

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	9	7	5
013			
021	13	10	8
023			
031	25	20	15
033			
041	32	26	19
043			
061	50	40	30
063			

Torque Chart (IN. LBS.)			
90° Rotations ²			
Actuator Model	Actuator Torque at		
	100 PSI	80 PSI	60 PSI
012	17	14	10
022	32	26	19
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
 BodyAnodized Alum.
 Bearings..Full Comp. Needle

Miscellaneous

Inlets.....1/8 NPT
 Min. Pressure35psi
 Max. Pressure.....200psi
 Cylinder Bore.....1-1/4"

Shaft Load Capacities

Max. Side Load250lbs.
 Max. End Load.....10lbs.

Temperature Range

-20°F to 180°F. Consult factory for higher temperature.

Filtration

Air25-50 microns

Cycle Rates³

Max. non-lubed rate:

Double Vane40cpm
 Single Vane20cpm

Max. lubed rate:

Consult Factory

Rotary Motion Backlash

All models0 degree

Leak Rates

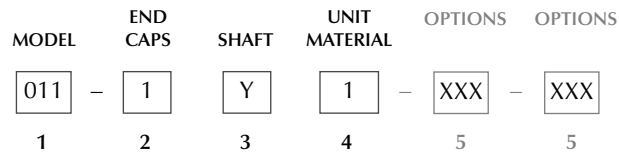
Air.....4 cfm or less@100psi

- 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)



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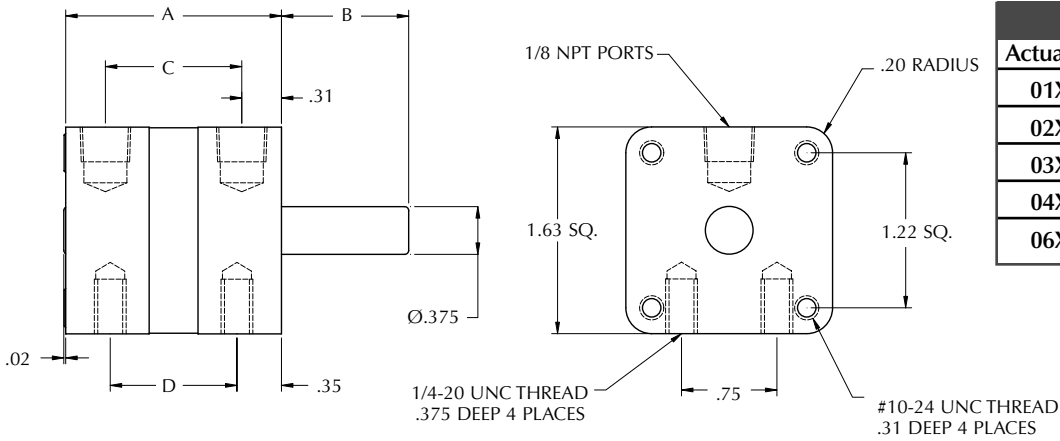
Unit Materials	
Shaft - Body - Trim	
1	303 Stainless Steel - Anodized Aluminum - Carbon Steel
3	303 Stainless Steel - Anodized Aluminum - Stainless Steel
4	303 Stainless Steel - Stainless Steel - Stainless Steel
6	316 Stainless Steel - 316 Stainless Steel - Stainless Steel

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Options	
Additional options available on pg. 30	
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 pg. 36, 37)
Switch Options	
Additional switch options available on pg. 26	
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. 27-28	

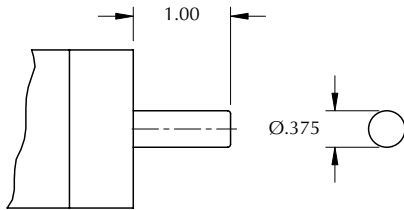
Dimensional Data: Comp-Act (CA)

Basic Dimensions

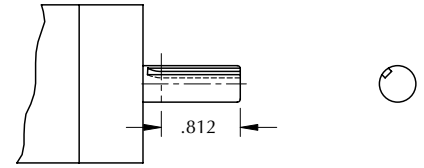


Dimensional Specifications				
Actuator	A	B	C	D
01X	1.70	1.00	1.07	1.00
02X	2.20	1.00	1.57	1.50
03X	2.70	1.00	2.07	2.00
04X	3.20	1.00	2.57	2.50
06X	4.75	1.00	4.12	4.05

