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**FNW**®

PNEUMATIC RACK & PINION  
**AC-SERIES  
ACTUATOR**

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# DESIGN FEATURES

The FNW AC-Series Pneumatic Actuator has an aluminum rack & pinion in double acting or spring return based on our newly designed and innovative technology. This kind of actuator features a top mount multifunction indicator and open-close stop adjustment as standard. In addition, state-of-the-art engineering has allowed us to reduce the size of the actuator without sacrificing torque. The FNW AC-Series is a 4th generation pneumatic actuator with the latest features and characteristics.



## Indicator

Position indicator with NAMUR dimensions provides convenient mounting for accessories, such as a limit switch or positioner.

## Pinion

The precision CNC machined alloy steel pinion conforms to ISO 5211, DIN 3337, and NAMUR standards. The double square female output is easily adapted for direct mounting. Stainless steel is available as an option.

## Actuator Body

A hard anodized, ASTM 6005 extruded aluminum body is standard. Powder polyester paint, PTFE, and Nickel Infused coating are available.

## End Caps

Die-cast aluminum end caps with powder polyester paint are standard. PTFE coated and Nickel infused optional.

## High-Performance Cartridge Springs

Preloaded coated springs are made from high-quality, corrosion-resistant spring steel to support long cycle life. They can be removed safely and conveniently for different torque requirements or air supply pressures.

## Travel Adjustment

The two independent external travel stop bolts can be easily adjusted for precise alignment of open and closed positions.

## O-Rings

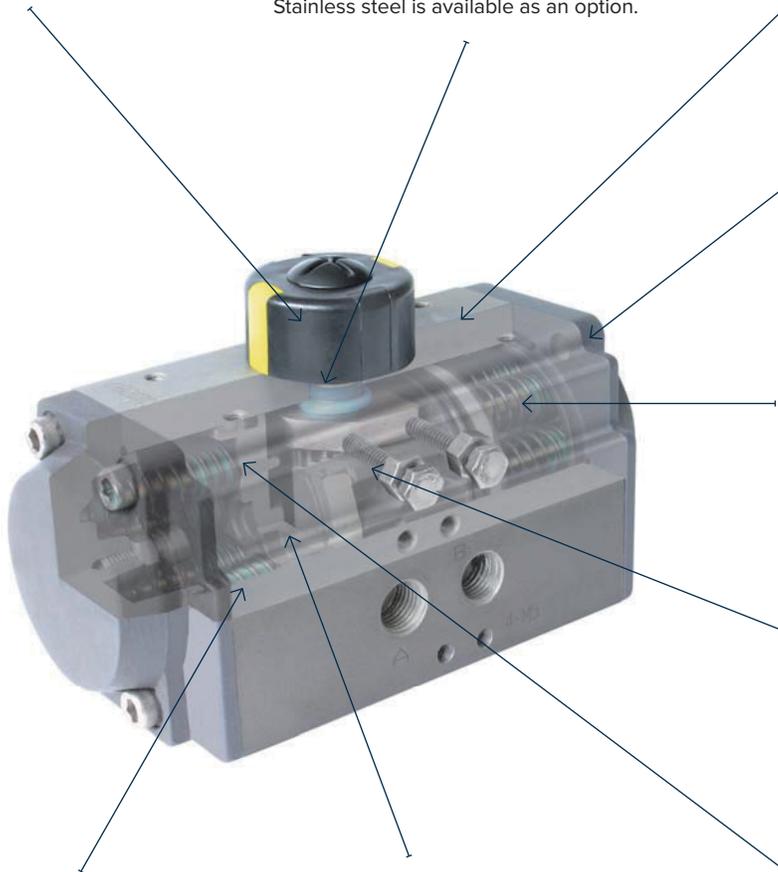
Standard FKM O-rings provide trouble-free operation over extended temperature range. LNBR available for low temperature service.

## Bearings & Guides

Made from low-friction, long-life compound material that avoids direct contact between metals. Maintenance and replacement are easy and convenient.

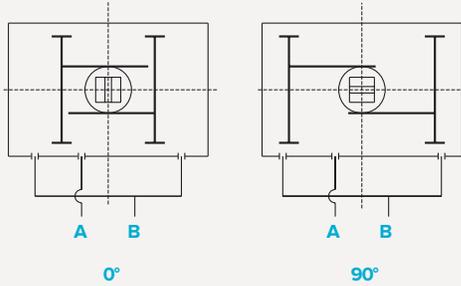
## Pistons

The twin rack pistons are made from die-cast aluminum hard anodized after machining. Symmetrical mounting position with long life and fast operation. Reverse rotation by simply inverting pistons.



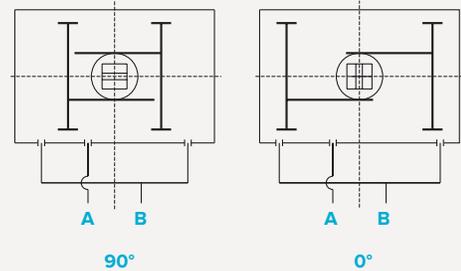
# FNW AC-SERIES ACTUATOR OPERATING PRINCIPLE

## Double Acting



### STANDARD ROTATION (CCW)

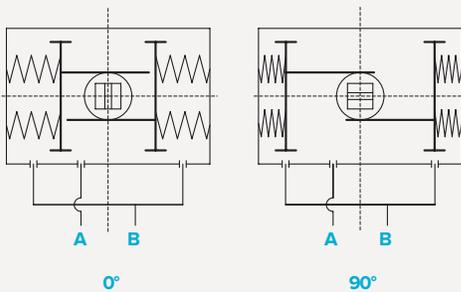
Air to port "A" forces the pistons outwards, causing the pinion to turn counterclockwise while the air is being exhausted from port "B". Air to port "B" forces the pistons inwards, causing the pinion to turn clockwise while the air is being exhausted from port "A".



### REVERSE ROTATION (CW)

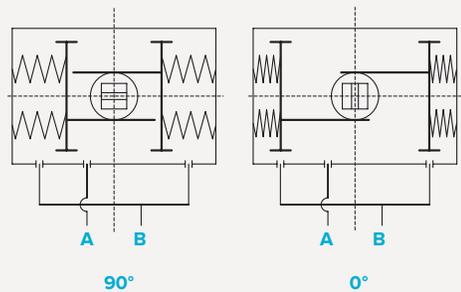
Air to port "A" forces the pistons outwards, causing the pinion to turn clockwise while the air is being exhausted from port "B". Air to port "B" forces the pistons inwards, causing the pinion to turn counterclockwise while the air is being exhausted from port "A".

## Spring Return



### STANDARD ROTATION

Air to port "A" forces the pistons outwards, causing the springs to compress. The pinion turns counterclockwise while air is being exhausted from port "B". Loss of air pressure on port "A", combined with the stored energy of the springs, forces the pistons inwards. The pinion turns clockwise while air is being exhausted from port "A".



