

Bettis G-Series

Pneumatic Double-Acting and Spring-Return Actuator Torque Chart Imperial

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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)																					
G01x08	Outboard	Start	7,758	9,833	11,909	13,984	16,060	18,137	20,213	22,290	24,367	26,445	28,523	30,601	32,680	34,759	36,838	38,918	Exceeds MOP	40	192	7,758	39,334	
		Min.	4,220	5,311	6,401	7,492	8,582	9,673	10,764	11,855	12,946	14,037	15,128	16,220	17,311	18,402	19,494	20,586				4,220		20,804
		End	7,751	9,824	11,897	13,971	16,044	18,119	20,193	22,268	24,343	26,419	28,495	30,571	32,648	34,725	36,802	38,879				7,751		39,295
	Inboard	Start	7,625	9,667	11,709	13,751	15,794	17,837	19,880	21,924	23,968	26,012	28,057	30,102	32,147	34,192	36,238	38,285				7,625		38,694
		Min.	4,150	5,223	6,297	7,370	8,443	9,516	10,590	11,663	12,737	13,811	14,884	15,958	17,032	18,106	19,180	20,255				4,150		20,469
		End	7,618	9,657	11,697	13,738	15,778	17,819	19,860	21,902	23,944	25,986	28,029	30,072	32,115	34,159	36,203	38,247				7,618		38,656
G01x09	Outboard	Start	9,953	12,592	15,231	17,871	20,511	23,152	25,792	28,434	31,075	33,717	36,360	39,002	Exceeds MOP	40	151	9,953	39,267					
		Min.	5,387	6,773	8,159	9,545	10,931	12,318	13,704	15,091	16,478	17,865	19,251	20,638				5,387		20,777				
		End	9,943	12,579	15,216	17,853	20,491	23,129	25,767	28,406	31,045	33,684	36,324	38,964				9,943		39,228				
	Inboard	Start	9,819	12,425	15,031	17,637	20,244	22,851	25,459	28,067	30,675	33,284	35,893	38,502				9,819		38,763				
		Min.	5,317	6,685	8,054	9,423	10,792	12,161	13,530	14,899	16,268	17,638	19,007	20,377				5,317		20,514				
		End	9,810	12,413	15,016	17,620	20,224	22,829	25,434	28,039	30,645	33,251	35,857	38,464				9,810		38,725				
G01x10	Outboard	Start	13,293	16,786	20,279	23,773	27,267	30,762	34,257	37,752	Exceeds MOP	40	114	13,293	39,150									
		Min.	7,156	8,989	10,823	12,656	14,490	16,324	18,158	19,992				7,156		20,725								
		End	13,280	16,770	20,259	23,750	27,240	30,731	34,223	37,715				13,280		39,112								
	Inboard	Start	13,160	16,620	20,079	23,540	27,001	30,462	33,923	37,386				13,160		38,770								
		Min.	7,086	8,902	10,718	12,534	14,351	16,167	17,983	19,800				7,086		20,527								
		End	13,147	16,603	20,060	23,517	26,974	30,432	33,890	37,349				13,147		38,732								
G01x12	Outboard	Start	19,200	24,199	29,198	34,197	39,197	Exceeds MOP	40	80	19,200	39,197												
		Min.	10,280	12,902	15,524	18,146	20,769				10,280		20,769											
		End	19,181	24,175	29,169	34,164	39,159				19,181		39,159											
	Inboard	Start	19,067	24,032	28,998	33,964	38,931				19,067		38,931											
		Min.	10,210	12,815	15,420	18,024	20,629				10,210		20,629											
		End	19,048	24,008	28,969	33,930	38,892				19,048		38,892											
G01x14	Outboard	Start	23,406	29,480	35,554	Exceeds MOP	40	66	23,406	39,199														
		Min.	12,509	15,694	18,880				12,509		20,791													
		End	23,383	29,451	35,519				23,383		39,160													
	Inboard	Start	23,273	29,313	35,354				23,273		38,979													
		Min.	12,439	15,607	18,775				12,439		20,676													
		End	23,250	29,284	35,319				23,250		38,940													

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

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				
			Pressure Torque Output: Start/Min./End (lbf-in)																			
G2x09	Start	Outboard	12,048	15,243	18,438	21,634	24,830	28,026	31,223	34,420	37,618	40,816	44,015	47,214	50,414	53,614	56,814	Exceeds MOP	40	12,048	187	59,055
	Min.		6,520	8,197	9,875	11,553	13,231	14,909	16,587	18,266	19,944	21,623	23,302	24,980	26,659	28,338	30,018			6,520		31,193
	End		12,039	15,231	18,423	21,616	24,810	28,004	31,198	34,393	37,588	40,784	43,980	47,176	50,373	53,571	56,769			12,039		59,007
	Start	Inboard	11,887	15,041	18,196	21,351	24,507	27,663	30,819	33,976	37,134	40,291	43,450	46,608	49,768	52,927	56,087			11,887		58,300
	Min.		6,435	8,092	9,748	11,405	13,062	14,719	16,376	18,034	19,691	21,348	23,006	24,664	26,322	27,980	29,638			6,435		30,798
	End		11,877	15,029	18,181	21,334	24,487	27,641	30,794	33,949	37,104	40,259	43,415	46,571	49,728	52,885	56,042			11,877		58,253
G2x10	Start	Outboard	16,092	20,320	24,549	28,778	33,008	37,238	41,469	45,700	49,932	54,165	58,397	Exceeds MOP	40	16,092	141	58,821				
	Min.		8,661	10,881	13,100	15,319	17,538	19,758	21,978	24,197	26,417	28,637	30,858			8,661		31,080				
	End		16,079	20,304	24,529	28,755	32,982	37,209	41,436	45,664	49,892	54,121	58,351			16,079		58,774				
	Start	Inboard	15,931	20,119	24,307	28,496	32,686	36,876	41,066	45,257	49,448	53,640	57,833			15,931		58,252				
	Min.		8,577	10,775	12,973	15,171	17,370	19,568	21,767	23,966	26,164	28,363	30,563			8,577		30,782				
	End		15,918	20,103	24,288	28,473	32,659	36,846	41,033	45,221	49,409	53,597	57,787			15,918		58,206				
G2x12	Start	Outboard	23,241	29,292	35,344	41,396	47,449	53,502	59,556	Exceeds MOP	40	23,241	100	59,556								
	Min.		12,443	15,616	18,790	21,964	25,138	28,312	31,486			12,443		31,486								
	End		23,223	29,269	35,316	41,363	47,411	53,459	59,508			23,223		59,508								
	Start	Inboard	23,080	29,090	35,102	41,113	47,126	53,139	59,152			23,080		59,152								
	Min.		12,358	15,511	18,663	21,816	24,969	28,122	31,275			12,358		31,275								
	End		23,061	29,067	35,073	41,080	47,088	53,096	59,105			23,061		59,105								
G2x14	Start	Outboard	28,335	35,687	43,040	50,393	57,748	Exceeds MOP	40	28,335	81	58,483										
	Min.		15,141	18,996	22,851	26,707	30,563			15,141		30,949										
	End		28,312	35,658	43,005	50,353	57,702			28,312		58,436										
	Start	Inboard	28,173	35,485	42,798	50,111	57,425			28,173		58,156										
	Min.		15,056	18,890	22,725	26,559	30,394			15,056		30,778										
	End		28,151	35,457	42,763	50,071	57,379			28,151		58,110										
G2x16	Start	Outboard	37,577	47,276	56,976	Exceeds MOP	40	37,577	61	57,946												
	Min.		20,017	25,101	30,185			20,017		30,694												
	End		37,547	47,238	56,930			37,547		57,899												
	Start	Inboard	37,415	47,074	56,734			37,415		57,700												
	Min.		19,933	24,996	30,059			19,933		30,565												
	End		37,386	47,037	56,688			37,386		57,654												

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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)																				
G3x10	Outboard	Start	19,471	24,593	29,716	34,839	39,963	45,088	50,213	55,339	60,466	65,593	70,720	75,849	80,978	86,107	91,238	96,368	101,500	40	200	19,471	101,500
		Min.	10,486	13,174	15,863	18,551	21,240	23,928	26,617	29,306	31,996	34,685	37,374	40,064	42,754	45,444	48,134	50,825	53,515			10,486	53,515
		End	19,462	24,582	29,702	34,823	39,945	45,067	50,190	55,314	60,438	65,563	70,688	75,814	80,941	86,068	91,196	96,324	101,453			19,462	101,453
	Inboard	Start	19,165	24,210	29,256	34,303	39,350	44,398	49,447	54,496	59,546	64,596	69,647	74,699	79,751	84,804	89,858	94,912	99,967			19,165	99,967
		Min.	10,326	12,974	15,622	18,271	20,919	23,568	26,217	28,865	31,515	34,164	36,813	39,463	42,113	44,763	47,413	50,063	52,714			10,326	52,714
		End	19,156	24,199	29,243	34,287	39,332	44,378	49,424	54,471	59,518	64,567	69,615	74,665	79,715	84,765	89,817	94,869	99,921			19,156	99,921
G3x12	Outboard	Start	28,166	35,505	42,845	50,185	57,526	64,868	72,211	79,554	86,898	94,243	101,589	Exceeds MOP						40	142	28,166	103,058
		Min.	15,085	18,934	22,783	26,632	30,481	34,331	38,181	42,031	45,881	49,732	53,582									15,085	54,353
		End	28,153	35,489	42,825	50,162	57,500	64,839	72,178	79,518	86,859	94,200	101,542									28,153	103,011
	Inboard	Start	27,859	35,122	42,384	49,648	56,913	64,178	71,444	78,710	85,978	93,246	100,515									27,859	101,968
		Min.	14,924	18,733	22,542	26,351	30,161	33,970	37,780	41,590	45,400	49,210	53,021									14,924	53,783
		End	27,847	35,105	42,365	49,625	56,887	64,148	71,411	78,674	85,938	93,203	100,469									27,847	101,922
G3x14	Outboard	Start	34,360	43,282	52,204	61,128	70,052	78,977	87,903	96,829	Exceeds MOP						40	117	34,360	103,078			
		Min.	18,366	23,044	27,722	32,400	37,079	41,758	46,437	51,116									18,366	54,392			
		End	34,345	43,262	52,181	61,100	70,020	78,941	87,862	96,785									34,345	103,031			
	Inboard	Start	34,054	42,899	51,745	60,591	69,439	78,287	87,136	95,986									34,054	102,181			
		Min.	18,205	22,843	27,481	32,120	36,758	41,397	46,036	50,676									18,205	53,923			
		End	34,038	42,879	51,721	60,563	69,407	78,251	87,096	95,942									34,038	102,135			
G3x16	Outboard	Start	45,601	57,377	69,154	80,932	92,711	104,491	Exceeds MOP						40	90	45,601	104,491					
		Min.	24,296	30,469	36,641	42,814	48,987	55,160									24,296	55,160					
		End	45,580	57,351	69,122	80,895	92,668	104,443									45,580	104,443					
	Inboard	Start	45,295	56,994	68,694	80,395	92,098	103,801									45,295	103,801					
		Min.	24,136	30,268	36,401	42,533	48,666	54,800									24,136	54,800					
		End	45,274	56,968	68,663	80,359	92,055	103,753									45,274	103,753					
G3x20	Outboard	Start	72,795	91,458	Exceeds MOP						40	56	72,795	102,656									
		Min.	38,621	48,398									38,621	54,264									
		End	72,762	91,416									72,762	102,609									
	Inboard	Start	72,489	91,074									72,489	102,226									
		Min.	38,461	48,197									38,461	54,039									
		End	72,456	91,033									72,456	102,180									

