

COMPACT
AUTOMATION PRODUCTS

Rotary Actuation Products



Rotary Vane Actuators

Unitized Body

Turn-Act's patented extrusion combines tube, stator and bolt lobes into a one-piece unitized body.

Unique design provides torsional rigidity allowing the unit to stop and hold shaft loads internally, while effectively transmitting shocks to its mountings

Machined Aluminum Heads

Shaft Bearings

Full complement needle bearings accommodate substantial radial loads

Air Inlets

The large hole permits more rapid air entry and exhaust for faster response time

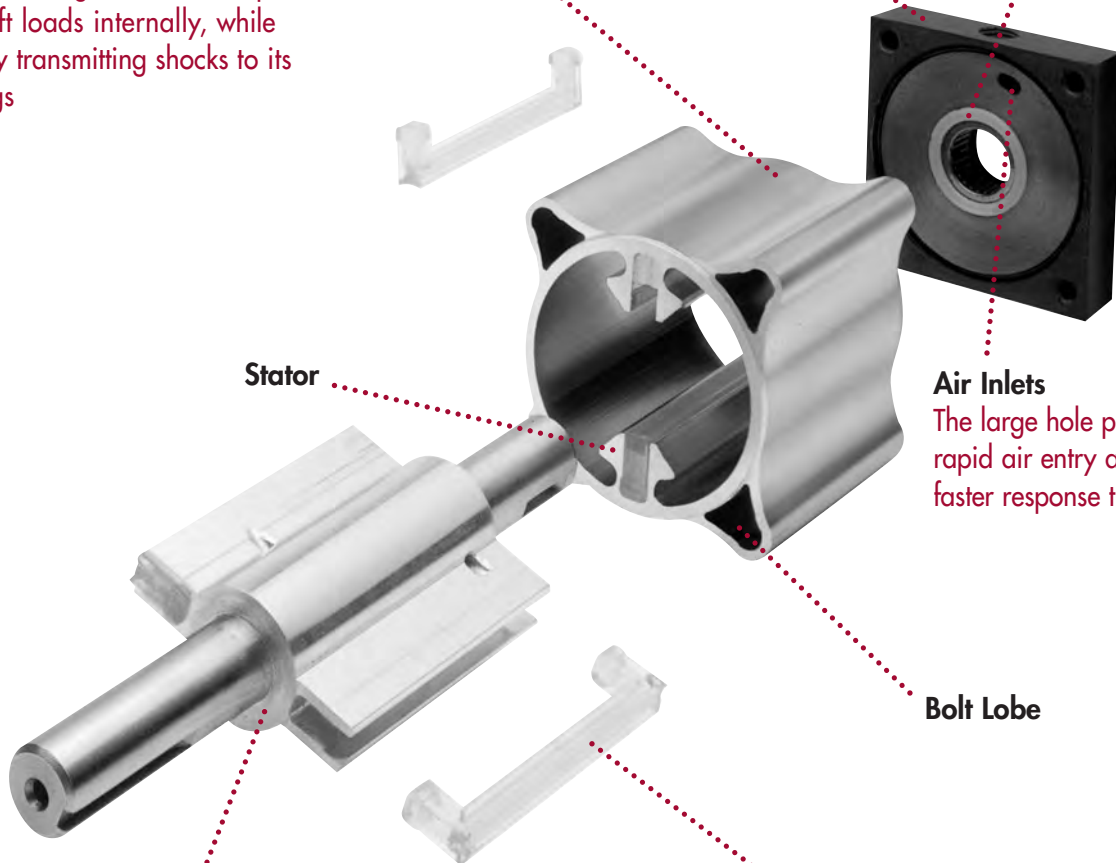
Bolt Lobe

The Gold Seal

Turn-Act's patented polyurethane seal provides smooth rotation, minimal leaks rates, low pressure breakaways and millions of cycles

Rotor Shaft Assembly

Turn-Act's patented rotor/vane assembly eliminates the possibility of shaft rotation in the rotor and permits the use of a wide variety of shaft materials. Output shafts can be custom ordered for specific application requirements



Comp-Act (CA) Series

ROTARY VANE ACTUATORS:

- 15 base models with torque outputs from 9 in. lbs. to 100 in. lbs.
- Rotations 90, 180 & 270 degrees.

As compared to other rotary devices... Turn-Act Vane Actuators have:

- One moving part providing:
 - ZERO Backlash.
 - No loss of motion.
 - Smooth Rotation.
 - Precise Repeatability.
 - Continuous full torque throughout rotation.
- Turn-Act Patented Urethane seals for:
 - Long cycle life and Non-lube service.
 - Actual applications with 25 million cycles and more.
- 100s of standard options and modifications.

Just imagine... How TURN-ACT Answer Engineering can work for you!