### REVERSE ROTATION

Air to port "A" forces the pistons outwards, causing the springs to compress. The pinion turns clockwise while air is being exhausted from port "B". Loss of air pressure on port "A", combined with the stored energy of the springs, forces the pistons inwards. The pinion turns counterclockwise while air is being exhausted from port "A".

## Operating Conditions

### 1. OPERATING MEDIA

Dry or lubricated air, or non-corrosive gas. The maximum particle diameter must be less than 30um.

### 2. AIR SUPPLY PRESSURE

The minimum supply pressure is 30 psi. The maximum supply pressure is 115 psi.

### 3. OPERATING TEMPERATURE

Standard (NBR O-ring): -20°C to 80°C (-5°F to 175°F)  
 Low temp (LNBR O-ring): -40°C to 80°C (-40°F to 175°F)  
 High temp\* (FKM O-ring): -15°C to 150°C (5°F to 300°F)

\* Standard actuator construction

### 4. TRAVEL ADJUSTMENT

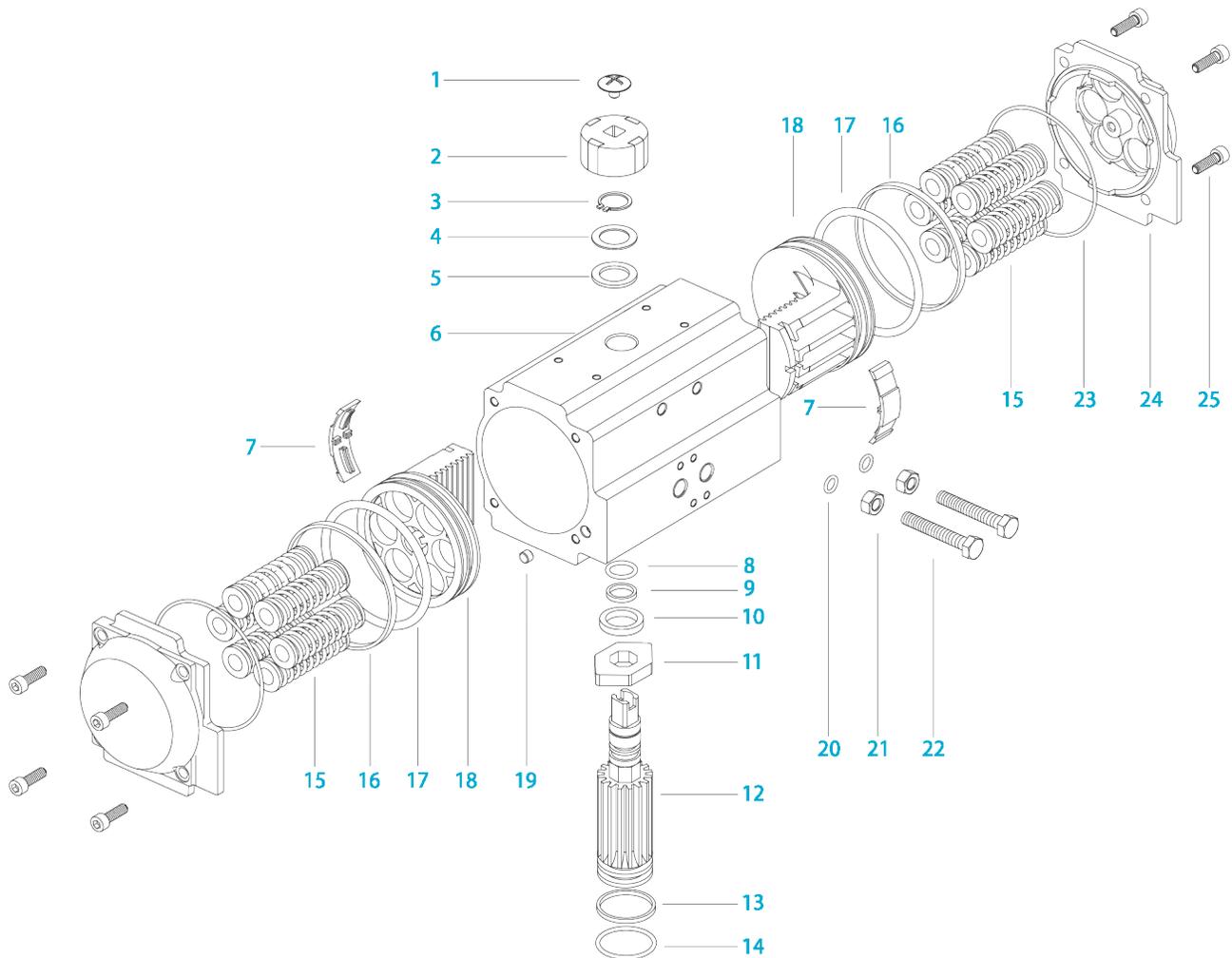
Have adjustment range of  $\pm 5^\circ$  for the rotation at 0° and 90°.

### 5. APPLICATION

Suitable for both indoor and outdoor use.

