



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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T7AS

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T7ASW

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MINIMUM & MAXIMUM SPEED, PRESSURE RATINGS

Size	Series	Theoretical Displacement Vi	Minimum Speed	Maximum Speed		Maximum pressure										
				HF-0, HF-1 HF-2	HF-3, HF-4	HF-0, HF-2		HF-1, HF-4		HF-3						
		Int.	Cont.			Int.	Cont.	Int.	Cont.							
		ml/rev.	RPM	RPM	RPM	bar	bar	bar	bar	bar	bar					
T7AS*	B06	5,8	600	3600	1800	300	275	240	210	175	140					
	B10	9,8														
	B11	11,0														
	B13	12,8														
	B17	17,2														
	B20	19,8														
	B22	22,5														
	B25	24,9		3000		275	240									
T7ASW*	B26	26,0	600	3600	1800	300	275	240	210	175	140					
	B28	28,0														
	B30	30,0														
	B32	31,8														
	B34	34,0														
	B36	36,0		3000		280	240									
	B40	40,0														

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)

Cartridge		Speed RPM										Series
Size	Series	1200	1500	1800	2100	2200	2300	2500	2800	3000	3600	
T7AS	B06	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	B06
	B10											B10
	B11											B11
	B13											B13
	B17										0,88	B17
	B20										0,94	B20
	B22										1,00	B22
	B25									0,85		B25
T7ASW	B26	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	B26
	B28											B28
	B30											B30
	B32											B32
	B34										0,88	B34
	B36										0,94	B36
	B40										1,00	B40

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

	Mounting standard	Weight without connector and bracket kg	Moment of inertia $\text{Kgm}^2 \times 10^{-4}$	Suction	Pressure
T7AS	SAE J744 ISO/3019-1 SAE A	9,5	2,6	1" - SAE 4 bolts J518 - ISO/DIS 6162-1	3/4" - SAE 4 bolts J518 - ISO/DIS 6162-1
				SAE 16 - SAE threads 1" 5/16 - 12 UNF - 2B	SAE 12 - SAE threads 1" 1/16 - 12 UNF - 2B
				NPTF threads 1" 1/4 NPTF	NPTF threads 3/4" NPTF
				1" BSP	3/4" BSP
T7ASW	SAE J744 ISO/3019-1 SAE A	11,3	3,7	1" 1/4 - SAE 4 bolts J518 - ISO/DIS 6162-1	3/4" - SAE 4 bolts J518 - ISO/DIS 6162-1
				SAE 20 - SAE threads 1" 5/8 - 12 UNF - 2B	SAE 12 - SAE threads 1" 1/16 - 12 UNF - 2B
				NPTF threads 1" 1/4 NPTF	SAE 12 - SAE threads 1" 1/16 - 12 UNF - 2B
				1" 1/4 BSP	3/4" BSP

Model No.

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

T7AS series - SAE A 2 bolts

Mounting flange J744

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)

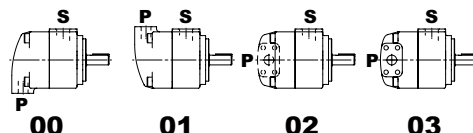
Design letter

Porting combination

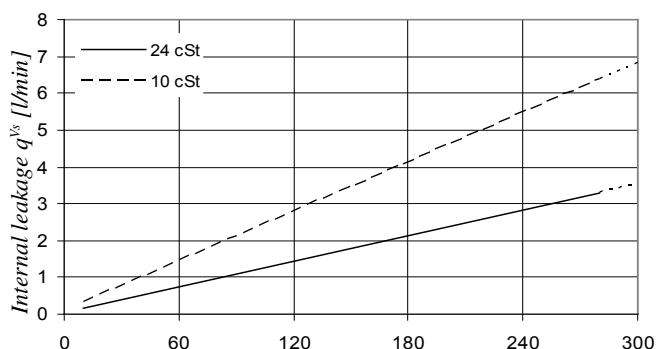
00 = standard

P = Pressure

S = Suction



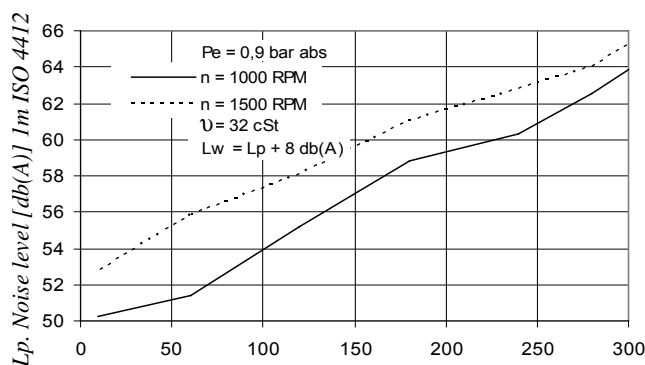
INTERNAL LEAKAGE (TYPICAL)



