

Bettis GC-Series

Pneumatic Double-Acting and 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)																Min.OP (barg)	Torque @ Min. OP (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	757	13.2	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	970	10.4	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	1,296	7.9	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	1,872	5.5	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	2,281	4.6	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	1,175	12.9	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	Inboard	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	1,569	9.7	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	Inboard	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	2,266	6.9	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	Inboard	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	2,762	5.6	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	Inboard	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	3,663	4.2	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	Inboard	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													

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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)																																		
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				2.8	1,890	13.8	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											Exceeds MOP									2.8	2,734	9.8	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													Exceeds MOP								2.8	3,335	8.1	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															Exceeds MOP										2.8	4,426	6.2	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		Exceeds MOP																	2.8	7,065	3.9	14,401											
	Min.		4,676	5,464			4,360	6,095																													
	End		7,540	8,826			7,026	9,855																													

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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)																					
GC4x12	Outboard	Start	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	13.8	3,324	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	
	Inboard	Start	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	Outboard	Start	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	2.8	13.4	4,058	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	
	Inboard	Start	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	Outboard	Start	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	10.1	5,390	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						
	Inboard	Start	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	Outboard	Start	9,242	10,818	12,395	15,549	17,126	18,703	Exceeds MOP												2.8	6.3	8,611	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													
	Inboard	Start	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	Outboard	Start	13,508	15,800	18,093	Exceeds MOP														2.8	4.3	12,591	19,469	
		Min.	8,285	9,678	11,071		7,727	11,907																
		End	19,483	22,790	26,097		18,160	28,081																
	Inboard	Start	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																

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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)																					
GC4x28	Start	Outboard	19,023	Exceeds MOP																2.8	17,730	3.1	19,670	
			11,681																		10,894		12,074	
			27,439																				25,573	28,371
	End	Inboard	27,346																				25,487	28,276
			11,667																				10,881	12,059
			18,937																					17,650
GC4x220	Start	Outboard	18,427	Exceeds MOP																2.8	17,169	3.2	19,685	
			11,337																		10,573		12,102	
			26,579																				24,765	28,392
	End	Inboard	26,568																				24,754	28,381
			11,357																				10,591	12,123
			18,398																					17,142
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	6,951	13.8	35,134	
			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	
			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	
	End	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	
			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	
			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	11,116	11.3	45,698
			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						
			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						
	End	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						
			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						
			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	16,262	7.7	45,267	
			10,696	12,495	14,293	17,890	19,689	21,487	25,084	26,883		9,977	27,602											
			25,161	29,429	33,697	42,234	46,503	50,771	59,309	63,578		23,454	65,286											
	End	Inboard	24,954	29,188	33,422	41,890	46,124	50,359	58,828	63,062		23,261	64,756											
			10,634	12,422	14,210	17,787	19,575	21,363	24,940	26,728		9,919	27,444											
			17,296	20,230	23,164	29,034	31,968	34,903	40,773	43,708		16,122	44,882											

