

Bettis GC-Series

Pneumatic Double-Acting & Spring-Return Actuator Torque Chart Metric

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Torque - Pneumatic

Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC01x08	Start	Outboard	814	959	1,103	1,392	1,536	1,681	1,970	2,114	2,404	2,548	2,837	2,982	3,127	3,416	3,561	3,705	Exceeds MOP	2.8	13.2	757	3,763
	Min		513	601	689	865	953	1,041	1,217	1,305	1,481	1,570	1,746	1,834	1,922	2,098	2,186	2,275				477	2,310
	End		1,174	1,382	1,590	2,007	2,215	2,423	2,840	3,048	3,465	3,674	4,091	4,299	4,508	4,925	5,133	5,342				1,091	5,426
	Start	Inboard	1,154	1,359	1,564	1,973	2,178	2,383	2,793	2,998	3,408	3,613	4,023	4,229	4,434	4,844	5,049	5,255				1,072	5,337
	Min		505	592	679	852	939	1,026	1,200	1,286	1,460	1,547	1,721	1,808	1,894	2,068	2,155	2,242				470	2,277
	End		799	941	1,083	1,366	1,508	1,650	1,934	2,076	2,360	2,502	2,786	2,928	3,070	3,354	3,496	3,638				742	3,695
GC01x09	Start	Outboard	1,044	1,228	1,411	1,779	1,962	2,146	2,514	2,697	3,065	3,249	3,616	Exceeds MOP						2.8	10.4	970	3,764
	Min		654	766	878	1,102	1,214	1,326	1,550	1,662	1,885	1,997	2,221									609	2,311
	End		1,505	1,770	2,035	2,564	2,829	3,094	3,624	3,889	4,419	4,684	5,214									1,399	5,426
	Start	Inboard	1,485	1,746	2,008	2,531	2,792	3,054	3,577	3,838	4,362	4,623	5,147									1,380	5,356
	Min		647	757	868	1,090	1,200	1,311	1,533	1,643	1,865	1,976	2,197									602	2,286
	End		1,028	1,209	1,390	1,752	1,933	2,114	2,476	2,658	3,020	3,201	3,564									956	3,709
GC01x10	Start	Outboard	1,393	1,636	1,879	2,366	2,609	2,852	3,338	3,581	Exceeds MOP									2.8	7.9	1,296	3,776
	Min		868	1,017	1,165	1,461	1,609	1,757	2,053	2,201												809	2,320
	End		2,009	2,359	2,710	3,410	3,761	4,112	4,813	5,163												1,868	5,444
	Start	Inboard	1,988	2,335	2,682	3,377	3,724	4,071	4,766	5,113												1,850	5,391
	Min		862	1,009	1,155	1,449	1,596	1,743	2,037	2,184												803	2,302
	End		1,377	1,617	1,857	2,338	2,578	2,819	3,300	3,540												1,281	3,732
GC01x12	Start	Outboard	2,011	2,359	2,706	3,402	3,750	Exceeds MOP												2.8	5.5	1,872	3,750
	Min		1,247	1,459	1,671	2,094	2,306															1,163	2,306
	End		2,899	3,400	3,902	4,905	5,407															2,698	5,407
	Start	Inboard	2,879	3,377	3,875	4,871	5,369															2,679	5,369
	Min		1,241	1,452	1,662	2,084	2,295															1,157	2,295
	End		1,993	2,338	2,683	3,373	3,718															1,855	3,718
GC01x14	Start	Outboard	2,451	2,873	3,296	Exceeds MOP														2.8	4.6	2,281	3,803
	Min		1,517	1,775	2,032																	1,415	2,341
	End		3,533	4,142	4,752																	3,289	5,483
	Start	Inboard	3,513	4,118	4,724																	3,270	5,452
	Min		1,512	1,768	2,024																	1,409	2,332
	End		2,432	2,852	3,271																	2,264	3,775

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic

Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC2x09	Start	Outboard	1,264	1,486	1,708	2,153	2,376	2,598	3,043	3,265	3,711	3,933	4,378	4,601	4,824	5,269	5,492	Exceeds MOP		2.8	12.9	1,175	5,670
	Min		792	927	1,063	1,334	1,469	1,605	1,876	2,011	2,282	2,418	2,689	2,824	2,960	3,231	3,367					737	3,475
	End		1,822	2,142	2,463	3,104	3,425	3,745	4,387	4,707	5,349	5,670	6,312	6,633	6,954	7,596	7,917					1,694	8,174
	Start	1,797	2,113	2,430	3,063	3,379	3,696	4,329	4,645	5,279	5,595	6,229	6,546	6,863	7,496	7,813	1,671					8,067	
	Min	783	917	1,051	1,319	1,453	1,587	1,855	1,989	2,257	2,391	2,659	2,793	2,927	3,196	3,330	729					3,437	
	End	1,245	1,464	1,683	2,122	2,341	2,560	2,999	3,218	3,657	3,876	4,315	4,534	4,754	5,193	5,413	1,157					5,588	
GC2x10	Start	Outboard	1,687	1,981	2,275	2,864	3,158	3,453	4,041	4,336	4,925	5,219	Exceeds MOP							2.8	9.7	1,569	5,632
	Min		1,051	1,230	1,410	1,768	1,947	2,127	2,485	2,664	3,023	3,202										980	3,453
	End		2,431	2,856	3,280	4,128	4,553	4,977	5,826	6,250	7,099	7,524										2,262	8,119
	Start	2,406	2,827	3,247	4,087	4,507	4,927	5,768	6,188	7,029	7,449								2,238			8,038	
	Min	1,043	1,221	1,398	1,754	1,932	2,110	2,465	2,643	2,999	3,177								972			3,426	
	End	1,667	1,958	2,249	2,831	3,122	3,413	3,996	4,287	4,869	5,160								1,551			5,568	
GC2x12	Start	Outboard	2,434	2,855	3,276	4,119	4,540	4,961	Exceeds MOP											2.8	6.9	2,266	5,719
	Min		1,510	1,766	2,022	2,535	2,791	3,047														1,407	3,509
	End		3,509	4,116	4,723	5,937	6,545	7,152														3,266	8,245
	Start	3,484	4,086	4,689	5,895	6,498	7,101												3,243			8,187	
	Min	1,502	1,757	2,012	2,522	2,777	3,032												1,400			3,491	
	End	2,413	2,831	3,249	4,084	4,502	4,919												2,246			5,671	
GC2x14	Start	Outboard	2,967	3,478	3,990	5,014	5,525	Exceeds MOP												2.8	5.6	2,762	5,628
	Min		1,837	2,148	2,459	3,082	3,393															1,712	3,456
	End		4,277	5,014	5,752	7,227	7,965															3,982	8,113
	Start	4,251	4,985	5,718	7,185	7,918													3,958			8,065	
	Min	1,830	2,140	2,450	3,070	3,380													1,705			3,442	
	End	2,945	3,453	3,961	4,977	5,485													2,742			5,587	
GC2x16	Start	Outboard	3,933	4,608	5,283	Exceeds MOP														2.8	4.2	3,663	5,553
	Min		2,428	2,838	3,249																	2,264	3,413
	End		5,669	6,642	7,615																	5,280	8,005
	Start	5,643	6,612	7,581															5,256			7,968	
	Min	2,422	2,831	3,241															2,258			3,405	
	End	3,909	4,580	5,252															3,641			5,520	

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC3x10	Start	Outboard	2,032	2,387	2,742	3,452	3,807	4,163	4,873	5,228	5,939	6,294	7,004	7,360	7,715	8,426	8,782	9,137	9,493	2.8	1,890	13.8	9,706
	Min		1,274	1,491	1,709	2,143	2,361	2,578	3,013	3,230	3,665	3,882	4,317	4,535	4,752	5,187	5,405	5,622	5,840		1,187		5,970
	End		2,968	3,486	4,004	5,041	5,560	6,078	7,116	7,634	8,672	9,190	10,228	10,747	11,266	12,304	12,823	13,343	13,862		2,760		14,173
	Start	Inboard	2,919	3,429	3,940	4,960	5,471	5,981	7,002	7,513	8,534	9,045	10,066	10,577	11,088	12,110	12,621	13,132	13,643		2,715		13,950
	Min		1,257	1,471	1,685	2,114	2,329	2,543	2,972	3,187	3,615	3,830	4,259	4,474	4,688	5,117	5,332	5,546	5,761		1,171		5,890
	End		1,998	2,347	2,696	3,395	3,744	4,093	4,792	5,142	5,841	6,190	6,889	7,239	7,588	8,288	8,638	8,987	9,337		1,858		9,547
GC3x12	Start	Outboard	2,938	3,446	3,955	4,972	5,481	5,990	7,007	7,516	8,534	9,043	Exceeds MOP							2.8	2,734	9.8	9,857
	Min		1,832	2,143	2,454	3,077	3,388	3,699	4,322	4,633	5,255	5,567									1,708		6,065
	End		4,290	5,032	5,775	7,260	8,003	8,746	10,232	10,975	12,461	13,205									3,993		14,394
	Start	Inboard	4,240	4,975	5,709	7,178	7,913	8,647	10,117	10,851	12,321	13,056									3,946		14,232
	Min		1,816	2,124	2,432	3,049	3,357	3,666	4,283	4,591	5,208	5,517									1,692		6,010
	End		2,902	3,404	3,907	4,912	5,415	5,918	6,924	7,426	8,432	8,935									2,701		9,740
GC3x14	Start	Outboard	3,583	4,201	4,819	6,056	6,674	7,293	8,530	9,148	Exceeds MOP									2.8	3,335	8.1	9,891
	Min		2,230	2,609	2,987	3,743	4,121	4,500	5,256	5,634											2,079		6,088
	End		5,231	6,134	7,037	8,843	9,746	10,649	12,455	13,359											4,870		14,443
	Start	Inboard	5,181	6,076	6,970	8,759	9,654	10,549	12,338	13,233											4,824		14,307
	Min		2,214	2,590	2,965	3,716	4,092	4,468	5,219	5,594											2,064		6,045
	End		3,546	4,158	4,770	5,995	6,607	7,219	8,444	9,057											3,301		9,792
GC3x16	Start	Outboard	4,752	5,569	6,385	8,017	8,833	9,649	Exceeds MOP											2.8	4,426	6.2	9,976
	Min		2,950	3,449	3,948	4,946	5,445	5,944													2,750		6,144
	End		6,940	8,131	9,323	11,707	12,898	14,090													6,463		14,567
	Start	Inboard	6,889	8,072	9,255	11,621	12,804	13,988													6,415		14,461
	Min		2,935	3,432	3,928	4,921	5,418	5,914													2,736		6,113
	End		4,714	5,524	6,334	7,953	8,763	9,573													4,391		9,897
GC3x20	Start	Outboard	7,582	8,875	Exceeds MOP															2.8	7,065	3.9	9,910
	Min		4,688	5,478																	4,372		6,110
	End		11,072	12,960																	10,316		14,471
	Start	Inboard	11,018	12,897																	10,266		14,401
	Min		4,676	5,464																	4,360		6,095
	End		7,540	8,826																	7,026		9,855

