NOGIX

FAMCO

هایپرصنعت

Pneumatic Actuator NOG BT Series

تهران، کیلومتر۲۱ بزرگراه لشگری (جاده مخصوص کرج)

روبـروی پالایشگاه نفت پـارس، پلاک ۱۲

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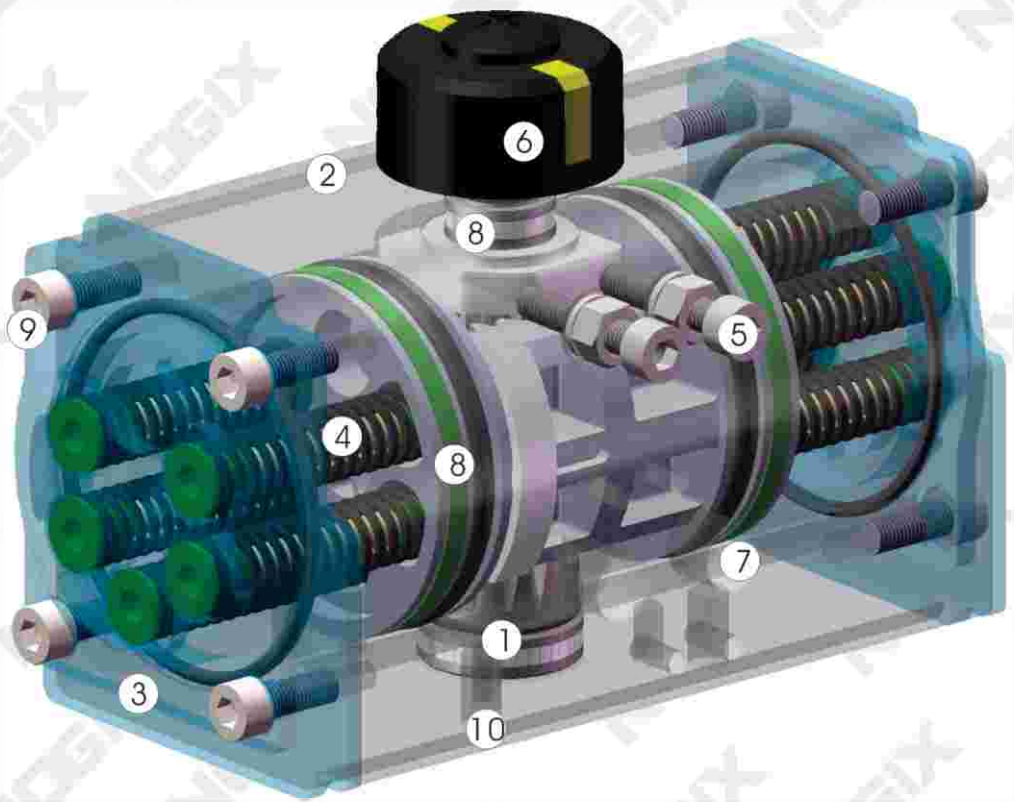
NOG BTD / NOG BTS series of new valve pneumatic actuator



NOGBTD/NOGBTS new rack and pinion pneumatic actuator bythe NOGIX company combines the latest technology at home and abroad, through the three-dimensional model of innovation and optimization of CAD design, beautiful shape compact, modernstyling; and adopt practical new materials, new processes, so that the product quality, more reliable; more standard selection of more affordable; products fully meet the latest international standards, technical specifications, to meet current and future needs.

①dual piston rack and pinion design of symmetric structures, rapid and smooth movement, high precision, high output power by a simple change in the direction of the piston assembly positions available anti-rotation.

②high quality extruded aluminum alloy cylinder block, by precision machining the hole and the external surface of hard anodized (anodic oxidation under special circumstances + Teflon coating), longer life, low friction coefficient.

③integrated design, all the double acting and single-function actuator models have the same cylinder and end caps, easily removed by installing a spring or spring to change the mode of action.

④combined pre-spring brack Hearnwhole group, whether in the assembly process or use on-site in both convenient and safe to install or change the

⑤the external side of the two single independent adjustment screw has been number of springs. installed in the valve for the actuator is precisely to facilitate, control valve open and valve closed position, For the whole trip conditioned office is also configured in two cover a longer adjustment screws.

⑥multi-position indicator, on-site visual instructions, consistent with VDI/VDE3845, NAMUR standard slot, the output can be installed and all the accessories, such as limit switch box, electric positioner, position sensor (Pepperl and Fuchs, Turck).

⑦gas source interface line NAMURstandard, direct safety plaquesNAMUR standard solenoid valve.

⑧rack on the back of the composite bearing and pision guide ring and the output shaft bearings to prevent metal on metal friction and increasing lubrication, so a low friction, long life.

⑨All fasteners are stainless steel, long-term corrosion resistance.

⑩connection part of the line with new international standard ISO5211, DIN3337 (F03-F25) makes products with interchangeable, versatile.

