

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																	MinOP barg	MOP barg			
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13			13.5	14	
			Air Torque Output, Nm																					
GC01x08-SR0	Start	2,325														1,838	2,039	2,240	2,440	2,641	2,842	3,043	11.7	13.2
	Min	1,234														554	641	727	813	899	984	1,069		
	End	2,410														617	755	892	1,030	1,168	1,306	1,444		
GC01x09-SR0	Start	2,319											2,024	2,536	3,048	3,304	3,560	3,816	4,072	4,328	4,585	9.1	13.8	
	Min	1,233											635	855	1,072	1,181	1,289	1,397	1,505	1,613	1,721			
	End	2,402											744	1,096	1,447	1,623	1,799	1,975	2,151	2,327	2,503			
GC01x10-SR0	Start	2,312									2,163	2,842	3,522	4,201	4,881	5,221	5,561					6.9	11.4	
	Min	1,230									696	986	1,274	1,560	1,846	1,989	2,132							
	End	2,392									840	1,306	1,773	2,240	2,706	2,940	3,173							
GC01x12-SR0	Start	2,301						2,266	3,241	4,216	5,191											4.8	8.0	
	Min	1,227						743	1,157	1,568	1,978													
	End	2,376						911	1,580	2,249	2,919													
GC01x14-SR0	Start	2,292						2,123	3,308	4,494	5,680											3.9	6.3	
	Min	1,224						684	1,188	1,687	2,186													
	End	2,364						812	1,626	2,440	3,255													
GC01x08-SR1	Start	1,751												1,450	1,851	2,253	2,453	2,654	2,855	3,056	3,256	3,457	8.8	13.2
	Min	971												500	670	840	924	1,009	1,094	1,178	1,262	1,347		
	End	1,998												636	912	1,187	1,325	1,463	1,601	1,739	1,877	2,015		
GC01x09-SR1	Start	1,745									1,414	1,926	2,438	2,950	3,462	3,718	3,974	4,230	4,487	4,743	4,999	6.9	13.8	
	Min	969									486	703	919	1,134	1,350	1,457	1,565	1,673	1,780	1,888	1,995			
	End	1,990									612	963	1,315	1,666	2,018	2,194	2,370	2,546	2,722	2,897	3,073			
GC01x10-SR1	Start	1,738						1,219	1,898	2,577	3,257	3,936	4,616	5,295	5,635	5,975						5.2	11.4	
	Min	967						404	692	979	1,264	1,550	1,835	2,120	2,263	2,406								
	End	1,980						477	944	1,410	1,877	2,343	2,810	3,277	3,510	3,744								
GC01x12-SR1	Start	1,727					1,219	1,706	2,680	3,655	4,630	5,605										3.7	8.0	
	Min	964					406	613	1,024	1,434	1,843	2,252												
	End	1,965					477	812	1,481	2,151	2,820	3,489												
GC01x14-SR1	Start	1,719				1,352	1,944	2,537	3,722	4,908	6,094											3.0	6.3	
	Min	961				466	717	966	1,464	1,962	2,459													
	End	1,952				569	976	1,383	2,197	3,011	3,825													

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			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14		
			Air Torque Output, Nm																						
GC01x08-SR2	Start	1,464									892	1,293	1,694	2,096	2,497	2,698	2,898	3,099	3,300	3,501	3,701	7.4	13.2		
	Min	831									307	477	646	815	984	1,068	1,153	1,237	1,321	1,406	1,490				
	End	1,756										370	646	921	1,197	1,472	1,610	1,748	1,886	2,024	2,162			2,300	
GC01x09-SR2	Start	1,458								1,147	1,659	2,170	2,682	3,194	3,706	3,962	4,218	4,475	4,731	4,987	5,243	5.8	13.8		
	Min	830									416	632	848	1,063	1,278	1,493	1,601	1,708	1,816	1,923	2,030			2,138	
	End	1,747										545	897	1,248	1,600	1,951	2,303	2,479	2,655	2,831	3,007			3,183	3,358
GC01x10-SR2	Start	1,451							1,463	2,142	2,821	3,501	4,180	4,860	5,540	5,880	6,220						4.4	11.4	
	Min	827								551	837	1,122	1,408	1,693	1,978	2,263	2,406	2,548							
	End	1,737									762	1,229	1,695	2,162	2,629	3,095	3,562	4,029							
GC01x12-SR2	Start	1,441				976	1,463	1,950	2,925	3,899	4,874	5,849												3.0	8.0
	Min	824				348	554	759	1,168	1,577	1,986	2,394													
	End	1,722				428	762	1,097	1,766	2,436	3,105	3,775													
GC01x14-SR2	Start	1,432			1,003	1,596	2,189	2,781	3,967	5,152	6,338													2.5	6.3
	Min	822			362	612	861	1,110	1,607	2,105	2,602														
	End	1,710			447	854	1,261	1,668	2,482	3,296	4,110														
GC01x08-SR3	Start	1,276									1,117	1,518	1,919	2,320	2,721	2,922	3,123	3,324	3,524	3,725	3,926		6.5	13.2	
	Min	727									414	583	752	921	1,090	1,174	1,258	1,343	1,427	1,511	1,595				
	End	1,533										557	833	1,108	1,384	1,660	1,797	1,935	2,073	2,211	2,349	2,487			
GC01x09-SR3	Start	1,270							860	1,371	1,883	2,395	2,907	3,419	3,931	4,187	4,443	4,699	4,955	5,212	5,468		5.1	13.8	
	Min	725								307	523	738	953	1,168	1,383	1,598	1,706	1,813	1,921	2,028	2,136	2,243			
	End	1,524									381	732	1,084	1,435	1,787	2,138	2,490	2,666	2,842	3,018	3,194	3,370			3,546
GC01x10-SR3	Start	1,263						1,009	1,688	2,367	3,046	3,725	4,405	5,085	5,764	6,104	6,444						3.9	11.4	
	Min	723							371	657	943	1,228	1,513	1,798	2,083	2,368	2,511	2,653							
	End	1,514								483	950	1,416	1,882	2,349	2,816	3,282	3,749	3,983	4,216						
GC01x12-SR3	Start	1,252				1,200	1,688	2,175	3,149	4,124	5,099	6,074												2.7	8.0
	Min	720				455	660	864	1,273	1,682	2,091	2,500													
	End	1,499				615	949	1,284	1,953	2,623	3,292	3,962													
GC01x14-SR3	Start	1,244			1,228	1,821	2,413	3,006	4,191	5,377	6,563													2.2	6.3
	Min	717			469	718	967	1,215	1,713	2,210	2,707														
	End	1,486			634	1,041	1,448	1,855	2,669	3,483	4,298														

