Motorcraft Oil Filter
Construction

Steel Case - Multiple flutes for easy removal

Efficient Filter Media

Corrugated Steel Center Tube

Anti-Drain-Back Valve—Heat Resistant Silicone

Pressure Relief / By-Pass Valve At Inlet

End cap seam is crimped and rolled securely
Protection For Today’s Longer Service Intervals (FL-820S)

Excellent Protection throughout the Service Life

- Large filter media area provides optimum filtering efficiency throughout the oil change cycle
- 80% efficiency on particles 20 microns or larger
- Cellulose and polyester blend media is formulated for high capacity and strength
- The polyester content enhances the strength of the media to withstand extended exposure to hot engine oil

High Performance Features that Help Keep Engines Safe

- Anti-drain back valves to help prevent dry starts
- Anti-drain back valves that are made of silicone provide greater cold/heat resistance (down to -75 and up to +450 degrees F)
- Pressure relief valves help maintain supply of oil to the engine under extreme cold conditions or if the filter gets clogged
- Location of relief valve in the majority of Ford application filters prevents settled debris from entering and potentially damaging the engine

Designed to be Tough

- Robust steel center tubes and lock seam design withstands pressure surges and help prevent leakage
- Bonded end plates help keep consistent pleat spacing
- All Motorcraft® oil filters are subjected to extensive testing to ensure they work as designed throughout the oil change cycle

Efficient Filtering

- High efficiency filter media traps 80% of particles 20 microns and larger
- Polyester/cellulose media is formulated for high temperature efficiency

Tough Outside

- Steel case is painted for rust resistance
- Flutes aid filter removal, and cap seam is crimped and rolled for a good seal

Tough Inside

- Robust steel center tubes withstand pressure surges
- Bonded end plates keep pleats evenly spaced
## Motorcraft Features & Benefits

<table>
<thead>
<tr>
<th>Motorcraft Oil Filters</th>
<th>Aftermarket Oil Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pressure Relief Valves</strong></td>
<td>Pressure Relief Valves</td>
</tr>
<tr>
<td>- Features up-front (threaded-end) pressure relief valve</td>
<td>- Many aftermarket filters use a dome-end design relief</td>
</tr>
<tr>
<td>design which prevents unfiltered oil from reaching the</td>
<td>valve which may allow unfiltered oil into the engine</td>
</tr>
<tr>
<td>engine</td>
<td></td>
</tr>
<tr>
<td><strong>Anti-Drain Back Valve</strong></td>
<td>Anti-Drain Back Valve</td>
</tr>
<tr>
<td>- Top selling Motorcraft oil filters utilize silicone rubber</td>
<td>- Many aftermarket anti-drain back valves are constructed</td>
</tr>
<tr>
<td>anti-drain back valves for higher heat resistance</td>
<td>of nitrile rubber that can become brittle over time when</td>
</tr>
<tr>
<td></td>
<td>exposed to hot oil</td>
</tr>
<tr>
<td><strong>Center Tubes</strong></td>
<td>Center Tubes</td>
</tr>
<tr>
<td>- Corrugated steel center tubes that withstand pressure</td>
<td>- Many aftermarket filters have plastic center tubes</td>
</tr>
<tr>
<td>surges and prevent leakage</td>
<td></td>
</tr>
<tr>
<td><strong>Quality Construction</strong></td>
<td>Quality Construction</td>
</tr>
<tr>
<td>- Motorcraft filters have well-bonded end plates and</td>
<td>- Some aftermarket filters are not well bonded, allowing</td>
</tr>
<tr>
<td>consistent pleat spacing</td>
<td>unfiltered bypass</td>
</tr>
<tr>
<td>- High-quality steel case and base</td>
<td>- Some aftermarket filters may use lower-quality steel case</td>
</tr>
<tr>
<td><strong>Media Area</strong></td>
<td>Media Area</td>
</tr>
<tr>
<td>- Filter media is formulated to meet Ford OEM requirements</td>
<td>- Aftermarket filter media is not designed to meet Ford's</td>
</tr>
<tr>
<td>and media area is larger for optimal efficiency and</td>
<td>requirements and the media area is typically smaller</td>
</tr>
<tr>
<td>capacity</td>
<td></td>
</tr>
<tr>
<td>- Pleat number and height equate to more filtering surface</td>
<td></td>
</tr>
<tr>
<td>area and greater filtering capacity</td>
<td></td>
</tr>
</tbody>
</table>

