Pulsation Dampers
Stainless Steel
0 to 690 bar range
Design Features and Benefits

1 Shell
CE certified in accordance with the PED (97/23/EC) where applicable. Manufactured from high grade 316 Stainless Steel, other materials available.

- Nominal capacities 0.1 litre to 5 litres.
- Working pressures of up to 690 bar, higher pressures available on request.
- Wide range of separator materials available
- Designed to PD5500 or ASME VIII Div 1.
- U Stamp is available as an option.

2 Label
Vessel information is stamped directly on shell. Stainless Steel nameplates are available at an extra cost.

3 Material Certification
Material certifications are available to EN10204 3.1 NACE MR0175 compliance is available on request.

4 Finish
Not painted as standard. Special paints available.

5 Fluid Port
A large variation of threaded or flanged options are available. For connection options please see page 3.

6 Safety
All gas-loaded pulsation dampers are pressurised vessels and it is recommended that safety consideration be given to the application in which they are used. A relief valve should always be fitted to the hydraulic system with the option of a burst disc to protect the pulsation dampers. See Installation and Servicing data sheet for information regarding installation of pulsation dampers.

7 Pressure Testing
A hydrostatic pressure test is carried out on all our pulsation dampers shells during the manufacturing process. We can carry out additional pressure testing witnessed by a specified Inspection Authority and/or customer as an optional extra if required.

We can also carry out a hydro-pneumatic pressure test on the complete assembly as an optional extra if required. Again this can be witnessed by a specified inspection authority and/or customer.

8 Accessories
A complete range of damper charging equipment is available from Parker Olaer.

9 Spare Parts
Available on request.
### How to Order Pulsation Dampers

#### Pulsation Dampers, Stainless Steel
- 120, 180, 250, 300, 350, 430, 450 & 690 bar

**Damper type**

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>APD</td>
<td>Standard pressure</td>
</tr>
<tr>
<td>BPD</td>
<td>High pressure</td>
</tr>
<tr>
<td>CPD</td>
<td>ASME standard pressure</td>
</tr>
<tr>
<td>DPD</td>
<td>ASME high pressure</td>
</tr>
<tr>
<td>EPD</td>
<td>‘Special’ alternative materials or high pressures.</td>
</tr>
</tbody>
</table>

**Nominal volume (litres)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Nominal Volume (Litres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>0.1</td>
</tr>
<tr>
<td>025</td>
<td>0.25</td>
</tr>
<tr>
<td>050</td>
<td>0.5</td>
</tr>
<tr>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>200</td>
<td>2</td>
</tr>
<tr>
<td>300</td>
<td>3</td>
</tr>
<tr>
<td>500</td>
<td>5</td>
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</table>

**Bladder material**

<table>
<thead>
<tr>
<th>Code</th>
<th>Bladder Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Nitrile (NBR)</td>
</tr>
<tr>
<td>A</td>
<td>EPDM</td>
</tr>
<tr>
<td>6</td>
<td>Viton (FKM)</td>
</tr>
</tbody>
</table>

Other bladder materials are available on request.

