



# DTA

Damen Technical Agencies



## Industrial Hydraulic Pumps T7D, T7DS

Denison Vane Technology, fixed displacement

### Hydraulic Pumps

- Hydraulic Motors
- Hydraulic Valves
- Hydraulic Cylinders
- Hydraulic Filtration
- Hydraulic Accumulators



ENGINEERING YOUR SUCCESS.

## We are doing our parts to keep you moving!

DTA your 1 Stop Shop for Hydraulics, Pneumatics and Power Transmissions.

# DECLARATION OF CONFORMITY

DTA Hydraulics is a tradename of Damen Technical Agencies BV, supplying hydraulic parts to various industries since 1990. As a Certified Distributor Hydraulics by Parker Hannifin and Authorized Denison Vane Pump Assembler, we guarantee the use of original parts and components. As such we provide you with vane pumps of the same level of quality and warranty conditions as the factory does.

We highly recommend to **use genuine Denison Hydraulics spare parts only** in order to ensure smooth operation and longer service life. Spare parts that we have on stock include pump cartridge kits, shaft and bearing assemblies, seal kits and non-wearing parts of both the T6 and T7 series vane pumps.



**ALL VANE PUMPS SUPPLIED OR REPAIRED BY  
DTA HYDRAULICS HAVE BEEN ASSEMBLED ACCORDING  
TO THE LATEST FACTORY SPECIFICATIONS WITH  
BRAND NEW AND GENUINE DENISON HYDRAULICS PARTS**

We are able to provide you a large variety of options of the original Parker Denison single, double, and triple vane pumps. We can build any customized vane pump from our stock of genuine parts. You can now easily configure that vane pump yourself with the Denison Hydraulics Vane Pump Configurator.

[vanepump.eu/vanepumps](http://vanepump.eu/vanepumps)

Use advanced search to filter results based on configurable options and select any of the 25,000 vane pumps that are listed in our online catalogue. Most of the models are available from stock and ready for shipment to any place in the world instantly. We can supply **Any part, Anytime, Anywhere!**



**Model No.**

**T7D\* or T7DS - B42 - 1 R 00 - A 1 - M0 - ..**

**T7D series - 125 A2 HW**  
ISO 2 bolts 3019-2 mounting flange  
**T7DS series - SAE C 2 bolts**  
J744 mounting flange  
\* Rear drive option available, please contact Parker

**Displacement**  
Volumetric displacement (ml/rev.)  
B14 = 44,0    B31 = 99,2  
B17 = 55,0    B35 = 113,4  
B20 = 66,0    B38 = 120,6  
B22 = 70,3    B42 = 137,5  
B24 = 81,1    045 = 145,7  
B28 = 90,0    050 = 158,0

**Type of shaft T7D - T7DS**  
5 = keyed (ISO 3019-2 - G32M)

**Type of shaft T7DS**  
1 = keyed (SAE C) Ø 31,7  
2 = keyed (non SAE)  
3 = splined (SAE C) 14 teeth  
4 = splined (non SAE)

**Modifications**

**Mounting w/connection variables**  
4 bolts SAE flange J518

	P = 1.1/4" - S = 2"	
	Metric thread	UNC thread
<b>T7D</b>	M0	
<b>T7DS</b>	M0	Y0 <sup>1)</sup> 00

<sup>1)</sup> 250 bar max. int.

