



AIR CON II

Pneumatic Actuators



**Extended Range
Pneumatic Actuators**

Pneumatic Actuators - Engineered to operate large diameter pipeline quarter - turn industrial valves

Air-Con's products are used in almost every energy related industry, including oil and gas production, both on and offshore, oil and gas transmission and petroleum refining. Other markets include chemical, petrochemical, pulp and paper, food and beverage, and water systems.

All actuator models have a totally enclosed housing that provides complete protection for all moving parts, minimizing the possibility of internal misalignment and reducing the chance of injury to operating personnel. External field-adjustable stops are provided to allow accurate adjustment and to assure complete opening and closing of the valve. All moving parts and bearing surfaces are supplied with a permanent lubricant, which also provides corrosion protection. All Air-Con actuators may be furnished to provide instant operation in the event of an emergency or linebreak when attendants are not available.

Air-Con's heavy duty rack-pinion actuators offer a broad range of torques to 1,565,800 in-lbs. These series are designed to operate ball, butterfly or any device that requires a quarter-turn movement for on-off or throttling service.

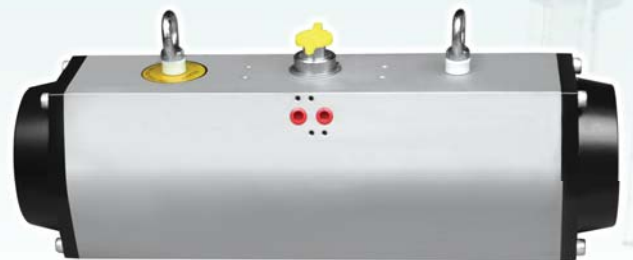
Special Strokes Air Con Actuator

In order to meet special requirements of control valve, Air-Con provides special pneumatic actuators with different strokes, such as 60°, 120°, 145°, 180°, 360° and etc.