# PARTS & MATERIALS

## FNW AC-Series Pneumatic Rack & Pinion Actuator



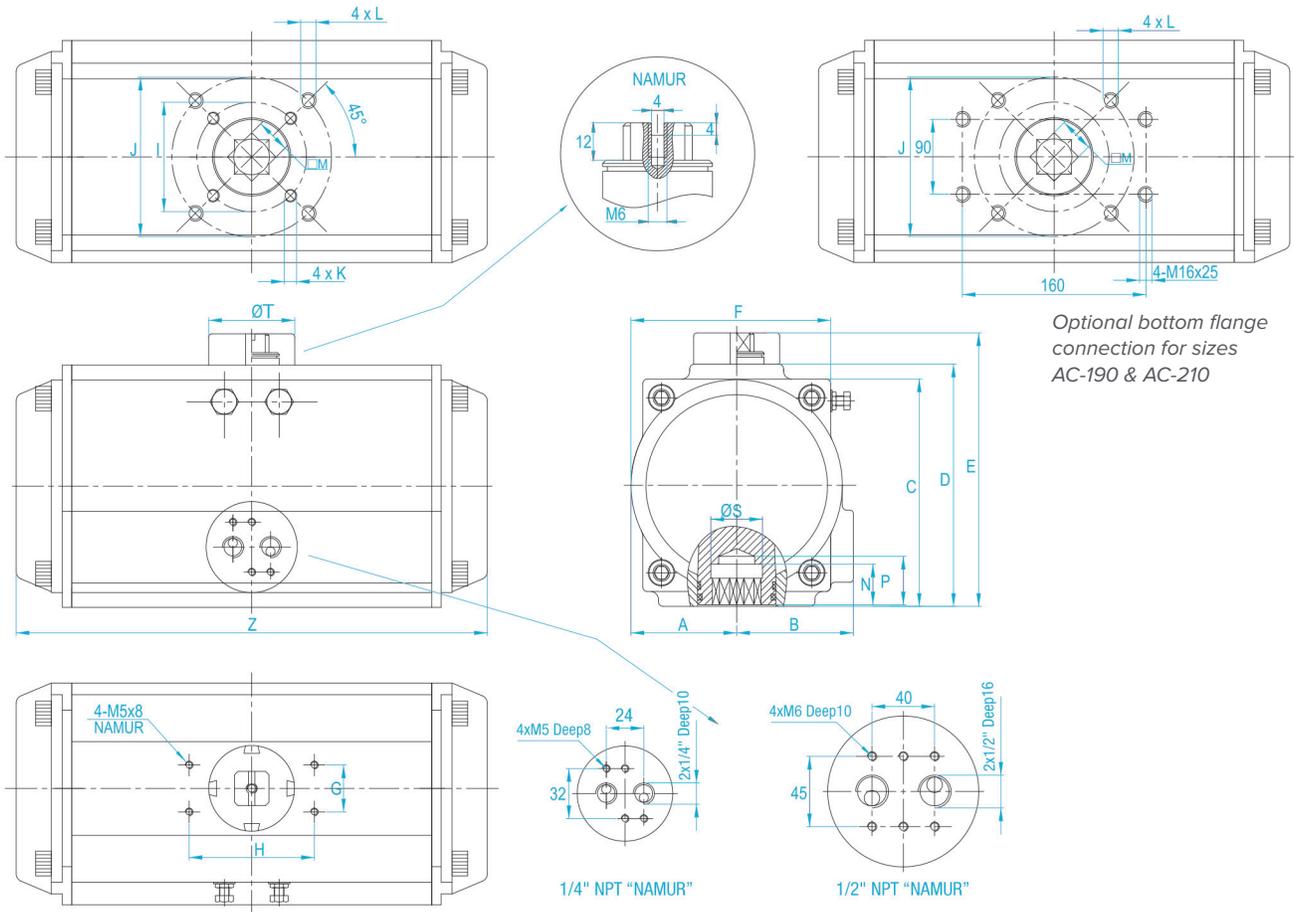
Item	Description	Qty	Material
1	Indicator Screw	1	ABS Plastic
2	Indicator	1	ABS Plastic
3	Snap Ring	1	Stainless Steel 304
4	Thrust Washer	1	Stainless Steel 304
5	Outside Washer	1	POM (Acetal)
6	Body	1	Extruded Aluminum Alloy (6005-T5)
7	Piston Guide	2	POM (Acetal)
8	O-Ring (Pinion Top)	1	FKM
9	Bearing (Pinion Top)	1	POM (Acetal)
10	Inside Washer	1	POM (Acetal)
11	Cam	1	Steel Nickel Plated AISI 1045
12	Pinion	1	Steel Nickel Plated AISI 1045
13	Bearing (Pinion Bottom)	1	POM (Acetal)

Item	Description	Qty	Material
14	O-Ring (Pinion Bottom)	1	FKM
15	Spring	1-12	Spring Steel
16	Bearing (Piston)	2	POM (Acetal)
17	O-Ring (Piston)	2	FKM
18	Piston	2	Die-Cast Aluminum A380
19	Plug	2	FKM
20	O-Ring (Adjusting Screw)	2	FKM
21	Nut (Adjusting Screw)	2	Stainless Steel 304
22	Adjusting Screw	2	Stainless Steel 304
23	O-Ring (End Cap)	2	FKM
24	End cap	2	Die-Cast Aluminum A380
25	Screw	8	Stainless Steel 304

