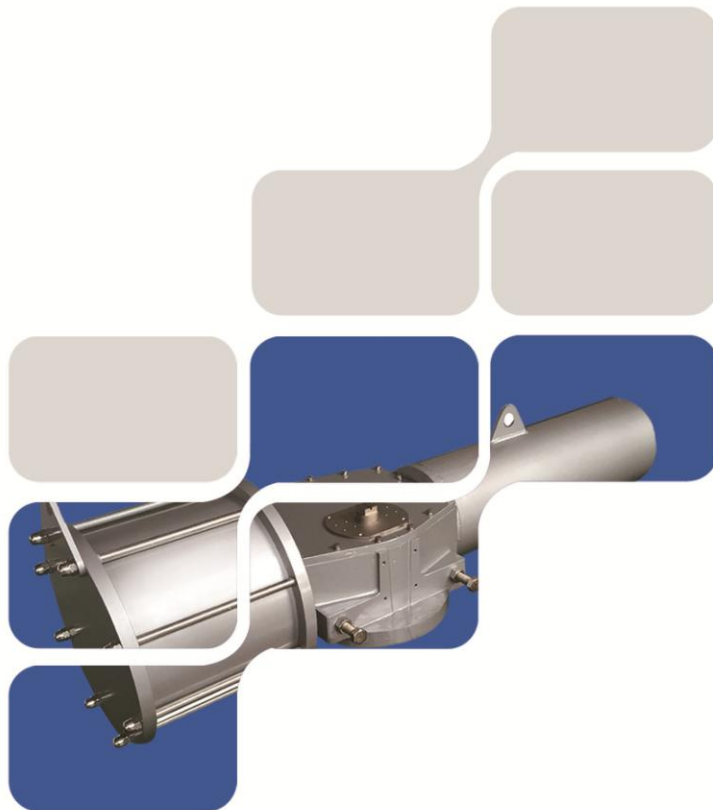
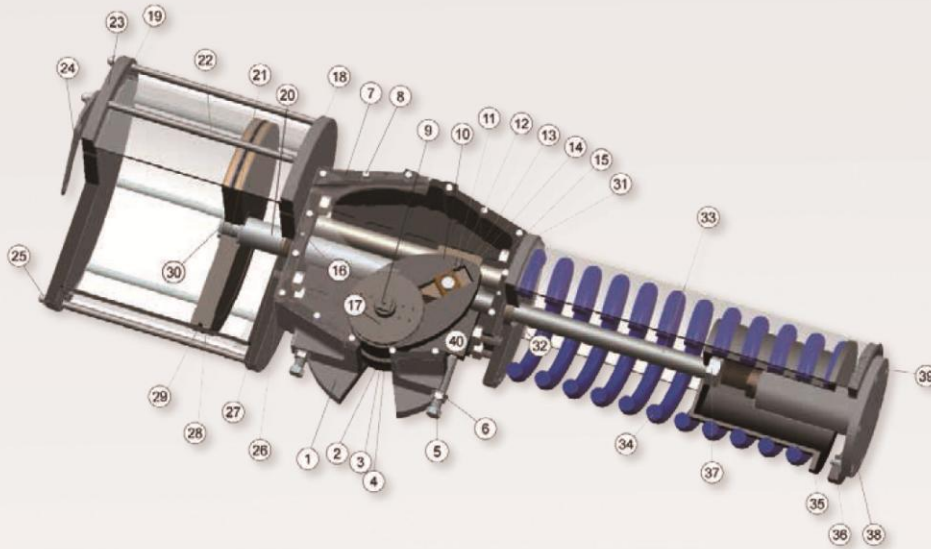