Series B



Series XB

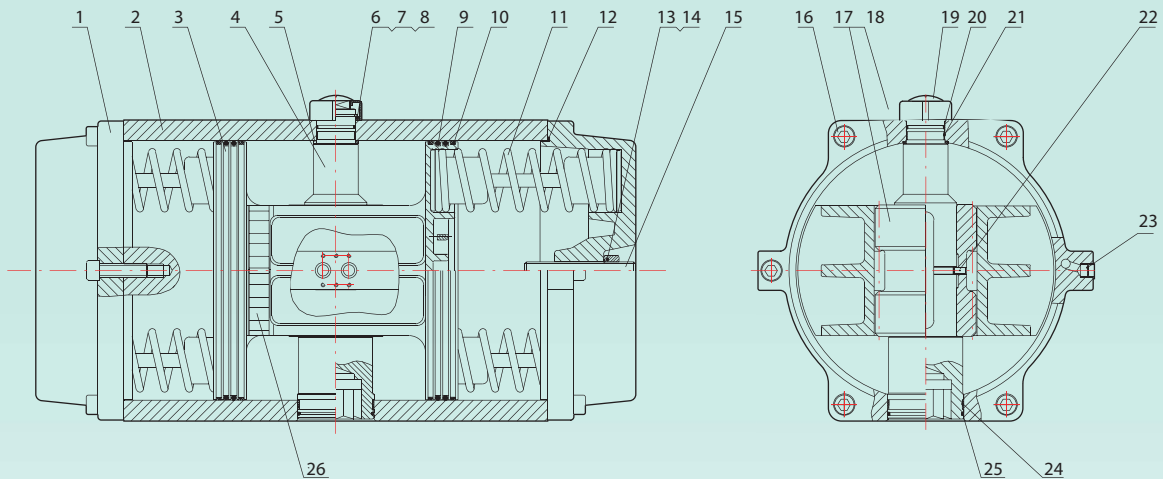




Components / Design Features: Series B

Rack & Pinion Design

B-300
B-350
B-400



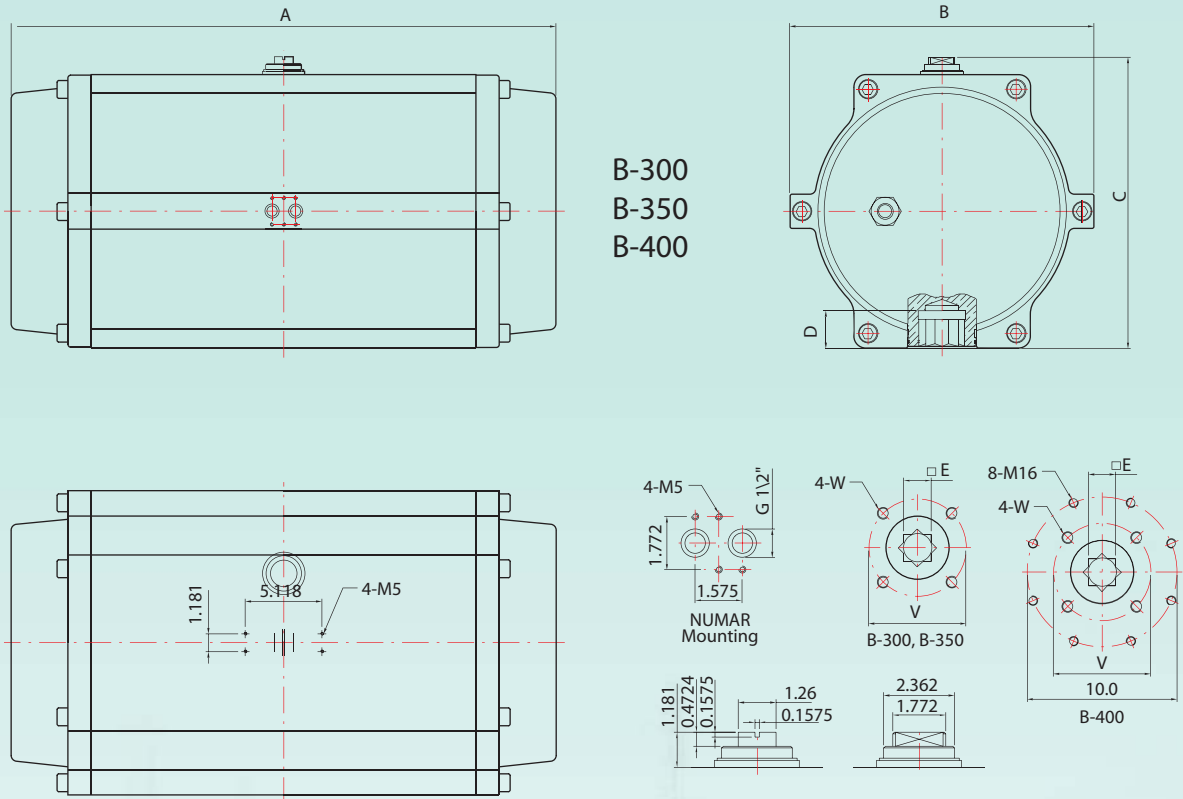
PARTS LIST

Item	Name	Material	Qty
1	End Cap	alluminum alloy	2
2	Body	alluminum alloy	1
3	Piston	steel	2
4	Shaft	steel	1
5	Inside Washer	Delrin	1
6	Outside Washer	Delrin	1
7	Thrust Washer	SS304	1
8	Circlip	SS304	1
9	Piston O-Ring	NBR	4
10	Piston Bearing	Delrin	4
11	Spring	spring steel	16
12	Cap O-Ring	NBR	2
13	Adjust Screw O-Ring	Ring	2
14	Nut	SS304	2

Item	Name	Material	Qty
15	End Cap Screw	SS304	2
16	Adjust Screw	SS304	2
17	Gear Bushing	steel	1
18	Indicator	plastics	1
19	Indicator Screw	SS304	1
20	Shaft Top O-Ring	NBR	1
21	Shaft Top Bearing	Delrin	1
22	Screw	SS304	2
23	Plug	NBR	2
24	Shaft Bottom O-Ring	Delrin	1
25	Shaft Bottom Bearing	NBR	1
26	Guide Rod	Delrin	2
27			
28			