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# DIMENSIONS

## MODEL AC-52 THRU AC-270 (Dimensions in mm)

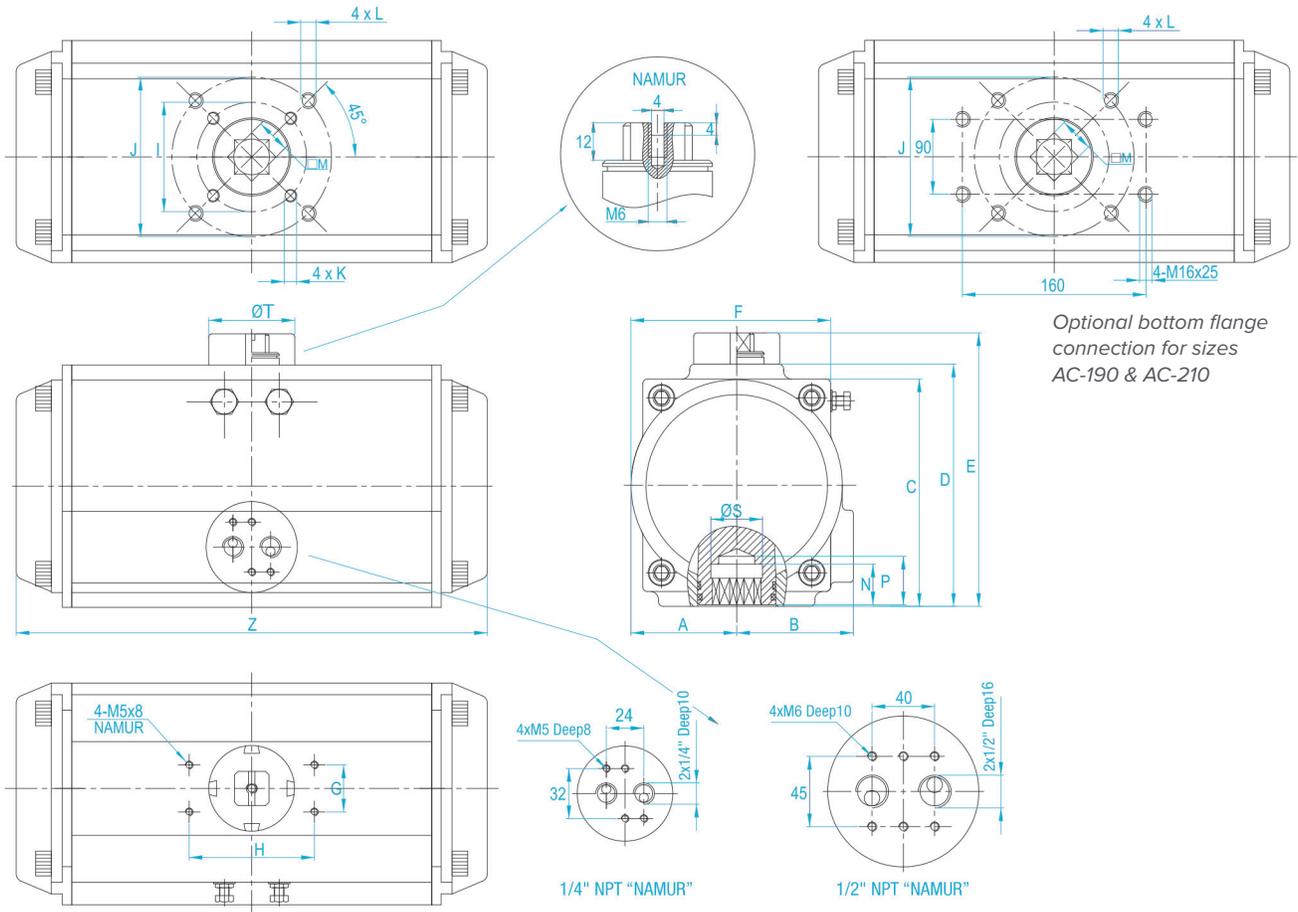


Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	ØS	Z	ØT	Air Connection
AC-52	30	42	66	72	92	65	30	80	F03	F05	M5X8	M6X10	11	14	15	10	146	40	1/4" NPT
AC-63	36	47	81	88	108	72	30	80	F05	F07	M6X10	M8X13	14	18	19	13	167	40	1/4" NPT
AC-75	42	53	94	100	120	81	30	80	F05	F07	M6X10	M8X13	17	19	32	16	180	40	1/4" NPT
AC-83	46	57	99	109	129	92	30	80	F05	F07	M6X10	M8X13	17	21	32	20	204	40	1/4" NPT
AC-92	50	59	111	117	137	98	30	80	F05	F07	M6X10	M8X13	17	21	22	16	258	40	1/4" NPT
AC-105	58	64	123	133	153	110	30	80	F07	F10	M8X13	M10X16	22	26	33	27	270	40	1/4" NPT
AC-125	68	75	146	155	175	128	30	80	F07	F10	M8X13	M10X16	22	26	33	27	302	55	1/4" NPT
AC-140	75	77	161	172	192	138	30	80	F10	F12	M10X16	M12X20	36	38	51	38.5	394	55	1/4" NPT
AC-160	87	87	184	197	217	158	30	80	F10	F12	M10X16	M12X20	36	40	51	38.5	451	55	1/4" NPT
AC-190	103	103	216	230	260	189	30	130		F14		M16X25	36	40	51	38.5	522	80	1/4" NPT
AC-210	113	113	236	255	285	210	30	130		F14		M16X25	36	40	51	38.5	527	80	1/4" NPT
AC-240	130	130	265	289	319	245	30	130		F16		M20X25	46	50	52	48	598	80	1/4" NPT
AC-270	147	147	299	326	356	273	30	130		F16		M20X25	46	50	52	48	722	80	1/2" NPT