Pressure p [bar]

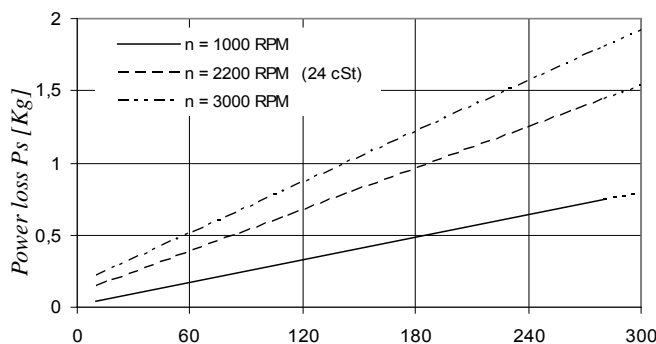
Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

NOISE LEVEL (TYPICAL) - T7AS B20



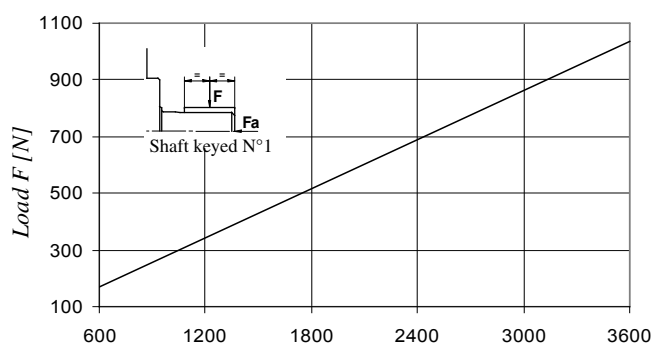
Pressure p [bar]

POWER LOSS HYDROMECHANICAL (TYPICAL)