**Seal class**

1 = S1 BUNA N - 0,7 bar max. (for mineral oil)  
4 = S4 EPDM - 7 bar max. (for fire resistant fluids)  
5 = S5 VITON® - 7 bar max. (for mineral oil and fire resistant fluids)

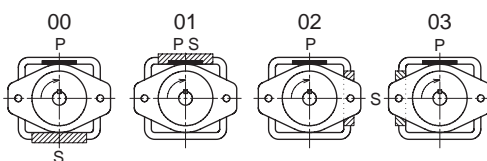
**Design letter**

**Porting combination**  
00 = standard

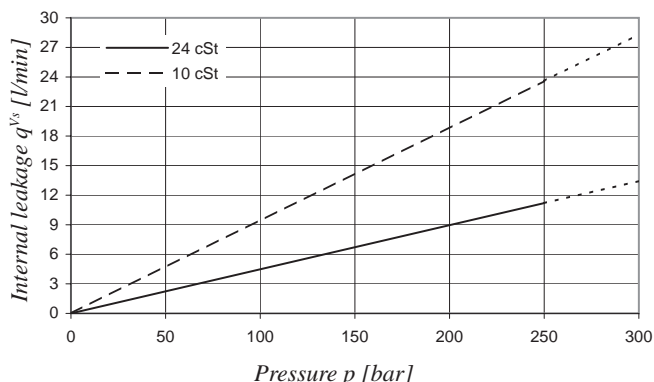
**Direction of rotation (shaft end view)**

