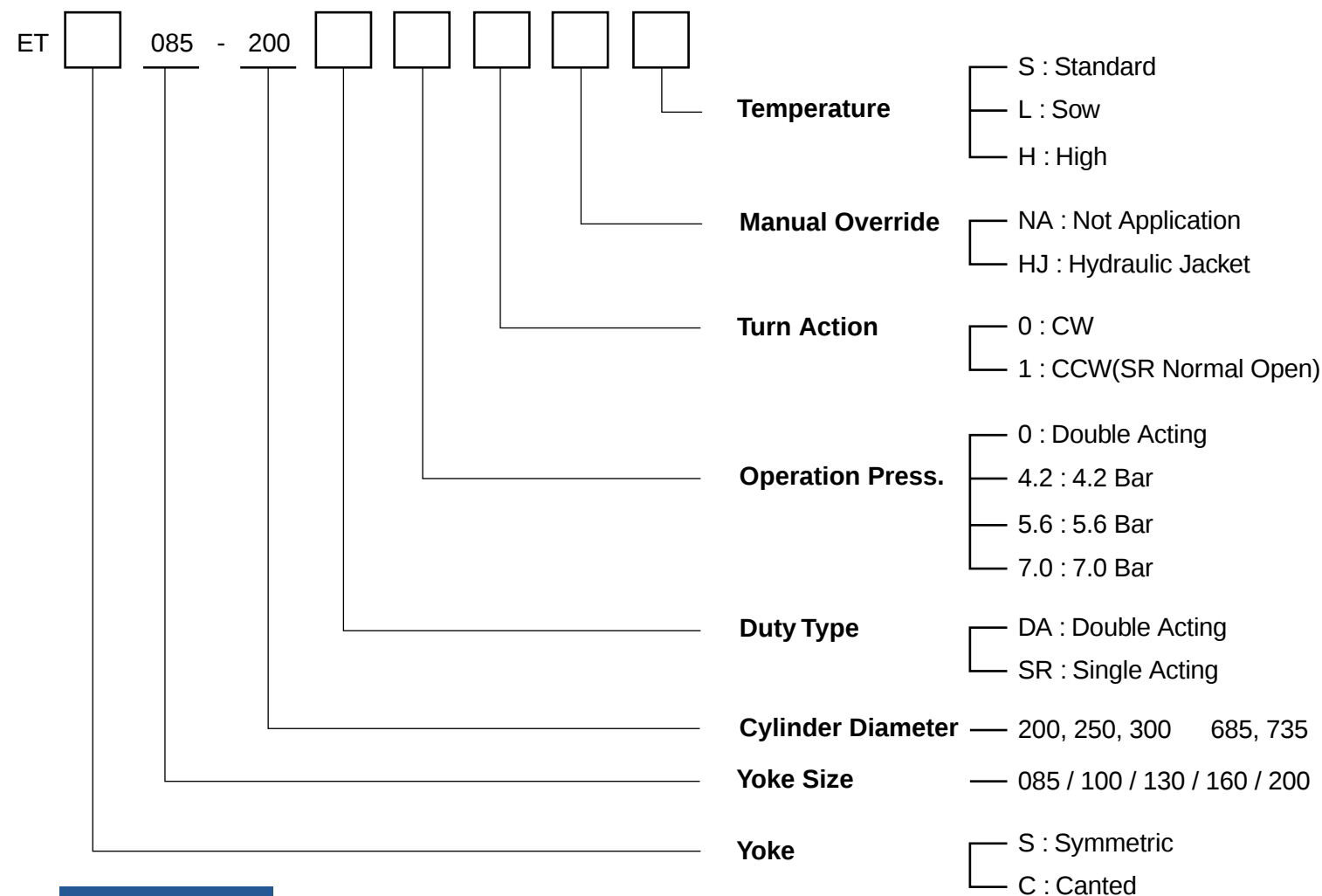


Ordering Code



HKC Co., Ltd.

5RA-503, 674-3 Sunggok-Dong, Danwon-Gu, Ansan-Shi
 Kyounggi-Do, Republic of Korea (425-836)
 Tel : 82-31-488-8266
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Hologram shall be put on all products manufactured in the factory.



HEAVY-DUTY PNEUMATIC ETS/C-SERIES

**Symmetric and Canted Yoke Design
Single Acting / Double Acting Design**



VALVE AUTOMATION
 HT-LIT 01322P 01/01

Quarter-Turn Actuator — Double Acting and Single Acting

**Rugged
Design
Reliable & Efficient
Actuator**



Introduction

The ETS/C Series heavy duty scotch yoke actuators are consisted of symmetrical and canted type and offer complete modular systems. By applying to double acting and Single Acting configuration, our compact ETS/C Series can be suited for torque outputs of any valve such as ball , butterfly , plug valves and other quarter turn mechanism.

ETS/C Series are also designed to use with Hydraulic override , Limit Switches , Solenoid Valve and Positioner by built-in air tubing at the factory.

In order to guarantee reliable operation, we use high-technical materials, You will receive an operational , safety application from us.

Application

Power plant, Chemical processing line, Steel industry, Gas station, Water works, Oil industry, Marine, sewage industry, etc.



ETS / C - Series



Specification

Torque Outputs

From : 495 N.m (4,386 In.lb)
Up to : 750,000 N.m (6,645,000 In.lb)

Temperature

Standard : -20 °C To + 80 °C
Low : -35 °C To + 80 °C
High : -20 °C To +150 °C

Working Pressure

2.8 Bar to 7 Bar (40 to 100 Psig)
Max : 10 Bar

ISO or MSS Valve Mounting

ETS/C Series meet the dimensional requirements according to ISO 5211 . (Option : MSS - SP 101)

Features

- Compact Design
- Water Ingress Protected
- Symmetric or Canted Yoke
- Safety
- Standardized
- Versatile
- MSS or ISO Valve Mounting
- Modular Design
- Corrosion Resistant

Design Features

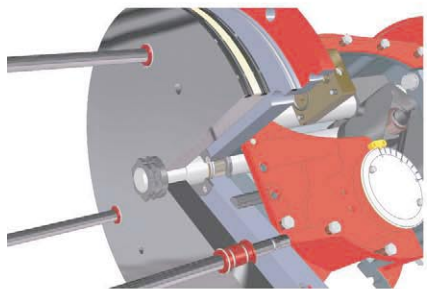
Pneumatic Actuator ET-Series

Safe Piston Guide Bar

ETS/C Series actuators are designed to minimize friction under low air pressure.

