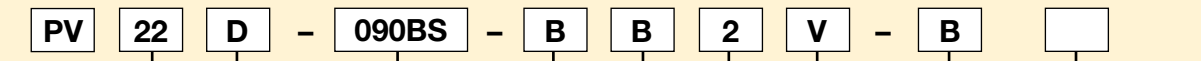


- Single or double vane rotary actuator
- 8 model sizes
- Output torque @ 100 PSIG: 8 to 1800 lb-in
- Standard rotations:
 Single vane units: $280^\circ \pm 1^\circ$
 (except size 10 & 11: $275^\circ \pm 2.5^\circ$)
 Double vane units: $100^\circ \pm 1^\circ$
 (except size 10 & 11: $95^\circ \pm 2.5^\circ$)
 Available with stroke adjusters and internal stops to provide 90° and 180° rotation
- Stainless steel shaft
- Optional radial ball bushing shaft bearing

Operating information

Operating pressure: 150 PSIG air
 Temperature range: †
 Nitrile seals 30°F to 180°F
 Fluorocarbon seals* 30°F to 250°F
 * See fluorocarbon seal option for high temperature applications.
 † For low temperature version, please consult factory.
 Filtration requirements: 40 micron, dry filtered air
 For technical information see CD

Ordering information



Model			
10	22	33	42
11		36	44
			46

Vanes / maximum rotation	
Omit	Single Vane, 280° Rotation (275° on PV10, PV11)
D	Double Vane, 100° Rotation (95° on PV10, PV11)

Rotation Options (may order more than one)	
Omit	Standard Units (no stroke adjusters, bumpers or switches)
090A	Stroke Adjusters adjustable from 60° to maximum unit rotation (preadjusted to 90°)
180A	Stroke Adjusters (single vane only) adjustable from 60° to 190° (preadjusted to 180°)
090B	Internal bumpers, 90° rotation ⁴
180B	Internal bumpers, 180° rotation (single vane only)
090S	Magnets ¹ added, 90° setting
180S	Magnets ¹ added, 180° setting (single vane only)

1. Switches can be used with stroke adjusters or bumpers (example: PV22D-090BS-BB2-B).
2. Not available with switches or stroke adjusters.
3. No tapped mounting holes in face opposite the flange.
4. 90° bumpers (090B) not available on PV10/11 sizes.

Note:
 Order Hall effect sensors and reed switches separately from the Electronic Sensors section.

Special options	
Omit	Standard
Two digit code assigned by factory when any "X" appears in the model number or when special options or features are required.	

Design series	
B	Current design series

Options	
Omit	None
L	Radial ball bushings
V	Fluorocarbon seals

Ports	
2	NPTF Top (Std) (10-32 on PV10 & PV11)
7	NPTF Rear ² (10-32 on PV10 & PV11)

Shaft	
B	Single male keyed (Std)
C	Double end male keyed ²

Mounting	
B	Base / Front (Std)
R	Rear Flange ^{2,3}
F	Front Flange
S	Base / Rear Face ²

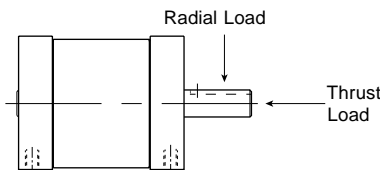
Sensors
 For sensors see page B294.

B
 Rotary Actuators
 Actuator Products
 PV Series
 PRN(A) Series
 PTR Series
 HP Series
 P1V-S Series



Quick reference data

Model number	Maximum rotation (Degrees)	Actual output torque (lb-in) at specified input pressure (PSI)			Displacement (in³)	Maximum breakaway pressure (PSI)	Maximum bypass leakage @100 psi (CFM)	Unit weight (lb)
		50	75	100				
10	275°	4	6	8	0.52	25	0.15	0.38
10D	95°	8	12	16	0.37	20	0.20	0.38
11	275°	8	12	16	1.04	20	0.15	0.50
11D	95°	17	25	33	0.74	15	0.20	0.50
22	280°	32	48	64	3.67	15	0.20	0.50
22D	100°	68	101	135	2.62	10	0.25	1.75
33	280°	75	112	150	8.70	15	0.20	3.44
33D	100°	155	235	315	6.20	10	0.25	3.56
36	280°	150	220	300	17.40	15	0.20	5.19
36D	100°	315	470	630	12.40	10	0.25	5.50
42	280°	140	210	285	17.80	15	0.20	7.13
42D	100°	300	450	600	14.58	10	0.25	7.50
44	280°	285	425	570	35.61	15	0.20	8.81
44D	100°	600	900	1200	29.17	10	0.25	9.38
46	280°	425	640	850	53.41	15	0.20	10.50
46D	100°	900	1350	1800	43.75	10	0.25	10.75



Kinetic energy ratings and bearing load capacities

Model number	Composite bushing load capacities (lb)*		Radial ball bushing load capacities (lb)*		Distance between centerline bearings	Maximum kinetic energy rating for models based on configuration (in-lb)		
	Radial	Thrust	Radial	Thrust		Standard	Stroke adjusters	Bumpers
10	15	7	50	15	0.88	0.03	0.12	0.05
11	15	7	50	15	1.50	0.06	0.12	0.09
22	50	25	Consult factory		2.38	0.25	0.50	0.38
33	100	50	Consult factory		3.50	0.75	1.50	1.13
36	100	50	Consult factory		6.50	1.00	1.50	1.50
42	200	75	Consult factory		2.75	2.00	4.00	3.00
44	200	75	Consult factory		4.75	2.50	4.00	3.75
46	200	75	Consult factory		6.75	3.00	4.00	4.75

* Bearing capacities only. Check Kinetic Energy ratings to determine if actuator will stop load.