R = Clockwise  
L = Counter-clockwise

P = Pressure port  
S = Suction port

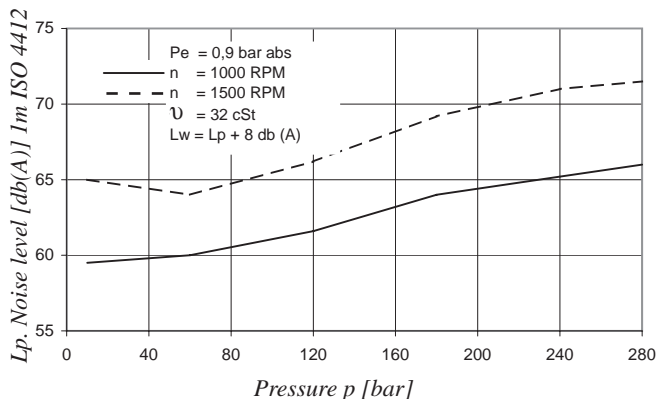


**INTERNAL LEAKAGE (TYPICAL)**

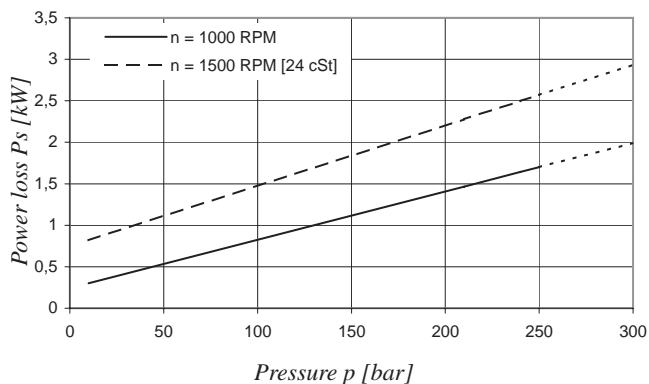


Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

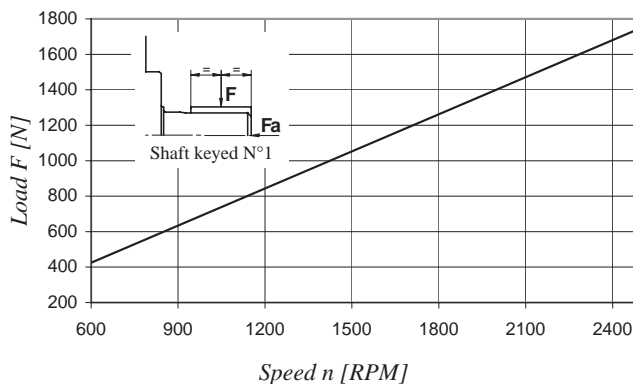
**NOISE LEVEL (TYPICAL) - T7D - B31**



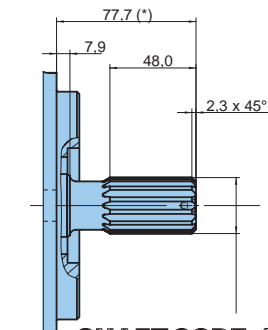
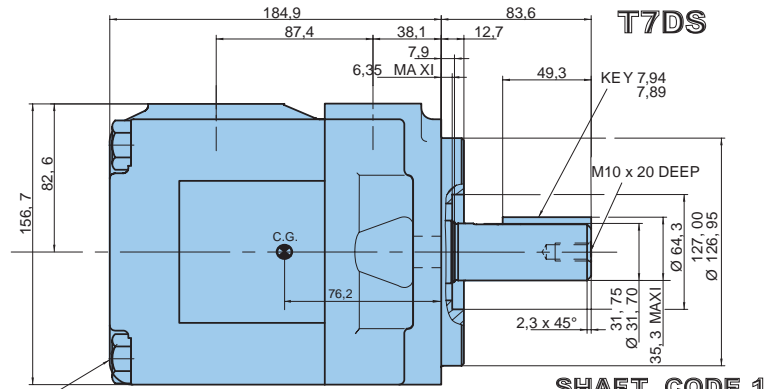
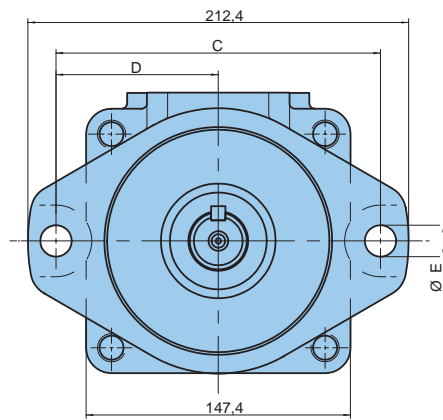
**POWER LOSS HYDROMECHANICAL (TYPICAL)**



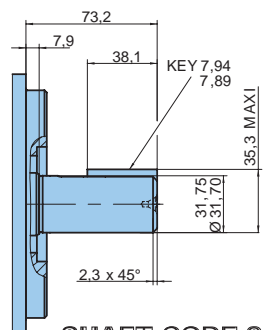
**PERMISSIBLE RADIAL LOAD**



Maximum permissible axial load Fa = 1200 N

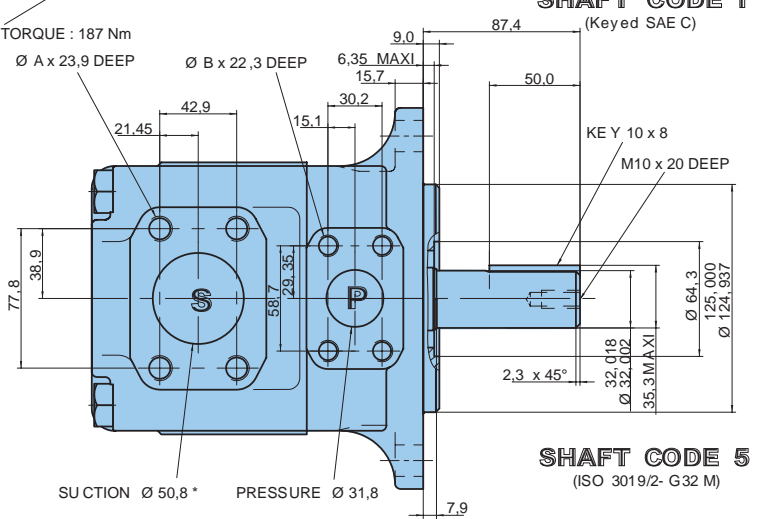


**SHAFT CODE 4**  
SAE C S<sub>pc</sub> (\*) INVOLUTE SPLINE DATA  
CLASS 1-FLAT ROOT SIDE FIT  
J498 b - PITCH 12/24  
14 TEETH - 30° PRESSURE ANGLE

