

# specifications

SPRING RETURN ACTUATORS - TORQUE IN LB-IN & PRESSURE IN PSIG											
Model Number	Spring Set	Spring Output Torques		Air Output Torques at Operating Pressure							
				40		60		80		100	
	No.	Start	End	Start	End	Start	End	Start	End	Start	End
SP20SR	2	31	19	48	36	89	77				
	3	49	29	40	20	80	60	115	94	160	139
	4	67	39			70	42	106	78	145	113
	5	84	49			60	25	96	61	135	105
	6	101	59					85	43	121	88
SP40SR	2	59	33	89	63	151	125				
	3	87	49	54	27	135	98	196	159		
	4	114	65			119	70	180	131	243	194
	5	142	82			103	43	164	103	226	165
	6	170	98					147	75	209	137
SP80SR	2	160	86	259	185	432	358				
	3	245	128	218	101	390	273	564	447		
	4	330	170			348	188	522	362	696	536
	5	410	215			304	109	477	282	651	455
	6	490	260					432	202	605	375
SPI30SR	2	226	120	339	233	579	473				
	3	343	185	275	117	514	356	744	586		
	4	460	250			449	239	679	469	930	720
	5	573	315			385	127	614	357	864	607
	6	685	380					549	244	799	494
SP200SR	2	310	168	481	339	811	669				
	3	460	252	398	190	727	519	1,057	849		
	4	610	336			643	369	973	699	1,304	1,030
	5	760	420			560	220	889	549	1,219	879
	6	910	504					805	399	1,135	729
SP300SR	2	644	350	1,039	745	1,739	1,445				
	3	962	525	865	428	1,564	1,127	2,264	1,827		
	4	1,280	700			1,389	809	2,089	1,509	2,780	2,200
	5	1,605	880			1,210	485	1,909	1,184	2,599	1,874
	6	1,930	1,060					1,729	859	2,419	1,549
SP500SR	2	920	530	1,499	1,109	2,519	2,129				
	3	1,380	795	1,235	650	2,254	1,669	3,264	2,679		
	4	1,840	1,060			1,989	1,209	2,999	2,219	4,010	3,231
	5	2,300	1,325			1,725	750	2,734	1,759	3,744	2,769
	6	2,760	1,590					2,469	1,299	3,479	2,309
SP850SR	2	1,230	740	1,989	1,499	3,419	2,929				
	3	1,835	1,100	1,830	1,095	3,059	2,324	4,379	3,644		
	4	2,440	1,460			2,699	1,719	4,019	3,039	4,300	4,320
	5	3,050	1,815			2,345	1,110	3,664	2,429	4,944	3,709
	6	3,660	2,170					3,309	1,819	4,589	3,099
SP1200SR	2	1,820	1,050	2,799	2,029	4,959	4,189				
	3	2,730	1,575	2,275	1,120	4,434	3,279	6,324	5,169		
	4	3,640	2,100			3,909	2,369	5,799	4,259	7,680	6,140
	5	4,550	2,625			3,385	1,460	5,274	3,349	7,094	5,169
	6	5,460	3,150					4,749	2,439	6,569	4,259
SP1750SR	2	2,430	1,390	4,089	3,049	7,164	6,124				
	3	3,645	2,085	3,395	1,835	6,469	4,909	9,224	7,664		
	4	4,860	2,780			5,774	3,694	8,529	6,449	11,180	9,100
	5	6,075	3,475			5,080	2,480	7,834	5,234	10,484	7,884
	6	7,290	4,170					7,139	4,019	9,789	6,669

# accessories

W&O offers a selection of engineered accessories to meet or exceed any customer's requirement.

### Solenoid Valves

Direct or nipple mount having weatherproof or explosion proof enclosure, intrinsically safe, AC or DC coils, quick exhaust, 2 or 3 position with or without speed controls.

### Switch Boxes

Aluminum, stainless steel or corrosion-resistant weatherproof or explosion proof enclosure, mechanical or sealed switches with or without dome indicators.