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			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14
			Air Torque Output, Nm																				
GC01x08-SR4	Start	1,083								917	1,318	1,719	2,120	2,522	2,923	3,124	3,324	3,525	3,726	3,927	4,127	5.5	13.2
	Min	625								349	518	687	855	1,024	1,193	1,277	1,361	1,445	1,530	1,614	1,698		
	End	1,332									474	750	1,025	1,300	1,576	1,852	1,989	2,127	2,265	2,403	2,541		
GC01x09-SR4	Start	1,077					550	1,061	1,573	2,085	2,596	3,108	3,620	4,132	4,388	4,645	4,901	5,157	5,413	5,669	4.1	13.8	
	Min	624					195	411	626	841	1,056	1,271	1,486	1,701	1,808	1,916	2,023	2,131	2,238	2,346			
	End	1,324					222	573	924	1,276	1,627	1,979	2,330	2,682	2,858	3,034	3,210	3,386	3,562	3,738			
GC01x10-SR4	Start	1,070					871	1,210	1,889	2,568	3,247	3,927	4,606	5,286	5,966	6,306	6,646					3.3	11.4
	Min	622					332	475	761	1,046	1,331	1,616	1,901	2,186	2,471	2,613	2,756						
	End	1,314					442	675	1,142	1,608	2,074	2,541	3,008	3,474	3,941	4,175	4,408						
GC01x12-SR4	Start	1,059			915	1,402	1,889	2,376	3,351	4,325	5,300	6,275										2.3	8.0
	Min	618			353	558	763	967	1,376	1,785	2,193	2,602											
	End	1,299			472	807	1,142	1,476	2,145	2,815	3,484	4,154											
GC01x14-SR4	Start	1,051		837	1,429	2,022	2,615	3,207	4,393	5,578	6,764											1.9	6.3
	Min	616		323	572	821	1,070	1,318	1,815	2,312	2,809												
	End	1,286		419	826	1,233	1,640	2,047	2,861	3,675	4,490												

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			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14	
			Air Torque Output, Nm																					
GC2x09-SR1	Start	3,008													2,661	3,280	3,590	3,900	4,210	4,520	4,830		9.7	12.9
	Min	1,638													892	1,156	1,287	1,418	1,548	1,679	1,810			
	End	3,310													1,126	1,552	1,765	1,977	2,190	2,403	2,616			
GC2x10-SR1	Start	3,000													2,210	3,032	3,854	4,676					7.4	9.7
	Min	1,635													700	1,051	1,399	1,746						
	End	3,298													816	1,381	1,946	2,511						
GC2x12-SR1	Start	2,987													2,334	3,514	4,693						5.1	6.9
	Min	1,631													756	1,258	1,755							
	End	3,279													902	1,712	2,522							
GC2x14-SR1	Start	2,976													2,161	3,595	5,030						4.1	5.6
	Min	1,628													684	1,295	1,900							
	End	3,264													783	1,768	2,754							
GC2x16-SR1	Start	2,963													2,088	3,035	3,982	5,877					3.2	4.2
	Min	1,624													656	1,061	1,462	2,259						
	End	3,245													732	1,383	2,034	3,336						
GC2x09-SR2	Start	2,598																					8.5	12.9
	Min	1,432																						
	End	2,933																						
GC2x10-SR2	Start	2,590													1,768	2,590	3,412	4,234	5,056				6.3	9.7
	Min	1,430													568	918	1,266	1,612	1,958					
	End	2,920													659	1,224	1,788	2,353	2,918					
GC2x12-SR2	Start	2,577													2,715	3,894	5,073						4.5	6.9
	Min	1,426													974	1,471	1,967							
	End	2,901													1,309	2,120	2,930							
GC2x14-SR2	Start	2,566													1,824	2,541	3,975	5,410					3.7	5.6
	Min	1,423													598	903	1,508	2,111						
	End	2,887													697	1,190	2,176	3,162						
GC2x16-SR2	Start	2,553													2,468	3,415	4,363	6,257					2.8	4.2
	Min	1,419													876	1,275	1,674	2,470						
	End	2,867													1,140	1,791	2,442	3,744						

