Hydraulic Pump
T7AS/T7ASW Series
Vane Pumps

Pressure up to 300 bar
Fixed Displacement from 6 to 40 ml/rev.

Catalogue HY29-0008/UK
December 2005
GENERAL

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T7ASW

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MINIMUM & MAXIMUM SPEED, PRESSURE RATINGS

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<thead>
<tr>
<th>Size</th>
<th>Series</th>
<th>Theoretical Displacement</th>
<th>Minimum Speed</th>
<th>Maximum Speed</th>
<th>Maximum pressure</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>ml/rev.</td>
<td>RPM</td>
<td>RPM</td>
<td>RPM</td>
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<tr>
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<td>B06</td>
<td>5.8</td>
<td>600</td>
<td>3600</td>
<td>1800</td>
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<tr>
<td></td>
<td>B10</td>
<td>9.8</td>
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<tr>
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<td>B26</td>
<td>26.0</td>
<td>3000</td>
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<td>B40</td>
<td>40.0</td>
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<td>B36</td>
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<td>B40</td>
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</table>

HF-0, HF-2 = Antiwear Petroleum Base
HF-1 = Non Antiwear Petroleum Base
HF-3 = Water in oil Emulsions
HF-4 = Water Glycols

* Please be careful as the cartridge designation is now in ml/rev. (example : B22 = 22.5 ml/rev.)

For further information or if the performance characteristics outlined above do not meet your particular requirements, please consult your local Parker Denison office.
MINIMUM ALLOWABLE INLET PRESSURE (BAR ABSOLUTE)

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>Series</th>
<th>Speed RPM</th>
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<tr>
<td></td>
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<td>1200</td>
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<td>T7AS</td>
<td>B06</td>
<td>0,80</td>
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<td>B10</td>
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<td></td>
<td>B32</td>
<td>0,80</td>
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<td>B34</td>
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<td></td>
<td>B36</td>
<td>0,80</td>
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<tr>
<td></td>
<td>B40</td>
<td>0,80</td>
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</tbody>
</table>

Inlet pressure is measured at inlet flange with petroleum base fluids at viscosity between 10 and 65 cSt. The difference between inlet pressure at the pump flange and atmospheric pressure must not exceed 0,2 bar to prevent aeration.

Multiply absolute pressure by 1,25 for HF-3, HF-4 fluids.
by 1,10 for ester or rapeseed base.

GENERAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>Mounting standard</th>
<th>Weight without connector and bracket kg</th>
<th>Moment of inertia Kg m² x 10⁻⁴</th>
<th>Suction</th>
<th>Pressure</th>
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</thead>
<tbody>
<tr>
<td>T7AS</td>
<td>SAE J744/ISO3019-1 SAE A</td>
<td>9,5</td>
<td>2,6</td>
<td>1” - SAE 4 bolts J518 - ISO/DIS 6162-1</td>
<td>3/4” - SAE 4 bolts J518 - ISO/DIS 6162-1</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>SAE 16 - SAE threads 1” 5/16 - 12 UNF - 2B</td>
<td>SAE 12 - SAE threads 1” 1/16 - 12 UNF - 2B</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>NPTF threads 1” 1/4 NPTF</td>
<td>NPTF threads 3/4” NPTF</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>1” BSP</td>
<td>3/4” BSP</td>
</tr>
<tr>
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<td></td>
<td>SAE 20 - SAE threads 1” 5/8 - 12 UNF - 2B</td>
<td>SAE 12 - SAE threads 1” 1/16 - 12 UNF - 2B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NPTF threads 1” 1/4 NPTF</td>
<td>SAE 12 - SAE threads 1” 1/16 - 12 UNF - 2B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1”1/4 BSP</td>
<td>3/4” BSP</td>
</tr>
</tbody>
</table>
Model No.

T7AS - B17 - 1 R 00 - A 1 - 00 -

Displacement *
Volumetric displacement (ml/rev.)
B06 = 5.8
B10 = 9.8
B11 = 11.0
B13 = 12.8
B17 = 17.2
B20 = 19.8
B22 = 22.5
B25 = 24.9

Type of shaft T7AS
1 = keyed (non SAE) Ø 19.05
3 = splined 16/32 (SAE B) 13 teeth
4 = splined 16/32 (SAE A) 9 teeth

Direction of rotation (view on shaft end)
R = Clockwise
L = Counter-clockwise

Modifications
Mounting w/connection variables
00 = 4 bolts SAE flanges (J518) UNC thread
S = 1” SAE
P = 3/4” SAE
02 = SAE thread
S = 1”5/16 (SAE 16)
P = 1”1/16 (SAE 12)
03 = NPTF thread
S = 1”1/4 NPTF
P = 3/4” NPTF
04 = BSP threads
S = 1” BSP
P = 3/4” BSP

