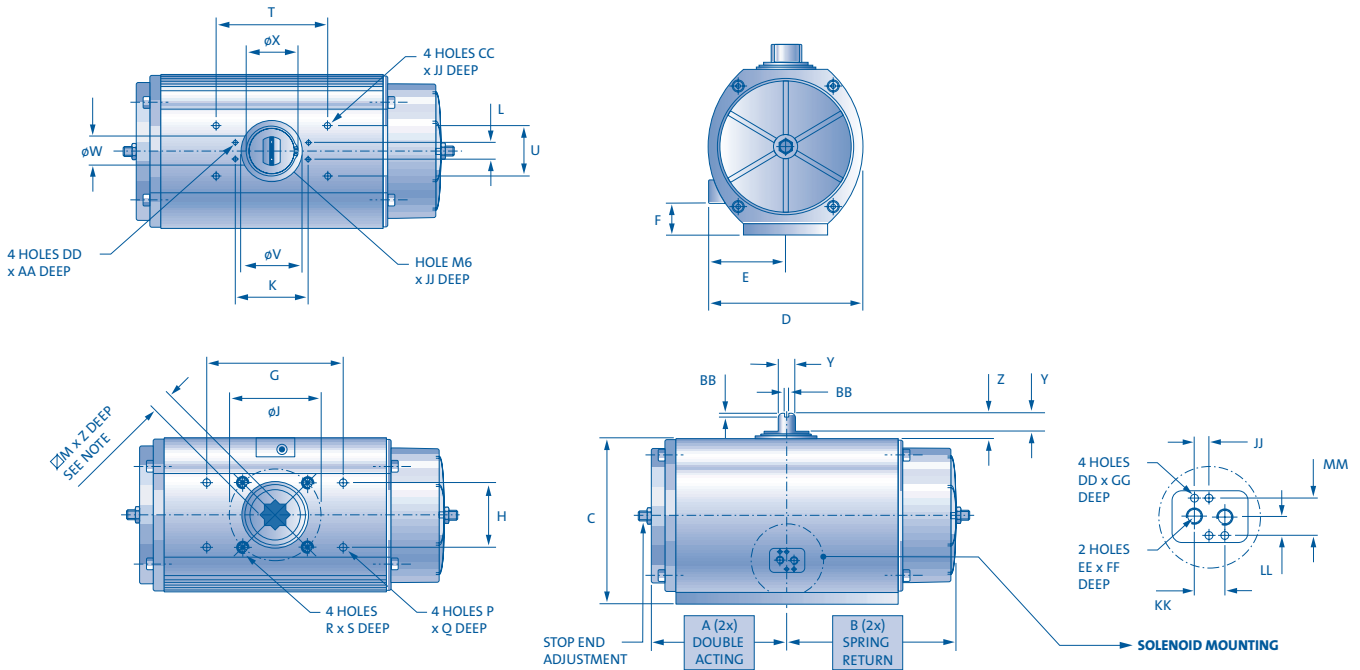


# TruTorq Actuator Size 250 F16 Double Acting and Spring Return



## Dimensions

Metric		A	B	C	D	E	F	G	H	φJ	φK	L	∅M	P	Q	R	S	T
Size 250	F16	248	338	300	280	140	56	244	117	Ø165	130	30	46	M12	22	M20	32	200
		U	φV	φW	φX	Y	Z	AA	BB	CC	DD	EE	FF	GG	JJ	KK	LL	MM
Size 250	F16	90	120	60	111	36	50	6	4	M8	M5	G 1/4"	12	8	12	24	16	32
Imperial		A	B	C	D	E	F	G	H	φJ	K	L	∅M	P(UNC)	Q	R(UNC)	S	T
Size 250	F16	9.8	13.3	11.81	11.02	5.51	2.20	9.61	4.61	6.5	5.12	1.18	1.81	1/2-13	0.86	3/4-11	1.25	7.87
		U	φV	φW	φX	Y	Z	AA	BB	CC(UNC)	DD	EE	FF	GG	JJ	KK	LL	MM
Size 250	F16	3.54	4.72	2.36	4.37	1.42	1.97	0.25	0.16	5/6-18	10-24	NPT 1/4"	0.50	0.31	0.47	0.94	0.63	1.26