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Model preparation

NOGBT-160 S-K1 0 F1 0/12 P27-90-B-A

⑨. Corrosion Resistance Grade:A,B

⑧. Ambient Temp.: Standard-B, Low Temp.: D, High Temp.: G

⑦. RotationAngle: 0°~90°,0°~120°,0°~180°,3 Position

⑥. Shaft Size Code: P-Star Square, H-Parallel Opposite Hole, W Two Key Hole

⑤. Connection: ISO5211 Standard Flange Size, F03-F25, Star Square, 9-55

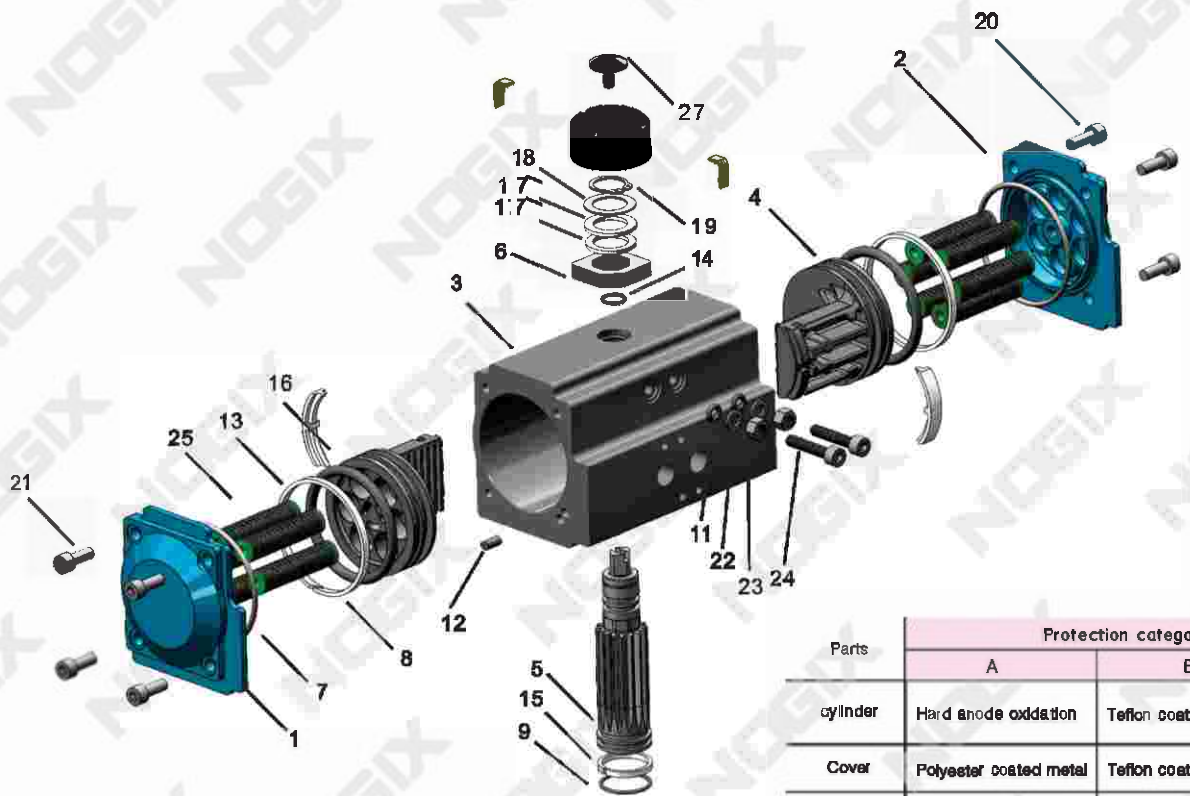
④. Spring QTY: K5/K6/K7/K8/K9/K10/K11/K12/K13/K14/K15/K16, Not Available for Double Acting

③. Type: D-DoubleActing, S-Spring Return

②. CylinderSize:40~400

①. BT Series PneumaticActuator

Components and materials, corrosion



Parts	Protection category	
	A	B
cylinder	Hard anode oxidation	Teflon coating+ Anode sclerosis
Cover	Polyester coated metal	Teflon coating
Output shaft	Carbon steel electroless nickel plating	Electroless nickel plating or stainless steel
Use Occasion	General situation	General occasions or low concentrations of acidic environment

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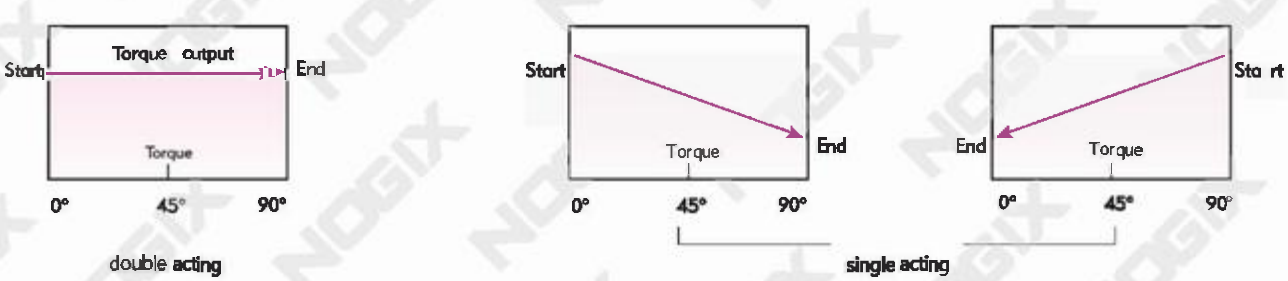
Part Number	Each number	Part Name	Standard Materials	Selected materials
01	1	LeftCover	AluminumDieCasting	Stainless steel
02	1	RightCover	AluminumDieCasting	Stainless steel
03	1	body	Aluminumextrusion	Stainless steel
04	2	Piston	AluminumDieCasting	----
05	1	Outputshaft	CarbonSteel	Stainless steel
06	1	Camadjustment	Stainless steel	----
07*	2	O-ring(cover)	NBR	Fluorineor silicone rubber
08*	2	O-ring(Piston)	NBR	Fluorineor silicone rubber
09*	1	O-ring(outputshaftbottom)	NBR	Fluorineor silicone rubber
10*	1	O-ring(outputshaftatthetop)	NBR	Fluorineor silicone rubber
11*	2	O-ring(adjustingscrew)	NBR	Fluorineor silicone rubber
12*	2	Plug(Cylinder)	NBR	Fluorineor silicone rubber
13*	2	Bearing(Piston)	POM	----
14*	1	Bearing(outputshaftatthetop)	POM	----
15*	1	Bearing(outputshaftbottom)	POM	----
16*	1	Guidewith Bearing(Pistontrack)	POM	----
17*	2	Thrustbearings(outputshaft)	POM	----
18	2	Gasket(outputshaft)	Stainless steel	----
19	1	Flexiblecirclering	Springsteel	----
20	4	Coverbolt	Stainlesssteel	----
21	4	CoverGasket	Stainlesssteel	----
22	2	Gasket	Stainlesssteel	----
23	2	Nut	Stainlesssteel	----
24	2	Adjustmentbolt	Stainlesssteel	----
25	5-12	SpringComponents	Alloyspringsteel	----
26	1	Positionindicator	POM	----
27	1	Screwofindicator	POM	----