Actuators Built for High Torque Demanding Applications

Components / Design Features: Series B



Actuator Dimensions (inch)

SIZE	A	B	C	D	E	V	W	SR Wgt (lb)	DA Wgt (lb)
B-300	29.2	12.8	14.9	2.36	1.811	6.496	M20	287	243
B-350	33.9	15.0	17.0	2.36	1.811	6.496	M20	517	411
B-400	36.4	20.3	19.4	2.36	2.165	6.496	M20	795	637

Adjustable Travel Stops of plus & minus 4 degrees in both directions at 0 and 90°

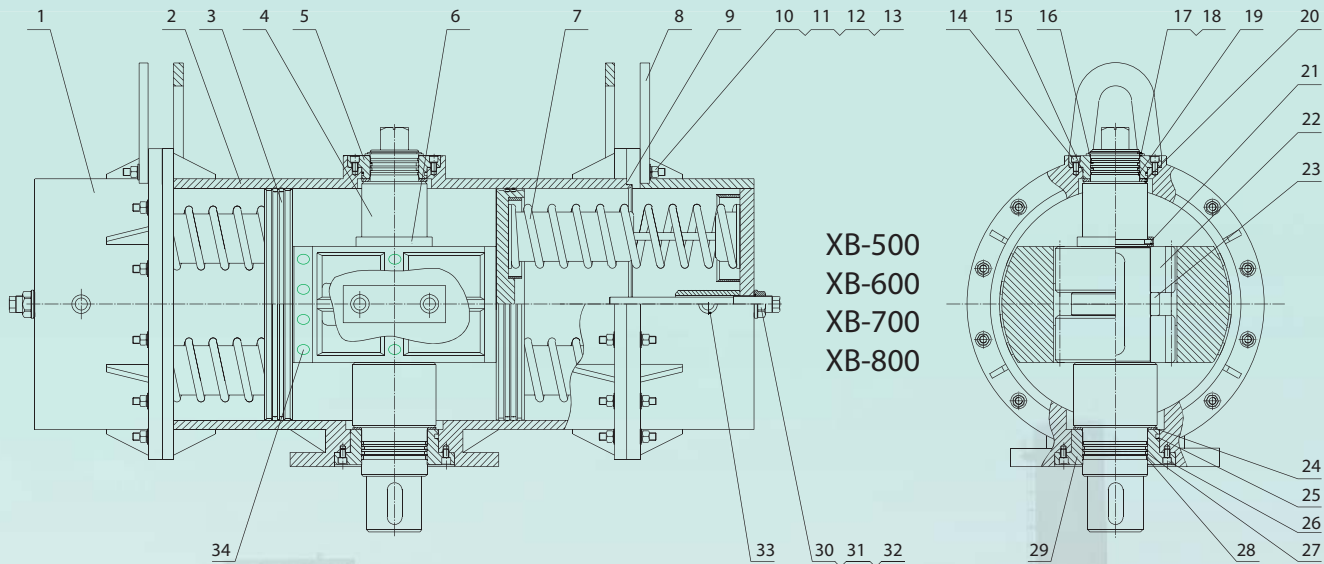
Air Consumption (cubic inch)

Model	B-300	B-350	B-400
Opening	1452	2142	3210
Closing	1812	2825	2197

Air-Con II pneumatic actuators are also available with lower output torques in our C-Series range 50 through 28,000 in-lbs



