

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																			MinOP barg	MOP barg	
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300	325			350
			Air Torque Output, Nm																					
G01x01.5	Start	Outboard	215	264	385	506	625	744	862	980	1,097	1,329	1,559	1,788	2,015	2,241	2,522	2,803	3,084	3,366	3,649	3,934	27.6	344.7
	Min		131	156	220	283	346	409	472	534	596	720	843	965	1,087	1,208	1,360	1,511	1,663	1,814	1,966	2,119		
	End		215	263	384	504	624	742	860	978	1,094	1,326	1,556	1,784	2,010	2,236	2,516	2,797	3,077	3,358	3,640	3,924		
G01x01.5	Start	Inboard	106	138	218	296	374	451	528	603	679	827	974	1,118	1,262	1,404	1,581	1,758	1,934	2,111	2,289	2,469	27.6	344.7
	Min		74	91	132	174	215	256	297	337	377	457	537	615	694	771	868	965	1,062	1,159	1,256	1,354		
	End		106	138	217	296	373	450	526	602	677	825	971	1,115	1,258	1,400	1,577	1,753	1,929	2,105	2,283	2,463		
G01x01.7	Start	Outboard	315	382	547	712	877	1,040	1,203	1,366	1,528	1,850	2,170	2,488	2,806	3,122	3,517	3,911	4,304				27.6	271.6
	Min		185	220	307	394	480	566	652	738	823	994	1,163	1,333	1,501	1,670	1,880	2,090	2,300					
	End		314	381	546	711	875	1,038	1,201	1,363	1,524	1,845	2,165	2,483	2,799	3,115	3,508	3,901	4,294					
G01x01.7	Start	Inboard	173	218	329	439	549	658	766	874	981	1,194	1,405	1,614	1,822	2,029	2,287	2,545	2,802				27.6	271.6
	Min		111	135	193	251	309	366	424	481	538	651	764	876	988	1,099	1,238	1,376	1,515					
	End		173	217	328	438	547	656	764	872	979	1,191	1,401	1,610	1,817	2,024	2,281	2,538	2,794					
G01x02.0	Start	Outboard	436	523	739	955	1,169	1,382	1,595	1,807	2,018	2,437	2,854	3,269	3,682	4,093							27.6	207.9
	Min		251	296	410	523	635	748	860	972	1,083	1,305	1,527	1,747	1,967	2,187								
	End		435	522	738	952	1,166	1,379	1,591	1,802	2,013	2,431	2,847	3,261	3,673	4,083								
G01x02.0	Start	Inboard	294	359	521	681	841	1,000	1,157	1,314	1,471	1,781	2,088	2,394	2,697	2,999							27.6	207.9
	Min		176	211	295	380	464	548	631	714	797	962	1,127	1,290	1,453	1,615								
	End		293	358	519	679	839	997	1,154	1,311	1,467	1,776	2,082	2,387	2,690	2,991								
G01x02.2	Start	Outboard	576	686	961	1,234	1,506	1,777	2,047	2,316	2,584	3,118	3,649	4,178									27.6	164.3
	Min		326	384	527	670	813	956	1,098	1,240	1,382	1,664	1,945	2,226										
	End		575	685	958	1,231	1,502	1,773	2,042	2,311	2,578	3,111	3,641	4,168										
G01x02.2	Start	Inboard	434	523	742	961	1,178	1,395	1,610	1,825	2,038	2,463	2,885	3,305									27.6	164.3
	Min		252	298	413	528	642	756	870	983	1,096	1,321	1,545	1,769										
	End		433	521	740	958	1,175	1,391	1,606	1,820	2,033	2,456	2,877	3,295										
G01x02.5	Start	Outboard	734	870	1,209	1,547	1,884	2,219	2,553	2,887	3,219	3,881											27.6	133.1
	Min		410	481	659	836	1,013	1,189	1,365	1,540	1,716	2,065												
	End		732	868	1,206	1,543	1,879	2,214	2,547	2,880	3,212	3,872												
G01x02.5	Start	Inboard	592	706	991	1,274	1,556	1,837	2,116	2,395	2,673	3,226											27.6	133.1
	Min		336	396	545	693	841	989	1,136	1,283	1,430	1,722												
	End		590	704	988	1,270	1,551	1,831	2,110	2,388	2,665	3,217												
G01x03.0	Start	Outboard	1,103	1,299	1,788	2,276	2,762	3,247	3,730	4,213													27.6	92.4
	Min		607	709	965	1,221	1,476	1,730	1,984	2,238														
	End		1,100	1,296	1,784	2,270	2,755	3,239	3,721	4,203														
G01x03.0	Start	Inboard	961	1,135	1,570	2,003	2,434	2,864	3,293	3,721													27.6	92.4
	Min		532	624	851	1,078	1,304	1,530	1,755	1,980														
	End		958	1,132	1,565	1,997	2,427	2,856	3,284	3,711														
G01x03.5	Start	Outboard	1,543	1,810	2,476	3,141	3,804	4,465															27.6	67.9
	Min		840	980	1,328	1,676	2,024	2,371																
	End		1,539	1,806	2,470	3,133	3,795	4,455																
G01x03.5	Start	Inboard	1,401	1,646	2,258	2,868	3,477	4,084															27.6	67.9
	Min		766	894	1,214	1,534	1,853	2,171																
	End		1,397	1,642	2,252	2,860	3,467	4,073																

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			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300	325			350
			Air Torque Output, Nm																					
G2x01.7	Start	Outboard	381	462	663	862	1,061	1,259	1,457	1,653	1,849	2,239	2,627	3,012	3,396	3,779	4,257	4,733	5,210	5,688	6,167		27.6	332.3
	Min		225	267	372	477	581	685	789	893	996	1,203	1,408	1,613	1,817	2,021	2,276	2,530	2,784	3,038	3,293			
	End		381	461	661	861	1,059	1,257	1,454	1,650	1,845	2,234	2,621	3,006	3,389	3,771	4,248	4,723	5,199	5,676	6,154			
G2x01.7	Start	Inboard	209	264	398	532	664	796	928	1,058	1,188	1,445	1,701	1,954	2,206	2,456	2,769	3,080	3,392	3,704	4,018		27.6	332.3
	Min		135	163	234	304	374	444	513	582	651	788	925	1,060	1,195	1,330	1,498	1,666	1,834	2,002	2,170			
	End		209	263	397	530	663	794	925	1,055	1,185	1,442	1,696	1,949	2,200	2,450	2,762	3,072	3,383	3,695	4,008			
G2x02.0	Start	Outboard	528	633	895	1,156	1,415	1,673	1,931	2,187	2,442	2,950	3,455	3,957	4,456	4,954	5,575	6,196					27.6	254.5
	Min		304	359	496	633	769	905	1,041	1,176	1,311	1,580	1,848	2,115	2,381	2,646	2,978	3,309						
	End		527	632	893	1,153	1,412	1,670	1,927	2,182	2,437	2,944	3,447	3,948	4,447	4,944	5,564	6,182						
G2x02.0	Start	Inboard	356	434	630	825	1,018	1,210	1,401	1,591	1,780	2,155	2,528	2,897	3,265	3,630	4,086	4,541					27.6	254.5
	Min		214	255	357	460	562	663	764	865	965	1,165	1,364	1,561	1,758	1,955	2,200	2,444						
	End		355	433	628	822	1,015	1,207	1,398	1,587	1,776	2,150	2,521	2,890	3,256	3,621	4,076	4,529						
G2x02.2	Start	Outboard	698	831	1,163	1,494	1,823	2,151	2,478	2,803	3,128	3,774	4,417	5,057	5,695	6,331							27.6	201.1
	Min		395	464	638	812	985	1,157	1,329	1,501	1,672	2,014	2,354	2,694	3,032	3,370								
	End		696	829	1,160	1,490	1,819	2,146	2,472	2,798	3,121	3,766	4,408	5,047	5,683	6,317								
G2x02.2	Start	Inboard	526	633	899	1,163	1,426	1,688	1,949	2,209	2,467	2,981	3,492	4,000	4,505	5,009							27.6	201.1
	Min		305	361	500	639	777	915	1,053	1,190	1,327	1,599	1,871	2,141	2,410	2,679								
	End		524	631	896	1,160	1,423	1,684	1,944	2,203	2,461	2,974	3,483	3,990	4,494	4,996								
G2x02.5	Start	Outboard	889	1,053	1,464	1,873	2,280	2,686	3,091	3,494	3,897	4,698	5,496	6,291									27.6	162.9
	Min		497	583	798	1,012	1,226	1,439	1,652	1,865	2,077	2,500	2,921	3,342										
	End		887	1,051	1,461	1,869	2,275	2,680	3,084	3,487	3,888	4,688	5,484	6,277										
G2x02.5	Start	Inboard	717	855	1,199	1,542	1,883	2,223	2,562	2,899	3,235	3,904	4,570	5,232									27.6	162.9
	Min		407	479	659	839	1,018	1,197	1,375	1,553	1,731	2,085	2,437	2,788										
	End		715	853	1,196	1,538	1,878	2,217	2,555	2,892	3,227	3,895	4,558	5,219										