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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)																					
GC5x28	Start	Outboard	24,577	28,753	32,928	41,280	45,456	Exceeds MOP													2.8	22,907	5.5	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	30,041	4.2	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	38,136	3.3	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
GC5x220	Start	Outboard	23,730	27,776	31,822	39,914	43,960	Exceeds MOP												2.8	22,112	5.7	45,579	
	Min.		14,593	17,052	19,512	24,432	26,892														13,609		27,876	
	End		34,225	40,060	45,895	57,566	63,402														31,891		65,736	
	Start	Inboard	34,197	40,027	45,857	57,519	63,350														31,865		65,683	
	Min.		14,615	17,079	19,542	24,469	26,933														13,630		27,918	
	End		23,701	27,742	31,783	39,866	43,907														22,085		45,524	
GC5x224	Start	Outboard	34,762	40,659	Exceeds MOP														2.8	32,403	3.9	45,377		
	Min.		21,314	24,898																		19,881	27,765	
	End		50,136	58,641																		46,734	65,445	
	Start	Inboard	50,095	58,593																		46,695	65,392	
	Min.		21,347	24,936																		19,911	27,808	
	End		34,720	40,610																		32,364	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	13,559	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					8,363	98,519						
	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							19,268	97,096				
	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									8,263	41,173		
	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											13,356	67,306
	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												
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					12,216	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							28,668	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									12,122	53,689					
	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											19,667	87,838			
	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															
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					17,251	54,002														
	End		43,401	50,783	58,166	72,933	80,317	87,701	102,470	109,855	124,627							40,448	127,582												
	Start	Inboard	43,070	50,397	57,725	72,381	79,709	87,038	101,697	109,027	123,688									40,139	126,621										
	Min.		18,404	21,503	24,602	30,800	33,899	36,998	43,196	46,296	52,495											17,165	53,734								
	End		29,856	34,935	40,014	50,174	55,254	60,335	70,496	75,577	85,740													27,824	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					22,601	53,566																	
	End		56,951	66,612	76,273	95,596	105,258	114,921							53,087	126,516															
	Start	Inboard	56,607	66,211	75,814	95,022	104,627	114,232									52,766	125,758													
	Min.		24,148	28,208	32,268	40,389	44,449	48,510											22,524	53,383											
	End		39,240	45,897	52,554	65,869	72,527	79,185													36,577	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					28,669	53,447																			
	End		72,328	84,571	96,814	121,302							67,431	126,200																	
	Start	Inboard	71,969	84,152	96,335	120,703									67,096	125,577															
	Min.		30,661	35,811	40,961	51,261											28,601	53,321													
	End		49,888	58,334	66,779	83,671													46,510	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	26,931	6.9	67,456
	Min.		17,815	20,822	23,828	29,842	32,849	35,856		16,613	41,269												
	End		41,693	48,820	55,947	70,202	77,330	84,459		38,843	97,291												
	Start	Inboard	41,653	48,772	55,892	70,134	77,255	84,376													38,805		97,196
	Min.		17,843	20,855	23,866	29,889	32,901	35,913		16,639	41,334												
	End		28,873	33,809	38,744	48,616	53,553	58,489		26,899	67,376												
GC7x224	Start	Outboard	42,453	49,669	56,885	71,317	78,533	85,750	Exceeds MOP											2.8	39,567	6.1	87,194
	Min.		26,074	30,462	34,850	43,627	48,015	52,404		24,319	53,282												
	End		61,230	71,637	82,044	102,859	113,268	123,676		57,067	125,758												
	Start	Inboard	61,170	71,567	81,964	102,759	113,157	123,556													57,012		125,636
	Min.		26,115	30,510	34,906	43,696	48,092	52,487		24,357	53,366												
	End		42,403	49,610	56,817	71,232	78,440	85,648		39,520	87,090												
GC7x228	Start	Outboard	59,983	70,187	80,391	Exceeds MOP													2.8	55,902	4.3	86,514	
	Min.		36,871	43,079	49,288		34,388	53,013															
	End		86,513	101,230	115,947		80,626	124,778															
	Start	Inboard	86,429	101,131	115,834															80,548		124,656	
	Min.		36,930	43,148	49,366		34,443	53,097															
	End		59,912	70,104	80,296		55,835	86,411															