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic

Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC4x12	Start	Outboard	3,572	4,191	4,810	6,047	6,667	7,286	8,524	9,143	10,382	11,001	12,240	12,859	13,479	14,718	15,337	15,957	16,577	2.8	3,324	13.8	16,949
	Min		2,217	2,594	2,971	3,724	4,101	4,478	5,231	5,608	6,362	6,739	7,492	7,869	8,246	9,000	9,377	9,754	10,131		2,067		10,357
	End		5,152	6,045	6,937	8,723	9,616	10,508	12,294	13,188	14,974	15,867	17,654	18,548	19,441	21,228	22,122	23,016	23,910		4,795		24,446
	Start	Inboard	5,069	5,948	6,827	8,584	9,463	10,343	12,101	12,980	14,739	15,618	17,378	18,257	19,137	20,897	21,776	22,656	23,537		4,718		24,065
	Min		2,187	2,559	2,930	3,674	4,046	4,417	5,161	5,533	6,276	6,648	7,392	7,764	8,135	8,879	9,251	9,623	9,995		2,038		10,218
	End		3,510	4,119	4,727	5,945	6,553	7,162	8,380	8,989	10,207	10,816	12,034	12,643	13,252	14,471	15,080	15,689	16,299		3,267		16,665
GC4x14	Start	Outboard	4,359	5,112	5,865	7,371	8,123	8,876	10,383	11,136	12,642	13,395	14,902	15,656	16,409	17,916	18,670	19,424	Exceeds MOP	4,058	2.8	13.4	20,027
	Min		2,701	3,159	3,617	4,534	4,992	5,450	6,366	6,825	7,741	8,199	9,116	9,574	10,033	10,949	11,408	11,866		2,518		12,233	
	End		6,288	7,373	8,459	10,631	11,717	12,803	14,975	16,062	18,235	19,321	21,494	22,581	23,668	25,842	26,929	28,016		5,853		28,886	
	Start	Inboard	6,204	7,276	8,348	10,492	11,564	12,636	14,781	15,853	17,998	19,071	21,216	22,289	23,362	25,508	26,581	27,654		5,776		28,513	
	Min		2,672	3,125	3,578	4,484	4,938	5,391	6,298	6,751	7,658	8,111	9,018	9,471	9,925	10,832	11,285	11,739		2,490		12,102	
	End		4,296	5,039	5,781	7,266	8,008	8,750	10,235	10,978	12,463	13,206	14,692	15,435	16,178	17,664	18,407	19,150		4,000		19,745	
GC4x16	Start	Outboard	5,788	6,782	7,776	9,765	10,759	11,754	13,743	14,737	16,727	17,722	19,711	Exceeds MOP						2.8	5,390	10.1	19,910
	Min		3,575	4,180	4,785	5,994	6,599	7,204	8,414	9,019	10,229	10,834	12,044								3,333		12,165
	End		8,348	9,782	11,216	14,084	15,519	16,953	19,822	21,257	24,126	25,561	28,431								7,774		28,718
	Start	Inboard	8,264	9,684	11,104	13,944	15,364	16,784	19,625	21,046	23,887	25,308	28,150								7,696		28,434
	Min		3,547	4,147	4,747	5,948	6,548	7,148	8,349	8,949	10,150	10,750	11,951								3,307		12,071
	End		5,723	6,706	7,689	9,656	10,639	11,623	13,590	14,574	16,542	17,526	19,494								5,329		19,691
GC4x20	Start	Outboard	9,242	10,818	12,395	15,549	17,126	18,703	Exceeds MOP											2.8	8,611	6.3	19,649
	Min		5,686	6,644	7,603	9,521	10,479	11,438													5,302		12,013
	End		13,330	15,604	17,878	22,427	24,702	26,976													12,420		28,341
	Start	Inboard	13,243	15,503	17,763	22,283	24,543	26,804													12,340		28,160
	Min		5,661	6,616	7,571	9,480	10,435	11,389													5,279		11,962
	End		9,171	10,736	12,301	15,431	16,996	18,561													8,545		19,500
GC4x24	Start	Outboard	13,508	15,800	18,093	Exceeds MOP														2.8	12,591	4.3	19,469
	Min		8,285	9,678	11,071																7,727		11,907
	End		19,483	22,790	26,097																18,160		28,081
	Start	Inboard	19,394	22,686	25,978																18,077		27,953
	Min		8,265	9,655	11,045																7,709		11,879
	End		13,430	15,710	17,990																12,518		19,358
GC4x28	Start	Outboard	19,023	Exceeds MOP																2.8	17,730	3.1	19,670
	Min		11,681																		10,894		12,074
	End		27,439																		25,573		28,371
	Start	Inboard	27,346																		25,487		28,276
	Min		11,667																		10,881		12,059
	End		18,937																		17,650		19,581
GC4x220	Start	Outboard	18,427	Exceeds MOP																2.8	17,169	3.2	19,685
	Min		11,337																		10,573		12,102
	End		26,579																		24,765		28,392
	Start	Inboard	26,568																		24,754		28,381
	Min		11,357																		10,591		12,123
	End		18,398																		17,142		19,653

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Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC5x16	Start	Outboard	7,463	8,744	10,024	12,585	13,866	15,147	17,708	18,989	21,551	22,833	25,395	26,676	27,958	30,521	31,802	33,084	34,365	2.8	13.8	6,951	35,134
	Min		4,606	5,385	6,164	7,721	8,500	9,279	10,837	11,616	13,173	13,952	15,510	16,289	17,068	18,627	19,406	20,185	20,964			4,295	21,431
	End		10,764	12,611	14,458	18,151	19,998	21,846	25,540	27,388	31,083	32,930	36,626	38,474	40,322	44,018	45,867	47,715	49,564			10,026	50,673
	Start	Inboard	10,570	12,384	14,198	17,827	19,642	21,456	25,086	26,901	30,531	32,346	35,977	37,793	39,608	43,240	45,056	46,872	48,688			9,844	49,778
	Min		4,535	5,302	6,069	7,602	8,369	9,136	10,670	11,438	12,972	13,739	15,273	16,040	16,807	18,342	19,109	19,876	20,644			4,228	21,104
	End		7,326	8,583	9,841	12,356	13,614	14,871	17,387	18,645	21,161	22,419	24,935	26,194	27,452	29,969	31,228	32,486	33,745			6,823	34,500
GC5x20	Start	Outboard	11,929	13,963	15,997	20,064	22,098	24,132	28,201	30,235	34,304	36,338	40,407	42,442	44,477	Exceeds MOP				2.8	11.3	11,116	45,698
	Min		7,335	8,572	9,808	12,281	13,517	14,754	17,227	18,464	20,937	22,173	24,647	25,883	27,120							6,841	27,862
	End		17,205	20,138	23,071	28,938	31,871	34,805	40,672	43,606	49,475	52,409	58,278	61,212	64,147							16,032	65,908
	Start	Inboard	17,006	19,905	22,805	28,605	31,505	34,405	40,206	43,107	48,908	51,809	57,611	60,513	63,414							15,846	65,155
	Min		7,268	8,494	9,719	12,169	13,395	14,620	17,071	18,296	20,747	21,972	24,423	25,649	26,874							6,778	27,610
	End		11,786	13,796	15,806	19,826	21,836	23,846	27,866	29,877	33,898	35,908	39,930	41,941	43,952							10,983	45,158
GC5x24	Start	Outboard	17,445	20,405	23,364	29,283	32,243	35,203	41,123	44,083	Exceeds MOP									2.8	7.7	16,262	45,267
	Min		10,696	12,495	14,293	17,890	19,689	21,487	25,084	26,883												9,977	27,602
	End		25,161	29,429	33,697	42,234	46,503	50,771	59,309	63,578												23,454	65,286
	Start	Inboard	24,954	29,188	33,422	41,890	46,124	50,359	58,828	63,062												23,261	64,756
	Min		10,634	12,422	14,210	17,787	19,575	21,363	24,940	26,728												9,919	27,444
	End		17,296	20,230	23,164	29,034	31,968	34,903	40,773	43,708												16,122	44,882
GC5x28	Start	Outboard	24,577	28,753	32,928	41,280	45,456	Exceeds MOP												2.8	5.5	22,907	45,456
	Min		15,088	17,627	20,166	25,243	27,782															14,073	27,782
	End		35,447	41,469	47,491	59,537	65,560															33,038	65,560
	Start	Inboard	35,232	41,218	47,205	59,179	65,166															32,838	65,166
	Min		15,033	17,562	20,092	25,151	27,681															14,021	27,681
	End		24,419	28,568	32,717	41,016	45,166															22,759	45,166
GC5x32	Start	Outboard	32,225	37,686	43,148	Exceeds MOP														2.8	4.2	30,041	45,332
	Min		19,754	23,074	26,393																	18,426	27,721
	End		46,477	54,353	62,230																	43,326	65,381
	Start	Inboard	46,253	54,092	61,932																	43,118	65,067
	Min		19,706	23,017	26,329																	18,381	27,654
	End		32,058	37,491	42,924																	29,884	45,098
GC5x36	Start	Outboard	40,903	Exceeds MOP																2.8	3.3	38,136	45,054
	Min		25,045																			23,363	27,568
	End		58,993																			55,002	64,980
	Start	Inboard	58,759																			54,783	64,723
	Min		25,005																			23,326	27,524
	End		40,725																			37,970	44,859

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Torque - Pneumatic
Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC5x220	Start	Outboard	23,730	27,776	31,822	39,914	43,960	Exceeds MOP												2.8	5.7	45,579	
	Min		14,593	17,052	19,512	24,432	26,892															27,876	
	End		34,225	40,060	45,895	57,566	63,402															65,736	
	Start	Inboard	34,197	40,027	45,857	57,519	63,350															65,683	
	Min		14,615	17,079	19,542	24,469	26,933															27,918	
	End		23,701	27,742	31,783	39,866	43,907															45,524	
GC5x224	Start	Outboard	34,762	40,659	Exceeds MOP															2.8	3.9	45,377	
	Min		21,314	24,898																			27,765
	End		50,136	58,641																			65,445
	Start	Inboard	50,095	58,593																			65,392
	Min		21,347	24,936																			27,808
	End		34,720	40,610																			45,322

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Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC7x20	Start	Outboard	14,554	17,041	19,529	24,504	26,992	29,480	34,456	36,944	41,921	44,410	49,388	51,877	54,366	59,345	61,834	64,324	66,814	2.8	13.8	68,308	
	Min		8,968	10,482	11,995	15,022	16,536	18,050	21,077	22,591	25,618	27,132	30,160	31,674	33,188	36,216	37,730	39,244	40,759			41,667	
	End		20,991	24,578	28,166	35,342	38,930	42,518	49,695	53,284	60,462	64,052	71,231	74,821	78,411	85,592	89,183	92,773	96,364			98,519	
	Start	Inboard	20,682	24,218	27,754	34,826	38,363	41,900	48,974	52,511	59,586	63,124	70,200	73,738	77,277	84,354	87,894	91,433	94,972			97,096	
	Min		8,861	10,356	11,852	14,843	16,339	17,835	20,826	22,322	25,314	26,810	29,802	31,298	32,794	35,786	37,283	38,779	40,275			41,173	
	End		14,337	16,788	19,239	24,141	26,593	29,045	33,948	36,400	41,305	43,757	48,662	51,115	53,568	58,474	60,927	63,381	65,834			67,306	
GC7x24	Start	Outboard	21,327	24,951	28,576	35,825	39,450	43,075	50,326	53,952	61,203	64,829	72,081	75,708	79,334	86,587	Exceeds MOP			2.8	12.3	88,764	
	Min		13,098	15,302	17,506	21,915	24,119	26,324	30,732	32,937	37,346	39,551	43,960	46,165	48,370	52,780						54,103	
	End		30,759	35,987	41,214	51,670	56,899	62,127	72,584	77,813	88,272	93,502	103,962	109,192	114,422	124,884						128,022	
	Start	Inboard	30,441	35,615	40,790	51,139	56,314	61,489	71,841	77,016	87,369	92,545	102,899	108,076	113,253	123,608						126,715	
	Min		12,997	15,184	17,372	21,747	23,934	26,122	30,497	32,685	37,060	39,248	43,624	45,812	48,000	52,376						53,689	
	End		21,101	24,688	28,275	35,449	39,037	42,624	49,799	53,387	60,564	64,152	71,329	74,917	78,506	85,684						87,838	
GC7x28	Start	Outboard	30,092	35,210	40,329	50,568	55,687	60,807	71,047	76,168	86,409	Exceeds MOP								2.8	8.7	88,458	
	Min		18,497	21,611	24,725	30,953	34,068	37,182	43,412	46,526	52,756											54,002	
	End		43,401	50,783	58,166	72,933	80,317	87,701	102,470	109,855	124,627											127,582	
	Start	Inboard	43,070	50,397	57,725	72,381	79,709	87,038	101,697	109,027	123,688											126,621	
	Min		18,404	21,503	24,602	30,800	33,899	36,998	43,196	46,296	52,495											53,734	
	End		29,856	34,935	40,014	50,174	55,254	60,335	70,496	75,577	85,740											87,773	
GC7x32	Start	Outboard	39,487	46,185	52,883	66,281	72,980	79,680	Exceeds MOP											2.8	6.6	87,719	
	Min		24,231	28,305	32,379	40,527	44,602	48,676														53,566	
	End		56,951	66,612	76,273	95,596	105,258	114,921														126,516	
	Start	Inboard	56,607	66,211	75,814	95,022	104,627	114,232														125,758	
	Min		24,148	28,208	32,268	40,389	44,449	48,510														53,383	
	End		39,240	45,897	52,554	65,869	72,527	79,185														87,175	
GC7x36	Start	Outboard	50,148	58,637	67,126	84,104	Exceeds MOP													2.8	5.2	87,500	
	Min		30,734	35,896	41,058	51,383																53,447	
	End		72,328	84,571	96,814	121,302																126,200	
	Start	Inboard	71,969	84,152	96,335	120,703																125,577	
	Min		30,661	35,811	40,961	51,261																53,321	
	End		49,888	58,334	66,779	83,671																87,049	