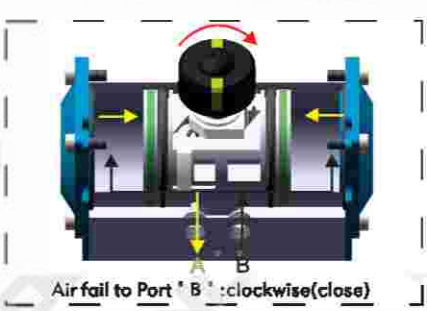
Torque Diagram



Doubie Acting Operation

Selection of double aetion actuators
The suggested safety factor for duble acting actuators under normal working conditions is 20%-30%
Example:
- The torque needed by valve=100N.m
- The torque considered safety factor 100X（1+30%）=130 N.m
- Air Supply=5 Bar

According to double acting torque table, we can choose the minimum mode is BT-105D.



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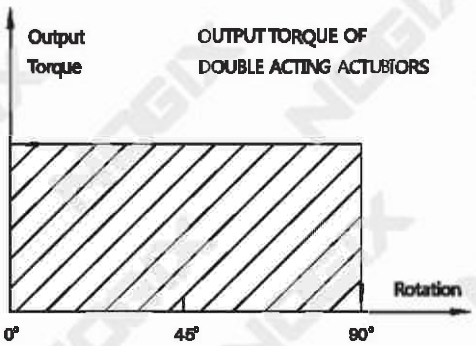
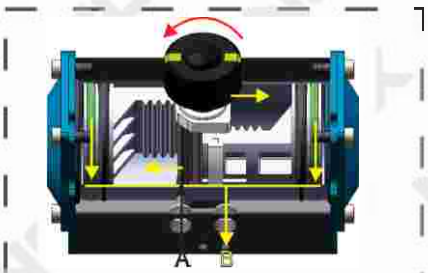




Air to Port " A " :counterclockwise(open)

* Pistons must be inverted to reverse actuator rotation

Spring Return Operation

Selection of single action actuators

Under normal operating conditions, a single actuator to consider the role of the safety factor of 30%-50%.

For example:

Valve required torque = 100N.m

Safety torque =100X (1 +30%) = 130N.m

according to single acting actuator output torque table, we can find BT-140SK10 Torque following

Implemental ion process 0° =216.8N.m air

Implemental ion process 90° =175.8 N.m air

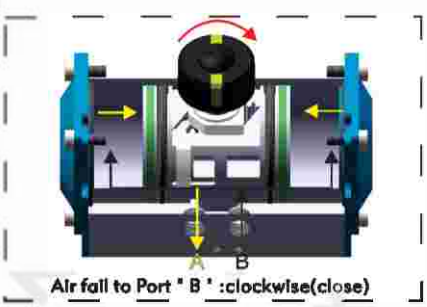
Spring stroke 0° =172N.m

Spring stroke 90° =258N.m

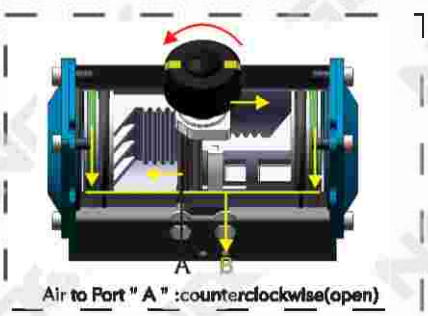
output Torque bigger than all our needs

Note:

Single action during the spring return actuators, actuator B hole ventilation does not affect actuator output torque.Instead it's helpful of sping return



Air fail to Port " B " :clockwise(close)



Air to Port " A " :counterclockwise(open)

* Spring force makes the actuator clokwise when the air's exhausted at port " A "
* When air fail to counterclockwise is required, the pistons must be inverted

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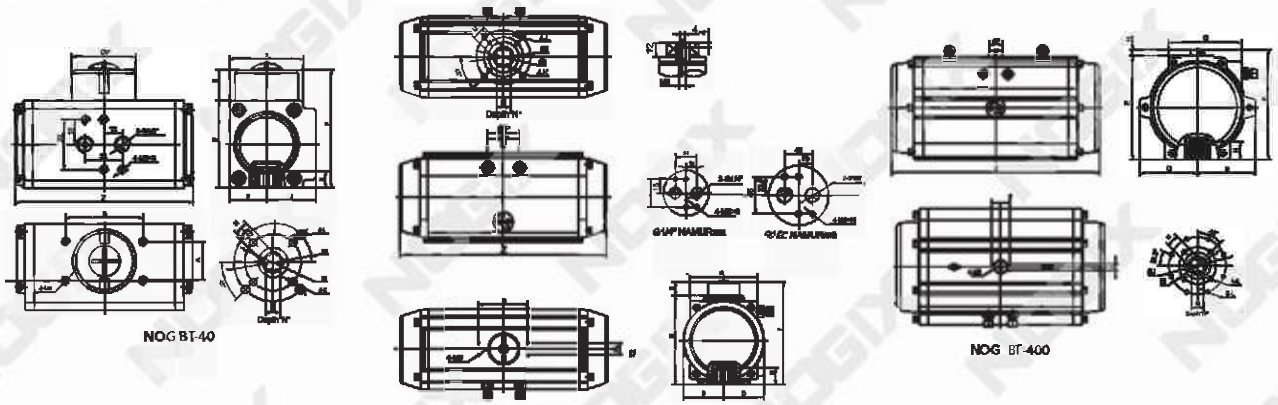
Double Acting Actuator Output Torque(Nm)