G2x03.0	Start	Outboard	1,335	1,573	2,164	2,755	3,343	3,930	4,515	5,099	5,682												27.6	113.1
	Min		734	859	1,168	1,477	1,786	2,094	2,401	2,708	3,015													
	End		1,332	1,569	2,160	2,749	3,336	3,922	4,506	5,088	5,670													
G2x03.0	Start	Inboard	1,163	1,374	1,900	2,424	2,946	3,467	3,986	4,504	5,021												27.6	113.1
	Min		644	755	1,030	1,304	1,578	1,852	2,125	2,397	2,669													
	End		1,160	1,371	1,895	2,418	2,939	3,458	3,976	4,493	5,008													
G2x03.5	Start	Outboard	1,868	2,191	2,997	3,802	4,604	5,405	6,204														27.6	83.1
	Min		1,017	1,186	1,608	2,029	2,450	2,869	3,289															
	End		1,864	2,186	2,991	3,794	4,595	5,394	6,191															
G2x03.5	Start	Inboard	1,696	1,993	2,733	3,472	4,209	4,943	5,676														27.6	83.1
	Min		927	1,082	1,470	1,856	2,242	2,628	3,012															
	End		1,692	1,988	2,727	3,463	4,198	4,931	5,662															
G2x04.0	Start	Outboard	2,486	2,909	3,963	5,015	6,064																27.6	63.6
	Min		1,345	1,565	2,117	2,667	3,217																	
	End		2,481	2,902	3,954	5,004	6,052																	
G2x04.0	Start	Inboard	2,315	2,711	3,699	4,685	5,669																27.6	63.6
	Min		1,255	1,462	1,979	2,495	3,010																	
	End		2,309	2,704	3,690	4,673	5,655																	

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Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																		MinOP barg	MOP barg		
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300			325	350
			Air Torque Output, Nm																					
G3x02.0	Start	Outboard	626	754	1,072	1,389	1,704	2,018	2,330	2,641	2,950	3,566	4,178	4,786	5,392	5,995	6,747	7,498	8,249	9,001	9,756	10,515	27.6	344.7
	Min		364	430	597	764	929	1,095	1,259	1,424	1,588	1,914	2,239	2,563	2,886	3,208	3,610	4,011	4,413	4,815	5,218	5,622		
	End		625	752	1,070	1,386	1,701	2,014	2,326	2,636	2,945	3,560	4,171	4,778	5,382	5,985	6,735	7,485	8,235	8,986	9,739	10,496		
G3x02.0	Start	Inboard	298	376	569	759	949	1,137	1,323	1,508	1,692	2,056	2,416	2,773	3,127	3,478	3,916	4,352	4,788	5,226	5,666	6,110	27.6	344.7
	Min		193	233	334	435	535	635	734	832	930	1,125	1,319	1,511	1,703	1,893	2,131	2,368	2,605	2,843	3,082	3,321		
	End		298	375	567	758	947	1,134	1,320	1,505	1,688	2,052	2,411	2,767	3,120	3,471	3,907	4,343	4,778	5,215	5,654	6,097		
G3x02.2	Start	Outboard	832	994	1,398	1,800	2,200	2,598	2,995	3,391	3,785	4,569	5,349	6,125	6,898	7,669	8,630	9,590	10,550	11,511			27.6	289.0
	Min		474	559	770	981	1,191	1,401	1,610	1,819	2,027	2,442	2,855	3,267	3,678	4,088	4,600	5,111	5,623	6,135				
	End		831	993	1,396	1,797	2,196	2,594	2,990	3,385	3,778	4,561	5,340	6,114	6,886	7,656	8,615	9,573	10,532	11,491				
G3x02.2	Start	Inboard	506	617	895	1,171	1,446	1,718	1,989	2,259	2,528	3,061	3,589	4,114	4,635	5,155	5,802	6,447	7,093	7,740			27.6	289.0
	Min		303	362	508	653	797	941	1,085	1,228	1,370	1,653	1,935	2,216	2,496	2,775	3,122	3,470	3,817	4,165				
	End		504	616	893	1,169	1,442	1,715	1,985	2,254	2,522	3,054	3,581	4,105	4,625	5,144	5,789	6,433	7,078	7,723				
G3x02.5	Start	Outboard	1,065	1,265	1,764	2,261	2,756	3,249	3,741	4,231	4,719	5,693	6,661	7,625	8,586	9,544	10,740						27.6	234.1
	Min		598	703	964	1,225	1,485	1,744	2,003	2,261	2,519	3,032	3,545	4,055	4,565	5,074	5,709							
	End		1,063	1,263	1,761	2,257	2,751	3,243	3,734	4,223	4,711	5,683	6,649	7,612	8,571	9,527	10,721							
G3x02.5	Start	Inboard	738	888	1,261	1,632	2,002	2,369	2,735	3,100	3,463	4,184	4,901	5,614	6,324	7,031	7,912						27.6	234.1
	Min		428	506	702	896	1,091	1,284	1,477	1,670	1,862	2,244	2,625	3,005	3,383	3,760	4,231							
	End		736	886	1,258	1,629	1,997	2,364	2,729	3,093	3,455	4,175	4,891	5,602	6,310	7,015	7,895							
G3x03.0	Start	Outboard	1,608	1,896	2,616	3,333	4,049	4,762	5,473	6,183	6,890	8,301	9,706	11,107									27.6	162.6
	Min		888	1,038	1,415	1,791	2,166	2,540	2,914	3,287	3,660	4,403	5,144	5,884										
	End		1,605	1,893	2,611	3,328	4,042	4,754	5,464	6,172	6,878	8,287	9,689	11,088										
G3x03.0	Start	Inboard	1,281	1,519	2,113	2,705	3,294	3,882	4,467	5,051	5,633	6,793	7,946	9,096									27.6	162.6
	Min		717	841	1,152	1,462	1,772	2,080	2,388	2,696	3,002	3,614	4,224	4,832										
	End		1,278	1,516	2,109	2,699	3,287	3,873	4,458	5,040	5,621	6,778	7,929	9,076										
G3x03.5	Start	Outboard	2,255	2,648	3,629	4,607	5,583	6,556	7,527	8,496	9,463	11,392											27.6	119.4
	Min		1,231	1,437	1,950	2,462	2,973	3,484	3,993	4,502	5,010	6,025												
	End		2,251	2,644	3,623	4,599	5,573	6,544	7,514	8,481	9,447	11,372												
G3x03.5	Start	Inboard	1,929	2,272	3,127	3,979	4,829	5,677	6,523	7,366	8,208	9,886											27.6	119.4
	Min		1,061	1,240	1,687	2,133	2,579	3,024	3,468	3,911	4,354	5,237												
	End		1,925	2,267	3,120	3,971	4,819	5,665	6,509	7,350	8,190	9,864												
G3x04.0	Start	Outboard	3,008	3,521	4,803	6,082	7,358	8,632	9,903	11,172													27.6	91.4
	Min		1,630	1,898	2,569	3,238	3,906	4,574	5,241	5,906														
	End		3,002	3,515	4,795	6,071	7,345	8,617	9,886	11,153														
G3x04.0	Start	Inboard	2,681	3,145	4,301	5,455	6,606	7,754	8,900	10,043													27.6	91.4
	Min		1,459	1,701	2,306	2,910	3,512	4,114	4,715	5,315														
	End		2,676	3,138	4,292	5,443	6,591	7,737	8,881	10,022														
G3x04.5	Start	Outboard	3,865	4,515	6,138	7,759	9,376	10,990															27.6	72.3
	Min		2,083	2,423	3,272	4,119	4,966	5,812																
	End		3,858	4,507	6,128	7,745	9,359	10,971																
G3x04.5	Start	Inboard	3,539	4,139	5,637	7,132	8,624	10,113															27.6	72.3
	Min		1,912	2,226	3,009	3,791	4,572	5,352																
	End		3,531	4,130	5,625	7,116	8,605	10,091																

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			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300			325	350	
			Air Torque Output, Nm																						
G3x202.0	Start	Outboard	924	1,129	1,640	2,148	2,652	3,154	3,652	4,148	4,642	5,622	6,593	7,558	8,518	9,472	10,662								
	Min		556	664	932	1,199	1,464	1,729	1,993	2,256	2,518	3,039	3,558	4,074	4,588	5,101	5,741								
	End		922	1,127	1,637	2,144	2,648	3,148	3,646	4,141	4,634	5,612	6,582	7,545	8,503	9,456	10,643								
G3x202.0	Start	Inboard	924	1,130	1,641	2,149	2,653	3,155	3,654	4,150	4,643	5,624	6,596	7,561	8,520	9,475	10,665								
	Min		556	664	932	1,199	1,464	1,729	1,993	2,256	2,518	3,039	3,558	4,074	4,588	5,101	5,741								
	End		922	1,127	1,637	2,144	2,647	3,148	3,646	4,141	4,633	5,611	6,581	7,544	8,502	9,455	10,642								
G3x202.5	Start	Outboard	1,802	2,152	3,024	3,893	4,757	5,618	6,475	7,330	8,181	9,876	11,561												
	Min		1,026	1,209	1,666	2,121	2,575	3,028	3,480	3,931	4,380	5,277	6,170												