# DIMENSIONS

## MODEL AC-52 THRU AC-270 (Dimensions in inches)

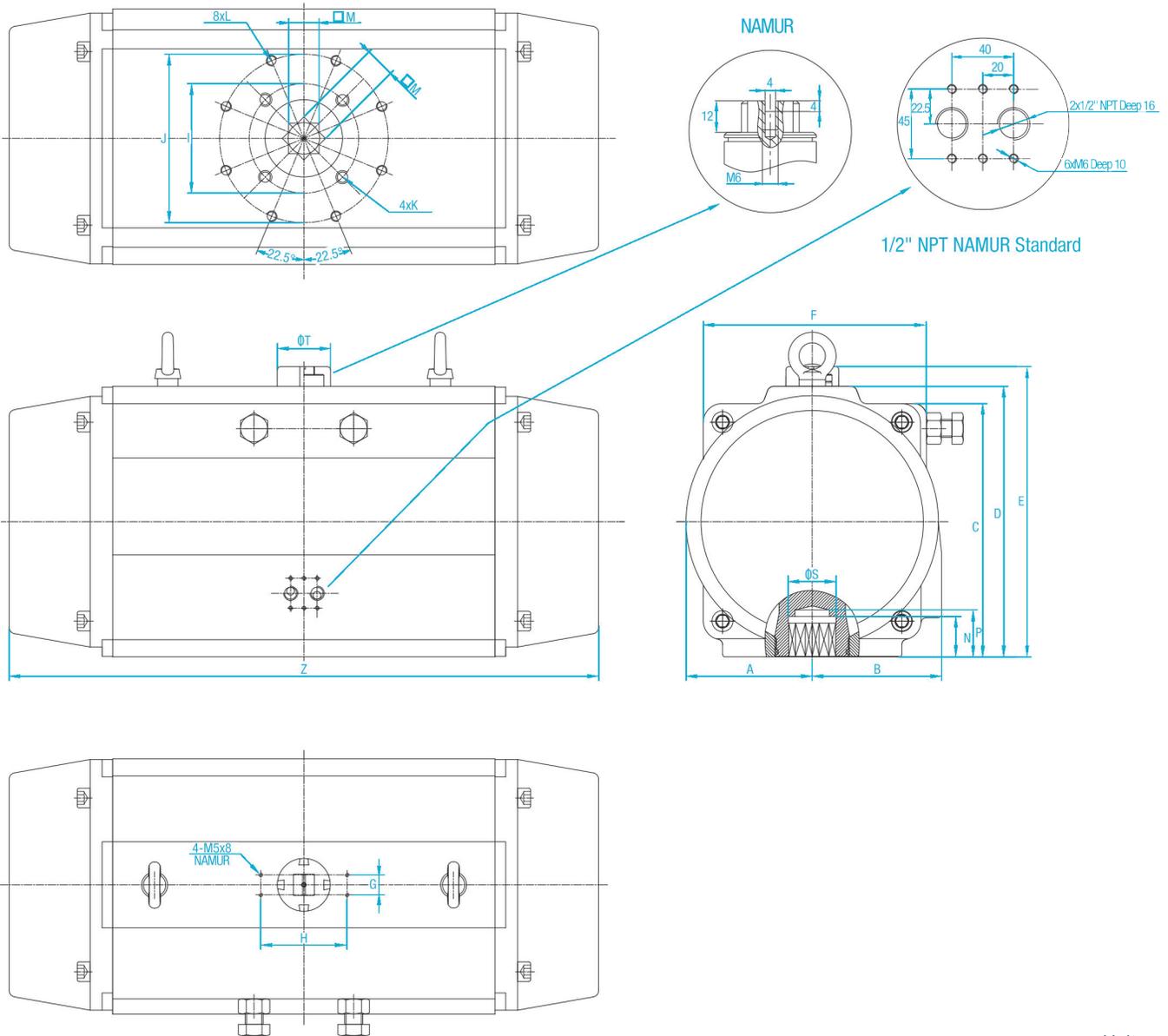


Unit: inch

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	ØS	Z	ØT	Air Connection
AC-52	1.18	1.65	2.6	2.83	3.62	2.56	1.18	3.15	1.417	1.969	M5X8	M6X10	0.43	0.55	0.59	0.39	5.75	1.57	1/4" NPT
AC-63	1.42	1.85	3.19	3.46	4.25	2.83	1.18	3.15	1.969	2.756	M6X10	M8X13	0.55	0.71	0.75	0.51	6.57	1.57	1/4" NPT
AC-75	1.65	2.09	3.7	3.94	4.72	3.19	1.18	3.15	1.969	2.756	M6X10	M8X13	0.67	0.75	1.26	0.63	7.09	1.57	1/4" NPT
AC-83	1.81	2.24	3.9	4.29	5.08	3.62	1.18	3.15	1.969	2.756	M6X10	M8X13	0.67	0.83	1.26	0.79	8.03	1.57	1/4" NPT
AC-92	1.97	2.32	4.37	4.61	5.39	3.86	1.18	3.15	1.969	2.756	M6X10	M8X13	0.67	0.83	0.87	0.63	10.16	1.57	1/4" NPT
AC-105	2.28	2.52	4.84	5.24	6.02	4.33	1.18	3.15	2.756	4.016	M8X13	M10X16	0.87	1.02	1.3	1.06	10.63	1.57	1/4" NPT
AC-125	2.68	2.95	5.75	6.1	6.89	5.04	1.18	3.15	2.756	4.016	M8X13	M10X16	0.87	1.02	1.3	1.06	11.89	2.17	1/4" NPT
AC-140	2.95	3.03	6.34	6.77	7.56	5.43	1.18	3.15	4.016	4.921	M10X16	M12X20	1.42	1.50	2.01	1.52	15.51	2.17	1/4" NPT
AC-160	3.43	3.43	7.24	7.76	8.54	6.22	1.18	3.15	4.016	4.921	M10X16	M12X20	1.42	1.57	2.01	1.52	17.76	2.17	1/4" NPT
AC-190	4.06	4.06	8.5	9.06	10.24	7.44	1.18	5.12		5.512		M16X25	1.42	1.57	2.01	1.52	20.55	3.15	1/4" NPT
AC-210	4.45	4.45	9.29	10.04	11.22	8.27	1.18	5.12		5.512		M16X25	1.42	1.57	2.01	1.52	20.75	3.15	1/4" NPT
AC-240	5.12	5.12	10.43	11.38	12.56	9.65	1.18	5.12		6.496		M20X25	1.81	1.97	2.05	1.89	23.54	3.15	1/4" NPT
AC-270	5.79	5.79	11.77	12.83	14.02	10.75	1.18	5.12		6.496		M20X25	1.81	1.97	2.05	1.89	28.43	3.15	1/2" NPT

# DIMENSIONS

## FNW Pneumatic Rack & Pinion Actuator MODEL AC-300 THRU AC-350 (Dimensions in mm)



Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	ØS	Z	ØT	Air Connection
AC-300	160	173	329	352	382	289	30	130	F16	215	M20X25	M20X25	46	60.00	64	48	757	80	1/2" NPT
AC-350	190	195	382	408	438	336	30	130	F16	F25	M20X25	M16X25	46	60.00	64	48	888	80	1/2" NPT

Unit: inch

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	ØS	Z	ØT	Air Connection
AC-300	6.3	6.81	12.95	13.86	15.04	11.38	1.18	5.12	6.496	8.465	M20X25	M20X25	1.81	2.36	2.52	1.89	29.8	3.15	1/2" NPT
AC-350	7.48	7.68	15.04	16.06	17.24	13.23	1.18	5.12	6.496	10	M20X25	M16X25	1.81	2.36	2.52	1.89	34.96	3.15	1/2" NPT

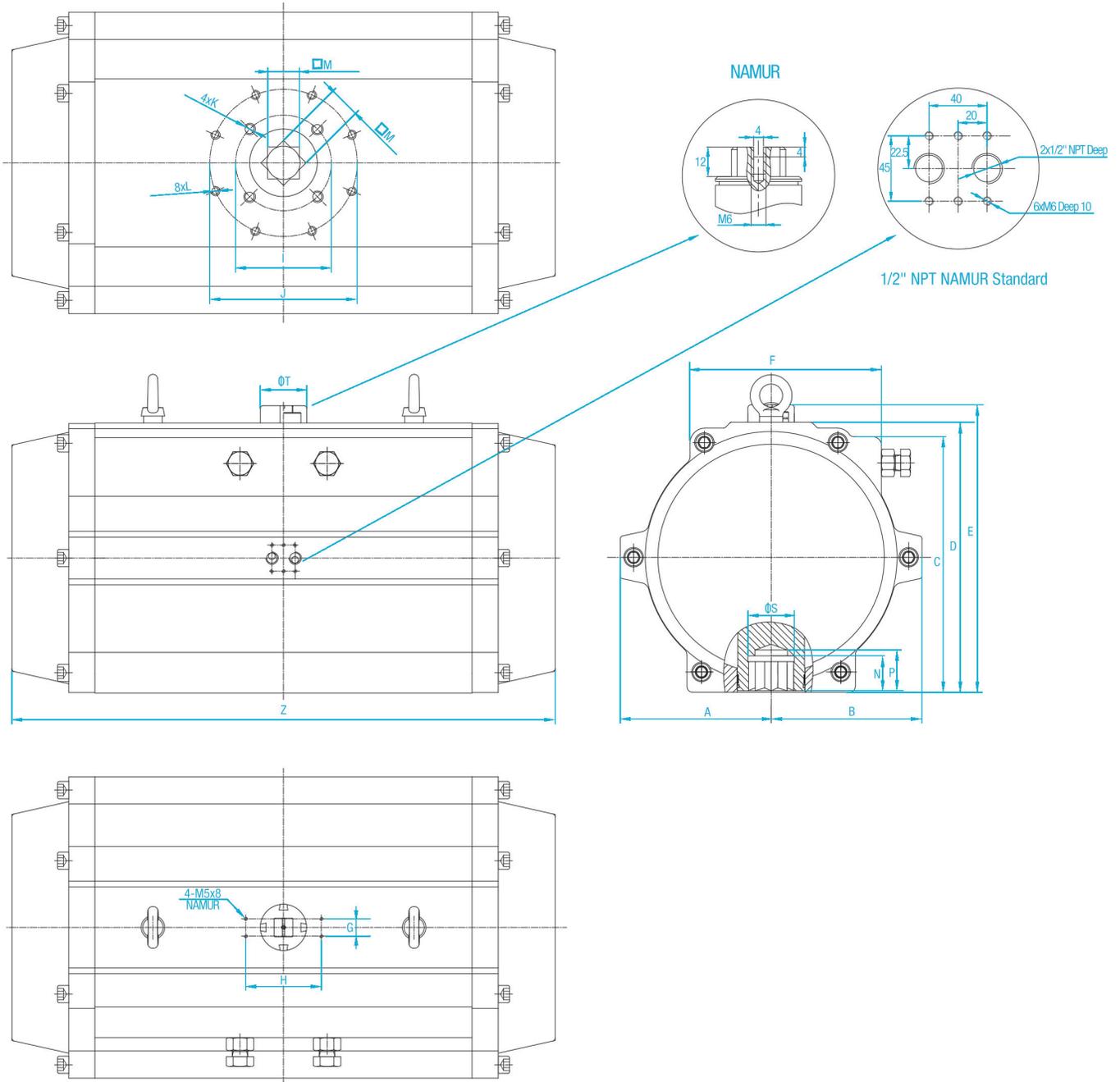
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# DIMENSIONS

## FNW Pneumatic Rack & Pinion Actuator

MODEL AC-400

(Dimensions in mm)



Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	ØS	Z	ØT	Air Connection
AC-400	260	260	441	466	496	330	30	130	F16	F25	M20X25	M16X25	55	60	70	56	922	80	1/2" NPT

Unit: inch

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	ØS	Z	ØT	Air Connection
AC-400	10.24	10.24	17.36	18.35	19.53	13	1.18	5.12	6.496	10	M20X25	M16X25	2.17	2.36	2.76	2.2	36.3	3.15	1/2" NPT

