option
Symbol Description
1 No options

Replacement Elements (Ecoglass)

<table>
<thead>
<tr>
<th>Media</th>
<th>Filter Model - Nitrile seals</th>
</tr>
</thead>
<tbody>
<tr>
<td>02QE</td>
<td>940765Q</td>
</tr>
<tr>
<td>05QE</td>
<td>940764Q</td>
</tr>
<tr>
<td>10QE</td>
<td>940763Q</td>
</tr>
<tr>
<td>20QE</td>
<td>940762Q</td>
</tr>
</tbody>
</table>

*Porting recommended for best delivery.