	End		1,799	2,149	3,019	3,886	4,749	5,608	6,464	7,317	8,167	9,858	11,540												
G3x202.5	Start	Inboard	1,803	2,153	3,025	3,894	4,758	5,620	6,477	7,332	8,184	9,879	11,564												
	Min		1,026	1,209	1,666	2,121	2,575	3,028	3,480	3,931	4,380	5,277	6,170												
	End		1,799	2,148	3,019	3,885	4,748	5,607	6,463	7,316	8,166	9,857	11,539												
G3x203.0	Start	Outboard	2,888	3,415	4,728	6,037	7,342	8,643	9,939	11,232															
	Min		1,604	1,880	2,567	3,253	3,938	4,621	5,302	5,983															
	End		2,883	3,409	4,720	6,027	7,329	8,627	9,922	11,213															
G3x203.0	Start	Inboard	2,889	3,416	4,730	6,039	7,344	8,645	9,942	11,236															
	Min		1,604	1,880	2,567	3,253	3,938	4,621	5,302	5,983															
	End		2,883	3,409	4,720	6,026	7,328	8,627	9,921	11,212															
G3x203.5	Start	Outboard	4,184	4,919	6,755	8,585	10,411																		
	Min		2,292	2,676	3,637	4,595	5,552																		
	End		4,176	4,911	6,743	8,570	10,392																		
G3x203.5	Start	Inboard	4,185	4,921	6,757	8,588	10,414																		
	Min		2,292	2,676	3,637	4,595	5,552																		
	End		4,176	4,910	6,742	8,569	10,391																		
G3x204.0	Start	Outboard	5,688	6,665	9,103	11,535																			
	Min		3,089	3,599	4,874	6,148																			
	End		5,678	6,653	9,087	11,515																			
G3x204.0	Start	Inboard	5,690	6,667	9,106	11,539																			
	Min		3,089	3,599	4,874	6,148																			
	End		5,678	6,653	9,086	11,514																			
G3x204.5	Start	Outboard	7,402	8,653																					
	Min		3,995	4,648																					
	End		7,389	8,637																					
G3x204.5	Start	Inboard	7,405	8,655																					
	Min		3,995	4,648																					
	End		7,389	8,636																					

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																		MinOP barg	MOP barg		
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300			325	350
			Air Torque Output, Nm																					
G4x02.5	Start	Outboard	1,273	1,516	2,121	2,724	3,323	3,920	4,515	5,107	5,697	6,870	8,036	9,196	10,351	11,503	12,938	14,371	15,805	17,241	18,681	20,128	27.6	344.7
	Min		720	847	1,164	1,480	1,796	2,110	2,423	2,736	3,047	3,669	4,288	4,904	5,519	6,133	6,899	7,664	8,429	9,195	9,962	10,732		
	End		1,270	1,513	2,117	2,718	3,316	3,912	4,505	5,096	5,684	6,855	8,019	9,176	10,329	11,478	12,910	14,340	15,771	17,203	18,640	20,084		
G4x02.5	Start	Inboard	700	855	1,241	1,623	2,002	2,379	2,753	3,125	3,495	4,228	4,954	5,674	6,388	7,099	7,984	8,867	9,750	10,636	11,525	12,422	27.6	344.7
	Min		421	502	704	905	1,106	1,305	1,503	1,701	1,898	2,289	2,678	3,065	3,450	3,833	4,312	4,789	5,267	5,745	6,225	6,708		
	End		699	853	1,237	1,619	1,997	2,373	2,746	3,117	3,486	4,217	4,942	5,660	6,373	7,082	7,964	8,845	9,726	10,609	11,497	12,391		
G4x03.0	Start	Outboard	1,933	2,284	3,157	4,028	4,895	5,760	6,621	7,480	8,336	10,042	11,739	13,430	15,115	16,796	18,892	20,987	23,081				27.6	267.8
	Min		1,072	1,255	1,712	2,169	2,624	3,078	3,531	3,983	4,435	5,335	6,233	7,128	8,021	8,912	10,025	11,138	12,250					
	End		1,929	2,279	3,151	4,019	4,885	5,747	6,607	7,464	8,318	10,020	11,714	13,401	15,082	16,759	18,852	20,941	23,031					
G4x03.0	Start	Inboard	1,361	1,623	2,277	2,927	3,574	4,218	4,859	5,498	6,134	7,399	8,656	9,906	11,151	12,391	13,937	15,481	17,025				27.6	267.8
	Min		772	910	1,252	1,593	1,933	2,273	2,611	2,948	3,284	3,954	4,622	5,287	5,950	6,611	7,437	8,261	9,086					
	End		1,357	1,619	2,271	2,919	3,565	4,207	4,847	5,484	6,119	7,381	8,635	9,882	11,123	12,360	13,903	15,443	16,983					
G4x03.5	Start	Outboard	2,721	3,198	4,389	5,576	6,760	7,941	9,118	10,293	11,464	13,800	16,127	18,446	20,758	23,066							27.6	196.7
	Min		1,489	1,739	2,362	2,984	3,605	4,225	4,843	5,461	6,077	7,307	8,534	9,759	10,981	12,202								
	End		2,715	3,191	4,380	5,564	6,746	7,924	9,099	10,271	11,440	13,770	16,092	18,406	20,713	23,016								
G4x03.5	Start	Inboard	2,148	2,538	3,509	4,476	5,440	6,401	7,358	8,313	9,264	11,160	13,046	14,925	16,798	18,666							27.6	196.7
	Min		1,190	1,394	1,902	2,409	2,915	3,420	3,923	4,426	4,927	5,927	6,925	7,919	8,911	9,902								
	End		2,143	2,532	3,500	4,465	5,427	6,385	7,340	8,292	9,241	11,132	13,014	14,888	16,756	18,619								
G4x04.0	Start	Outboard	3,635	4,259	5,817	7,370	8,919	10,465	12,008	13,547	15,083	18,146	21,200										27.6	150.6
	Min		1,974	2,300	3,115	3,928	4,740	5,550	6,360	7,168	7,975	9,587	11,194											
	End		3,627	4,250	5,804	7,354	8,900	10,443	11,982	13,517	15,050	18,107	21,154											
G4x04.0	Start	Inboard	3,063	3,599	4,937	6,270	7,600	8,926	10,248	11,567	12,883	15,507	18,121										27.6	150.6
	Min		1,675	1,955	2,655	3,353	4,050	4,745	5,440	6,133	6,825	8,207	9,585											
	End		3,056	3,591	4,925	6,255	7,581	8,904	10,223	11,539	12,851	15,469	18,076											
G4x04.5	Start	Outboard	4,672	5,462	7,433	9,398	11,357	13,312	15,263	17,209	19,150	23,023											27.6	119.0
	Min		2,523	2,936	3,967	4,996	6,023	7,048	8,072	9,094	10,115	12,153												
	End		4,662	5,450	7,417	9,377	11,333	13,284	15,230	17,171	19,109	22,973												
G4x04.5	Start	Inboard	4,101	4,803	6,553	8,298	10,039	11,774	13,504	15,230	16,952	20,385											27.6	119.0
	Min		2,224	2,591	3,507	4,421	5,333	6,243	7,152	8,059	8,965	10,773												
	End		4,091	4,791	6,537	8,278	10,014	11,744	13,471	15,192	16,910	20,334												
G4x05.0	Start	Outboard	5,841	6,817	9,251	11,680	14,103	16,520	18,932	21,340	23,743												27.6	96.4
	Min		3,140	3,650	4,923	6,195	7,464	8,731	9,997	11,261	12,523													
	End		5,829	6,802	9,231	11,654	14,072	16,484	18,892	21,294	23,692													
G4x05.0	Start	Inboard	5,270	6,158	8,372	10,581	12,784	14,982	17,175	19,363	21,546												27.6	96.4
	Min		2,841	3,305	4,464	5,620	6,774	7,926	9,077	10,226	11,373													
	End		5,257	6,142	8,352	10,555	12,753	14,945	17,132	19,315	21,493													
G4x06.0	Start	Outboard	8,560	9,966	13,475	16,977	20,473	23,962															27.6	66.9
	Min		4,574	5,309	7,143	8,975	10,805	12,633																
	End		8,542	9,945	13,446	16,941	20,429	23,911																
G4x06.0	Start	Inboard	7,990	9,308	12,597	15,880	19,156	22,426															27.6	66.9
	Min		4,275	4,964	6,683	8,400	10,115	11,828																
	End		7,970	9,285	12,566	15,841	19,109	22,371																

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																			MinOP barg	MOP barg		
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300	325			350	
			Air Torque Output, Nm																						
G4x202.5	Start	Outboard	1,973	2,371	3,361	4,346	5,325	6,299	7,267	8,231	9,190	11,097	12,989	14,869	16,738	18,600	20,920							27.6	235.1
