



PVS Series Piston Pump Thru Shaft Series



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Key & Spline Shaft Options

Half Semi-Circular Swash Plate for **Low Noise and **Low Pulsation****

Rich Set of **Options to Enable **Highly Efficient, Energy Saving** Equipment**



PVS Series Piston Pump Features

- Multiple pressure compensation options
- Multiple spline and key shaft options
- Low friction Nachi bearings guarantee pump viability
- High operating efficiency for lower power consumption and reduced heat generation
- Semi-circular swash plate reduces power loss by ensuring a stable discharge volume
- 11 piston design minimizes flow ripple, further reducing noise

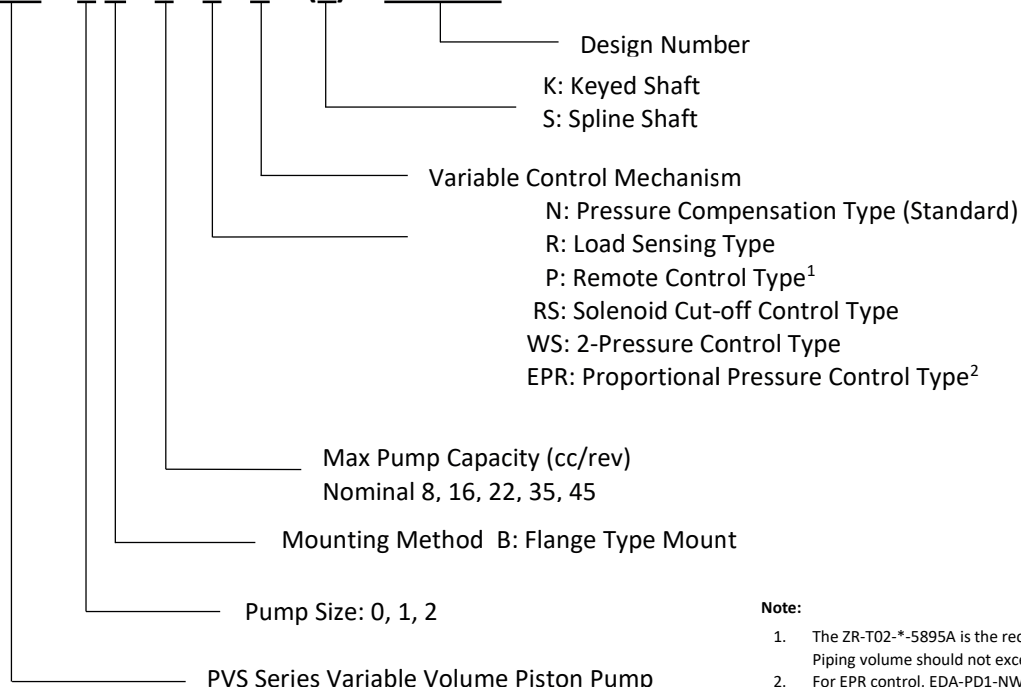


Applications

- Lathe
- Mill
- Injecting Molding Machine
- Hydraulic Press
- CNC Machine
- Metal Forming Machinery

Explanation of Model Number

PVS - * B - * - * - 1 - (*) - E5737B



Note:

1. The ZR-T02-*-5895A is the recommended remote-control valve.
Piping volume should not exceed 9 cubic inches
2. For EPR control, EDA-PD1-NWZ-D-D2-11 is the recommended amplifier.

PVS Series

Allowable Torque

Pump	Max Allowable Torque (in-lbs)	Max Rear Pump Torque (in-lbs)
PVS-0B-8N'-K-E5737B	844.80	530.00
PVS-0B-8N'-S-E5737B	375.60	256.00
PVS-1B-16/22N'-K-E5737B	928.80	530.00
PVS-1B-16/22N'-S1-E5737B	734.40	530.00
PVS-1B-16N'-S3-E5737B	1176.00	530.00
PVS-1B-22N'-S3-E5737B	1353.60	530.00
PVS-2B-35/45N'-K-E5737B	2194.80	796.00
PVS-2B-35/45N'-S3-E5737B	1353.60	796.00
PVS-2B-35/45N'-S5-E5737B	2124.00	796.00

Calculation of Torque

• Equation

Torque (in-lbs) = Pressure (psi) x Displacement (cipr) ÷ (2π)

• Notes

Total torque is dependent on both the pump size and shaft style
All torque and shaft specification can be found in the PVS brochure

• Example: Total allowable torque for this pump is 928.80 in-lbs

PVS-1B-16/22N'-K-E5737B (Front Pump)

Pressure Setting: 3000 psi

Displacement Setting: .50 cipr

Equation: (3000 psi x .50 cipr) ÷ (2π)

Result: T = 238.73 in-lbs

PVS-1B-22N-E13 (Rear Pump)