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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)																				
G4x12	Start	Outboard	34,106	42,999	51,894	60,789	69,686	78,583	87,481	96,381	105,281	114,181	123,083	131,986	140,890	149,794	158,700	167,606	176,513	40	200	34,106	176,513
	Min.		18,275	22,939	27,604	32,269	36,935	41,600	46,266	50,932	55,599	60,265	64,932	69,599	74,266	78,934	83,602	88,270	92,938			18,275	92,938
	End		34,081	42,968	51,857	60,746	69,636	78,527	87,419	96,312	105,205	114,100	122,995	131,892	140,789	149,687	158,586	167,486	176,387			34,081	176,387
	Start	Inboard	33,569	42,328	51,089	59,850	68,612	77,375	86,139	94,904	103,670	112,437	121,204	129,973	138,742	147,513	156,284	165,056	173,829			33,569	173,829
	Min.		17,994	22,588	27,183	31,778	36,373	40,969	45,565	50,161	54,757	59,353	63,950	68,547	73,144	77,741	82,339	86,937	91,535			17,994	91,535
	End		33,545	42,298	51,052	59,807	68,563	77,320	86,078	94,836	103,596	112,356	121,118	129,880	138,643	147,407	156,172	164,938	173,705			33,545	173,705
G4x14	Start	Outboard	41,637	52,455	63,274	74,094	84,915	95,737	106,560	117,384	128,209	139,036	149,863	160,691	171,520	182,351	193,182	204,014	Exceeds MOP	40	194	41,637	204,014
	Min.		22,264	27,937	33,610	39,283	44,957	50,631	56,305	61,979	67,654	73,329	79,004	84,680	90,356	96,032	101,708	107,385				22,264	107,385
	End		41,607	52,417	63,228	74,041	84,854	95,668	106,484	117,300	128,118	138,936	149,755	160,576	171,398	182,220	193,044	203,868				41,607	203,868
	Start	Inboard	41,100	51,783	62,468	73,154	83,841	94,528	105,217	115,907	126,598	137,290	147,983	158,677	169,372	180,068	190,765	201,463				41,100	201,463
	Min.		21,983	27,586	33,189	38,792	44,395	49,999	55,603	61,207	66,812	72,416	78,021	83,627	89,232	94,838	100,444	106,051				21,983	106,051
	End		41,070	51,746	62,423	73,101	83,781	94,461	105,142	115,824	126,507	137,192	147,877	158,563	169,250	179,939	190,628	201,319				41,070	201,319
G4x16	Start	Outboard	55,305	69,593	83,882	98,173	112,465	126,758	141,052	155,347	169,643	183,941	198,239	Exceeds MOP	40	147	55,305	198,239					
	Min.		29,475	36,964	44,454	51,944	59,435	66,926	74,417	81,908	89,400	96,892	104,384				29,475	104,384					
	End		55,265	69,543	83,822	98,103	112,384	126,667	140,951	155,236	169,522	183,809	198,097				55,265	198,097					
	Start	Inboard	54,768	68,922	83,077	97,233	111,391	125,550	139,709	153,870	168,033	182,196	196,360				54,768	196,360					
	Min.		29,194	36,614	44,033	51,453	58,873	66,294	73,715	81,136	88,558	95,979	103,401				29,194	103,401					
	End		54,729	68,873	83,018	97,164	111,311	125,460	139,609	153,760	167,912	182,066	196,220				54,729	196,220					
G4x20	Start	Outboard	88,364	111,024	133,685	156,348	179,013	201,679	Exceeds MOP											40	92	88,364	201,679
	Min.		46,890	58,762	70,633	82,506	94,378	106,251		46,890	106,251												
	End		88,300	110,944	133,590	156,236	178,885	201,534		88,300	201,534												
	Start	Inboard	87,827	110,353	132,880	155,409	177,939	200,471		87,827	200,471												
	Min.		46,610	58,411	70,212	82,014	93,817	105,619		46,610	105,619												
	End		87,764	110,274	132,785	155,298	177,812	200,327		87,764	200,327												
G4x24	Start	Outboard	129,214	162,163	195,115	Exceeds MOP													40	63	129,214	195,115	
	Min.		68,339	85,592	102,846		68,339	102,846															
	End		129,121	162,047	194,975		129,121	194,975															
	Start	Inboard	128,676	161,492	194,309		128,676	194,309															
	Min.		68,058	85,241	102,425		68,058	102,425															
	End		128,584	161,376	194,170		128,584	194,170															
G4x28	Start	Outboard	181,955	Exceeds MOP														40	45	181,955			
	Min.		96,348		96,348																		
	End		181,824		181,824																		
	Start	Inboard	181,418		181,418																		
	Min.		96,067		96,067																		
	End		181,288		181,288																		
G4x220	Start	Outboard	176,190	Exceeds MOP														40	46	176,190			
	Min.		93,500		93,500																		
	End		176,064		176,064																		
	Start	Inboard	176,190		176,190																		
	Min.		93,500		93,500																		
	End		176,064		176,064																		

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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)																				
G5x16	Outboard	Start	71,315	89,713	108,113	126,514	144,917	163,321	181,726	200,132	218,540	236,949	255,359	273,771	292,183	310,598	329,013	347,430	365,848	40	200	71,315	365,848
		Min.	37,976	47,619	57,262	66,906	76,550	86,194	95,839	105,484	115,130	124,775	134,421	144,068	153,715	163,362	173,009	182,657	192,305			37,976	192,305
		End	71,291	89,684	108,078	126,473	144,870	163,267	181,666	200,067	218,468	236,871	255,276	273,681	292,088	310,496	328,906	347,316	365,728			71,291	365,728
	Inboard	Start	70,080	88,171	106,262	124,355	142,449	160,544	178,641	196,739	214,838	232,938	251,040	269,143	287,247	305,353	323,460	341,568	359,677			70,080	359,677
		Min.	37,331	46,812	56,294	65,777	75,259	84,742	94,226	103,709	113,193	122,678	132,163	141,648	151,133	160,619	170,105	179,591	189,078			37,331	189,078
		End	70,058	88,142	106,227	124,314	142,402	160,492	178,582	196,674	214,768	232,862	250,958	269,055	287,153	305,253	323,354	341,456	359,560			70,058	359,560
G5x20	Outboard	Start	114,053	143,275	172,498	201,723	230,950	260,179	289,409	318,641	347,874	377,109	406,346	435,585	464,825	Exceeds MOP	40	164	114,053	476,521			
		Min.	60,496	75,805	91,115	106,425	121,736	137,047	152,359	167,671	182,983	198,296	213,609	228,923	244,237				60,496	250,363			
		End	114,016	143,228	172,442	201,658	230,875	260,094	289,314	318,537	347,761	376,986	406,213	435,442	464,673				114,016	476,366			
	Inboard	Start	112,819	141,732	170,647	199,564	228,482	257,402	286,324	315,247	344,172	373,099	402,027	430,957	459,888				112,819	471,462			
		Min.	59,851	74,999	90,147	105,296	120,445	135,595	150,745	165,896	181,047	196,198	211,350	226,503	241,655				59,851	247,717			
		End	112,782	141,686	170,591	199,499	228,408	257,318	286,230	315,144	344,060	372,977	401,896	430,816	459,738				112,782	471,308			
G5x24	Outboard	Start	166,863	209,387	251,913	294,441	336,971	379,502	422,036	464,571	Exceeds MOP	40	112	166,863	473,078								
		Min.	88,231	110,500	132,770	155,040	177,311	199,582	221,854	244,126				88,231	248,580								
		End	166,808	209,319	251,831	294,345	336,861	379,378	421,898	464,419				166,808	472,924								
	Inboard	Start	165,629	207,844	250,062	292,281	334,503	376,726	418,951	461,177				165,629	469,623								
		Min.	87,586	109,694	131,802	153,911	176,020	198,130	220,240	242,351				87,586	246,773								
		End	165,575	207,776	249,980	292,186	334,393	376,603	418,814	461,027				165,575	469,469								
G5x28	Outboard	Start	235,046	295,046	355,049	415,055	475,066	Exceeds MOP	40	80	235,046	475,066											
		Min.	124,450	155,887	187,324	218,762	250,201				124,450	250,201											
		End	234,969	294,949	354,933	414,920	474,911				234,969	474,911											
	Inboard	Start	233,812	293,503	353,198	412,896	472,598				233,812	472,598											
		Min.	123,805	155,080	186,356	217,633	248,911				123,805	248,911											
		End	233,736	293,407	353,082	412,761	472,443				233,736	472,443											
G5x32	Outboard	Start	308,254	386,730	465,209	Exceeds MOP	40	61	308,254	473,057													
		Min.	162,953	204,060	245,168				162,953	249,279													
		End	308,154	386,603	465,057				308,154	472,902													
	Inboard	Start	307,020	385,187	463,358				307,020	471,175													
		Min.	162,307	203,253	244,200				162,307	248,295													
		End	306,920	385,061	463,206				306,920	471,021													
G5x36	Outboard	Start	391,335	Exceeds MOP	40	48	391,335	470,869															
		Min.	206,618				206,618	248,273															
		End	391,207				391,207	470,715															
	Inboard	Start	390,101				390,101	469,388															
		Min.	205,973				205,973	247,499															
		End	389,973				389,973	469,235															