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Torque - Pneumatic
Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC7x220	Start	Outboard	28,908	33,849	38,790	48,674	53,616	58,559	Exceeds MOP											2.8	6.9	67,456	
	Min		17,815	20,822	23,828	29,842	32,849	35,856															
	End		41,693	48,820	55,947	70,202	77,330	84,459															
	Start	Inboard	41,653	48,772	55,892	70,134	77,255	84,376															
	Min		17,843	20,855	23,866	29,889	32,901	35,913															
	End		28,873	33,809	38,744	48,616	53,553	58,489															
GC7x224	Start	Outboard	42,453	49,669	56,885	71,317	78,533	85,750	Exceeds MOP											2.8	6.1	87,194	
	Min		26,074	30,462	34,850	43,627	48,015	52,404															
	End		61,230	71,637	82,044	102,859	113,268	123,676															
	Start	Inboard	61,170	71,567	81,964	102,759	113,157	123,556															
	Min		26,115	30,510	34,906	43,696	48,092	52,487															
	End		42,403	49,610	56,817	71,232	78,440	85,648															
GC7x228	Start	Outboard	59,983	70,187	80,391	Exceeds MOP													2.8	4.3	86,514		
	Min		36,871	43,079	49,288																		
	End		86,513	101,230	115,947																		
	Start	Inboard	86,429	101,131	115,834																		
	Min		36,930	43,148	49,366																		
	End		59,912	70,104	80,296																		

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Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)			
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5							
			Pressure Torque Output: Start/Min./End (Nm)																							
GC8x24	Start	Outboard	25,179	29,459	33,740	42,302	46,583	50,864	59,427	63,709	72,273	76,555	85,120	89,402	93,685	102,252	106,535	110,818	115,102	2.8	23,467	13.8	117,672			
	Min		15,466	18,069	20,672	25,879	28,482	31,086	36,292	38,896	44,103	46,707	51,914	54,518	57,122	62,330	64,934	67,538	70,142					14,425	169,757	71,705
	End		36,324	42,499	48,674	61,025	67,201	73,378	85,731	91,908	104,262	110,440	122,796	128,974	135,153	147,511	153,690	159,870	166,049							
	Start	Inboard	35,775	41,859	47,943	60,111	66,195	72,280	84,450	90,536	102,707	108,793	120,966	127,053	133,140	145,315	151,403	157,491	163,579					14,245	167,232	70,820
	Min		15,273	17,844	20,416	25,558	28,129	30,701	35,844	38,415	43,558	46,130	51,273	53,845	56,417	61,561	64,133	66,705	69,277							
	End		24,798	29,015	33,232	41,667	45,885	50,102	58,538	62,757	71,194	75,412	83,850	88,069	92,289	100,728	104,948	109,168	113,388					23,112	167,232	70,820
GC8x28	Start	Outboard	35,557	41,607	47,657	59,759	65,810	71,862	83,966	90,018	102,124	108,177	120,285	126,339	132,393	Exceeds MOP				2.8	33,137	11.9	143,292			
	Min		21,860	25,540	29,221	36,584	40,265	43,946	51,309	54,991	62,354	66,036	73,400	77,082	80,764									20,387	87,393	206,717
	End		51,295	60,023	68,752	86,210	94,940	103,670	121,131	129,863	147,327	156,059	173,526	182,260	190,994											
	Start	Inboard	50,731	59,365	68,000	85,269	93,905	102,541	119,814	128,451	145,727	154,366	171,644	180,284	188,924									20,216	86,668	141,738
	Min		21,676	25,327	28,977	36,279	39,930	43,580	50,882	54,534	61,836	65,488	72,791	76,442	80,094											
	End		35,165	41,150	47,135	59,106	65,092	71,078	83,052	89,039	101,014	107,002	118,978	124,967	130,956									32,772	141,738	141,738
GC8x32	Start	Outboard	46,686	54,607	62,528	78,372	86,294	94,217	110,063	117,987	133,835	141,760	Exceeds MOP							2.8	43,517	9.0	141,760			
	Min		28,652	33,470	38,288	47,924	52,742	57,561	67,198	72,016	81,654	86,473												26,725	86,473	204,507
	End		67,350	78,777	90,205	113,061	124,490	135,920	158,780	170,211	193,074	204,507														
	Start	Inboard	66,769	78,100	89,430	112,093	123,425	134,758	157,424	168,758	191,427	202,763												26,563	85,955	140,549
	Min		28,479	33,268	38,057	47,636	52,426	57,215	66,795	71,585	81,165	85,955														
	End		46,283	54,136	61,990	77,699	85,555	93,410	109,122	116,978	132,692	140,549													43,141	140,549
GC8x36	Start	Outboard	59,314	69,356	79,398	99,484	109,527	119,571	139,659	Exceeds MOP										2.8	55,297	7.1	141,668			
	Min		36,355	42,461	48,568	60,782	66,889	72,996	85,210															33,912	86,432	204,374
	End		85,568	100,054	114,542	143,518	158,006	172,496	201,476																	
	Start	Inboard	84,968	99,355	113,742	142,518	156,907	171,296	200,076															33,761	86,050	140,682
	Min		36,193	42,273	48,353	60,513	66,593	72,673	84,834																	
	End		58,897	68,870	78,843	98,789	108,763	118,737	138,687																54,909	140,682
GC8x40	Start	Outboard	73,441	85,854	98,267	123,094	135,509	Exceeds MOP												2.8	68,476	5.8	142,958			
	Min		44,968	52,515	60,062	75,157	82,704																	41,949	87,233	206,234
	End		105,948	123,855	141,763	177,579	195,488																			
	Start	Inboard	105,328	123,131	140,935	176,544	194,350																	41,810	86,946	142,123
	Min		44,819	52,342	59,864	74,909	82,432																			
	End		73,010	85,351	97,692	122,375	134,717																		68,074	142,123

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Torque - Pneumatic

Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC8x224	Start	Outboard	50,003	58,505	67,007	84,012	92,516	101,019	Exceeds MOP											2.8	46,603	6.9	116,326
	Min		30,717	35,887	41,058	51,399	56,570	61,741															
	End		72,136	84,401	96,666	121,198	133,465	145,733															
	Start	Inboard	72,061	84,314	96,566	121,073	133,327	145,582															
	Min		30,762	35,940	41,119	51,475	56,654	61,832															
	End		49,951	58,444	66,937	83,924	92,418	100,913															
GC8x228	Start	Outboard	70,759	82,800	94,842	118,927	130,971	Exceeds MOP											2.8	65,943	5.9	140,606	
	Min		43,504	50,830	58,156	72,809	80,135																
	End		102,079	119,450	136,822	171,568	188,942																
	Start	Inboard	101,973	119,326	136,680	171,390	188,746																
	Min		43,568	50,905	58,242	72,917	80,254																
	End		70,685	82,713	94,743	118,803	130,833																
GC8x232	Start	Outboard	93,017	108,800	124,584	Exceeds MOP													2.8	86,704	4.5	140,368	
	Min		57,089	66,689	76,289																		
	End		134,188	156,957	179,727																		
	Start	Inboard	134,049	156,795	179,541																		
	Min		57,173	66,788	76,402																		
	End		92,919	108,686	124,453																		
GC8x236	Start	Outboard	118,273	138,298	Exceeds MOP														2.8	110,264	3.6	142,303	
	Min		72,494	84,672																			
	End		170,624	199,512																			
	Start	Inboard	170,447	199,306																			
	Min		72,602	84,797																			
	End		118,149	138,153																			

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Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC10x28	Start	Outboard	46,435	54,341	62,248	78,062	85,970	93,878	109,696	117,605	133,424	141,335	157,157	165,069	172,981	188,806	196,719	204,632	212,546	2.8	43,273	13.8	217,295
	Min		28,563	33,375	38,186	47,809	52,621	57,433	67,057	71,869	81,494	86,306	95,932	100,745	105,558	115,184	119,997	124,811	129,624				
	End		66,983	78,388	89,793	112,605	124,012	135,420	158,237	169,646	192,466	203,877	226,700	238,113	249,526	272,354	283,769	295,184	306,600				
	Start	Inboard	65,984	77,222	88,461	110,940	122,180	133,421	155,904	167,147	189,634	200,878	223,368	234,614	245,860	268,354	279,603	290,851	302,100				
	Min		28,210	32,962	37,715	47,220	51,973	56,726	66,233	70,986	80,493	85,247	94,755	99,509	104,263	113,772	118,526	123,281	128,035				
	End		45,735	53,524	61,314	76,895	84,686	92,477	108,060	115,853	131,439	139,232	154,821	162,615	170,411	186,002	193,798	201,595	209,392				
GC10x32	Start	Outboard	61,055	71,419	81,783	102,513	112,879	123,245	143,979	154,346	175,082	185,451	206,190	216,560	226,930	247,673	258,045	268,417	278,790	2.8	56,909	13.8	285,014
	Min		37,488	43,793	50,098	62,709	69,015	75,321	87,933	94,239	106,852	113,158	125,772	132,079	138,386	151,001	157,308	163,616	169,924				
	End		88,072	103,022	117,973	147,876	162,829	177,782	207,690	222,645	252,558	267,515	297,431	312,390	327,349	357,270	372,232	387,194	402,156				
	Start	Inboard	87,054	101,834	116,614	146,178	160,961	175,744	205,312	220,097	249,670	264,457	294,033	308,822	323,611	353,193	367,984	382,776	397,569				
	Min		37,148	43,396	49,645	62,142	68,391	74,641	87,139	93,389	105,888	112,138	124,639	130,889	137,140	149,641	155,892	162,143	168,394				
	End		60,339	70,583	80,828	101,319	111,565	121,812	142,306	152,554	173,051	183,300	203,800	214,051	224,302	244,805	255,057	265,310	275,563				
GC10x36	Start	Outboard	77,644	90,794	103,944	130,247	143,399	156,551	182,857	196,011	222,321	235,476	261,788	274,945	Exceeds MOP					2.8	72,384	10.9	285,471
	Min		47,609	55,607	63,606	79,603	87,602	95,601	111,600	119,600	135,599	143,599	159,600	167,600									
	End		112,002	130,971	149,940	187,882	206,854	225,826	263,773	282,748	320,699	339,676	377,632	396,611									
	Start	Inboard	110,961	129,757	148,553	186,147	204,945	223,744	261,344	280,145	317,749	336,552	374,160	392,965									
	Min		47,283	55,228	63,172	79,061	87,006	94,951	110,841	118,787	134,678	142,624	158,516	166,462									
	End		76,910	89,937	102,965	129,022	142,052	155,081	181,143	194,174	220,238	233,271	259,338	272,372									
GC10x40	Start	Outboard	96,202	112,467	128,732	161,263	177,530	193,797	226,332	242,601	275,140	Exceeds MOP								2.8	89,697	8.8	284,902
	Min		58,926	68,817	78,708	98,491	108,382	118,274	138,058	147,950	167,736												
	End		138,773	162,234	185,697	232,623	256,088	279,553	326,486	349,954	396,892												
	Start	Inboard	137,708	160,991	184,276	230,847	254,134	277,421	323,999	347,289	393,871												
	Min		58,617	68,456	78,296	97,976	107,817	117,657	137,338	147,179	166,862												
	End		95,448	111,586	127,725	160,005	176,145	192,286	224,570	240,713	273,000												