Model \ Air pressure	Air supply pressure(Unit:Bar)								
	3bar	3.5bar	4bar	4.5bar	5bar	5.5bar	6bar	7bar	8bar
NOGBT-40D	5.7	6.7	7.6	8.6	9.5	10.5	11.4	13.3	15.2
NOGBT-52D	12.0	14.0	16.0	18.0	20.0	22.0	24.0	28.0	32.0
NOGBT-63D	21.0	24.5	28.0	31.5	35.0	38.5	42.0	49.0	56.0
NOGBT-75D	30.0	35.0	40.0	45.0	50.0	55.0	60.0	70.0	80.0
NOGBT-83D	45.7	53.3	61.0	68.6	76.2	83.8	91.4	106.7	121.9
NOGBT-92D	67.4	78.7	89.9	101.2	112.4	123.6	134.9	157.4	179.8
NOGBT-105D	97.5	113.9	130.2	146.4	162.7	179.0	195.2	227.8	260.3
NOGBT-125D	152.2	177.6	203.0	228.3	253.7	279.1	304.4	355.2	405.9
NOGBT-140D	260.3	303.7	347.0	390.4	433.8	477.2	520.6	607.3	694.1
NOGBT-160D	395.6	452.7	528.8	594.9	661.0	727.1	793.2	925.4	1057.6
NOGBT-190D	639.3	745.9	852.4	959.0	1066.6	1172.1	1278.6	1491.7	1704.8
NOGBT-210D	781.0	911.2	1041.4	1171.5	1301.7	1431.9	1562.0	1822.4	2082.7
NOGBT-240D	1147.6	1338.8	1530.1	1721.3	1912.6	2103.9	2295.1	2677.6	3060.2
NOGBT-270D	1742.9	2033.4	2323.8	2614.3	2904.8	3195.3	3485.8	4066.7	4647.7
NOGBT-300D	2390.8	2789.3	3187.8	3586.2	3984.7	4383.2	4781.6	5578.6	6375.5
NOGBT-350D	3580	4176	4773	5369	5966	6563	7159	8352	9546
NOGBT-400D	5100	5950	6800	7650	8500	9350	10200	11900	13600

Dimensional Drawing



Dimension

NOG BT-52,NOG BT-63、NOG BT-75、NOG BT-83、NOG BT-92、NOG BT-105、NOG BT-125
NOG BT-140、NOG BT-160、NOG BT-190、NOG BT-210、NOG BT-240、NOG BT-270、NOG BT-300、NOG BT-350

Unit (mm)

Model	A	B	C	D	E	F	G	H	I	I-1	J	J-1	K	L	M	N	P	Z	Air
NOG BT-40	25	50	24	32	56	76	48	20	36	F03	50	F05	M5×8	M6×10	9	10	42	110	1/8"
NOG BT-52	30	80	30	42.5	72.4	92.4	50.5	20	36	F03	50	F05	M5×8	M6×10	11	14	42	150	1/4"
NOG BT-63	30	80	36	47	88.5	108.5	69.5	20	50	F05	70	F07	M6×10	M8×13	14	18	42	171	1/4"
NOG BT-75	30	80	42.5	53	100	120	78	20	50	F05	70	F07	M6×10	M8×13	14	18	42	186	1/4"
NOG BT-83	30	80	46.5	57	109.5	129.5	86	20	50	F05	70	F07	M6×10	M8×13	17	21	42	206	1/4"
NOG BT-92	30	80	50	58	117	137	90	20	50	F05	70	F07	M6×10	M8×13	17	21	42	265	1/4"
NOG BT-105	30	80	57.5	64	135	155	104.5	20	70	F07	102	F10	M8×13	M10×16	22	26	42	272	1/4"
NOG BT-125	30	80	67.5	74.5	157	187	120.5	30	70	F07	102	F10	M8×13	M10×16	22	26	62	304	1/4"
NOG BT-140	30	80	75.5	75.5	174	204	125	30	102	F10	125	F12	M10×16	M12×20	27	32	62	395	1/4"
NOG BT-160	30	130	87	87	198	228	143	30	102	F10	125	F12	M10×16	M12×20	27	32	80	462	1/4"
NOG BT-190	30	130	103	103	232	262	172	30			140	F14		M16×25	36	40	80	552	1/4"
NOG BT-210	30	130	113	113	257	287	194	30			140	F14		M16×25	36	40	90	556	1/4"
NOG BT-240	30	130	130	130	292	322	230	30			165	F16		M20×30	46	50	90	630	1/4"
NOG BT-270	30	130	147	147	331	361	252	30			165	F16		M20×30	46	50	90	750	1/2"
NOG BT-300	30	130	161	172	354	384	290	30			165	F16		M20×30	46	50	90	772	1/2"

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Single Acting Actuator Output Torque(Nm)