SCOTCH YOKE
Pneumatic Actuator



www.kaval.ca



No.	DESCRIPTION	MATERIAL
1	Air & Spring Cylinders	Ductile Iron
2	Lower Bushing	Low Carbon Steel+Copper Alloy
3	Bushing O-Ring	NBR (High & Low Temp options)
4	Upper Bushing	Low Carbon Steel+Copper Alloy
5	Travel Stop	Stainless Steel / Plated Carbon Steel
6	Travel Stop Nut	Stainless Steel / Plated Carbon Steel
7	Center Cover	Ductile Iron
8	Center Cover Bolt	Stainless Steel
9	NAMUR Stem	Plated Carbon Steel
10	Yoke	Ductile Iron
11	Snap Ring	Stainless Steel
12	Slide Pin	Alloy Steel
13	Sliding Block	High strength copper alloy+Graphite
14	Guide Block	Plated Carbon Steel
15	Spring Module Bolt	Carbon Steel
16	Cover Fixed Pin	Stainless Steel
17	NAMUR Mounting Plate	Plated Carbon Steel
18	Cylinder Outer Cap	Carbon Steel
19	Cylinder Outer O-Ring	NBR (High & Low Temp options)
20	Piston Rod	Chrome Plated Carbon Steel

No.	DESCRIPTION	MATERIAL
21	Piston	Carbon Steel
22	Tie Bolt	Stainless Steel / Plated Carbon Steel
23	Cylinder Inner Cap	Carbon Steel
24	Lift Plate	Carbon Steel
25	Tie Bolt Nut	Stainless Steel
26	Cylinder Cap Bushing	Low Carbon Steel+Copper Alloy
27	Cylinder Inner O-Ring	NBR (High & Low Temp options)
28	Piston Wear Bearing	PTFE bronze composite
29	Piston O-Ring	NBR (High & Low Temp options)
30	Piston Lock Bolt	Carbon Steel
31	Spring Case Inner Cap	Carbon Steel
32	Spring Rod Guide Bushing	Low Carbon Steel+Copper Alloy
33	Spring Rod	Chrome Plated Carbon Steel
34	Spring	Alloy Steel
35	Spring Retainer	Carbon Steel
36	Spring Case Outer Cap	Carbon Steel
37	Spring Rod Lock Nut	Carbon Steel
38	Hydraulic Override Cylinder (Optional)	Carbon Steel
39	Outer Cap Bolt	Carbon Steel
40	Center Module	Ductile Iron

Model Specification



RT Product Model
:Double Guide Rod Scotch Yoke

02 Scotch Yoke
02.Canted Type

S
Acting Type
D: Double Action
S: Single Action

02 :Shell Size Code:02-08

30
:Cylinder Size (mm):200~1000

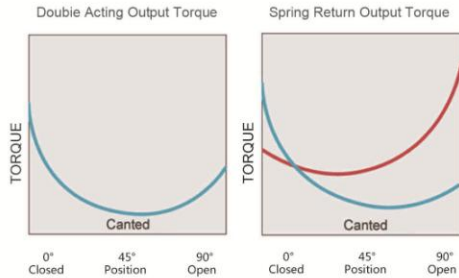
A/B Spring Specification
A: 4.2 Bar Air Pressure
B: 5.5 Bar Air Pressure

L Temperature Range Option
L: Low Temperature : -40°C~80°C
S: Standard : -20°C~80°C
H: High Temperature : -20°C~150°C