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC10x228	Start	Outboard	92,220	107,924	123,629	155,041	170,748	186,456	Exceeds MOP											2.8	85,939	6.9	214,732
	Min		56,732	66,289	75,846	94,960	104,518	114,076															
	End		133,029	155,682	178,336	223,648	246,305	268,964															
	Start	Inboard	132,906	155,538	178,171	223,442	246,078	268,716															
	Min		56,815	66,386	75,957	95,100	104,671	114,243															
	End		92,120	107,807	123,494	154,872	170,562	186,253															
GC10x232	Start	Outboard	121,459	142,079	162,699	203,943	224,566	245,189	Exceeds MOP										2.8	113,211	6.9	282,315	
	Min		74,581	87,126	99,670	124,761	137,306	149,852															
	End		175,206	204,950	234,695	294,189	323,938	353,688															
	Start	Inboard	175,044	204,761	234,478	293,917	323,639	353,362															
	Min		74,691	87,254	99,817	124,944	137,508	150,072															
	End		121,327	141,924	162,522	203,720	224,321	244,922															
GC10x236	Start	Outboard	154,637	180,829	207,021	259,410	Exceeds MOP												2.8	144,161	5.4	280,366	
	Min		94,823	110,754	126,685	158,548																	
	End		223,065	260,847	298,630	374,201																	
	Start	Inboard	222,860	260,606	298,355	373,855																	
	Min		94,962	110,916	126,871	158,781																	
	End		154,468	180,632	206,796	259,127																	
GC10x240	Start	Outboard	191,755	224,175	256,596	Exceeds MOP													2.8	178,787	4.4	282,534	
	Min		117,457	137,173	156,889																		
	End		276,608	323,374	370,142																		
	Start	Inboard	276,353	323,076	369,801																		
	Min		117,629	137,374	157,120																		
	End		191,546	223,931	256,317																		

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)				
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13					13.5			
			Pressure Torque Output: Start/Min./End (Nm)																							
GC01x08-SR0	Start	2,313													Please consult factory	2,219	2,418	2,617	Exceeds MOP	11.7	2,100	13.2	2,696			
	Min.	1,234														727	813	899						676	933	
	End	2,403														891	1,029	1,167								809
GC01x08-SR1	Start	1,742									Please consult factory	1,437	1,834	2,033	2,232	2,629	2,828	3,027	Exceeds MOP	8.8	1,357	13.2	3,107			
	Min.	971										500	670	755	840	1,009	1,093	1,178						466	1,212	
	End	1,993										636	911	1,048	1,186	1,461	1,599	1,737								581
GC01x08-SR2	Start	1,457						Please consult factory	1,082	1,480	1,679	2,076	2,275	2,474	2,871	3,070	3,269	Exceeds MOP	7.4	1,043	13.2	3,349				
	Min.	831									392	562	646	815	900	984	1,153						1,237	1,321	375	1,355
	End	1,751									508	783	920	1,196	1,333	1,471	1,746						1,884	2,022		
GC01x08-SR3	Start	1,270					Please consult factory	1,106	1,305	1,702	1,901	2,299	2,497	2,696	3,094	3,293	3,492	Exceeds MOP	6.5	908	13.2	3,571				
	Min.	727								414	499	668	752	921	1,005	1,089	1,258						1,342	1,426	329	1,460
	End	1,528								557	694	970	1,107	1,382	1,520	1,658	1,933						2,071	2,209		
GC01x08-SR4	Start	1,077				Please consult factory	710	909	1,306	1,505	1,902	2,101	2,498	2,697	2,896	3,294	3,492	3,691	Exceeds MOP	5.5	710	13.2	3,771			
	Min.	626					264	349	518	602	771	855	1,024	1,108	1,192	1,361	1,445	1,529						264	1,563	
	End	1,329					336	474	749	886	1,161	1,299	1,574	1,712	1,850	2,125	2,263	2,400								336
GC01x09-SR0	Start	2,307									Please consult factory	2,512	2,766	3,019	3,527	3,781	4,035	4,288	9.1	2,056	13.8	4,441				
	Min.	1,232										855	964	1,072	1,289	1,397	1,505	1,613					657	1,677		
	End	2,395										1,094	1,270	1,446	1,797	1,973	2,149	2,324							778	2,430
GC01x09-SR1	Start	1,736					Please consult factory	1,401	1,655	2,162	2,415	2,923	3,176	3,430	3,937	4,191	4,445	4,699	6.9	1,351	13.8	4,851				
	Min.	969						486	595	811	919	1,134	1,242	1,350	1,565	1,672	1,780	1,887					464	1,952		
	End	1,985						611	787	1,138	1,313	1,664	1,840	2,016	2,367	2,543	2,719	2,894							576	3,000
GC01x09-SR2	Start	1,451				Please consult factory	1,136	1,643	1,897	2,404	2,657	3,165	3,418	3,672	4,179	4,433	4,687	4,941	5.8	1,035	13.8	5,093				
	Min.	830					416	632	740	955	1,063	1,278	1,385	1,493	1,708	1,815	1,922	2,030					373	2,094		
	End	1,743					545	896	1,071	1,422	1,598	1,949	2,125	2,301	2,652	2,828	3,003	3,179							475	3,285
GC01x09-SR3	Start	1,264				Please consult factory	1,105	1,359	1,866	2,119	2,626	2,880	3,387	3,641	3,895	4,402	4,656	4,910	5,163	5.1	903	13.8	5,316			
	Min.	725					415	523	738	846	1,061	1,168	1,383	1,490	1,598	1,813	1,920	2,028	2,135					328	2,199	
	End	1,520					556	732	1,083	1,258	1,609	1,785	2,136	2,312	2,487	2,839	3,014	3,190	3,366							416
GC01x09-SR4	Start	1,072			Please consult factory	1,052	1,305	1,558	2,065	2,319	2,826	3,079	3,587	3,840	4,094	4,602	4,855	5,109	5,363	4.1	595	13.8	5,515			
	Min.	624				411	519	626	841	949	1,163	1,271	1,486	1,593	1,700	1,915	2,023	2,130	2,238					217	2,302	
	End	1,321				573	748	923	1,274	1,450	1,801	1,977	2,328	2,504	2,679	3,031	3,206	3,382	3,558							257

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)		
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5						
			Pressure Torque Output: Start/Min./End (Nm)																						
GC01x10-SR0	Start	2,301						Please consult factory	2,143	2,479	3,153	3,489	4,163	4,499	4,836	Exceeds MOP				6.9	2,076	11.4	5,105		
	Min.	1,230							696	842	1,130	1,273	1,560	1,703	1,846						667		1,960		
	End	2,385								839	1,072	1,538	1,771	2,237	2,470		2,703						792	2,890	
GC01x10-SR1	Start	1,729				Please consult factory	1,544	1,880	2,553	2,890	3,563	3,900	4,573	4,910	5,246	Exceeds MOP				5.2	1,342	11.4	5,516		
	Min.	967						549	692	979	1,121	1,407	1,549	1,835	1,977		2,120						462	2,234	
	End	1,975						710	943	1,409	1,642	2,108	2,341	2,807	3,040		3,273						570	3,460	
GC01x10-SR2	Start	1,444			Please consult factory	1,449	1,786	2,122	2,795	3,132	3,805	4,142	4,815	5,152	5,488	Exceeds MOP				4.4	1,046	11.4	5,758		
	Min.	828					551	694	837	1,122	1,265	1,550	1,692	1,977	2,120		2,262						379	2,376	
	End	1,733					762	995	1,228	1,694	1,927	2,393	2,626	3,092	3,325		3,558						482	3,745	
GC01x10-SR3	Start	1,257		Please consult factory	999	1,672	2,008	2,345	3,018	3,354	4,028	4,364	5,038	5,374	5,711	Exceeds MOP				3.9	932	11.4	5,980		
	Min.	723				371	657	800	942	1,228	1,370	1,655	1,798	2,082	2,225		2,367						342	2,481	
	End	1,510				483	949	1,181	1,414	1,880	2,113	2,580	2,813	3,279	3,512		3,745						436	3,932	
GC01x10-SR4	Start	1,065	Please consult factory	862	1,199	1,872	2,208	2,544	3,217	3,554	4,227	4,564	5,237	5,574	5,911	Exceeds MOP				3.3	728	11.4	6,180		
	Min.	622				332	475	760	903	1,045	1,330	1,473	1,758	1,900	2,185		2,328	2,470						275	2,584
	End	1,311				442	675	1,140	1,373	1,606	2,072	2,305	2,771	3,004	3,471		3,704	3,937						349	4,124
GC01x12-SR0	Start	2,290			Please consult factory	2,245	2,728	3,211	4,177	4,660	Exceeds MOP									4.8	2,052	8.0	5,142		
	Min.	1,227				743	950	1,157	1,568	1,773											659		1,978		
	End	2,370				910	1,244	1,578	2,247	2,581											776		2,916		
GC01x12-SR1	Start	1,719		Please consult factory	1,690	2,656	3,138	3,621	4,587	5,070	Exceeds MOP									3.7	1,400	8.0	5,553		
	Min.	964				613	1,024	1,229	1,433	1,842		2,047									489		2,251		
	End	1,959				811	1,480	1,814	2,148	2,817		3,151									610		3,486		
GC01x12-SR2	Start	1,433	967	1,449	1,932	2,898	3,380	3,863	4,829	5,312	Exceeds MOP									3.0	967	8.0	5,795		
	Min.	824	348	554	759	1,168	1,372	1,576	1,985	2,189											348		2,394		
	End	1,717	427	762	1,096	1,764	2,099	2,433	3,102	3,436											427		3,770		
GC01x12-SR3	Start	1,246	1,189	1,672	2,155	3,120	3,603	4,086	5,052	5,535	Exceeds MOP									2.7	900	8.0	6,018		
	Min.	720	455	660	864	1,273	1,477	1,682	2,090	2,294											331		2,499		
	End	1,495	614	948	1,283	1,951	2,285	2,620	3,289	3,623											414		3,957		
GC01x12-SR4	Start	1,054	1,389	1,871	2,354	3,320	3,802	4,285	5,251	5,734	Exceeds MOP									2.3	713	8.0	6,217		
	Min.	618	558	763	967	1,376	1,580	1,784	2,193	2,397											271		2,601		
	End	1,295	806	1,140	1,475	2,143	2,477	2,812	3,480	3,815											338		4,149		

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic
Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC01x14-SR0	Start	2,281		Please consult factory	2,103	3,278	3,865	4,452	Exceeds MOP											3.9	1,986	6.3	4,805
	Min.	1,224			684	1,188	1,438	1,687													633		1,837
	End	2,357			811	1,624	2,031	2,438													730		2,682
GC01x14-SR1	Start	1,710	1,339	1,926	2,514	3,688	4,275	4,863	Exceeds MOP											3.0	1,339	6.3	5,215
	Min.	961	466	717	966	1,464	1,713	1,961													466		2,111
	End	1,947	568	975	1,381	2,194	2,601	3,008													568		3,252
GC01x14-SR2	Start	1,425	1,581	2,168	2,755	3,930	4,517	5,105	Exceeds MOP											2.5	994	6.3	5,457
	Min.	822	612	861	1,110	1,607	1,855	2,104													362		2,253
	End	1,705	853	1,259	1,666	2,479	2,886	3,293													446		3,537
GC01x14-SR3	Start	1,238	1,804	2,391	2,978	4,153	4,740	5,327	Exceeds MOP											2.2	864	6.3	5,680
	Min.	717	718	967	1,215	1,712	1,961	2,209													318		2,358
	End	1,482	1,040	1,446	1,853	2,666	3,073	3,479													389		3,723
GC01x14-SR4	Start	1,045	2,003	2,590	3,178	4,352	4,939	5,527	Exceeds MOP											1.9	712	6.3	5,879
	Min.	616	821	1,069	1,318	1,815	2,063	2,312													273		2,461
	End	1,283	1,232	1,638	2,045	2,858	3,265	3,671													337		3,915

