

Bettis GC01-Extension Series

Extension Pneumatic Double-Acting & Spring-Return Actuator Torque Chart Imperial

BETTIS™



Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (psig)																MinOP (psig)	Torque @ MinOP (lbf-in)	MOP (psig)	Torque @ MOP (lbf-in)	
			40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190					200
			Pressure Torque Output: Start/Min./End (lbf-in)																				
GC01x05	Start	Outboard	2,449	3,133	3,817	4,502	5,186	5,871	6,556	7,241	7,927	8,612	9,298	9,984	10,670	11,356	12,043	12,729	13,416	40	200	2,449	13,416
	Min		1,586	2,005	2,423	2,842	3,260	3,679	4,098	4,517	4,935	5,354	5,773	6,192	6,611	7,030	7,449	7,868	8,288			1,586	8,288
	End		3,531	4,517	5,504	6,491	7,478	8,465	9,453	10,440	11,429	12,417	13,406	14,394	15,383	16,373	17,362	18,352	19,342			3,531	19,342
	Start	Inboard	3,367	4,313	5,259	6,205	7,151	8,098	9,044	9,991	10,939	11,886	12,834	13,782	14,730	15,679	16,627	17,576	18,526			3,367	18,526
	Min		1,521	1,923	2,325	2,727	3,129	3,531	3,933	4,336	4,738	5,140	5,543	5,945	6,348	6,751	7,153	7,556	7,959			1,521	7,959
	End		2,332	2,986	3,641	4,296	4,951	5,607	6,262	6,918	7,574	8,230	8,886	9,543	10,199	10,856	11,513	12,170	12,827			2,332	12,827
GC01x07	Start	Outboard	5,054	6,414	7,774	9,134	10,495	11,856	13,217	14,579	15,940	17,302	18,664	20,027	21,389	22,752	24,115	Exceeds MOP	40	185	5,054	24,797	
	Min		3,202	4,032	4,862	5,691	6,521	7,352	8,182	9,012	9,842	10,673	11,503	12,333	13,164	13,995	14,825				3,202	15,241	
	End		7,286	9,247	11,208	13,170	15,131	17,094	19,056	21,019	22,982	24,946	26,909	28,874	30,838	32,803	34,768				7,286	35,751	
	Start	Inboard	7,122	9,042	10,962	12,883	14,804	16,725	18,647	20,569	22,491	24,413	26,336	28,260	30,183	32,107	34,031				7,122	34,994	
	Min		3,139	3,953	4,767	5,581	6,396	7,210	8,025	8,839	9,654	10,468	11,283	12,098	12,913	13,728	14,543				3,139	14,950	
	End		4,932	6,261	7,590	8,920	10,250	11,580	12,911	14,242	15,573	16,904	18,235	19,567	20,899	22,231	23,563				4,932	24,230	