**COMP-ACT ACTUATOR
WITH OPTIONAL ADJUSTABLE
STROKE CONTROL**

Torque Chart (IN. LBS.)			
180° and 270° Rotations ²			
Actuator Model	Actuator Torque at		
	100 PSI	80 PSI	60 PSI
011 (270°)	9	7	5
013 (180°)			
021 (270°)	13	10	8
023 (180°)			
031 (270°)	25	20	15
033 (180°)			
041 (270°)	32	26	19
043 (180°)			
061 (270°)	50	40	30
063 (180°)			

Torque Chart (IN. LBS.)			
90° Rotations ²			
Actuator Model	Actuator Torque at		
	100 PSI	80 PSI	60 PSI
012	17	14	10
022	25	20	15
032	44	35	26
042	60	48	36
062	100	80	60

SPECIFICATIONS

Unit Materials

Stator/Rotor Seals... Urethane
 Shaft/Tube Seals..... Buna¹
 Shaft..... 303 Stainless Steel
 Body..... Anodized Alum.
 Bearings..... Full Comp. Needle

Miscellaneous

Inlets 1/8 NPT
 Min. Pressure 35 psi
 Max. Pressure 200 psi
 Cylinder Bore 1-1/4"

Shaft Load Capacities

Max. Side Load..... 250 lbs.
 Max. End Load..... 10 lbs.

Temperature Range

40°F to 180°F
 For applications below 40°F, a variety of seal options are available based upon cycle rates, temperatures and frequency of use. Consult the factory to discuss your cold temperature application for your optimum solution.

Filtration

Air..... 25-50 microns

Cycle Rates³

Max. non-lubed rate:

90° Rot..... 40 cpm
 180°, 270° Rot..... 20 cpm

Max. lubed rate:

Consult Factory

Rotary Motion Backlash

All models 0 degree

Leak Rates

Air..... 4 cfm or less @ 100 psi

- 1 Viton Optional
- 2 All rotations are nominal +4/-0 actual
- 3 Cycle = Start position to end of rotation and returning to the start position.
Stroke = 1/2 cycle

Capacity per Stroke ³ (IN ³)			
270° Rotation ²		90° Rotation ²	
011	0.50	012	0.42
021	0.99	022	0.84
031	1.49	032	1.26
041	1.99	042	1.68
061	3.49	062	2.96

Weights (OZs)			
270° Rotation ²		90° Rotation ²	
011	8	012	8
021	10	022	10
031	12	032	12
041	14	042	14
061	18	062	18

How to Order: Comp-Act (CA)

MODEL END SHAFT UNIT OPTIONS OPTIONS
CAPS
MATERIAL

011 - 1 Y 1 - XXX - XXX

1 2 3 4 5 5

1

Model			
Model	Series	Torque	Rotation
011	CA	09	270
012	CA	17	90
013	CA	09	180
021	CA	13	270
022	CA	25	90
023	CA	13	180
031	CA	25	270
032	CA	44	90
033	CA	25	180
041	CA	32	270
042	CA	60	90
043	CA	32	180
061	CA	50	270
062	CA	100	90
063	CA	50	180

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End Caps	
To Specify other modifications; Consult Factory	
1	Pneumatic
2	Pneumatic - Low Profile
4	Pneumatic - w/ Vacuum Ports

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Shaft	
To Specify other modifications; Consult Factory	
Y	Single End - No Keyway
M	Double End - No Keyway Each End
W	Single End - Woodruff Key
V	Double End - Woodruff Key Each End
U	Single End - Shaft Flat
T	Double End - Shaft Flat Each End
S	Single End - Keyway
R	Double End - Keyway Each End

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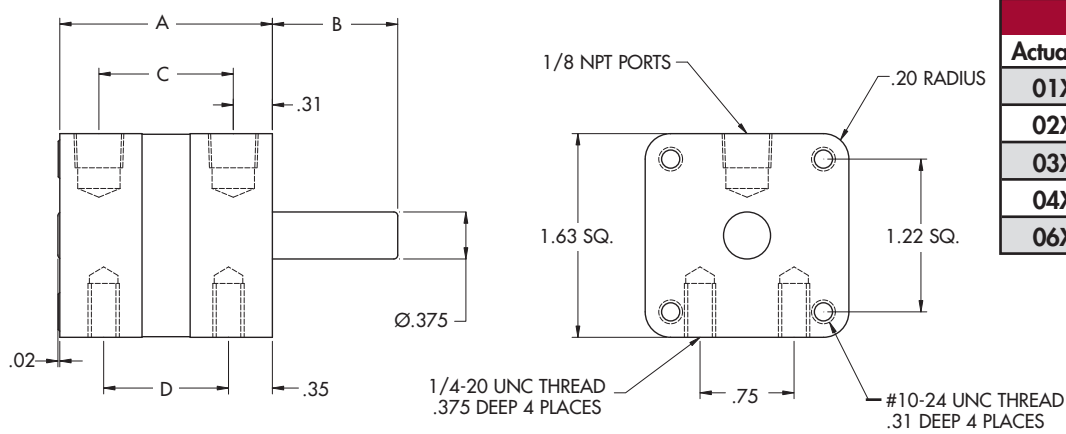
Unit Materials	
Shaft - Body - Trim	
1	303 Stainless Steel - Anodized Aluminum - Carbon Steel
3	303 Stainless Steel - Anodized Aluminum - Stainless Steel
4	303 Stainless Steel - Stainless Steel - Stainless Steel
6	316 Stainless Steel - 316 Stainless Steel - Stainless Steel