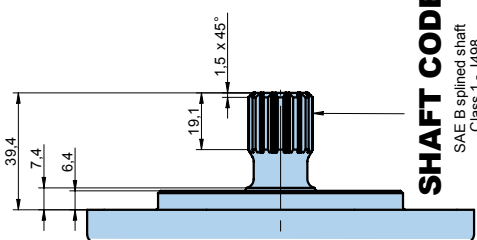
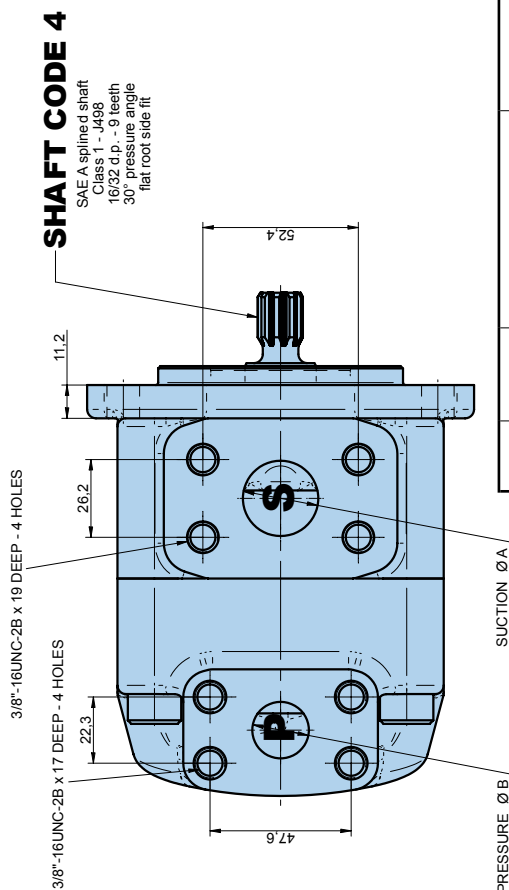
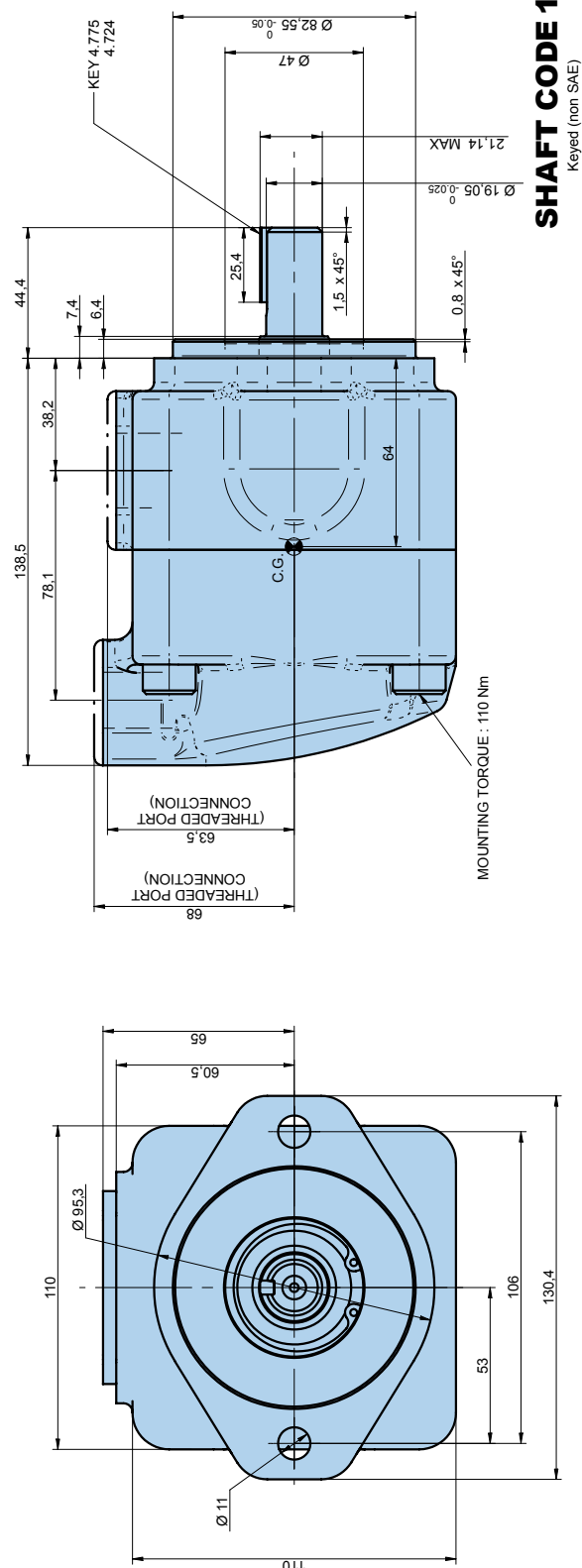
Pressure p [bar]

PERMISSIBLE RADIAL LOAD

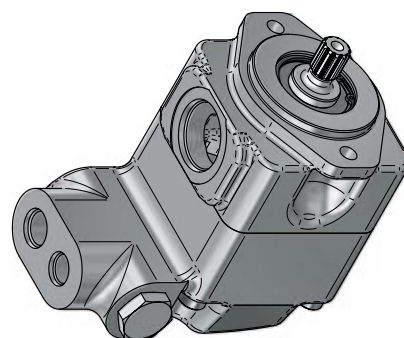


Speed n [RPM]

* Cartridge designation is now in ml/rev. (example : B22 = 22,5 ml/rev.) Maximum permissible axial load Fa = 600 N



Option : with valve



Code	00	02	03	04
A	Ø 25,40	SAE # 16 1" 5/16 - 12 UNF - 2B	1" 1/4 NPTF	1" BSP
B	Ø 19,05	SAE # 12 1" 1/16 - 12 UNF - 2B	3/4" NPTF	3/4" BSP

Shaft torque limits [ml/rev. x bar]	
Shaft	V _i x p max.
1	8720
3	8720
4	6550

! If inlet velocity > 1,9 m/s, please contact Parker Denison.

Model No.**T7ASW - B32 - 1 R 00 - A 1 - 00 - ..****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

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

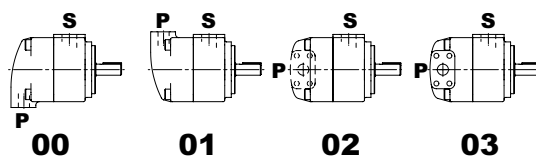
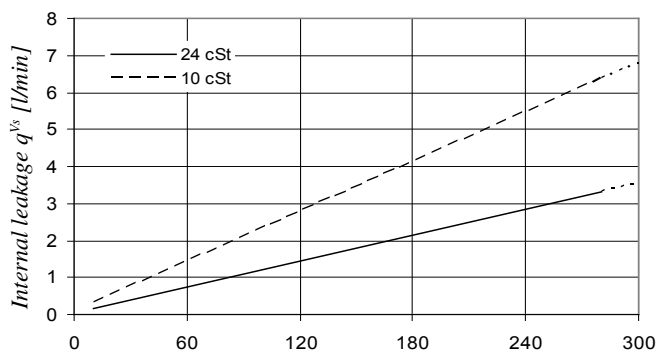
P = 3/4" BSP