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

Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (lbf-in)	Operating Pressure, (psig)																MinOP (psig)	Torque @ MinOP (lbf-in)	MOP (psig)	Torque @ MOP (lbf-in)																							
		40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190					200																						
Pressure Torque Output: Start/Min./End (lbf-in)																																												
GC01x07-SR1	Start	15,490																				166	Exceeds MOP																				12,093	15,636
	Min.	8,614																						4,463	5,262	4,143	185	5,661																
	End	17,741																						5,711	7,002	5,194		7,648																
GC01x07-SR2	Start	12,965																				140	Exceeds MOP																			9,388	17,778	
	Min.	7,380																			3,372			4,168	3,372	185	6,944																	
	End	15,599																			4,359			5,650	4,359		10,168																	
GC01x07-SR3	Start	11,308																				122	Exceeds MOP																			8,004	19,748	
	Min.	6,456																			3,521			4,315	2,884	185	7,879																	
	End	13,629																			4,723			6,013	3,691		11,822																	
GC01x07-SR4	Start	9,607																				104	Exceeds MOP																			6,418	21,514	
	Min.	5,558																			2,856			3,649	2,378	185	8,790																	
	End	11,862																			3,841			5,131	3,067		13,520																	
GC01x07-SR5	Start	9,006																				98	Exceeds MOP																			8,946	24,787	
	Min.	4,697																			2,812			3,623	2,648	185	9,588																	
	End	8,589																			3,151			4,441	2,893		14,120																	
GC01x08-SR5	Start	8,935																				76	Exceeds MOP																			9,613	36,782	
	Min.	4,675																			3,123			4,171	2,699	192	14,693																	
	End	8,487																			3,614			5,292	2,942		22,425																	
GC01x09-SR5	Start	8,884																				59	Exceeds MOP																			8,709	52,040	
	Min.	4,660																			2,739			4,080	2,603	200	21,163																	
	End	8,414																			2,987			5,128	2,773		32,990																	
GC01x10-SR5	Start	8,823																				45	Exceeds MOP																			10,593	58,241	
	Min.	4,641																			3,573			5,334	2,680	166	23,794																	
	End	8,326																			4,292			7,134	2,871		37,283																	
GC01x12-SR5	Start	8,728	13,496	19,387	25,279	31,171	37,063	42,956	48,850	54,744												31	Exceeds MOP																			8,195	58,281	
	Min.	4,612	4,844	7,353	9,853	12,351	14,846	17,341	19,836	22,329											2,552			2,632	2,552	116	23,826																	
	End	8,189	6,302	10,381	14,460	18,540	22,620	26,700	30,781	34,862											2,632				2,632		37,311																	
GC01x14-SR5	Start	8,652	18,487	25,653	32,820	39,987	47,155	54,324														26	Exceeds MOP																			8,455	55,041	
	Min.	4,588	6,992	10,033	13,070	16,104	19,139	22,171													2,690				2,690	91	22,475																	
	End	8,079	9,758	14,719	19,682	24,644	29,608	34,571													2,812				2,812		35,068																	