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Options	
Additional options available on pgs. 14-33	
000	No Options
100	Flange Mount - Rod End
101	Flange Mount - Cap End
300	Extended Tie Rods - Rod End
301	Extended Tie Rods - Cap End
400	Adjustable Stroke Control - Cap End, Pos.5
401	Adjustable Stroke Control - Rod End, Pos.1
801	Side Mounts - Positions 2 & 6
803	Side Mounts - Positions 4 & 8
804	Side Mounts - Positions 2,4,6 & 8
900	Thrust Protection - Cap End, Pos.1
901	Thrust Protection - Rod End, Pos.1
B00	Urethane Bumpers
T01	3/8" Trantorque® Shaft Coupler - Carbon Steel
T02	3/8" Trantorque® Shaft Coupler - Stainless Steel Stainless Shaft Coupler has 1/3 the Transmissible Torque as T01 (see pgs. 34-35)
Switch Options	
Additional switch options available on pg. 24	
All Axx Switch Options are Single End Only	
A00	Switch Package - No Switches
A02	Switch Pkg. - 2 Reed Switches
A05	Switch Pkg. - 2 Sourcing Switches
A08	Switch Pkg. - 2 Sinking Switches
Double end switch options available on pgs. 25-26	

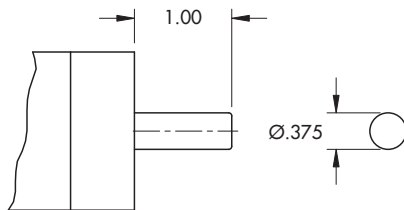
Dimensional Data: Comp-Act (CA)

Basic Dimensions

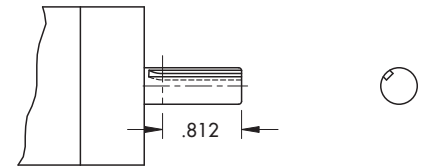


Dimensional Specifications				
Actuator	A	B	C	D
01X	1.70	1.00	1.07	1.00
02X	2.20	1.00	1.57	1.50
03X	2.70	1.00	2.07	2.00
04X	3.20	1.00	2.57	2.50
06X	4.75	1.00	4.12	4.05

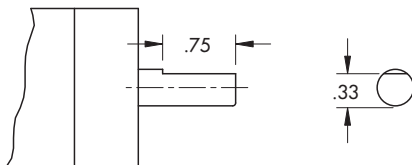
Shaft Options



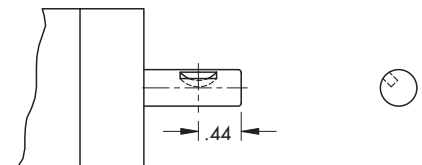
Basic Shaft



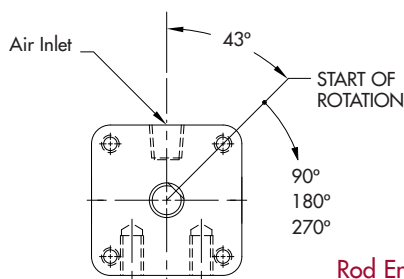
3/32" Square Keyway



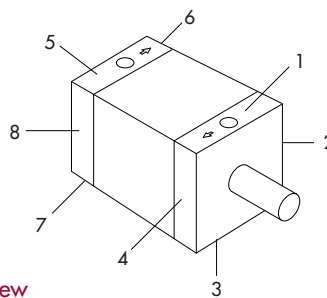
Shaft Flat



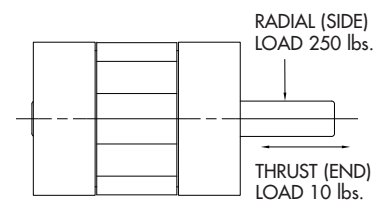
#303 Woodruff Key



Rod End View



Port & Mounting Position References



Shaft Load Capacity

Nominal Rotations (+4/-0 actual)

NOTE: The 43° start position is nominal. Tolerances are +/- 2 degrees.