Piston guide bars inside cylinder are also designed to maintain smoother operation.

ETS/C Series has invented to prevent any transformation of spring retainer and piston by using anti-abrasive engineering plastic bushing.



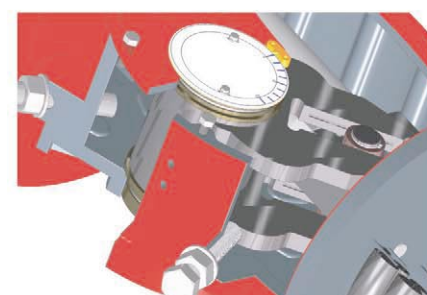
Piston Guide Ring

High quality Back-up-ring prevent any leakage from worn-out and guarantee higher performance for a long life.

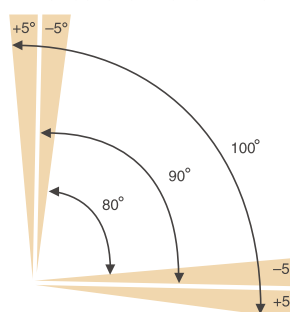


Easy Setting Indicator

When the two parts of travel stops set travel range $-5^{\circ} \sim 95^{\circ}$ to the valve, Indicator can meet the position easily and conveniently.



Bi-directional Travel Limits



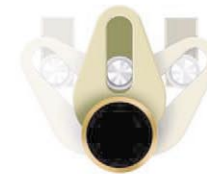
Alignment Of Modules

The Engineering plastic front cover bushing ensure accurate alignment between housing and cylinder case.

Namur Standard

The ETS/C series allow the standardization of NAMUR type. It is assembled to a variety of accessories easily.

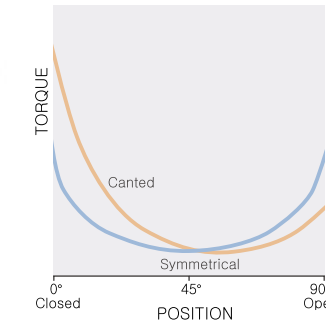
Symmetric or Canted type



Symmetric

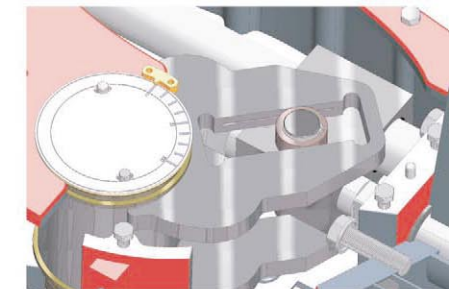


Canted



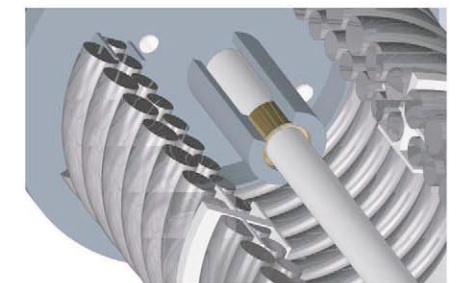
Replaceable Bearing

The heat-treated surface of yoke and bearing provide low friction and permanent lubrication.



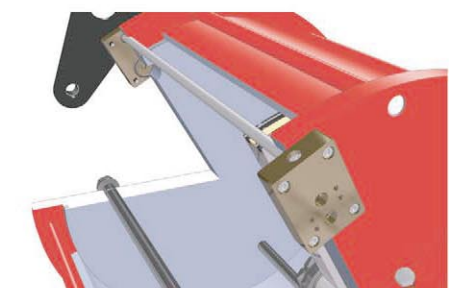
Spring Rod Guide

A spring rod guide holder & bushing inside a spring case not only prevent any change of spring case but also maintain safe operation of spring rod.



Compact Air Tubing type

Built-in air pipe and In/Out air block in both end of a cylinder cover give users much convenient for the easy installation of accessories like solenoid valve, air set, etc. (Option)