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Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg	
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14
			Air Torque Output, Nm																				
GC2x09-SR3	Start	2,328																				7.6	12.9
	Min	1,284																					
	End	2,618																					
GC2x10-SR3	Start	2,320								2,084	2,906	3,728	4,550	5,372								5.7	9.7
	Min	1,281								723	1,070	1,417	1,763	2,108									
	End	2,606								928	1,492	2,057	2,622	3,187									
GC2x12-SR3	Start	2,306							1,852	3,031	4,210	5,389										4.0	6.9
	Min	1,277							626	1,126	1,622	2,118											
	End	2,587							768	1,578	2,388	3,199											
GC2x14-SR3	Start	2,296					2,140	2,857	4,292	5,726												3.3	5.6
	Min	1,274					752	1,055	1,659	2,262													
	End	2,572					966	1,459	2,445	3,430													
GC2x16-SR3	Start	2,283			1,837	2,784	3,732	4,679	6,573													2.5	4.2
	Min	1,270			627	1,028	1,427	1,825	2,620														
	End	2,553			758	1,409	2,060	2,711	4,013														
GC2x09-SR4	Start	2,077																				6.8	12.9
	Min	1,134																					
	End	2,271																					
GC2x10-SR4	Start	2,068							1,612	2,433	3,255	4,077	4,899	5,721								5.1	9.7
	Min	1,132							524	874	1,221	1,567	1,913	2,258									
	End	2,259							613	1,178	1,742	2,307	2,872	3,437									
GC2x12-SR4	Start	2,055					1,612	2,201	3,380	4,559	5,738											3.6	6.9
	Min	1,128					527	778	1,276	1,772	2,267												
	End	2,240					613	1,018	1,828	2,638	3,449												
GC2x14-SR4	Start	2,045				1,773	2,490	3,207	4,641	6,075												3.0	5.6
	Min	1,124				599	903	1,206	1,809	2,411													
	End	2,225				724	1,216	1,709	2,695	3,680													
GC2x16-SR4	Start	2,031			2,187	3,134	4,081	5,028	6,922													2.2	4.2
	Min	1,120			779	1,178	1,577	1,975	2,770														
	End	2,206			1,008	1,659	2,310	2,961	4,263														

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			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14	
			Air Torque Output, Nm																					
GC3x10-SR1	Start	5,256														4,840	5,340	5,840	6,339	6,839	7,339	7,839	10.7	13.8
	Min	2,864														1,604	1,815	2,026	2,236	2,445	2,654	2,864		
	End	5,830														2,038	2,377	2,716	3,056	3,395	3,734	4,073		
GC3x12-SR1	Start	5,240										3,890	5,328	6,765	8,202								7.4	9.8
	Min	2,859										1,202	1,812	2,416	3,018									
	End	5,807										1,393	2,369	3,344	4,320									
GC3x14-SR1	Start	5,228												4,313	6,063	7,813	9,564						6.1	8.1
	Min	2,855												1,386	2,125	2,858	3,590							
	End	5,788												1,680	2,868	4,056	5,244							
GC3x16-SR1	Start	5,211													5,368	7,683	9,999						4.6	6.2
	Min	2,850													1,836	2,807	3,774							
	End	5,765													2,396	3,968	5,540							
GC3x20-SR1	Start	5,179																					2.9	3.9
	Min	2,840																						
	End	5,717																						
GC3x10-SR2	Start	4,581																					9.3	13.8
	Min	2,499																						
	End	5,077																						
GC3x12-SR2	Start	4,565																					6.5	9.8
	Min	2,494																						
	End	5,054																						
GC3x14-SR2	Start	4,552																					5.3	8.1
	Min	2,490																						
	End	5,036																						
GC3x16-SR2	Start	4,536																					4.0	6.2
	Min	2,485																						
	End	5,012																						
GC3x20-SR2	Start	4,504																					2.6	3.9
	Min	2,475																						
	End	4,965																						

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			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14
			Air Torque Output, Nm																				
GC3x10-SR3	Start	4,000																				8.1	13.8
	Min	2,185																					
	End	4,429																					
GC3x12-SR3	Start	3,984																				5.7	9.8
	Min	2,180																					
	End	4,406																					
GC3x14-SR3	Start	3,972																				4.7	8.1
	Min	2,176																					
	End	4,387																					
GC3x16-SR3	Start	3,955																				3.5	6.2
	Min	2,171																					
	End	4,364																					
GC3x20-SR3	Start	3,923																				2.2	3.9
	Min	2,161																					
	End	4,316																					
GC3x10-SR4	Start	3,501																				7.2	13.8
	Min	1,915																					
	End	3,872																					
GC3x12-SR4	Start	3,485																				5.0	9.8
	Min	1,910																					
	End	3,849																					
GC3x14-SR4	Start	3,472																				4.1	8.1
	Min	1,906																					
	End	3,830																					
GC3x16-SR4	Start	3,456																				3.1	6.2
	Min	1,901																					
	End	3,807																					
GC3x20-SR4	Start	3,423																				1.9	3.9
	Min	1,891																					
	End	3,759																					