## Torque

Air Supply Model: TDA250 Model: TSR250		40psi 10740 in.lbs		50psi 13425 in.lbs		60psi 16110 in.lbs		70psi 18795 in.lbs		80psi 21480 in.lbs		90psi 24165 in.lbs		100psi 26850 in.lbs		
Springs	Spring Torque	Air Stroke														
Quantity	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
2	2764	1788	8952	7976	11637	10661	14322	13346	17007	16031	19692	18716	22377	21401	25062	24086
4	5528	3576	7164	5212	9849	7897	12534	10582	15219	13267	17904	15952	20589	18637	23274	21322
6	8292	5364			8061	5133	10746	7818	13431	10503	16116	13188	18801	15873	21486	18558
8	11056	7152					8958	5054	11643	7739	14328	10424	17013	13109	19698	15794
10	13820	8940							9855	4975	12540	7660	15225	10345	17910	13030
12	16584	10728									10752	4896	13437	7581	16122	10266

Air Supply Model: TDA250 Model: TSR250		2 bar 883 Nm		3 bar 1324 Nm		4 bar 1765 Nm		5 bar 2206 Nm		5.5 bar 2427 Nm		6 bar 2648 Nm		7 bar 3089 Nm		
Springs	Spring Torque	Air Stroke														
Quantity	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
2	312	202	681	571	1122	1012	1563	1453	2004	1894	2225	2115	2446	2336	2887	2777
4	624	404	479	259	920	700	1361	1141	1802	1582	2023	1803	2244	2024	2685	2465
6	936	606			718	388	1159	829	1600	1270	1821	1491	2042	1712	2483	2153
8	1248	808					957	517	1398	958	1619	1179	1840	1400	2281	1841
10	1560	1010							1196	646	1417	867	1638	1088	2079	1529
12	1872	1212									1215	555	1436	776	1877	1217