FC Air Failure
FO: Failure Open
FC: Failure Close
FL: Failure Lock

HM Accessories
SM: Screw Manual
GM: Gear Manual
HM: Hydraulic Manual





Canted Type



Canted Double Action ▼

Torque Unit: Nm

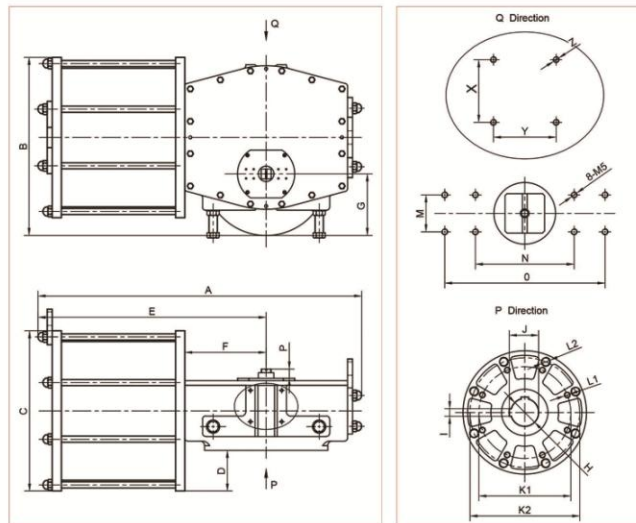
MODEL	4.0BAR			5.0BAR			6.0BAR			8.0BAR		
	0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°
RT 02-D02-20	1,836	908	1,279	2,295	1,135	1,599	2,754	1,362	1,919	3,672	1,816	2,559
RT 02-D02-25	2,869	1,419	1,999	3,586	1,773	2,499	4,303	2,128	2,998	5,737	2,837	3,998
RT 02-D02-30	4,131	2,043	2,879	5,164	2,554	3,598	6,196	3,064	4,318	8,262	4,086	5,757
RT 02-D02-35	5,623	2,781	3,918	7,028	3,476	4,898	8,434	4,171	5,877	11,245	5,561	7,836
RT 02-D03-35	6,806	3,366	4,743	8,508	4,208	5,929	10,209	5,049	7,114	13,613	6,732	9,486
RT 02-D03-38	8,023	3,968	5,591	10,029	4,960	6,988	12,035	5,952	8,386	16,046	7,936	11,182
RT 02-D03-43	10,273	5,081	7,159	12,842	6,351	8,949	15,410	7,621	10,738	20,547	10,162	14,318
RT 02-D04-43	13,177	6,517	9,182	16,471	8,146	11,477	19,765	9,775	13,773	26,353	13,033	18,364
RT 02-D04-48	16,419	8,120	11,441	20,524	10,150	14,302	24,629	12,180	17,162	32,838	16,241	22,883
RT 02-D04-53	20,018	9,900	13,959	25,023	12,375	17,347	30,027	14,850	20,924	40,036	19,800	27,899
RT 02-D05-53	24,598	12,165	17,141	30,748	15,207	21,426	36,898	18,248	25,712	49,197	24,331	34,282
RT 02-D05-58	29,459	14,569	20,528	36,823	18,211	25,660	44,188	21,854	30,792	58,917	29,138	41,055
RT 02-D05-63	34,757	17,189	24,220	43,446	21,486	30,274	52,135	25,784	36,329	69,513	31,378	54,462
RT 02-D06-63	43,386	21,457	30,233	54,332	26,821	37,791	65,079	32,185	45,349	86,771	42,914	60,465
RT 02-D06-68	50,546	24,998	35,222	63,182	31,247	44,027	75,818	37,497	52,833	101,091	49,996	70,444
RT 02-D06-73	58,252	28,809	40,592	72,815	36,011	50,740	87,378	43,214	60,888	116,504	57,618	81,184
RT 02-D07-68	67,035	33,104	46,696	83,793	41,380	58,370	100,552	49,656	70,044	134,070	66,208	93,392
RT 02-D07-73	77,255	38,151	53,974	96,568	47,688	67,467	115,882	57,226	80,961	154,510	76,302	107,948
RT 02-D07-80	92,781	45,818	65,028	115,976	57,272	81,285	139,171	68,727	97,542	185,562	91,636	130,056
RT 02-D08-80	123,710	61,092	86,416	154,637	76,365	108,020	185,565	91,638	129,624	247,420	122,184	172,832
RT 02-D08-90	156,571	77,319	109,812	195,713	96,648	137,265	234,856	115,978	164,718	313,142	154,638	219,624
RT02-D08-100	193,297	95,456	135,962	241,621	119,320	169,952	289,945	143,184	203,943	386,594	190,912	271,924