Pressure Setting: 750 psi

Displacement Setting: 1.00 cipr

Equation: (750 psi x 1.00 cipr) ÷ (2π)

Result: T = 119.37 in-lbs

• **Total Torque** = 119.37 in-lbs + 238.73 in-lbs = 358.1 in-lbs

PVS Specifications

Model No.	Volume in ³ /rev (cm ³ /rev)	Discharge Volume at No-Load gpm	Pressure Range (psi)	Permitted Peak Pressure (psi)	Front Shaft	Rear Shaft	Port Size	Rotating Speed (rpm)		Mass (lbs)
		1800 rpm						Min	Max	
PVS-0B-8'O-(')-E5737B	.18 - .48 (3.0 - 8.0)	3.8	290 to 507	3625	K: SAE (AH) 19-1 (3/4) S: SAE (A) 16-4 (9T)	SAE (A) 16-4 (9T)	Inlet: SAE-12 Outlet: SAE-08	500	2000	17
1			290 to 1015							
2			435 to 2030							
3			435 to 3045							
PVS-1B-16'O-(')-E5737B	.3 - 1.0 (5.0 - 16.5)	7.8	290 to 507	3625	K: SAE (AH) 19-1 (3/4) S1: SAE (AH) 19-4 (11T) S3: SAE (B) 22-4 (13T)	SAE (A) 16-4 (9T)	Inlet: SAE-16 Outlet: SAE-12	500	2000	24
1			290 to 1015							
2			435 to 2030							
3			435 to 3045							
PVS-1B-22'O-(')-E5737B	.42 - 1.34 (7.0 - 22.0)	10.5	290 to 507	3625	K: SAE (AH) 19-1 (3/4) S1: SAE (AH) 19-4 (11T) S3: SAE (B) 22-4 (13T)	SAE (A) 16-4 (9T)	Inlet: SAE-16 Outlet: SAE-12	500	2000	24
1			290 to 1015							
2			435 to 2030							
3			435 to 3045							
PVS-2B-35'O-(')-E5737B	.48 - 2.1 (8.0 - 35.0)	16.6	290 to 507	3625	K: SAE (B-B) 25-1 (1") S3: SAE (B) 22-4 (13T) S5: SAE (B) 25-4 (15T)	SAE (AH) 19-4 (11T)	Inlet: Code 61-1 1/4" Outlet: Code 61-1"	500	2000	46
1			290 to 1015							
2			435 to 2030							
3			435 to 3045							
PVS-2B-45'O-(')-E5737B	.67 - 2.74 (11.0 - 45.0)	21.5	290 to 507	3625	K: SAE (B-B) 25-1 (1") S3: SAE (B) 22-4 (13T) S5: SAE (B) 25-4 (15T)	SAE (AH) 19-4 (11T)	Inlet: Code 61-1 1/4" Outlet: Code 61-1"	500	2000	46
1			290 to 1015							
2			435 to 2030							
3			435 to 3045							

Note: Direction of rotation is clockwise when viewed from the shaft end.

Rear Pump	Front Pump	Double Pump Part Number	Kit Number
PVS-0B-8N'-E30	PVS-0B-8N'-E5737B	PVS-00B-8N'-8N'-E30	PVMK-1-SAE-A-3/4"
	PVS-1B-16N'-E5737B	PVS-01B-8N'-16N'-E30	
	PVS-1B-22N'-E5737B	PVS-01B-8N'-22N'-E30	
	PVS-2B-35N'-E5737B	PVS-02B-8N'-35N'-E30	PVMK-2-SAE-A-3/4"
	PVS-2B-45N'-E5737B	PVS-02B-8N'-45N'-E30	
PVS-1B-16N'-E13	PVS-1B-16N'-E5737B	PVS-11B-16N'-16N'-E13	PVMK-1-SAE-A-3/4"
	PVS-1B-22N'-E5737B	PVS-11B-16N'-22N'-E13	
	PVS-2B-35N'-E5737B	PVS-11B-16N'-35N'-E13	PVMK-2-SAE-A-3/4"
	PVS-2B-45N'-E5737B	PVS-11B-16N'-45N'-E13	
PVS-1B-22N'-E13	PVS-2B-35N'-E5737B	PVS-12B-22N'-35N'-E13	PVMK-2-SAE-B-7/8"
	PVS-2B-45N'-E5737B	PVS-12B-22N'-45N'-E13	
PVS-2B-35N'-E13	PVS-2B-35N'-E5737B	PVS-22B-35N'-35N'-E13	PVMK-2-SAE-B-7/8"
	PVS-2B-45N'-E5737B	PVS-22B-35N'-45N'-E13	
PVS-2B-45N'-E20	PVS-2B-45N'-E5737B	PVS-22B-45N'-45N'-E20	PVMK-2-SAE-B-1"
NASGP 1 Series	PVS-0B-8N'-E5737B	n/a	PVMK-1-SAE-A-3/4"
	PVS-1B-16N'-E5737B		
	PVS-1B-22N'-E5737B		PVMK-2-SAE-A-3/4"
	PVS-2B-35N'-E5737B		
	PVS-2B-45N'-E5737B		
NASGP 300 Series	PVS-0B-8N'-E5737B		PVMK-1-SAE-A-5/8"
	PVS-1B-16N'-E5737B		
	PVS-1B-22N'-E5737B		PVMK-2-SAE-A-5/8"
	PVS-2B-35N'-E5737B		
	PVS-2B-45N'-E5737B		