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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)																					
G5x220	Start	Outboard	226,872	285,007	343,145	401,287	459,432	Exceeds MOP												40	226,872	82	471,062	
	Min.		120,347	150,804	181,262	211,721	242,181																120,347	248,274
	End		226,797	284,914	343,033	401,156	459,282																226,797	470,908
	Start	Inboard	226,872	285,007	343,145	401,287	459,432																226,872	471,062
	Min.		120,347	150,804	181,262	211,721	242,181																120,347	248,274
	End		226,797	284,914	343,033	401,156	459,282																226,797	470,908
G5x224	Start	Outboard	332,491	417,231	Exceeds MOP														40	332,491	56	468,077		
	Min.		175,817	220,194																		175,817	246,821	
	End		332,383	417,095																			332,383	467,924
	Start	Inboard	332,491	417,231																		332,491	468,077	
	Min.		175,817	220,194																			175,817	246,821
	End		332,383	417,095																			332,383	467,924

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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)																				
G7x20	Start	Outboard	139,104	174,843	210,584	246,328	282,074	317,823	353,574	389,328	425,084	460,843	496,604	532,367	568,133	603,902	639,673	675,446	711,222	40	139,104	200	711,222
	Min.		73,955	92,695	111,436	130,178	148,921	167,664	186,408	205,152	223,897	242,643	261,389	280,137	298,884	317,633	336,381	355,131	373,881		73,955		373,881
	End		139,069	174,799	210,531	246,266	282,003	317,743	353,485	389,230	424,977	460,727	496,479	532,233	567,990	603,750	639,512	675,276	711,043		139,069		711,043
	Start	Inboard	137,185	172,445	207,707	242,971	278,237	313,507	348,778	384,052	419,329	454,608	489,890	525,174	560,460	595,749	631,040	666,334	701,631		137,185		701,631
	Min.		72,951	91,440	109,931	128,422	146,913	165,405	183,898	202,392	220,886	239,381	257,876	276,372	294,869	313,367	331,865	350,363	368,863		72,951		368,863
	End		137,151	172,401	207,654	242,910	278,167	313,428	348,691	383,956	419,223	454,494	489,766	525,041	560,319	595,599	630,882	666,167	701,454		137,151		701,454
G7x24	Start	Outboard	203,940	256,017	308,098	360,181	412,266	464,355	516,446	568,540	620,636	672,736	724,838	776,943	829,050	881,160	Exceeds MOP			40	203,940	178	922,850
	Min.		108,033	135,327	162,622	189,917	217,213	244,510	271,808	299,106	326,405	353,705	381,005	408,306	435,608	462,911		108,033	484,753				
	End		203,889	255,953	308,020	360,090	412,163	464,238	516,316	568,397	620,480	672,566	724,655	776,747	828,841	880,938		203,889	922,618				
	Start	Inboard	202,022	253,620	305,220	356,824	408,430	460,039	511,650	563,264	614,881	666,501	718,124	769,749	821,377	873,007					202,022		914,314
	Min.		107,029	134,072	161,116	188,160	215,206	242,252	269,298	296,346	323,394	350,442	377,492	404,542	431,593	458,645		107,029	480,287				
	End		201,971	253,556	305,143	356,734	408,327	459,923	511,521	563,123	614,727	666,333	717,943	769,555	821,170	872,788		201,971	914,084				
G7x28	Start	Outboard	287,732	361,278	434,829	508,385	581,946	655,511	729,082	802,657	876,237	Exceeds MOP						40	287,732	126	920,387		
	Min.		152,557	191,118	229,681	268,245	306,810	345,376	383,944	422,513	461,083		152,557	484,225									
	End		287,660	361,187	434,720	508,257	581,799	655,346	728,898	802,455	876,016		287,660	920,155									
	Start	Inboard	285,814	358,880	431,952	505,028	578,109	651,195	724,286	797,381	870,482								285,814		914,344		
	Min.		151,553	189,864	228,175	266,488	304,802	343,118	381,434	419,752	458,072		151,553	481,064									
	End		285,742	358,790	431,843	504,901	577,964	651,031	724,104	797,181	870,263		285,742	914,114									
G7x32	Start	Outboard	377,661	473,903	570,150	666,402	762,660	858,923	Exceeds MOP								40	377,661	96	916,684			
	Min.		199,878	250,325	300,774	351,224	401,676	452,129		199,878	482,401												
	End		377,566	473,784	570,006	666,235	762,468	858,707		377,566	916,453												
	Start	Inboard	375,743	471,505	567,272	663,045	758,824	854,607										375,743		912,080			
	Min.		198,874	249,071	299,269	349,468	399,668	449,871		198,874	479,992												
	End		375,648	471,386	567,130	662,878	758,633	854,392		375,648	911,851												
G7x36	Start	Outboard	479,717	601,686	723,660	845,641	Exceeds MOP										40	479,717	76	918,832			
	Min.		253,544	317,464	381,385	445,308		253,544	483,663														
	End		479,596	601,534	723,478	845,428		479,596	918,601														
	Start	Inboard	477,799	599,288	720,783	842,284												477,799		915,187			
	Min.		252,541	316,209	379,880	443,552		252,541	481,755														
	End		477,679	599,137	720,601	842,072		477,679	914,957														

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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)																						
G7x220	Start	Outboard	276,289	347,287	418,291	489,299	560,312	631,330	702,352	Exceeds MOP											40	276,289	100	702,352	
	Min.		146,905	184,136	221,367	258,600	295,834	333,069	370,306															146,905	370,306
	End		276,220	347,200	418,185	489,175	560,171	631,171	702,176															276,220	702,176
	Start	Inboard	276,289	347,287	418,291	489,299	560,312	631,330	702,352															276,289	702,352
	Min.		146,905	184,136	221,367	258,600	295,834	333,069	370,306															146,905	370,306
	End		276,220	347,200	418,185	489,175	560,171	631,171	702,176															276,220	702,176
G7x224	Start	Outboard	405,962	509,637	613,318	717,004	820,696	Exceeds MOP													40	405,962	89	914,023	
	Min.		215,062	269,399	323,737	378,077	432,419																	215,062	481,327
	End		405,859	509,509	613,164	716,824	820,489																	405,859	913,793
	Start	Inboard	405,962	509,637	613,318	717,004	820,696																	405,962	914,023
	Min.		215,062	269,399	323,737	378,077	432,419																	215,062	481,327
	End		405,859	509,509	613,164	716,824	820,489																	405,859	913,793
G7x228	Start	Outboard	573,546	720,159	866,781	Exceeds MOP														40	573,546	63	910,770		
	Min.		304,110	380,982	457,856																		304,110	480,919	
	End		573,401	719,977	866,563																			573,401	910,540
	Start	Inboard	573,546	720,159	866,781																			573,546	910,770
	Min.		304,110	380,982	457,856																			304,110	480,919
	End		573,401	719,977	866,563																			573,401	910,540