Canted Single Action ▼

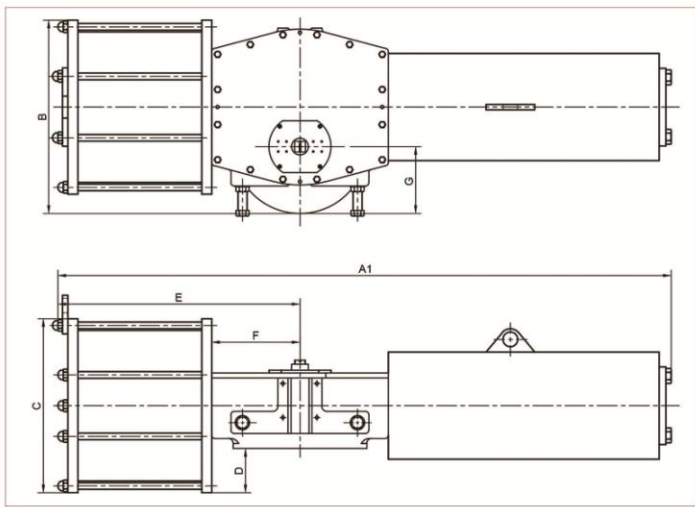
Torque Unit:Nm

MODEL	Spring Torque			Air Torque :Air Supply Pressure												
	0°	R	90°	4.0BAR			5.0BAR			6.0BAR			8.0BAR			
				0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°	
RT 02-S02-20	A	670	452	808	1,166	456	471	1,625	683	791	2,084	910	1,111			
	B	876	591	1,056				1,419	544	543	1,878	771	863	2,796	1,225	1,503
RT 02-S02-25	A	1,063	717	1,282	1,806	702	717	2,523	1,056	1,217	3,240	1,411	1,716			
	B	1,396	942	1,683				2,190	831	816	2,907	1,186	1,315	4,341	1,895	2,315
RT 02-S02-30	A	1,496	1,020	1,834	2,635	1,023	1,045	3,668	1,534	1,764	4,700	2,044	2,484			
	B	2,059	1,404	2,524				3,105	1,150	1,704	4,137	1,660	1,794	6,203	2,682	3,233
RT 02-S02-35	A	1,807	1,262	2,299	3,816	1,519	1,619	5,221	2,214	2,599	6,627	2,909	3,578			
	B	2,543	1,735	3,118				4,485	1,741	1,780	5,891	2,436	2,759	8,702	3,826	4,718
RT 02-S03-35	A	2,047	1,464	2,700	4,759	1,902	2,043	6,461	2,744	3,229	8,162	3,585	4,414			
	B	3,093	2,098	3,759				5,415	2,110	2,170	7,116	2,951	3,355	10,520	4,634	5,727
RT 02-S03-38	A	2,759	1,973	3,641	5,264	1,995	1,950	7,270	2,987	3,347	9,276	3,979	4,745			
	B	3,913	2,654	4,757				6,116	2,306	2,231	8,122	3,298	3,629	12,133	5,282	6,425
RT 02-S03-43	A	3,637	2,467	4,421	6,636	2,614	2,738	9,205	3,884	4,528	11,773	5,154	6,317			
	B	5,017	3,403	6,099				7,825	2,948	2,850	10,393	4,218	4,639	15,530	6,759	8,219
RT 02-S04-43	A	4,735	3,340	6,118	8,442	3,177	3,064	11,736	4,806	5,359	15,030	6,435	7,655			
	B	6,098	4,301	7,878				10,373	3,845	3,599	13,667	5,474	5,895	20,255	8,732	10,486
RT 02-S04-48	A	5,887	4,152	7,605	10,532	3,968	3,836	14,637	5,998	6,697	18,742	8,028	9,557			
	B	7,754	5,469	10,017				12,770	4,681	4,285	16,875	6,711	7,145	25,084	10,772	12,866
RT 02-S04-53	A	7,035	4,962	9,088	12,983	4,938	4,861	17,988	7,413	8,349	22,992	9,888	11,836			
	B	9,217	6,502	11,908				15,806	5,873	5,529	20,810	8,348	9,016	30,819	13,298	15,991
RT 02-S05-53	A	8,854	6,189	11,286	15,744	5,976	5,855	21,894	9,018	10,140	28,044	12,059	14,426			
	B	11,770	8,235	15,018				18,978	6,972	6,408	25,128	10,013	10,694	37,427	16,096	19,264