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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	Outboard	Start	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	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			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			169,757	
	Inboard	Start	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			167,232	
		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			70,820	
		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			115,920	
GC8x28	Outboard	Start	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	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				87,393				
		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				206,717				
	Inboard	Start	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				204,477				
		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				86,668				
		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				141,738				
GC8x32	Outboard	Start	46,686	54,607	62,528	78,372	86,294	94,217	110,063	117,987	133,835	141,760	Exceeds MOP	2.8	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				86,473							
		End	67,350	78,777	90,205	113,061	124,490	135,920	158,780	170,211	193,074	204,507				204,507							
	Inboard	Start	66,769	78,100	89,430	112,093	123,425	134,758	157,424	168,758	191,427	202,763				202,763							
		Min.	28,479	33,268	38,057	47,636	52,426	57,215	66,795	71,585	81,165	85,955				85,955							
		End	46,283	54,136	61,990	77,699	85,555	93,410	109,122	116,978	132,692	140,549				140,549							
GC8x36	Outboard	Start	59,314	69,356	79,398	99,484	109,527	119,571	139,659	Exceeds MOP	2.8	7.1	141,668										
		Min.	36,355	42,461	48,568	60,782	66,889	72,996	85,210				86,432										
		End	85,568	100,054	114,542	143,518	158,006	172,496	201,476				204,374										
	Inboard	Start	84,968	99,355	113,742	142,518	156,907	171,296	200,076				202,954										
		Min.	36,193	42,273	48,353	60,513	66,593	72,673	84,834				86,050										
		End	58,897	68,870	78,843	98,789	108,763	118,737	138,687				140,682										
GC8x40	Outboard	Start	73,441	85,854	98,267	123,094	135,509	Exceeds MOP	2.8	5.8	142,958												
		Min.	44,968	52,515	60,062	75,157	82,704				87,233												
		End	105,948	123,855	141,763	177,579	195,488				206,234												
	Inboard	Start	105,328	123,131	140,935	176,544	194,350				205,033												
		Min.	44,819	52,342	59,864	74,909	82,432				86,946												
		End	73,010	85,351	97,692	122,375	134,717				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		28,649	71,049												
	End		72,136	84,401	96,666	121,198	133,465	145,733		67,230	167,815												
	Start	Inboard	72,061	84,314	96,566	121,073	133,327	145,582		67,161	167,641												
	Min.		30,762	35,940	41,119	51,475	56,654	61,832		28,691	71,154												
	End		49,951	58,444	66,937	83,924	92,418	100,913		46,554	116,204												
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		40,574	85,997													
	End		102,079	119,450	136,822	171,568	188,942		95,131	202,842													
	Start	Inboard	101,973	119,326	136,680	171,390	188,746		95,033	202,632													
	Min.		43,568	50,905	58,242	72,917	80,254		40,634	86,124													
	End		70,685	82,713	94,743	118,803	130,833		65,874	140,458													
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		53,249	85,889															
	End		134,188	156,957	179,727		124,952	202,498															
	Start	Inboard	134,049	156,795	179,541		124,952	202,289															
	Min.		57,173	66,788	76,402		53,328	86,016															
	End		92,919	108,686	124,453		86,613	140,221															
GC8x236	Start	Outboard	118,273	138,298	Exceeds MOP												2.8	110,264	3.6	142,303			
	Min.		72,494	84,672		67,624	87,107																
	End		170,624	199,512		159,069	205,290																
	Start	Inboard	170,447	199,306		158,904	205,077																
	Min.		72,602	84,797		67,724	87,236																
	End		118,149	138,153		110,148	142,154																

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)																				
GC10x28	Outboard	Start	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	13.8	43,273	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			26,639	132,513
		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			62,421	313,450
	Inboard	Start	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			61,489	308,850
		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			26,309	130,888
		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			42,620	214,070
GC10x32	Outboard	Start	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	13.8	56,909	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			34,966	173,709
		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			82,092	411,134
	Inboard	Start	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			81,142	406,445
		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			34,648	172,145
		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			56,241	281,715
GC10x36	Outboard	Start	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	10.9	72,384	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		44,409	174,001						
		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		104,414	411,794						
	Inboard	Start	110,961	129,757	148,553	186,147	204,945	223,744	261,344	280,145	317,749	336,552	374,160	392,965		103,443	408,010						
		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		44,106	172,819						
		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		71,699	282,800						
GC10x40	Outboard	Start	96,202	112,467	128,732	161,263	177,530	193,797	226,332	242,601	275,140	Exceeds MOP								2.8	8.8	89,697	284,902
		Min.	58,926	68,817	78,708	98,491	108,382	118,274	138,058	147,950	167,736		54,969	173,671									
		End	138,773	162,234	185,697	232,623	256,088	279,553	326,486	349,954	396,892		129,388	410,974									
	Inboard	Start	137,708	160,991	184,276	230,847	254,134	277,421	323,999	347,289	393,871		128,395	407,846									
		Min.	58,617	68,456	78,296	97,976	107,817	117,657	137,338	147,179	166,862		54,681	172,766									
		End	95,448	111,586	127,725	160,005	176,145	192,286	224,570	240,713	273,000		88,993	282,686									