### Positioners

3-15 PSI, 4-20mA, ASi Interface or ProfiBus

### Declutchable Gear Overrides

### Lock-up Valves

### Filter / Regulators

### Lockout / Tagout Hardware

### Flow Controls

### Speed Controls

### Dribble Control

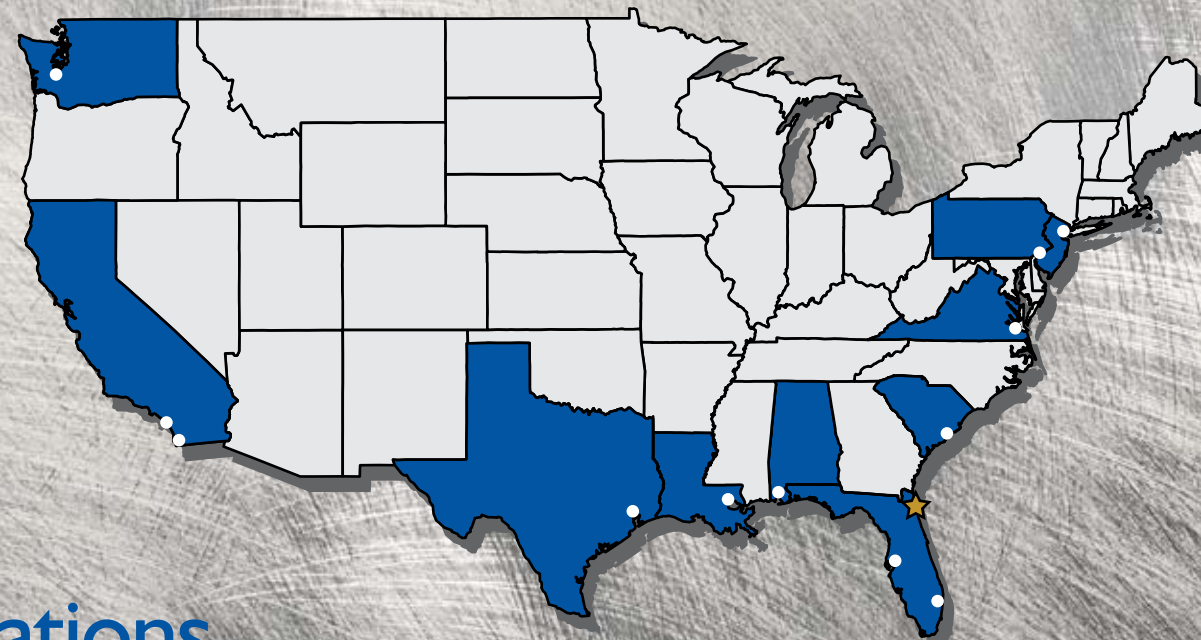
### Complete Mounting & Assembly Service



# SPACE

PNEUMATIC ACTUATORS

MODELS SP AND SPD



# locations

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The Right Fit.

www.wosupply.com

SPACE rack & pinion pneumatic actuators are designed and manufactured to provide the highest quality and cycle-life on the market. Available in two different configurations, the **SP** with an double square output drive and the **SPD** with double D drive. Spanning over one hundred models, **SPACE** actuators offer the appropriate product for every application.

In addition, an extensive line of accessories are pre-engineered to accomplish virtually any control requirement.

Our extensive inventory and engineering capabilities allow us to respond to your needs with flexibility. We pride ourselves on exceeding customer expectations.

- Double Acting & Spring Return Configurations
- Dual Travel Stops
- Torques to 36,000 Lb-In.
- DA & SR Common End Caps
- ISO 5211 Mounting Dimensions
- Wide Base for Direct Mounting to Many Ball & Butterfly Valves
- Substantial Pinion Bearings Mean High Cycle Life
- Corrosion Resistant Hard Anodized Finish
- Each Unit Serialized and Bar Coded
- NAMUR Accessory Mounting Configuration
- Operating Pressure to 120 PSIG
- American Bureau of Shipping (ABS) Approved



The Right Fit.

# torque tables

DOUBLE ACTING ACTUATORS - TORQUE IN LB-IN & PRESSURE IN PSIG								
MODEL NUMBER	Air Output Torques at Operating Pressure							
	40	50	60	70	80	90	100	120
SP10DA	30	38	45	53	60	68	75	90
SP20DA	79	99	118	138	158	177	197	237
SP40DA	164	205	245	286	327	368	409	491
SP80DA	352	440	528	615	703	791	879	1,055
SP130DA	527	659	791	923	1,054	1,186	1,318	1,581
SP200DA	716	895	1,073	1,252	1,431	1,610	1,789	2,147
SP300DA	1,217	1,521	1,825	2,129	2,434	2,738	3,042	3,651
SP500DA	1,749	2,187	2,624	3,061	3,498	3,936	4,373	5,247
SP850DA	3,282	4,103	4,923	5,744	6,565	7,385	8,206	9,847
SP1200DA	4,510	5,638	6,765	7,893	9,020	10,148	11,275	13,530
SP1750DA	5,729	7,156	8,586	10,018	11,448	12,880	14,311	17,173

