



Rack & Pinion B-Series



90°



Pneumatic Pressure



Torque Output



Temperature Ranges

Company Profile

- Global Distribution Market
- Main Valve Accessories
- Thoughtful Service System
- Carefully Designed



PNEUMASTER has a global distribution market of valves accessories of controlling process valves. We focus on technology and supply reliable products manufactured to global customers.

With our manufacturing valve accessories, we keep developing our products and enhancing our products process, maintenance and aim at top-level quality.

Pneumaster's valve accessories are used in all industry area, including explosion-proof and water-proof application, as well as corrosion resistant environment. We provide the protection and automation to meet all kinds of applications.

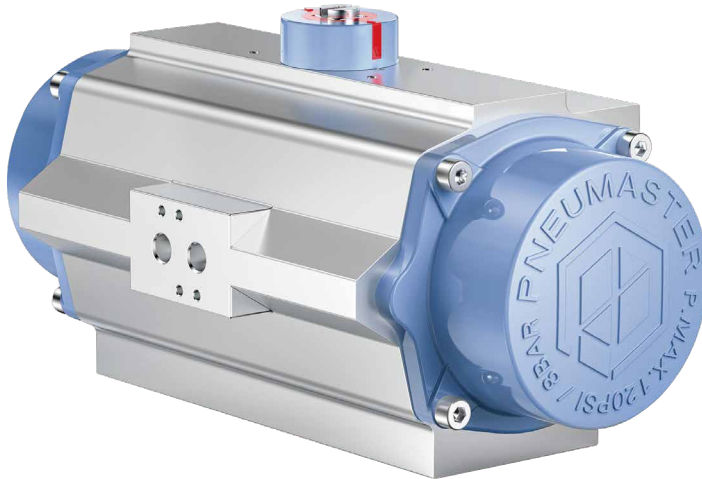




Product Range

- ① Valve Accessories
- ② Insulation System and Service

Rack & Pinion



90° Rack & Pinion Pneumatic Actuator

The Rack & Pinion actuators for installation on ¼ turn valves are manufactured with aluminum hard anodized body according to valves' requirement. Both double acting and single acting is available. We also provide higher quality products which can meet higher temperature, super low temperature, anti-corrosion and higher frequency application. It has long life time without maintenance.

Scope of Application.

Pneumatic Pressure

Up to 8 bar (116 psig)

Torque Output

Up to 2800 Nm

Temperature Ranges: Dry and Clean Air

- 30°C to 100°C with Normal Temperature.
- 15°C to 150°C with High Temperature.
- 40°C to 80°C with Low Temperature.
- 56°C to 80°C with Super Low Temperature.



Mounting.

- ISO 5211 and DIN 3337 with valve connection;
- Mounting of solenoid valve, limit switch and positioner according to NAMUR VDI/VDE 3845Std, suitable for mechanical and inductive direct switches.



Coatings for special applications According to EN-ISO 12944-2:

Actuators shall be protected against external corrosion resistant by suitable material or surface treatment.

Anticorrosive C3

PARTS & PROTECTION	DESCRIPTION	COATING
Body	Hard Anodized	25 µm
End Caps	Epoxy Painted	100 µm
Stem	Alloy Steel + ENP	25 µm

Anticorrosive C4

PARTS & PROTECTION	DESCRIPTION	COATING
Body	Epoxy Painted	100 µm
End Caps	Epoxy Painted	100 µm
Stem	Alloy Steel + ENP	25 µm

Anticorrosive C5-M

PARTS & PROTECTION	DESCRIPTION	COATING
Body	Epoxy Painted	200 µm
End Caps	Epoxy Painted	200 µm
Stem	316SS	

DA SERIES TORQUE OUTPUT in Nm.

