

Vane Style Rotary Actuator

1825 Series 2 1/2" Bore Pneumatic

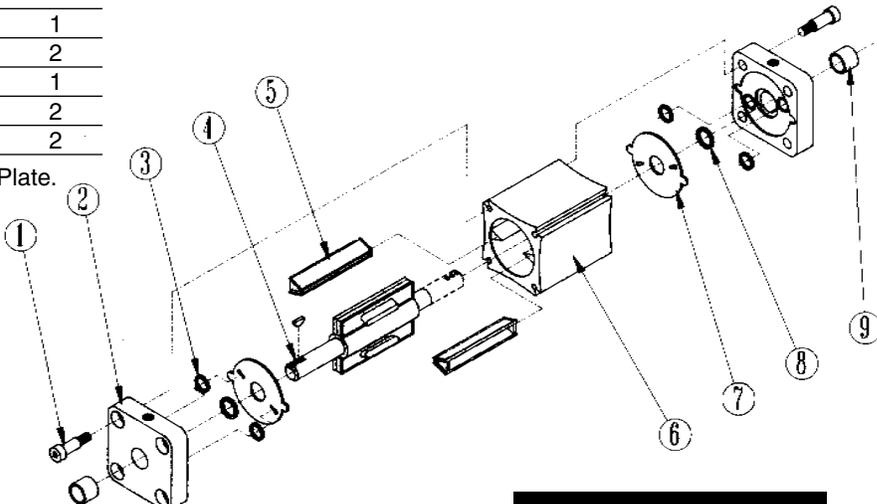
100° & 280° Rotation

Model Numbers:

- 1825-0001 Double-Vane, Single Shaft
- 1825-0002 Single-Vane, Single Shaft
- 1825-0003 Double-Vane, Double Shaft
- 1825-0004 Single-Vane, Double Shaft

100° Rotation			Qty.	
Item	Part No.	Description	1825-0001	1825-0003
1.	1825-1023	Screw, Mounting	8	8
2.	1825-9000	End Plate	2	2
3.	0728-1005	O-Ring	4	4
4.	1825-9005	Rotor Assy. Std.	1	-
	1825-9009	Rotor Assy. Dbl.	-	1
5.	1825-1010	Seal, Stator	2	2
6.	1825-1006	Housing	1	1
7.	1825-1015	Insert	2	2
8.	1825-1020	O-Ring	2	2

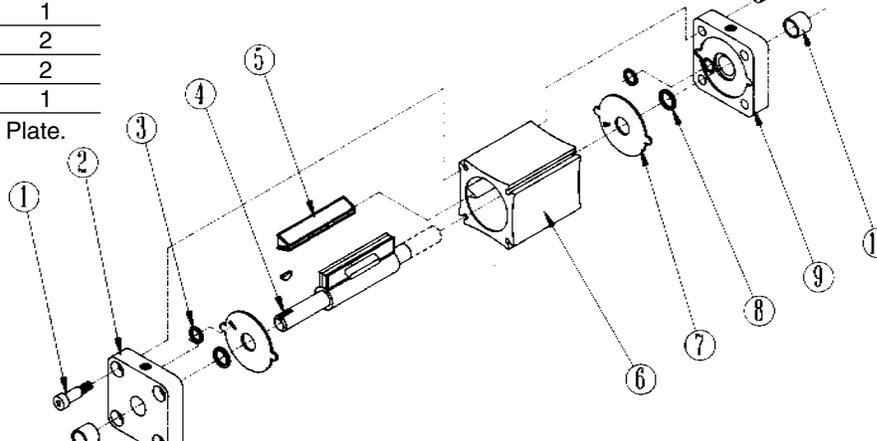
NOTE: Bearings (9) are pressed into End Plate.



**Discontinued Product
Style or Size.
Parts Sheet is For
Reference Only.**

280° Rotation			Qty.	
Item	Part No.	Description	1825-0002	1825-0004
1.	1825-1023	Screw, Mounting	8	8
2.	1825-9002	End Plate	1	1
3.	0728-1005	O-Ring	4	4
4.	1825-9006	Rotor Assy. Std.	1	-
	1825-9010	Rotor Assy. Dbl.	-	1
5.	1825-1010	Seal, Stator	1	1
6.	1825-1008	Housing	1	1
7.	1825-1016	Insert	2	2
8.	1825-1020	O-Ring	2	2
9.	1825-9001	End Plate	1	1

NOTE: Bearings (10) are pressed into End Plate.