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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)																						
G8x24	Start	Outboard	240,785	302,293	363,804	425,318	486,835	548,356	609,880	671,407	732,937	794,471	856,007	917,547	979,091	1,040,637	1,102,187	1,163,740	1,225,297	40	200	240,785	1,225,297		
	Min.		127,558	159,790	192,024	224,258	256,493	288,729	320,966	353,203	385,442	417,681	449,921	482,162	514,404	546,647	578,890	611,135	643,380			127,558	643,380		
	End		240,750	302,248	363,750	425,255	486,764	548,275	609,790	671,308	732,829	794,354	855,882	917,413	978,947	1,040,485	1,102,025	1,163,569	1,225,117			240,750	1,225,117		
	Start	Inboard	237,390	298,049	358,711	419,377	480,045	540,717	601,392	662,071	722,752	783,437	844,125	904,817	965,511	1,026,209	1,086,910	1,147,614	1,208,322			40	200	237,390	1,208,322
	Min.		125,782	157,570	189,360	221,150	252,941	284,733	316,525	348,319	380,113	411,909	443,705	475,502	507,300	539,098	570,898	602,698	634,499					125,782	634,499
	End		237,355	298,005	358,659	419,315	479,975	540,638	601,304	661,974	722,646	783,322	844,001	904,684	965,370	1,026,058	1,086,751	1,147,446	1,208,145					237,355	1,208,145
G8x28	Start	Outboard	340,002	426,940	513,882	600,831	687,785	774,745	861,711	948,682	1,035,659	1,122,642	1,209,631	1,296,626	1,383,626	1,470,632	Exceeds MOP	40	172	340,002	1,488,034				
	Min.		180,283	225,860	271,439	317,020	362,602	408,185	453,770	499,356	544,944	590,533	636,124	681,716	727,310	772,906				180,283	782,025				
	End		339,953	426,877	513,807	600,743	687,684	774,631	861,584	948,543	1,035,507	1,122,478	1,209,454	1,296,435	1,383,423	1,470,416				339,953	1,487,815				
	Start	Inboard	336,608	422,696	508,790	594,890	680,995	767,107	853,224	939,346	1,025,475	1,111,609	1,197,749	1,283,895	1,370,046	1,456,203				Exceeds MOP	40	172	336,608	1,473,436	
	Min.		178,507	223,640	268,775	313,911	359,049	404,188	449,329	494,472	539,615	584,761	629,908	675,056	720,206	765,357							178,507	774,387	
	End		336,558	422,634	508,715	594,802	680,895	766,994	853,098	939,208	1,025,324	1,111,446	1,197,573	1,283,706	1,369,845	1,455,990							336,558	1,473,219	
G8x32	Start	Outboard	446,532	560,354	674,182	788,017	901,858	1,015,706	1,129,560	1,243,421	1,357,288	1,471,162	Exceeds MOP	40	131	446,532	1,482,550								
	Min.		236,332	295,988	355,645	415,304	474,965	534,627	594,291	653,957	713,624	773,294				236,332	779,261								
	End		446,467	560,272	674,083	787,901	901,726	1,015,557	1,129,394	1,243,238	1,357,089	1,470,946				446,467	1,482,332								
	Start	Inboard	443,137	556,110	669,090	782,076	895,068	1,008,067	1,121,073	1,234,085	1,347,104	1,460,129				Exceeds MOP	40	131	443,137	1,471,431					
	Min.		234,556	293,768	352,981	412,196	471,412	530,631	589,851	649,072	708,296	767,521							234,556	773,444					
	End		443,072	556,029	668,992	781,961	894,937	1,007,919	1,120,908	1,233,904	1,346,906	1,459,914							443,072	1,471,216					
G8x36	Start	Outboard	567,426	711,724	856,029	1,000,341	1,144,660	1,288,986	1,433,320	Exceeds MOP	40	103	567,426	1,476,622											
	Min.		299,896	375,509	451,123	526,740	602,358	677,978	753,601				299,896	776,288											
	End		567,343	711,619	855,903	1,000,194	1,144,492	1,288,797	1,433,110				567,343	1,476,405											
	Start	Inboard	564,032	707,480	850,936	994,399	1,137,870	1,281,348	1,424,833				Exceeds MOP	40	103	564,032	1,467,880								
	Min.		298,120	373,289	448,459	523,632	598,806	673,982	749,160							298,120	771,714								
	End		563,949	707,376	850,811	994,254	1,137,703	1,281,160	1,424,624							563,949	1,467,665								
G8x40	Start	Outboard	702,685	881,049	1,059,421	1,237,802	1,416,190	Exceeds MOP	40	84	702,685	1,487,548													
	Min.		370,976	464,424	557,875	651,327	744,782				370,976	782,165													
	End		702,582	880,920	1,059,266	1,237,620	1,415,982				702,582	1,487,329													
	Start	Inboard	699,290	876,805	1,054,329	1,231,861	1,409,400				Exceeds MOP	40	84	699,290	1,480,418										
	Min.		369,200	462,204	555,210	648,219	741,230							369,200	778,435										
	End		699,187	876,677	1,054,174	1,231,680	1,409,193							699,187	1,480,201										

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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)																					
G8x224	Outboard	Start	478,175	600,342	722,515	844,694	966,880	1,089,073	1,211,272	Exceeds MOP											40	100	478,175	1,211,272
		Min.	253,340	317,361	381,383	445,408	509,434	573,462	637,491		253,340	637,491												
		End	478,105	600,254	722,409	844,570	966,739	1,088,913	1,211,094		478,105	1,211,094												
	Inboard	Start	478,175	600,342	722,515	844,694	966,880	1,089,073	1,211,272		478,175	1,211,272												
		Min.	253,340	317,361	381,383	445,408	509,434	573,462	637,491		253,340	637,491												
		End	478,105	600,254	722,409	844,570	966,739	1,088,913	1,211,094		478,105	1,211,094												
G8x228	Outboard	Start	676,610	849,635	1,022,672	1,195,721	1,368,780	Exceeds MOP													40	86	676,610	1,472,622
		Min.	358,790	449,501	540,214	630,931	721,651		358,790	776,084														
		End	676,511	849,511	1,022,522	1,195,545	1,368,579		676,511	1,472,406														
	Inboard	Start	676,610	849,635	1,022,672	1,195,721	1,368,780		676,610	1,472,622														
		Min.	358,790	449,501	540,214	630,931	721,651		358,790	776,084														
		End	676,511	849,511	1,022,522	1,195,545	1,368,579		676,511	1,472,406														
G8x232	Outboard	Start	889,670	1,116,464	1,343,272	Exceeds MOP															40	65	889,670	1,456,681
		Min.	470,888	589,755	708,626		470,888	768,062																
		End	889,539	1,116,301	1,343,075		889,539	1,456,467																
	Inboard	Start	889,670	1,116,464	1,343,272		889,670	1,456,681																
		Min.	470,888	589,755	708,626		470,888	768,062																
		End	889,539	1,116,301	1,343,075		889,539	1,456,467																
G8x236	Outboard	Start	1,131,458	1,419,204	Exceeds MOP																40	52	1,131,458	1,476,755
		Min.	598,017	748,798		598,017	778,954																	
		End	1,131,292	1,418,996		1,131,292	1,476,538																	
	Inboard	Start	1,131,458	1,419,204		1,131,458	1,476,755																	
		Min.	598,017	748,798		598,017	778,954																	
		End	1,131,292	1,418,996		1,131,292	1,476,538																	

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

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)																					
G10x28	Outboard	Start	444,003	557,611	671,228	784,852	898,483	1,012,123	1,125,770	1,239,424	1,353,087	1,466,757	1,580,434	1,694,120	1,807,813	1,921,513	2,035,222	2,148,937	2,262,661	40	200	444,003	2,262,661	
		Min.	235,559	295,131	354,705	414,281	473,859	533,439	593,021	652,605	712,191	771,779	831,369	890,961	950,555	1,010,151	1,069,749	1,129,349	1,188,951			235,559	1,188,951	
		End	443,906	557,490	671,081	784,680	898,287	1,011,902	1,125,524	1,239,154	1,352,791	1,466,436	1,580,089	1,693,750	1,807,418	1,921,094	2,034,777	2,148,468	2,262,167			443,906	2,262,167	
	Inboard	Start	437,774	549,826	661,885	773,952	886,026	998,108	1,110,198	1,222,296	1,334,401	1,446,514	1,558,634	1,670,762	1,782,898	1,895,042	2,007,193	2,119,352	2,231,518			437,774	2,231,518	
		Min.	232,299	291,057	349,816	408,577	467,340	526,105	584,873	643,642	702,413	761,186	819,962	878,739	937,518	996,299	1,055,083	1,113,868	1,172,655			232,299	1,172,655	
		End	437,678	549,705	661,740	773,783	885,833	997,890	1,109,956	1,222,029	1,334,109	1,446,198	1,558,294	1,670,398	1,782,509	1,894,628	2,006,755	2,118,889	2,231,031			437,678	2,231,031	
G10x32	Outboard	Start	583,948	732,874	881,809	1,030,752	1,179,705	1,328,666	1,477,635	1,626,613	1,775,600	1,924,596	2,073,600	2,222,613	2,371,635	2,520,666	2,669,705	2,818,752	2,967,809	40	200	583,948	2,967,809	
		Min.	309,200	387,269	465,340	543,414	621,490	699,568	777,648	855,731	933,816	1,011,903	1,089,992	1,168,084	1,246,178	1,324,274	1,402,373	1,480,474	1,558,577			309,200	1,558,577	
		End	583,820	732,714	881,616	1,030,527	1,179,447	1,328,375	1,477,313	1,626,258	1,775,213	1,924,176	2,073,148	2,222,128	2,371,117	2,520,115	2,669,122	2,818,137	2,967,161			583,820	2,967,161	
	Inboard	Start	577,719	725,088	872,466	1,019,852	1,167,247	1,314,651	1,462,064	1,609,485	1,756,915	1,904,353	2,051,800	2,199,256	2,346,721	2,494,194	2,641,676	2,789,166	2,936,666			577,719	2,936,666	
		Min.	305,941	383,195	460,451	537,710	614,971	692,234	769,500	846,768	924,038	1,001,310	1,078,585	1,155,862	1,233,141	1,310,423	1,387,706	1,464,992	1,542,281			305,941	1,542,281	
		End	577,593	724,930	872,275	1,019,630	1,166,993	1,314,364	1,461,744	1,609,133	1,756,531	1,903,937	2,051,352	2,198,776	2,346,208	2,493,649	2,641,099	2,788,558	2,936,025			577,593	2,936,025	
G10x36	Outboard	Start	742,762	931,723	1,120,693	1,309,674	1,498,664	1,687,664	1,876,673	2,065,693	2,254,721	2,443,760	2,632,808	2,821,866	Exceeds MOP						40	158	742,762	2,973,120
		Min.	392,715	491,749	590,786	689,826	788,868	887,912	986,959	1,086,009	1,185,061	1,284,116	1,383,173	1,482,233									392,715	1,561,483
		End	742,600	931,519	1,120,449	1,309,388	1,498,337	1,687,295	1,876,264	2,065,242	2,254,229	2,443,227	2,632,234	2,821,250									742,600	2,972,471
	Inboard	Start	736,533	923,937	1,111,351	1,298,774	1,486,207	1,673,649	1,861,102	2,048,564	2,236,036	2,423,517	2,611,008	2,798,509									736,533	2,948,517
		Min.	389,456	487,675	585,897	684,122	782,349	880,579	978,811	1,077,046	1,175,284	1,273,523	1,371,766	1,470,011									389,456	1,548,609
		End	736,372	923,735	1,111,108	1,298,490	1,485,882	1,673,284	1,860,695	2,048,117	2,235,547	2,422,988	2,610,438	2,797,898									736,372	2,947,873
G10x40	Outboard	Start	920,446	1,154,159	1,387,883	1,621,618	1,855,363	2,089,119	2,322,886	2,556,664	2,790,452	Exceeds MOP								40	128	920,446	2,977,490	
		Min.	486,104	608,572	731,043	853,517	975,994	1,098,473	1,220,956	1,343,441	1,465,929											486,104	1,563,921	
		End	920,245	1,153,907	1,387,580	1,621,264	1,854,958	2,088,663	2,322,379	2,556,106	2,789,843											920,245	2,976,840	
	Inboard	Start	914,217	1,146,373	1,378,540	1,610,718	1,842,906	2,075,105	2,307,315	2,539,535	2,771,766											914,217	2,957,559	
		Min.	482,845	604,498	726,154	847,813	969,475	1,091,140	1,212,808	1,334,478	1,456,151											482,845	1,553,492	
		End	914,017	1,146,123	1,378,239	1,610,366	1,842,503	2,074,652	2,306,811	2,538,981	2,771,161											914,017	2,956,913	