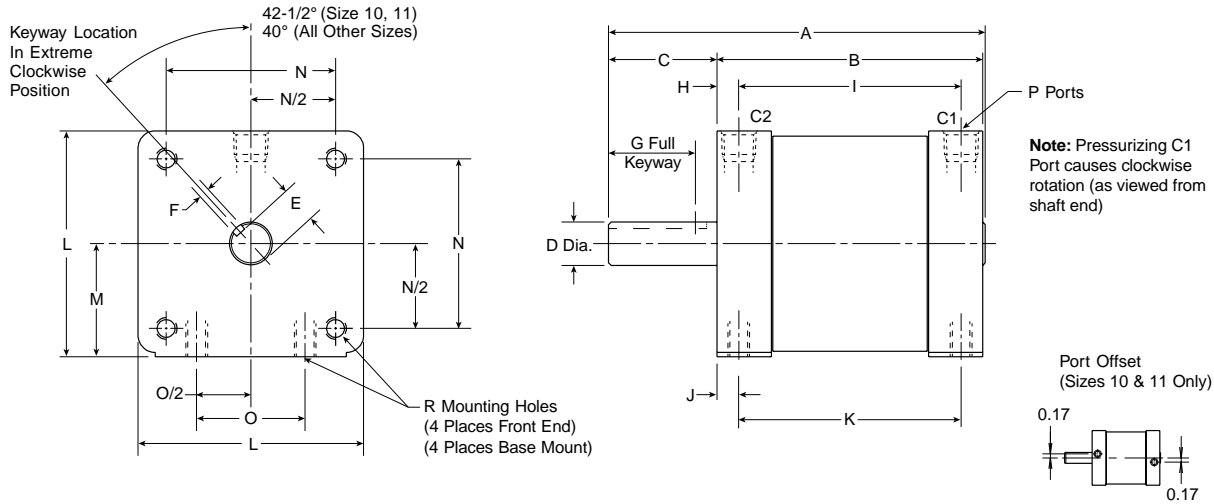
Seal kit ordering information

PSK	PV22D	V
Series	Model number	Material
PSK Parker seal kit	PV22D Model number	Omit Nitrile
		V Fluorocarbon

Seal kit installation tool

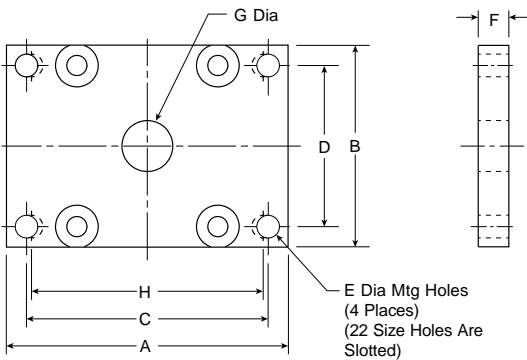
Model (S)	Items	Seal guide kit number
PV10 & 11 (D)	21, 22	ATS-PV1
PV22 (D)	21, 22	ATS-PV2
PV33 & 36 (D)	21, 22	ATS-PV3

Standard Face/Base Mount (B) and Male Keyed Shaft (B)



Model number	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R
10	2.280	1.38	0.88	0.312 0.311	0.258 0.253	0.094 0.095	0.63	0.19	1.00	0.19	1.000	1.62	0.810	1.220	0.750	10-32	8-32 x 0.25 DP
11	2.905	2.00	0.88	0.312 0.311	0.258 0.253	0.094 0.095	0.63	0.19	1.63	0.19	1.625	1.62	0.810	1.220	0.750	10-32	8-32 x 0.25 DP
22	4.340	3.06	1.25	0.500 0.499	0.423 0.418	0.125 0.126	0.94	0.25	2.56	0.25	2.560	2.50	1.250	2.000	1.250	1/8 NPTF	1/4-20NC x 0.38 DP
33	6.180	4.40	1.75	0.749 0.748	0.644 0.639	0.188 0.189	1.38	0.35	3.70	0.26	3.875	3.00	1.500	2.436	1.500	1/4 NPTF	5/16-18NC x 0.47 DP
36	9.180	7.40	1.75	0.749 0.748	0.644 0.639	0.188 0.189	1.38	0.35	6.70	0.26	6.875	3.00	1.500	2.436	1.500	1/4 NPTF	5/16-18NC x 0.47 DP
42	6.280	4.00	2.25	0.999 0.998	0.859 0.854	0.250 0.251	2.00	0.50	3.00	0.50	3.000	4.50	2.250	3.500	2.375	1/4 NPTF	3/8-16NC x 0.75 DP
44	8.280	6.00	2.25	0.999 0.998	0.859 0.854	0.250 0.251	2.00	0.50	5.00	0.50	5.000	4.50	2.250	3.500	2.375	1/4 NPTF	3/8-16NC x 0.75 DP
46	10.280	8.00	2.25	0.999 0.998	0.859 0.854	0.250 0.251	2.00	0.50	7.00	0.50	7.000	4.50	2.250	3.500	2.375	1/4 NPTF	3/8-16NC x 0.75 DP