PVS-2B-45N3-K-E5737B

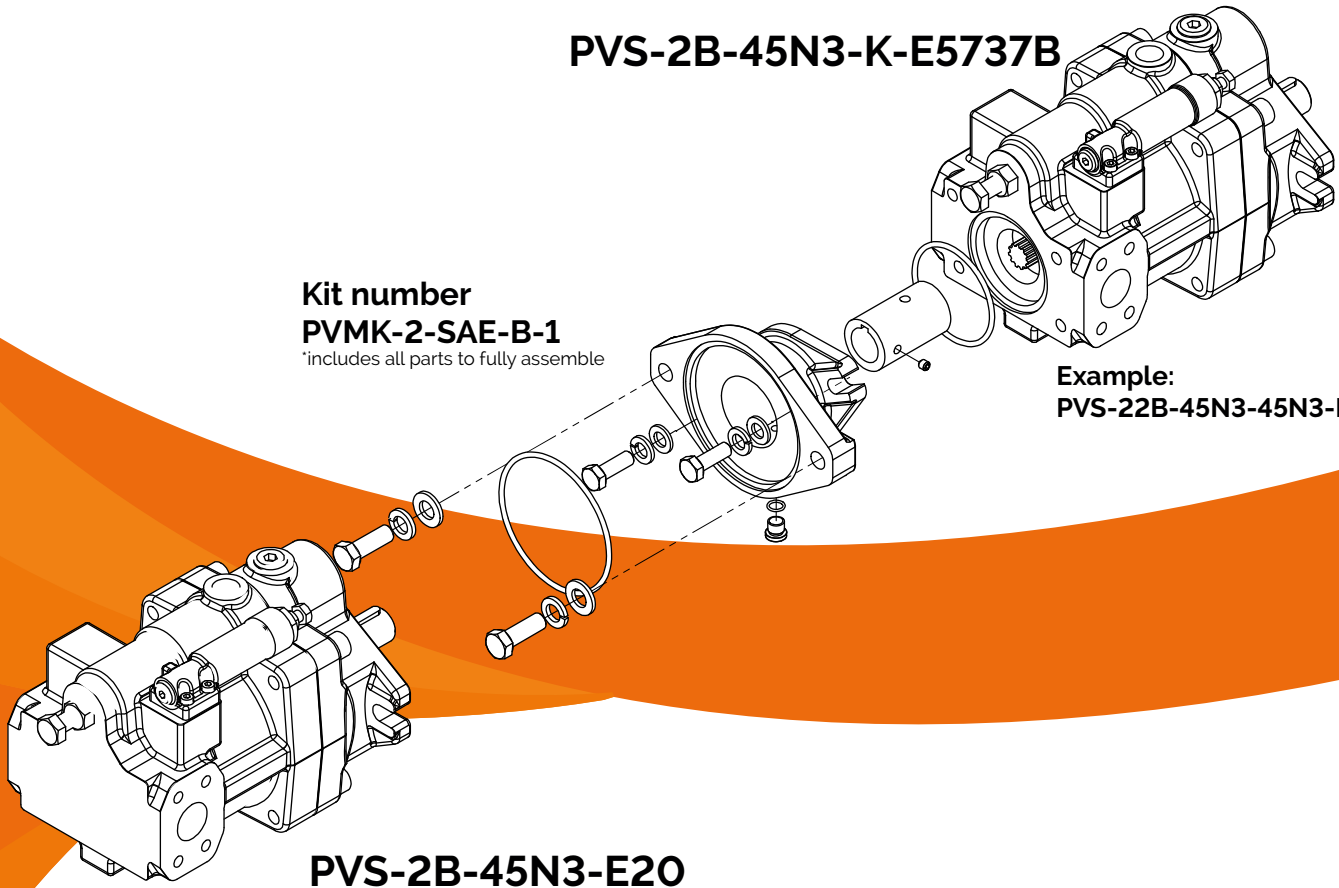
Kit number

PVMK-2-SAE-B-1

*includes all parts to fully assemble

Example:

PVS-22B-45N3-45N3-E20



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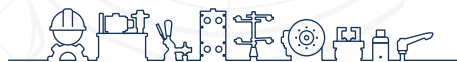
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