# performance data

- Standard Operating Temp: -20F to +175F (-29C to +79C) High & Low Temperature Trims Available
- Operating Media: Clean, Dry Air, Non-Corrosive Gas or Light Hydraulic Oil
- Operating Pressure: 40 to 120 PSIG
- Lubrication: Factory applied at assembly for life
- Output Rotation & Adjustment: Models SP10 & SP20 Have Travel Stops Located in the End Cap(s) for Adjustment in One Direction Only. All Other Models are Standard with Dual Travel Stops.

MODEL NUMBER	Operating Time Seconds		Weight Pounds		Air Volume Cu. In.		NAMUR Accessory Drive (MM)			
	DA	SR	DA	SR	CW	CCW	No.	Length	Width	High
SP10	0.30	0.30	2.0	--	3	3	--	50	25	20
SP20	0.50	0.50	2.9	3.5	8	6	1	80	30	20
SP40	0.60	0.60	4.5	6.0	17	14	1	80	30	20
SP80	1.00	1.00	9.0	11.0	34	23	1	80	30	20
SP130	1.20	1.20	12.0	14.0	52	36	1	80	30	20
SP200	1.50	1.50	14.5	17.0	67	49	1	80	30	20
SP300	2.00	2.00	23.0	26.0	116	100	1	80	30	20
SP500	2.50	2.50	32.0	38.0	183	137	3	130	30	30
SP850	3.00	3.00	59.0	68.0	334	259	3	130	30	30
SP1200	4.00	4.00	78.0	91.0	505	357	3	130	30	30
SP1750	5.00	5.00	100.0	117.0	703	439	3	130	30	30