**FL-820S**
Motorcraft Design Advantages

Typical Oil Filter Alignment on Engine

Aftermarket

Open Pressure Relief / By-pass Valve

Oil flow to engine

Oil flow to engine

Sludge picked up in oil

Sludge build up

FL-820S
Features/Benefits – Consumer Attributes

- Large filter media area provides optimum filtering efficiency throughout the oil change cycle
- Motorcraft oil filters feature anti-drain back valves to help prevent dry starts
- Many Motorcraft oil filter anti-drain back valves are made of silicone for greater cold/heat resistance (down to -75 and up to +450 degrees F)
- Pressure relief valves help maintain oil supply to the engine under extreme cold conditions, or if the filter gets clogged
- Location of relief valve in the majority of Ford application filters prevents settled debris from entering and potentially damaging the engine
  (Dome-end relief valves do not offer this protection)
- Robust steel center tubes and lock seam design withstands pressure surges and help prevent leakage

Design Features

- 80% collection efficiency on particles 20 microns or larger
- Bonded end plates help keep consistent pleat spacing
- Cellulose and polyester blend media is formulated for high capacity and strength
- The polyester content enhances the strength of the media to withstand extended exposure to hot engine oil

FL-820S
Motorcraft Oil Filter Product Attributes

**Design & Testing: Testing Conducted Specifically for Motorcraft Oil Filters**

- Multi-pass Efficiency and Capacity – Tests the efficiency of the filter to filter 20 micron particles and its holding capacity
- High Temperature Resistance – tests filter integrity at 275 degrees F
- Resistance to Oil Flow – tests pressure differential throughout the filter at different flow rates
- Media Migration – ensures media is not being passed downstream of the filter
- Anti-Drain Back Leakage – tests the drain-back valve performance
- Fatigue Resistance – tests filter for leaking, cracking, fracture or rupture; 25,000 cycles of 0 PSI to 100 PSI (some up to 125 PSI)
- Internal Strength & Leakage
- Burst Pressure Test - tests filters at a minimum of 200 PSI for 60 seconds without leakage
- Relief Valve Opening – ensures relief valve opens at specified pressure
- Removal Torque
- Corrosion Resistance
- Leakage Test

**Unique Offerings/Special Notes**

- 25 Parts numbers provide 87% coverage for all make vehicles currently in U.S. operation

FL-820S
Motorcraft vs. Fram XG

**FL-820S**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**PH-2**
- 15 flutes, black mat paint finish
- Metal tension clip
- Metal center tube
- Paper end caps
- 36 pleats, 3’’High
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. NAPA Silver

Motorcraft FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

NAPA 31372
- 15 Flutes
- Spring for tension
- Metal end caps
- 54 pleats, 2 3/4” High
- Metal center tube
- Anti-drainback and pressure relief valve – Heat resistant silicone
Motorcraft vs. Wix

Motorcraft FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

Wix 51372
- 15 Flutes
- Spring for tension
- Metal end caps
- 60 pleats, 2 5/8” High
- Metal center tube
- Anti-drainback and pressure relief valve – Heat Resistant Silicone
Motorcraft vs. Mighty

FL-820S

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High by 3 3/8” diameter
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

M-500

- 15 Flutes
- Metal tension clip
- Metal end caps
- 61 pleats, 2 3/4” High by 2 5/8” diameter
- Metal center tube
- Anti-drainback and pressure relief valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. AC Delco

Motorcraft vs. AC Delco

50 flutes. More flutes for easy removal

15 Flutes

Metal tension clip

Metal tension clip

Metal center tube

Metal end caps

White fiber end caps

50 pleats, 2 5/8” High

58 pleats, 2” High

Internal pressure relief valve at inlet

Plastic cage center tube

Anti-drainback valve – Heat Resistant Silicone

Anti-draingback and pressure relief valve – Nitrile Rubber (prone to harden with heat)