SIZE	3bar	3.5bar	4bar	4.5bar	5bar	5.5bar	6bar	6.5bar	7bar	8bar	10bar
	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°
45	9	11	13	14	16	17	19	21	22	25	-
60	20	23	26	30	33	36	40	43	46	52	-
80	37	44	50	56	62	68	75	81	87	100	-
90	57	67	76	86	95	105	115	124	134	152	-
104	85	99	114	127	142	156	170	184	199	227	-
125	141	165	188	212	235	259	282	306	329	376	-
140	211	245	280	315	350	385	420	455	490	560	-
160	348	406	465	522	580	638	697	755	812	928	-
180	503	588	671	756	839	923	1007	1091	1175	1343	-
210	686	799	914	1028	1143	1256	1371	1485	1600	1828	-
235	1053	1229	1405	1580	1756	1931	2107	2282	2458	2809	-

DA SERIES TORQUE OUTPUT in ft lb

SIZE	43.5psi	50.8psi	58psi	65.3psi	72.5psi	80psi	87psi	94.3psi	102psi	116psi	145psi
	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°	0° 90°
45	7	8	9	10	11	12	14	15	16	18	-
60	14	17	19	21	24	26	29	31	33	38	-
80	27	32	36	41	45	50	55	59	64	73	-
90	42	49	56	63	70	77	84	91	98	112	-
104	63	72	83	93	104	115	125	135	146	166	-
125	103	121	138	156	172	191	207	225	242	277	-
140	155	180	206	232	258	284	309	335	360	412	-
160	257	299	342	385	427	470	513	555	598	683	-
180	371	433	494	556	618	680	724	804	866	989	-
210	505	588	673	757	842	925	1009	1094	1178	1347	-
235	777	906	1036	1165	1295	1424	1553	1683	1812	2071	-

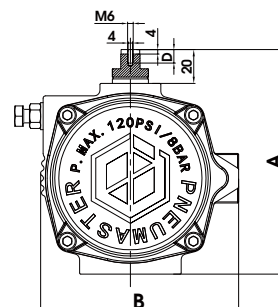
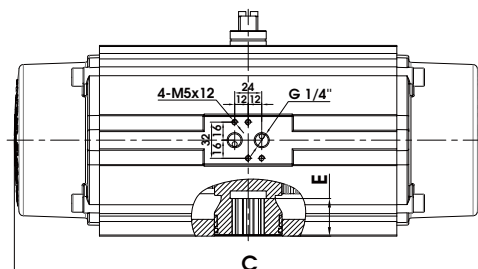
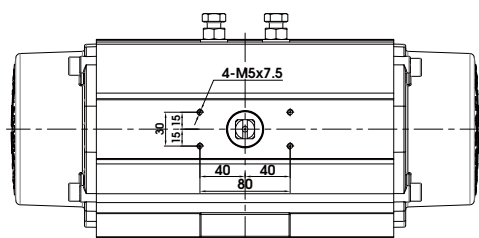
SR SERIES TORQUE OUTPUT in Nm.