# model number matrix

Example: **SP 200 SR 6 - 10**

**SP:** SPACE Actuator

**200:** Base Model Number (10, 20, 40, 80, 130, 200, 300, 500, 850, 1200 & 1750).

**SR:** Spring Return Fail Clockwise (as viewed from above).

**6:** SR & SO Models Only Indicating Number of Springs Per Side.

**10:** SPD Models Only Indicating Direct Mount Configuration to 10" Center Line (4" - 14").

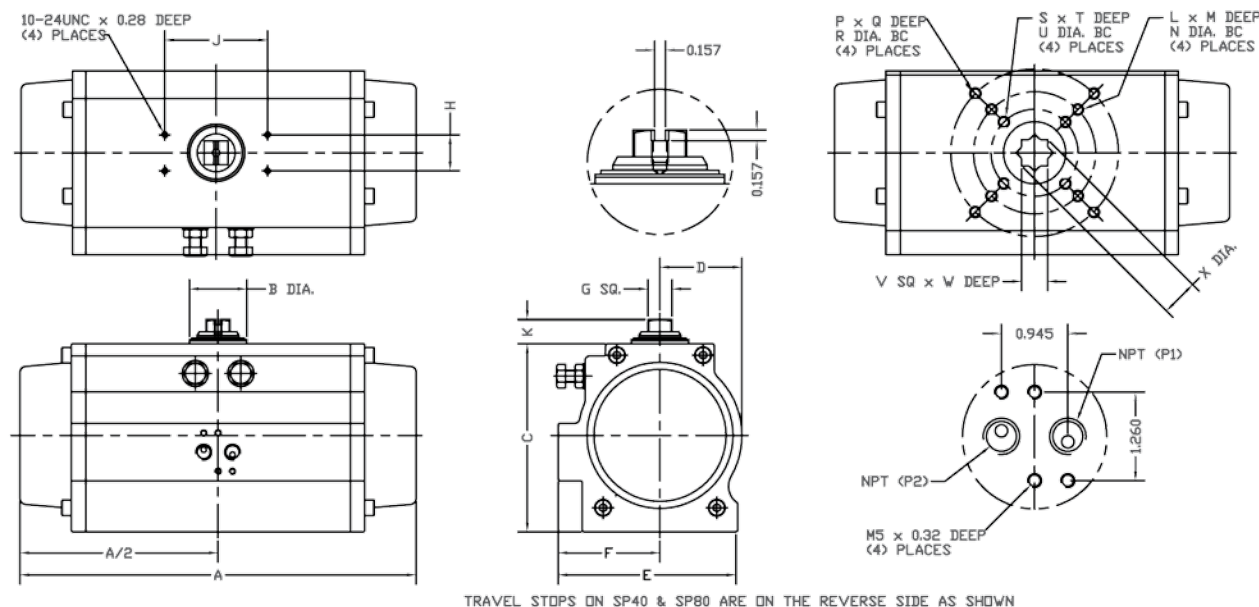
**DA:** Double Acting

**DAR:** Double Acting Reverse Acting.

**SR:** Spring Return Fail Clockwise (as viewed from above).

**SO:** Spring Return Fail Counter-Clockwise (as viewed from above).

# SP MODELS



# SP dimensions

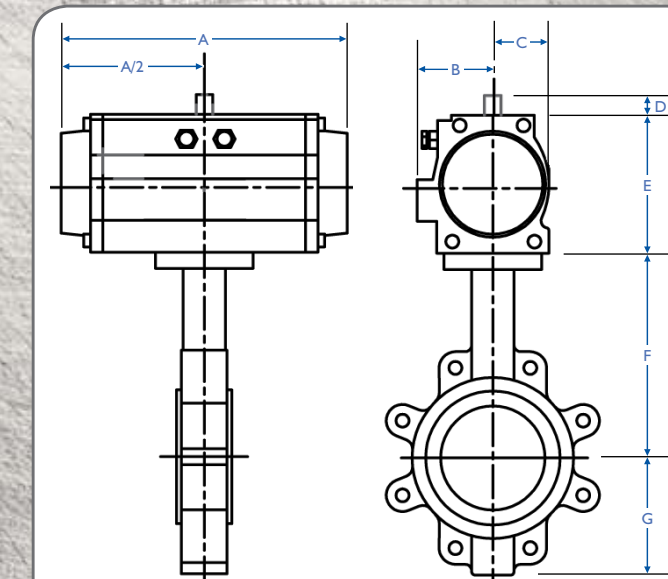
All dimensions in inches

SP MODEL	10	20DA	20SR	40	80	130	200	300	500	850	1200	1750
<b>A</b>	4.57	5.98	7.60	7.95	9.29	10.87	11.46	13.90	15.16	20.95	22.68	24.37
<b>C</b>	1.91	2.76	3.43	4.49	4.88	5.28	6.18	6.93	7.91	9.17	10.12	
<b>D</b>	0.83	1.10	1.42	1.69	2.11	2.30	2.70	2.99	3.74	4.13	4.57	
<b>E</b>	1.93	2.58	3.29	4.41	4.69	5.06	5.91	6.50	6.89	7.60	8.31	
<b>F</b>	1.10	1.40	1.79	2.48	2.72	2.89	3.35	3.70	3.90	4.29	4.72	
<b>NPT</b>	1/8	1/8	1/8	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
ACCESSORY MOUNTING DIMENSIONS												
<b>G SQ.</b>	0.354	0.630	0.630	0.630	0.630	0.630	0.787	0.787	0.787	1.260	1.260	
<b>H</b>	0.984	1.181	1.181	1.181	1.181	1.181	1.181	1.181	1.181	1.181	1.181	
<b>J</b>	1.969	3.150	3.150	3.150	3.150	3.150	3.150	5.118	5.118	5.118	5.118	
<b>K</b>	0.787	0.787	0.787	0.787	0.787	0.787	0.787	1.181	1.181	1.181	1.181	
<b>B DIA.</b>	0.79	1.22	1.22	1.22	1.42	1.42	1.61	1.89	2.09	2.40	2.68	2.91
VALVE MOUNTING DIMENSIONS												
<b>ISO</b>	F03	F04	F05/07	F05/07/10	F07/10	F07/10	F07/10/12	F10/12	F10/12	F14	F14	
<b>U DIA.</b>	1.417	1.654	1.969	1.969	--	--	2.756	--	--	--	--	
<b>N DIA.</b>	--	--	2.756	2.756	2.756	2.756	4.016	4.016	4.016	--	--	
<b>R DIA.</b>	--	--	--	4.016	4.016	4.016	4.921	4.921	4.921	5.512	5.512	
<b>S</b>	10-24	1/4-20	1/4-20	1/4-20	--	--	5/16-18	--	--	--	--	
<b>L</b>	--	--	5/16-18	5/16-18	5/16-18	5/16-18	3/8-16	3/8-16	3/8-16	--	--	
<b>P</b>	--	--	--	3/8-16	3/8-16	3/8-16	1/2-13	1/2-13	1/2-13	5/8-11	5/8-11	
<b>T</b>	0.24	0.31	0.39	0.39	--	--	0.47	--	--	--	--	
<b>M</b>	--	--	0.47	0.47	0.47	0.47	0.63	0.63	0.63	--	--	
<b>Q</b>	--	--	--	0.63	0.63	0.63	0.79	0.79	0.79	0.87	0.87	
<b>V SQ.</b>	0.354	0.433	0.551	0.748	0.748	0.748	0.866	1.063	1.063	1.417	1.417	
<b>W</b>	0.39	0.63	0.67	0.71	0.71	0.71	1.02	1.18	1.18	1.58	1.58	
<b>X DIA.</b>	0.58	0.58	0.75	1.02	1.02	1.02	1.19	1.47	1.47	1.97	1.97	