FL-820S

PF-1250
Motorcraft vs. Baldwin

- **50 flutes. More flutes for easy removal**
- **Metal tension clip**
- **Metal center tube**
- **Metal end caps**
- **50 pleats, 2 5/8” High**
- **Internal pressure relief valve at inlet**
- **Anti-drainback valve – Heat Resistant Silicone**

**FL-820S**

- **15 Flutes**
- **Spring for tension**
- **Dome-end pressure relief valve** (may allow contaminants back into engine)
- **Metal end caps**
- **40 pleats, 2 1/2” High**
- **Metal center tube**
- **Anti-drainback valve - Nitrile Rubber** (prone to harden with heat)

**B329**
Motorcraft vs. Champ

**Motorcraft FL-820S**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8" High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**Champ PH-820**
- 15 Flutes
- Metal tension clip
- Fibrous end caps
- Plastic cage center tube
- 59 pleats, 2 1/8" High
- Anti-drainback and pressure relief valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Microgard

**Motorcraft (FL-820S):**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**Microgard (MGL2):**
- 15 Flutes
- Metal tension clip with pressure relief valve
- Fiber end caps
- 36 pleats, 2 7/8” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Pennzoil

FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8 ” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

PZ-42
- 15 Flutes
- Metal tension clip
- Dome-end pressure relief valve with plastic clip (may allow contaminants back into engine)
- Metal end caps
- 55 pleats, 2 3/8” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Quaker State

**Motorcraft**
- **FL-820S**
  - 50 flutes. More flutes for easy removal
  - Metal tension clip
  - Metal center tube
  - Metal end caps
  - 50 pleats, 2 5/8” High
  - Internal pressure relief valve at inlet
  - Anti-drainback valve – Heat Resistant Silicone

**Quaker State**
- **QS-2**
  - 15 Flutes
  - Metal tension clip
  - Pressure relief valve
  - Metal end caps
  - 44 pleats, 1 3/4” High
  - Metal center tube
  - Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. STP

Motorcraft

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

STP

- 15 Flutes
- Metal tension clip
- White fiber end caps
- 56 pleats, 2 1/8” High
- Plastic cage center tube
- Anti-drainback and pressure relief valve – Nitrile Rubber (prone to harden with heat)