Seal class1 = S1 BUNA N - 0,7 bar max.
(for mineral oil)**Design letter****Porting combination**

00 = standard

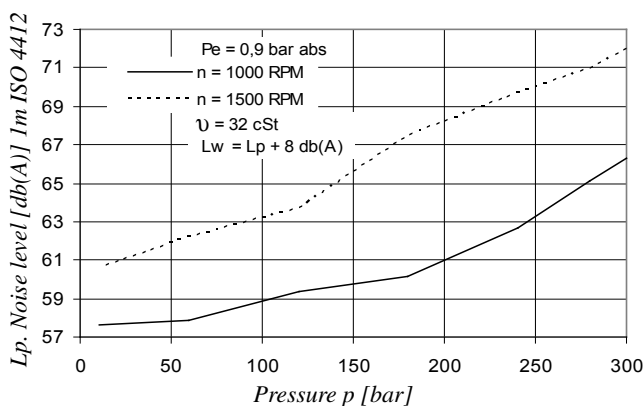
P = Pressure

S = Suction

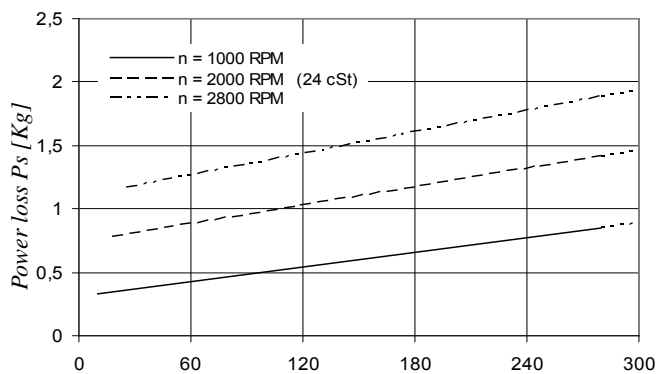
**INTERNAL LEAKAGE (TYPICAL)**

Pressure p [bar]

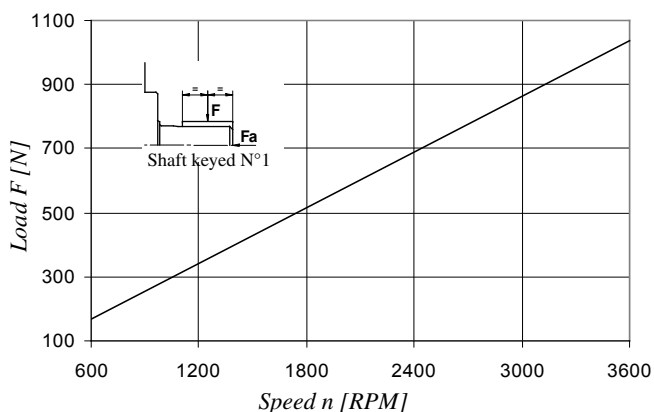
Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

NOISE LEVEL (TYPICAL) - T7ASW B28

Pressure p [bar]