# SPD MODELS Center Line Series 200, 225, 250 & 300

# SPD dimensions

All dimensions in inches



SPD MODEL	VALVE SIZE	ACTUATOR					VALVE		WAFER LBS		LUG LBS	
		A	B	C	D	E	F	G	DA	SR	DA	SR
SPD40	2"	7.52	1.79	1.42	0.787	3.43	6.38	3.25	11	12	14	15
	3"	7.52	1.79	1.42	0.787	3.43	7.13	4.00	15	16	19	20
SPD80	2"	8.62	2.48	1.69	0.787	4.49	6.38	3.25	15	17	18	20
	3"	8.62	2.48	1.69	0.787	4.49	7.13	4.00	19	21	23	25
	4"	8.62	2.48	1.69	0.787	4.49	7.88	4.88	22	24	28	30
	5"	8.62	2.48	1.69	0.787	4.49	8.38	5.38	27	29	31	33
SPD130	2"	10.24	2.72	2.11	0.787	4.88	6.38	3.25	18	20	21	23
	3"	10.24	2.72	2.11	0.787	4.88	7.13	4.00	22	24	26	28
	4"	10.24	2.72	2.11	0.787	4.88	7.88	4.88	25	27	31	33
	5"	10.24	2.72	2.11	0.787	4.88	8.38	5.38	30	32	34	36
SPD200	4"	10.98	2.89	2.30	0.787	5.28	7.88	4.88	28	30	34	36
	5"	10.98	2.89	2.30	0.787	5.28	8.38	5.38	33	35	37	39
	6"	10.98	2.89	2.30	0.787	5.28	8.88	5.88	36	38	46	48
	8"	10.98	2.89	2.30	0.787	5.28	10.25	7.75	49	51	64	66
SPD300	5"	13.03	3.35	2.70	0.787	6.18	8.38	5.38	41	44	45	48
	6"	13.03	3.35	2.70	0.787	6.18	8.88	5.88	44	47	54	57
	8"	13.03	3.35	2.70	0.787	6.18	10.25	7.75	57	60	72	75
	10"	13.03	3.35	2.70	0.787	6.18	11.50	8.25	68	71	85	88
SPD500	8"	14.76	3.70	2.99	1.181	6.93	10.25	7.75	66	72	81	87
	10"	14.76	3.70	2.99	1.181	6.93	11.50	8.25	77	83	94	100
	12"	14.76	3.70	2.99	1.181	6.93	13.25	9.75	106	112	137	143
	14"	14.76	3.70	2.99	1.181	6.93	14.50	11.00	141	147	210	216
SPD850	10"	19.57	3.90	3.74	1.181	7.91	11.50	8.25	104	113	121	130
	12"	19.57	3.90	3.74	1.181	7.91	13.25	9.75	133	142	164	173
	14"	19.57	3.90	3.74	1.181	7.91	14.50	11.00	168	177	237	246
SPD1200	10"	21.50	4.29	4.13	1.181	9.17	11.50	8.25	123	136	140	153
	12"	21.50	4.29	4.13	1.181	9.17	13.25	9.75	152	165	183	196
	14"	21.50	4.29	4.13	1.181	9.17	14.50	11.00	187	200	256	269
SPD1750	10"	23.15	4.72	4.57	1.181	10.12	11.50	8.25	145	162	162	179
	12"	23.15	4.72	4.57	1.181	10.12	13.25	9.75	174	191	205	222
	14"	23.15	4.72	4.57	1.181	10.12	14.50	11.00	209	226	278	295