FL-820S

S-2
## Motorcraft Competitive Comparisons

### Oil Filter Cutaways

<table>
<thead>
<tr>
<th>FILTER BRAND</th>
<th>PART NUMBER</th>
<th>PRESSURE RELIEF VALVE (PRV)</th>
<th>ANTI-DRAIN BACK VALVE (ADBV)</th>
<th>CENTER TUBE ELEMENT</th>
<th>FILTER END CAP ELEMENT</th>
<th>NUMBER OF PLEATS</th>
<th>HEIGHT OF FILTER MEDIA</th>
<th>NUMBER OF FLUTES</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorcraft</td>
<td>FL-820S</td>
<td>Mounting plate Separate from ADBV, internal mechanical spring</td>
<td>Silicone</td>
<td>Metal</td>
<td>Metal</td>
<td>50</td>
<td>2.38</td>
<td>Metal Tension Clip</td>
<td></td>
</tr>
<tr>
<td>AC Delco</td>
<td>PF1250</td>
<td>Mounting plate PRV and ADBV are one-in-the-same</td>
<td>Nitrile</td>
<td>Plastic</td>
<td>Paper</td>
<td>58</td>
<td>2.06</td>
<td>15</td>
<td>Metal Tension Clip</td>
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<tr>
<td>Amsoil</td>
<td>EAO 11</td>
<td>Dome-end Internal spring</td>
<td>Silicone</td>
<td>Metal</td>
<td>Metal</td>
<td>44</td>
<td>2.25</td>
<td>15</td>
<td>Spring for tension</td>
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<tr>
<td>Baldwin</td>
<td>B329</td>
<td>Dome-end Integral PRV</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>40</td>
<td>2.44</td>
<td>15</td>
<td>Spring for tension</td>
</tr>
<tr>
<td>Bosch</td>
<td>3410</td>
<td>Dome-end Integral PRV with plastic clip (very hard to open)</td>
<td>Silicone</td>
<td>Metal</td>
<td>Metal</td>
<td>65</td>
<td>2.44</td>
<td>15</td>
<td>Metal Tension Clip</td>
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<tr>
<td>Carquest</td>
<td>85372</td>
<td>Dome-end Integral PRV</td>
<td>Silicone</td>
<td>Metal</td>
<td>Metal</td>
<td>56</td>
<td>2.88</td>
<td>15</td>
<td>Spring for tension</td>
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<tr>
<td>Champ</td>
<td>PH820</td>
<td>Mounting plate PRV and ADBV are one-in-the-same</td>
<td>Nitrile</td>
<td>Plastic</td>
<td>Paper</td>
<td>59</td>
<td>2.13</td>
<td>15</td>
<td>Metal Tension Clip</td>
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<tr>
<td>Donaldson</td>
<td>P550965</td>
<td>Dome-end Integral PRV</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>55</td>
<td>2.09</td>
<td>none</td>
<td>Spring for tension</td>
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<tr>
<td>Federated</td>
<td>LF110F</td>
<td>Dome-end Integral PRV</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>65</td>
<td>2.09</td>
<td>15</td>
<td>Spring for tension</td>
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<tr>
<td>Fleetguard</td>
<td>LF3681</td>
<td>Dome-end Integral PRV</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>65</td>
<td>2.09</td>
<td>15</td>
<td>Spring for tension</td>
</tr>
<tr>
<td>Fram Extra Guard</td>
<td>PH2</td>
<td>Dome-end External Plastic valve w/spring mounted on metal tension clip</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Paper</td>
<td>36</td>
<td>3.00</td>
<td>15; black mat finish</td>
<td>Metal Tension Clip</td>
</tr>
<tr>
<td>Fram Tough Guard</td>
<td>TG2</td>
<td>Dome-end External Plastic valve w/spring mounted on metal tension clip</td>
<td>Silicone</td>
<td>Metal</td>
<td>Paper</td>
<td>46</td>
<td>3.00</td>
<td>15; black mat finish</td>
<td>Metal Tension Clip</td>
</tr>
<tr>
<td>Hastings</td>
<td>LF110</td>
<td>Dome-end Integral PRV</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>51</td>
<td>2.19</td>
<td>None, but w ranch flats on top of dome</td>
<td>Spring for tension</td>
</tr>
<tr>
<td>K&amp;N</td>
<td>HP-2010</td>
<td>Dome-end Integral PRV</td>
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<td>Metal</td>
<td>54</td>
<td>2.12</td>
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<td>Luber Finer Ecore</td>
<td>PH820</td>
<td>Dome-end Tension clip PRV.</td>
<td>Nitrile</td>
<td>Plastic</td>
<td>Paper</td>
<td>54</td>
<td>2.12</td>
<td>15</td>
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<td>Luber Finer</td>
<td>PH820</td>
<td>Dome-end Tension clip PRV</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>46</td>
<td>2.25</td>
<td>15</td>
<td>Metal Tension Clip</td>
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<tr>
<td>MANN</td>
<td>ML-1006</td>
<td>Dome-end Integral PRV w/plastic clip</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>65</td>