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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)																				
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		52,909	131,280												
	End		133,029	155,682	178,336	223,648	246,305	268,964		123,968	309,753												
	Start	Inboard	132,906	155,538	178,171	223,442	246,078	268,716											123,853		309,467		
	Min.		56,815	66,386	75,957	95,100	104,671	114,243		52,987	131,473												
	End		92,120	107,807	123,494	154,872	170,562	186,253		85,845	214,498												
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		69,563	172,435												
	End		175,206	204,950	234,695	294,189	323,938	353,688		163,309	407,241												
	Start	Inboard	175,044	204,761	234,478	293,917	323,639	353,362												163,158		406,866	
	Min.		74,691	87,254	99,817	124,944	137,508	150,072		69,666	172,688												
	End		121,327	141,924	162,522	203,720	224,321	244,922		113,088	282,007												
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		88,450	171,294														
	End		223,065	260,847	298,630	374,201		207,953	404,430														
	Start	Inboard	222,860	260,606	298,355	373,855													207,761		404,057		
	Min.		94,962	110,916	126,871	158,781		88,580	171,546														
	End		154,468	180,632	206,796	259,127		144,004	280,060														
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		109,570	172,663															
	End		276,608	323,374	370,142		257,902	407,558															
	Start	Inboard	276,353	323,076	369,801														257,664		407,182		
	Min.		117,629	137,374	157,120		109,731	172,916															
	End		191,546	223,931	256,317		178,592	282,226															

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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)																																			
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		1,222										
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			1,792								
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	480			2,077						
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	419			2,264					
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			2,455			
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		3,471			
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		3,663		

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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)																																												
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	5,488	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																														967	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																																	900	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																																			713	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		

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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)																				
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		

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)																																
GC2x09-SR1	Start	2,994																		Exceeds MOP	9.7	2,453	12.9	4,418											
	Min.	1,638																	892						1,024	1,155	1,417	1,548							
	End	3,303																											1,125	1,338	1,550	1,976	2,189		
GC2x09-SR2	Start	2,586																	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					
	End	2,926																													894	1,107	1,532	1,745	1,958
GC2x09-SR3	Start	2,317																	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					
	End	2,612																													1,163	1,376	1,801	2,013	2,226
GC2x09-SR4	Start	2,067																	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			
	End	2,266																															775	988	1,413
GC2x10-SR1	Start	2,986																	Exceeds MOP	7.4	2,516	9.7	4,390												
	Min.	1,635																						876	1,225	1,399									
	End	3,291																															1,097	1,662	1,944
GC2x10-SR2	Start	2,578																	Exceeds MOP	6.3	1,997	9.7	4,767												
	Min.	1,430																						918	1,092	1,439	1,612								
	End	2,914																																1,223	1,505
GC2x10-SR3	Start	2,309																	Exceeds MOP	5.7	1,822	9.7	5,080												
	Min.	1,281																						723	1,070	1,244	1,590	1,762							
	End	2,600																																	927
GC2x10-SR4	Start	2,059																	Exceeds MOP	5.1	1,679	9.7	5,426												
	Min.	1,132																						700	874	1,221	1,394	1,739	1,912						
	End	2,254																																	
GC2x12-SR1	Start	2,973																	Exceeds MOP	5.1	2,431	6.9	4,535												
	Min.	1,631																						1,008	1,258										
	End	3,272																																	1,306
GC2x12-SR2	Start	2,565																	Exceeds MOP	4.5	2,106	6.9	4,911												
	Min.	1,426																						974	1,223	1,471									
	End	2,895																																	1,308