Airpressure		Spring Torque																				Spring Torque	
Model	Spring Qty	2.5bar		3.0bar		3.5bar		4.0bar		4.5bar		5.0bar		5.5bar		6.0bar		7.0bar		8.0bar			
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End
NOG BT-52S	5	5.7	3.8	7.7	5.8	9.7	7.8	11.7	9.8	13.7	11.8	15.7	13.8									6.2	4.3
	6	5	2.8	7	4.6	9	6.8	11	8.8	13	10.8	15	12.8	17	14.6							7.4	5
	7			6.1	3.4	8.1	5.4	10.1	7.4	12.1	9.4	14.1	11.4	16.1	13.4	18.1	13.4					8.6	5.9
	8					7.3	4.1	9.3	6.1	11.3	8.1	13.3	10.1	15.3	12.1	17.3	12.1	21.3	18.1			9.9	6.7
	9							8.4	4.9	10.4	6.9	12.4	8.9	14.4	10.9	16.4	10.9	20.4	16.9	24.4	20.9	11.1	7.6
	10									9.5	5.6	11.5	7.6	13.5	9.6	15.5	9.6	19.5	15.6	23.5	19.6	12.4	8.5
	11											10.7	6.4	12.7	8.4	14.7	8.4	18.7	14.4	22.7	18.4	13.6	9.3
	12													11.8	7.2	13.8	7.2	17.8	13.2	21.8	17.2	14.8	10.2
NOG BT-68S	5	10.7	7.1	14.2	10.6	17.7	14.1	21.2	17.6	24.7	21.1	28.2	24.6									10.4	6.8
	6	9.3	5	12.8	8.5	16.3	12	19.8	15.5	23.3	19	26.8	22.5	30.3	26							12.5	8.2
	7			11.4	6.4	14.9	9.9	18.4	13.4	21.9	16.9	25.4	20.4	28.9	23.9	32.4	23.9					14.6	9.6
	8					13.8	7.8	17.1	11.3	20.6	14.8	24.1	18.3	27.6	21.8	31.1	21.8	38.1	32.3			16.7	10.9
	9							15.7	9.2	19.2	12.7	22.7	16.2	26.2	19.7	29.7	19.7	36.7	30.2	43.7	37.2	18.8	12.3
	10									17.8	10.6	21.3	14.1	24.8	17.6	28.3	17.6	35.3	28.1	42.3	35.1	20.9	13.7
	11											20	12.1	23.5	15.6	27	15.6	34	26.1	41	33.1	22.9	15
	12													22.1	13.5	25.6	13.6	32.8	24	39.5	31	25	16.4
NOG BT-75S	5	14.5	10.5	19.5	15.5	24.5	20.5	29.5	25.5	34.5	38.5	39.5	35.5									14.5	10.5
	6	12.3	7.8	17.3	12.6	22.3	17.8	27.3	22.6	32.3	27.6	37.3	32.6	42.3	37.6							17.4	12.7
	7			15.2	9.7	20.2	14.7	25.2	19.7	30.2	24.7	35.2	29.7	40.2	34.7	45.2	34.7					20.3	14.8
	8					18.1	11.8	23.1	16.6	28.1	21.6	33.1	26.5	38.1	31.8	43.1	31.6	53.1	46.8			23.2	16.9
	9							21	13.9	26	18.9	31	23.9	36	28.9	41	26.9	51	43.9	61	53.9	26.1	19
	10									23.9	16	26.9	21	33.9	26	38.9	26	48.9	41	58.9	51	29	21.1
	11											26.8	18.1	31.8	23.1	36.8	23.1	46.8	38.1	56.8	48.1	31.9	23.2
	12													28.7	20.3	34.7	20.3	44.7	35.3	54.7	45.3	34.7	25.3
NOG BT-83S	5	22.2	15	29.9	22.7	37.5	30.3	45.2	38	52.8	45.6	68.4	53.2									23	15.8
	6	19.0	10.4	26.7	18.1	34.3	25.7	42	33.4	49.6	41	57.2	48.6	64.8	56.2							27.6	19
	7			23.6	13.6	31.2	21.1	38.8	28.6	46.5	36.4	54.1	44	61.7	51.6	69.3	51.6					32.2	22.1
	8					26	16.5	35.7	24.2	43.3	31.8	50.9	39.4	58.5	47	66.1	47	81.4	69.9			36.8	25.3
	9							32.5	19.6	40.1	27.2	47.7	34.8	55.3	42.4	62.9	42.4	78.2	65.3	93.4	80.5	41.4	28.5
	10									37	22.6	44.6	30.2	52.2	37.6	59.6	37.8	75.1	60.7	90.3	75.9	46	31.6
	11											41.4	25.6	49	33.2	56.8	33.2	71.9	56.1	87.1	71.3	50.6	34.8
	12													45.5	28.6	53.4	28.6	68.7	51.5	83.9	66.7	55.2	38
NOG BT-92S	5	32.6	21.7	44.1	33	55.4	44.3	66.6	55.5	77.9	66.8	69.1	78									34.4	23.3
	6	28.1	14.9	39.4	26.2	50.7	37.5	61.9	48.7	73.2	60	64.4	71.2	95.8	82.4							41.2	28
	7			34.7	19.3	46	30.6	57.2	41.8	68.5	53.1	79.7	64.3	90.9	75.5	102.2	75.5					48.1	32.7
	8					41.4	23.7	52.6	34.9	63.9	46.2	75.1	57.4	86.3	68.6	97.6	68.6	120.1	102.4			55	37.3
	9							47.9	28	59.2	39.3	70.4	50.5	81.6	61.7	92.9	61.7	115.4	95.5	137.8	117.9	61.9	42
	10									54.5	32.5	65.7	43.7	76.9	54.9	88.2	54.9	110.7	88.7	133.1	111.1	68.7	46.7
	11											61	36.8	72.2	48	83.5	48	106	81.8	128.4	104.2	75.6	51.4
	12													67.5	41.1	78.9	41.1	101.4	74.9	123.6	97.3	82.5	56
NOG BT-105S	5	49.7	32.1	66	48.4	82.3	64.7	98.6	81	114.8	97.2	131.1	113.5									49.2	31.6
	6	43.3	22.2	59.5	38.5	75.9	54.6	92.2	71.1	108.4	87.3	124.7	103.6	141	119.9							59.1	38
	7			53.3	28.7	69.6	45	85.9	61.3	102.1	77.5	118.4	93.8	134.7	110.1	150.9	110.1					68.9	44.3
	8					63.3	35.2	79.6	51.5	95.8	67.7	112.1	84	128.4	100.3	144.6	100.3	177.2	149.1			78.7	50.6
	9							73.3	41.6	89.5	57.8	105.8	74.1	122.1	90.4	138.3	90.4	170.9	139.2	203.4	171.7	88.5	56.9
	10									83.1	48	99.4	64.3	115.7	80.6	131.9	80.6	164.5	129.4	197	161.9	98.4	63.3
	11											93.1	54.7	109.4	71	125.5	71	158.2	119.6	190.7	152.3	108	69.6
	12													103.1	61	119.3	61	151.9	109.8	184.4	142.3	118	75.9
NOG BT-125S	5	74.8	47.8	160.2	73.2	125.6	96.5	151	124	176.3	149.3	201.7	174.7									79	52
	6	63.6	32.6	89.2	58.2	114.6	83.6	140	109	165.3	134.3	190.7	159.7	218.1	186.1							94	63
	7			79.2	42.2	104.6	67.6	130	93	155.3	118.3	180.7	143.7	206.1	169.1	231.4	169.1					110	73
	8					93.5	52.6	119	78	144.3	103.3	169.7	128.7	195.1	154.1	220.4	154.1	271.2	230.2			125	84