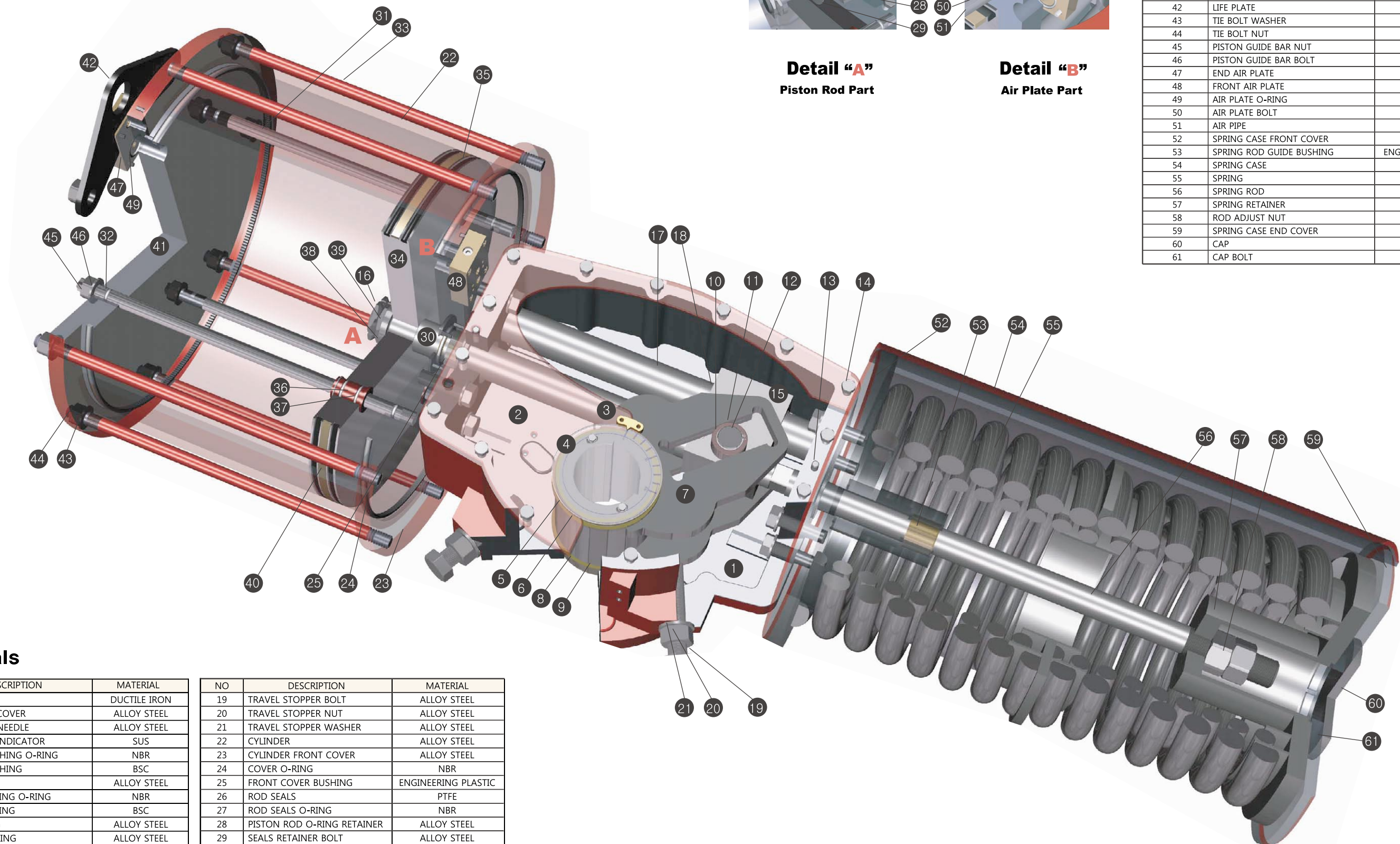


Hydraulic Jacket

Optional Hydraulic Jacket can be incorporated in accordance with customer's requirements.

Construction & Materials

Pneumatic Actuator ET-Series



NO	DESCRIPTION	MATERIAL
37	PISTON GUIDE BAR BUSHING O-RING	NBR
38	ROD WASHER	ALLOY STEEL
39	ROD LOCK NUT	ALLOY STEEL
40	BACK-UP-RING	PTFE
41	CYLINDER END COVER	ALLOY STEEL
42	LIFE PLATE	ALLOY STEEL
43	TIE BOLT WASHER	ALLOY STEEL
44	TIE BOLT NUT	ALLOY STEEL
45	PISTON GUIDE BAR NUT	ALLOY STEEL
46	PISTON GUIDE BAR BOLT	ALLOY STEEL
47	END AIR PLATE	ALM
48	FRONT AIR PLATE	ALM
49	AIR PLATE O-RING	NBR
50	AIR PLATE BOLT	ALLOY STEEL
51	AIR PIPE	SUS
52	SPRING CASE FRONT COVER	ALLOY STEEL
53	SPRING ROD GUIDE BUSHING	ENGINEERING PLASTIC
54	SPRING CASE	ALLOY STEEL
55	SPRING	ALLOY STEEL
56	SPRING ROD	ALLOY STEEL
57	SPRING RETAINER	ALLOY STEEL
58	ROD ADJUST NUT	ALLOY STEEL
59	SPRING CASE END COVER	ALLOY STEEL
60	CAP	ALLOY STEEL
61	CAP BOLT	ALLOY STEEL

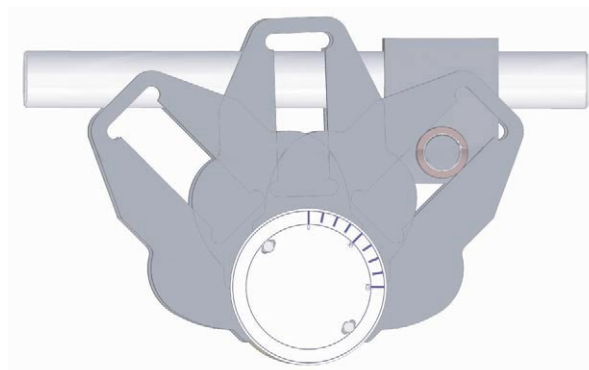
Materials

NO	DESCRIPTION	MATERIAL	NO	DESCRIPTION	MATERIAL
1	HOUSING	DUCTILE IRON	19	TRAVEL STOPPER BOLT	ALLOY STEEL
2	HOUSING COVER	ALLOY STEEL	20	TRAVEL STOPPER NUT	ALLOY STEEL
3	POSITION NEEDLE	ALLOY STEEL	21	TRAVEL STOPPER WASHER	ALLOY STEEL
4	POSITION INDICATOR	SUS	22	CYLINDER	ALLOY STEEL
5	UPPER BUSHING O-RING	NBR	23	CYLINDER FRONT COVER	ALLOY STEEL
6	UPPER BUSHING	BSC	24	COVER O-RING	NBR
7	YOKE	ALLOY STEEL	25	FRONT COVER BUSHING	ENGINEERING PLASTIC
8	LOW BUSHING O-RING	NBR	26	ROD SEALS	PTFE
9	LOW BUSHING	BSC	27	ROD SEALS O-RING	NBR
10	SNAP-RING	ALLOY STEEL	28	PISTON ROD O-RING RETAINER	ALLOY STEEL
11	SLIDE BEARING	ALLOY STEEL	29	SEALS RETAINER BOLT	ALLOY STEEL
12	SLIDE PIN	ALLOY STEEL	30	PISTON ROD	ALLOY STEEL
13	COVER FIXED PIN	ALLOY STEEL	31	PISTON GUIDE BAR	ALLOY STEEL
14	COVER BOLT	ALLOY STEEL	32	PISTON GUIDE BAR O-RING	NBR
15	SLIDE BLOCK	ALLOY STEEL	33	TIE BOLT	ALLOY STEEL
16	PISTON ROD LOCK BOLT	ALLOY STEEL	34	PISTON	ALLOY STEEL
17	GUIDE BAR	ALLOY STEEL	35	PISTON O-RING	NBR
18	GUIDE BUSHING	DU DRY BUSHING	36	PISTON GUIDE BUSHING	ENGINEERING PLASTIC