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

Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (lbf-in)	Operating Pressure, (psig)																MinOP (psig)	Torque @ MinOP (lbf-in)	MOP (psig)	Torque @ MOP (lbf-in)								
		40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190					200							
		Pressure Torque Output: Start/Min./End (lbf-in)																											
GC01x05-SR6	Start	6,665																	147	6,347	200	11,220							
	Min.	3,472																					Please consult factory	2,091	2,492	2,890	3,286	3,681	4,075
	End	6,334																						2,318	2,955	3,591	4,228	4,865	5,502
GC01x07-SR6	Start	6,570				Please consult factory	7,613	9,475	11,337	13,200	15,062	16,926	18,789	20,653	22,517	24,381	26,246		Exceeds MOP	73	6,310	185	27,179						
	Min.	3,442					2,539	3,342	4,139	4,934	5,727	6,520	7,311	8,103	8,894	9,685	10,476							Exceeds MOP	1,970	2,102	10,871		
	End	6,197					3,004	4,293	5,583	6,872	8,162	9,452	10,742	12,033	13,324	14,614	15,906											Exceeds MOP	2,018
GC01x08-SR6	Start	6,499		Please consult factory	7,159	9,582	12,005	14,429	16,853	19,278	21,703	24,128	26,554	28,980	31,406	33,833	36,261	38,688	Exceeds MOP	56	6,190	192	39,174						
	Min.	3,421			2,361	3,407	4,443	5,476	6,507	7,537	8,566	9,595	10,624	11,652	12,681	13,709	14,738	15,766						Exceeds MOP	1,937	2,018	15,972		
	End	6,095			2,689	4,367	6,045	7,723	9,402	11,081	12,760	14,439	16,119	17,799	19,479	21,159	22,840	24,521										Exceeds MOP	2,018
GC01x09-SR6	Start	6,448		Please consult factory	8,008	11,100	14,192	17,285	20,378	23,472	26,566	29,660	32,755	35,850	38,946	42,042	45,139	48,236	51,334	54,432	44	6,154	200	54,432					
	Min.	3,405			2,742	4,068	5,386	6,701	8,014	9,326	10,638	11,949	13,261	14,572	15,883	17,194	18,505	19,816	21,127	22,438					1,933	22,438			
	End	6,022			3,278	5,419	7,560	9,701	11,843	13,985	16,127	18,270	20,412	22,556	24,699	26,843	28,987	31,131	33,276	35,421							1,994	35,421	
GC01x10-SR6	Start	6,387	8,880	12,985	17,090	21,195	25,301	29,407	33,514	37,622	41,730	45,838	49,947	54,056	58,166					Exceeds MOP	33	6,008	166	60,632					
	Min.	3,386	3,132	4,885	6,630	8,372	10,112	11,852	13,592	15,331	17,070	18,809	20,547	22,286	24,025										1,884	25,069			
	End	5,934	3,882	6,723	9,566	12,408	15,251	18,094	20,938	23,782	26,626	29,471	32,316	35,161	38,007												1,892	39,715	
GC01x05-SR7	Start	4,932																		Please consult factory	110	4,715	200	12,986					
	Min.	2,566																							1,454	1,504	2,008	7,231	
	End	4,568																											1,504
GC01x07-SR7	Start	4,837																		Please consult factory	55	4,726	185	28,944					
	Min.	2,536																							Exceeds MOP	1,479	1,512	11,793	
	End	4,431																											1,512
GC01x08-SR7	Start	4,766		Please consult factory	6,502	8,924	11,347	13,771	16,195	18,619	21,043	23,468	25,894	28,320	30,746	33,172	35,599	38,026	40,454	Exceeds MOP	42	4,564	192	40,940					
	Min.	2,515			2,272	3,311	4,343	5,374	6,403	7,432	8,460	9,489	10,517	11,545	12,573	13,601	14,629	15,657	16,685						Exceeds MOP	1,399	16,891		
	End	4,329			2,741	4,419	6,096	7,774	9,453	11,131	12,810	14,489	16,168	17,848	19,528	21,208	22,888	24,569	26,250									Exceeds MOP	1,399
GC01x09-SR7	Start	4,716	6,683	9,774	12,866	15,958	19,051	22,144	25,238	28,332	31,426	34,521	37,616	40,712	43,808	46,905	50,002	53,099	56,197	33	4,519	200	56,197						
	Min.	2,499	2,363	3,685	5,001	6,314	7,626	8,937	10,248	11,559	12,870	14,180	15,491	16,802	18,113	19,424	20,735	22,046	23,357					1,368	23,357				
	End	4,256	2,867	5,007	7,148	9,289	11,430	13,572	15,714	17,856	19,999	22,142	24,285	26,428	28,572	30,716	32,861	35,005	37,150							1,368	37,150		
GC01x10-SR7	Start	4,655	10,646	14,751	18,855	22,961	27,067	31,173	35,280	39,387	43,495	47,604	51,713	55,822	59,932					Exceeds MOP	25	4,490	166	62,398					
	Min.	2,480	4,071	5,814	7,555	9,295	11,034	12,773	14,511	16,250	17,988	19,727	21,466	23,205	24,944										1,349	25,988			
	End	4,168	5,611	8,453	11,295	14,137	16,980	19,824	22,667	25,511	28,355	31,200	34,045	36,890	39,736												1,349	41,444	