SIZE	Type Pressure	Output torque for spring return in Nm																				Spring Stroke	
		3bar		3.5bar		4bar		4.5bar		5bar		5.5bar		6bar		6.5bar		7bar		8bar		End	Start
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
45	N04			8	5	9	7	11	8	13	10	14	12	15	13	16	15	18	16	21	19	4	7
	N06'									11	7	12	9	14	10	15	12	16	13	19	16	7	11
	N08											10	5	12	7	14	9	15	10	17	13	9	15
60	N04	15	13	19	16	22	19	25	23	29	26	32	29	35	33	38	35	41	39	48	45	5	8
	N06	13	10	17	13	20	16	23	19	27	23	30	26	33	29	36	33	39	35	46	42	7	12
	N08			14	10	18	13	21	16	25	19	28	23	31	26	34	29	37	33	44	39	10	16
	N10							19	13	23	16	26	19	29	23	33	26	35	29	42	35	12	19
	N12									20	12	24	16	27	19	31	23	34	26	40	33	15	23
	N14'											23	12	25	16	29	19	32	23	38	29	17	27
80	N04	30	26	36	33	42	38	48	44	55	51	61	57	67	64	73	69	79	75	92	88	8	12
	N06	26	20	33	27	38	33	45	39	51	45	57	51	64	58	69	64	76	70	89	83	12	19
	N08					35	28	41	34	47	39	54	46	60	52	66	59	72	65	85	77	16	26
	N10							37	28	44	34	50	40	57	47	63	53	68	59	81	71	21	32
	N12									40	29	46	34	53	41	59	47	66	54	78	66	25	38
	N14'											43	30	49	35	56	42	62	48	74	61	29	45
90	N06	41	34	50	44	60	54	69	63	79	72	89	82	98	92	107	101	117	111	136	130	18	26
	N08			45	36	55	46	65	56	73	66	83	74	93	84	102	94	112	103	131	123	25	34
	N10					49	38	59	48	68	58	78	67	88	77	97	86	106	96	126	115	31	43
	N12							54	40	63	50	72	60	82	69	92	79	101	89	120	107	37	52
	N14'											67	52	77	62	86	71	96	81	115	99	43	62
104	N06	59	47	73	61	87	75	101	89	115	103	130	118	144	131	158	146	172	161	200	189	30	44
	N08			65	48	78	63	93	76	107	91	121	105	135	119	149	133	163	147	192	176	40	59
	N10					69	50	84	64	98	78	112	93	127	106	141	121	155	134	183	163	50	74
	N12							75	51	90	66	103	80	118	94	132	108	146	122	174	151	61	89
	N14'											96	67	109	81	124	96	137	109	166	138	70	103
125	N06	98	72	122	96	146	119	169	143	193	166	216	190	239	213	263	237	287	260	333	307	49	80
	N08			108	73	131	97	155	120	179	143	202	167	226	191	249	214	272	237	320	285	66	107
	N10					118	73	141	98	164	121	188	144	212	167	235	192	259	215	305	261	88	133
	N12							127	74	151	98	174	122	197	145	221	168	245	192	292	239	98	161
	N14'											160	98	184	122	207	146	230	169	278	216	115	187
140	N06	147	115	182	150	217	185	252	220	287	255	323	290	357	325	392	359	427	394	497	465	73	111
	N08	127	83	162	118	196	153	231	188	266	224	301	259	336	293	371	328	406	363	477	433	98	148
	N10					175	122	210	157	246	192	281	227	316	261	351	296	386	331	455	401	122	186
	N12							190	125	225	160	260	195	294	230	329	265	364	300	435	370	147	223
	N14'											239	163	274	198	309	233	344	268	414	338	171	260
160	N06	252	202	310	260	368	318	426	376	485	434	542	492	600	551	658	608	716	666	832	782	112	171
	N08	220	154	278	211	336	269	394	327	453	386	510	444	568	502	626	559	684	617	801	734	150	228
	N10			246	163	304	221	362	279	421	337	479	395	536	453	594	511	652	569	769	685	187	286
	N12							330	230	389	289	447	347	505	404	562	462	620	520	737	637	225	342
	N14'											415	297	473	356	530	414	588	472	705	588	262	399
180	N06	361	280	446	364	529	448	614	532	689	616	781	700	866	783	949	868	1034	951	1201	1119	165	262
	N08	315	206	398	290	483	374	566	457	650	542	735	625	818	710	903	793	986	877	1154	1045	222	350
	N10	267	131	352	215	435	299	519	383	603	467	687	551	771	635	855	719	939	803	1107	971	277	437
	N12					389	225	472	309	556	392	640	477	724	560	808	645	892	728	1060	896	332	524
	N14'									509	319	593	402	677	486	761	570	844	654	1021	822	388	612
210	N06	462	338	577	452	690	566	805	680	919	795	1034	908	1147	1023	1262	1137	1376	1252	1604	1480	261	408
	N08	388	222	502	336	616	451	731	564	844	679	959	793	1073	907	1188	1021	1301	1135	1530	1364	349	545
	N10			427	221	542	334	656	449	771	563	884	678	999	791	1113	906	1228	1020	1456	1284	437	680
	N12							582	333	696	447	810	561	925	676	1038	790	1153	905	1382	1133	524	817
	N14'									622	331	736	446	850	560	965	674	1079	788	1307	1017	612	935
235	N06	680	493	856	669	1032	844	1207	1020	1383	1196	1558	1371	1734	1547	1909	1722	2085	1898	2436	2249	372	559
	N08	556	306	732	482	907	657	1083	833	1259	1008	1434	1184	1610	1359	1785	1535	1961	1711	2312	2062	496	746
	N10			608	295	783	471	959	647	1134	822	1310	998	1486	1173	1661	1349	1837	1524	2188	1876	620	933
	N12							835	459	1010	635	1186	810	1361	986	1537	1162	1713	1337	2064	1688	745	1119
	N14'									886	449	1062	624	1237	800	1413	975	1588	1151	1940	1502	869	1306