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)				
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5								
			Pressure Torque Output: Start/Min./End (Nm)																								
GC2x09-SR1	Start	2,994										Please consult factory	2,637	2,944	3,251	3,866	4,173	Exceeds MOP		9.7	2,453	12.9	4,418				
	Min.	1,638											892	1,024	1,155	1,417	1,548							813	1,653		
	End	3,303											1,125	1,338	1,550	1,976	2,189									997	2,359
GC2x09-SR2	Start	2,586								Please consult factory	2,093	2,400	3,014	3,321	3,628	4,242	4,549	Exceeds MOP		8.5	2,093	12.9	4,795				
	Min.	1,432										714	846	1,108	1,239	1,369	1,630		1,760						714	1,864	
	End	2,926										894	1,107	1,532	1,745	1,958	2,383		2,596								894
GC2x09-SR3	Start	2,317								Please consult factory	2,407	2,713	3,327	3,634	3,941	4,556	4,863	Exceeds MOP		7.6	1,854	12.9	5,108				
	Min.	1,284										867	998	1,259	1,390	1,520	1,781		1,911						630	2,015	
	End	2,612										1,163	1,376	1,801	2,013	2,226	2,652		2,864								780
GC2x09-SR4	Start	2,067						Please consult factory	1,832	2,139	2,753	3,060	3,674	3,981	4,288	4,902	5,209	Exceeds MOP		6.8	1,709	12.9	5,455				
	Min.	1,134									624	756	1,018	1,148	1,409	1,540	1,670		1,931					2,061		571	2,165
	End	2,266									775	988	1,413	1,625	2,051	2,263	2,476		2,901					3,114			
GC2x10-SR1	Start	2,986						Please consult factory					2,598	3,412	3,820	Exceeds MOP				7.4	2,516	9.7	4,390				
	Min.	1,635										876	1,225	1,399											841	1,642	
	End	3,291										1,097	1,662	1,944													
GC2x10-SR2	Start	2,578						Please consult factory	2,567	2,974	3,789	4,197	Exceeds MOP							6.3	1,997	9.7	4,767				
	Min.	1,430									918	1,092		1,439	1,612											674	1,854
	End	2,914									1,223	1,505		2,069	2,351												
GC2x10-SR3	Start	2,309					Please consult factory	2,066	2,880	3,288	4,102	4,510	Exceeds MOP							5.7	1,822	9.7	5,080				
	Min.	1,281								723	1,070	1,244		1,590	1,762											618	2,004
	End	2,600								927	1,491	1,773		2,338	2,620												
GC2x10-SR4	Start	2,059				Please consult factory	2,005	2,412	3,227	3,634	4,449	4,856	Exceeds MOP							5.1	1,679	9.7	5,426				
	Min.	1,132							700	874	1,221	1,394		1,739	1,912											559	2,154
	End	2,254							895	1,177	1,741	2,023		2,588	2,870												
GC2x12-SR1	Start	2,973				Please consult factory	2,898	3,483	Exceeds MOP											5.1	2,431	6.9	4,535				
	Min.	1,631								1,008	1,258															807	1,705
	End	3,272								1,306	1,710																
GC2x12-SR2	Start	2,565			Please consult factory	2,691	3,275	3,859	Exceeds MOP											4.5	2,106	6.9	4,911				
	Min.	1,426								974	1,223	1,471														724	1,917
	End	2,895								1,308	1,713	2,118															
GC2x12-SR3	Start	2,296		Please consult factory	1,835	3,004	3,588	4,173	Exceeds MOP											4.0	1,835	6.9	5,225				
	Min.	1,277								626	1,126	1,374	1,622													626	2,068
	End	2,581								767	1,577	1,982	2,386														
GC2x12-SR4	Start	2,045		Please consult factory	2,182	3,350	3,934	4,519	Exceeds MOP											3.6	1,714	6.9	5,571				
	Min.	1,128								778	1,276	1,524	1,772													578	2,217
	End	2,235								1,017	1,827	2,231	2,636														

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
		3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
		Pressure Torque Output: Start/Min./End (Nm)																				
GC2x14-SR1	Start	2,962			Please consult factory	3,564	4,274	Exceeds MOP											4.1	2,284	5.6	4,417
	Min.	1,628				1,295	1,598													746		1,658
	End	3,257				1,767	2,259													880		2,358
GC2x14-SR2	Start	2,554		Please consult factory	2,519	3,940	4,651	Exceeds MOP											3.7	2,093	5.6	4,793
	Min.	1,423				903	1,508		1,809											720		1,870
	End	2,880				1,189	2,174		2,666											894		2,765
GC2x14-SR3	Start	2,285	Please consult factory	2,122	2,832	4,254	4,965	Exceeds MOP											3.3	1,837	5.6	5,107
	Min.	1,274		752	1,055	1,659	1,960											630		2,020		
	End	2,566		965	1,458	2,443	2,935											769		3,033		
GC2x14-SR4	Start	2,035	1,757	2,468	3,178	4,600	5,311	Exceeds MOP											3.0	1,757	5.6	5,453
	Min.	1,124	599	903	1,206	1,809	2,110													599		2,170
	End	2,220	723	1,215	1,708	2,692	3,185													723		3,283
GC2x16-SR1	Start	2,949	Please consult factory	3,009	3,947	Exceeds MOP													3.2	2,445	4.2	4,323
	Min.	1,624		1,061	1,461															819		1,621
	End	3,237		1,382	2,032															992		2,293
GC2x16-SR2	Start	2,541	2,447	3,385	4,324	Exceeds MOP													2.8	2,071	4.2	4,700
	Min.	1,419	875	1,275	1,674															715		1,833
	End	2,861	1,139	1,789	2,440															879		2,700
GC2x16-SR3	Start	2,272	2,760	3,699	4,637	Exceeds MOP													2.5	1,821	4.2	5,013
	Min.	1,270	1,028	1,427	1,824															627		1,984
	End	2,547	1,408	2,058	2,708															757		2,969
GC2x16-SR4	Start	2,022	3,106	4,045	4,984	Exceeds MOP													2.2	1,604	4.2	5,359
	Min.	1,120	1,178	1,576	1,974															537		2,133
	End	2,201	1,658	2,308	2,958															617		3,218

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
		3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
		Pressure Torque Output: Start/Min./End (Nm)																				
GC3x10-SR1	Start	5,231											Please consult factory	4,797	5,787	6,282	6,777	7,273	10.7	4,500	13.8	7,570
	Min.	2,864										1,604		2,026	2,235	2,445	2,654	1,477		2,780		
	End	5,816										2,036		2,714	3,053	3,392	3,731	1,833		3,934		
GC3x10-SR2	Start	4,559									Please consult factory	4,557	5,052	5,547	6,537	7,033	7,528	8,023	9.3	3,864	13.8	8,320
	Min.	2,499								1,562		1,772	1,982	2,401	2,610	2,818	3,027	1,266		3,152		
	End	5,065								2,030		2,368	2,707	3,385	3,724	4,063	4,402	1,555		4,605		
GC3x10-SR3	Start	3,981							Please consult factory	3,718	4,213	5,203	5,698	6,193	7,184	7,679	8,174	8,669	8.1	3,322	13.8	8,967
	Min.	2,185								1,255	1,466	1,886	2,095	2,304	2,721	2,930	3,138	3,347		1,086		3,472
	End	4,418								1,591	1,929	2,607	2,946	3,284	3,962	4,301	4,640	4,979		1,320		5,182
GC3x10-SR4	Start	3,484						Please consult factory	3,284	4,274	4,768	5,758	6,253	6,749	7,739	8,234	8,729	9,225	7.2	2,987	13.8	9,522
	Min.	1,915							1,114	1,534	1,744	2,162	2,370	2,579	2,996	3,204	3,412	3,621		987		3,746
	End	3,863							1,410	2,087	2,426	3,103	3,442	3,781	4,459	4,798	5,137	5,476		1,207		5,679
GC3x12-SR1	Start	5,215						Please consult factory	4,567	5,992	6,704	Exceeds MOP							7.4	4,425	9.8	7,843
	Min.	2,859							1,509	2,115	2,416									1,448		2,898
	End	5,793							1,879	2,854	3,341									1,782		4,121
GC3x12-SR2	Start	4,543					Please consult factory	4,606	5,318	6,742	7,454	Exceeds MOP							6.5	3,894	9.8	8,594
	Min.	2,494						1,585	1,887	2,489	2,790									1,281		3,270
	End	5,042						2,063	2,550	3,525	4,013									1,576		4,793
GC3x12-SR3	Start	3,965				Please consult factory	3,828	5,252	5,964	7,388	8,100	Exceeds MOP							5.7	3,401	9.8	9,240
	Min.	2,180					1,305	1,909	2,209	2,810	3,109									1,122		3,589
	End	4,395					1,666	2,640	3,128	4,102	4,590									1,373		5,370
GC3x12-SR4	Start	3,468		Please consult factory	2,959	3,671	4,383	5,807	6,519	7,944	8,656	Exceeds MOP							5.0	2,959	9.8	9,795
	Min.	1,910			978	1,282	1,584	2,185	2,485	3,084	3,384									978		3,863
	End	3,839			1,188	1,675	2,162	3,137	3,624	4,599	5,086									1,188		5,866

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC3x14-SR1	Start	5,203						Please consult factory	6,008	6,875	Exceeds MOP									6.1	4,447	8.1	7,916
	Min.	2,855							2,125	2,492											1,461		2,931
	End	5,774							2,865	3,459											1,797		4,171
GC3x14-SR2	Start	4,531				Please consult factory	4,157	5,025	6,759	7,626	Exceeds MOP									5.3	3,811	8.1	8,667
	Min.	2,490					1,397	1,766	2,500	2,865											1,249		3,304
	End	5,023					1,756	2,350	3,537	4,130											1,519		4,842
GC3x14-SR3	Start	3,953		Please consult factory	3,937	4,804	5,671	7,405	8,272	Exceeds MOP										4.7	3,417	8.1	9,313
	Min.	2,176			1,355	1,722	2,089	2,820	3,185										1,132		3,622		
	End	4,377			1,740	2,333	2,927	4,114	4,707										1,384		5,420		
GC3x14-SR4	Start	3,455		Please consult factory	4,492	5,359	6,226	7,960	8,827	Exceeds MOP										4.1	2,932	8.1	9,868
	Min.	1,906			1,633	1,999	2,364	3,094	3,459										970		3,896		
	End	3,821			2,237	2,830	3,423	4,610	5,204										1,169		5,916		
GC3x16-SR1	Start	5,186		Please consult factory	5,319	6,467	7,614	Exceeds MOP												4.6	4,402	6.2	8,073
	Min.	2,850			1,836	2,322	2,807												1,444		3,000		
	End	5,751			2,394	3,179	3,964												1,766		4,278		
GC3x16-SR2	Start	4,514		Please consult factory	3,775	6,070	7,217	8,365	Exceeds MOP											4.0	3,775	6.2	8,824
	Min.	2,485			1,237	2,212	2,696	3,179											1,237		3,372		
	End	5,000			1,495	3,065	3,850	4,636											1,495		4,950		
GC3x16-SR3	Start	3,936	Please consult factory	3,274	4,422	6,716	7,863	9,011	Exceeds MOP											3.5	3,274	6.2	9,470
	Min.	2,171		1,075	1,564	2,533	3,016	3,498										1,075	3,691				
	End	4,353		1,287	2,072	3,642	4,427	5,213										1,287	5,527				
GC3x16-SR4	Start	3,439	Please consult factory	3,830	4,977	7,271	8,419	9,566	Exceeds MOP											3.1	2,912	6.2	10,025
	Min.	1,901		1,356	1,841	2,808	3,290	3,772										965	3,965				
	End	3,797		1,783	2,568	4,139	4,924	5,709										1,155	6,023				
GC3x20-SR1	Start	5,154	4,728	6,550	Exceeds MOP															2.9	4,364	3.9	8,007
	Min.	2,840	1,592	2,365															1,436		2,979		
	End	5,703	1,989	3,236															1,740		4,233		
GC3x20-SR2	Start	4,482	5,479	7,300	Exceeds MOP															2.6	4,022	3.9	8,757
	Min.	2,475	1,970	2,738															1,351		3,352		
	End	4,952	2,661	3,907															1,663		4,904		
GC3x20-SR3	Start	3,904	6,125	7,946	Exceeds MOP															2.2	3,211	3.9	9,403
	Min.	2,161	2,292	3,058															1,056		3,670		
	End	4,306	3,238	4,484															1,244		5,481		
GC3x20-SR4	Start	3,407	6,680	8,502	Exceeds MOP															1.9	2,674	3.9	9,959
	Min.	1,891	2,567	3,332															872		3,944		
	End	3,750	3,734	4,981															992		5,978		