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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
Pressure Torque Output: Start/Min./End (Nm)																						
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		767	3,115												
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		693	3,365												
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												
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															

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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-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
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
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
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
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
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
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

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)																																					
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	9,724	10.3	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	8,790	9.0	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	18,596	Exceeds MOP	7,368	7.6	19,428							
	Min.	4,163																		3,119	3,564	4,451	4,894	5,336	6,218	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	5,952	6.3	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	8,777	6.8	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	7,237	5.7	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	6,046	4.8	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	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

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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)																														
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						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					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			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	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							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						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					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				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	

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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)																																					
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																		10.1	37,681	13.8	63,059																	
	Min.	17,338																			12,116		13,617	16,588	18,064	19,537	21,005													
	End	30,551																			14,134		16,511	21,265	23,643	26,020	28,398													
GC7x20-SR4	Start	29,444																		8.5	31,360	34,788	41,646	45,075	48,504	55,362	58,792	62,222	65,652	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
GC7x24-SR1	Start	48,183																		9.5	57,842	62,859	67,876	77,910	Exceeds MOP	52,825	12.3	80,921												
	Min.	23,647																	17,432		19,624					21,799		26,120	Exceeds MOP	15,215	27,411									
	End	41,333																			20,594					24,071		27,549	34,505	Exceeds MOP	17,116	36,592								
GC7x24-SR2	Start	42,540																		8.4	47,443	52,459	62,493	67,510	72,527	82,561	Exceeds MOP	46,440	12.3	85,572										
	Min.	20,933																	13,862		16,070							20,420		22,578	24,729	29,017	Exceeds MOP	13,416	30,301					
	End	36,677																			15,797							19,274		26,230	29,707	33,185	40,141	Exceeds MOP	15,102	42,228				
GC7x24-SR3	Start	35,038																		7.0	38,585	43,600	53,633	58,649	68,682	73,699	78,716	88,751	Exceeds MOP	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																		5.9	33,205	43,236	48,251	58,283	63,300	73,333	78,350	83,367	93,402	Exceeds MOP	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
GC7x28-SR1	Start	47,991																		6.7	56,677	63,781	77,988	Exceeds MOP	52,416	8.7	80,830													
	Min.	23,587																	17,002		20,106				26,237		Exceeds MOP	15,113	27,455											
	End	41,056																			19,787				24,711		34,559	Exceeds MOP	16,832	36,529										
GC7x28-SR2	Start	42,349																		5.9	47,123	61,328	68,432	82,639	Exceeds MOP	45,702	8.7	85,481												
	Min.	20,874																	13,798		19,997					23,054		29,132	Exceeds MOP	13,165	30,345									
	End	36,401																			15,575					25,422		30,346	40,195	Exceeds MOP	14,591	42,165								
GC7x28-SR3	Start	34,847																		4.9	39,108	46,210	53,312	67,518	74,621	88,829	Exceeds MOP	37,688	8.7	91,670										
	Min.	17,264																	11,611		14,717							17,784		23,865	26,893	32,935	Exceeds MOP	10,981	34,142					
	End	30,205																			13,222							18,145		23,068	32,915	37,839	47,688	Exceeds MOP	12,237	49,658				
GC7x28-SR4	Start	29,204																		4.1	43,759	50,861	57,963	72,169	79,272	93,480	Exceeds MOP	30,977	8.7	96,321										
	Min.	14,550																	14,602		17,648							20,681		26,726	29,742	35,769	Exceeds MOP	9,034	36,973					
	End	25,550																			18,858							23,781		28,704	38,551	43,475	53,324	Exceeds MOP	9,997	55,294				