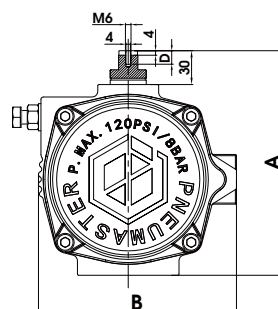
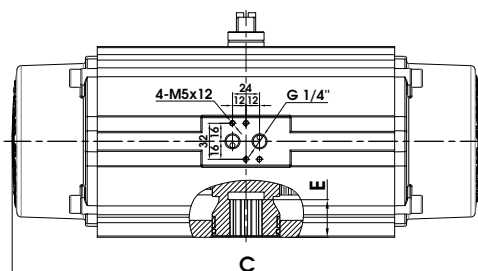
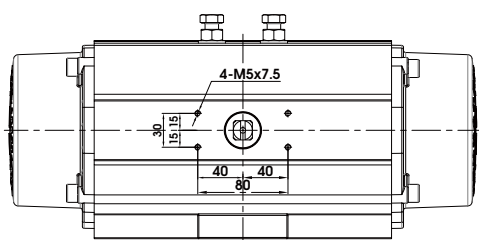
SR SERIES TORQUE OUTPUT in ft lb.

SIZE	Type Pressure	Output torque for spring return in ft lb																				Spring Stroke			
		43.5 psi		50.8 psi		58 psi		65.3 psi		72.5 psi		80 psi		87 psi		94.3 psi		102 psi		116 psi		End	Start		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°		
45	N04			6	4	7	5	8	6			9	7	10	9	12	10	13	11	14	12	16	15	3	5
	N06'									8	5	9	6	10	8	11	9	13	10	15	12	5	8		
	N08											8	4	9	5	10	6	11	8	14	10	7	11		
60	N04	12	10	14	12	17	15	18	16	21	19	22	21	26	24	28	26	31	29	35	34	4	6		
	N06	10	7	13	10	15	12	17	14	20	17	23	19	24	21	27	24	29	26	34	31	5	9		
	N08			11	7	14	10	15	11	18	14	20	17	23	19	26	21	28	24	33	29	7	12		
	N10							14	9	17	12	19	14	21	17	24	19	26	21	31	26	9	15		
	N12									14	9	17	12	20	14	23	17	25	19	30	24	10	18		
N14'												16	9	18	12	21	14	23	17	28	21	12	20		
80	N04	22	19	27	24	31	28	35	33	40	37	44	41	50	47	54	51	58	55	67	65	6	10		
	N06	19	15	24	20	29	24	34	29	37	34	41	37	47	42	51	47	56	52	66	61	10	14		
	N08					26	20	31	25	34	29	39	34	44	38	49	43	53	47	63	57	13	19		
	N10							28	20	33	26	36	30	41	34	46	39	50	43	60	53	16	24		
	N12									30	21	34	26	39	31	43	34	48	39	58	49	18	28		
N14'												32	22	36	26	41	31	45	35	55	44	21	33		
90	N06	30	25	37	33	44	39	51	46	58	53	66	61	72	67	79	74	86	82	100	96	13	19		
	N08			34	27	40	34	47	41	54	48	61	55	68	62	75	68	82	76	96	91	18	26		
	N10					36	28	43	35	50	42	58	50	65	57	71	64	78	70	93	85	23	32		
	N12							69	30	46	36	53	44	61	51	67	58	74	66	88	79	28	38		
	N14'											50	38	57	45	64	53	70	60	85	73	32	45		
104	N06	43	34	54	44	64	55	74	66	85	76	96	87	106	97	116	107	127	118	148	139	22	33		
	N08			47	35	58	46	68	56	79	66	89	77	99	88	109	98	121	108	141	130	30	43		
	N10					51	36	62	47	72	58	82	68	94	78	104	89	114	98	134	121	36	54		
	N12							55	37	66	48	76	59	87	68	98	80	107	90	129	111	44	66		
	N14'											70	50	80	60	91	70	101	80	123	101	52	76		
125	N06	72	53	90	70	107	88	125	105	142	123	159	139	176	157	194	175	211	192	246	227	36	59		
	N08			80	54	98	71	114	88	131	105	149	124	166	140	183	158	200	175	235	210	48	78		
	N10					87	54	104	71	121	89	138	106	156	124	173	141	191	159	225	193	61	98		