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

Torque - Pneumatic Spring-Return Actuator

Actuator Model	Spring Torque Start/Min./End (lbf-in)		Operating Pressure, (psig)																MinOP (psig)	Torque @ MinOP (lbf-in)	MOP (psig)	Torque @ MOP (lbf-in)	
			40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190					200
GC01x05-SR8	Start	3,625					Please consult factory	4,179	5,096	6,014	6,932	7,850	8,769	9,687	10,606	11,526	12,445	13,365	14,285	83	3,537	200	14,285
	Min.	1,889						1,382	1,780	2,175	2,568	2,961	3,353	3,744	4,136	4,527	4,918	5,309	5,700		1,093		5,700
	End	3,269							1,538	2,173	2,809	3,444	4,080	4,716	5,352	5,988	6,625	7,261	7,898		8,535		1,093
GC01x07-SR8	Start	3,530	Please consult factory	5,094	6,955	8,816	10,678	12,540	14,402	16,264	18,127	19,990	21,854	23,717	25,581	27,446	29,311	Exceeds MOP		41	3,420	185	30,243
	Min.	1,860		1,799	2,597	3,390	4,182	4,973	5,764	6,554	7,344	8,135	8,925	9,715	10,505	11,295	12,085				1,013		12,480
	End	3,132		2,172	3,460	4,749	6,038	7,327	8,616	9,906	11,196	12,486	13,776	15,066	16,357	17,648	18,939				1,013		19,585
GC01x08-SR8	Start	3,459	5,378	7,801	10,223	12,646	15,070	17,493	19,918	22,342	24,767	27,193	29,618	32,045	34,471	36,898	39,325	41,753	Exceeds MOP	31	3,199	192	42,239
	Min.	1,838	1,942	2,977	4,008	5,037	6,066	7,094	8,122	9,150	10,177	11,205	12,232	13,260	14,288	15,316	16,344	17,372			859		17,578
	End	3,030	2,369	4,046	5,723	7,401	9,079	10,757	12,436	14,114	15,793	17,473	19,152	20,832	22,512	24,193	25,873	27,554			859		27,891
GC01x09-SR8	Start	3,409	7,982	11,073	14,165	17,257	20,350	23,443	26,536	29,630	32,725	35,820	38,915	42,011	45,107	48,204	51,301	54,398	57,496	25	3,345	200	57,496
	Min.	1,823	3,067	4,381	5,693	7,004	8,315	9,626	10,936	12,246	13,557	14,867	16,178	17,489	18,800	20,111	21,422	22,733	24,044		961		24,044
	End	2,957	4,171	6,312	8,452	10,593	12,735	14,876	17,018	19,161	21,303	23,446	25,589	27,733	29,877	32,021	34,165	36,310	38,455		961		38,455
GC01x05-SR9	Start	2,632		Please consult factory	2,390	3,307	4,224	5,141	6,059	6,977	7,895	8,813	9,731	10,650	11,569	12,488	13,408	14,327	15,247	60	2,390	200	15,247
	Min.	1,380			625	1,128	1,525	1,919	2,311	2,702	3,094	3,485	3,876	4,266	4,657	5,047	5,438	5,829	6,220		625		6,220
	End	2,306			625	1,259	1,894	2,529	3,165	3,800	4,436	5,071	5,707	6,344	6,980	7,616	8,253	8,890	9,527		625		9,527
GC01x07-SR9	Start	2,537	4,197	6,057	7,918	9,779	11,640	13,502	15,364	17,227	19,090	20,953	22,816	24,680	26,544	28,408	30,273	Exceeds MOP	31	2,522	185	31,206	
	Min.	1,351	1,535	2,330	3,122	3,913	4,703	5,493	6,283	7,073	7,863	8,653	9,442	10,232	11,022	11,812	12,602			716		12,997	
	End	2,169	1,875	3,163	4,452	5,740	7,029	8,318	9,608	10,897	12,187	13,477	14,767	16,058	17,349	18,639	19,931			716		20,576	
GC01x08-SR9	Start	2,466	6,341	8,763	11,186	13,609	16,032	18,456	20,880	23,305	25,730	28,155	30,581	33,007	35,434	37,861	40,288	42,716	Exceeds MOP	23	2,224	192	43,201
	Min.	1,329	2,471	3,501	4,529	5,557	6,585	7,612	8,640	9,667	10,695	11,722	12,750	13,778	14,806	15,833	16,861	17,889			509		18,095
	End	2,067	3,360	5,037	6,714	8,392	10,070	11,748	13,427	15,106	16,785	18,464	20,144	21,824	23,504	25,184	26,865	28,546			509		28,882

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