RT 02-S05-58	A	10,195	7,133	13,008	19,264	7,436	7,520	26,628	11,078	12,652	33,993	14,721	17,784			
	B	14,355	10,044	18,316				22,468	8,167	7,344	29,833	11,810	12,476	44,562	19,094	22,739
RT 02-S05-63	A	12,292	8,601	15,684	22,465	8,588	8,536	31,154	12,885	14,590	39,843	17,183	20,645			
	B	16,158	11,306	20,617				27,288	10,180	9,657	35,977	14,478	15,712	53,355	23,072	27,822
RT 02-S06-63	A	14,480	10,292	18,928	28,906	11,165	11,305	39,752	16,529	18,863	50,599	21,893	26,421			
	B	18,967	14,028	26,335				35,265	12,793	11,456	46,112	18,157	19,014	67,804	28,886	34,130
RT 02-S06-68	A	17,715	12,591	23,156	32,831	12,407	12,066	45,467	18,656	20,871	58,103	24,906	29,677			
	B	22,115	16,357	30,708				41,067	14,890	13,319	53,703	21,140	22,125	78,976	33,639	39,736
RT 02-S06-73	A	19,992	14,209	26,132	38,260	14,600	14,460	52,823	21,802	24,608	67,386	29,005	34,756			
	B	25,029	18,512	34,753				47,786	17,499	15,987	62,349	24,702	26,135	91,475	39,106	46,431
RT 02-S07-68	A	23,423	16,141	32,090	43,612	16,963	14,606	60,370	25,239	26,280	77,129	33,515	37,954			
	B	29,280	20,176	40,113				54,513	21,204	18,257	71,272	29,480	29,931	104,790	46,032	53,279
RT 02-S07-73	A	26,995	18,602	36,982	50,260	19,549	16,992	69,573	29,086	30,485	88,887	38,624	43,979			
	B	33,744	23,252	46,229				62,824	24,436	21,238	82,138	33,974	34,732	120,766	53,050	61,719
RT 02-S07-80	A	32,420	22,340	44,416	60,361	23,478	20,612	83,556	34,932	36,869	106,751	46,387	53,126			
	B	40,526	27,925	55,520				75,450	29,347	25,765	98,645	40,802	42,022	145,036	63,711	74,536
RT 02-S08-80	A	43,228	29,787	59,222	80,482	31,305	27,194	111,409	46,578	48,798	142,337	61,851	70,402			
	B	54,035	37,235	74,027				100,602	39,130	33,993	131,530	54,403	55,597	193,385	84,949	98,805
RT 02-S08-90	A	54,712	37,700	74,953	101,859	39,619	34,859	141,001	58,948	62,312	180,144	78,278	89,765			
	B	68,389	47,125	93,691				127,324	49,523	43,574	166,467	68,853	71,027	244,753	107,513	125,933
RT 02-S08-100	A	67,544	47,049	92,534	125,753	48,407	43,428	174,077	72,271	77,418	222,401	96,135	111,409			
	B	84,431	58,812	115,668				157,190	60,508	54,284	205,514	84,372	88,275	302,163	132,100	156,256