	9							109	62	134.3	87.3	159.7	112.7	185.1	138.1	210.4	138.1	261.2	214.2	311.9	264.9	141	94
	10									123.3	71.3	148.7	96.7	174.1	122.1	199.4	122.1	250.2	198.2	300.9	248.9	157	105
	11											138.7	80.7	164.1	108.1	189.4	106.1	240.2	182.2	290.9	232.9	173	115
	12													154.1	91.1	179.4	91.1	230.2	167.2	280.9	217.9	188	125
NOG BT-140S	5	130.9	87.9	174.3	131.3	217.7	174.7	261	218	304.4	261.4	347.6	304.9									129	86
	6	113.9	61.9	157.3	105.3	200.7	148.7	244	192	287.4	235.4	330.8	276.9	374.2	322.2							155	103
	7			140.3	79.3	183.7	122.7	227	166	270.4	209.4	313.8	252.8	357.2	296.2	400.8	296.2					181	120
	8					166.7	97.7	218	141	253.4	184.4	296.8	227.8	340.2	271.2	383.6	271.2	470.3	401.3			206	137
	9							192	115	235.4	158.4	278.8	201.8	322.2	245.2	366.6	245.2	452.3	375.3	539.1	462.1	232	155
	10									218.4	132.4	261.8	175.8	305.2	219.2	348.6	219.2	435.3	349.3	522.1	436.1	258	172
	11											244.6	149.9	288.2	193.2	331.6	193.2	418.3	323.3	505.1	418.1	284	189
	12													271.2	167.2	314.6	167.2	401.3	297.3	488.1	384.1	310	206
NOG BT-160S	5	190.5	122.5	256.6	188.6	322.7	254.7	388.8	320.8	454.9	385.9	521	453									208	140
	6	162.5	80.5	228.6	146.6	294.7	212.7	360.8	278.8	426.9	344.9	493	411	559.1	477.1							250	166
	7			208.6	104.6	266.7	170.7	332.8	236.8	398.9	302.9	465	369	531.1	435.1	597.2	435.1					292	196
	8					239.7	129.7	305.8	195.8	371.9	261.9	438	328	504.1	394.1	570.2	394.1	702.4	592.4			333	223
	9							277.8	153.8	343.9	219.9	410	286	476.1	352.1	542.2	352.1	674.4	550.4	806.6	682.8	375	251
	10									315.9	177.9	382	243	448.1	310.1	514.2	310.1	646.4	508.4	776.6	640.6	417	279
	11											354	203	420.1	269.1	486.2	269.1	618.4	467.4	750.6	599.6	458	307
	12													392.1	227.1	458.2	227.1	590.4	425.4	722.6	557.6	500	335
NOG BT-190S	5	333	224	440	331	546	437	653	544	759	650	666	757									309	200
	6	293	162	400	289	506	375	613	482	719	588	826	869	939	802							371	240
	7			360	207	466	313	573	420	679	526	786	633	898	740	999	740					433	280
	8					426	251	533	358	639	464	749	571	858	675	959	676	1172	997			495	320
	9							493	286	599	402	709	509	813	616	919	616	1132	935	1846	1149	557	360
	10									559	341	666	448	778	555	879	555	1092	874	1806	1088	618	400
	11											626	386	733	493	839	493	1052	812	1266	1026	680	440
	12													693	431	798	451	1012	759	1226	964	742	480
NOG BT-210S	5	376	271	506	401	636	531	767	662	897	792	1027	922									380	275
	6	321	195	451	326	581	455	712	586	842	719	972	846	1102	976							456	330
	7			396	249	526	379	657	510	787	649	917	770	1047	900	1177	900					532	385
	8					471	303	602	454	732	584	862	694	992	824	1122	824	1383	1215			608	440
	9							547	358	677	488	807	618	937	748	1067	748	1328	1139	1588	1399	684	495
	10									622	412	752	542	882	672	1012	672	1273	1063	1533	1323	760	550
	11											697	466	827	596	957	596	1218	987	1478	1247	836	605
	12													772	520	902	520	1163	911	1423	1171	912	660
NOG BT-240S	5	547	403	738	594	929	765	1120	976	1312	1168	1503	1359									554	410
	6	465	292	656	483	847	674	1038	865	1230	1057	1421	1248	1612	1439							665	492
	7			573	373	764	564	955	755	1147	947	1338	1138	1529	1329	1721	1329					775	575
	8					683	453	874	644	1066	396	1257	1027	1446	1218	1640	1218	2022	1792			886	656
	9							791	532	983	724	1174	915	1365	1106	1557	1106	1939	1680	2322	2063	998	739
	10									901	614	1092	805	1283	996	1475	995	1857	1570	2240	1956	1108	821
	11											1010	694	1201	885	1393	885	1775	1459	2158	1842	1219	903
	12													1119	774	1311	774	1693	1348	2076	1731	1330	685
NOG BT-270S	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1764	[illegible]	[illegible]	1827	[illegible]	[illegible]									787	560
	6	780	509	1071	800	1361	1090	1652	1361	1942	1671	2233	1962	2523	2256							943	672
	7			960	642	1250	932	1541	1223	1631	[illegible]	2122	1804	2412	2094	2703	2094					1101	783
	8					1138	775	1429	1066	1719	[illegible]	2010	1647	2300	1937	2591	1937	3172	2809			1258	895
	9							1317	908	1607	[illegible]	1898	1489	2188	1779	2479	1779	3060	2651	3641	3232	1416	1007
	10									1495	[illegible]	1786	1333	2076	1623	2367	1623	2948	2495	3529	3076	1572	1119
	11											1674	1175	1964	1465	2255	1465	2836	2337	3417	2918	1730	1231
	12													1853	1308	2144	1308	2725	2180	3306	2761	1887	1342
	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2924									1061	730
	6	1117	720	1515	1118	1914	1617	2312	1915	2711	2314	3109	2712	3508	3111							1273	876
	7			1369	906	1768	1805	2186	1703	2565	[illegible]	2963	2500	3362	2899	3760	2869					1485	1022