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			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14	
			Air Torque Output, Nm																					
GC4x14-SR1	Start	10,798													9,179	11,276	12,325	13,374	14,422	15,471	16,520	17,569	10.3	13.4
	Min	5,725													2,830	3,730	4,176	4,622	5,065	5,509	5,951	6,394		
	End	11,266													3,356	4,796	5,517	6,237	6,958	7,678	8,399	9,120		
GC4x16-SR1	Start	10,779												10,401	13,178	15,956	18,734						7.8	10.1
	Min	5,719												3,359	4,542	5,716	6,887							
	End	11,238												4,195	6,103	8,012	9,920							
GC4x20-SR1	Start	10,739							10,222	14,640	19,059												4.9	6.3
	Min	5,707							3,290	5,167	7,030													
	End	11,181							4,072	7,107	10,143													
GC4x24-SR1	Start	10,710				10,616	13,833	20,269															3.4	4.3
	Min	5,699				3,463	4,830	7,542																
	End	11,139				4,343	6,553	10,974																
GC4x28-SR1	Start	10,587			10,628	15,171	19,714	24,257															2.3	3.1
	Min	5,661			3,511	5,438	7,352	9,262																
	End	10,962			4,351	7,472	10,593	13,714																
GC4x12-SR2	Start	9,448													8,931	9,791	10,651	11,511	12,371	13,231	14,091	11.0	13.8	
	Min	4,939													2,771	3,141	3,509	3,875	4,241	4,605	4,969			
	End	9,516													3,318	3,908	4,499	5,090	5,681	6,272	6,863			
GC4x14-SR2	Start	9,433												8,866	10,963	13,060	14,109	15,158	16,207	17,256	18,305	19,354	9.0	13.4
	Min	4,934												2,747	3,646	4,536	4,980	5,423	5,866	6,308	6,750	7,191		
	End	9,493												3,273	4,714	6,154	6,875	7,595	8,316	9,036	9,757	10,478		
GC4x16-SR2	Start	9,413											9,408	12,185	14,963	17,740	20,518						6.8	10.1
	Min	4,928											2,984	4,168	5,344	6,515	7,684							
	End	9,465											3,646	5,553	7,461	9,369	11,278							
GC4x20-SR2	Start	9,373						7,588	12,006	16,424	20,843												4.1	6.3
	Min	4,916						2,201	4,100	5,967	7,827													
	End	9,408						2,395	5,430	8,465	11,501													
GC4x24-SR2	Start	9,345				9,182	12,400	15,617	22,053														3.0	4.3
	Min	4,907				2,900	4,272	5,631	8,338															
	End	9,366				3,490	5,701	7,911	12,332															
GC4x28-SR2	Start	9,222		7,869	12,412	16,955	21,498	26,041															2.1	3.1
	Min	4,870		2,373	4,319	6,238	8,149	10,057																
	End	9,190		2,588	5,709	8,830	11,951	15,072																



# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg						
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14					
			Air Torque Output, Nm																									
GC4x12-SR3	Start	7,954													6,993	8,712	10,432	11,291	12,151	13,012	13,872	14,732	15,592	9.2	13.8			
	Min	4,167													2,116	2,856	3,588	3,952	4,316	4,679	5,042	5,405	5,767					
	End	8,024													2,441	3,622	4,803	5,394	5,985	6,576	7,166	7,757	8,348					
GC4x14-SR3	Start	7,939													8,270	10,367	12,464	14,561	15,610	16,658	17,707	18,756	19,805	20,854	7.6	13.4		
	Min	4,163													2,671	3,564	4,452	5,336	5,778	6,219	6,660	7,101	7,542	7,983				
	End	8,002													3,318	4,759	6,199	7,640	8,360	9,081	9,801	10,522	11,243	11,963				
GC4x16-SR3	Start	7,919													8,132	10,909	13,686	16,463	19,241	22,019					5.7	10.1		
	Min	4,157													2,615	3,797	4,970	6,140	7,308	8,474								
	End	7,974													3,224	5,131	7,039	8,947	10,855	12,763								
GC4x20-SR3	Start	7,880													6,880	9,089	13,507	17,925	22,344						3.6	6.3		
	Min	4,145													2,084	3,033	4,902	6,762	8,617									
	End	7,916													2,363	3,881	6,916	9,951	12,986									
GC4x24-SR3	Start	7,851													7,465	10,683	13,901	17,118	23,554						2.5	4.3		
	Min	4,136													2,343	3,715	5,073	6,426	9,128									
	End	7,875													2,766	4,976	7,186	9,397	13,818									
GC4x28-SR3	Start	7,728													9,370	13,913	18,456	22,999	27,542						1.7	3.1		
	Min	4,098													3,199	5,120	7,031	8,939	10,845									
	End	7,698													4,074	7,195	10,315	13,436	16,557									
GC4x12-SR4	Start	6,565													6,570	8,290	10,009	11,729	12,589	13,448	14,309	15,169	16,029	16,889	7.7	13.8		
	Min	3,470													2,131	2,863	3,590	4,316	4,678	5,040	5,402	5,763	6,124	6,486				
	End	6,735													2,641	3,822	5,004	6,185	6,776	7,366	7,957	8,548	9,139	9,730				
GC4x14-SR4	Start	6,550													5,375	7,471	9,567	11,664	13,761	15,858	16,907	17,956	19,004	20,053	21,102	22,151	6.3	13.4
	Min	3,466													1,618	2,519	3,408	4,292	5,175	6,056	6,497	6,938	7,378	7,819	8,259	8,699		
	End	6,713													1,820	3,260	4,700	6,140	7,581	9,022	9,742	10,462	11,183	11,904	12,624	13,345		
GC4x16-SR4	Start	6,530													6,653	9,429	12,206	14,983	17,760	20,538	23,316					4.8	10.1	
	Min	3,460													2,174	3,353	4,524	5,692	6,858	8,025	9,190							
	End	6,685													2,698	4,605	6,513	8,420	10,328	12,237	14,145							
GC4x20-SR4	Start	6,490													5,968	8,177	10,386	14,804	19,222	23,641						3.0	6.3	
	Min	3,448													1,889	2,831	3,765	5,624	7,479	9,332								
	End	6,628													2,228	3,745	5,262	8,297	11,332	14,368								
GC4x24-SR4	Start	6,461													5,545	8,762	11,980	15,198	18,415	24,851						2.1	4.3	
	Min	3,439													1,712	3,085	4,442	5,794	7,144	9,843								
	End	6,586													1,937	4,147	6,357	8,568	10,778	15,199								