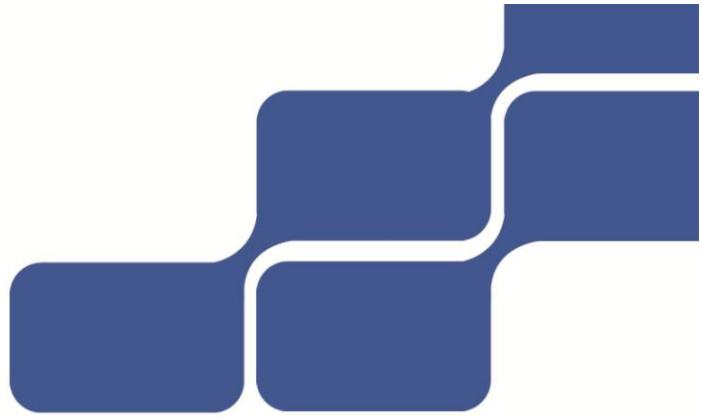
▼ Double Acting / Symmetric and Canted Data

MODEL	A	A1		B	C	D	E	F	G	H	I	J
		4.2Bar	5.5Bar									
RT01/02-02-20	720	1240	1255	311	φ270	42	510	175	100	φ50	14	53.8
RT01/02-02-25	720	1255	1285	336	φ320	67	510	175	100	φ50	14	53.8
RT01/02-02-30	720	1315	1325	361	φ370	92	510	175	100	φ50	14	53.8
RT01/02-02-35	720	1355	1370	386	φ420	117	510	175	100	φ50	14	53.8
RT01/02-03-35	840	1545	1550	467	φ420	100	585	210	165	φ80	20	84.9
RT01/02-03-38	840	1560	1615	482	φ450	115	585	210	165	φ80	20	84.9
RT01/02-03-43	840	1600	1665	507	φ500	140	585	210	165	φ80	20	84.9
RT01/02-04-43	1045	1895	1920	573	φ510	127	735	264	200	φ90	25	95.4
RT01/02-04-48	1045	1935	2070	598	φ560	152	735	264	200	φ90	25	95.4
RT01/02-04-53	1045	2045	1980	623	φ610	177	735	264	200	φ90	25	95.4
RT01/02-05-53	1365	2405	2475	680	φ610	148	930	385	230	φ120	32	127.4
RT01/02-05-58	1365	2405	2555	710	φ670	178	930	385	230	φ120	32	127.4
RT01/02-05-63	1365	2535	2645	735	φ720	203	930	385	230	φ120	32	127.4
RT01/02-06-63	1575	2980	3025	815	φ720	160	1075	440	275	φ150	36	158.4
RT01/02-06-68	1575	3030	3100	850	φ790	195	1075	440	275	φ150	36	158.4
RT01/02-06-73	1575	3110	3190	875	φ840	220	1075	440	275	φ150	36	158.4
RT01/02-07-68	1915	3490	3510	910	φ790	145	1335	520	275	φ190	45	200.4
RT01/02-07-73	1915	3520	3560	935	φ840	170	1335	520	275	φ190	45	200.4
RT01/02-07-80	1915	3565	3595	975	φ920	210	1335	520	275	φ190	45	200.4
RT01/02-08-80	2400	4250	4300	1115	φ920	140	1680	650	335	φ250	56	262.4
RT 1/02-08-90	2400	4380	4420	1170	φ1030	195	1680	650	335	φ250	56	262.4
RT01/02-08-100	2400	4480	4550	1220	φ1130	245	1680	650	335	φ250	56	262.4



▼ Spring Return / Symmetric and Canted Data

k1	k2	L1	L2	M	N	O	P	X	Y	Z	Air Connection
φ165		4-M20		30	80	130	30	80	80	4-M8	RC 3/8"
φ165		4-M20		30	80	130	30	80	80	4-M8	RC 1/2"
φ165		4-M20		30	80	130	30	80	80	4-M8	RC 1/2"
φ165		4-M20		30	80	130	30	80	80	4-M8	RC 1/2"
φ254	φ298	8-M16	8-M20	30	80	130	30	80	80	4-M8	RC 3/4"
φ254	φ298	8-M16	8-M20	30	80	130	30	80	80	4-M8	RC 3/4"
φ254	φ298	8-M16	8-M20	30	80	130	30	80	80	4-M8	RC 3/4"
φ298	φ356	8-M20	8-M30	30	80	130	30	100	100	4-M10	RC 1"
φ298	φ356	8-M20	8-M30	30	80	130	30	100	100	4-M10	RC 1"
φ298	φ356	8-M20	8-M30	30	80	130	30	100	100	4-M10	RC 1"
φ298	φ356	8-M20	8-M30	30	80	130	30	140	160	4-M12	RC 1"
φ298	φ356	8-M20	8-M30	30	80	130	30	140	160	4-M12	RC 1"
φ298	φ356	8-M20	8-M30	30	80	130	30	140	160	4-M12	RC 1"
φ406	φ483	8-M36	12-M36	30	80	130	30	160	160	4-M12	RC 1 1/4"
φ406	φ483	8-M36	12-M36	30	80	130	30	160	160	4-M12	RC 1 1/4"
φ406	φ483	8-M36	12-M36	30	80	130	30	160	160	4-M12	RC 1 1/4"
φ406	φ483	8-M36	12-M36	30	80	130	30	180	180	4-M16	RC 1 1/4"
φ406	φ483	8-M36	12-M36	30	80	130	30	180	180	4-M16	RC 1 1/4"
φ483	φ603	12-M36	20-M36	30	80	130	30	200	200	4-M16	RC 1 1/2"
φ483	φ603	12-M36	20-M36	30	80	130	30	200	200	4-M16	RC 1 1/2"
φ483	φ603	12-M36	20-M36	30	80	130	30	200	200	4-M16	RC 1 1/2"



142 Cranach Landing SE
Calgary, Alberta, T3MOZ7 Canada

Tel: 001.403.456.4596
Email: sales@kaval.ca

Are subject to change without prior notice, to provide the product characteristics and technical data does not represent or imply any warranty, all data will be subject to technical department.