Flange Mount (F, R)*

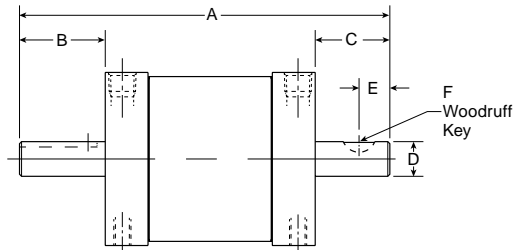


Model number	A	B	C	D	E	F	G	H
10	2.50	1.62	2.000	1.250	0.203	0.19	0.41	N/A
11	2.50	1.62	2.000	1.250	0.203	0.19	0.41	N/A
22	3.50	2.50	3.000	2.000	0.281	0.25	0.66	2.875
33	4.50	3.00	3.750	2.000	0.344	0.38	0.84	N/A
36	4.50	3.00	3.750	2.000	0.344	0.38	0.84	N/A
42	7.32	4.51	5.905	2.953	0.551	0.63	1.61	N/A
44	7.32	4.51	5.905	2.953	0.551	0.63	1.61	N/A
46	7.32	4.51	5.905	2.953	0.551	0.63	1.61	N/A

Note: The face opposite the flange mount does not contain tapped mounting holes. Consult factory if needed.



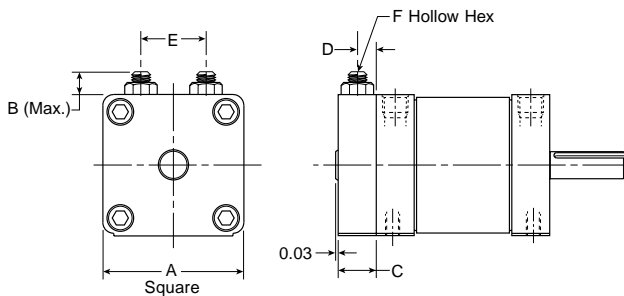
Double End Male Keyed Shaft (C)



Note: Not available with switches or stroke adjustment. Consult factory for rear port option.

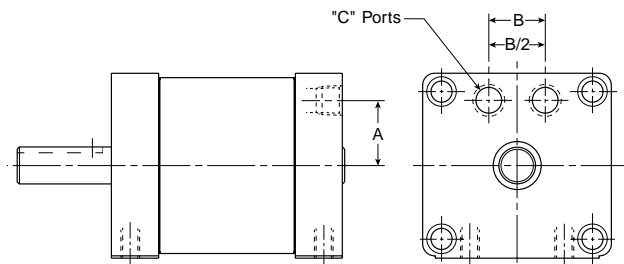
Model number	A	B	C	D	E	F
10	2.75	0.88	0.50	0.312 0.311	0.28	#302.5
11	3.38	0.88	0.50	0.312 0.311	0.28	#302.5
22	5.06	1.25	0.75	0.500 0.499	0.44	#404
33	7.15	1.75	1.00	0.749 0.748	0.56	#606
36	10.15	1.75	1.00	0.749 0.748	0.56	#606
42	7.53	2.25	1.28	0.999 0.998	0.72	#808
44	9.53	2.25	1.28	0.999 0.998	0.72	#808
46	11.53	2.25	1.28	0.999 0.998	0.72	#808

Adjustable Rotation Stop (090A, 180A)



Model number	A	B	C	D	E	F
10	1.62	0.63	0.47	0.24	0.75	3/32
11	1.62	0.63	0.47	0.24	0.75	3/32
22	2.50	1.00	0.72	0.36	1.25	5/32
33	3.00	1.16	0.97	0.48	1.56	3/16
36	3.00	1.16	0.97	0.48	1.56	3/16
42	4.50	1.38	1.25	0.56	2.25	7/32
44	4.50	1.38	1.25	0.56	2.25	7/32
46	4.50	1.38	1.25	0.56	2.25	7/32

Rear Port (7)



Model number	A	B	C
10	0.54	0.50	10-32
11	0.54	0.50	10-32
22	0.88	0.75	1/8 NPTF
33	1.09	0.90	1/8 NPTF
36	1.09	0.90	1/8 NPTF
42	1.68	1.00	1/4 NPTF
44	1.68	1.00	1/4 NPTF
46	1.68	1.00	1/4 NPTF

B

Rotary Actuators
 Actuator Products

PV
 Series

PRN(A)
 Series

PTR
 Series

HP
 Series

P1V-S
 Series