Seal class
1 = S1 BUNA N - 0.7 bar max.
(for mineral oil)
5 = S5 VITON - 0.7 bar max.
(for mineral oil and fire resistant fluids)

Design letter
Porting combination
00 = standard
P = Pressure
S = Suction

INTERNAL LEAKAGE (TYPICAL)

Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

NOISE LEVEL (TYPICAL) - T7AS B20

PERMISSIBLE RADIAL LOAD

* Cartridge designation is now in ml/rev. (example : B22 = 22.5 ml/rev.) Maximum permissible axial load Fa = 600 N
**Vane Pumps**

**T7AS / T7ASW**

**Dimensions**

- **T7AS**
  - Weight: 9.5 kg

**Shaft Code 1**

- Keyed (non SAE)

**Shaft Code 4**

- Keyed (non SAE)

**Shaft Code 3**

- SAE B splined shaft
  - Class 1 - J498
  - 16/32 d.p. - 13 teeth
  - 30° pressure angle
  - flat root side fit

**Shaft torque limits [ml/rev. x bar]**

- **Code 00**
  - Shaft Code 4
    - 1'' BSP
    - 8720

- **Code 02**
  - Shaft Code 4
    - 1'' BSF
    - 3/8''-16UNC-2B x 1 1/4''-11 NPTF 1/14 NPTF 1'' BSP
    - 8720

- **Code 03**
  - Shaft Code 4
    - 1'' BSF
    - 3/8''-16UNC-2B x 1 1/4''-11 NPTF 1/14 NPTF 1'' BSP
    - 6590

- **Code 04**
  - Shaft Code 4
    - 1'' BSF
    - 3/8''-16UNC-2B x 1 1/4''-11 NPTF 1/14 NPTF 1'' BSP
    - 6590

**Shaft Code 0**

- **A**
  - Ø 25.40
    - 3/8''-16UNC-2B x 1 '' - 12 UNF - 2B 1'' 5/16 - 12 UNF - 2B
    - 16/32 d.p. - 9 teeth
    - 30° pressure angle
    - flat root side fit

- **B**
  - Ø 19.05
    - 3/8''-16UNC-2B x 1 1/4''-11 NPTF 1/14 NPTF 1'' BSP
    - 16/32 d.p. - 9 teeth
    - 30° pressure angle
    - flat root side fit

**Option:** with valve

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**Warning:**
If inlet velocity > 1 m/s, please contact Parker Hannifin.

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**Parker Hannifin**

Denison Vane Pump Division

Vierzon - France
**Model No.**

T7ASW series - SAE A 2 bolts
Mounting flange J744

**Displacement** *

Volumetric displacement (ml/rev.)

- B26 = 26.0
- B28 = 28.0
- B30 = 30.0
- B32 = 31.8
- B34 = 34.0
- B36 = 36.0
- B40 = 40.0

**Type of shaft T7ASW**

- 1 = keyed (non SAE) Ø 19.05
- 3 = splined 16/32 (SAE B) 13 teeth
- 4 = splined 16/32 (non SAE) 11 teeth

**Direction of rotation (view on shaft end)**

- R = Clockwise
- L = Counter-clockwise

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**Modifications**

**Mounting w/connection variables**

- 00 = 4 bolts SAE flanges (J518) UNC threads
  - S = 1"1/4 SAE
  - P = 3/4" SAE
- 02 = SAE thread
  - S = 1"5/8 (SAE 20)
  - P = 1"1/16 (SAE 12)
- 03 = NPTF & SAE threads
  - S = 1"1/4 NPTF
  - P = 1"1/16 (SAE 12)
- 04 = BSP threads
  - S = 1"1/4 BSP
  - P = 3/4" BSP

**Seal class**

- 1 = S1 BUNA N - 0.7 bar max. (for mineral oil)

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**INTERNAL LEAKAGE (TYPICAL)**

Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

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**NOISE LEVEL (TYPICAL) - T7ASW B28**

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**POWER LOSS HYDROMECHANICAL (TYPICAL)**

* Cartridge designation is now in ml/rev. (example: B22 = 22.5 ml/rev.) Maximum permissible axial load Fa = 800 N

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**PERMISSIBLE RADIAL LOAD**

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Parker Hannifin
Denison Vane Pump Division
Vierzon - France
Shaft torque limits [ml/rev. x bar]

<table>
<thead>
<tr>
<th>Code</th>
<th>00</th>
<th>02</th>
<th>03</th>
<th>04</th>
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<tbody>
<tr>
<td>A</td>
<td>31.80</td>
<td>SAE # 16</td>
<td>1&quot;  1/14 NPTF</td>
<td>1&quot;  1/4 BSP</td>
</tr>
<tr>
<td>B</td>
<td>19.05</td>
<td>SAE # 12</td>
<td>SAE # 12</td>
<td>3/4&quot;  BSP</td>
</tr>
</tbody>
</table>

If inlet velocity > 1.9 m/s, please contact Parker Denison.
WARNING

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