Components / Design Features: SeriesXB



PARTS LIST

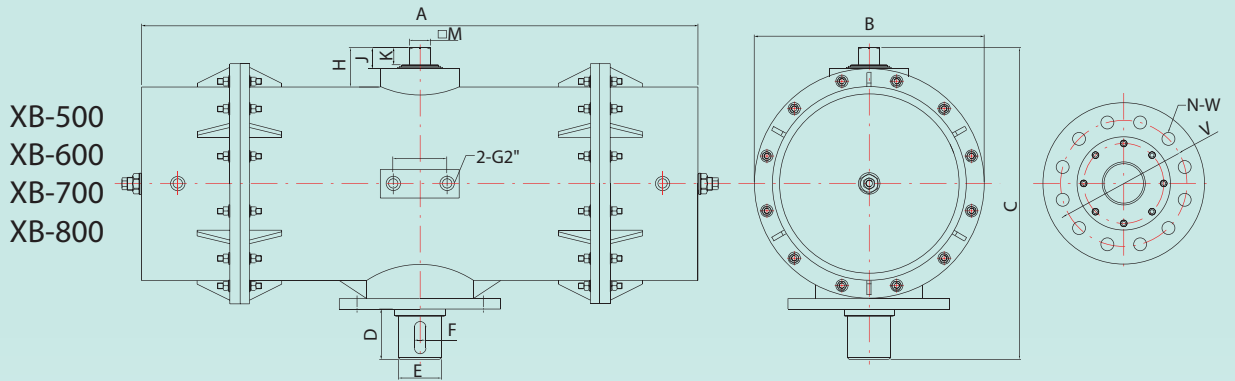
Item	Name	Material	Qty
1		aluminum alloy	2
2	Body	aluminum alloy	1
3	Piston	steel	2
4	Shaft	steel	1
5	Shaft Bush Top	aluminum alloy	1
6	Gear Circlip	steel	1
7	Spring	spring steel	0-8
8	Lefting Lug	steel	4
9	Cap O-Ring	NBR	2
10	Stud	steel	24
11	Nut	steel	24
12	Spring Washer	alloy steel	24
13	Plain Washer	steel	24
14	Bolt	steel	8
15	Shaft Bush Top O-Ring	NBR	1
16	Shaft Top O-Ring	NBR	2
17	Outside Washer	Delrin	1

Item	Name	Material	Qty
18	Circlip	alloy steel	1
19	Shaft Top Bearing	Delrin	2
20	Shaft Top Inside Washer	brass	1
21	Bolt	steel	1
22	Gear Bushing	steel	2
23	Separate Bar	steel	1
24	Shaft Bottom Inside Washer	Brass	1
25	Shaft Bush Bottom O-Ring	NBR	1
26	Bolt	steel	8
27	Shaft Bottom O-Ring	NBR	1
28	Shaft Bottom Bearing	Delrin	2
29	Shaft Bush Bottom	aluminum alloy	1
30	Adjusting Screw	steel	2
31	Nut	steel	2
32	32Adjust Screw O-Ring	NBR	2
33	Plug	NBR	4
34	Guid Rod	NBR	8