<td>2.50</td>
<td>15</td>
<td>Metal Tension Clip</td>
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<td>MicroGard</td>
<td>MGL2</td>
<td>Dome-end External spring and plastic valve</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Paper</td>
<td>36</td>
<td>2.94</td>
<td>15</td>
<td>Spring for tension</td>
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<td>MicroGreen</td>
<td>MG 421-8</td>
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<td>20</td>
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<td>Mighty</td>
<td>M500</td>
<td>Mounting plate PRV and ADBV are one-in-the-same</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>61</td>
<td>2.62</td>
<td>14</td>
<td>Metal Tension Clip</td>
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<tr>
<td>Motorcraft</td>
<td>FL-820S</td>
<td>Mounting plate Separate from ADBV. Internal mechanical spring</td>
<td>Silicone</td>
<td>Metal</td>
<td>Metal</td>
<td>50</td>
<td>2.38</td>
<td></td>
<td>36; Promotes strength &amp; easy removal</td>
<td>Metal Tension Clip</td>
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<tr>
<td>Mobil 1</td>
<td>M1-210</td>
<td>Dome-end Integral PRV</td>
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<td>Motor Trend</td>
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<td>Metal</td>
<td>70</td>
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<td>NAPA ProSelect</td>
<td>21372</td>
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<td>2.75</td>
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<td>NAPA Silver</td>
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<td>Metal</td>
<td>40</td>
<td>2.81</td>
<td></td>
<td>external spring</td>
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<td>PH820</td>
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<tr>
<td>Pennzoil</td>
<td>PZ-42</td>
<td>Dome-end Integral PRV with plastic clip (very hard to open)</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
<td>55</td>
<td>2.38</td>
<td>16</td>
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<tr>
<td>Pro Tec</td>
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<td>Mounting plate PRV and ADBV are one-in-the-same</td>
<td>Nitrile</td>
<td>Metal</td>
<td>Metal</td>
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<td>2.63</td>
<td>15</td>
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<td>PPL-24651</td>
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<td>42</td>
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<tr>
<td>Pronto</td>
<td>PO4651</td>
<td>Dome-end Integral PRV</td>
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<td>55</td>
<td>2.38</td>
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<td>Spring for tension</td>
<td></td>
</tr>
<tr>
<td>Purolator PL</td>
<td>PL24651</td>
<td>Dome-end Integral PRV w/plastic clip</td>
<td>Silicone</td>
<td>Metal</td>
<td>Metal</td>
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<td>2.38</td>
<td>15</td>
<td>Metal Tension Clip</td>
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<td>Purolator L</td>
<td>L24651</td>
<td>Dome-end Integral PRV w/plastic clip</td>
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<td>QS2</td>
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<td>Metal</td>
<td>Metal</td>
<td>44</td>
<td>1.75</td>
<td>15</td>
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<td></td>
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<td>Relia Guard (FMP)</td>
<td>R1372</td>
<td>Dome-end Integral PRV w/plastic clip</td>
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<td>Metal</td>
<td>Metal</td>
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<td>Service Pro</td>
<td>M4851</td>
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<td>Nitrile</td>
<td>Metal</td>
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<td>Mounting plate PRV and ADBV are one-in-the-same</td>
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<td>Metal</td>
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<td>57</td>
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<td>S1372</td>
<td>Mounting plate PRV and ADBV are one-in-the-same</td>
<td>Silicone</td>
<td>Metal</td>
<td>Metal</td>
<td>60</td>
<td>2.63</td>
<td>15</td>
<td>Spring for tension</td>
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</table>