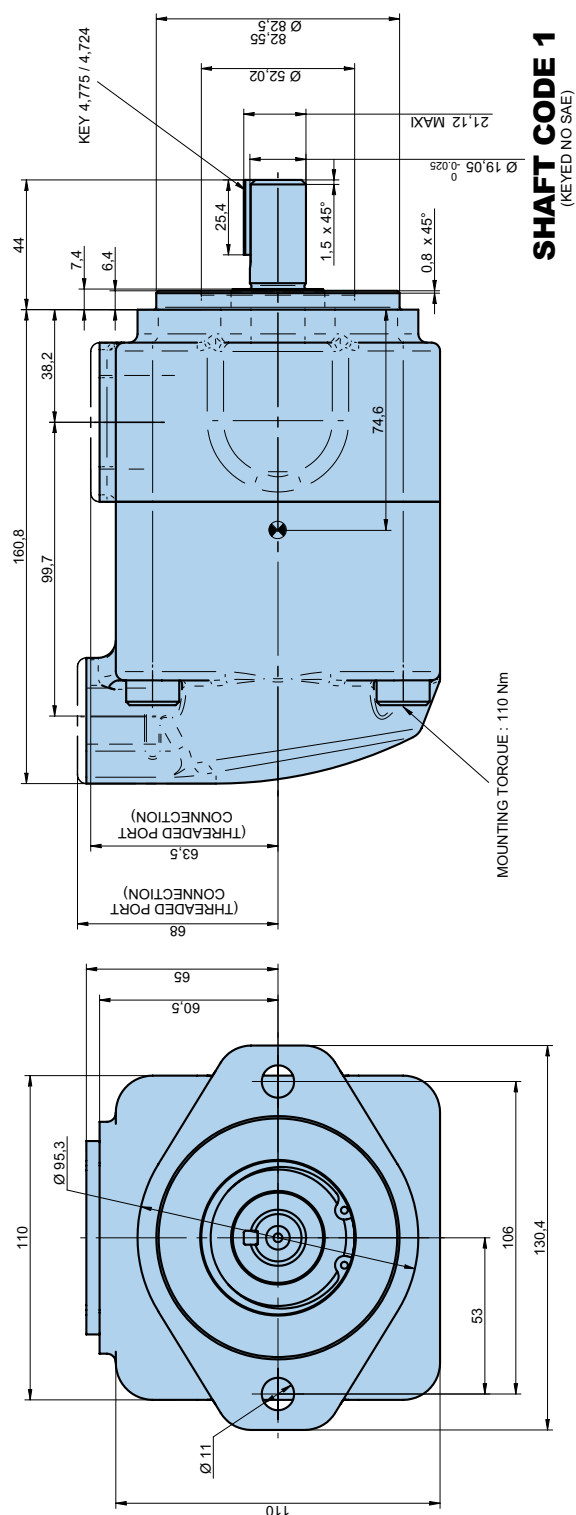
POWER LOSS HYDROMECHANICAL (TYPICAL)

Pressure p [bar]

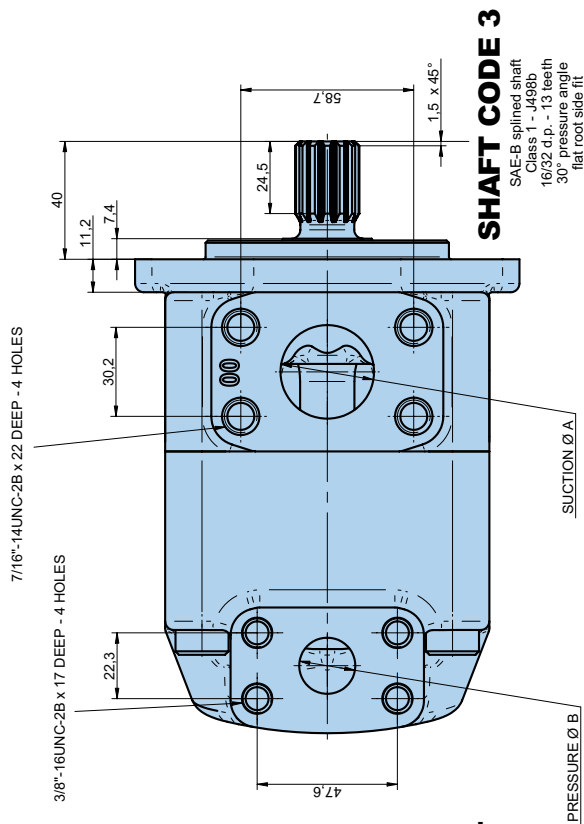
PERMISSIBLE RADIAL LOAD

Speed n [RPM]

* Cartridge designation is now in ml/rev. (example : B22 = 22,5 ml/rev.) Maximum permissible axial load Fa = 800 N



SHAFT CODE 1 (KEYED NO SAE)



SHAFT CODE 3

SAE-B splined shaft
Class 1 - J498b
16/32 d.p. - 13 teeth
30° pressure angle
flat root side fit

SHAFT CODE 4

Splined shaft
Class 1 - J498b
16/32 d.p. - 11 teeth
30° pressure angle
flat root side fit

Shaft torque limits [ml/rev. x bar]	
Shaft	Vi x p max.
1	18530
3	18530
4	12660

 If inlet velocity > 1,9 m/s, please contact Parker Denison.

Code	00	02	03	04
A	Ø 31,80	SAE # 16 1" 5/16 - 12 UNF - 2B	1" 1/14 NPTF	1" 1/4 BSP
B	Ø 19,05	SAE # 12 1" 1/16 - 12 UNF - 2B	SAE # 12 1" 1/16 - 12 UNF - 2B	3/4" BSP



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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