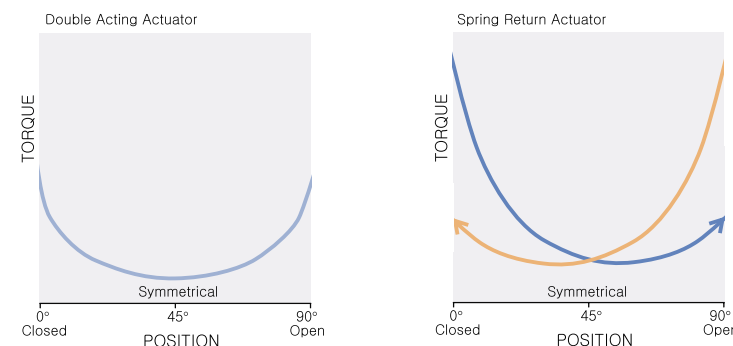
Symmetric Technical Data

Pneumatic Actuator ET-Series

Yoke design & Torque curve



Symmetric Yoke



Torque Curve

— Air Torque
— Spring Torque

Torque Data

Double Acting

Unit : Nm

MODEL	2.8 BAR			4.2 BAR			5.6 BAR			7 BAR		
	0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°
ETS 085DA 200	1,024	635	1,003	1,536	952	1,505	2,049	1,269	2,006	2,561	1,587	2,508
ETS 085DA 250	1,601	992	1,568	2,401	1,488	2,352	3,201	1,984	3,135	4,002	2,480	3,922
ETS 085DA 300	2,305	1,428	2,257	3,458	2,142	3,386	4,601	2,856	4,515	5,763	3,571	5,644
ETS 085DA 335	2,874	1,781	2,815	4,312	2,672	4,222	5,749	3,562	5,630	7,185	4,453	7,037
ETS 100DA 335	3,381	2,096	3,312	5,072	3,143	4,967	6,763	4,191	6,623	8,453	5,238	8,280
ETS 100DA 385	4,466	2,768	4,374	6,700	4,151	6,561	8,933	5,535	8,749	11,166	6,919	10,935
ETS 100DA 435	5,702	3,533	5,584	8,552	5,299	8,376	11,403	7,066	11,168	14,253	8,832	13,960
ETS 130DA 435	7,412	4,593	7,260	11,118	6,889	10,889	14,824	9,185	14,519	18,530	11,482	18,148
ETS 130DA 485	9,214	5,710	9,024	13,821	8,564	13,536	18,428	11,419	18,047	23,034	14,273	22,559
ETS 130DA 535	11,211	6,947	10,980	16,817	10,421	16,470	22,422	13,894	21,960	28,029	17,367	27,451
ETS 160DA 535	13,798	8,550	13,514	20,698	12,825	20,271	27,597	17,100	27,028	34,497	21,375	33,786
ETS 160DA 585	16,499	10,223	16,159	24,748	15,334	24,238	32,997	20,446	32,317	41,246	25,558	40,395
ETS 160DA 635	19,439	12,045	19,039	29,158	18,068	28,558	38,878	24,090	38,077	48,598	30,112	47,596
ETS 200DA 635	24,298	15,057	23,798	36,448	22,585	35,696	48,597	30,113	47,595	60,747	37,641	59,495
ETS 200DA 685	28,277	17,521	27,693	42,415	26,282	41,540	56,553	35,042	55,386	70,690	43,803	69,233
ETS 200DA 735	32,555	20,172	31,884	48,832	30,258	47,826	65,109	40,344	63,767	81,387	50,430	79,709

Single Acting

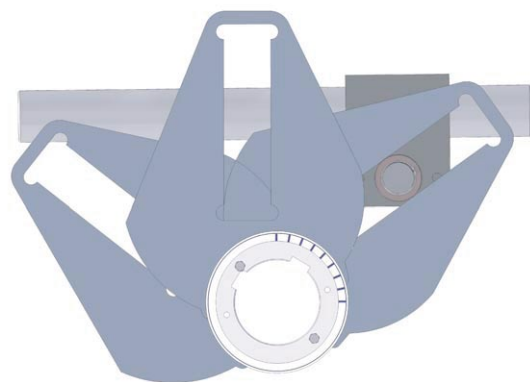
Unit : Nm

MODEL		SPRING TORQUE (Nm)			AIR TORQUE : AIR SUPPLY PRESSURE											
					2.8 BAR			4.2 BAR			5.6 BAR			7 BAR		
		END	R	START	START	R	END	START	R	END	START	R	END	START	R	END
ETS 085SR 200	4.2BAR	602	495	975	422	140	28	934	457	530	1,447	774	1,031			
	5.6BAR	790	650	1,280				746	302	225	1,259	620	727	1,771	937	1,228
ETS 085SR 250	4.2BAR	913	751	1,479	688	241	89	1,488	737	873	2,288	1,233	1,656			
	5.6BAR	1,239	1,019	2,007				1,162	469	344	1,962	965	1,128	2,763	1,461	1,915
ETS 085SR 300	4.2BAR	1,313	1,079	2,126	992	349	131	2,154	1,063	1,260	3,297	1,777	2,389			
	5.6BAR	1,787	1,469	2,894				1,671	673	492	2,824	1,388	1,621	3,976	2,102	2,750
ETS 085SR 335	4.2BAR	1,647	1,354	2,667	1,227	427	148	2,665	1,318	1,555	4,102	2,208	2,963			
	5.6BAR	2,178	1,791	3,528				2,133	881	695	3,570	1,771	2,102	5,007	2,662	3,509
ETS 100SR 335	4.2BAR	1,891	1,563	3,087	1,490	533	225	3,181	1,580	1,880	4,872	2,628	3,536			
	5.6BAR	2,566	2,120	4,189				2,506	1,023	779	4,197	2,070	2,435	5,887	3,118	4,091
ETS 100SR 385	4.2BAR	2,480	2,049	4,048	1,986	719	326	4,220	2,102	2,513	6,453	3,486	4,701			
	5.6BAR	3,303	2,729	5,391				3,397	1,422	1,170	5,630	2,806	3,357	7,863	4,190	5,544
ETS 100SR 435	4.2BAR	3,049	2,519	4,977	2,653	1,014	607	5,503	2,780	3,399	8,354	4,547	6,191			
	5.6BAR	4,097	3,554	7,223				4,455	1,745	1,153	7,306	3,511	3,945	10,156	5,278	6,737
ETS 130SR 435	4.2BAR	4,167	3,569	7,202	3,245	1,024	58	6,951	3,320	3,687	10,657	5,616	7,317			
	5.6BAR	5,436	4,656	9,395				5,682	2,233	1,494	9,388	4,529	5,124	13,094	6,826	8,753
ETS 130SR 485	4.2BAR	5,125	4,390	8,857	4,089	1,320	167	8,696	4,174	4,679	13,303	7,029	9,190			
	5.6BAR	6,406	5,582	11,372				7,414	2,982	2,164	12,021	5,836	6,675	16,628	8,691	11,187
ETS 130SR 535	4.2BAR	6,214	5,323	10,740	4,997	1,624	240	10,603	5,098	5,730	16,208	8,571	11,220			
	5. BAR	8,236	7,054	14,234				8,581	3,366	2,236	14,187	6,840	7,726	19,793	10,313	13,217
ETS 160SR 535	4.2BAR	7,651	6,505	13,070	6,147	2,045	444	13,047	6,320	7,201	19,946	10,595	13,958			
	5.6BAR	10,204	8,675	17,431				10,494	4,150	2,841	17,393	8,425	9,598	24,293	12,700	16,355
ETS 160SR 585	4.2BAR	9,096	7,733	15,538	7,403	2,490	621	15,652	7,601	8,700	23,901	12,713	16,779			
	5.6BAR	12,124	10,308	20,710				12,624	5,027	3,527	20,873	10,138	11,606	29,122	15,250	19,685
ETS 160SR 635	4.2BAR	10,971	9,328	18,742	8,468	2,717	297	18,187	8,740	9,816	27,907	14,762	19,335			
	5.6BAR	14,127	12,010	24,132				15,032	6,057	4,426	24,752	12,080	13,945	34,471	18,102	23,464
ETS 200SR 635	4.2BAR	13,456	11,608	23,515	10,842	3,449	283	22,992	10,977	12,181	35,141	18,505	24,080			
	5.6BAR	17,092	14,744	29,869				19,356	7,841	5,828	31,506	15,369	17,727	43,655	22,897	29,626
ETS 200SR 685	4.2BAR	15,243	13,149	26,637	13,034	4,372	1,056	27,172	13,133	14,903	41,310	21,893	28,749			
	5.6BAR	20,474	17,662	35,779				21,940	8,620	5,761	36,078	17,380	19,607	50,216	26,141	33,454
ETS 200SR 735	4.2BAR	17,816	15,368	31,134	14,739	4,804	750	31,016	14,890	16,692	47,293	24,976	32,633			
	5.6BAR	23,159	19,978	40,471				25,673	10,280	7,354	41,950	20,366	23,296	58,228	30,452	39,238