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

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)																							
G10x228	Start	Outboard	881,777	1,107,437	1,333,112	1,558,803	1,784,509	2,010,231	2,235,968	Exceeds MOP										40	881,777	100	2,235,968
	Min.		467,858	586,187	704,520	822,858	941,199	1,059,544	1,177,893		467,858	1,177,893											
	End		881,584	1,107,195	1,332,821	1,558,463	1,784,120	2,009,792	2,235,480		881,584	2,235,480											
	Start	Inboard	881,777	1,107,437	1,333,112	1,558,803	1,784,509	2,010,231	2,235,968		881,777	2,235,968											
	Min.		467,858	586,187	704,520	822,858	941,199	1,059,544	1,177,893		467,858	1,177,893											
	End		881,584	1,107,195	1,332,821	1,558,463	1,784,120	2,009,792	2,235,480		881,584	2,235,480											
G10x232	Start	Outboard	1,161,667	1,457,962	1,754,275	2,050,605	2,346,952	2,643,317	2,939,699	Exceeds MOP										40	1,161,667	100	2,939,699
	Min.		615,141	770,464	925,792	1,081,124	1,236,461	1,391,802	1,547,148		615,141	1,547,148											
	End		1,161,413	1,457,644	1,753,892	2,050,157	2,346,440	2,642,740	2,939,057		1,161,413	2,939,057											
	Start	Inboard	1,161,667	1,457,962	1,754,275	2,050,605	2,346,952	2,643,317	2,939,699		1,161,667	2,939,699											
	Min.		615,141	770,464	925,792	1,081,124	1,236,461	1,391,802	1,547,148		615,141	1,547,148											
	End		1,161,413	1,457,644	1,753,892	2,050,157	2,346,440	2,642,740	2,939,057		1,161,413	2,939,057											
G10x236	Start	Outboard	1,479,295	1,855,660	2,232,044	2,608,448	2,984,871	Exceeds MOP												40	1,479,295	80	2,984,871
	Min.		782,171	979,425	1,176,684	1,373,948	1,571,217		782,171	1,571,217													
	End		1,478,972	1,855,255	2,231,557	2,607,878	2,984,219		1,478,972	2,984,219													
	Start	Inboard	1,479,295	1,855,660	2,232,044	2,608,448	2,984,871		1,479,295	2,984,871													
	Min.		782,171	979,425	1,176,684	1,373,948	1,571,217		782,171	1,571,217													
	End		1,478,972	1,855,255	2,231,557	2,607,878	2,984,219		1,478,972	2,984,219													
G10x240	Start	Outboard	1,834,663	2,300,532	2,766,423	Exceeds MOP													40	1,834,663	64	2,952,785	
	Min.		968,948	1,213,070	1,457,197		968,948	1,554,850															
	End		1,834,262	2,300,030	2,765,819		1,834,262	2,952,141															
	Start	Inboard	1,834,663	2,300,532	2,766,423		1,834,663	2,952,785															
	Min.		968,948	1,213,070	1,457,197		968,948	1,554,850															
	End		1,834,262	2,300,030	2,765,819		1,834,262	2,952,141															

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

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)																					
G13x40	Outboard	Start	1,180,227	1,480,009	1,779,805	2,079,614	2,379,438	2,679,275	2,979,127	3,278,992	3,578,872	3,878,765	4,178,673	4,478,594	4,778,530	5,078,479	5,378,442	5,678,420	5,978,411	40	200	1,180,227	5,978,411	
		Min.	623,242	780,288	937,338	1,094,392	1,251,449	1,408,510	1,565,575	1,722,643	1,879,715	2,036,790	2,193,870	2,350,952	2,508,039	2,665,129	2,822,223	2,979,320	3,136,422			623,242	3,136,422	
		End	1,179,463	1,479,050	1,778,652	2,078,267	2,377,897	2,677,540	2,977,197	3,276,869	3,576,554	3,876,253	4,175,966	4,475,694	4,775,435	5,075,190	5,374,959	5,674,742	5,974,539			1,179,463	5,974,539	
	Inboard	Start	1,168,087	1,464,834	1,761,594	2,058,369	2,355,157	2,651,960	2,948,776	3,245,606	3,542,451	3,839,309	4,136,182	4,433,068	4,729,968	5,026,883	5,323,811	5,620,753	5,917,709			1,168,087	5,917,709	
		Min.	616,891	772,350	927,812	1,083,278	1,238,748	1,394,221	1,549,698	1,705,178	1,860,662	2,016,150	2,171,642	2,327,137	2,482,636	2,638,138	2,793,644	2,949,154	3,104,668			616,891	3,104,668	
		End	1,167,330	1,463,885	1,760,453	2,057,035	2,353,632	2,650,242	2,946,866	3,243,504	3,540,157	3,836,823	4,133,503	4,430,197	4,726,905	5,023,627	5,320,363	5,617,113	5,913,877			1,167,330	5,913,877	
G13x44	Outboard	Start	1,433,023	1,796,455	2,159,902	2,523,365	2,886,843	3,250,337	3,613,846	3,977,370	4,340,910	4,704,465	5,068,035	5,431,621	5,795,222	Exceeds MOP					40	165	1,433,023	5,977,029
		Min.	756,047	946,413	1,136,783	1,327,157	1,517,534	1,707,916	1,898,302	2,088,692	2,279,086	2,469,484	2,659,886	2,850,292	3,040,702								756,047	3,135,908
		End	1,432,095	1,795,292	2,158,504	2,521,731	2,884,973	3,248,232	3,611,505	3,974,794	4,338,098	4,701,418	5,064,753	5,428,103	5,791,469								1,432,095	5,973,158
	Inboard	Start	1,420,882	1,781,279	2,141,690	2,502,118	2,862,561	3,223,019	3,583,492	3,943,981	4,304,486	4,665,005	5,025,541	5,386,091	5,746,657								1,420,882	5,926,946
		Min.	749,696	938,474	1,127,256	1,316,042	1,504,832	1,693,626	1,882,424	2,071,226	2,260,032	2,448,842	2,637,656	2,826,474	3,015,297								749,696	3,109,709
		End	1,419,962	1,780,125	2,140,303	2,500,497	2,860,707	3,220,931	3,581,171	3,941,427	4,301,698	4,661,984	5,022,286	5,382,603	5,742,935								1,419,962	5,923,107
G13x48	Outboard	Start	1,710,217	2,143,376	2,576,552	3,009,744	3,442,953	3,876,179	4,309,421	4,742,681	5,175,957	5,609,249	6,042,559	Exceeds MOP						40	140	1,710,217	6,042,559	
		Min.	901,585	1,128,447	1,355,314	1,582,185	1,809,060	2,035,940	2,262,824	2,489,712	2,716,605	2,943,503	3,170,404									901,585	3,170,404	
		End	1,709,109	2,141,988	2,574,883	3,007,795	3,440,723	3,873,668	4,306,630	4,739,609	5,172,604	5,605,616	6,038,645									1,709,109	6,038,645	
	Inboard	Start	1,698,077	2,128,201	2,558,341	2,988,498	3,418,672	3,848,863	4,279,071	4,709,295	5,139,536	5,569,793	6,000,068									1,698,077	6,000,068	
		Min.	895,234	1,120,509	1,345,788	1,571,071	1,796,359	2,021,651	2,246,947	2,472,248	2,697,553	2,922,863	3,148,176									895,234	3,148,176	
		End	1,696,977	2,126,822	2,556,684	2,986,563	3,416,458	3,846,370	4,276,299	4,706,245	5,136,207	5,566,186	5,996,182									1,696,977	5,996,182	
G13x52	Outboard	Start	2,011,692	2,520,649	3,029,623	3,538,616	4,047,626	4,556,655	5,065,701	5,574,766	6,083,849	Exceeds MOP								40	120	2,011,692	6,083,849	
		Min.	1,059,825	1,326,359	1,592,898	1,859,442	2,125,990	2,392,543	2,659,101	2,925,664	3,192,231											1,059,825	3,192,231	
		End	2,010,390	2,519,016	3,027,661	3,536,324	4,045,005	4,553,704	5,062,420	5,571,155	6,079,908											2,010,390	6,079,908	
	Inboard	Start	1,999,552	2,505,473	3,011,413	3,517,370	4,023,346	4,529,339	5,035,350	5,541,380	6,047,428											1,999,552	6,047,428	
		Min.	1,053,474	1,318,421	1,583,372	1,848,328	2,113,289	2,378,254	2,643,224	2,908,199	3,173,179											1,053,474	3,173,179	
		End	1,998,257	2,503,851	3,009,462	3,515,092	4,020,740	4,526,405	5,032,089	5,537,791	6,043,511											1,998,257	6,043,511	