	Min		1,141	1,349	1,868	2,386	2,901	3,415	3,926	4,437	4,945	5,958	6,966	7,969	8,969	9,966	11,211								
	End		1,969	2,366	3,354	4,337	5,313	6,285	7,252	8,213	9,171	11,073	12,961	14,836	16,702	18,560	20,875								
G4x202.5	Start	Inboard	1,974	2,372	3,362	4,347	5,326	6,300	7,269	8,233	9,193	11,100	12,992	14,872	16,743	18,605	20,926							27.6	235.1
	Min		1,141	1,349	1,868	2,386	2,901	3,415	3,926	4,437	4,945	5,958	6,966	7,969	8,969	9,966	11,211								
	End		1,969	2,366	3,354	4,336	5,313	6,285	7,251	8,213	9,170	11,072	12,960	14,836	16,701	18,559	20,874								
G4x203.0	Start	Outboard	3,293	3,906	5,433	6,954	8,468	9,976	11,479	12,976	14,469	17,439	20,393	23,334										27.6	153.0
	Min		1,844	2,164	2,964	3,762	4,557	5,351	6,142	6,931	7,719	9,289	10,854	12,414											
	End		3,286	3,898	5,422	6,939	8,450	9,955	11,454	12,948	14,437	17,401	20,349	23,283											
G4x203.0	Start	Inboard	3,294	3,907	5,435	6,956	8,470	9,979	11,482	12,980	14,472	17,444	20,399	23,340										27.6	153.0
	Min		1,844	2,164	2,964	3,762	4,557	5,351	6,142	6,931	7,719	9,289	10,854	12,414											
	End		3,286	3,897	5,421	6,938	8,449	9,954	11,454	12,947	14,436	17,400	20,348	23,282											
G4x203.5	Start	Outboard	4,868	5,735	7,897	10,052	12,199	14,340	16,475	18,603	20,726													27.6	108.3
	Min		2,680	3,133	4,265	5,394	6,520	7,644	8,766	9,886	11,004														
	End		4,858	5,723	7,880	10,030	12,173	14,309	16,439	18,563	20,681														
G4x203.5	Start	Inboard	4,870	5,737	7,899	10,054	12,202	14,344	16,479	18,608	20,732													27.6	108.3
	Min		2,680	3,133	4,265	5,394	6,520	7,644	8,766	9,886	11,004														
	End		4,858	5,722	7,880	10,029	12,172	14,308	16,438	18,562	20,680														
G4x204.0	Start	Outboard	6,698	7,858	10,752	13,639	16,517	19,389	22,253															27.6	81.0
	Min		3,649	4,255	5,770	7,281	8,790	10,296	11,800																
	End		6,683	7,841	10,729	13,609	16,482	19,347	22,205																
G4x204.0	Start	Inboard	6,699	7,860	10,755	13,642	16,522	19,394	22,259															27.6	81.0
	Min		3,649	4,255	5,770	7,281	8,790	10,296	11,800																
	End		6,683	7,840	10,728	13,608	16,481	19,346	22,204																
G4x204.5	Start	Outboard	8,772	10,264	13,984	17,694	21,393																	27.6	63.0
	Min		4,747	5,527	7,474	9,416	11,356																		
	End		8,753	10,241	13,954	17,656	21,347																		
G4x204.5	Start	Inboard	8,775	10,266	13,988	17,699	21,399																	27.6	63.0
	Min		4,747	5,527	7,474	9,416	11,356																		
	End		8,753	10,241	13,953	17,655	21,346																		
G4x205.0	Start	Outboard	11,110	12,973	17,621	22,258																		27.6	50.5
	Min		5,982	6,956	9,387	11,814																			
	End		11,086	12,945	17,583	22,210																			
G4x205.0	Start	Inboard	11,113	12,976	17,626	22,264																		27.6	50.5
	Min		5,982	6,956	9,387	11,814																			
	End		11,085	12,944	17,582	22,209																			
G4x206.0	Start	Outboard	16,548	19,271																				27.6	34.5
	Min		8,849	10,272																					
	End		16,512	19,230																					
G4x206.0	Start	Inboard	16,553	19,276																				27.6	34.5
	Min		8,849	10,272																					
	End		16,511	19,229																					

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																			MinOP barg	MOP barg	
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300	325			350
			Air Torque Output, Nm																					
G5x03.5	Start	Outboard	3,457	4,073	5,607	7,135	8,656	10,171	11,679	13,182	14,680	17,661	20,625	23,574	26,512	29,440	33,091	36,738	40,385	44,037	47,701	51,380	27.6	344.7
	Min		1,905	2,228	3,032	3,834	4,633	5,430	6,225	7,019	7,810	9,388	10,959	12,526	14,088	15,648	17,594	19,538	21,483	23,429	25,379	27,335		
	End		3,451	4,066	5,598	7,124	8,642	10,154	11,661	13,161	14,657	17,633	20,592	23,537	26,469	29,393	33,039	36,680	40,321	43,967	47,625	51,298		
G5x03.5	Start	Inboard	2,142	2,555	3,584	4,606	5,621	6,630	7,633	8,631	9,623	11,592	13,544	15,482	17,408	19,325	21,712	24,094	26,476	28,864	31,263	33,678	27.6	344.7
	Min		1,218	1,435	1,975	2,512	3,047	3,580	4,111	4,640	5,167	6,216	7,259	8,297	9,331	10,361	11,647	12,930	14,214	15,499	16,789	18,084		
	End		2,137	2,550	3,577	4,597	5,610	6,617	7,618	8,613	9,603	11,568	13,517	15,450	17,372	19,285	21,667	24,045	26,422	28,806	31,200	33,610		
G5x04.0	Start	Outboard	4,638	5,444	7,451	9,451	11,444	13,430	15,410	17,383	19,351	23,270	27,170	31,055	34,926	38,788	43,605	48,418	53,230				27.6	266.0
	Min		2,531	2,953	4,004	5,053	6,100	7,143	8,185	9,225	10,262	12,332	14,395	16,452	18,505	20,555	23,113	25,670	28,227					
	End		4,631	5,435	7,440	9,436	11,426	13,409	15,385	17,355	19,320	23,233	27,127	31,005	34,871	38,726	43,536	48,340	53,145					
G5x04.0	Start	Inboard	3,324	3,927	5,429	6,923	8,411	9,891	11,365	12,833	14,295	17,203	20,092	22,965	25,826	28,676	32,229	35,777	39,326				27.6	266.0
	Min		1,844	2,160	2,947	3,732	4,514	5,293	6,071	6,846	7,619	9,160	10,694	12,223	13,747	15,268	17,166	19,062	20,958					
	End		3,317	3,919	5,418	6,909	8,394	9,871	11,342	12,807	14,265	17,168	20,051	22,918	25,773	28,617	32,164	35,704	39,246					
G5x04.5	Start	Outboard	5,985	7,005	9,549	12,085	14,613	17,133	19,647	22,154	24,654	29,638	34,602	39,548	44,481	49,403							27.6	210.2
	Min		3,244	3,777	5,109	6,438	7,764	9,088	10,409	11,728	13,045	15,673	18,293	20,908	23,517	26,123								
	End		5,975	6,993	9,534	12,065	14,589	17,106	19,616	22,118	24,615	29,591	34,547	39,486	44,410	49,324								
G5x04.5	Start	Inboard	4,670	5,488	7,527	9,557	11,580	13,595	15,603	17,605	19,600	23,573	27,526	31,462	35,383	39,294							27.6	210.2
	Min		2,556	2,984	4,052	5,117	6,179	7,238	8,295	9,350	10,402	12,501	14,593	16,679	18,760	20,837								
	End		4,661	5,477	7,512	9,538	11,557	13,568	15,572	17,569	19,560	23,525	27,470	31,398	35,311	39,214								
G5x05.0	Start	Outboard	7,495	8,756	11,899	15,034	18,161	21,280	24,390	27,494	30,591	36,767	42,920	49,055									27.6	170.2
	Min		4,042	4,701	6,346	7,988	9,628	11,264	12,898	14,530	16,159	19,411	22,655	25,892										
	End		7,483	8,742	11,880	15,011	18,132	21,246	24,352	27,450	30,543	36,708	42,852	48,977										
G5x05.0	Start	Inboard	6,181	7,239	9,878	12,507	15,129	17,742	20,347	22,946	25,537	30,702	35,845	40,969									27.6	170.2
	Min		3,354	3,908	5,289	6,666	8,041	9,414	10,783	12,150	13,515	16,238	18,953	21,662										
	End		6,169	7,224	9,858	12,482	15,098	17,706	20,306	22,899	25,485	30,640	35,772	40,886										
G5x06.0	Start	Outboard	11,010	12,826	17,359	21,882	26,395	30,900	35,395	39,882	44,361	53,299											27.6	118.2