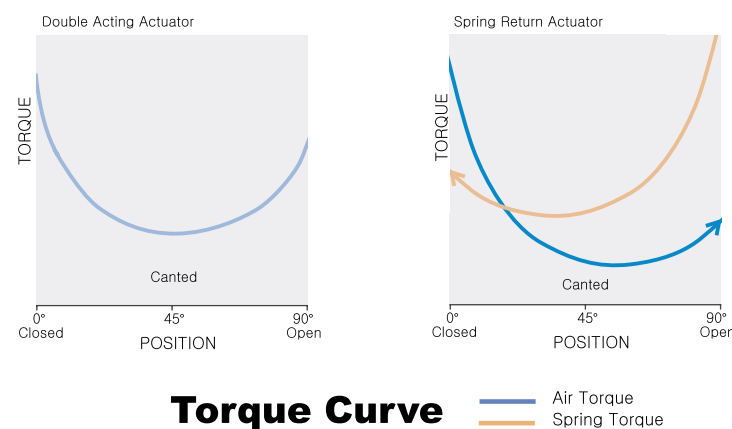
Canted Technical Data

Pneumatic Actuator ET-Series

Yoke design & Torque curve



Canted Yoke



Torque Data

Double Acting

Unit : Nm

MODEL	2.8 BAR			4.2 BAR			5.6 BAR			7 BAR		
	0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°
ETC 085DA 200	1,284	634	895	1,926	952	1,342	2,568	1,269	1,789	3,210	1,587	2,237
ETC 085DA 250	2,006	992	1,399	3,009	1,487	2,098	4,012	1,983	2,797	5,016	2,480	3,496
ETC 085DA 300	2,889	1,428	2,013	4,333	2,142	3,020	5,778	2,856	4,027	7,223	3,571	5,034
ETC 085DA 335	3,603	1,781	2,511	5,404	2,672	3,766	7,205	3,562	5,022	9,007	4,452	6,277
ETC 100DA 335	4,238	2,095	2,954	6,358	3,142	4,431	8,477	4,190	5,908	10,596	5,238	7,384
ETC 100DA 385	5,598	2,768	3,901	8,396	4,151	5,852	11,195	5,535	7,803	13,994	6,918	9,754
ETC 100DA 435	7,146	3,533	4,980	10,719	5,299	7,471	14,292	7,066	9,961	17,865	8,832	12,452
ETC 130DA 435	9,290	4,593	6,475	13,935	6,889	9,713	18,579	9,185	12,950	23,225	11,482	16,188
ETC 130DA 485	11,549	5,709	8,049	17,323	8,564	12,073	23,097	11,418	16,098	28,871	14,273	20,122
ETC 130DA 535	14,052	6,947	9,794	21,078	10,420	14,691	28,104	13,894	19,588	35,130	17,368	24,485
ETC 160DA 535	17,295	8,550	12,054	25,942	12,825	18,081	34,590	17,100	24,109	43,237	21,375	30,136
ETC 160DA 585	20,679	10,222	14,412	31,018	15,334	21,619	41,357	20,445	28,825	51,697	25,557	36,032
ETC 160DA 635	24,365	12,046	16,982	36,547	18,068	25,473	48,729	24,091	33,964	60,911	30,113	42,454
ETC 200DA 635	30,456	15,056	21,227	45,684	22,585	31,841	60,911	30,113	42,454	76,140	37,641	53,067
ETC 200DA 685	35,441	17,521	24,701	53,161	26,281	37,052	70,882	35,042	49,403	88,601	43,802	61,754
ETC 200DA 735	40,804	20,172	28,439	61,206	30,258	42,659	81,607	40,344	56,878	102,008	50,430	71,098