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

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				
Pressure Torque Output: Start/Min./End (lbf-in)																						
G13x240	Start	Outboard	2,348,314	2,944,843	3,541,399	4,137,983	4,734,595	5,331,235	5,927,903	Exceeds MOP									40	2,348,314	100	5,927,903
	Min.		1,240,133	1,552,638	1,865,150	2,177,670	2,490,197	2,802,731	3,115,272		1,240,133	3,115,272										
	End		2,346,793	2,942,935	3,539,105	4,135,303	4,731,528	5,327,782	5,924,064		2,346,793	5,924,064										
	Start	Inboard	2,348,314	2,944,843	3,541,399	4,137,983	4,734,595	5,331,235	5,927,903		2,348,314	5,927,903										
	Min.		1,240,133	1,552,638	1,865,150	2,177,670	2,490,197	2,802,731	3,115,272		1,240,133	3,115,272										
	End		2,346,793	2,942,935	3,539,105	4,135,303	4,731,528	5,327,782	5,924,064		2,346,793	5,924,064										
G13x244	Start	Outboard	2,853,905	3,577,734	4,301,593	5,025,483	5,749,404	Exceeds MOP											40	2,853,905	83	5,966,586
	Min.		1,505,744	1,884,887	2,264,039	2,643,199	3,022,366		1,505,744	3,136,118												
	End		2,852,057	3,575,417	4,298,807	5,022,228	5,745,680		2,852,057	5,962,722												
	Start	Inboard	2,853,905	3,577,734	4,301,593	5,025,483	5,749,404		2,853,905	5,966,586												
	Min.		1,505,744	1,884,887	2,264,039	2,643,199	3,022,366		1,505,744	3,136,118												
	End		2,852,057	3,575,417	4,298,807	5,022,228	5,745,680		2,852,057	5,962,722												
G13x248	Start	Outboard	3,408,294	4,271,577	5,134,893	5,998,242	Exceeds MOP												40	3,408,294	70	5,998,242
	Min.		1,796,820	2,248,956	2,701,102	3,153,256		1,796,820	3,153,256													
	End		3,406,086	4,268,810	5,131,567	5,994,357		3,406,086	5,994,357													
	Start	Inboard	3,408,294	4,271,577	5,134,893	5,998,242		3,408,294	5,998,242													
	Min.		1,796,820	2,248,956	2,701,102	3,153,256		1,796,820	3,153,256													
	End		3,406,086	4,268,810	5,131,567	5,994,357		3,406,086	5,994,357													
G13x252	Start	Outboard	4,011,245	5,026,122	6,041,036	Exceeds MOP													40	4,011,245	60	6,041,036
	Min.		2,113,299	2,644,780	3,176,270		2,113,299	3,176,270														
	End		4,008,647	5,022,867	6,037,123		4,008,647	6,037,123														
	Start	Inboard	4,011,245	5,026,122	6,041,036		4,011,245	6,041,036														
	Min.		2,113,299	2,644,780	3,176,270		2,113,299	3,176,270														
	End		4,008,647	5,022,867	6,037,123		4,008,647	6,037,123														

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)																											
G01x08-SR0	Start	24,151																			Please consult factory	15,182	17,164	19,147	Exceeds MOP	169	14,983	192	19,544	
	Min.	10,918																					6,245	7,309			8,366		6,139	8,577
	End	17,415																						8,454			10,435		12,416	8,256
G01x08-SR1	Start	18,180																			Please consult factory	10,248	12,229	14,211	Exceeds MOP	128	9,851	192	22,538	
	Min.	8,628																					4,515	5,567			6,616		4,303	11,005
	End	14,424																						6,499			8,479		10,459	6,103
G01x08-SR2	Start	15,199																			Please consult factory	8,046	10,027	12,008	Exceeds MOP	107	7,452	192	24,297	
	Min.	7,405																					3,703	4,751			5,797		3,388	12,261
	End	12,666																						5,520			7,499		9,478	4,926
G01x08-SR3	Start	13,246																			Please consult factory	7,677	9,658	11,639	Exceeds MOP	94	6,489	192	25,909	
	Min.	6,476																					3,604	4,650			5,694		2,974	13,197
	End	11,055																						5,493			7,471		9,450	4,306
G01x08-SR4	Start	11,239																			Please consult factory	5,165	7,145	9,125	Exceeds MOP	80	5,165	192	27,357	
	Min.	5,579																					2,432	3,479			4,522		2,432	14,104
	End	9,609																						3,541			5,519		7,497	3,541
G01x09-SR0	Start	24,092																			Please consult factory	16,829	19,358	21,887	Exceeds MOP	132	14,806	200	32,007	
	Min.	10,902																					7,138	8,486			9,828		6,052	15,171
	End	17,355																						10,100			12,626		15,153	8,079
G01x09-SR1	Start	18,121																			Please consult factory	9,712	12,239	14,767	Exceeds MOP	100	9,712	200	35,000	
	Min.	8,612																					4,238	5,582			6,918		4,238	17,562
	End	14,365																						5,964			8,489		11,014	5,964
G01x09-SR2	Start	15,140																			Please consult factory	8,945	11,472	13,999	Exceeds MOP	84	7,429	200	36,760	
	Min.	7,390																					4,189	5,524			6,855		3,386	18,813
	End	12,606																						6,418			8,942		11,467	4,903
G01x09-SR3	Start	13,186																			Please consult factory	8,030	10,557	13,084	Exceeds MOP	74	6,515	200	38,372	
	Min.	6,460																					3,801	5,134			6,464		2,998	19,747
	End	10,996																						5,845			8,369		10,893	4,331
G01x09-SR4	Start	11,180																			Please consult factory	4,426	6,952	9,478	Exceeds MOP	60	4,426	200	39,819	
	Min.	5,563																					2,051	3,388			4,719		2,051	20,653
	End	9,550																						2,803			5,326		7,850	2,803

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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
G01x10-SR0	Start	24,019							Please consult factory	14,921	18,276	21,631	24,987	28,343	31,700	35,057	Exceeds MOP	100	14,921	166	37,071	
	Min.	10,883						6,123		7,919	9,701	11,477	13,248	15,016	16,784	6,123			17,844			
	End	17,283						8,194		11,545	14,897	18,250	21,603	24,956	28,310	8,194			30,322			
G01x10-SR1	Start	18,049						Please consult factory	11,206	14,560	17,915	21,270	24,625	27,981	31,337	34,693	38,050	Exceeds MOP	76	9,864	166	40,065
	Min.	8,593							5,045	6,820	8,588	10,355	12,119	13,883	15,646	17,408	19,170			4,331		20,228
	End	14,293							7,456	10,807	14,159	17,510	20,862	24,215	27,568	30,921	34,275			6,116		36,287
G01x10-SR2	Start	15,067			Please consult factory	9,612	12,966	16,320	19,675	23,029	26,385	29,741	33,097	36,453	39,810	Exceeds MOP	64	7,600	166	41,825		
	Min.	7,371				4,554	6,322	8,086	9,850	11,612	13,374	15,136	16,898	18,659	20,420			3,489		21,477		
	End	12,534				7,084	10,435	13,786	17,137	20,489	23,841	27,193	30,546	33,899	37,253			5,074		39,265		
G01x10-SR3	Start	13,114			Please consult factory	7,871	11,224	14,578	17,932	21,286	24,641	27,997	31,353	34,709	38,065	41,422	Exceeds MOP	56	6,529	166	43,437	
	Min.	6,441				3,729	5,497	7,261	9,024	10,786	12,548	14,310	16,071	17,832	19,593	21,354			3,019		22,411	
	End	10,924				5,686	9,036	12,386	15,737	19,088	22,440	25,792	29,144	32,497	35,851	39,204			4,346		41,217	
G01x10-SR4	Start	11,107	Please consult factory	5,965	9,318	12,671	16,025	19,379	22,734	26,089	29,444	32,800	36,156	39,513	42,870	Exceeds MOP	48	5,295	166	44,884		
	Min.	5,544		2,880	4,647	6,410	8,172	9,933	11,695	13,456	15,216	16,977	18,738	20,499	22,260			2,526		23,317		
	End	9,478		4,341	7,690	11,040	14,391	17,742	21,093	24,445	27,797	31,149	34,502	37,855	41,209			3,671		43,221		
G01x12-SR0	Start	23,908			Please consult factory	14,960	19,773	24,587	29,401	34,215	Exceeds MOP	70	14,960	116	37,104							
	Min.	10,854				6,164	8,733	11,282	13,822	16,356			6,164		17,876							
	End	17,171				8,233	13,041	17,850	22,659	27,469			8,233		30,355							
G01x12-SR1	Start	17,937			Please consult factory	13,141	17,954	22,767	27,580	32,394	37,209	Exceeds MOP	53	9,772	116	40,098						
	Min.	8,564				6,090	8,628	11,160	13,690	16,217	18,744			4,304		20,260						
	End	14,181				9,390	14,198	19,006	23,815	28,624	33,434			6,025		36,320						
G01x12-SR2	Start	14,956	Please consult factory	10,089	14,901	19,714	24,527	29,340	34,154	38,969	Exceeds MOP	44	7,202	116	41,858							
	Min.	7,341		4,827	7,361	9,890	12,416	14,942	17,469	19,994			3,300		21,509							
	End	12,423		7,561	12,368	17,176	21,984	26,793	31,603	36,412			4,676		39,298							
G01x12-SR3	Start	13,002	6,889	11,701	16,513	21,326	26,139	30,952	35,766	40,581	Exceeds MOP	39	6,408	116	43,470							
	Min.	6,412	3,233	5,770	8,299	10,826	13,352	15,878	18,403	20,928			2,978		22,443							
	End	10,812	4,705	9,512	14,319	19,127	23,936	28,744	33,554	38,364			4,224		41,250							
G01x12-SR4	Start	10,996	8,337	13,148	17,960	22,773	27,586	32,400	37,214	42,028	Exceeds MOP	33	4,969	116	44,917							
	Min.	5,515	4,154	6,683	9,209	11,735	14,259	16,784	19,309	21,834			2,377		23,349							
	End	9,366	6,710	11,517	16,324	21,132	25,940	30,749	35,559	40,368			3,345		43,254							