Actuators Built for High Torque Demanding Applications



Components / Design Features: Series XB

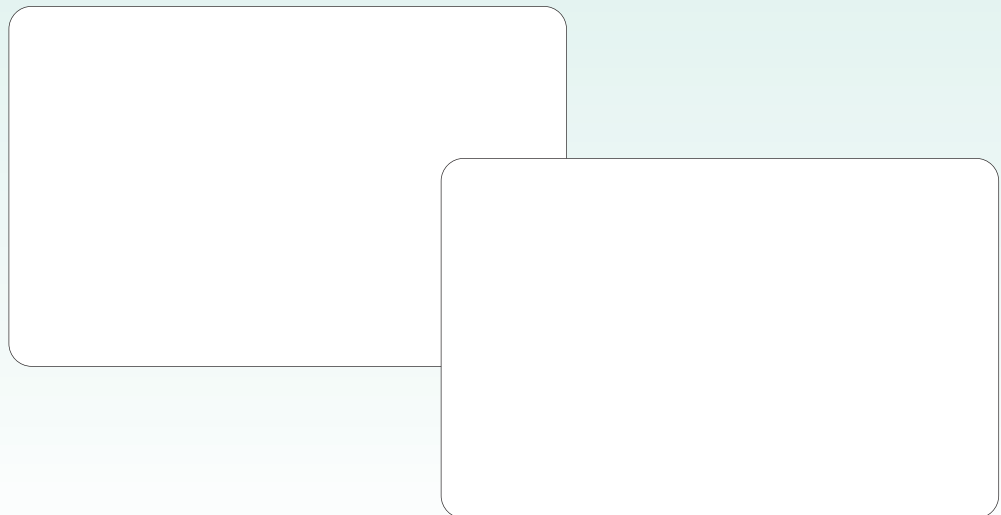


Actuator Dimensions (inch)

SIZE	A	B	C	D	E	F	G	H	J	K	M	N	V	W	SR Wgt (lb)	DA Wgt (lb)
XB-500	61.0	25.2	34.3	5.5	4.7	1.26	9.45	4.33	2.36	1.89	2.36	8	14.0	0.47	2447	2161
XB-600	81.5	33.5	41.7	7.9	7.1	1.77	9.45	4.72	2.36	1.89	3.15	12	19.0	1.57	4696	4354
XB-700	106.1	37.8	46.9	9.8	7.9	1.77	9.45	4.92	2.36	1.89	3.15	20	23.75	1.57	n/a	n/a
XB-800	89.6	41.7	50.8	9.8	7.9	1.77	9.45	4.92	2.36	1.89	3.15	20	23.75	1.57	n/a	n/a

Air Consumption (cubic inch)

Model	XB-500	XB-600	XB-700	XB-800
Opening	8092	15408	33990	43754
Closing	6713	12815	34906	44364





Design & Technical Data

Torque Rating - Spring Return (in-lb)

Model	spring each side	AirSupply														spring output			
		29psi		36psi		44psi		58psi		73psi		87psi		102psi		90°	0°		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°				
airstart	airend	airstart	airend	airstart	airend	airstart	airend	airstart	airend	airstart	airend	airstart	airend	airstart	airend	springstart	springend		
B-300	5	6328	3071	9709	6452												9391	6461	
	6	4898	991	8275	4372	11648	7744										11267	7753	
	7			6833	2283	10205	5656	16958	12409								13143	9045	
	8					8771	3567	15524	10320	22277	17073						15020	10338	
	9							14090	8231	20844	14984	27597	21737				16896	11630	
	10							12657	6151	19410	12904	26163	19658	32916	26411	18781	12922		
	11									17967	10816	24720	17569	31473	24322	20658	14214		
B-350	5	8691	3478	13745	8532												15064	10382	
	6	6381	133	11435	5187	16489	10240										18082	12462	
	7			9125	1841	14179	6895	24295	17011								21091	14533	
	8					11869	3549	21985	13666	32093	23773						24109	16613	
	9							19684	10311	29792	20419	39899	30526				27119	18693	
	10							17374	6966	27482	17073	37589	27181	47706	37297	30137	20764		
	11									25172	13728	35279	23835	45395	33951	33146	22844		
B-400	7	10754	496	17949	7691												25490	16259	
	8			15365	3638	22569	10842										29137	18587	
	9					19994	6797	34403	21206								32774	20905	
	10					17409	2753	31818	17162	46227	31571						36421	23224	
	11							29234	13117	43643	27526	58052	41935				40058	25552	
	12							26658	9072	41067	23481	55477	37890	69877	52290	43705	27871		
	13									38483	19427	52892	33836	67292	48237	47343	30199		
XB-500	4			45280	17321												77364	48520	
	5					51901	15852										96703	60654	
	6							77294	34031								116042	72780	
	7							65159	14683	102678	52202						135390	84914	
	8									90543	32863	128062	70381	165580	107899	154729	97048		
	4			92906	35102												130487	76718	
	5					107138	34872										163110	95898	
XB-600	6							157384	70664								195734	115069	
	7							135585	34412	207612	106439						228358	134248	
	8									185821	70195	257858	142232	329894	214268	260982	153428		
	6					249635	11007										298660	159101	
XB-700	7							359367	196549	495615	332797						348436	185618	
	8									469099	283020	605338	419260	741587	555508	398213	212135		