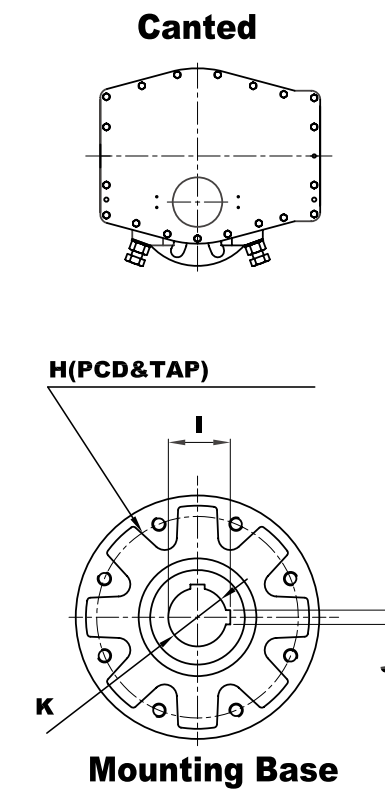
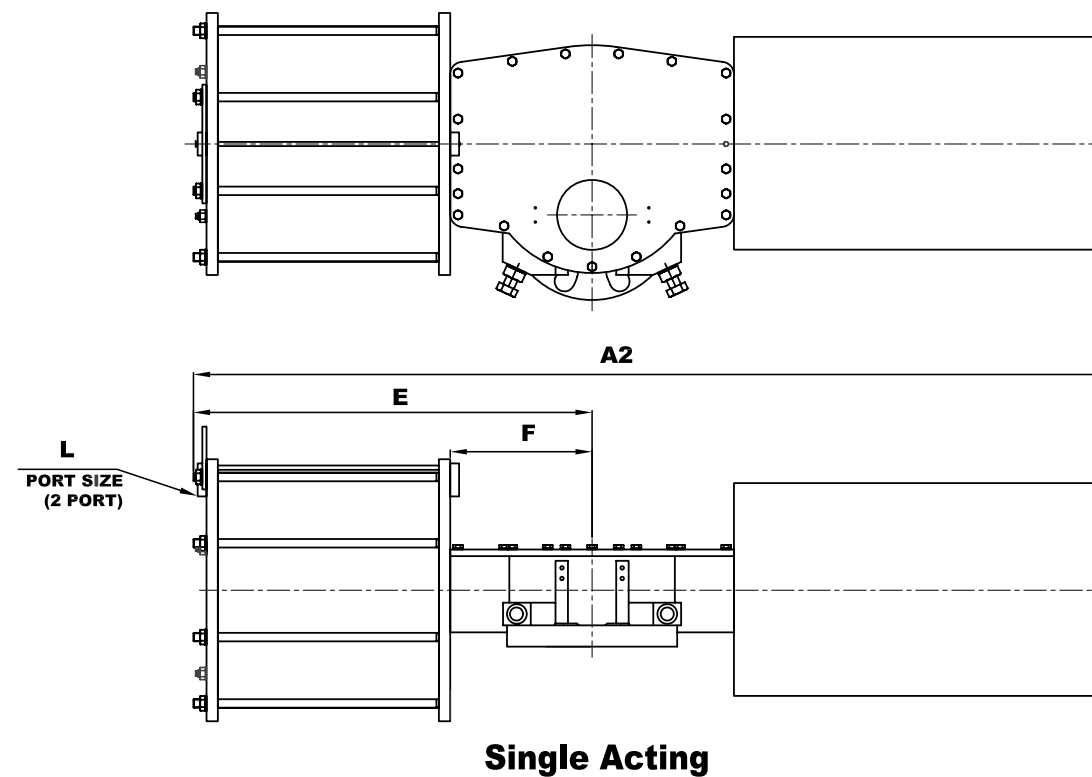
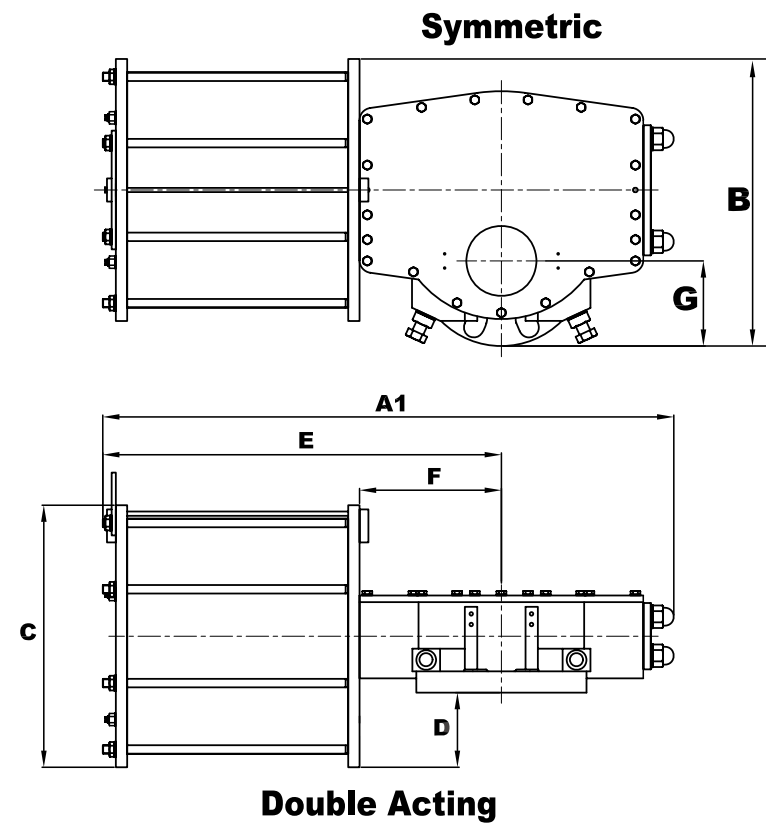
Single Acting