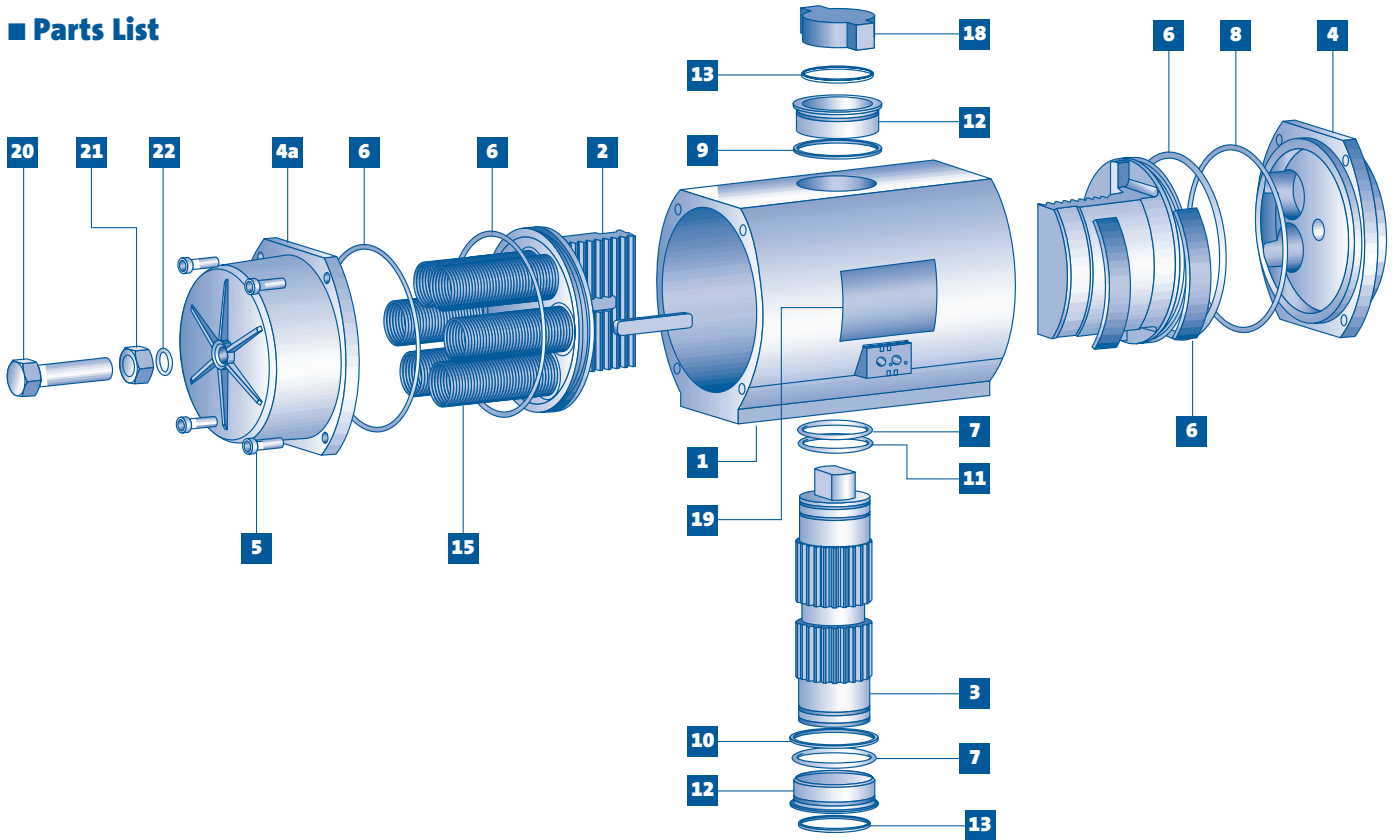
## Basic Operating Detail

- TDA = Double Acting
- Port 'A' = Air To Open (Anti-Clockwise)
- Port 'B' = Air To Close (Clockwise)
- TSR = Spring Return
- Port 'A' = Air To Open (Anti-Clockwise compressing springs)
- Port 'B' = Spring To Close (Clockwise)
- Fail Safe Open = Rotate Pistons 180° About Own Axis
- Drive Medium = Air (Dry or Lubricated); Non Corrosive Gas; Light Hydraulic Oil
- Temperature = Buna Nitrile 'O' Seals -40 to +100°C or -40 to +212°F  
Viton 'O' Seals -25 to +250°C or -13 to +482°F

Actuator Size	Operating Time				Air Consumption				Overall Weight				Sol. VV Min. Cv
	DA Open	DA Close	SR Open	SR Close	Open (l)	Close (l)	Open (ci)	Close (ci)	DA Kg	SR Kg	DA lbs	SR lbs	
250	7	7	8	5	8.5	9.8	518.7	598.03	59	84	129.8	184.8	1.4



## Parts List



Ref No	Description	Quantity	Material Std Unit	Material CNI® Unit	Comments
1	Body	1	Alum. Anodized	Alum/CNI 530T	
2	Piston	2	Alum. Anodized	Alum/CNI 425	
3	Driveshaft	1	Steel / Zinc	CNI 530T	
4	Endcap - DA	2	Powder Epoxy	Alum/CNI 530T	
4a	Endcap - SR	2	Powder Epoxy	Alum/CNI 530T	
5*	Bolt - 250	8	Stainless Steel	Stainless Steel	
6*	'O' Ring	2	Buna Nitrile	Buna Nitrile	Option Viton or Silicone
7*	'O' Ring	2	Buna Nitrile	Buna Nitrile	Option Viton or Silicone
8*	'O' Ring	2	Buna Nitrile	Buna Nitrile	Option Viton or Silicone
9*	Washer	1	Polyethylene	Polyethylene	
10*	Washer	1	Polyethylene	Polyethylene	
11*	'O' Ring	2	Buna Nitrile	Buna Nitrile	Option Viton or Silicone
12*	Bushing	1	Bronze	Bronze / CNI 530T	
13*	Circlip	2	Steel	Stainless Steel	
14*	Wear Pad	4	POM Delrin	POM Delrin	
15	Spring	12 max	SiCr	SiCr	
16*	Guide Bar	2	Steel	Stainless Steel	
17*	Ball Bearing	2	Composite	Composite	
18	Position Indicator	1	Polyethylene	Nylon	Truvison Puck optional on Std
19	Product Label	1	3M	3M	
20	Stop Adjustment Screw	2	Stainless Steel	Stainless Steel	
21	Stop Adjustment Nut	2	Stainless Steel	Stainless Steel	
22	Stop Adjustment 'O' Ring	2	Buna Nitrile	Buna Nitrile	Option Viton or Silicone

\* Items marked with an asterisk are included in repair kit.



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