Torque Rating - Double Acting (in-lb)

Model	AirSupply									
	29 psi	36 psi	44 psi	58 psi	65 psi	73 psi	80 psi	87 psi	102 psi	116 psi
B-300	13506	16887	20259	27012	30393	33766	37147	40219	47272	54025
B-350	20223	25278	30331	40448	45502	50555	55609	60663	70779	80887
B-400	28818	36014	43218	57627	64832	72036	79241	86445	100845	115254
XB-500	75037	93800	112555	150073	168837	187591	206355	225110	262628	300146
XB-600	144072	180085	216108	288144	324397	360172	396194	432208	504244	576280
XB-700	272488	340602	408736	544984	613099	681232	749338	817471	953720	1089968
XB-800	391300	489127	586945	782600	880427	978254	1076072	1173899	1369553	1565799

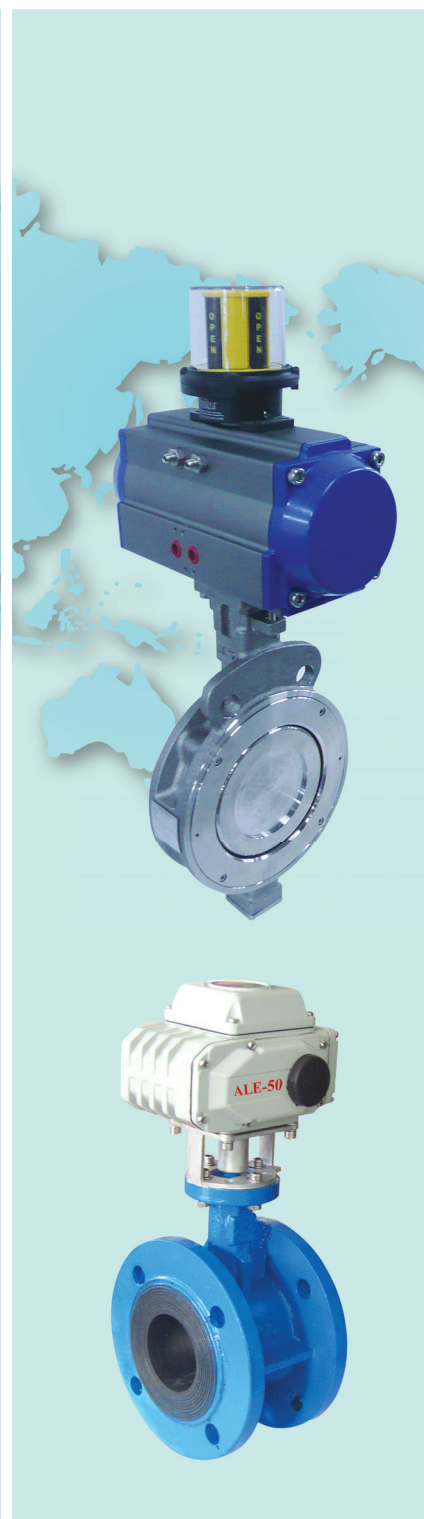
Operating Time (second)

Model	Double Acting							Spring Return						
	B-300	B-350	B-400	XB-500	XB-600	XB-700	XB-800	B-300	B-350	B-400	XB-500	XB-600	XB-700	XB-800
Opening	15	23.7	31	n/a	n/a	n/a	n/a	31.6	52.1	85.9	n/a	n/a	n/a	n/a
Closing	14.9	18.6	29	n/a	n/a	n/a	n/a	16.54	26.2	35.86	n/a	n/a	n/a	n/a

AIR CON Automation Accesories



Flo-Tite Offers A Complete Line of Ball and Butterfly Valves



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