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)					
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5									
			Pressure Torque Output: Start/Min./End (Nm)																									
GC4x12-SR2	Start	9,406												Please consult factory	8,855	10,560	11,413	12,265	13,118	11.0	8,855	13.8	13,630					
	Min.	4,939											2,771		3,509	3,875	4,241	4,605	2,771		4,823							
	End	9,499											3,316		4,497	5,087	5,678	6,268	3,316		6,623							
GC4x12-SR3	Start	7,919											Please consult factory	8,638	9,490	10,343	12,048	12,901	13,753	14,606	9.2	7,274	13.8	15,118				
	Min.	4,168										2,856		3,223	3,588	4,316	4,679	5,042	5,404	2,265		5,621						
	End	8,010										3,620		4,210	4,801	5,981	6,572	7,163	7,753	2,676		8,107						
GC4x12-SR4	Start	6,536											Please consult factory	7,367	8,219	9,924	10,776	11,629	13,334	14,186	15,039	15,892	7.7	6,003	13.8	16,404		
	Min.	3,471										2,498		2,863	3,590	3,953	4,315	5,039	5,401	5,762	6,123	1,909		6,340				
	End	6,724										3,230		3,820	5,001	5,591	6,182	7,362	7,953	8,543	9,134	2,286		9,488				
GC4x14-SR1	Start	10,750											Please consult factory	10,140	11,180	13,259	14,299	15,339		Exceeds MOP	10.3	9,724	13.4	16,171				
	Min.	5,726										3,282		3,730	4,621	5,065	5,508		3,102			5,862						
	End	11,246										4,074		4,794	6,234	6,954	7,674		3,786			8,251						
GC4x14-SR2	Start	9,391											Please consult factory	8,790	10,869	11,909	12,949	15,028	16,068	17,108	Exceeds MOP	9.0	8,790	13.4	17,940			
	Min.	4,935										2,747		3,646	4,092	4,536	5,423	5,865	6,307	2,747			6,661					
	End	9,477										3,271		4,711	5,431	6,151	7,591	8,311	9,031	3,271			9,608					
GC4x14-SR3	Start	7,903											Please consult factory	9,239	10,278	12,357	13,397	14,437	16,516	17,556	18,596	Exceeds MOP	7.6	7,368	13.4	19,428		
	Min.	4,163										3,119		3,564	4,451	4,894	5,336	6,218	6,660	7,100	2,310			7,453				
	End	7,988										4,036		4,756	6,196	6,916	7,636	9,076	9,796	10,516	2,741			11,092				
GC4x14-SR4	Start	6,520											Please consult factory	7,407	8,446	10,525	11,564	13,643	14,683	15,723	17,802	18,842	19,882	Exceeds MOP	6.3	5,952	13.4	20,714
	Min.	3,466										2,519		2,964	3,850	4,292	5,174	5,615	6,055	6,936	7,377	7,817	1,891			8,169		
	End	6,701										3,258		3,978	5,417	6,137	7,577	8,297	9,017	10,457	11,177	11,897	2,251			12,473		
GC4x16-SR1	Start	10,730											Please consult factory	11,689	13,066	15,820							Exceeds MOP	7.8	9,762	10.1	16,096	
	Min.	5,720										3,952		4,542	5,716							3,121			5,833			
	End	11,218										5,147		6,100	8,007							3,812			8,198			
GC4x16-SR2	Start	9,371											Please consult factory	9,328	10,705	13,458	14,835	17,589						Exceeds MOP	6.8	8,777	10.1	17,864
	Min.	4,929										2,984		3,578	4,757	5,343	6,514						2,745			6,631		
	End	9,448										3,644		4,597	6,504	7,457	9,364						3,262			9,555		
GC4x16-SR3	Start	7,884											Please consult factory	8,063	10,816	12,193	14,946	16,323	19,077					Exceeds MOP	5.7	7,237	10.1	19,352
	Min.	4,157										2,616		3,797	4,384	5,555	6,139	7,307					2,257			7,423		
	End	7,960										3,222		5,128	6,082	7,989	8,942	10,849					2,650			11,040		
GC4x16-SR4	Start	6,501											Please consult factory	6,596	7,972	9,349	12,102	13,478	16,232	17,609	20,363		Exceeds MOP	4.8	6,046	10.1	20,638	
	Min.	3,460										2,174		2,765	3,353	4,523	5,107	6,274	6,857	8,023		1,935			8,139			
	End	6,673										2,697		3,650	4,603	6,509	7,463	9,369	10,323	12,230		2,315			12,421			

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)	
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5					
			Pressure Torque Output: Start/Min./End (Nm)																					
GC4x20-SR1	Start	10,691			Please consult factory	10,134	12,325	14,515	Exceeds MOP											4.9	9,696	6.3	15,829	
	Min.	5,708				3,290	4,232	5,167													3,101		5,727	
	End	11,161				4,070	5,587	7,104															3,767	8,014
GC4x20-SR2	Start	9,331			Please consult factory	11,903	14,094	16,284	Exceeds MOP											4.1	7,961	6.3	17,598	
	Min.	4,917				4,100	5,035	5,967															2,396	6,525
	End	9,391				5,427	6,944	8,461															2,697	9,371
GC4x20-SR3	Start	7,844		Please consult factory	9,011	13,391	15,582	17,772	Exceeds MOP											3.6	7,259	6.3	19,086	
	Min.	4,145			3,033	4,902	5,832	6,761															2,275	7,317
	End	7,902			3,879	6,912	8,429	9,946															2,665	10,856
GC4x20-SR4	Start	6,461	5,917	8,107	10,297	14,677	16,868	19,058	Exceeds MOP											3.0	5,917	6.3	20,372	
	Min.	3,448	1,889	2,831	3,765	5,623	6,551	7,478															1,889	8,034
	End	6,616	2,227	3,743	5,260	8,293	9,810	11,326															2,227	12,237
GC4x24-SR1	Start	10,662	Please consult factory	10,525	13,715	Exceeds MOP														3.4	9,887	4.3	15,629	
	Min.	5,699		3,463	4,830																		3,188	5,645
	End	11,119		4,340	6,550																		3,899	7,875
GC4x24-SR2	Start	9,303	9,104	12,294	15,484	Exceeds MOP														3.0	9,104	4.3	17,398	
	Min.	4,908	2,900	4,272	5,630																		2,900	6,444
	End	9,350	3,488	5,698	7,907																		3,488	9,232
GC4x24-SR3	Start	7,815	10,592	13,782	16,972	Exceeds MOP														2.5	7,402	4.3	18,886	
	Min.	4,136	3,715	5,072	6,426																		2,343	7,236
	End	7,861	4,973	7,182	9,392																		2,764	10,717
GC4x24-SR4	Start	6,432	11,878	15,068	18,258	Exceeds MOP														2.1	6,136	4.3	20,172	
	Min.	3,439	4,441	5,793	7,143																		1,990	7,953
	End	6,575	6,354	8,563	10,772																		2,378	12,098
GC4x28-SR1	Start	10,540	15,041	Exceeds MOP																2.3	8,736	3.1	15,942	
	Min.	5,662	5,438																				2,730	5,821
	End	10,943	7,468																				3,101	8,092
GC4x28-SR2	Start	9,180	16,810	Exceeds MOP																2.1	8,703	3.1	17,711	
	Min.	4,870	6,237																				2,768	6,619
	End	9,173	8,825																				3,211	9,449
GC4x28-SR3	Start	7,693	18,298	Exceeds MOP																1.7	6,588	3.1	19,199	
	Min.	4,099	7,030																				2,029	7,412
	End	7,685	10,310																				2,201	10,934

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)			
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13					13.5		
			Pressure Torque Output: Start/Min./End (Nm)																						
GC5x16-SR2	Start	21,889														Please consult factory	24,756	26,516	28,276	12.3	24,053	13.8	29,332		
	Min.	10,711															7,215	7,991	8,761		6,902		9,220		
	End	18,617															8,188	9,408	10,628		7,701		11,360		
GC5x16-SR3	Start	17,605										Please consult factory	18,890	20,650	22,409	25,928	27,688	29,448	31,208	9.9	18,538	13.8	32,264		
	Min.	8,784											5,576	6,349	7,114	8,632	9,388	10,141	10,893		5,420		11,343		
	End	15,683											6,370	7,590	8,809	11,248	12,468	13,687	14,907		6,126		15,639		
GC5x16-SR4	Start	14,681									Please consult factory	16,032	17,791	21,309	23,069	24,828	28,347	30,107	31,867	33,627	8.3	15,328	13.8	34,683	
	Min.	7,376											4,838	5,607	7,125	7,880	8,632	10,133	10,882	11,630		12,378		4,528	12,826
	End	13,262											5,633	6,852	9,291	10,510	11,730	14,169	15,388	16,608		17,828		5,145	18,560
GC5x20-SR1	Start	24,369									Please consult factory	27,874	33,496	36,308	39,120	Exceeds MOP				8.6	25,625	11.3	40,807		
	Min.	12,207											8,536	10,972	12,181		13,385						7,547	14,107	
	End	21,973											10,196	14,093	16,042		17,991						8,638	19,160	
GC5x20-SR2	Start	21,838									Please consult factory	28,490	31,301	36,924	39,735	42,547	Exceeds MOP				7.7	23,992	11.3	44,234	
	Min.	10,695											8,864	10,083	12,501	13,704		14,904						6,885	15,623
	End	18,543											10,776	12,724	16,621	18,570		20,519						7,659	21,688
GC5x20-SR3	Start	17,554						Please consult factory	22,988	25,799	31,421	34,232	39,855	42,667	45,479	Exceeds MOP				6.2	18,491	11.3	47,166		
	Min.	8,768								7,376	8,587	10,993	12,192	14,584	15,777		16,970						5,410	17,686	
	End	15,609								9,210	11,159	15,055	17,004	20,901	22,849		24,798						6,093	25,968	
GC5x20-SR4	Start	14,629				Please consult factory	16,975	19,786	25,407	28,218	33,840	36,651	42,274	45,086	47,898	Exceeds MOP				5.2	15,289	11.3	49,585		
	Min.	7,360							5,263	6,481	8,890	10,088	12,478	13,671	16,055		17,246	18,437						4,523	19,151
	End	13,188							6,287	8,235	12,131	14,079	17,976	19,924	23,821		25,770	27,719						5,118	28,888
GC5x24-SR1	Start	24,332					Please consult factory	26,468	34,675	38,779	Exceeds MOP									5.9	25,647	7.7	40,420		
	Min.	12,196							7,923	11,482		13,241											7,561	13,943	
	End	21,920							9,222	14,910		17,755											8,653	18,892	
GC5x24-SR2	Start	21,801					Please consult factory	25,792	29,895	38,102	42,206	Exceeds MOP								5.3	24,151	7.7	43,848		
	Min.	10,684							7,688	9,478	13,008		14,761										6,961	15,460	
	End	18,490							8,906	11,750	17,438		20,283										7,768	21,420	
GC5x24-SR3	Start	17,517				Please consult factory	24,620	28,723	32,827	41,034	45,138	Exceeds MOP								4.1	17,235	7.7	46,779		
	Min.	8,756							8,085	9,845	11,597		15,087	16,828									4,854	17,524	
	End	15,556							10,341	13,185	16,029		21,718	24,562									5,223	25,700	
GC5x24-SR4	Start	14,592				Please consult factory	18,833	27,039	31,142	35,246	43,453	47,557	Exceeds MOP							3.6	15,551	7.7	49,198		
	Min.	7,349							6,075	9,591	11,336	13,078		16,557	18,294								4,645	18,989	
	End	13,135							7,574	13,262	16,106	18,950		24,638	27,483								5,299	28,620	