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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)																						
G01x14-SR0	Start	23,818																		57	14,551	91	34,458		
	Min.	10,830	Please consult factory																				5,965	16,504	
	End	17,082																						7,824	27,711
G01x14-SR1	Start	17,847	Please consult factory																	43	9,349	91	37,451		
	Min.	8,541																						4,100	18,891
	End	14,091																							5,602
G01x14-SR2	Start	14,866	9,353																	36	7,012	91	39,211		
	Min.	7,318	4,461																				3,222	20,141	
	End	12,333	6,826																					4,487	36,654
G01x14-SR3	Start	12,912	10,965																	32	6,283	91	40,823		
	Min.	6,389	5,405																					2,934	21,075
	End	10,723	8,777																					4,100	38,606
G01x14-SR4	Start	10,906	12,413																	27	4,804	91	42,271		
	Min.	5,491	6,318																					2,313	21,981
	End	9,276	10,782																					3,181	40,611

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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)																																	
G2x09-SR1	Start	31,250																	Please consult factory	20,526	23,588	26,650	29,712	Exceeds MOP	141	17,771	187	31,856					
	Min.	14,530																8,977		10,602	12,223	13,840	7,507			14,971							
	End	23,918																		13,203	16,262	19,322	22,382			10,451		24,524					
G2x09-SR2	Start	26,989																	Please consult factory	17,143	20,203	23,264	26,326	29,388	32,450	Exceeds MOP	123	15,000	187	34,594			
	Min.	12,723																7,627		9,249	10,867	12,482	14,094	15,707	16,834								
	End	21,182																		11,344	14,402	17,461	20,520	23,580	26,639			28,782					
G2x09-SR3	Start	24,181																	Please consult factory	13,293	16,352	19,413	22,473	25,534	28,596	31,658	34,720	Exceeds MOP	110	13,293	187	36,864	
	Min.	11,400																5,734		7,362	8,982	10,598	12,211	13,824	15,434	17,044	18,171						
	End	18,914																		8,034	11,092	14,150	17,208	20,266	23,325	26,385	29,445			31,587			
G2x09-SR4	Start	21,573																	Please consult factory	12,737	15,796	18,856	21,916	24,977	28,038	31,100	34,161	37,224	Exceeds MOP	99	12,431	187	39,368
	Min.	10,059																5,464		7,093	8,714	10,329	11,942	13,555	15,165	16,775	18,385	19,512					
	End	16,412																		7,584	10,641	13,698	16,756	19,814	22,873	25,932	28,991	32,051			34,193		
G2x10-SR1	Start	31,162																	Please consult factory	19,217	23,279	27,341	31,404	Exceeds MOP	107	17,998	141	31,810					
	Min.	14,507																8,290		10,449	12,597	14,741	7,639			14,956							
	End	23,831																		11,895	15,953	20,012	24,072			10,677		24,478					
G2x10-SR2	Start	26,901																	Please consult factory	17,893	21,955	26,016	30,079	34,142	Exceeds MOP	92	14,645	141	34,548				
	Min.	12,700																8,037		10,186	12,329	14,468	16,605	6,309			16,818						
	End	21,095																		12,094	16,152	20,211	24,270	28,330			8,848		28,736				
G2x10-SR3	Start	24,094																	Please consult factory	16,102	20,163	24,225	28,286	32,349	36,411	Exceeds MOP	83	13,260	141	36,818			
	Min.	11,377																7,242		9,390	11,532	13,671	15,807	17,942	5,730			18,156					
	End	18,827																		10,842	14,900	18,958	23,016	27,075	31,135			8,002		31,541			
G2x10-SR4	Start	21,485																	Please consult factory	14,546	18,606	22,667	26,728	30,790	34,853	38,915	Exceeds MOP	74	12,110	141	39,322		
	Min.	10,036																6,442		8,594	10,737	12,876	15,012	17,148	19,283	5,142			19,496				
	End	16,325																		9,391	13,448	17,506	21,564	25,623	29,682	33,741			6,957		34,147		
G2x12-SR1	Start	31,026																	Please consult factory	21,028	26,855	32,682	Exceeds MOP	74	17,532	100	32,682						
	Min.	14,471																9,277		12,362	15,435	7,413			15,435								
	End	23,695																		13,704	19,527	25,350			10,211		25,350						
G2x12-SR2	Start	26,765																	Please consult factory	17,939	23,766	29,593	35,420	Exceeds MOP	65	15,026	100	35,420					
	Min.	12,664																8,086		11,164	14,233	17,297	6,538			17,297							
	End	20,959																		12,140	17,962	23,784	29,607			9,229		29,607					
G2x12-SR3	Start	23,957																	Please consult factory	14,383	20,209	26,035	31,863	37,690	Exceeds MOP	58	13,218	100	37,690				
	Min.	11,341																6,354		9,438	12,508	15,573	18,634	5,733			18,634						
	End	18,691																		9,124	14,945	20,767	26,590	32,412			7,960		32,412				
G2x12-SR4	Start	21,349																	Please consult factory	16,887	22,713	28,539	34,366	40,194	Exceeds MOP	52	12,227	100	40,194				
	Min.	10,000																7,709		10,785	13,851	16,913	19,975	5,231			19,975						
	End	16,189																		11,731	17,552	23,374	29,196	35,019			7,074		35,019				

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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)																					
G2x14-SR1	Start	30,918		Please consult factory	16,834	23,921	31,009	Exceeds MOP												60	16,834	81	31,718	
	Min.	14,443			7,065	10,835	14,577																7,065	14,951
	End	23,587			9,514	16,595	23,677																	9,514
G2x14-SR2	Start	26,657		Please consult factory	19,572	26,659	33,747	Exceeds MOP												53	14,611	81	34,455	
	Min.	12,636			8,975	12,713	16,442																6,342	16,814
	End	20,851			13,771	20,853	27,935																8,815	28,643
G2x14-SR3	Start	23,850	Please consult factory	14,755	21,842	28,929	36,016	Exceeds MOP												48	13,338	81	36,725	
	Min.	11,313		6,577	10,324	14,055	17,779														5,823		18,151	
	End	18,583		9,496	16,577	23,658	30,740																8,080	31,448
G2x14-SR4	Start	21,241	Please consult factory	17,259	24,345	31,433	38,520	Exceeds MOP												43	12,299	81	39,229	
	Min.	9,972		7,931	11,669	15,396	19,120														5,296		19,492	
	End	16,081		12,102	19,183	26,264	33,347																7,146	34,055
G2x16-SR1	Start	30,778	Please consult factory	20,978	30,339	Exceeds MOP													46	17,234	61	31,275		
	Min.	14,406		9,303	14,250																	7,308	14,744	
	End	23,447		13,654	23,008																		9,913	23,943
G2x16-SR2	Start	26,517	14,356	23,716	33,077	Exceeds MOP													40	14,356	61	34,013		
	Min.	12,599	6,235	11,190	16,116															6,235		16,608		
	End	20,712	8,560	17,912	27,265																	8,560	28,201	
G2x16-SR3	Start	23,710	16,626	25,986	35,346	Exceeds MOP													36	12,882	61	36,283		
	Min.	11,276	7,599	12,534	17,453															5,610		17,945		
	End	18,443	11,365	20,717	30,071																	7,624	31,006	
G2x16-SR4	Start	21,101	19,129	28,490	37,850	Exceeds MOP													32	11,642	61	38,786		
	Min.	9,935	8,949	13,878	18,794															4,976		19,286		
	End	15,942	13,971	23,324	32,677																	6,490	33,612	