	Min		5,896	6,845	9,217	11,584	13,949	16,310	18,668	21,024	23,377	28,075												
	End		10,993	12,806	17,332	21,847	26,353	30,850	35,339	39,819	44,291	53,214												
G5x06.0	Start	Inboard	9,698	11,312	15,340	19,358	23,367	27,366	31,357	35,339	39,314	47,242											27.6	118.2
	Min		5,208	6,052	8,159	10,263	12,363	14,460	16,554	18,645	20,733	24,903												
	End		9,678	11,289	15,309	19,319	23,319	27,310	31,293	35,267	39,234	47,146												
G5x07.0	Start	Outboard	15,183	17,657	23,832	29,997	36,150	42,293	48,426	54,549													27.6	86.9
	Min		8,093	9,386	12,616	15,842	19,064	22,282	25,497	28,708														
	End		15,159	17,629	23,795	29,949	36,092	42,225	48,349	54,463														
G5x07.0	Start	Inboard	13,872	16,144	21,815	27,475	33,124	38,762	44,391	50,010													27.6	86.9
	Min		7,406	8,593	11,558	14,520	17,477	20,431	23,382	26,329														
	End		13,844	16,111	21,770	27,419	33,056	38,683	44,300	49,908														
G5x08.0	Start	Outboard	19,992	23,221	31,281	39,324	47,351																27.6	66.5
	Min		10,627	12,315	16,531	20,742	24,946																	
	End		19,960	23,184	31,232	39,262	47,275																	
G5x08.0	Start	Inboard	18,682	21,710	29,267	36,806	44,329																27.6	66.5
	Min		9,939	11,522	15,474	19,420	23,360																	
	End		18,644	21,666	29,207	36,731	44,239																	

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																		MinOP barg	MOP barg		
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300			325	350
			Air Torque Output, Nm																					
G5x203.5	Start	Outboard	5,598	6,627	9,190	11,739	14,275	16,799	19,310	21,810	24,299	29,249	34,165	39,051	43,914	48,758								
	Min		3,123	3,662	5,006	6,346	7,680	9,010	10,336	11,658	12,977	15,604	18,218	20,823	23,419	26,009								
	End		5,589	6,616	9,176	11,721	14,253	16,772	19,279	21,775	24,261	29,203	34,110	38,989	43,844	48,680								
G5x203.5	Start	Inboard	5,600	6,629	9,193	11,743	14,280	16,804	19,317	21,817	24,308	29,259	34,176	39,064	43,929	48,775								
	Min		3,123	3,662	5,006	6,346	7,680	9,010	10,336	11,658	12,977	15,604	18,218	20,823	23,419	26,009								
	End		5,588	6,616	9,175	11,719	14,251	16,770	19,277	21,773	24,258	29,200	34,107	38,985	43,839	48,675								
G5x204.0	Start	Outboard	7,961	9,369	12,878	16,372	19,852	23,318	26,771	30,211	33,640	40,466	47,255											
	Min		4,376	5,113	6,951	8,785	10,613	12,437	14,256	16,071	17,881	21,492	25,089											
	End		7,948	9,354	12,858	16,346	19,821	23,281	26,728	30,163	33,587	40,402	47,180											
G5x204.0	Start	Inboard	7,964	9,372	12,883	16,378	19,859	23,326	26,780	30,222	33,652	40,480	47,271											
	Min		4,376	5,113	6,951	8,785	10,613	12,437	14,256	16,071	17,881	21,492	25,089											
	End		7,947	9,353	12,857	16,345	19,818	23,278	26,725	30,160	33,583	40,398	47,175											
G5x204.5	Start	Outboard	10,653	12,491	17,073	21,639	26,189	30,724	35,245	39,753	44,248	53,203												
	Min		5,800	6,761	9,161	11,555	13,943	16,326	18,704	21,078	23,447	28,174												
	End		10,636	12,471	17,046	21,604	26,147	30,675	35,189	39,689	44,177	53,119												
G5x204.5	Start	Inboard	10,657	12,495	17,079	21,646	26,198	30,735	35,257	39,766	44,263	53,222												
	Min		5,800	6,761	9,161	11,555	13,943	16,326	18,704	21,078	23,447	28,174												
	End		10,635	12,470	17,044	21,602	26,144	30,672	35,185	39,685	44,173	53,113												
G5x205.0	Start	Outboard	13,674	15,992	21,774	27,538	33,284	39,015	44,731	50,432														
	Min		7,396	8,608	11,635	14,655	17,669	20,678	23,681	26,680														
	End		13,653	15,967	21,739	27,494	33,232	38,953	44,660	50,352														
G5x205.0	Start	Inboard	13,679	15,998	21,781	27,547	33,296	39,029	44,746	50,449														
	Min		7,396	8,608	11,635	14,655	17,669	20,678	23,681	26,680														
	End		13,651	15,965	21,737	27,491	33,228	38,949	44,655	50,347														
G5x206.0	Start	Outboard	20,704	24,134	32,694	41,234	49,754																	
	Min		11,104	12,897	17,376	21,847	26,312																	
	End		20,672	24,096	32,642	41,168	49,675																	
G5x206.0	Start	Inboard	20,712	24,143	32,706	41,248	49,771																	
	Min		11,104	12,897	17,376	21,847	26,312																	
	End		20,669	24,093	32,639	41,164	49,670																	
G5x207.0	Start	Outboard	29,051	33,795	45,640																			
	Min		15,499	17,979	24,174																			
	End		29,004	33,741	45,567																			
G5x207.0	Start	Inboard	29,061	33,807	45,656																			
	Min		15,499	17,979	24,174																			
	End		29,001	33,738	45,563																			
G5x208.0	Start	Outboard	38,668	44,924																				
	Min		20,566	23,837																				
	End		38,606	44,852																				
G5x208.0	Start	Inboard	38,681	44,939																				
	Min		20,566	23,837																				
	End		38,602	44,848																				

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																				MinOP barg	MOP barg
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300	325	350		
			Air Torque Output, Nm																					
G7x04.0	Start	Outboard	5,666	6,655	9,121	11,577	14,024	16,462	18,891	21,313	23,727	28,535	33,319	38,083	42,831	47,565	53,471	59,370	65,269	71,177	77,099	83,044	27.6	344.7
	Min		3,100	3,618	4,910	6,199	7,484	8,766	10,046	11,323	12,597	15,138	17,671	20,197	22,717	25,232	28,372	31,510	34,648	37,789	40,935	44,088		
	End		5,657	6,645	9,106	11,558	14,001	16,435	18,860	21,278	23,688	28,489	33,265	38,021	42,761	47,487	53,384	59,273	65,163	71,061	76,973	82,908		
G7x04.0	Start	Inboard	3,621	4,296	5,975	7,645	9,305	10,956	12,599	14,234	15,862	19,098	22,309	25,500	28,674	31,836	35,775	39,708	43,641	47,582	51,539	55,517	27.6	344.7
	Min		2,031	2,384	3,265	4,143	5,017	5,888	6,756	7,622	8,485	10,203	11,914	13,617	15,315	17,008	19,120	21,230	23,340	25,452	27,570	29,696		
	End		3,614	4,287	5,963	7,629	9,285	10,933	12,573	14,205	15,829	19,058	22,262	25,446	28,614	31,769	35,701	39,625	43,550	47,483	51,431	55,401		
G7x04.5	Start	Outboard	7,320	8,573	11,698	14,812	17,916	21,011	24,097	27,174	30,243	36,359	42,450	48,518	54,569	60,605	68,138	75,664	83,189	90,724	98,274		27.6	331.8
	Min		3,975	4,631	6,268	7,901	9,530	11,157	12,780	14,400	16,017	19,244	22,462	25,672	28,877	32,076	36,070	40,062	44,055	48,050	52,050			
	End		7,308	8,559	11,679	14,788	17,887	20,977	24,057	27,129	30,193	36,300	42,380	48,439	54,480	60,507	68,027	75,540	83,054	90,576	98,114			
G7x04.5	Start	Inboard	5,276	6,214	8,553	10,881	13,199	15,507	17,807	20,097	22,380	26,924	31,442	35,938	40,416	44,881	50,448	56,007	61,568	67,136	72,721		27.6	331.8