# TORQUE SHEET

## Spring Return Actuator (in inch-lbs)

Spring Return	Quantity	Air Pressure (psi)											
		30		40		60		80		100		Spring Output	
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End
AC52SR	5	33	16	55	37							54	38
	6	27	5	47	24	99	77					65	44
	7			39	12	89	66					76	52
	8					84	54	134	106			87	59
	9					75	43	126	95	177	146	98	67
	10					67	32	118	84	170	136	109	75
	11					60	21	111	73	162	124	120	82
	12							103	63	155	106	130	90
AC63SR	5	71	38	111	75	204	172					92	60
	6	58	19	98	55	191	151					110	72
	7			83	35	178	132					129	84
	8					166	113	259	207	349	299	147	96
	9					153	95	246	189	337	280	166	108
	10					141	75	234	170	325	262	184	121
	11							222	152	313	244	202	132
	12							210	134	301	225	221	145
AC75SR	5	87	51	141	103	270	235					128	92
	6	67	24	121	74	250	207					153	112
	7			101	46	231	182					179	130
	8					211	154	340	284	464	409	205	149
	9					192	129	321	258	446	385	230	168
	10					173	101	302	232	428	359	256	186
	11							284	206	409	334	282	205
	12							265	181	391	308	307	223
AC83SR	5	142	76	231	157	428	346					203	139
	6	113	34	196	112	400	321					244	168
	7			166	67	370	279					284	195
	8					342	236	540	438	736	635	325	223
	9					313	195	512	397	708	595	366	252
	10					283	151	484	356	680	555	407	279
	11							456	316	653	515	447	307
	12							427	275	625	475	488	336
AC92SR	5	199	97	323	214	611	511					304	206
	6	156	35	277	148	569	448					365	248
	7			232	80	526	385					426	289
	8					484	322	770	613	1052	898	487	330
	9					441	260	728	552	1011	837	548	372
	10					399	196	687	491	970	777	608	413
	11							645	430	929	718	669	455
	12							604	369	888	658	730	496
AC105SR	5	315	154	498	326	921	759					435	279
	6	257	64	436	229	862	670					523	336
	7			374	133	804	580					609	392
	8					747	489	1164	915	1576	1331	696	447
	9					689	400	1108	827	1521	1245	784	503
	10					630	305	740	1052	1466	1156	870	560
	11							996	652	1410	1073	958	615
	12							940	565	1355	990	1045	671

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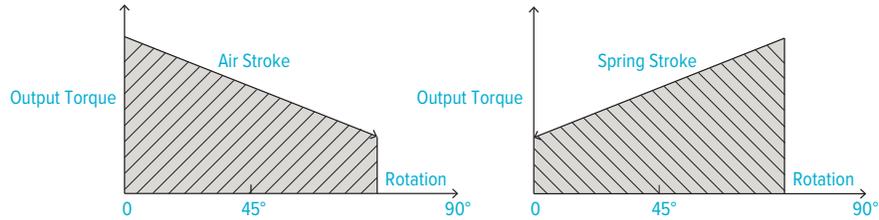
# TORQUE SHEET

## Spring Return Actuator (in inch-lbs)

Spring Return	Quantity	Air Pressure (psi)											
		30		40		60		80		100		Spring Output	
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End
AC125SR	5	442	195	712	458	1354	1116					699	460
	6	341	57	615	302	1263	979					831	557
	7			507	146	1162	823					973	646
	8					1071	686	1703	1339	2336	1970	1106	743
	9					979	540	1614	1197	2240	1831	1247	831
	10					878	402	1517	1055	2153	1691	1389	929
	11							1428	913	2057	1552	1531	1017
	12							1339	780	1970	1421	1663	1106
AC140SR	5	778	384	1249	830	2343	1950					1141	761
	6	622	146	1083	576	2188	1712					1371	911
	7			917	322	2032	1483					1601	1062
	8					1876	1245	2958	2346	4028	3417	1823	1212
	9					1712	1007	2799	2115	3871	3199	2053	1371
	10					1556	769	2648	1884	3723	2964	2283	1522
	11							2497	1653	3566	2737	2513	1672
	12							2346	1423	3417	2519	2743	1823
AC160SR	5	1153	531	1884	1210	3588	2966					1840	1239
	6	897	146	1611	810	3341	2581					2212	1486
	7			1337	400	3076	2197					2584	1734
	8					2828	1821	4514	3537	6173	5214	2947	1973
	9					2563	1437	4265	3164	5920	4847	3318	2221
	10					2316	1052	4017	2792	5684	4481	3690	2469
	11							3768	2428	5440	4124	4053	2716
	12							3520	2055	5196	3757	4425	2964
AC190SR	5	2065	1067	3242	2167	5960	4962					2734	1770
	6	1699	499	2851	1572	5593	4394					3283	2124
	7			2460	966	5227	3826					3832	2478
	8					4861	3259	7549	5996	10192	8675	4380	2832
	9					4495	2700	7194	5445	9852	8135	4929	3186
	10					4128	2133	6839	4904	9503	7594	5469	3540
	11							6484	4353	9155	7053	6018	3894
	12							6129	3803	8806	6521	6566	4248
AC210SR	5	2352	1391	3808	2783	7223	6262					3363	2433
	6	1849	695	3271	2040	6719	5566					4035	2920
	7			2734	1298	6216	4870					4708	3407
	8					5712	4174	9081	7590	12398	10933	5380	3894
	9					5209	3478	8593	6915	11919	10271	6053	4380
	10					4705	2783	8105	6241	11439	9608	6726	4867
	11							7617	5566	10960	8945	7398	5354
	12							7128	4891	10480	8283	8071	5841
AC240SR	5	3291	1972	5390	3994	10336	9017					4902	3628
	6	2558	956	4589	2900	9585	8001					5885	4336
	7			3789	1826	8825	6994					6858	5088
	8					8084	5978	12962	10920	17761	15755	7841	5805
	9					7324	4962	12225	9926	17037	14787	8832	6540
	10					6573	3945	11497	8949	16322	13828	9805	7265
	11							10769	7964	15616	12825	10788	7991
	12							10041	6978	14892	11884	11770	8717