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)			
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13					13.5		
			Pressure Torque Output: Start/Min./End (Nm)																						
GC5x28-SR1	Start	24,174			Please consult factory	35,015	40,817	Exceeds MOP											4.1	24,572	5.5	40,817			
	Min.	12,147				11,690	14,177													7,146		14,177			
	End	21,692				15,146	19,167													7,908		19,167			
GC5x28-SR2	Start	21,643		Please consult factory	26,839	38,442	44,245	Exceeds MOP											3.7	23,358	5.5	44,245			
	Min.	10,635			8,208	13,215	15,693													6,666		15,693			
	End	18,262			9,632	17,674	21,695													7,219		21,695			
GC5x28-SR3	Start	17,358	18,168	23,969	29,771	41,374	47,176	Exceeds MOP											3.0	18,168	5.5	47,176			
	Min.	8,708	5,331	7,863	10,352	15,293	17,755													5,331		17,755			
	End	15,328	5,870	9,890	13,911	21,953	25,975													5,870		25,975			
GC5x28-SR4	Start	14,434	20,587	26,388	32,190	43,793	49,595	Exceeds MOP											2.6	15,946	5.5	49,595			
	Min.	7,300	6,888	9,371	11,841	16,763	19,220													4,876		19,220			
	End	12,907	8,790	12,811	16,832	24,874	28,895													5,574		28,895			
GC5x32-SR1	Start	24,110	Please consult factory	30,086	37,683	Exceeds MOP													3.2	25,528	4.2	40,722			
	Min.	12,128		9,579	12,849															7,586		14,150			
	End	21,600		11,730	16,995															8,571		19,101			
GC5x32-SR2	Start	21,579	25,917	33,513	41,110	Exceeds MOP													2.8	22,878	4.2	44,149			
	Min.	10,615	7,820	11,116	14,370															6,466		15,666			
	End	18,170	8,993	14,258	19,523															6,887		21,629			
GC5x32-SR3	Start	17,294	28,848	36,445	44,042	Exceeds MOP													2.3	18,214	4.2	47,081			
	Min.	8,688	9,973	13,212	16,439															5,368		17,729			
	End	15,236	13,272	18,537	23,802															5,901		25,909			
GC5x32-SR4	Start	14,370	31,267	38,864	46,461	Exceeds MOP													1.9	14,556	4.2	49,500			
	Min.	7,280	11,464	14,688	17,907															4,278		19,194			
	End	12,815	16,192	21,458	26,723															4,610		28,829			
GC5x36-SR1	Start	24,046	34,609	Exceeds MOP															2.5	24,977	3.3	40,388			
	Min.	12,108	11,546																	7,359		14,022			
	End	21,507	14,864																	8,189		18,870			
GC5x36-SR2	Start	21,515	38,036	Exceeds MOP															2.3	24,552	3.3	43,815			
	Min.	10,595	13,072																	7,233		15,539			
	End	18,077	17,392																	8,047		21,398			
GC5x36-SR3	Start	17,230	40,968	Exceeds MOP															1.8	17,852	3.3	46,747			
	Min.	8,668	15,150																	5,225		17,602			
	End	15,143	21,672																	5,651		25,677			
GC7x20-SR3	Start	35,086										Please consult factory	40,424	43,853	50,712	54,141	57,571	61,001	10.1	37,681	13.8	63,059			
	Min.	17,338											12,116	13,617	16,588	18,064	19,537	21,005		10,901		21,886			
	End	30,551											14,134	16,511	21,265	23,643	26,020	28,398		12,232		29,825			
GC7x20-SR4	Start	29,444										Please consult factory	31,360	34,788	41,646	45,075	48,504	55,362	58,792	62,222	65,652	8.5	31,360	13.8	67,710
	Min.	14,624											9,129	10,641	13,617	15,093	16,564	19,496	20,960	22,419	23,879		9,129		24,755
	End	25,895											10,263	12,639	17,393	19,770	22,147	26,901	29,279	31,656	34,034		10,263		35,460

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)						
		3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5										
		Pressure Torque Output: Start/Min./End (Nm)																										
GC7x24-SR1	Start	48,183										Please consult factory	57,842	62,859	67,876	77,910	Exceeds MOP			9.5	52,825	12.3	80,921					
	Min.	23,647											17,432	19,624	21,799	26,120					15,215		27,411					
	End	41,333												20,594	24,071	27,549		34,505					17,116	36,592				
GC7x24-SR2	Start	42,540								Please consult factory	47,443	52,459	62,493	67,510	72,527	82,561	Exceeds MOP			8.4	46,440	12.3	85,572					
	Min.	20,933										13,862	16,070	20,420	22,578	24,729		29,017					13,416	30,301				
	End	36,677											15,797	19,274	26,230	29,707		33,185	40,141					15,102	42,228			
GC7x24-SR3	Start	35,038						Please consult factory	38,585	43,600	53,633	58,649	68,682	73,699	78,716	88,751	Exceeds MOP			7.0	38,585	12.3	91,762					
	Min.	17,323										11,304	13,507	17,845	19,997	24,284		26,421	28,556		32,820				11,304	34,098		
	End	30,482											12,859	16,336	23,290	26,767		33,723	37,200		40,678		47,634			12,859	49,721	
GC7x24-SR4	Start	29,396					Please consult factory	33,205	43,236	48,251	58,283	63,300	73,333	78,350	83,367	93,402	Exceeds MOP			5.9	32,202	12.3	96,413					
	Min.	14,609										9,949	14,304	16,457	20,742	22,877		27,142	29,271		31,401		35,654			9,506	36,929	
	End	25,826											11,542	18,495	21,972	28,926		32,403	39,358		42,836		46,314	53,270			10,846	55,357
GC7x28-SR1	Start	47,991						Please consult factory	56,677	63,781	77,988	Exceeds MOP									6.7	52,416	8.7	80,830				
	Min.	23,587												17,002	20,106	26,237										15,113	27,455	
	End	41,056													19,787	24,711	34,559									16,832	36,529	
GC7x28-SR2	Start	42,349						Please consult factory	47,123	61,328	68,432	82,639	Exceeds MOP									5.9	45,702	8.7	85,481			
	Min.	20,874												13,798	19,997	23,054	29,132									13,165	30,345	
	End	36,401													15,575	25,422	30,346	40,195									14,591	42,165
GC7x28-SR3	Start	34,847			Please consult factory	39,108	46,210	53,312	67,518	74,621	88,829	Exceeds MOP									4.9	37,688	8.7	91,670				
	Min.	17,264												11,611	14,717	17,784	23,865	26,893	32,935							10,981	34,142	
	End	30,205													13,222	18,145	23,068	32,915	37,839	47,688							12,237	49,658
GC7x28-SR4	Start	29,204			Please consult factory	43,759	50,861	57,963	72,169	79,272	93,480	Exceeds MOP									4.1	30,977	8.7	96,321				
	Min.	14,550													14,602	17,648	20,681	26,726	29,742	35,769							9,034	36,973
	End	25,550														18,858	23,781	28,704	38,551	43,475		53,324						9,997

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC7x32-SR1	Start	47,913				Please consult factory	59,516	68,824	Exceeds MOP											5.1	52,070	6.6	79,994
	Min.	23,563					18,262	22,304															
	End	40,943					21,754	28,207															
GC7x32-SR2	Start	42,270			Please consult factory	54,860	64,167	73,475	Exceeds MOP											4.6	47,414	6.6	84,645
	Min.	20,849				17,210	21,235	25,229															
	End	36,287				20,938	27,390	33,843															
GC7x32-SR3	Start	34,768		Please consult factory	42,435	61,049	70,357	79,665	Exceeds MOP											3.7	36,851	6.6	90,835
	Min.	17,240			13,091	21,117	25,091	29,053															
	End	30,092			15,528	28,431	34,883	41,336															
GC7x32-SR4	Start	29,125	Please consult factory	37,780	47,086	65,700	75,008	84,316	Exceeds MOP											3.2	32,196	6.6	95,486
	Min.	14,526		12,037	16,048	23,990	27,945	31,897															
	End	25,436		14,713	21,164	34,067	40,519	46,972															
GC7x36-SR1	Start	47,834		Please consult factory	75,096	Exceeds MOP														4.1	53,843	5.2	79,819
	Min.	23,539			25,021																		
	End	40,829			32,554																		
GC7x36-SR2	Start	42,191		Please consult factory	56,132	79,747	Exceeds MOP													3.6	46,687	5.2	84,470
	Min.	20,825			17,779	27,926																	
	End	36,174			21,821	38,190																	
GC7x36-SR3	Start	34,690	38,709	50,515	62,322	85,936	Exceeds MOP													3.0	38,709	5.2	90,659
	Min.	17,216	11,471	16,613	21,678	31,735																	
	End	29,978	12,945	21,129	29,314	45,683																	
GC7x36-SR4	Start	29,047	43,360	55,166	66,973	90,587	Exceeds MOP													2.5	31,554	5.2	95,310
	Min.	14,502	14,465	19,520	24,548	34,570																	
	End	25,323	18,581	26,765	34,949	51,319																	
GC7xT28-SR1	Start	47,396	Please consult factory	55,803	70,004	Exceeds MOP														3.4	52,962	4.3	78,526
	Min.	23,404		16,809	22,990																		
	End	40,197		19,180	29,025																		
GC7xT28-SR2	Start	41,753	46,252	60,453	74,655	Exceeds MOP														3.0	46,252	4.3	83,177
	Min.	20,690	13,604	19,808	25,910																		
	End	35,542	14,972	24,816	34,661																		
GC7xT28-SR3	Start	34,251	52,442	66,643	80,845	Exceeds MOP														2.5	38,241	4.3	89,366
	Min.	17,080	17,597	23,679	29,730																		
	End	29,346	22,465	32,309	42,154																		
GC7xT28-SR4	Start	28,608	57,093	71,294	85,496	Exceeds MOP														2.1	31,533	4.3	94,017
	Min.	14,366	20,496	26,540	32,571																		
	End	24,691	28,101	37,945	47,790																		

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Torque - Pneumatic Spring Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)					
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13					13.5				
			Pressure Torque Output: Start/Min./End (Nm)																								
GC8x24-SR1	Start	71,274													Please consult factory	70,978	76,877	82,777	88,677	11.9	69,798	13.8	92,217				
	Min.	36,699														21,669	24,237	26,789	29,331		21,152		30,852				
	End	69,216														25,930	30,019	34,109	38,198		25,112		40,652				
GC8x24-SR2	Start	57,366												Please consult factory	57,879	63,778	69,677	81,475	87,375	93,274	99,174	9.7	54,340	13.8	102,714		
	Min.	30,200													18,637	21,178	23,709	28,749	31,263	33,772	36,281		17,104		37,784		
	End	58,708													23,467	27,556	31,645	39,823	43,912	48,002	52,091		21,014		54,545		
GC8x24-SR3	Start	48,641								Please consult factory	49,044	54,942	66,738	72,637	78,536	90,334	96,233	102,133	108,033	8.2	45,505	13.8	111,573				
	Min.	25,642										15,829	18,369	23,416	25,932	28,441	33,453	35,957	38,460		40,960		14,296	42,460			
	End	49,840										19,918	24,006	32,183	36,272	40,361	48,539	52,628	56,718		60,807		17,465	63,261			
GC8x28-SR1	Start	71,043								Please consult factory	71,377	79,748	96,492	104,865	113,238	Exceeds MOP					8.4	69,703	11.9	128,310			
	Min.	36,628										21,945	25,585	32,789	36,374		39,947							21,212	46,366		
	End	68,884										26,207	32,009	43,616	49,419		55,223							25,046	65,671		
GC8x28-SR2	Start	57,136						Please consult factory	56,763	65,133	81,875	90,246	106,990	115,362	123,735	Exceeds MOP					6.8	53,415	11.9	138,807			
	Min.	30,129										18,250	21,857	29,019	32,585		39,702	43,256	46,810						16,797	53,196	
	End	58,376										22,693	28,495	40,100	45,902		57,509	63,312	69,116						20,372	79,564	
GC8x28-SR3	Start	48,411					Please consult factory	48,883	65,622	73,992	90,733	99,105	115,848	124,221	132,594	Exceeds MOP					5.8	45,535	11.9	147,666			
	Min.	25,572										15,851	23,034	26,604	33,721		37,275	44,374	47,922	51,469						14,401	57,850
	End	49,508										19,806	31,409	37,211	48,816		54,618	66,225	72,028	77,832						17,486	88,280
GC8x32-SR1	Start	70,950					Please consult factory	82,712	93,696	115,664	126,649	Exceeds MOP								6.4	69,533	9.0	126,649				
	Min.	36,600											26,878	31,605	40,994	45,671								21,153	45,671		
	End	68,750											34,064	41,677	56,905	64,519								24,928	64,519		
GC8x32-SR2	Start	57,043				Please consult factory	60,262	71,244	93,210	104,193	126,161	137,146	Exceeds MOP							5.2	53,673	9.0	137,146				
	Min.	30,101										19,777		24,493	33,860	38,528	47,850	52,504						16,926	52,504		
	End	58,241										25,119		32,731	47,957	55,570	70,798	78,412						20,551	78,412		
GC8x32-SR3	Start	48,317			Please consult factory	58,139	69,121	80,103	102,068	113,052	135,020	146,005	Exceeds MOP							4.4	44,962	9.0	146,005				
	Min.	25,543										19,851		24,544	29,220	38,547	43,202	52,509	57,159						14,170	57,159	
	End	49,374										26,222		33,835	41,447	56,673	64,286	79,514	87,128						17,088	87,128	