	Min		2,906	3,397	4,623	5,845	7,063	8,278	9,490	10,699	11,905	14,310	16,705	19,093	21,475	23,852	26,818	29,782	32,746	35,713	38,686			
	End		5,265	6,201	8,535	10,858	13,171	15,475	17,769	20,056	22,334	26,868	31,377	35,863	40,332	44,787	50,343	55,891	61,439	66,996	72,569			
G7x05.0	Start	Outboard	9,176	10,724	14,586	18,436	22,275	26,105	29,924	33,735	37,536	45,117	52,669	60,198	67,707	75,202	84,556	93,902	103,249				27.6	268.8
	Min		4,956	5,766	7,788	9,806	11,820	13,831	15,839	17,843	19,844	23,838	27,822	31,799	35,768	39,733	44,683	49,631	54,579					
	End		9,161	10,707	14,562	18,406	22,239	26,062	29,875	33,680	37,475	45,043	52,583	60,099	67,597	75,079	84,418	93,749	103,080					
G7x05.0	Start	Inboard	7,133	8,366	11,442	14,506	17,559	20,603	23,636	26,661	29,677	35,685	41,665	47,622	53,559	59,482	66,871	74,252	81,634				27.6	268.8
	Min		3,887	4,533	6,143	7,750	9,353	10,953	12,549	14,142	15,732	18,903	22,065	25,219	28,366	31,508	35,431	39,350	43,270					
	End		7,118	8,349	11,418	14,476	17,523	20,560	23,587	26,605	29,615	35,610	41,578	47,522	53,448	59,358	66,732	74,098	81,464					
G7x06.0	Start	Outboard	13,494	15,725	21,293	26,849	32,392	37,923	43,444	48,954	54,454	65,427	76,369	87,284	98,178								27.6	186.6
	Min		7,235	8,402	11,316	14,226	17,131	20,033	22,930	25,824	28,715	34,487	40,247	45,999	51,743									
	End		13,472	15,700	21,259	26,805	32,339	37,861	43,373	48,874	54,365	65,321	76,245	87,142	98,017									
G7x06.0	Start	Inboard	11,452	13,369	18,152	22,922	27,679	32,425	37,160	41,885	46,600	56,003	65,374	74,718	84,041								27.6	186.6
	Min		6,166	7,168	9,671	12,170	14,664	17,154	19,640	22,123	24,603	29,552	34,490	39,419	44,341									
	End		11,428	13,341	18,114	22,874	27,622	32,358	37,083	41,798	46,503	55,886	65,238	74,562	83,866									

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																		MinOP barg	MOP barg		
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300			325	350
			Air Torque Output, Nm																					
G7x204.0	Start	Outboard	9,286	10,950	15,094	19,219	23,325	27,414	31,486	35,542	39,584	47,626	55,620	63,574	71,494	79,389	89,233	99,064						
	Min		5,131	6,002	8,175	10,341	12,501	14,654	16,802	18,944	21,081	25,341	29,585	33,814	38,031	42,240	47,492	52,740						
	End		9,271	10,932	15,069	19,188	23,287	27,369	31,435	35,484	39,519	47,548	55,529	63,470	71,378	79,260	89,088	98,902						
G7x204.0	Start	Inboard	9,290	10,954	15,099	19,226	23,334	27,424	31,497	35,555	39,598	47,643	55,640	63,596	71,520	79,418	89,265	99,099						
	Min		5,131	6,002	8,175	10,341	12,501	14,654	16,802	18,944	21,081	25,341	29,585	33,814	38,031	42,240	47,492	52,740						
	End		9,270	10,931	15,068	19,186	23,285	27,367	31,432	35,481	39,515	47,544	55,524	63,464	71,371	79,252	89,079	98,893						
G7x204.5	Start	Outboard	12,594	14,785	20,247	25,689	31,110	36,512	41,897	47,264	52,615	63,274	73,880	84,443	94,970									
	Min		6,881	8,028	10,891	13,745	16,593	19,435	22,270	25,099	27,922	33,554	39,167	44,765	50,351									
	End		12,573	14,761	20,214	25,647	31,059	36,453	41,828	47,187	52,529	63,170	73,760	84,305	94,815									
G7x204.5	Start	Inboard	12,599	14,790	20,255	25,698	31,121	36,525	41,912	47,281	52,634	63,296	73,907	84,474	95,004									
	Min		6,881	8,028	10,891	13,745	16,593	19,435	22,270	25,099	27,922	33,554	39,167	44,765	50,351									
	End		12,572	14,760	20,212	25,644	31,056	36,449	41,824	47,182	52,524	63,164	73,753	84,297	94,806									
G7x205.0	Start	Outboard	16,306	19,087	26,023	32,937	39,829	46,700	53,552	60,386	67,203	80,789	94,319											
	Min		8,843	10,299	13,931	17,556	21,174	24,784	28,387	31,984	35,576	42,741	49,888											
	End		16,280	19,056	25,981	32,883	39,764	46,624	53,465	60,287	67,093	80,657	94,165											
G7x205.0	Start	Inboard	16,312	19,094	26,033	32,948	39,843	46,717	53,571	60,408	67,227	80,818	94,353											
	Min		8,843	10,299	13,931	17,556	21,174	24,784	28,387	31,984	35,576	42,741	49,888											
	End		16,278	19,054	25,978	32,880	39,760	46,619	53,460	60,282	67,086	80,649	94,156											
G7x206.0	Start	Outboard	24,942	29,089	39,439	49,762	60,061	70,337	80,591	90,824	101,037													
	Min		13,400	15,570	20,987	26,395	31,795	37,187	42,571	47,947	53,317													
	End		24,902	29,042	39,374	49,681	59,963	70,222	80,459	90,675	100,872													
G7x206.0	Start	Inboard	24,951	29,100	39,453	49,780	60,083	70,362	80,620	90,856	101,073													
	Min		13,400	15,570	20,987	26,395	31,795	37,187	42,571	47,947	53,317													
	End		24,899	29,039	39,371	49,676	59,957	70,215	80,451	90,667	100,862													

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																			MinOP barg	MOP barg	
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300	325			350
			Air Torque Output, Nm																					
G8x05.0	Start	Outboard	10,793	12,626	17,198	21,756	26,300	30,831	35,350	39,857	44,353	53,316	62,244	71,141	80,015	88,870	99,920	110,960	122,001	133,053	144,128		27.6	328.5
	Min		5,844	6,803	9,197	11,586	13,971	16,351	18,727	21,098	23,466	28,191	32,904	37,607	42,301	46,989	52,842	58,692	64,542	70,396	76,257			
	End		10,778	12,608	17,174	21,725	26,262	30,787	35,299	39,800	44,289	53,239	62,154	71,039	79,900	88,742	99,776	110,800	121,825	132,862	143,920			
G8x05.0	Start	Inboard	7,175	8,451	11,631	14,797	17,950	21,089	24,216	27,332	30,437	36,616	42,760	48,875	54,965	61,036	68,608	76,169	83,730	91,304	98,899		27.6	328.5
	Min		3,952	4,620	6,287	7,948	9,605	11,257	12,905	14,549	16,189	19,459	22,717	25,965	29,203	32,436	36,470	40,500	44,531	48,566	52,609			
	End		7,161	8,435	11,609	14,769	17,916	21,049	24,170	27,280	30,379	36,546	42,679	48,782	54,860	60,920	68,477	76,023	83,571	91,130	98,710			
G8x06.0	Start	Outboard	15,908	18,550	25,144	31,721	38,283	44,830	51,363	57,884	64,392	77,374	90,317	103,226	116,107	128,968	145,022	161,066					27.6	254.0
	Min		8,543	9,925	13,376	16,821	20,261	23,696	27,126	30,552	33,973	40,804	47,621	54,426	61,222	68,010	76,488	84,963						
	End		15,885	18,523	25,107	31,675	38,228	44,765	51,289	57,800	64,299	77,263	90,187	103,077	115,940	128,782	144,814	160,834						
G8x06.0	Start	Inboard	12,292	14,378	19,581	24,767	29,938	35,095	40,238	45,367	50,485	60,686	70,847	80,975	91,075	101,154	113,732	126,299					27.6	254.0
	Min		6,651	7,742	10,466	13,183	15,896	18,603	21,306	24,004	26,698	32,074	37,435	42,786	48,126	53,460	60,119	66,775						
	End		12,269	14,350	19,543	24,720	29,881	35,028	40,161	45,281	50,389	60,570	70,712	80,820	90,901	100,961	113,515	126,058						
G8x07.0	Start	Outboard	21,981	25,580	34,563	43,529	52,477	61,409	70,326	79,228	88,116	105,855	123,550	141,207	158,834								27.6	186.6
	Min		11,742	13,624	18,324	23,019	27,707	32,389	37,066	41,738	46,406	55,727	65,033	74,326	83,609									
