HYDROCYCLONE SAND SEPARATORS - SERIES 5000

The ODIS hydrocyclone separator is a simple device, easy to operate and maintain. It has no moving parts or screens. The hydrocyclone separates sand and other solid matter with very little head loss and 90% or better efficiency, no head loss build up and no clogging by solids being separated. Its versatility in system configurations and its economy in installation are some of its great advantages.

Features
• The hydrocyclones use a tangential injection flow process, enhancing the centrifugal forces and moving solid particles outwards
• The dispersed particles move downwards in a spiral path into an underflow chamber, while clean liquid moves upwards to the centre of the spiral, towards the top outlet
• The underflow chamber can be drained manually or automatically without interfering with the proper functioning of the hydrocyclone
• Modular design - suitable for use in arrays for various flow rates
• 100 micron extra-durable polyester, applied electrostatically and oven-cured on a zinc-phosphate layer for maximal anti-corrosion protection

Applications
• Used for separation of sand and other solid matter from water or other liquids
• Protects pump, valves and irrigation systems from damage and abrasion caused by suspended solids
• For agriculture, domestic, industrial and municipal use

Specifications
Recommended Flow Range: Up to 2666lpm
Maximum recommended working pressure: 800kPa
Maximum pressure: 1000kPa
End Connection Type: Threaded (25,40&50mm) & Flanged (80,100,150mm)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>20mm Flow Range: 33lpm - 50lpm</td>
<td>OD50307 20mm Female BSP Hydrocyclone Sand Separator</td>
</tr>
<tr>
<td>25mm Flow Range: 58lpm - 125lpm</td>
<td>OD50410 25mm Female BSP Hydrocyclone Sand Separator</td>
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<tr>
<td>40mm Flow Range: 125lpm - 200lpm</td>
<td>OD50615 40mm Female BSP Hydrocyclone Sand Separator</td>
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<tr>
<td>50mm Flow Range: 183lpm - 283lpm</td>
<td>OD50820 50mm Female BSP Hydrocyclone Sand Separator</td>
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<tr>
<td>80mm Flow Range: 300lpm - 566lpm</td>
<td>OD50830 80mm Flanged Table D Hydrocyclone Sand Separator</td>
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<tr>
<td>100mm Flow Range: 583lpm - 866lpm</td>
<td>OD51243 100mm Inlet / 80mm Outlet Flanged Table D Hydrocyclone Sand Separator</td>
</tr>
<tr>
<td>150mm Flow Range: 1633lpm - 2666lpm</td>
<td>OD52060 150mm Flanged Table D Hydrocyclone Sand Separator</td>
</tr>
</tbody>
</table>
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## Head Loss

<table>
<thead>
<tr>
<th>Model</th>
<th>Head Loss dP (bar)</th>
<th>Flow Rate Q (m³/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>50307</td>
<td>2.1</td>
<td>2.6</td>
</tr>
<tr>
<td>50410</td>
<td>3.4</td>
<td>4.2</td>
</tr>
<tr>
<td>50615</td>
<td>7.6</td>
<td>9.3</td>
</tr>
<tr>
<td>50820</td>
<td>10.1</td>
<td>12.4</td>
</tr>
<tr>
<td>50830</td>
<td>21.1</td>
<td>25.9</td>
</tr>
<tr>
<td>51243</td>
<td>30.4</td>
<td>37.2</td>
</tr>
<tr>
<td>51640</td>
<td>50.1</td>
<td>61.3</td>
</tr>
<tr>
<td>52060</td>
<td>98.2</td>
<td>117.8</td>
</tr>
</tbody>
</table>

## Head Loss / Flow Rate

![Graph showing Head Loss vs Flow Rate](image.png)

- 1 bar = 100 kPa = 1.02 kg/cm² = 10.2 m (W.C) = 14.5 psi

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FILTER DIMENSIONS

**OD50410**
Filter Dimensions
B: 25mm  
D: 100mm  
H: 460mm  
H1: 380mm  
H3: 345mm  
L: 140mm  
T: 40mm  
Weight: 9kg  
Threaded End Connection

**OD50615**
Filter Dimensions
B: 40mm  
D: 150mm  
H: 720mm  
H1: 580mm  
H3: 480mm  
L: 240mm  
T: 61mm  
Weight: 18kg  
Threaded End Connection

**OD50820**
Filter Dimensions
B: 50mm  
D: 200mm  
H: 735mm  
H1: 575mm  
H3: 530mm  
L: 295mm  
T: 80mm  
Weight: 20kg  
Threaded End Connection

**OD50830**
Filter Dimensions
B: 80mm  
D: 200mm  
H: 830mm  
H1: 660mm  
H3: 625mm  
L: 300mm  
T: 65mm  
Weight: 27kg  
Flanged Table D

**OD51243**
Filter Dimensions
B: 100mm in/ 80mm out  
D: 300mm  
H: 1330mm  
H1: 1130mm  
H3: 725mm  
L: 500mm  
T: 105mm  
Weight: 66kg  
Flanged Table D

**OD52060**
Filter Dimensions
B: 150mm  
D: 500mm  
H: 1900mm  
H1: 1610mm  
H3: 1150mm  
L: 600mm  
T: 170mm  
Weight: 172kg  
Flanged Table D
FLOW SCHEME OF HYDROCYCLONE AND MODE OF SEPARATION