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روبروی پالایشگاه نفت پارس، پلاک ۱۲

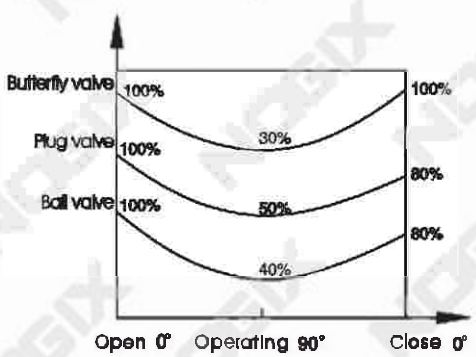
NOGIX

FAMCO هایپرصنعت

Single Acting Actuator Output Torque(Nm)

Model	Spring Q.ty	Air pressure 2.5bar 0° Start	2.5bar 90° End	3.0bar 0° Start	3.0bar 90° End	3.5bar 0° Start	3.5bar 90° End	4.0bar 0° Start	4.0bar 90° End	4.5bar 0° Start	4.5bar 90° End	5.0bar 0° Start	5.0bar 90° End	5.5bar 0° Start	5.5bar 90° End	6.0bar 0° Start	6.0bar 90° End	7.0bar 0° Start	7.0bar 90° End	8.0bar 0° Start	8.0bar 90° End	Spring Torque 0° Start	Spring Torque 90° End
NOGBT-3608	5	1810	1281	2407	1878	3003	2474	3600	3071	4198	3667	4793	4264									1702	1173
	6	1575	940	2172	1637	2768	2133	3365	2730	3961	3325	4558	3923	5155	4520							2043	1408
	7			1938	1197	2534	1793	3131	2390	3727	2986	4324	3583	4921	4180	5517	4180					2383	1642
	8					2299	1452	2896	2049	3492	2646	4089	3242	4699	3839	5282	3839	6475	5628			2724	1877
	9							2661	1709	3257	2305	3854	2902	4451	3499	5047	3499	6240	5283	7434	6482	3064	2112
	10									3023	1964	3620	2561	4217	3158	4813	3158	6006	4847	7200	6141	3405	2346
	11											3385	2221	3982	2818	4578	2818	5771	4807	6965	5801	3745	2581
	12													3747	2477	4343	2477	5536	4286	6730	5460	4086	2816
NOGBT-4008	7	2413	1378	3263	2220	4113	3070	4963	3920	5813	4770	5663	5620									2380	1637
	8	2160	958	3000	1808	3850	2658	4700	3508	5550	4355	6400	5208	7250	6058							3292	2100
	9	1688	647	2736	1397	3560	2247	4438	3097	5288	3947	6138	4797	8098	5847	7838	5647					3703	2382
	10	1626	135	2478	985	3328	1835	4178	2685	5028	3536	5876	4385	6726	5285	7578	5285	9279	7785			4115	2624
	11			2213	574	3063	1424	3913	2274	4763	3124	5613	3974	6463	4824	7313	4824	9016	7374	10713	9074	4526	2887
	12					2801	1012	3651	1862	4501	2712	5351	3562	6201	4412	7051	4412	8751	6962	10451	8262	4938	3149
	13							3398	1451	4238	2301	6088	3151	5938	4001	6788	4001	6488	6551	10188	8251	5349	3412
	14									3976	1889	4826	2739	5676	3589	6626	3589	6226	6139	9926	7639	5761	3674
	15											4563	2328	5413	3176	6263	3176	7963	5726	9663	7426	6172	3937
	16													5151	2766	6001	2766	7701	5313	9401	7213	6584	4199

Sizing information and How to order



Forexample:

Butterfly of the original maximum torque=80Nm

Openedtorque80 × 30%= 24N.m

Airpressure=5Bar

Wecanchoose BT-125SK10

Airtravel0° =148.7N.m> 80N.m

Airtravel 90° =96.7 N.m> 24N.m

Spring stroke 90° =157 N.m > 24N.m

Spring stroke 0° =105N.m> 80N.m

The above figures show opening meet of the butterfly valve

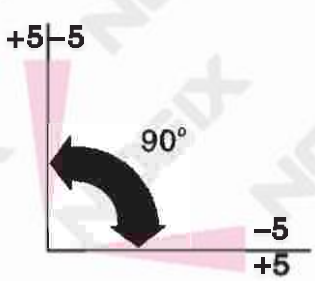
Operating type (Double acting and spring return)

Air supply connection is designed in accordance with NAMUR Standard to install solenoid valves.