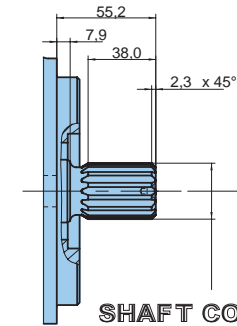


**SHAFT CODE 2**  
(Keyed non SAE)

MOUNTING TORQUE : 187 Nm



**SHAFT CODE 5**  
(ISO 3019/2- G32 M)



**SHAFT CODE 3**  
SAE C INVOLUTE SPLINE DATA  
CLASS 1-FLAT ROOT SIDE FIT  
J498 b - PITCH 12/24  
14 TEETH - 30° PRESSURE ANGLE

Model	T7D	T7DS		
Code	M0	00	M0	YO <sup>1)</sup>
Ø A	M12	1/2" - 13 UNC	M12	M12
Ø B	M12	7/16" - 14 UNC	M12	M10
C	180,0	181,0		
D	90,0	90,5		
Ø E	18,0	17,5		

<sup>1)</sup> 250 bar max. int.

Shaft torque limits [ml/rev. x bar]	
Shaft	Vi x p max.
1	43240
2	34590
3	61200
4	61200
5	44300

**OPERATING CHARACTERISTICS - TYPICAL [24 cSt]**

Pressure port	Series	Vi Volumetric displacement	Flow q <sub>v</sub> [l/min] & n = 1500 RPM			Input power P [kW] & n = 1500 RPM		
			p = 0 bar	p = 140 bar	p = 300 bar	p = 7 bar	p = 140 bar	p = 300 bar
T7D T7DS	B14	44,0 ml/rev	66,0	59,4	51,9	1,5	16,6	34,2
	B17	55,0 ml/rev	82,5	75,9	68,4	1,7	20,4	42,4
	B20	66,0 ml/rev	99,0	92,4	84,9	1,9	24,3	50,7
	B22	70,3 ml/rev	105,5	98,8	91,3	2,0	25,8	53,9
	B24	81,1 ml/rev	121,7	115,0	107,5	2,2	29,5	62,0
	B28	90,0 ml/rev	135,0	128,4	120,9	2,3	32,7	68,7
	B31	99,2 ml/rev	148,8	142,2	134,7	2,5	35,9	75,6
	B35	113,4 ml/rev	170,1	163,5	156,9 <sup>1)</sup>	2,7	40,8	80,5 <sup>1)</sup>
	B38	120,6 ml/rev	180,9	174,3	167,7 <sup>1)</sup>	2,9	43,4	85,6 <sup>1)</sup>
	B42	137,5 ml/rev	206,3	199,6	194,0 <sup>2)</sup>	3,2	49,3	90,5 <sup>2)</sup>
	045	145,7 ml/rev	218,6	209,2	202,6 <sup>3)</sup>	4,1	52,8	89,5 <sup>3)</sup>
	050	158,0 ml/rev	237,0	227,7	223,0 <sup>4)</sup>	4,4	57,1	85,0 <sup>4)</sup>

<sup>1)</sup> B35 - B38 = 280 bar max. int.    <sup>2)</sup> B42 = 260 bar max. int.    <sup>3)</sup> 045 = 240 bar max. int.    <sup>4)</sup> 050 = 210 bar max. int.

\* special 2.1/2" (Ø 63,5) suction also available - Please contact Parker.





# DTA

Damen Technical Agencies

# OVER 25 YEARS

we are doing our parts to keep you moving!

**DTA your ONE Stop Shop**

for Hydraulics, Pneumatics and Power Transmissions

**Damen Technical Agencies B.V.**

Prins Willemstraat 10 - 4791 JR Klundert - The Netherlands

+31 - 168 - 407 144

info@vanepump.eu - vanepump.eu - dta.eu



# DTA

Damen Technical Agencies