Unit : Nm

MODEL		SPRING TORQUE (Nm)			AIR TORQUE : AIR SUPPLY PRESSURE											
					2.8 BAR			4.2 BAR			5.6 BAR			7 BAR		
		END	R	START	START	R	END	START	R	END	START	R	END	START	R	END
ETC 085SR 200	4.2BAR	670	452	808	614	182	87	1,256	500	534	1,898	817	981			
	5.6BAR	876	591	1,056				1,050	361	286	1,692	678	733	2,334	996	1,181
ETC 085SR 250	4.2BAR	1,063	717	1,282	943	275	117	1,946	770	816	2,949	1,266	1,515			
	5.6BAR	1,396	942	1,683				1,614	546	415	2,617	1,042	1,114	3,620	1,538	1,813
ETC 085SR 300	4.2BAR	1,513	1,021	1,824	1,376	407	189	2,820	1,121	1,196	4,265	1,835	2,203			
	5.6BAR	2,042	1,378	2,462				2,292	765	559	3,736	1,479	1,566	5,181	2,193	2,572
ETC 085SR 335	4.2BAR	1,909	1,288	2,301	1,694	493	210	3,495	1,384	1,465	5,296	2,274	2,721			
	5.6BAR	2,572	1,735	3,100				2,832	936	666	4,633	1,827	1,921	6,435	2,717	3,177
ETC 100SR 335	4.2BAR	2,230	1,512	2,711	2,008	583	243	4,128	1,630	1,720	6,247	2,678	3,197			
	5.6BAR	3,093	2,098	3,759				3,265	1,045	671	5,384	2,093	2,148	7,503	3,140	3,625
ETC 100SR 385	4.2BAR	2,852	1,935	3,467	2,746	833	434	5,544	2,216	2,385	8,343	3,600	4,336			
	5.6BAR	3,913	2,654	4,757				4,484	1,497	1,095	7,282	2,880	3,046	10,081	4,264	4,997
ETC 100SR 435	4.2BAR	3,637	2,467	4,421	3,509	1,066	559	7,082	2,832	3,050	10,655	4,599	5,540			
	5.6BAR	5,017	3,403	6,099				5,702	1,896	1,372	9,275	3,663	3,863	12,848	5,429	6,353
ETC 130SR 435	4.2BAR	4,735	3,340	6,118	4,555	1,253	357	9,200	3,549	3,595	13,844	5,845	6,832			
	5.6BAR	6,098	4,301	7,878				7,837	2,588	1,835	12,482	4,884	5,072	17,127	7,181	8,310
ETC 130SR 485	4.2BAR	5,887	4,152	7,605	5,662	1,557	444	11,436	4,412	4,468	17,210	7,266	8,493			
	5.6BAR	7,754	5,469	10,017				9,569	3,095	2,056	15,343	5,949	6,081	21,117	8,804	10,105
ETC 130SR 535	4.2BAR	7,035	4,962	9,088	7,017	1,985	706	14,043	5,458	5,603	21,069	8,932	10,500			
	5.6BAR	9,217	6,502	11,908				11,861	3,919	2,783	18,887	7,392	7,680	25,913	10,866	12,577
ETC 160SR 535	4.2BAR	8,845	6,189	11,286	8,450	2,361	768	17,097	6,636	6,795	25,745	10,911	12,823			
	5.6BAR	11,770	8,235	15,018				14,173	4,590	3,064	22,820	8,865	9,091	31,467	13,140	15,118
ETC 160SR 585	4.2BAR	10,195	7,133	13,008	10,484	3,089	1,404	20,823	8,201	8,611	31,162	13,312	15,817			
	5.6BAR	14,355	10,044	18,316				16,663	5,290	3,303	27,003	10,402	10,510	37,342	15,513	17,716
ETC 160SR 635	4.2BAR	12,292	8,601	15,684	12,073	3,445	1,298	24,255	9,467	9,789	36,437	15,490	18,280			
	5.6BAR	16,158	11,306	20,617				20,389	6,762	4,856	32,571	12,784	13,347	44,753	18,807	21,837
ETC 200SR 635	4.2BAR	14,480	10,292	18,928	15,976	4,764	2,299	31,204	12,293	12,913	46,431	19,821	23,526			
	5.6BAR	18,967	14,028	26,335				26,717	8,556	5,505	41,945	16,085	16,119	57,173	23,613	26,732
ETC 200SR 685	4.2BAR	17,715	12,591	23,156	17,726	4,930	1,545	35,446	13,690	13,896	53,167	22,451	26,247			
	5.6BAR	22,115	16,357	30,708				31,046	9,924	6,345	48,766	18,685	18,695	66,486	27,445	31,046
ETC 200SR 735	4.2BAR	19,992	14,209	26,132	20,812	5,963	2,307	41,214	16,049	16,527	61,615	26,135	30,746			
	5.6BAR	25,029	18,512	34,753				36,176	11,746	7,905	56,578	21,832	22,125	76,979	31,918	36,345

Dimension

Pneumatic Actuator ET-Series



DA : Double Acting
SR : Single Acting
(Spring Return)

■ Symmetric (ETS)

MODEL	A1	A2		B	C	D	E
		4.2 Bar	5.6 Bar				
ETS 085DA (SR) - 200A	747	1262	1262	334	271	61	573
ETS 085DA (SR) - 250A	747	1262	1262	359	322	86	573
ETS 085DA (SR) - 300A	747	1262	1262	385	373	112	573
ETS 085DA (SR) - 335A	747	1265	1265	413	410	130	573
ETS 100DA (SR) - 335A	888	1465	1465	455	410	105	673
ETS 100DA (SR) - 385A	888	1465	1468	481	461	131	673
ETS 100DA (SR) - 435A	888	1468	1468	506	512	156	673
ETS 130DA (SR) - 435A	1098	1807	1810	566	512	144	826
ETS 130DA (SR) - 485A	1098	1807	1813	591	562	169	826
ETS 130DA (SR) - 535A	1098	1810	1816	622	624	200	826
ETS 160DA (SR) - 535A	1301	2174	2177	682	624	172	980
ETS 160DA (SR) - 585A	1301	2177	2179	708	675	198	980
ETS 160DA (SR) - 635A	1301	2177	2181	734	728	224	980
ETS 200DA (SR) - 635A	1582	2576	2583	810	739	211	1182
ETS 200DA (SR) - 685A	1582	2578	2586	835	789	236	1182
ETS 200DA (SR) - 735A	1582	2583	2586	863	845	263	1182