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg			
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14		
			Air Torque Output, Nm																						
GC5x20-SR1	Start	24,492													28,139	33,815	39,492	42,330	45,169					8.6	11.3
	Min	12,208													8,535	10,972	13,385	14,587	15,786						
	End	22,029													10,206	14,107	18,009	19,959	21,910						
GC5x24-SR1	Start	24,455								26,720	35,005	43,290												5.9	7.7
	Min	12,197								7,923	11,482	14,994													
	End	21,976								9,231	14,925	20,619													
GC5x28-SR1	Start	24,296						23,634	35,348	47,063														4.1	5.5
	Min	12,148						6,624	11,690	16,652															
	End	21,747						7,111	15,161	23,212															
GC5x32-SR1	Start	24,231			22,703	30,372	38,041	53,380																3.2	4.2
	Min	12,128			6,220	9,578	12,849	19,328																	
	End	21,654			6,471	11,741	17,012	27,553																	
GC5x36-SR1	Start	24,167		25,215	34,938	44,661	54,385																	2.5	3.3
	Min	12,109		7,358	11,546	15,666	19,766																		
	End	21,562		8,197	14,879	21,561	28,244																		
GC5x16-SR2	Start	21,999															23,215	24,992	26,768	28,545	30,322			12.3	13.8
	Min	10,712															6,427	7,215	7,991	8,760	9,525				
	End	18,664															6,976	8,196	9,417	10,638	11,859				
GC5x20-SR2	Start	21,948										25,923	31,598	37,275	42,951	45,790	48,629							7.7	11.3
	Min	10,696										7,633	10,082	12,501	14,904	16,103	17,300								
	End	18,590										8,836	12,737	16,638	20,539	22,490	24,441								
GC5x24-SR2	Start	21,911						21,895	30,179	38,465	46,750													5.3	7.7
	Min	10,685						5,844	9,478	13,008	16,511														
	End	18,537						6,068	11,762	17,456	23,150														
GC5x28-SR2	Start	21,752				21,238	27,094	38,808	50,523															3.7	5.5
	Min	10,636				5,596	8,208	13,215	18,164																
	End	18,308				5,616	9,641	17,691	25,742																
GC5x32-SR2	Start	21,687			26,163	33,832	41,501	56,840																2.8	4.2
	Min	10,616			7,819	11,116	14,371	20,838																	
	End	18,216			9,001	14,272	19,542	30,084																	
GC5x36-SR2	Start	21,623		28,674	38,398	48,121	57,845																	2.3	3.3
	Min	10,596		8,923	13,072	17,181	21,274																		
	End	18,123		10,727	17,409	24,092	30,775																		

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg		
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14	
			Air Torque Output, Nm																					
GC5x16-SR3	Start	17,693													19,070	22,622	24,398	26,175	27,951	29,728	31,504	33,281	9.9	13.8
	Min	8,784													5,576	7,114	7,875	8,632	9,388	10,141	10,893	11,644		
	End	15,723													6,376	8,818	10,038	11,259	12,480	13,701	14,922	16,143		
GC5x20-SR3	Start	17,642								17,532	23,207	28,882	34,558	40,234	45,911	48,749	51,588						6.2	11.3
	Min	8,768								4,907	7,376	9,792	12,193	14,585	16,972	18,165	19,358							
	End	15,649								5,319	9,219	13,120	17,020	20,921	24,823	26,773	28,724							
GC5x24-SR3	Start	17,605						16,570	24,854	33,139	41,424	49,710											4.1	7.7
	Min	8,757					4,478	8,085	11,597	15,089	18,570													
	End	15,595					4,658	10,352	16,045	21,739	27,433													
GC5x28-SR3	Start	17,446			18,341	24,197	30,054	41,767	53,482														3.0	5.5
	Min	8,708			5,331	7,862	10,352	15,295	20,218															
	End	15,367			5,875	9,900	13,925	21,975	30,026															
GC5x32-SR3	Start	17,381		21,454	29,123	36,791	44,461	59,800															2.3	4.2
	Min	8,688		6,702	9,973	13,213	16,441	22,882																
	End	15,274		8,015	13,285	18,555	23,826	34,368																
GC5x36-SR3	Start	17,317	21,911	31,634	41,357	51,081	60,804																1.8	3.3
	Min	8,669	6,916	11,052	15,152	19,239	23,318																	
	End	15,182	8,329	15,011	21,693	28,375	35,058																	
GC5x16-SR4	Start	14,755										14,408	17,960	21,512	25,064	26,840	28,617	30,393	32,170	33,946	35,723	8.3	13.8	
	Min	7,376										4,057	5,606	7,125	8,633	9,383	10,134	10,882	11,631	12,379	13,126			
	End	13,296										4,418	6,859	9,300	11,741	12,962	14,183	15,403	16,624	17,845	19,066			
GC5x20-SR4	Start	14,703						14,299	19,974	25,649	31,324	37,000	42,676	48,353	51,191	54,030						5.2	11.3	
	Min	7,361						4,020	6,480	8,890	11,285	13,673	16,058	18,440	19,630	20,821								
	End	13,222						4,343	8,243	12,143	16,043	19,944	23,845	27,746	29,697	31,648								
GC5x24-SR4	Start	14,666				14,870	19,012	27,296	35,581	43,866	52,152											3.6	7.7	
	Min	7,349				4,281	6,075	9,591	13,080	16,560	20,035													
	End	13,168				4,735	7,582	13,275	18,969	24,662	30,357													
GC5x28-SR4	Start	14,507		14,927	20,783	26,639	32,496	44,209	55,924													2.6	5.5	
	Min	7,300		4,363	6,888	9,371	11,841	16,765	21,682															
	End	12,940		4,774	8,799	12,823	16,848	24,898	32,949															
GC5x32-SR4	Start	14,443	16,228	23,896	31,564	39,233	46,902	62,242														1.9	4.2	
	Min	7,281	4,950	8,227	11,465	14,690	17,910	24,343																
	End	12,847	5,668	10,938	16,208	21,479	26,749	37,291																