Notes: 36; Promotes strength & easy removal
Motorcraft vs. Amsoil

**FL-820S**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**EAO 11**
- 15 Flutes
- Metal tension clip
- Metal center tube
- 44 pleats, 2 1/4” High
- Metal end caps
- Pressure relief valve
- Metal end caps
- Anti-drainback valve – Heat Resistant Silicone
Motorcraft vs. Bosch

Motorcraft:
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

Bosch:
- 15 Flutes
- Metal tension clip
- Dome-end pressure relief valve (may allow contaminants back into engine)
- Metal end caps
- 65 pleats, 2 7/16” High
- Metal center tube
- Anti-drainback valve – Heat resistant Silicone

FL-820S

#3410
Motorcraft vs. CarQuest

Motorcraft FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

CarQuest 85372
- 15 Flutes
- Spring for tension
- Dome-end pressure relief valve (may allow contaminants back into engine)
- Metal end caps
- 56 pleats, 2 7/8” High
- Metal center tube
- Anti-drainback – Heat resistant silicone
Motorcraft vs. Donaldson

FL-820S

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

P550965

- 15 Flutes
- Spring for tension
- Pressure relief valve
- Metal end caps
- 55 pleats, 2 1/8” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Federated

**FL-820S**
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8 ” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone
- 50 flutes. More flutes for easy removal

**LF110F**
- Spring for tension
- Dome-end pressure relief valve (may allow contaminants back into engine)
- Metal end caps
- 44 pleats, 2 3/8” High
- Metal center tube
- Two-piece anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Fleetguard

- FL-820S
  - 50 flutes. More flutes for easy removal
  - Metal tension clip
  - Metal center tube
  - Metal end caps
  - 50 pleats, 2 5/8 ” High
  - Internal pressure relief valve at inlet
  - Anti-drainback valve – Heat Resistant Silicone

- LF-3681
  - 15 Flutes
  - Metal Spring for tension
  - Dome-end pressure relief valve (may allow contaminants back into engine)
  - Metal end caps
  - 53 pleats, 2 1/2” High
  - Metal center tube
  - Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Fram TG

**Motorcraft FL-820S**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8 ” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**Fram TG2**
- 15 flutes, black mat paint finish
- Metal tension clip
- Metal center tube
- Paper end caps
- 46 pleats, 3 “High
- Metal tension clip with pressure relief valve
- Metal end caps
- Metal tension clip
- Anti-drainback valve – Heat resistant silicone
Motorcraft vs. Hastings

Motorcraft vs. Hastings

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve - Heat Resistant Silicone
- Spring for tension
- Dome-end pressure relief valve (may allow contaminants back into engine)
- Metal end caps
- 39 pleats, 2 ½” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)

FL-820S

LF110
Motorcraft vs. K & N

**FL-820S**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**HP-2010**
- No flutes, 1” nut tacked to can
- Spring for tension
- Dome-end pressure relief valve (may allow contaminants back into engine)
- Metal end caps
- 51 pleats, 2 1/8” High
- Metal center tube
- Anti-drainback valve – Heat Resistant Silicone
Motorcraft vs. Luber Finer Ecore

Motorcraft:
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

Luber Finer Ecore:
- 15 Flutes
- Metal clip for tension
- Pressure relief valve
- Paper end caps
- 54 pleats, 2 1/8” High
- Plastic center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)

FL-820S

PH 820
Motorcraft vs. Luber Finer

Motorcraft FL-820S vs. Luber Finer PH 820

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

- 15 Flutes
- Metal clip for tension
- Pressure relief valve
- Metal end caps
- 46 pleats, 2 1/4” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Mann

Motorcraft FL-820S:
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

Mann ML-1006:
- 15 Flutes
- Metal tension clip
- Pressure relief valve
- Metal end caps
- 65 pleats, 2 1/2” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. MicroGreen

Motorcraft FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

MicroGreen MG 421-8
- 20 Flutes
- Spring for tension
- Pressure relief valve
- Metal end caps
- 50 pleats, 2 1/8” High
- Metal center tube
- Anti-drainback valve – Heat Resistant Silicone
Motorcraft vs. Mobil 1

Motorcraft FL-820S vs. Mobil 1 M1-210

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

- 15 Flutes
- Metal tension clip
- Dome-end pressure internal relief valve (may allow contaminants back into engine)
- Metal center tube
- Metal end caps
- 55 pleats, 2 1/8” High
- Anti-drainback valve – Heat Resistant Silicone
Motorcraft vs. Motor Trend

**FL-820S**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**MT-2**
- 15 Flutes
- Metal tension clip
- Pressure relief valve
- White fiber end caps
- 70 pleats, 2 1/2” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. NAPA ProSelect

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

FL-820S

- 15 Flutes
- Spring for tension
- Metal end caps
- 52 pleats, 2 3/4” High
- Metal center tube
- Anti-drainback and pressure relief valve – Heat resistant silicone

21372
Motorcraft vs. NAPA Gold

Motorcraft vs. NAPA Gold

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

FL-820S

15 Flutes

- Spring for tension
- Pressure relief valve
- Metal end caps
- 56 pleats, 2 7/8” High
- Metal center tube
- Anti-drainback valve – Heat resistant silicone