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# TORQUE SHEET

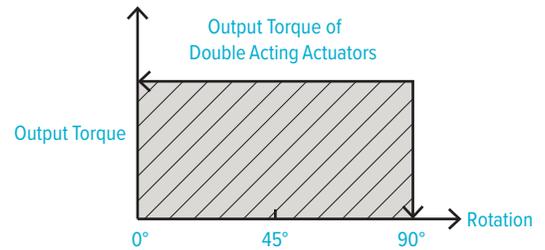


**Spring Return Actuator** (in inch-lbs)

Spring Return	Quantity	Air Pressure (psi)											
		30		40		60		80		100		Spring Output	
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End
AC270SR	5	5580	3502	8818	6591	16287	14208					6964	4956
	6	4555	2074	7714	5068	15261	12780					8345	5947
	7			6630	3525	14245	11334					9743	6929
	8					13220	9896	20609	17387	27892	24727	11133	7920
	9					12194	8450	19615	15984	26916	23350	12531	8911
	10					11169	7022	18621	14599	25930	21981	13912	9903
	11							17626	13196	24954	20612	15310	10894
	12						16641	11802	23986	19243	16699	11876	
AC300SR	5	7287	4257	10712	7119							9389	6460
	6	5950	2316	9130	4824							11266	7752
	7			7538	2519	17541	12835					13142	9044
	8					16058	10674					15018	10336
	9					14575	8514	25594	20312			16894	11628
	10					13091	6362	24298	18421	32426	26018	18779	12921
	11							23002	16539	31005	23960	20655	14213
	12						21706	14657	29593	21902	22532	15505	
AC350SR	5	10180	5337	15165	9413							15062	10381
	6	8029	2215	12617	5722							18080	12460
	7			10068	2031	25130	17596					21089	14514
	8					22741	14135					24107	16611
	9					20361	10665	37029	28577			27116	18691
	10					17971	7205	34951	25550	46996	36742	30134	20762
	11							32865	22531	44720	33446	33143	22841
	12						30779	19504	42453	30142	36161	24921	
AC400SR	5	12661	3442	19804	8486							25488	16576
	6			16952	4013							29134	18585
	7					35586	21935					32771	20903
	8					32912	17751					36417	23222
	7					30239	13567	53861	39310			40055	25549
	8					27575	9384	51535	35653	68838	51513	43701	27868
	9							49200	32004	66292	47519	47338	30196
	10							46874	28346	63754	43535	50984	32514
	11							44539	24697	61208	39550	54622	34842
		12						42213	21040	58662	35565	58268	37161

The data provided in this document is subject to change without notice.

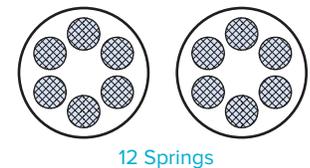
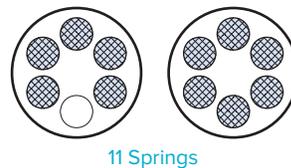
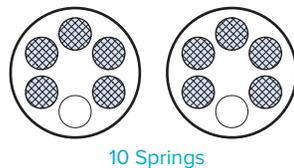
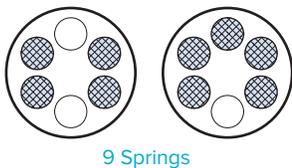
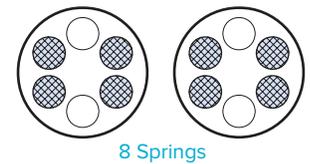
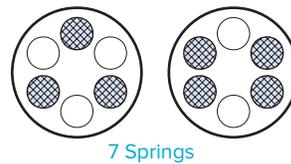
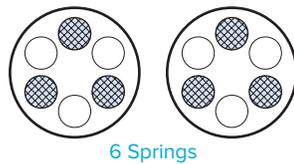
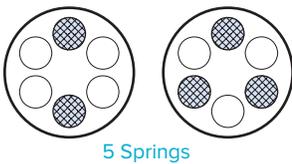
# TORQUE SHEET



**Double Acting Actuator** (in inch-lbs)

Model	Air Pressure (psi)					
	30	40	60	80	100	115
AC52DA	73	97	146	195	243	280
AC63DA	133	178	269	356	445	512
AC75DA	184	245	367	490	612	704
AC83DA	287	382	574	765	956	1100
AC92DA	413	551	826	1101	1377	1583
AC105DA	605	807	1210	1614	2017	2320
AC125DA	918	1224	1836	2448	3060	3519
AC140DA	1565	2087	3130	4171	5217	6000
AC160DA	2435	1224	4869	6492	8116	9333
AC190DA	3896	2087	7791	10388	12985	14933
AC210DA	4896	6492	9793	12985	16231	18666
AC240DA	7043	9391	14086	18782	23477	26999
AC270DA	10705	14274	21411	28548	35785	41037
AC300DA	13967	18623	27934	37246	46557	53541
AC350DA	20912	27883	41825	55766	69708	80164
AC400DA	29809	38725	59618	79491	99364	114268

## SPRING OPTIONS FOR SPRING RETURN ACTUATORS



# MEASUREMENTS

## FNW AC-Series Pneumatic Rack & Pinion Actuator

WEIGHT (in kilograms)

Model	52	63	75	83	92	105	125	140	160	190	210	240	270	300	350	400
Double Acting	1.5	2.2	2.8	3.4	5.1	6.0	9.3	13.4	19.2	31.5	40.1	55.4	92.5	128	210	289
Spring Return	1.6	2.4	3.1	3.8	5.9	6.9	10.7	15.8	22.9	38.7	52.9	68.6	114.8	156	259	360

WEIGHT (in pounds)

Model	52	63	75	83	92	105	125	140	160	190	210	240	270	300	350	400
Double Acting	3.3	4.8	6.2	7.5	11.2	13.2	20.5	29.5	42.2	69.3	88.2	121.9	203.5	281.6	462.0	635.8
Spring Return	3.5	5.3	6.8	8.4	13.0	15.2	23.5	34.8	50.4	85.1	116.4	150.9	252.6	343.2	569.8	792.0

## AIR CONSUMPTION

Air volume opening & closing (In liters)

Model	52	63	75	83	92	105	125	140	160	190	210	240	270	300	350	400
Air Volume (Opening)	0.12	0.21	0.30	0.43	0.65	0.97	1.53	2.47	3.78	6.06	7.57	11.10	15.67	24.44	36.89	58.05
Air Volume (Closing)	0.15	0.23	0.36	0.53	0.89	1.16	1.75	3.10	4.83	7.49	9.37	14.25	21.63	28.73	46.66	55.14

AIR CONSUMPTION (in cubic inches)

Model	52	63	75	83	92	105	125	140	160	190	210	240	270	300	350	400
Air Volume (Opening)	7.32	12.8	18.3	26.2	39.7	59.2	93.4	150.7	236.2	369.8	462.0	677.4	956.2	1491.4	2251.2	3542.4
Air Volume (Closing)	9.15	14.0	22.0	32.3	54.3	70.8	106.8	226.4	294.7	457.1	571.8	869.6	1319.9	1753.2	2847.4	3364.9

NOTE: Air consumption depends on air supply.