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg				
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14			
			Air Torque Output, Nm																							
GC7x24-SR1	Start	48,434													48,278	58,410	68,542	73,609	78,676	83,743	88,810			9.5	12.3	
	Min	23,647													12,945	17,431	21,798	23,963	26,119	28,270	30,418					
	End	41,430													13,650	20,611	27,573	31,054	34,535	38,016	41,498					
GC7x28-SR1	Start	48,241											57,234	71,581	85,928										6.7	8.7
	Min	23,588											17,001	23,179	29,281											
	End	41,153											19,804	29,660	39,518											
GC7x32-SR1	Start	48,162							50,702	69,500	88,300														5.1	6.6
	Min	23,564							14,135	22,303	30,299															
	End	41,039							15,316	28,231	41,147															
GC7x36-SR1	Start	48,083						51,987	75,833	99,682															4.1	5.2
	Min	23,539						14,725	25,021	35,124																
	End	40,926						16,199	32,582	48,967																
GC7xT28-SR1	Start	47,642					56,351	70,692	99,377																3.4	4.3
	Min	23,404					16,808	22,989	35,161																	
	End	40,292					19,197	29,050	48,757																	
GC7x24-SR2	Start	42,762											42,844	52,975	63,106	73,239	78,306	83,372	88,439	93,507				8.4	12.3	
	Min	20,933											11,605	16,068	20,419	24,729	26,877	29,018	31,158	33,295						
	End	36,764											12,331	19,291	26,252	33,214	36,695	40,176	43,657	47,138						
GC7x28-SR2	Start	42,569								47,586	61,931	76,277	90,625											5.9	8.7	
	Min	20,874								13,797	19,996	26,098	32,164													
	End	36,487								15,589	25,444	35,301	45,159													
GC7x32-SR2	Start	42,490							55,399	74,197	92,997													4.6	6.6	
	Min	20,850							17,209	25,229	33,176															
	End	36,373							20,956	33,872	46,788															
GC7x36-SR2	Start	42,411					44,761	56,684	80,530	104,378														3.6	5.2	
	Min	20,825					12,580	17,778	27,926	37,986																
	End	36,259					13,648	21,839	38,223	54,608																
GC7xT28-SR2	Start	41,970				46,707	61,047	75,389	104,073															3.0	4.3	
	Min	20,690				13,603	19,807	25,910	38,023																	
	End	35,625				14,985	24,837	34,691	54,398																	

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg		
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14	
			Air Torque Output, Nm																					
GC7x20-SR3	Start	35,269																						
	Min	17,338																					10.1	13.8
	End	30,623																						
GC7x24-SR3	Start	35,221																						
	Min	17,323																					7.0	12.3
	End	30,554																						
GC7x28-SR3	Start	35,028																						
	Min	17,264																					4.9	8.7
	End	30,276																						
GC7x32-SR3	Start	34,949																						
	Min	17,240																					3.7	6.6
	End	30,163																						
GC7x36-SR3	Start	34,870																						
	Min	17,216																					3.0	5.2
	End	30,049																						
GC7xT28-SR3	Start	34,429																						
	Min	17,081																					2.5	4.3
	End	29,415																						
GC7x20-SR4	Start	29,597																						
	Min	14,624																					8.5	13.8
	End	25,956																						
GC7x24-SR4	Start	29,549																						
	Min	14,609																					5.9	12.3
	End	25,887																						
GC7x28-SR4	Start	29,356																						
	Min	14,550																					4.1	8.7
	End	25,610																						
GC7x32-SR4	Start	29,277																						
	Min	14,526																					3.2	6.6
	End	25,496																						
GC7x36-SR4	Start	29,198																						
	Min	14,502																					2.5	5.2
	End	25,383																						
GC7xT28-SR4	Start	28,757																						
	Min	14,367																					2.1	4.3
	End	24,749																						

## Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg		
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14	
			Air Torque Output, Nm																					
GC8x24-SR1	Start	71,642															65,713	71,670	77,627	83,585	89,542	95,500	11.9	13.8
	Min	36,700															19,074	21,668	24,236	26,788	29,330	31,865		
	End	69,392																21,862	25,955	30,049	34,142	38,236		
GC8x28-SR1	Start	71,411											63,621	80,527	97,434	114,343	122,798	131,253	139,709				8.4	11.9
	Min	36,630											18,254	25,583	32,789	39,948	43,519	47,082	50,645					
	End	69,059											20,424	32,041	43,658	55,277	61,087	66,897	72,708					
GC8x32-SR1	Start	71,317											83,519	105,701	127,884	150,070							6.4	9.0
	Min	36,601											26,877	36,308	45,674	55,015								
	End	68,924											34,097	49,339	64,582	79,827								
GC8x36-SR1	Start	71,224							68,933	97,093	125,255	153,419											5.0	7.1
	Min	36,573							20,614	32,674	44,581	56,436												
	End	68,790							24,074	43,424	62,776	82,129												
GC8x40-SR1	Start	71,130						67,384	102,229	137,076													4.1	5.8
	Min	36,544						19,960	34,869	49,577														
	End	68,655						23,010	46,953	70,898														
GC8xT32-SR1	Start	70,505					82,321	104,495	148,848														3.2	4.5
	Min	36,353					26,621	36,053	54,759															
	End	67,756					33,273	48,511	78,987															
GC8xT36-SR1	Start	70,318			67,609	95,763	123,919	152,075															2.6	3.6
	Min	36,296			20,327	32,393	44,300	56,154																
	End	67,486			23,164	42,510	61,857	81,205																

## Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg			
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14		
			Air Torque Output, Nm																						
GC8x24-SR2	Start	57,662													58,444	70,357	76,313	82,270	88,227	94,185	100,142	106,100	9.7	13.8	
	Min	30,200													18,636	23,709	26,233	28,750	31,265	33,774	36,284	38,790			
	End	58,857													23,490	31,676	35,769	39,862	43,955	48,049	52,142	56,236			
GC8x28-SR2	Start	57,431												57,317	74,221	91,126	108,034	124,943	133,398	141,853	150,309			6.8	11.9
	Min	30,130												18,249	25,445	32,587	39,707	46,816	50,366	53,915	57,463				
	End	58,524												22,715	34,331	45,947	57,565	69,184	74,994	80,804	86,614				
GC8x32-SR2	Start	57,338								49,761	71,939	94,119	116,301	138,484	160,670									5.2	9.0
	Min	30,101								15,008	24,493	33,862	43,195	52,512	61,822										
	End	58,389								17,524	32,763	48,004	63,246	78,489	93,734										
GC8x36-SR2	Start	57,244								51,375	79,533	107,693	135,855	164,019										4.1	7.1
	Min	30,073								15,727	27,725	39,592	51,424	63,240											
	End	58,255								18,632	37,981	57,331	76,683	96,035											
GC8x40-SR2	Start	57,150								60,563	77,984	112,829	147,676											3.3	5.8
	Min	30,044								19,694	27,090	41,769	56,399												
	End	58,120								24,946	36,917	60,860	84,805												
GC8xT32-SR2	Start	56,525				48,574	70,747	92,921	115,095	159,447														2.6	4.5
	Min	29,854				14,750	24,240	33,610	42,942	61,566															
	End	57,221				16,708	31,944	47,180	62,417	92,894															
GC8xT36-SR2	Start	56,338				50,055	78,209	106,363	134,518	162,675														2.1	3.6
	Min	29,797				15,442	27,445	39,313	51,144	62,959															
	End	56,951				17,726	37,071	56,417	75,764	95,111															

## Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg	
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14
			Air Torque Output, Nm																				
GC8x24-SR3	Start	48,892																				8.2	13.8
	Min	25,643																					
	End	49,966																					
GC8x28-SR3	Start	48,661								49,360	66,262	83,166	100,072	116,979	133,888	142,343	150,798	159,254				5.8	11.9
	Min	25,572								15,851	23,035	30,168	37,280	44,382	51,478	55,026	58,572	62,116					
	End	49,633								19,826	31,440	43,055	54,672	66,290	77,909	83,718	89,529	95,339					
GC8x32-SR3	Start	48,567								58,707	80,885	103,064	125,246	147,430	169,615							4.4	9.0
	Min	25,544								19,851	29,222	38,552	47,864	57,172	66,469								
	End	49,499								26,248	41,488	56,728	71,970	87,214	102,458								
GC8x36-SR3	Start	48,474					46,242	60,320	88,478	116,638	144,800	172,965										3.4	7.1
	Min	25,515					14,552	20,555	32,437	44,267	56,084	67,886											
	End	49,364					17,683	27,357	46,706	66,056	85,407	104,760											
GC8x40-SR3	Start	48,380				52,087	69,508	86,929	121,774	156,621												2.8	5.8
	Min	25,487				17,077	24,463	31,806	46,440	61,054													
	End	49,230				21,700	33,670	45,641	69,585	93,529													
GC8xT32-SR3	Start	47,755			57,519	79,692	101,866	124,040	168,393													2.2	4.5
	Min	25,296			19,600	28,971	38,300	47,611	66,214														
	End	48,330			25,432	40,668	55,905	71,142	101,618														
GC8xT36-SR3	Start	47,568		59,001	87,154	115,308	143,464	171,620														1.7	3.6
	Min	25,239		20,275	32,159	43,989	55,804	67,605															
	End	48,061		26,450	45,796	65,142	84,488	103,836															



## Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg						
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14					
			Air Torque Output, Nm																									
GC10x40-SR1	Start	164,835										176,072	221,633	267,197											7.2	8.8		
	Min	79,842										48,405	68,351	87,851														
	End	138,069											52,495	83,810	115,127													
GC10xT32-SR1	Start	163,990										202,959	260,801												5.7	6.9		
	Min	79,581										60,593	85,462															
	End	136,854											70,975	110,732														
GC10xT36-SR1	Start	163,744									223,310	296,858													4.5	5.5		
	Min	79,506									69,450	100,832																
	End	136,500										84,963	135,514															
GC10xT40-SR1	Start	163,499					174,100	219,650	310,753																3.6	4.4		
	Min	79,430					47,949	67,923	106,772																			
	End	136,146					51,140	82,447	145,065																			
GC10x32-SR2	Start	133,005													140,201	169,129	198,060	212,527	226,994	241,462	255,930	270,399	284,868	9.2	13.8			
	Min	65,485													39,747	52,355	64,746	70,906	77,043	83,174	89,290	95,407	101,507					
	End	116,189													44,378	64,261	84,146	94,089	104,033	113,977	123,921	133,866	143,812					
GC10x36-SR2	Start	132,882											137,156	173,935	210,717	247,502	284,290	302,685							7.2	10.9		
	Min	65,447											38,414	54,437	70,150	85,742	101,276	109,029										
	End	116,013												42,285	67,564	92,846	118,129	143,414	156,057									
GC10x40-SR2	Start	132,760										152,881	198,439	244,000	289,564										5.8	8.8		
	Min	65,410										45,355	64,941	84,278	103,514													
	End	115,836											53,094	84,407	115,722	147,039												
GC10xT32-SR2	Start	131,915										167,489	225,326	283,169											4.6	6.9		
	Min	65,150										52,001	76,690	101,149														
	End	114,620											63,134	102,887	142,643													
GC10xT36-SR2	Start	131,669					135,365	172,134	245,677	319,225															3.6	5.5		
	Min	65,075					38,007	54,051	85,356	116,392																		
	End	114,266					41,054	66,327	116,874	167,426																		
GC10xT40-SR2	Start	131,423					150,920	196,467	242,017	333,120															2.9	4.4		
	Min	64,999					44,928	64,522	83,860	122,282																		
	End	113,913					51,745	83,051	114,359	176,976																		

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Metric Unit	Spring Torque Nm	Operating Pressure, barg																		MinOP barg	MOP barg				
			1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	11.5	12	12.5	13	13.5			14			
			Air Torque Output, Nm																							
GC10x32-SR3	Start	121,237													130,335	159,261	188,189	217,120	231,587	246,054	260,522	274,990	289,459	303,929	8.3	13.8
	Min	57,791													34,656	47,498	59,972	72,313	78,452	84,586	90,702	96,818	102,922	109,021		
	End	97,243													36,204	56,086	75,969	95,855	105,798	115,741	125,685	135,630	145,575	155,520		
GC10x36-SR3	Start	121,114												156,216	192,995	229,778	266,563	303,350	321,745						6.6	10.9
	Min	57,753												46,192	62,044	77,700	93,269	108,790	116,543							
	End	97,066												53,993	79,273	104,554	129,837	155,123	167,766							
GC10x40-SR3	Start	120,991							126,387	171,941	217,499	263,060	308,624												5.3	8.8
	Min	57,715							32,867	53,029	72,509	91,806	111,028													
	End	96,890							33,491	64,802	96,115	127,430	158,747													
GC10xT32-SR3	Start	120,146						128,716	186,549	244,386	302,229														4.1	6.9
	Min	57,455						34,260	59,621	84,234	108,663															
	End	95,674						35,092	74,842	114,595	154,352															
GC10xT36-SR3	Start	119,900					154,425	191,195	264,737	338,285															3.3	5.5
	Min	57,379					45,801	61,659	92,884	123,896																
	End	95,320					52,763	78,035	128,583	179,134																
GC10xT40-SR3	Start	119,655			124,433	169,980	215,528	261,077	352,180																2.6	4.4
	Min	57,303			32,148	52,606	72,090	91,387	129,786																	
	End	94,967			32,148	63,453	94,760	126,067	188,685																	
GC10x28-SR4	Start	97,267													112,708	134,706	156,706	167,706	178,708	189,710	200,712	211,715	222,718	8.8	13.8	
	Min	47,260													32,708	42,248	51,657	56,337	61,005	65,663	70,315	74,965	79,604			
	End	81,879													37,313	52,433	67,554	75,115	82,676	90,238	97,800	105,363	112,926			
GC10x32-SR4	Start	97,144												117,046	145,969	174,895	203,824	232,755	247,222	261,689	276,156	290,625	305,094	319,563	6.7	13.8
	Min	47,222												34,625	47,092	59,401	71,644	83,847	89,946	96,030	102,115	108,200	114,285	120,361		
	End	81,702												40,294	60,174	80,056	99,939	119,824	129,768	139,711	149,655	159,600	169,545	179,490		
GC10x36-SR4	Start	97,021							98,300	135,074	171,850	208,630	245,412	282,197	318,985	337,380									5.3	10.9
	Min	47,184							26,305	42,443	58,128	73,692	89,198	104,669	120,131	127,852										
	End	81,525							27,410	52,686	77,963	103,243	128,524	153,807	179,092	191,736										
GC10x40-SR4	Start	96,898							96,470	142,021	187,576	233,134	278,695	324,259											4.1	8.8
	Min	47,146							25,486	45,447	64,813	84,041	103,213	122,360												
	End	81,348							26,152	57,461	88,772	120,085	151,400	182,717												
GC10xT32-SR4	Start	96,053						115,437	144,351	202,184	260,021	317,864													3.4	6.9
	Min	46,886						34,274	46,746	71,298	95,680	120,005														
	End	80,133						39,189	59,062	98,812	138,565	178,322														
GC10xT36-SR4	Start	95,808			96,526	133,292	170,060	206,829	280,372	353,920															2.6	5.5
	Min	46,810			25,869	42,061	57,749	73,312	104,286	135,185																
	End	79,779			26,191	51,461	76,733	102,005	152,553	203,104																
GC10xT40-SR4	Start	95,562			140,068	185,614	231,162	276,712	367,815																2.1	4.4
	Min	46,734			45,029	64,399	83,626	102,797	141,064																	
	End	79,426			56,118	87,423	118,730	150,037	212,655																	