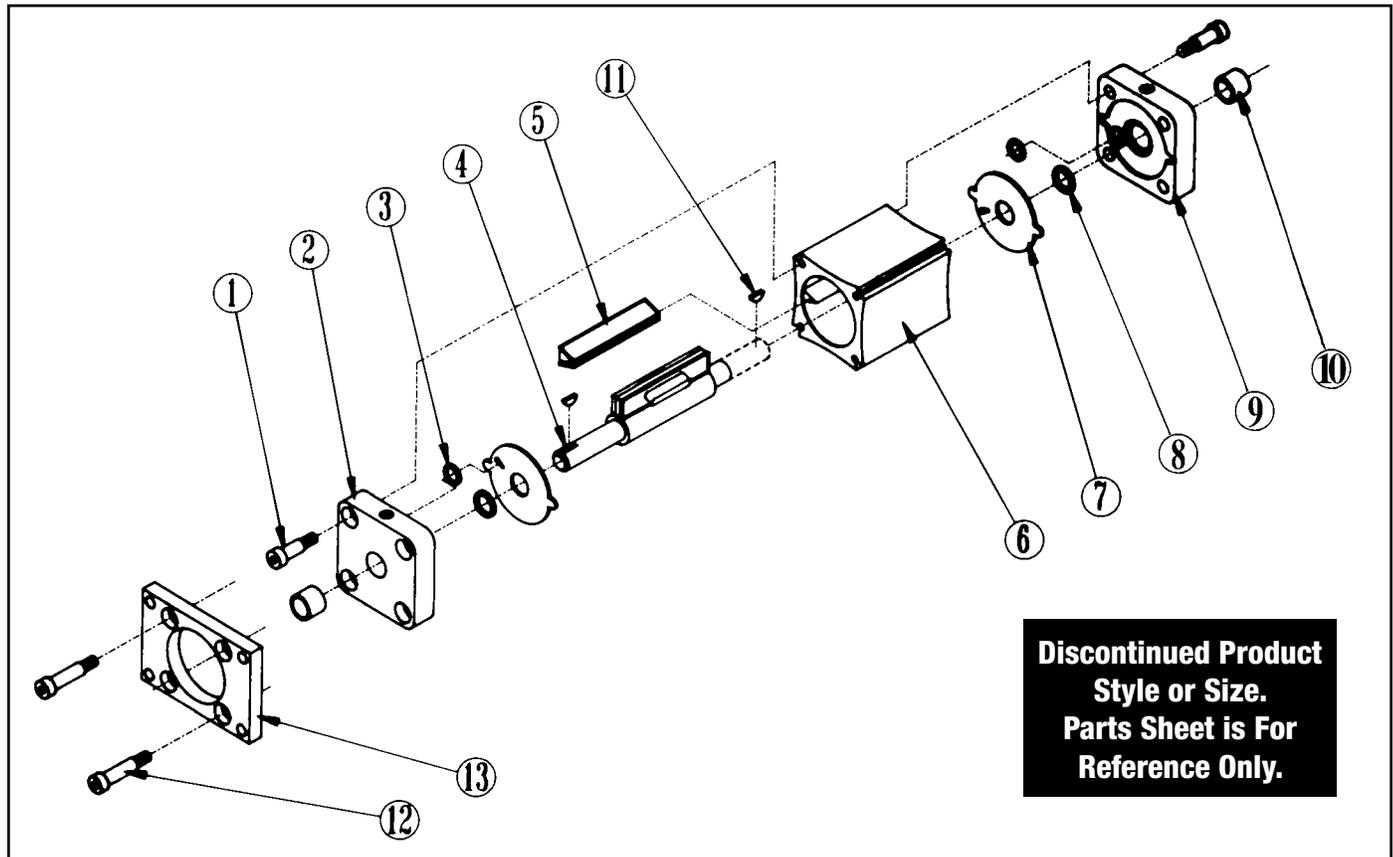


Rotary Actuator

1817 Series 1-3/4-Inch Bore Pneumatic
280° Rotation

1817-0201	Single Shaft
1817-0203	Double Shaft
1817-0701	Single Shaft, Front Flange Mount
1817-0703	Double Shaft, Front Flange Mount



List of Parts

Item	Part No.	Description	1817-0201	1817-0203	1817-0701	1817-0703
1.	1817-1017	Shoulder Screw	8	8	4	4
2.	1817-1028	End Plate	1	1	1	1
3.	1817-1030	O-Ring	4	4	4	4
4.	1817-9006	Rotor Assembly, Standard	1		1	
	1817-9010	Rotor Assembly, Double		1		1
5.	1817-1010	Stator Seal	1	1	1	1
6.	1817-1032	Housing	1	1	1	1
7.	1817-1024	Plate Insert	2	2	2	2
8.	0737-1011	O-Ring	2	2	2	2
9.	1817-1027	End Plate	1	1	1	1
10.	1817-1029	Bushing	2	2	2	2
12.	0801-1252	Shoulder Screw			4	4
13.	1817-1015	Flange Mount Plate			1	1

Note: Patent is applied for.

Assembly

1. Take the two End Plates (#2, #9) and insert the Bronze Bushing (#7) into the central shaft hole in each plate.
2. Lubricate the two smaller O-Rings (#8) 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 larger O-Rings (#3) and place one around the central boss on the back of each Insert (#7).
4. Press one Insert (#7) into each End Plate so that the tear-drop shaped Internal Air Ports are aligned over the Air Inlet Ports in the End Plate.
5. Lubricate the internal bore of the Housing (#6) with a TEF-LON® additive grease.
6. Insert the two Stator seals (#5) over the extruded Stators on the internal bore of the Housing (#6) and then lubricate the lips of the Stator Seals.
7. Thoroughly lubricate the lips of the Rotor Assembly (#4) (Standard or Double-ended Shaft), and insert it in line with the Stator so the Stator Seal holds the Rotor Assembly tightly in place.
8. Mount the Housing and Rotor Assembly onto one End Plate Assembly (#2 or #9) so the tear-drop shaped, Internal Air Ports are directly next to the Stator and the Stator is located at a 3 o'clock position in relation to the External Air Fitting on the End Plate Assembly.

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 other End Plate Assembly on the open end of the Housing, making sure to align the two External Air Fittings.
10. Insert the four (4) Shoulder Screws (#1) into each End Plate Assembly. Tighten them down CAREFULLY AND IN A UNIFORM MANNER, not exceeding 10 inch-pounds (1.13 Newton-meters) of torque.
11. If the Front Mounting Flange (#13) is being used, four (4) Flat Head Screws (#12) will be used instead of the Shoulder Screws (#1).

Installation

When installing the 1817 Series 1-3/4-inch bore rotary actuator, **DO NOT USE more than 45 inch pounds** (5.08 Newton-meters) of torque in tightening the 1/8 NPT port fittings or the 10-32-1/2" mounting screws into the end plates to avoid stripping threads. When installing the air fittings, wrap the threads with a TEFLON®-based thread seal tape such as Jet-Lube Petro-Tape®.

Pneumatic Service

The 1817 Series 1-3/4-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 1817 1-3/4-inch bore actuator should not require replacement for the life of the unit.

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

Remove the old 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, torquing no more than 45 inch-pounds (5.08 Newton-meters).

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

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