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic
Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC8x36-SR1	Start	70,857			Please consult factory	68,267	82,211	96,155	124,045	Exceeds MOP										5.0	68,267	7.1	126,834
	Min.	36,571				20,615	26,679	32,674	44,578										20,615		45,764		
	End	68,616				24,051	33,716	43,382	62,714										24,051		64,648		
GC8x36-SR2	Start	56,950			Please consult factory	78,764	92,708	106,652	134,542	Exceeds MOP										4.1	53,667	7.1	137,331
	Min.	30,072				27,724	33,663	39,588	51,415										16,943		52,596		
	End	58,107				37,944	47,609	57,275	76,607										20,547		78,541		
GC8x36-SR3	Start	48,224	Please consult factory	45,795	59,737	87,623	101,567	115,511	143,401	Exceeds MOP										3.4	43,007	7.1	146,190
	Min.	25,515		14,553	20,555	32,433	38,351	44,260	56,072										13,339		57,251		
	End	49,239		17,666	27,330	46,660	56,325	65,991	85,323										15,733		87,257		
GC8x40-SR1	Start	70,764			Please consult factory	101,241	118,496	Exceeds MOP												4.1	70,184	5.8	128,849
	Min.	36,542				34,869	42,234												21,476		46,638		
	End	68,481				46,907	58,868												25,379		66,044		
GC8x40-SR2	Start	56,856	Please consult factory	59,977	77,230	111,738	128,993	Exceeds MOP												3.3	53,076	5.8	139,346
	Min.	30,044		19,694	27,089	41,764	49,081												16,708		53,466		
	End	57,973		24,921	36,881	60,800	72,761												20,138		79,938		
GC8x40-SR3	Start	48,131	51,584	68,836	86,089	120,597	137,852	Exceeds MOP												2.8	44,683	5.8	148,205
	Min.	25,486	17,078	24,462	31,802	46,432	53,741												14,092		58,120		
	End	49,105	21,678	33,637	45,597	69,516	81,477												16,895		88,653		

Note: All Published Torques are Guaranteed Minimum Values. Units are Metric

Torque - Pneumatic Spring Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5				
			Pressure Torque Output: Start/Min./End (Nm)																				
GC8xT32-SR1	Start	70,142	Please	81,525	103,486	Exceeds MOP													3.2	68,349	4.5	125,447	
	Min.	36,351	consult	26,623	36,053																		
	End	67,584	factory	33,241	48,463																		
GC8xT32-SR2	Start	56,235	70,063	92,023	113,983	Exceeds MOP													2.6	52,496	4.5	135,944	
	Min.	29,853	24,240	33,608	42,937																		
	End	57,076	31,912	47,134	62,356																		
GC8xT32-SR3	Start	47,509	78,922	100,881	122,842	Exceeds MOP													2.2	43,788	4.5	144,803	
	Min.	25,296	28,969	38,296	47,603																		
	End	48,208	40,628	55,850	71,072																		
GC8xT36-SR1	Start	69,956	94,838	122,721	Exceeds MOP														2.6	72,532	3.6	128,298	
	Min.	36,294	32,393	44,297																			
	End	67,316	42,469	61,797																			
GC8xT36-SR2	Start	56,048	105,335	133,218	Exceeds MOP														2.1	55,148	3.6	138,795	
	Min.	29,796	39,309	51,135																			
	End	56,807	56,362	75,690																			
GC8xT36-SR3	Start	47,323	114,194	142,077	Exceeds MOP														1.7	41,702	3.6	147,654	
	Min.	25,239	43,981	55,792																			
	End	47,939	65,078	84,406																			
GC10x28-SR4	Start	96,790									Please consult factory	111,667	133,461	144,359	155,258	177,057	187,957	198,857	209,759	8.8	107,308	13.8	216,300
	Min.	47,257										32,710	42,250	46,965	51,658	61,005	65,661	70,313	74,960				
	End	81,686										37,280	52,386	59,940	67,494	82,603	90,158	97,714	105,270				

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Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)	
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5					
			Pressure Torque Output: Start/Min./End (Nm)																					
GC10x32-SR2	Start	132,353										Please consult factory	167,567	181,898	196,230	224,897	239,231	253,565	267,900	9.2	144,637	13.8	276,502	
	Min.	65,483											52,358	58,567	64,747	77,043	83,172	89,288	95,401		42,302		99,061	
	End	115,915											64,204	74,138	84,072	103,941	113,876	123,812	133,748		48,311		139,709	
GC10x32-SR3	Start	120,642								Please consult factory	143,459	157,789	186,451	200,782	215,114	243,781	258,115	272,449	286,784	8.3	137,728	13.8	295,386	
	Min.	57,788										41,162	47,501	59,974	66,155	72,315	84,583	90,699	96,815		102,915		38,587	106,574
	End	97,014										46,104	56,036	75,902	85,836	95,770	115,639	125,574	135,510		145,446		42,131	151,407
GC10x32-SR4	Start	96,668						Please consult factory	115,964	130,292	158,950	173,279	201,941	216,272	230,605	259,271	273,605	287,939	302,275	6.7	107,368	13.8	310,876	
	Min.	47,219							34,628	40,892	53,260	59,401	71,642	77,744	83,842	96,020	102,104	108,188	114,268		30,814		117,912	
	End	81,509							40,259	50,190	70,053	79,985	99,851	109,784	119,718	139,587	149,523	159,458	169,394		34,300		175,356	
GC10x36-SR2	Start	132,231						Please consult factory	154,108	190,549	208,770	245,216	263,439	Exceeds MOP						7.2	143,176	10.9	278,019	
	Min.	65,445							46,495	62,318	70,152	85,739	93,514						41,671		99,719			
	End	115,739							54,876	80,134	92,763	118,024	130,655						47,299		140,761			
GC10x36-SR3	Start	120,520						Please consult factory	154,772	172,992	209,433	227,654	264,100	282,323	Exceeds MOP						6.6	140,197	10.9	296,903
	Min.	57,750							46,196	54,160	69,889	77,700	93,267	101,030						39,720		107,232		
	End	96,838							53,945	66,574	91,832	104,461	129,722	142,353						43,843		152,459		
GC10x36-SR4	Start	96,545				Please consult factory	115,608	133,826	170,263	188,482	224,923	243,145	279,590	297,813	Exceeds MOP						5.3	108,321	10.9	312,393
	Min.	47,181						34,493	42,446	58,128	65,916	81,440	89,190	104,658		112,391						31,264		118,567
	End	81,333						40,012	52,639	77,894	90,522	115,780	128,410	153,671		166,302						34,961		176,407
GC10x40-SR1	Start	164,027						Please consult factory	197,015	242,156	Exceeds MOP									7.2	183,473	8.8	255,699	
	Min.	79,837							58,476	78,133											52,469		83,974	
	End	137,744							68,092	99,380											58,706		108,767	
GC10x40-SR2	Start	132,108				Please consult factory	151,469	196,606	219,175	264,317	Exceeds MOP									5.8	142,442	8.8	277,860	
	Min.	65,407						45,359	64,943	74,626		93,904									41,367		99,667	
	End	115,563						53,047	84,332	99,975		131,264									46,790		140,651	
GC10x40-SR3	Start	120,398				Please consult factory	147,785	170,353	215,490	238,059	283,201	Exceeds MOP								5.3	138,759	8.8	296,744	
	Min.	57,712						43,129	53,033	72,511	82,172		101,419								39,096		107,180	
	End	96,661						49,103	64,744	96,030	111,673		142,962								42,846		152,349	
GC10x40-SR4	Start	96,423			Please consult factory	140,709	163,276	185,843	230,980	253,550	298,691	Exceeds MOP								4.1	100,091	8.8	312,234	
	Min.	47,144						45,449	55,159	64,811	84,035		93,624	112,779							27,576		118,516	
	End	81,157						57,410	73,051	88,693	119,978		135,622	166,910							29,257		176,297	

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Torque - Pneumatic Spring Return Actuator

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure, (barg)																	MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)		
			3	3.5	4	5	5.5	6	7	7.5	8.5	9	10	10.5	11	12	12.5	13	13.5						
			Pressure Torque Output: Start/Min./End (Nm)																						
GC10xT32-SR1	Start	163,186					Please consult factory	201,084	Exceeds MOP											5.7	183,892	6.9	252,661		
	Min.	79,577						60,597													52,987		83,000		
	End	136,531						70,912													58,997		106,661		
GC10xT32-SR2	Start	131,268			Please consult factory	165,941	194,592	223,244	Exceeds MOP											4.6	143,021	6.9	274,821		
	Min.	65,148				52,004	64,396	76,690													41,942		98,704		
	End	114,350				63,078	82,936	102,796													47,191		138,545		
GC10xT32-SR3	Start	119,557			Please	184,825	213,476	242,128	Exceeds MOP											4.1	133,257	6.9	293,705		
	Min.	57,451			consult	59,624	71,963	84,231													36,913		106,217		
	End	95,448			factory	74,776	94,634	114,494													39,032		150,243		
GC10xT32-SR4	Start	95,582	Please consult factory	114,370	143,017	200,316	228,966	257,619	Exceeds MOP											3.4	108,641	6.9	309,196		
	Min.	46,883		34,276	46,748	71,296	83,494	95,670													31,736		117,556		
	End	79,944		39,154	59,010	98,724	118,583	138,442													35,183		174,191		
GC10xT36-SR1	Start	162,941			Please consult factory	221,246	257,680	Exceeds MOP												4.5	184,814	5.5	257,680		
	Min.	79,501				69,454	85,201																53,449	85,201	
	End	136,178				84,887	110,140																59,635	110,140	
GC10xT36-SR2	Start	131,023		Please consult factory	170,544	243,407	279,840	Exceeds MOP												3.6	141,400	5.5	279,840		
	Min.	65,073				54,054	85,354		100,882														41,275	100,882	
	End	113,997				66,268	116,771		142,023														46,068	142,023	
GC10xT36-SR3	Start	119,313	Please consult factory	152,999	189,428	262,291	298,724	Exceeds MOP												3.3	138,427	5.5	298,724		
	Min.	57,376		45,804	61,662	92,881	108,395																39,316	108,395	
	End	95,096		52,716	77,966	128,469	153,721																42,616	153,721	
GC10xT36-SR4	Start	95,338	132,061	168,489	204,918	277,781	314,215	Exceeds MOP												2.6	102,919	5.5	314,215		
	Min.	46,807	42,064	57,749	73,309	104,274	119,726																29,227	119,726	
	End	79,591	51,416	76,665	101,915	152,417	177,670																31,217	177,670	
GC10xT40-SR1	Start	162,697		Please consult factory	217,620	Exceeds MOP														3.6	181,517	4.4	253,724		
	Min.	79,425					67,927																	52,027	83,550
	End	135,825					82,374																	57,350	107,398
GC10xT40-SR2	Start	130,779	149,525	194,652	239,781	Exceeds MOP														2.9	140,500	4.4	275,885		
	Min.	64,997	44,931	64,524	83,857																		40,934	99,247	
	End	113,644	51,699	82,978	114,257																		45,444	139,282	
GC10xT40-SR3	Start	119,068	168,409	213,536	258,665	Exceeds MOP														2.6	132,308	4.4	294,769		
	Min.	57,300	52,609	72,091	91,385																		36,594	106,761	
	End	94,743	63,397	94,676	125,955																		38,375	150,980	
GC10xT40-SR4	Start	95,093	183,899	229,026	274,155	Exceeds MOP														2.1	102,674	4.4	310,259		
	Min.	46,732	64,397	83,620	102,785																		29,180	118,098	
	End	79,238	87,346	118,624	149,904																		31,047	174,928	

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