	End		21,950	25,543	34,513	43,466	52,401	61,321	70,224	79,114	87,989	105,703	123,372	141,004	158,605									
G8x07.0	Start	Inboard	18,367	21,409	29,003	36,578	44,136	51,678	59,205	66,717	74,215	89,174	104,089	118,966	133,813								27.6	186.6
	Min		9,850	11,441	15,414	19,380	23,341	27,296	31,245	35,190	39,129	46,996	54,846	62,684	70,511									
	End		18,332	21,368	28,947	36,508	44,052	51,580	59,092	66,590	74,074	89,004	103,891	118,740	133,558									
G8x08.0	Start	Outboard	28,978	33,677	45,403	57,103	68,777	80,427	92,055	103,661	115,246	138,362	161,413										27.6	142.9
	Min		15,430	17,887	24,024	30,151	36,270	42,380	48,483	54,578	60,666	72,822	84,955											
	End		28,937	33,628	45,337	57,020	68,678	80,311	91,922	103,511	115,081	138,163	161,180											
G8x08.0	Start	Inboard	25,367	29,510	39,847	50,158	60,444	70,705	80,944	91,161	101,358	121,696	141,969										27.6	142.9
	Min		13,538	15,705	21,114	26,514	31,905	37,288	42,663	48,030	53,390	64,092	74,770											
	End		25,319	29,453	39,771	50,062	60,328	70,570	80,789	90,987	101,165	121,464	141,698											
G8x09.0	Start	Outboard	36,962	42,911	57,761	72,583	87,376	102,143	116,885	131,603	146,298												27.6	112.9
	Min		19,628	22,739	30,509	38,269	46,020	53,761	61,493	69,217	76,933													
	End		36,908	42,849	57,678	72,478	87,250	101,996	116,717	131,413	146,088													
G8x09.0	Start	Inboard	33,353	38,747	52,210	65,644	79,050	92,429	105,783	119,113	132,421												27.6	112.9
	Min		17,736	20,556	27,599	34,632	41,654	48,668	55,673	62,669	69,658													
	End		33,290	38,673	52,111	65,519	78,899	92,253	105,581	118,886	132,169													
G8x10.0	Start	Outboard	45,903	53,250	71,593	89,905	108,186	126,438	144,662	162,860													27.6	91.4
	Min		24,326	28,168	37,764	47,349	56,924	66,488	76,043	85,588														
	End		45,837	53,173	71,490	89,775	108,030	126,256	144,454	162,626														
G8x10.0	Start	Inboard	42,297	49,089	66,046	82,971	99,865	116,730	133,568	150,380													27.6	91.4
	Min		22,435	25,985	34,854	43,711	52,558	61,394	70,221	79,039														
	End		42,216	48,996	65,920	82,813	99,675	116,508	133,314	150,093														
G8x12.0	Start	Outboard	66,608	77,187	103,598	129,961	156,279																27.6	63.5
	Min		35,207	40,739	54,556	68,356	82,141																	
	End		66,512	77,076	103,449	129,774	156,054																	
G8x12.0	Start	Inboard	63,010	73,035	98,063	123,043	147,977																27.6	63.5
	Min		33,315	38,556	51,646	64,719	77,776																	
	End		62,890	72,896	97,876	122,808	147,695																	

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																		MinOP barg	MOP barg		
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300			325	350
			Air Torque Output, Nm																					
G10x06.0	Start	Outboard	20,798	24,268	32,927	41,563	50,178	58,772	67,348	75,905	84,445	101,479	118,457	135,389	152,282	169,146	190,198	211,234	232,270	253,325	274,415	295,556	27.6	344.7
	Min		11,189	13,005	17,538	22,063	26,581	31,092	35,596	40,094	44,586	53,554	62,502	71,434	80,353	89,262	100,387	111,508	122,628	133,755	144,894	156,051		
	End		20,766	24,231	32,877	41,500	50,102	58,684	67,246	75,790	84,318	101,325	118,278	135,184	152,052	168,890	189,910	210,914	231,919	252,942	274,000	295,109		
G10x06.0	Start	Inboard	14,160	16,608	22,714	28,797	34,859	40,901	46,923	52,928	58,915	70,842	82,715	94,540	106,327	118,085	132,754	147,408	162,062	176,734	191,441	206,200	27.6	344.7
	Min		7,718	8,999	12,198	15,388	18,571	21,747	24,916	28,079	31,236	37,533	43,811	50,073	56,322	62,560	70,348	78,131	85,914	93,703	101,505	109,324		
	End		14,132	16,576	22,670	28,742	34,792	40,822	46,833	52,825	58,801	70,706	82,555	94,358	106,122	117,857	132,498	147,123	161,749	176,393	191,072	205,802		
G10x07.0	Start	Outboard	28,776	33,502	45,301	57,074	68,824	80,551	92,258	103,944	115,611	138,893	162,114	185,283	208,410	231,504	260,341	289,160	317,980				27.6	284.4
	Min		15,393	17,865	24,040	30,206	36,364	42,514	48,657	54,792	60,921	73,161	85,380	97,581	109,767	121,941	137,149	152,350	167,551					
	End		28,732	33,452	45,232	56,988	68,720	80,430	92,118	103,786	115,436	138,683	161,869	185,003	208,095	231,154	259,947	288,723	317,500					
G10x07.0	Start	Inboard	22,139	25,845	35,091	44,312	53,510	62,685	71,839	80,973	90,087	108,265	126,381	144,446	162,468	180,458	202,914	225,352	247,792				27.6	284.4
	Min		11,921	13,859	18,699	23,530	28,352	33,167	37,975	42,775	47,569	57,139	66,687	76,217	85,732	95,237	107,106	118,969	130,832					
	End		22,097	25,795	35,023	44,227	53,407	62,564	71,700	80,816	89,913	108,056	126,137	144,167	162,155	180,110	202,522	224,917	247,313					
G10x08.0	Start	Outboard	37,967	44,139	59,540	74,905	90,236	105,535	120,802	136,040	151,250	181,596	211,852	242,033	272,152	302,224	339,769						27.6	217.7
	Min		20,238	23,466	31,528	39,578	47,615	55,641	63,656	71,661	79,657	95,621	111,555	127,462	143,348	159,217	179,038							
	End		37,910	44,072	59,450	74,792	90,100	105,375	120,619	135,834	151,022	181,321	211,532	241,667	271,741	301,768	339,255							
G10x08.0	Start	Inboard	31,335	36,486	49,336	62,151	74,931	87,679	100,395	113,082	125,742	150,986	176,140	201,219	226,237	251,207	282,374						27.6	217.7
	Min		16,767	19,461	26,188	32,902	39,605	46,296	52,976	59,646	66,306	79,600	92,864	106,101	119,317	132,516	148,999							
	End		31,274	36,415	49,241	62,031	74,786	87,509	100,201	112,864	125,499	150,694	175,800	200,831	225,800	250,722	281,829							
G10x09.0	Start	Outboard	48,455	56,269	75,775	95,241	114,669	134,062	153,420	172,746	192,042	230,550	268,960	307,288	345,548								27.6	172.0
	Min		25,754	29,841	40,049	50,243	60,425	70,593	80,759	90,895	101,030	121,271	141,478	161,656	181,810									
	End		48,382	56,184	75,660	95,097	114,496	133,859	153,188	172,485	191,751	230,202	268,554	306,823	345,025									
G10x09.0	Start	Inboard	41,825	48,619	65,575	82,492	99,370	116,213	133,021	149,797	166,543	199,952	233,263	266,491	299,651								27.6	172.0
	Min		22,282	25,835	34,708	43,567	52,413	61,246	70,068	78,878	87,678	105,248	122,784	140,292	157,776									
	End		41,744	48,525	65,449	82,332	99,178	115,988	132,764	149,508	166,222	199,566	232,812	265,976	299,072									
G10x10.0	Start	Outboard	60,200	69,851	93,945	117,996	142,006	165,976	189,909	213,807	237,672	285,311	332,843										27.6	139.3
	Min		31,927	36,974	49,581	62,173	74,751	87,315	99,866	112,405	124,932	149,955	174,941											
	End		60,109	69,745	93,803	117,818	141,791	165,725	189,622	213,484	237,313	284,880	332,340											
G10x10.0	Start	Inboard	53,574	62,205	83,752	105,254	126,716	148,138	169,522	190,872	212,189	254,731	297,167										27.6	139.3