	N12							94	55	111	71	129	90	145	107	163	124	180	141	215	176	72	118		
	N14'											118	72	135	90	153	107	169	125	205	159	85	138		
140	N06	108	85	134	110	160	136	186	162	211	188	237	213	263	239	289	264	315	290	366	343	54	82		
	N08	94	61	119	87	145	112	170	138	196	164	222	191	248	216	273	242	299	267	352	319	71	109		
	N10					129	90	155	115	181	141	207	166	232	193	259	219	284	244	335	295	90	136		
	N12							139	92	165	118	192	143	217	169	243	195	268	221	321	273	108	164		
	N14'											176	121	202	146	228	172	254	197	305	249	126	192		
160	N06	186	149	228	192	271	234	314	277	357	320	399	362	442	406	485	448	528	490	613	577	82	126		
	N08	162	113	205	156	248	198	291	241	333	284	376	327	419	370	461	412	504	454	590	541	110	168		
	N10			181	120	224	163	267	205	310	248	353	292	395	333	438	376	481	420	566	505	138	210		
	N12							243	169	287	213	329	256	372	297	414	341	457	384	543	469	165	252		
	N14'											305	219	349	261	390	305	433	348	519	433	194	294		
180	N06	366	206	328	268	389	329	453	392	515	454	576	516	638	577	700	640	762	701	885	824	122	193		
	N08	232	152	293	213	356	275	417	337	480	399	542	460	603	522	665	584	727	647	850	770	163	258		
	N10	196	97	260	159	321	221	383	282	444	344	507	406	568	468	630	530	692	591	816	715	203	322		
	N12					287	165	348	228	410	289	471	352	534	413	595	475	657	536	781	660	254	387		
	N14'									375	234	437	296	498	358	561	420	622	482	745	606	286	451		
210	N06	341	249	425	332	509	417	593	501	678	585	762	670	845	754	930	839	1014	922	1182	1091	193	300		
	N08	286	163	370	248	454	332	539	416	622	500	707	584	791	669	875	752	959	837	1128	1005	257	401		
	N10			315	163	399	246	484	330	568	415	651	499	736	583	820	667	905	751	1072	920	322	501		
	N12							428	246	513	329	597	414	681	498	765	583	849	667	1018	835	387	602		
	N14'									458	244	542	328	626	413	711	496	795	581	963	749	451	702		
235	N06	502	363	631	493	761	622	890	752	1020	881	1149	1011	1279	1140	1408	1270	1538	1399	1797	1658	274	413		
	N08	410	226	540	356	669	485	799	615	928	744	1058	874	1187	1003	1317	1133	1446	1262	1705	1521	366	551		
	N10			448	218	578	347	707	477	837	606	966	736	1096	865	1225	995	1355	1124	1614	1383	457	688		
	N12							616	339	745	468	874	598	1004	727	1133	857	1262	986	1521	1245	549	825		
	N14'									653	330	783	460	912	589	1041	719	1171	848	1430	1107	641	963		