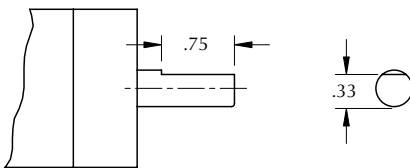
Shaft Options



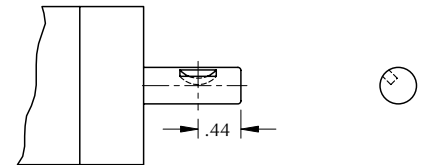
Basic Shaft



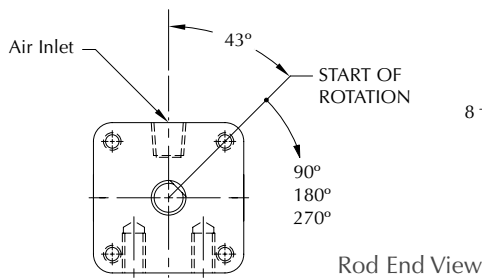
$3/32$ " Square Keyway



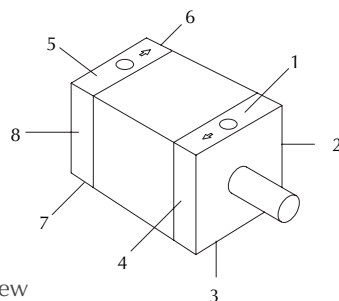
Shaft Flat



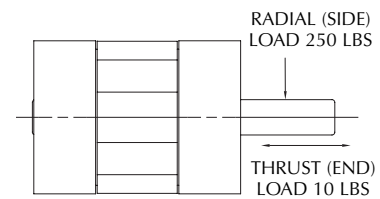
#303 Woodruff Key



Nominal Rotations (+4/-0 actual)



Port & Mounting Position References



Shaft Load Capacity

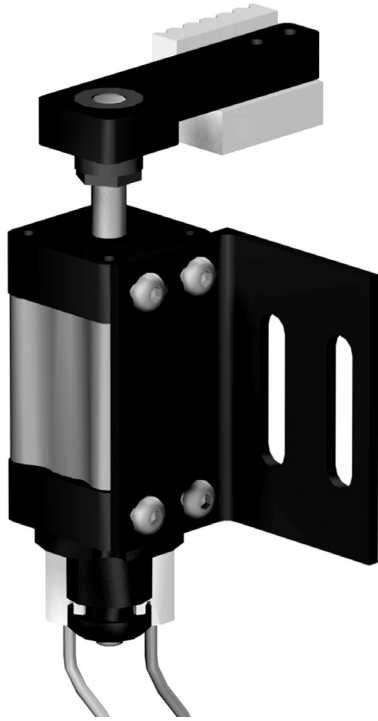
NOTE: The 43° start position is nominal. Tolerances are +/- 2 degrees

Can You Imagine

ANSWER ENGINEERING®

The ability to rapidly and accurately modify our products to better meet the requirements of your application.

Frequently, a simple modification; a shorter shaft, a relocated mounting hole or perhaps a change in port size, results in an actuator that will better fit your application. To modify most other manufacturers products is time consuming and expensive. Turn-Act's manufacturing processes are designed to address rapid, accurate, and cost effective production of custom modified rotary actuators.



Imagine.... Clean Room Application

To address the demanding requirements of a clean room application, Turn-Act designed and produced a Conveyor stop sub-assembly.

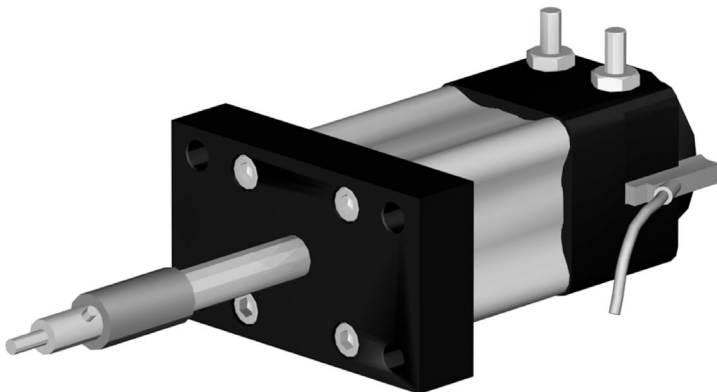
This assembly consists of:

- 60 in.lbs. 90° rotary actuator
- An adjustable mounting bracket designed to integrate with the conveyor rail
- Stop Arm
- Trantorque™ shaft coupling
- Arm end-effector to interface with conveyed product

The purchase of this sub-assembly resulted in cost reductions for the customer by eliminating and minimizing:

- Design costs
- Fabrication costs
- Assembly/Install costs
- Inventory costs

THIS IS ...Turn-Act Answer Engineering®



Imagine.... Medical Application

To contend with the repeatability and space constraints of a small desktop medical analysis device, Turn-Act designed and produced this SPECIAL Actuator Assembly.

This assembly consists of:

- 60 in.lbs. 90° rotary actuator
- Combined rod head and flange mount
- Shaft modification included:
 - Extended length
 - Turn down
 - Threaded end
 - Cross drilled hole
 - Assembly of a shaft bushing and cross pin
- Special switch system and connectors
- Preset adjustable stroke control

Cost reduction is always a priority, however this application had the additional constraints of size and a need for 100% repeatability. Turn-Act provided a product that met all of these requirements.

THIS IS ...Turn-Act Answer Engineering®