**Fluid end connection**

<table>
<thead>
<tr>
<th>Code</th>
<th>Fluid end connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>1/2&quot; BSP (F)</td>
</tr>
<tr>
<td>002</td>
<td>3/4&quot; BSP (F)</td>
</tr>
<tr>
<td>003</td>
<td>1&quot; BSP (F)</td>
</tr>
<tr>
<td>004</td>
<td>1 1/2 BSP (F)</td>
</tr>
<tr>
<td>005</td>
<td>1/2&quot; NPT (F)</td>
</tr>
<tr>
<td>006</td>
<td>2&quot; BSP (F)</td>
</tr>
<tr>
<td>007</td>
<td>3/4&quot; NPT (F)</td>
</tr>
<tr>
<td>008</td>
<td>1&quot; NPT (F)</td>
</tr>
<tr>
<td>009</td>
<td>1/4&quot; NPT (F)</td>
</tr>
<tr>
<td>010</td>
<td>2&quot; NPT (F)</td>
</tr>
<tr>
<td>011</td>
<td>3/8&quot; NPT (F)</td>
</tr>
<tr>
<td>012</td>
<td>3/8&quot; NPT (F)</td>
</tr>
<tr>
<td>013</td>
<td>1/2&quot; 150 lb R/F Flange</td>
</tr>
<tr>
<td>014</td>
<td>1&quot; 150 lb R/F Flange</td>
</tr>
<tr>
<td>015</td>
<td>1/2&quot; 300 lb R/F Flange</td>
</tr>
<tr>
<td>016</td>
<td>1&quot; 300 lb R/F Flange</td>
</tr>
<tr>
<td>017</td>
<td>2&quot; 150 lb R/F Flange</td>
</tr>
<tr>
<td>018</td>
<td>2&quot; 300 lb R/F Flange</td>
</tr>
<tr>
<td>019</td>
<td>1/2&quot; 1500lb RTJ Flange</td>
</tr>
<tr>
<td>020</td>
<td>1&quot; 1500lb RTJ Flange</td>
</tr>
<tr>
<td>021</td>
<td>1/2&quot; 2500lb RTJ Flange</td>
</tr>
</tbody>
</table>

Other thread and flange options available on request.

**Example:** APD001-0-0001

<table>
<thead>
<tr>
<th>Damper Type</th>
<th>Standard Pressure (see page 4 for design pressure)</th>
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</thead>
<tbody>
<tr>
<td>Nominal Volume (litres)</td>
<td>0.1 litre</td>
</tr>
<tr>
<td>Bladder Material</td>
<td>Nitrile</td>
</tr>
<tr>
<td>Fluid End Connection</td>
<td>1/2&quot; BSP (F)</td>
</tr>
</tbody>
</table>
Note: Dimensions are based on current stock and are subject to change without prior notice.

- "U" Stamp options are also available at extra cost. Request price if required.
- APD/CPD models have brass gas valves
- BPD/DPD models have stainless steel gas valves
Flanged Fluid End Options

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>½&quot;</th>
<th>¾&quot;</th>
<th>1&quot;</th>
<th>1 ¼&quot;</th>
<th>1 ½&quot;</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>150lb Diameter</td>
<td>88.9</td>
<td>98.4</td>
<td>107.9</td>
<td>117.5</td>
<td>127</td>
<td>152.4</td>
</tr>
<tr>
<td>Length &quot;L&quot;</td>
<td>47.6</td>
<td>52.4</td>
<td>55.6</td>
<td>57.1</td>
<td>61.9</td>
<td>63.5</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.5</td>
<td>0.7</td>
<td>1.1</td>
<td>1.5</td>
<td>1.8</td>
<td>2.7</td>
</tr>
<tr>
<td>300lb Diameter</td>
<td>95.2</td>
<td>117.5</td>
<td>123.8</td>
<td>133.4</td>
<td>155.6</td>
<td>165.1</td>
</tr>
<tr>
<td>Length &quot;L&quot;</td>
<td>52.4</td>
<td>57.1</td>
<td>61.9</td>
<td>65.1</td>
<td>68.3</td>
<td>69.8</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.8</td>
<td>1.3</td>
<td>1.7</td>
<td>2.2</td>
<td>3.2</td>
<td>3.6</td>
</tr>
<tr>
<td>600lb Diameter</td>
<td>95.2</td>
<td>117.5</td>
<td>123.8</td>
<td>133.4</td>
<td>155.6</td>
<td>165.1</td>
</tr>
<tr>
<td>Length &quot;L&quot;</td>
<td>52.4</td>
<td>57.1</td>
<td>61.9</td>
<td>66.7</td>
<td>69.8</td>
<td>73</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.9</td>
<td>1.5</td>
<td>1.9</td>
<td>2.6</td>
<td>3.3</td>
<td>4.7</td>
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<tr>
<td>900lb Diameter</td>
<td>120.6</td>
<td>130.2</td>
<td>149.2</td>
<td>158.7</td>
<td>177.8</td>
<td>215.9</td>
</tr>
<tr>
<td>Length &quot;L&quot;</td>
<td>60.3</td>
<td>69.8</td>
<td>73</td>
<td>73</td>
<td>82.5</td>
<td>101.6</td>
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<tr>
<td>Weight (kg)</td>
<td>1.9</td>
<td>2.6</td>
<td>3.8</td>
<td>4.4</td>
<td>6.1</td>
<td>11.1</td>
</tr>
<tr>
<td>1500lb Diameter</td>
<td>120.6</td>
<td>130.2</td>
<td>149.2</td>
<td>158.7</td>
<td>177.8</td>
<td>215.9</td>
</tr>
<tr>
<td>Length &quot;L&quot;</td>
<td>60.3</td>
<td>69.8</td>
<td>73</td>
<td>73</td>
<td>82.5</td>
<td>101.6</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>1.9</td>
<td>2.6</td>
<td>3.8</td>
<td>4.4</td>
<td>6.1</td>
<td>11.1</td>
</tr>
<tr>
<td>2500lb Diameter</td>
<td>133.3</td>
<td>139.7</td>
<td>158.8</td>
<td>184.2</td>
<td>203.2</td>
<td>235</td>
</tr>
<tr>
<td>Length &quot;L&quot;</td>
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<td>79</td>
<td>89</td>
<td>95</td>
<td>111</td>
<td>127</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>3.6</td>
<td>4.1</td>
<td>5.9</td>
<td>9</td>
<td>13</td>
<td>19</td>
</tr>
</tbody>
</table>