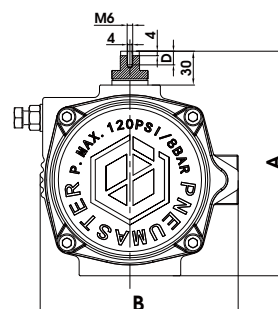
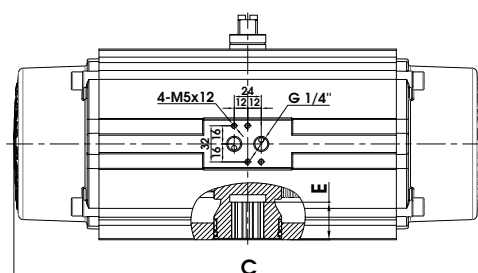
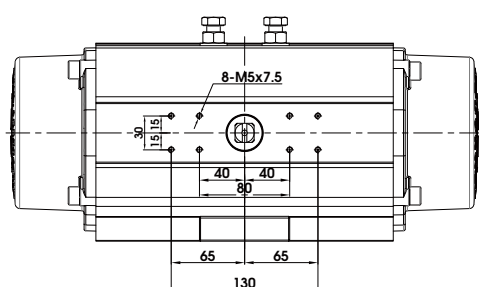
SIZE 45/60/80/90/104