1372
Motorcraft vs. NAPA Platinum

Motorcraft
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal end caps
- Metal center tube
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

FL-820S

NAPA Platinum
- 15 Flutes
- Spring for tension
- Pressure relief valve
- Metal end caps
- Metal center tube
- 40 pleats, 2 3/4” High
- Anti-drainback valve – Heat resistant silicone

41372
Motorcraft vs. Parts Plus

FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8" High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

PH820
- 15 Flutes
- Spring for tension
- Pressure relief valve
- Metal end caps
- 55 pleats, 2 1/2" High
- Metal center tube
- Anti-drainback valve – Heat Resistant Silicone
Motorcraft vs. ProLine

FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

PPL-24651
- 15 Flutes
- Metal tension clip
- Metal center tube
- Metal end caps
- 42 pleats, 1 3/4” High
- Dome-end pressure relief valve (may allow contaminants back into engine)
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Pronto

- FL-820S
  - 50 flutes. More flutes for easy removal
  - Metal tension clip
  - Metal center tube
  - Metal end caps
  - 50 pleats, 2 5/8” High
  - Internal pressure relief valve at inlet
  - Anti-drainback valve – Heat Resistant Silicone

- PO 4651
  - 15 Flutes
  - Spring for tension
  - Pressure relief valve
  - Metal end caps
  - 55 pleats, 2 3/8” High
  - Metal center tube
  - Anti-drainback valve – Heat Resistant Silicone
Motorcraft vs. PRO-TEC

Motorcraft
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

FL-820S

PRO-TEC
- 15 Flutes
- Spring for tension
- Metal end caps
- Metal center tube
- 52 pleats, 2 5/8” High
- Anti-drainback and pressure relief valve – Nitrile Rubber (prone to harden with heat)

159
Motorcraft vs. Purolator L

**Motorcraft (FL-820S)**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**Purolator L (L 24651)**
- 15 Flutes
- Metal tension clip
- Pressure relief valve
- Metal end caps
- 65 pleats, 2 3/8” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Purolator PL

Motorcraft FL-820S
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

Purolator PL 24651
- 15 Flutes
- Metal tension clip
- Pressure relief valve
- Metal center tube
- Metal end caps
- 65 pleats, 2 3/8” High
- Anti-drainback valve – Heat Resistant Silicone
Motorcraft vs. Relia Guard (FVP)

- **Motorcraft FL-820S**
  - 50 flutes. More flutes for easy removal
  - Metal tension clip
  - Metal center tube
  - Metal end caps
  - 50 pleats, 2 5/8” High
  - Internal pressure relief valve at inlet
  - Anti-drainback valve – Heat Resistant Silicone

- **Relia Guard R1372**
  - 15 Flutes
  - Spring for tension
  - Pressure relief valve
  - Metal end caps
  - 66 pleats, 2 1/4” High
  - Metal center tube
  - Anti-drainback valve – Nitrile Rubber (prone to harden with heat)

Factory Motor Parts Private Label Filter
Motorcraft vs. Service Pro

Motorcraft vs. Service Pro

FL-820S

- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

M4651

- 15 Flutes
- Spring for tension
- Pressure relief valve
- Metal end caps
- 65 pleats, 2 1/4” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Sure Filter

**Motorcraft FL-820S**
- 50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

**Sure Filter SFO 4651**
- 15 Flutes
- Spring for tension
- Pressure relief valve
- Metal end caps
- 57 pleats, 2 ¼” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)
Motorcraft vs. Valvoline

50 flutes. More flutes for easy removal
- Metal tension clip
- Metal center tube
- Metal end caps
- 50 pleats, 2 5/8” High
- Internal pressure relief valve at inlet
- Anti-drainback valve – Heat Resistant Silicone

FL-820S

15 Flutes
- Metal tension clip
- Pressure relief valve
- Metal end caps
- 61 pleats, 2 3/4” High
- Metal center tube
- Anti-drainback valve – Nitrile Rubber (prone to harden with heat)

VO-105