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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															14,973	27,110			
	End	40,943					21,754	28,207																16,593	35,950		
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														13,943	30,001		
	End	36,287					20,938	27,390		33,843															15,777	41,586	
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														10,624	33,800		
	End	30,092				15,528	28,431	34,883		41,336															11,658	49,079	
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													9,594	36,631		
	End	25,436				14,713	21,164	34,067		40,519	46,972														10,842	54,715	
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																		15,780	27,050	
	End	40,829					32,554																			17,821	35,828
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																	13,638	29,941	
	End	36,174					21,821	38,190																		15,273	41,464
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																			11,471	33,740	
	End	29,978	12,945	21,129	29,314	45,683																				12,945	48,957
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																			9,329	36,572	
	End	25,323	18,581	26,765	34,949	51,319																				10,398	54,593
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																		15,550	26,658
	End	40,197					19,180	29,025																			17,211
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																					13,604	29,551
	End	35,542	14,972	24,816	34,661																						14,972

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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)																							
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																			11,419	33,351	
	End	29,346	22,465	32,309	42,154																				12,621	48,061
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																				9,473	36,184
	End	24,691	28,101	37,945	47,790																					10,383
GC8x24-SR1	Start	71,274																				11.9	69,798	13.8	92,217	
	Min.	36,699																					21,152		30,852	
	End	69,216																					25,112		40,652	
GC8x24-SR2	Start	57,366																				9.7	54,340	13.8	102,714	
	Min.	30,200																					17,104		37,784	
	End	58,708																					21,014		54,545	
GC8x24-SR3	Start	48,641																				8.2	45,505	13.8	111,573	
	Min.	25,642																					14,296		42,460	
	End	49,840																					17,465		63,261	
GC8x28-SR1	Start	71,043																				8.4	69,703	11.9	128,310	
	Min.	36,628																					21,212		46,366	
	End	68,884																					25,046		65,671	
GC8x28-SR2	Start	57,136																				6.8	53,415	11.9	138,807	
	Min.	30,129																					16,797		53,196	
	End	58,376																					20,372		79,564	
GC8x28-SR3	Start	48,411																				5.8	45,535	11.9	147,666	
	Min.	25,572																					14,401		57,850	
	End	49,508																					17,486		88,280	
GC8x32-SR1	Start	70,950																				6.4	69,533	9.0	126,649	
	Min.	36,600																					21,153		45,671	
	End	68,750																					24,928		64,519	
GC8x32-SR2	Start	57,043																				5.2	53,673	9.0	137,146	
	Min.	30,101																					16,926		52,504	
	End	58,241																					20,551		78,412	
GC8x32-SR3	Start	48,317																				4.4	44,962	9.0	146,005	
	Min.	25,543																					14,170		57,159	
	End	49,374																					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													20,615	45,764	
	End	68,616				24,051	33,716	43,382	62,714		24,051														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													16,943	52,596	
	End	58,107				37,944	47,609	57,275	76,607		20,547														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													13,339	57,251	
	End	49,239		17,666	27,330	46,660	56,325	65,991	85,323		15,733														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																21,476	46,638
	End	68,481				46,907	58,868		25,379																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																16,708	53,466
	End	57,973		24,921	36,881	60,800	72,761		20,138																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															14,092	58,120	
	End	49,105	21,678	33,637	45,597	69,516	81,477		16,895															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																			20,894	45,416
	End	67,584	factory	33,241	48,463																				24,108
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																			16,671	52,249
	End	57,076	31,912	47,134	62,356																				19,735
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																			13,915	56,905
	End	48,208	40,628	55,850	71,072																				16,275
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																				22,768	46,669
	End	67,316	42,469	61,797																					27,007
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																				17,869	53,498
	End	56,807	56,362	75,690																					21,574
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																				13,055	58,151
	End	47,939	65,078	84,406																					14,829
GC10x28-SR4	Start	96,790																				8.8	107,308	13.8	216,300
	Min.	47,257																					30,768		77,743
	End	81,686																					37,280		109,803
GC10x32-SR2	Start	132,353																				9.2	144,637	13.8	276,502
	Min.	65,483																					42,302		99,061
	End	115,915																					64,204		139,709
GC10x32-SR3	Start	120,642																				8.3	137,728	13.8	295,386
	Min.	57,788																					41,162		106,574
	End	97,014																					46,104		151,407

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)																								
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
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		68,092	99,380								52,469		83,974			
	End	137,744																						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
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	

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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-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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