The Namur drive pinion and the Namur top mounting connection permit direct installation of accessories such as limitswitch box and positianer.

Bottom mounting connection is designed in accordance with ISO5211、DIN3337standards for direct mounting with valve gear boxes or mounting brackets.

Operating conditions:



1.Operating media
Dry or lubricated air, or the non-corrosive gases
The maximum particle diameter must less than 30 μm

2.Air supply pressure
The minximum supply pressure is 2.5 Bar
The maximum supply pressure is 8 Bar

3.Operating temperature
Standard: -20℃~+80℃
Lowtemperature: -40℃~+80℃
Hightemperature: -15℃~+150℃

4.Travel adjustment
Have adjustment range of ±5° for the rotation at 0°and 90°

5.Application

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NOGIX

FAMCO هایپرصنعت

Air Consumption

Model	Maximum pressure	The angle of rotation	Temperature	1°the need to adjust the number of laps	Diameter	Internal volume close	Internal volume Open	On-off time close	On-off time Open	Weight A weight	Weight Spring weight
NOG BT - 52S	Lubrication or dry of compressed air 8bar	(0°–90°) ±5° or full itinerary 0°–90°	B(normal) NBR O-ring -20—+80℃ G(High Temperature) Viton O-ring -15–+150℃ D(Low Temperature) Silicone O-ring -40+80℃	1/6	52	0.1	0.2	DA0.6 SR2.0	DA0.6 SR 0.5	DA 1.30 SR1.42	... 0.0095
NOG BT - 63S				1/6	63	0.2	0.3	DA0.7 SR2.0	DA0.7 SR 1.0	DA2.05 SR2.25	... 0.0135
NOG BT - 75S				1/5	75	0.3	0.0	DA0.8 SR2.5	DA0.7 SR1.0	DA2.65 SR2.95	... 0.0210
NOG BT - 83S				1/5	83	0.5	0.8	DA0.9 SR2.5	DA0.8 SR1.0	DA3.30 SR3.70	... 0.0365
NOG BT - 92S				1/5	92	0.7	1.1	DA 1.0 SR3.0	DA1.0 SR 1.0	DA4.55 SR5.30	... 0.0600
NOG BT - 105S				1/4	105	1.2	1.8	DA1.5 SR3.0	DA 1.5 SR 1.0	DA5.80 SR6.70	... 0.0730
NOG BT - 125S				1/4	125	1.5	2.3	DA2.0 SR4.0	DA2.0 SR 1.0	DA8.95 SR 10.35	... 0.1100
NOG BT - 140S				1/4	140	2.4	3.0	DA2.5 SR4.0	DA2.5 SR 1.0	DA 13.35 SR 15.35	... 0.1865
NOG BT - 160S				1/4	160	3.1	4.0	DA4.0 SR4.0	DA3.0 SR 1.5	DA 19.20 SR23.10	... 0.2695
NOG BT - 190S				1/4	190	4.5	7.3	DA5.0 SR5.0	DA4.0 SR3.0	DA31.05 SR36.80	... 0.4792
NOG BT - 210S				1/4	210	5.5	11.2	DA5.0 SR6.0	DA5.0 SR3.0	DA39.00 SR45.50	... 0.5001
NOG BT - 240S				1/4	240	10	15.2	DA6.0 SR12	DA6.0 SR4.0	DA53.00 SR64.00	... 0.9167
NOG BT - 270S				1/ 4	270	14.5	21.4	DA8.0 SR 15	DA8.0 SR6.0	DA 76.00 SR85.20	... 1.6000
NOG BT -300S				1/4	300	23.8	29.7	DA12 SR18	DA12 SR8.0	DA 100.0 SR 128.2	... 2.3500
NOG BT -350S				1/4	350	35.1	46	DA14 SR20	DA14 SR10	DA 186.0 SR216.0	... 2.5001
NOG BT - 400S				1/4	400	52.6	56	DA15 SR25	DA15 SR12	DA243.0 SR279.0	... 3.0001

Air consumption rest with Supply. Air volume and Action cycle times, expressions

L/Min=Air volume(Air volume Opening+Air volume closing) ×[(Air Supply(Kpa)+ 101.3) ÷ 101.3] ×Action cycle times(/min)

Common faults and inspection, troubleshooting

Failure phenomenon	Inspection items	Solution
Pneumatic valve can not move	1, the electromagnetic valve is normal, coil is burned. Electromagnetic valve is stuck being stolen	Solenoid valve replacement, replacement coils, remove stolen property
	2, a separate air supply pneumatic actuator test, check seals and whether the cylinder is damaged.	Replace a bad ring and cylinder.
	3, there are impurities in the spool valve stuck.	Remove impurities, replace damaged parts.
	4, the handle in a manual motor location.	change the handle to pneumatic position
Slow motion, crawling	1, supply pressure is not enough.	The increase of gas supply pressure (0.4-0. 7Mpa)
	2, pneumatic actuator output torque is too small.	Increase the pneumatic actuator Production.
	3, the valve spool or valve assembly too tight.	Re-assembly adjustments.
	4, air supply pipe plug, flow is too small.	Exclude plug, replace the filter cartridge.
Reply devices without signal	1, power line short circuit or open circuit.	Maintenance of power lines.
	2, reply within the cam position is not accurate.	Adjust the cam to the correct location
	3, micro switch damaged.	Replacement Micro Switch

NOGIX

FAMCO
هایپرصنعت



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