V Series

Heavy-Duty
Vertical Cantilever Slurry Pump

Elastomer and Hi-Chrome Wet Parts
SERIES OVERVIEW

The V Series are known for their reliable abrasion and corrosion resistance in sumps and pits where conventional lighter-duty pumps are not suited. Schurco Slurry has invested in producing the highest quality and heaviest duty wear components that will outlast the competition.

**Mining & Mineral Processing**

applications benefit from the slow running speeds of the V Series pumps and their easily replaceable elastomer or white iron liners and impellers. Especially suited for sumps and pits where washdown from all over the plant collects for removal.

**Industrial**

operations are familiar with the heavy toll that maintenance on slurry pumps can take on a budget. Schurco Slurry® pumps are designed for ease of maintenance, minimizing downtime when standby pumps are not available.

**Schurco Slurry® Pumps are designed specifically for abrasive pumping of any kind**

**Widely Fielded Applications**

- Floor Pumps
- Coal Preparation
- Mineral Processing
- Industrial Sand and Aggregate
- Frac Sand
- Chemical Processing
The V Series pumps employ a rigorous heavy-duty cantilever design, which can run continuously in abrasive and corrosive pumping environments.

**Application Range**
- Discharge sizes 1.5" to 10" (40 to 250 mm)
- Flow rates through 5,000 gpm (1135 m³/hr)
- Total Head up to 160 ft (50 m)
- Cantilevered depth to 12 ft (3600 mm) with suction extension pipe
- Shaft sizes through 200 mm

**V Series Pumps**

<table>
<thead>
<tr>
<th>Base Model</th>
<th>Bearing Assembly</th>
<th>Nominal Pump Depth* (inches, [mm])</th>
<th>Nominal Suction x Discharge (inches, [mm])</th>
<th>Nominal Impeller** Diameter (inches, [mm])</th>
<th>Solid Sphere Passing, ø** (inches, [mm])</th>
<th>Impeller** Materials</th>
<th>Liner Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 V 40</td>
<td>PV</td>
<td>48 [1200]</td>
<td>2x1.5 [50x40]</td>
<td>7.40 [188]</td>
<td>0.47 [11.9]</td>
<td>Chrome Iron(s) and Elastomer(s) Available</td>
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<tr>
<td>2.5 V 65</td>
<td>QV</td>
<td>48 [1200]</td>
<td>3x2.5 [75x65]</td>
<td>11.02 [280]</td>
<td>0.59 [15]</td>
<td>Chrome Iron(s) and Elastomer(s) Available</td>
<td></td>
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<tr>
<td>4 V 100</td>
<td>RV</td>
<td>60 [1500]</td>
<td>6x4 [150x100]</td>
<td>14.57 [370]</td>
<td>1.26 [32]</td>
<td>NOTE: Open face, large particle and specialized impellers for certain models</td>
<td></td>
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<tr>
<td>6 V 150</td>
<td>SV</td>
<td>72 [1800]</td>
<td>8x6 [200x150]</td>
<td>17.72 [450]</td>
<td>1.77 [45]</td>
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<tr>
<td>8 V 250</td>
<td>SV</td>
<td>72 [1800]</td>
<td>10x8 [250x200]</td>
<td>20.47 [520]</td>
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<tr>
<td>10 V 250</td>
<td>TV</td>
<td>84 [2100]</td>
<td>12x10 [300x250]</td>
<td>22.64 [575]</td>
<td>2.56 [65]</td>
<td>Chrome Iron(s) and Elastomer(s) Available</td>
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</table>

*Three standard pump depths offered for every base model: nominally 12" shorter and 12" longer than the standard depth

**Key Advantages**
- Fully cantilevered design
- Continuous or “snore” operation capability
- Large particle impellers available
- Abrasion and corrosion resistant material options
- No submerged bearings
- No shaft seal required
- No gland water or packing required
- Top and bottom suction draws slurry away from bearings

**Bearing Assembly Ratings**

<table>
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<tr>
<th>Type</th>
<th>Capacity (HP [kW])</th>
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<tr>
<td>PV</td>
<td>20 [15]</td>
</tr>
<tr>
<td>QV</td>
<td>40 [30]</td>
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<tr>
<td>RV</td>
<td>101 [75]</td>
</tr>
<tr>
<td>SV</td>
<td>148 [110]</td>
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<tr>
<td>TV</td>
<td>268 [200]</td>
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</table>

- Grease-lubricated cartridge bearing assembly
- Extended bearing life with oversized shaft diameters and bearings
- Only the highest quality name brand tapered-roller and roller bearings
- Safe and simple impeller adjustment to maintain top efficiency
V SERIES BREAKDOWN

BEARINGS
Oversized bearings support the cantilevered load allowing for greater speeds and head, while mitigating damaging vibrations.

MOUNTING PLATE
Rugged mounting plate supports the pump and ancillary equipment requiring little additional support aside from four mounting anchors.

NO SUBMERGED BEARINGS

DOUBLE-SUCTION
Top and bottom suction allows for greater flow access and reduces material “coning” around the standard bottom-only vertical pump intakes.

CAST DISCHARGE NECK
Schurco Slurry vertical pumps have 100% integrated discharge necks keeping the wear tolerant materials where they’re needed most.

SHAFT
Oversized, high-strength, alloy steel shaft limits deflection during operation.
BACK LINER
The opened back liner allows plenty of room for the oversized shaft along with slurry to pass through and pump from the top and bottom. The top suction draws the slurry away from the drive end.

IMPELLER
Heavy-duty open style impellers draw suction from the top and bottom allowing greater, more efficient flow, and wear evenly throughout the life of the part.

CASING
The ultra-thick casings are cast solid in the most wear resistant materials with an integral discharge neck to remove a major point of failure in other vertical pumps.

LOWER STRAINER
The lower strainers keep large foreign material from entering the casing.

MOTOR SHAFT DOWN MOUNTING (STANDARD)

MOTOR SHAFT UP MOUNTING

SUCTION EXTENSION for pumping out deep-set pits and sumps.

LARGE PARTICLE IMPELLER

All wetted parts shown here available in elastomer configuration for most models.
V Series Hydraulic Coverage

Material Selection

<table>
<thead>
<tr>
<th>Casing</th>
<th>Impellers</th>
<th>Liner</th>
<th>Seals</th>
<th>Column and Discharge Pipe</th>
<th>Mounting Plate</th>
<th>Shaft</th>
<th>Strainers</th>
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<tr>
<td>Standard</td>
<td>Chrome Alloy** Natural Rubber**</td>
<td>Chrome Alloy** Natural Rubber**</td>
<td>Chrome Alloy** Natural Rubber**</td>
<td>Rubber Nitrite</td>
<td>Milled Steel Rubber lined steel</td>
<td>Steel</td>
<td>AISI 1040/1045 Ductile Iron Rubber</td>
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<tr>
<td>Options</td>
<td>Other Alloys</td>
<td>Other Alloys</td>
<td>Other Alloys</td>
<td>Neoprene Butyl EPDM Hypalon Nitrite</td>
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<td>Other Alloys Neoprene Butyl EPDM Hypalon Nitrite</td>
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*Standard Chrome Alloy: ASTM A532 Class III Type A – 27% Cr. 650BHN. Alternatives available for highly corrosive services.
** Through model 6V150
<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>U (mm)</th>
<th>Mass (lbs)</th>
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All dimensions in inches except shaft diameter “U” which is in [mm]
Type: “M” is all metal construction. “R” is all rubber (or other elastomer) wetted parts.
These dimensions are a first look only. Please consult factory certified drawings for any construction or layout purposes.