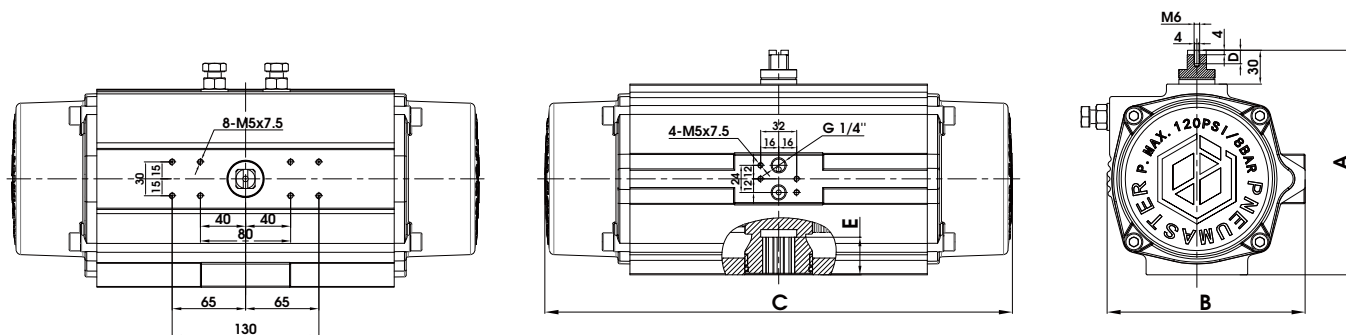
SIZE 125/140/160



SIZE 180/210



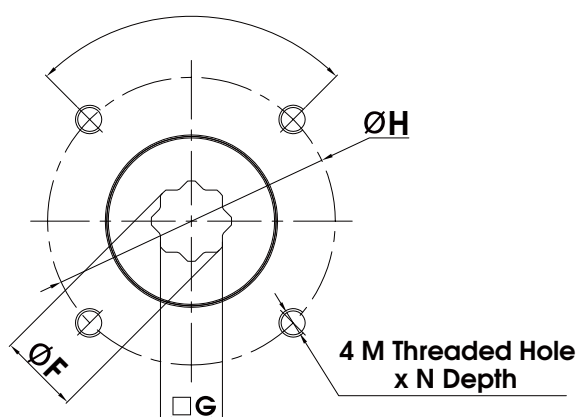
SIZE 235



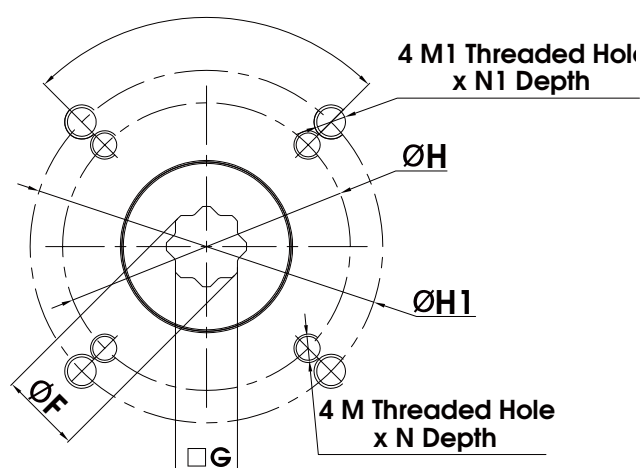
SIZE 45/60/140/210/235

SIZE 80/90/104/125/160/180

$4 \times 90^\circ = 360^\circ$



$4 \times 90^\circ = 360^\circ$



Diameter of Cylinder	A	B	C	D	E	F	G	ISO 5211	H	MxN	ISO 5211	H1	M1xN1
45	86	78	164.8	9	12	18.1	14	F04	42	M5*10	-	-	-
45	86	78	164.8	9	12	18.1	14	F05	50	M6*10	-	-	-
60	105	93	198.9	9	12	18.1	14	F04	42	M5*10	-	-	-
60	105	93	198.9	9	12	18.1	14	F05	50	M6*10	-	-	-
80	127	113	222.9	12	19	22.5	17	F05	50	M6*10	F07	70	M8*16
90	136	124	261.8	12	22	22.5	17	F05	50	M6*10	F07	70	M8*16
104	155	138.5	301	12	23	22.5	17	F07	70	M8*16	F10	102	M10*16
125	182	154.85	354.6	12	24	28.5	22	F07	70	M8*14	F10	102	M10*20
140	199	177	413.6	12	32	28.5	22	F10	102	M10*16	-	-	-
160	221	194	479	12	39	36.5	27	F10	102	M10*17	F12	125	M12*20
180	249	215	567.6	16	48	48.5	36	F10	102	M10*17	F14	140	M16*26
210	280	245.5	609	16	48	48.5	36	F14	140	M16*26	-	-	-
235	313	279.5	700	16	50	60.2	46	F16	165	M20*26	-	-	-



Service System.

We are focus on technology and supply reliable products manufactured to global customers.

Provide the protection and automation to meet all kinds of applications.

PNEUMASTER engineers are happy to help you with your automation requirements.

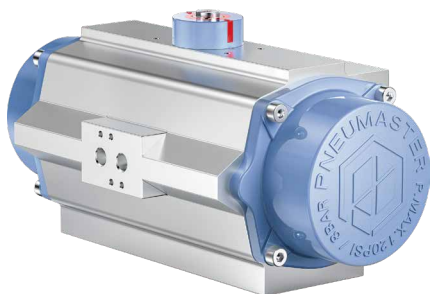
Customizes.

After-sales.

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Esales@pneumastercontrol.com.cn
mail.

Type Selection Table.



B DA 045 000 NT FL - 000

Code key							
Series	Type	Diameter of Cylinder	Acting Manner	Temperature	Air Failure Position	Handwheel	Special Remark
B	DA = Double Acting Cylinder	045	000 = Double Acting	NT = -30°C to 100°C	FO = Normally Open	- = Non-handwheel	000
	SR = Single Acting Cylinder		N10 = Single Acting, Number of Springs	LT = -40°C to 80°C	FC = Normally Closed	EHW = Handwheel	
				HT = -15°C to 150°C	FL = Holding Position		
				ST = -56°C to 80°C			



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