Note: In most cases the fitting of a flange will de-rate the design pressure of the damper if in any doubt please refer to flange specification ANSI B16.5 for the maximum working pressures.

These dimensions are weights are to be added to the damper dimensions if a flange is required.

Note: Dimensions are based on current stock and are subject to change without prior notice.
Parker Worldwide

Europe, Middle East, Africa
AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com
AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com
AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.eastern@parker.com
AZ – Azerbaijan, Baku
Tel: +994 50 22 33 458
parker.azerbaijan@parker.com
BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com
BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parker.bulgaria@parker.com
BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com
CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com
CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com
DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com
DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com
ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com
FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com
FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com
GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com
HU – Hungary, Budaoers
Tel: +36 23 885 470
parker.hungary@parker.com
IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com
IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com
KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parker.kazakhstan@parker.com
NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com
NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com
PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com
PT – Portugal, Leça da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com
RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com
RU – Russia, Moscow
Tel: +7 495 645 2156
parker.russia@parker.com
SE – Sweden, Spånga
Tel: +46 (0)59 79 50 00
parker.sweden@parker.com
SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com
SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com
TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com
UA – Ukraine, Kiev
Tel: +380 44 494 2731
parker.ukraine@parker.com
UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com
ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America
CA – Canada, Milton, Ontario
Tel: +1 905 693 3000
US – USA, Cleveland (industrial)
Tel: +1 216 896 3000
US – USA, Elk Grove Village (mobile)
Tel: +1 847 258 6200

Asia Pacific
AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777
CN – China, Shanghai
Tel: +86 21 2899 5000
HK – Hong Kong
Tel: +852 2428 8008
ID – Indonesia, Tangerang
Tel: +62 21 7588 1906
IN – India, Mumbai
Tel: +91 22 6513 7081-85
JP – Japan, Fujisawa
Tel: +81 (0)46635 3050
KR – South Korea, Seoul
Tel: +82 2 559 0400
MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800
NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744
SG – Singapore
Tel: +65 6887 6300
TH – Thailand, Bangkok
Tel: +662 717 8140
TW – Taiwan, New Taipei City
Tel: +886 2 2298 8987
VN – Vietnam, Ho Chi Minh City
Tel: +84 8 3999 1600

South America
AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129
BR – Brazil, Cachoeirinha RS
Tel: +55 51 3470 9144
CL – Chile, Santiago
Tel: +56 2 623 1216
MX – Mexico, Toluca
Tel: +52 72 2275 4200

EMEA Product Information Centre
Free phone: 00 800 27 27 5374
(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre
Toll-free number: 1-800-27 27 537
www.parker.com

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