## ACTUATOR STROKE SPEED\* (in seconds)

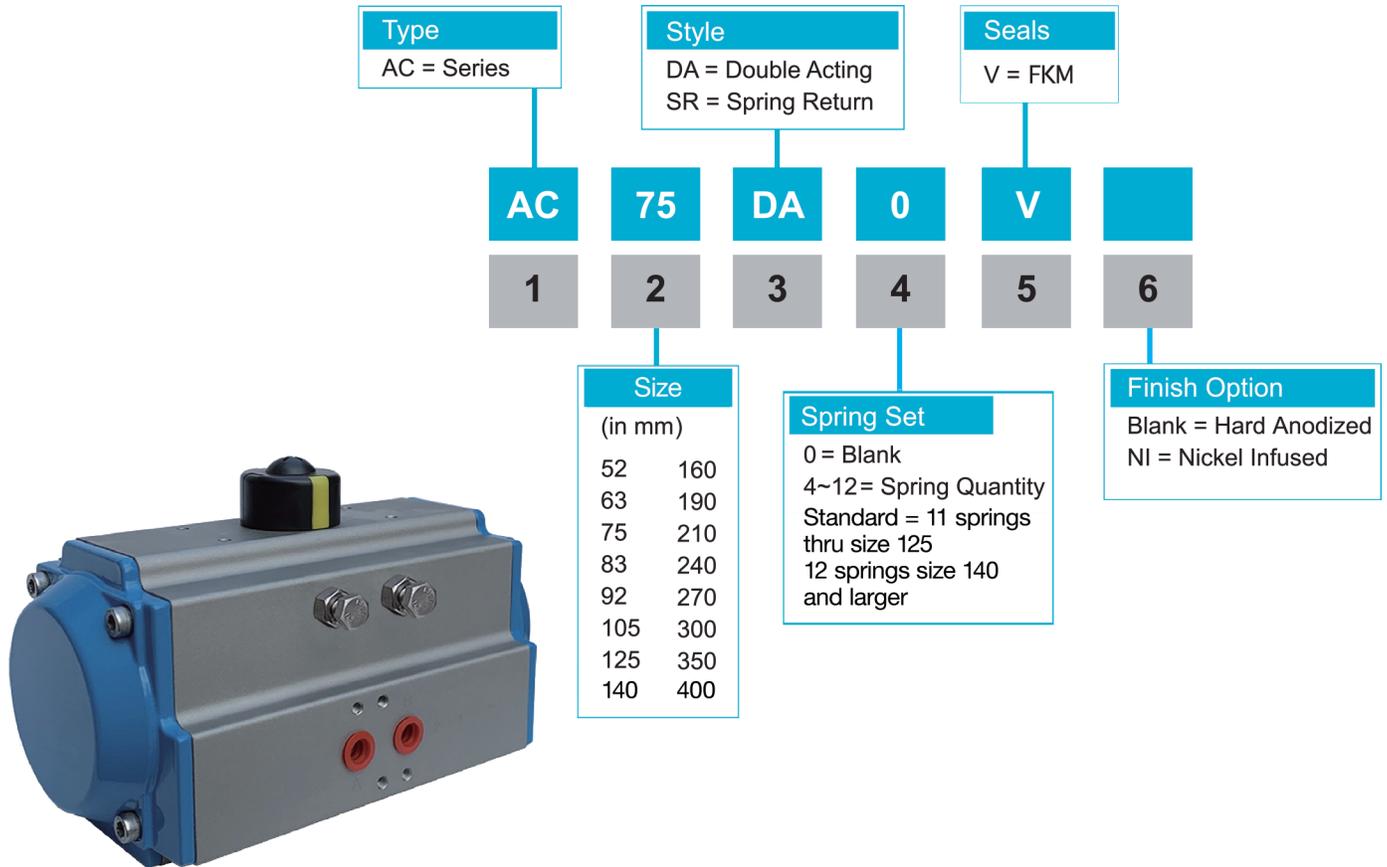
Double Acting			Spring Return												
Size	0°-90°	90°-0°	Size	Spring Quantity											
				3 + 3		4 + 4		4 + 5		5 + 5		5 + 6		6 + 6	
				0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°
52DA	0.2	0.2	52SR	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.2	0.5	0.2
63DA	0.2	0.2	63SR	0.2	0.2	0.3	0.3	0.4	0.3	0.4	0.2	0.5	0.2	0.6	0.2
75DA	0.3	0.3	75SR	0.3	0.3	0.3	0.3	0.4	0.3	0.5	0.3	0.5	0.3	0.6	0.3
83DA	0.4	0.4	83SR	0.4	0.4	0.5	0.4	0.5	0.4	0.6	0.4	0.7	0.4	0.8	0.3
92DA	0.6	0.6	92SR	0.5	0.6	0.6	0.5	0.7	0.5	0.8	0.5	1.0	0.5	1.1	0.4
105DA	0.8	0.8	105SR	0.8	0.8	1.0	0.7	1.2	0.7	1.4	0.6	1.7	0.6	1.9	0.6
125DA	1.2	1.2	125SR	1.2	1.0	1.7	0.9	1.9	0.9	2.2	0.8	2.6	0.8	3.1	0.7
140DA	1.6	1.6	140SR	2.0	1.7	2.7	1.5	3.1	1.4	3.5	1.3	4.2	1.3	5.0	1.2
160DA	2.9	2.9	160SR	3.1	2.5	4.2	2.1	4.9	2.0	5.7	1.9	6.3	1.8	6.9	1.7
190DA	5.0	5.0	190SR	4.6	4.1	5.9	3.5	6.8	3.3	7.6	3.0	8.3	2.9	9.0	2.8
210DA	6.0	6.0	210SR	4.3	4.8	5.6	4.2	6.5	3.9	7.3	3.6	8.2	3.5	9.0	3.3
240DA	8.5	8.5	240SR	4.6	8.5	5.7	7.5	6.7	6.8	7.7	6.0	8.3	5.8	9.0	5.6
270DA	10.0	10.0	270SR	3.0	6.7	3.8	5.6	4.3	5.1	4.8	4.5	5.1	4.3	5.5	4.0
300DA	11.0	11.0	300SR	3.5	9.1	4.7	6.8	5.3	6.0	5.9	5.4	6.5	4.9	7.1	4.5
350DA	12.0	12.0	350SR	6.6	11.0	8.8	8.3	9.9	7.3	11.0	6.6	12.1	6.0	13.2	5.5
400DA	13.0	13.0	400SR	8.5	18.0	11.3	13.5	12.8	12.0	14.2	10.8	15.6	9.8	17.0	9.0

NOTE: Air Pressure = 80 psi

\* Testing Condition: Without load at 5Bar; Namur S.V. ALV310F1C0A (CV=1.4) for size of C-52DA to C-240DA and Namur S.V. ALV410F1C0A (CV=2.79) for size of C-270DA to C-400DA; S.V. ALV310P1C0A (CV=1.4) for size of C-52SR to C-240SR and S.V. ALV410P1C0A (CV=2.79) for size of 270SR to 400SR.

# SIZING INFORMATION & HOW TO ORDER

## Ordering Guide



### Maintenance

1. It is recommended that periodic checks be performed to make sure that all fasteners remain tight.
2. The FNW AC-Series Actuator is supplied already lubricated with EP-1 grease.
3. Under certain working conditions (heavy-duty, non-compatible operating media or normal operating conditions), internal seals should be checked periodically and replaced when necessary.
4. On spring return actuators, spring fatigue may set in requiring the replacement of springs. Always replace springs in new full sets.

### Note

If an actuator is properly assembled and used, it will be maintenance free as it has been lubricated enough to last a normal working life under normal working conditions.

Should it be necessary to replace the seals, we suggest returning to Ferguson Enterprises, LLC.

FNW provides seal replacement kits with instructions to customers on request.

**FNW**®