	Min		28,455	32,969	44,240	55,497	66,740	77,968	89,184	100,388	111,580	133,932	156,247											
	End		53,471	62,085	83,590	105,051	126,471	147,851	169,195	190,503	211,779	254,239	296,593											
G10x12.0	Start	Outboard	87,400	101,296	135,988	170,616	205,183	239,692	274,146	308,549	342,902												27.6	96.7
	Min		46,223	53,490	71,643	89,774	107,883	125,973	144,043	162,095	180,130													
	End		87,268	101,142	135,782	170,358	204,873	239,330	273,732	308,082	342,384													
G10x12.0	Start	Inboard	80,783	93,661	125,809	157,893	189,915	221,880	253,789	285,647	317,456												27.6	96.7
	Min		42,751	49,485	66,303	83,099	99,873	116,627	133,362	150,079	166,779													
	End		80,627	93,480	125,566	157,588	189,548	221,451	253,299	285,096	316,843													
G10x14.0	Start	Outboard	119,685	138,606	185,856	233,033	280,139	327,178															27.6	71.1
	Min		63,166	73,061	97,780	122,473	147,142	171,787																
	End		119,504	138,397	185,575	232,680	279,715	326,684																
G10x14.0	Start	Inboard	113,078	130,983	175,693	220,328	264,894	309,392															27.6	71.1
	Min		59,695	69,055	92,439	115,797	139,130	162,441																
	End		112,860	130,730	175,353	219,903	264,382	308,795																

Torque - Hydraulic Double-Acting Actuator

Actuator Model	Metric Unit	Stroke Direction	Operating Pressure, barg																		MinOP barg	MOP barg		
			26	30	40	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300			325	350
			Air Torque Output, Nm																					
G13x08.0	Start	Outboard	48,628	56,563	76,360	96,101	115,788	135,425	155,014	174,557	194,058	232,942	271,687	310,316	348,850	387,310	435,315	483,280	531,247	579,260	627,359	675,587	27.6	338.7
	Min		25,955	30,106	40,470	50,814	61,140	71,448	81,739	92,014	102,275	122,755	143,187	163,578	183,936	204,269	229,660	255,037	280,415	305,809	331,233	356,702		
	End		48,534	56,454	76,213	95,915	115,565	135,164	154,714	174,220	193,683	232,492	271,163	309,717	348,177	386,563	434,474	482,347	530,222	578,141	626,147	674,282		
G13x08.0	Start	Inboard	35,688	41,633	56,453	71,217	85,928	100,588	115,200	129,766	144,290	173,221	202,013	230,689	259,269	287,776	323,338	358,861	394,387	429,957	465,614	501,400	27.6	338.7
	Min		19,191	22,301	30,063	37,805	45,529	53,235	60,925	68,598	76,257	91,534	106,762	121,950	137,105	152,234	171,120	189,993	208,867	227,756	246,676	265,641		
	End		35,607	41,538	56,325	71,056	85,733	100,360	114,939	129,473	143,964	172,829	201,556	230,167	258,682	287,124	322,606	358,049	393,494	428,984	464,560	500,265		
G13x09.0	Start	Outboard	62,123	72,172	97,251	122,268	147,228	172,133	196,986	221,789	246,547	295,935	345,173	394,284	443,293	492,222	553,306	614,347	675,392				27.6	267.6
	Min		33,051	38,307	51,431	64,535	77,618	90,682	103,728	116,757	129,770	155,751	181,680	207,565	233,415	259,236	291,486	323,721	355,957					
	End		62,003	72,033	97,063	122,032	146,944	171,800	196,605	221,361	246,071	295,363	344,506	393,523	442,437	491,271	552,237	613,161	674,088					
G13x09.0	Start	Inboard	49,187	57,246	77,349	97,391	117,375	137,305	157,182	177,011	196,793	236,230	275,517	314,678	353,736	392,714	441,359	489,962	538,568				27.6	267.6
	Min		26,286	30,502	41,024	51,526	62,008	72,470	82,914	93,341	103,752	124,530	145,256	165,937	186,583	207,201	232,946	258,677	284,409					
	End		49,075	57,116	77,174	97,171	117,110	136,994	156,827	176,610	196,347	235,695	274,894	313,966	352,935	391,825	440,360	488,853	537,349					
G13x10.0	Start	Outboard	77,237	89,649	120,632	151,549	182,403	213,199	243,939	274,625	305,262	366,399	427,375	488,215	548,943	609,586	685,307						27.6	216.8
	Min		40,992	47,483	63,694	79,882	96,048	112,194	128,320	144,427	160,518	192,651	224,728	256,757	288,748	320,709	360,631							
	End		77,088	89,476	120,399	151,256	182,051	212,787	243,468	274,095	304,673	365,692	426,550	487,272	547,883	608,409	683,983							
G13x10.0	Start	Inboard	64,303	74,726	100,734	126,677	152,557	178,379	204,144	229,857	255,519	306,708	357,735	408,626	459,406	510,100	573,385						27.6	216.8
	Min		34,227	39,677	53,286	66,872	80,436	93,980	107,504	121,010	134,498	161,427	188,300	215,126	241,912	268,669	302,087							
	End		64,158	74,556	100,506	126,390	152,212	177,975	203,682	229,336	254,941	306,014	356,925	407,701	458,366	508,945	572,087							
G13x12.0	Start	Outboard	112,236	130,111	174,731	219,258	263,698	308,054	352,332	396,536	440,669	528,744	616,591										27.6	150.5
	Min		59,382	68,730	92,075	115,388	138,670	161,923	185,149	208,350	231,525	277,810	324,015											
	End		112,020	129,860	174,393	218,835	263,189	307,460	351,652	395,770	439,818	527,723	615,401											
G13x12.0	Start	Inboard	99,313	115,199	154,848	194,405	233,875	273,261	312,569	351,802	390,965	469,098	547,005										27.6	150.5
	Min		52,618	60,924	81,668	102,379	123,060	143,711	164,335	184,934	205,508	246,588	287,590											
	End		99,088	114,938	154,498	193,965	233,346	272,643	311,861	351,005	390,080	468,036	545,767											
G13x14.0	Start	Outboard	153,779	178,121	238,900	299,574	360,149	420,629	481,020	541,326	601,553												27.6	110.6
	Min		81,179	93,906	125,697	157,452	189,173	220,860	252,516	284,143	315,742													
	End		153,482	177,777	238,438	298,996	359,453	419,817	480,091	540,281	600,391													
G13x14.0	Start	Inboard	140,866	163,221	219,034	274,742	330,350	385,864	441,289	496,629	551,889												27.6	110.6
	Min		74,414	86,101	115,290	144,444	173,562	202,648	231,702	260,727	289,725													
	End		140,547	162,852	218,538	274,120	329,603	384,991	440,290	495,504	550,640													
G13x16.0	Start	Outboard	201,797	233,602	313,030	392,341	471,541	550,635	629,628														27.6	84.7
	Min		106,358	122,985	164,524	206,022	247,481	288,903	330,290															
	End		201,407	233,151	312,425	391,583	470,630	549,571	628,413															
G13x16.0	Start	Inboard	188,896	218,716	293,183	367,532	441,771	515,903	589,935														27.6	84.7
	Min		99,593	115,180	154,117	193,013	231,870	270,691	309,476															
	End		188,468	218,221	292,519	366,701	440,771	514,735	588,600															
G13x18.0	Start	Outboard	256,289	296,553	397,121	497,559	597,874	698,072															27.6	66.9
	Min		134,919	155,967	208,554	261,095	313,594	366,052																
	End		255,794	295,981	396,354	496,598	596,719	696,724																
G13x18.0	Start	Inboard	243,401	281,684	377,295	472,777	568,136	663,378															27.6	66.9
	Min		128,154	148,162	198,146	248,086	297,983	347,840																
	End		242,851	281,046	376,441	471,707	566,850	661,876																