Assembly Instructions - 100° Actuator

1. Take the End Plates (#2), and press fit one Sleeve Bearing (#1) into the central shaft hole of each plate.
2. Lubricate four (4) O-Rings (#3) with a TEFLON®-additive grease and place one over each of the two outer bosses on the back of each Insert (#7).
3. Lubricate the two O-Rings (#8) and place them around the central boss on the back of each Insert (#7).
4. Press one Insert (#7) into each End Plate (#2) so that the tear-drop shaped Internal Air Port is aligned over the Air Inlet Port in the End Plate.
5. Lubricate the internal bore of the Housing (#6) with a TEFLON®-additive grease.
6. Insert the Stator Seal (#5) over the extruded Stator on the internal bore of the housing then lubricate the lips of the seal.
7. Lubricate the lips of the Rotor Assembly Seal (Standard or Double-ended Shaft) and insert it in line with the Stators so that the Stator Seals holds the Rotor Assembly tightly in place.
8. Take the Housing (#6) and hold it so that the Stators are at the three o'clock and nine o'clock positions. Then, mount the Housing and Rotor Assembly onto the End Plate (#2) so that the tear-drop shaped Internal Air Port is directly next to the Stator Seals (#5) on the right-hand side.
Also make certain that the Rotor Assembly shaft's keyway(s) is (are) in the nine o'clock position.
9. Place the other End Plate (#2) on the open end of the Housing, making sure to align the two External Air Fittings.
10. Insert four (4) Mounting Screws (#1) into each End Plate. Tighten them down CAREFULLY AND IN A UNIFORM MANNER.

Assembly Instructions - 280° Actuator

1. Take the End Plates (#2, #9), and press fit one Sleeve Bearing into the central shaft hole of each plate.
2. Lubricate four (4) O-Rings (#3) with a TEFLON®-additive grease and place one over each of the two outer bosses on the back of each Insert (#7).
3. Lubricate the two O-rings (#8) and place them around the central boss on the back of each Insert (#7).
4. Press one Insert (#7) into each End Plate (#2, #9) so that the tear-drop shaped Internal Air Port is aligned over the Air Inlet Port in the End Plate.
5. Lubricate the internal bore of the Housing (#6) with a TEFLON®-additive grease.
6. Insert the Stator Seal (#5) over the extruded Stator on the internal bore of the housing then lubricate the lips of the seal.
7. Lubricate the lips of the Rotor Assembly Seal (Standard or Double-ended Shaft) and insert it in line with the Stator so that the Stator Seal holds the Rotor Assembly tightly in place.
8. Take the Housing (#6) and hold it so that the Stators are at the three o'clock and nine o'clock positions. Then, mount the Housing and Rotor Assembly onto the End Plate (#2) so that the tear-drop shaped Internal Air Port is directly next to the right-hand side of the Stator and in the two o'clock position compared to the End Plate's External Air Fitting.
Also make certain that the Rotor Assembly shaft's keyway(s) is (are) on the opposite side of the unit from the Stator.
9. Place the End Plate (#9) on the open end of the Housing, making sure to align the two External Air Fittings.
10. Insert four (4) Mounting Screws (#1) into each End Plate. Tighten them down CAREFULLY AND IN A UNIFORM MANNER.
11. If the Rotary Actuator is to be front-mounted, the End Plates have tapped mounting holes to accept 1/4 x 20-1/2" screws.
12. When mounting the 1/4 NPT Air Fittings, wrap the fitting's threads with a piece of TEFLON®-based thread seal tape such as Jet-Lube Petro-Tape.

Installation: When mounting the 1/4 NPT Air Fittings, wrap the fitting's threads with a piece of TEFLON®-based thread seal tape such as Jet-Lube's Petro-Tape®.

Pneumatic Service: The 1825 Series 2-1/2-inch bore actuator should be operated with 100 PSI maximum pneumatic service lubricated with a non-detergent SAE 30 weight oil.

Axial Loading: Heavy end thrust loading of the actuator shaft is not recommended. Use an isolating coupling which takes the load and does not distribute it to the actuator shaft.

Internal Stops: Do not use internal stops to stop rotation except with light loads whose combined weight and speed do not generate more than 1.5 inch-pounds (0.17 Newton-meters) of kinetic energy. Backlash (lost motion) between the shaft and load should be avoided.

External Stops: External stops are recommended for higher inertia loads to avoid vane and stator damage. Stops should be securely mounted to machine framework.

Customer Repair Procedure

The vane seals on the 1825 2-1/2-inch bore actuator should not require replacement for the life of the unit.

In the event that replacement of the End Plate Assembly is desired, the following procedure must be followed.

Remove the End Plate Assembly, saving the four (4) shoulder screws. **DO NOT DISASSEMBLE THE BALANCE OF THE UNIT.**

To install the new End Plate Assembly, align the mounting holes and ports with those on the opposite End Cap Assembly. Insert the four shoulder screws evenly.

NOTE: REMOVE AND REPLACE ONLY ONE END PLATE ASSEMBLY AT A TIME.

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