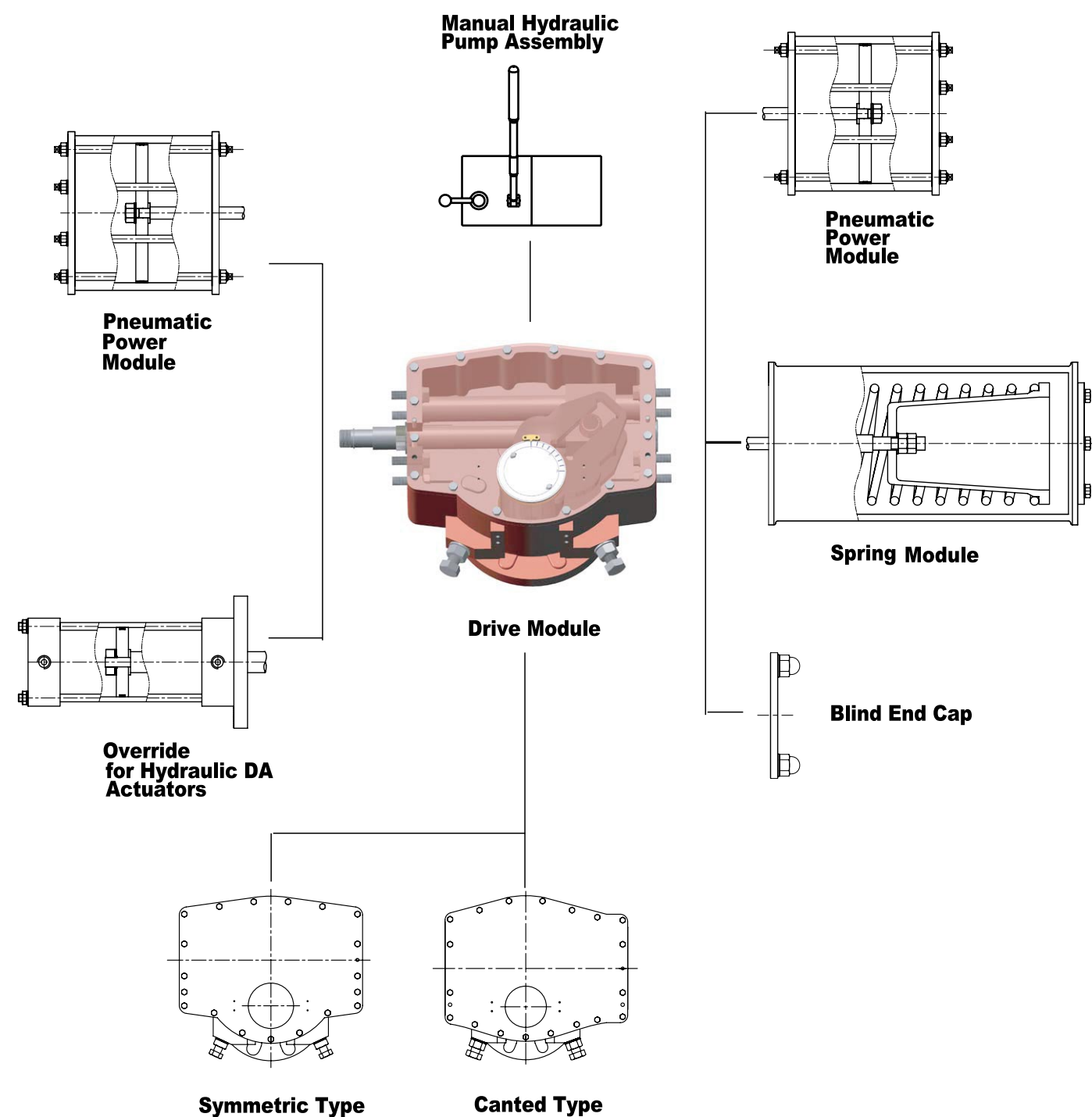
■ Canted (ETC)

MODEL	A1	A2		B	C	D	E
		4.2 Bar	5.6 Bar				
ETC 085DA (SR) - 200A	822	1337	1337	334	271	61	596
ETC 085DA (SR) - 250A	822	1337	1337	359	322	86	596
ETC 085DA (SR) - 300A	822	1337	1337	385	373	112	596
ETC 085DA (SR) - 335A	822	1340	1340	413	410	130	596
ETC 100DA (SR) - 335A	966	1543	1543	455	410	105	693
ETC 100DA (SR) - 385A	966	1543	1546	481	461	131	693
ETC 100DA (SR) - 435A	966	1546	1546	506	512	156	693
ETC 130DA (SR) - 435A	1192	1901	1904	566	512	144	849
ETC 130DA (SR) - 485A	1192	1901	1907	591	562	169	849
ETC 130DA (SR) - 535A	1192	1904	1910	622	624	200	849
ETC 160DA (SR) - 535A	1414	2287	2290	682	624	172	1006
ETC 160DA (SR) - 585A	1414	2290	2292	708	675	198	1006
ETC 160DA (SR) - 635A	1414	2290	2294	734	728	224	1006
ETC 200DA (SR) - 635A	1699	2693	2760	810	739	211	1214
ETC 200DA (SR) - 685A	1699	2695	2763	835	789	236	1214
ETC 200DA (SR) - 735A	1699	2700	2763	863	845	263	1214

F	G	H		I	J	K		L
		PCD	TAP / DP			Bore size	DP	
174	113	165	M20/25	54	14	50	121	1/2" NPT
174	113	165	M20/25	54	14	50	121	1/2" NPT
174	113	165	M20/25	54	14	50	121	1/2" NPT
174	113	165	M20/25	54	14	50	121	1/2" NPT
215	150	254	M16/24	80	20	75	171	1/2" NPT
215	150	254	M16/24	80	20	75	171	1/2" NPT
215	150	254	M16/24	80	20	75	171	1/2" NPT
272	180	298	M20/29	95.4	22	90	191	3/4" NPT
272	180	298	M20/29	95.4	22	90	191	3/4" NPT
272	180	298	M20/29	95.4	22	90	191	3/4" NPT
321	210	356	M30/43	117.4	32	110	235	3/4" NPT
321	210	356	M30/43	117.4	32	110	235	3/4" NPT
321	210	356	M30/43	117.4	32	110	235	3/4" NPT
400	240	406	M36/50	137.4	32	130	265	3/4" NPT
400	240	406	M36/50	137.4	32	130	265	3/4" NPT
400	240	406	M36/50	137.4	32	130	265	3/4" NPT

F	G	H		I	J	K		L
		PCD	TAP / DP			Bore size	DP	
181	113	165	M20/25	54	14	50	121	1/2" NPT
181	113	165	M20/25	54	14	50	121	1/2" NPT
181	113	165	M20/25	54	14	50	121	1/2" NPT
181	113	165	M20/25	54	14	50	121	1/2" NPT
219	150	254	M16/24	80	20	75	171	1/2" NPT
219	150	254	M16/24	80	20	75	171	1/2" NPT
219	150	254	M16/24	80	20	75	171	1/2" NPT
269	180	298	M20/29	95.4	22	90	191	3/4" NPT
269	180	298	M20/29	95.4	22	90	191	3/4" NPT
269	180	298	M20/29	95.4	22	90	191	3/4" NPT
320	210	356	M30/43	117.4	32	110	235	3/4" NPT
320	210	356	M30/43	117.4	32	110	235	3/4" NPT
320	210	356	M30/43	117.4	32	110	235	3/4" NPT
395	240	406	M36/50	137.4	32	130	265	3/4" NPT
395	240	406	M36/50	137.4	32	130	265	3/4" NPT
395	240	406	M36/50	137.4	32	130	265	3/4" NPT

Versatility



The ETS/C series can be constructed in various types by using kinds of modules to meet specified requirements. It can be interchangeable from a single-acting to a double-acting and add a hydraulic manual override after installation.

Available for All Models



Declutchable Gear Override



HGO series

E/P Positioner



ZEUS100 Series

Valve Position Monitor



APL-2N Series
Weatherproof type



APL-3N Series
Weatherproof type



APL-4N Series
Explosionproof type



APL-5N Series
Explosionproof type