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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)																																		
G3x10-SR1	Start	54,852																		Please consult factory	34,481	39,378	44,275	49,173	54,072	155	32,033	200	54,072					
	Min.	25,381																			14,780	17,383	19,977	22,566	25,150		13,473		25,150					
	End	41,804																				21,443	26,337	31,232	36,128		41,024		18,996	41,024				
G3x10-SR2	Start	47,805																		Please consult factory	30,090	34,986	39,882	44,779	49,676	54,574	59,472	135	27,643	200	59,472			
	Min.	22,145																			12,930	15,532	18,124	20,710	23,294	25,872	28,450		11,622		28,450			
	End	36,406																			18,700	23,593	28,487	33,381	38,276	43,172	48,068		16,253		48,068			
G3x10-SR3	Start	41,745																		Please consult factory	24,951	29,845	34,740	39,635	44,531	49,428	54,325	59,223	64,122	118	23,972	200	64,122	
	Min.	19,361																	10,609		13,214	15,807	18,393	20,975	23,552	26,130	28,705	31,278	10,085		31,278			
	End	31,759																			14,973	19,865	24,757	29,651	34,544	39,439	44,334	49,229	54,126		13,994		54,126	
G3x10-SR4	Start	36,532																		Please consult factory	24,053	28,947	33,841	38,736	43,631	48,527	53,424	58,321	63,219	68,118	104	21,117	200	68,118
	Min.	16,968																	10,493		13,089	15,676	18,259	20,836	23,413	25,987	28,560	31,133	33,707	8,925		33,707		
	End	27,765																			15,292	20,183	25,075	29,968	34,861	39,755	44,649	49,544	54,440	59,336		12,357		59,336
G3x12-SR1	Start	54,686																		Please consult factory	33,473	40,515	47,559	54,603							Exceeds MOP	32,064	142	56,012
	Min.	25,337																	14,265		18,008	21,734	25,449						13,512	26,192				
	End	41,638																	20,435		27,474	34,514	41,555						19,027	42,963				
G3x12-SR2	Start	47,639																		Please consult factory	31,831	38,873	45,916	52,959	60,003						Exceeds MOP	27,606	94	61,412
	Min.	22,102																	13,881		17,613	21,331	25,042	28,749					11,628	29,490				
	End	36,241																	20,440		27,479	34,518	41,558	48,599					16,217	50,007				
G3x12-SR3	Start	41,579																		Please consult factory	29,440	36,481	43,523	50,565	57,609	64,653					Exceeds MOP	23,807	82	66,062
	Min.	19,318																	13,024		16,752	20,466	24,172	27,877	31,577				10,023	32,317				
	End	31,593																	19,459		26,497	33,536	40,575	47,616	54,656				13,830	56,065				
G3x12-SR4	Start	36,366																		Please consult factory	26,395	33,435	40,477	47,518	54,561	61,604	68,648				Exceeds MOP	20,763	72	70,057
	Min.	16,924																	11,764		15,487	19,199	22,905	26,605	30,305	34,005				8,764		34,744		
	End	27,599																	17,632		24,670	31,708	38,746	45,786	52,826	59,867				12,003		61,275		
G3x14-SR1	Start	54,555																		Please consult factory	33,062	41,638	50,214								Exceeds MOP	31,347	88	56,218
	Min.	25,303																	14,075		18,632	23,163							13,158	26,329				
	End	41,507																	20,025		28,596	37,168							18,310	43,170				
G3x14-SR2	Start	47,508																		Please consult factory	29,888	38,463	47,038	55,614							Exceeds MOP	27,316	77	61,618
	Min.	22,067																	12,876		17,425	21,952	26,468						11,502	29,627				
	End	36,110																	18,498		27,068	35,640	44,212						15,927	50,213				
G3x14-SR3	Start	41,448																		Please consult factory	25,964	34,538	43,112	51,688	60,264						Exceeds MOP	24,249	68	66,268
	Min.	19,283																	11,206		15,753	20,278	24,791	29,299				10,290	32,453					
	End	31,462																	15,985		24,555	33,126	41,697	50,270				14,271	56,271					
G3x14-SR4	Start	36,235																		Please consult factory	21,387	29,960	38,534	47,108	55,684	64,260					Exceeds MOP	20,529	59	70,264
	Min.	16,890																	9,128		13,681	18,205	22,717	27,223	31,728				8,670	34,880				
	End	27,468																	12,627		21,196	29,766	38,336	46,908	55,480				11,770	61,481				

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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)																				
G3x16-SR1	Start	54,385			Please consult factory	35,106	46,446	57,787	Exceeds MOP											67	31,704	90	57,787
	Min.	25,258				15,194	21,203	27,183		13,379	27,183												
	End	41,338				22,067	33,402	44,738		18,667	44,738												
G3x16-SR2	Start	47,338		Please consult factory	29,167	40,506	51,846	63,187	Exceeds MOP											58	26,899	90	63,187
	Min.	22,023				12,523	18,535	24,513		30,479	11,311	30,479											
	End	35,940				17,777	29,111	40,446		51,782	15,510	51,782											
G3x16-SR3	Start	41,278		Please consult factory	33,816	45,156	56,496	67,837	Exceeds MOP											51	23,612	90	67,837
	Min.	19,239				15,404	21,384	27,348		33,304	9,983	33,304											
	End	31,292				23,834	35,168	46,503		57,839	13,634	57,839											
G3x16-SR4	Start	36,065	Please consult factory	26,474	37,812	49,151	60,492	71,833	Exceeds MOP											45	20,805	90	71,833
	Min.	16,845				11,869	17,857	23,822		29,777	35,730	8,852	35,730										
	End	27,298				17,711	29,044	40,379		51,714	63,050	12,045	63,050										
G3x20-SR1	Start	54,047	Please consult factory	45,454	Exceeds MOP														42	31,046	56	56,262	
	Min.	25,169					20,744															13,097	26,442
	End	40,999					32,411															18,009	43,213
G3x20-SR2	Start	47,000	32,844	50,855	Exceeds MOP														37	27,441	56	61,662	
	Min.	21,934	14,549	24,057		11,673	29,739																
	End	35,602	21,452	39,455		16,052	50,257																
G3x20-SR3	Start	40,939	37,494	55,504	Exceeds MOP														32	23,086	56	66,312	
	Min.	19,150	17,416	26,893		9,776	32,565																
	End	30,954	27,510	45,512		13,108	56,314																
G3x20-SR4	Start	35,727	41,489	59,500	Exceeds MOP														28	19,878	56	70,307	
	Min.	16,756	19,861	29,321		8,432	34,993																
	End	26,960	32,720	50,723		11,118	61,525																

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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)																															
G4x12-SR2	Start	98,222																		Please consult factory	64,145	72,644	81,144	89,645	98,147	159	63,295	200	98,147					
	Min.	43,627																			25,740	30,300	34,833	39,346	43,848		25,281		43,848					
	End	68,842																				34,789	43,282	51,776	60,271		68,766		33,940	68,766				
G4x12-SR3	Start	82,692																		Please consult factory	57,947	66,445	74,943	83,442	91,942	100,443	108,944	134	52,849	200	108,944			
	Min.	36,816																			23,886	28,423	32,938	37,439	41,931	46,413	50,895		21,142		50,895			
	End	58,052																				33,325	41,816	50,308	58,801	67,295	75,790		84,286		28,231	84,286		
G4x12-SR4	Start	68,243																		Please consult factory	50,295	58,791	67,288	75,785	84,283	92,782	101,282	109,783	118,285	111	42,650	200	118,285	
	Min.	30,684																			21,356	25,873	30,372	34,860	39,341	43,815	48,287	52,759	57,223		17,259		57,223	
	End	48,718																				30,783	39,273	47,763	56,254	64,746	73,239	81,733	90,228		98,724		23,143	98,724
G4x14-SR1	Start	112,239																		Please consult factory	70,663	81,028	91,393	101,759	112,126	Exceeds MOP	69,627	194	116,273					
	Min.	50,660																			28,861	34,403	39,914	45,405	50,886		28,304		53,074					
	End	81,473																				39,927	50,284	60,642	71,001		81,360		38,892	85,505				
G4x14-SR2	Start	98,063																		Please consult factory	73,100	83,463	93,827	104,192	114,559	124,926	Exceeds MOP	63,774	194	129,073				
	Min.	43,585																			30,577	36,100	41,597	47,077	52,548	58,013		25,573		60,199				
	End	68,683																				43,737	54,093	64,450	74,808	85,167		95,526		34,418	99,671			
G4x14-SR3	Start	82,532																		Please consult factory	52,814	63,174	73,535	83,897	94,261	104,625	114,990	125,356	135,724	Exceeds MOP	52,814	194	139,871	
	Min.	36,774																			21,158	26,715	32,225	37,713	43,187	48,651	54,109	59,561	65,014		21,158		67,194	
	End	57,893																				28,195	38,548	48,902	59,257	69,612	79,969	90,327	100,686		111,046		28,195	115,190
G4x14-SR4	Start	68,084																		Please consult factory	51,795	62,154	72,514	82,875	93,238	103,601	113,965	124,330	134,697	145,064	Exceeds MOP	42,472	194	149,211
	Min.	30,642																			22,189	27,691	33,169	38,632	44,088	49,539	54,988	60,431	65,874	71,318		17,198		73,496
	End	48,559																				32,281	42,633	52,986	63,340	73,695	84,050	94,407	104,765	115,124		125,484		22,966
G4x16-SR1	Start	112,034																		Please consult factory	79,730	93,455	107,182	Exceeds MOP	70,123	147	116,791							
	Min.	50,606																			33,739	41,033	48,296		28,599		53,370							
	End	81,268																				48,987	62,703		76,419		39,387	86,022						
G4x16-SR2	Start	97,858																		Please consult factory	65,082	78,805	92,530	106,255	119,981	Exceeds MOP	63,710	147	129,590					
	Min.	43,531																			26,308	33,649	40,936	48,193	55,431		25,569		60,495					
	End	68,478																				35,726	49,439	63,153	76,869		90,585		34,354	100,188				
G4x16-SR3	Start	82,327																		Please consult factory	62,158	75,880	89,603	103,327	117,052	130,779	Exceeds MOP	52,553	147	140,388				
	Min.	36,720																			26,204	33,499	40,757	47,993	55,219	62,438		21,050		67,489				
	End	57,688																				37,533	51,245	64,958	78,672	92,388		106,105		27,935	115,707			
G4x16-SR4	Start	67,879																		Please consult factory	44,058	57,778	71,498	85,220	98,943	112,667	126,393	140,119	Exceeds MOP	42,686	147	149,728		
	Min.	30,588																			18,086	25,403	32,664	39,898	47,117	54,333	61,539	68,746		17,349		73,791		
	End	48,354																				24,550	38,260	51,971	65,683	79,396	93,111	106,826		120,543		23,179	130,145	

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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)																																
G4x20-SR1	Start	111,621				Please consult factory	89,330	111,165	Exceeds MOP																		71	69,680	92	115,532					
	Min.	50,497					38,912	50,464																						28,432		52,769			
	End	80,856						58,581		80,400																					38,944		84,764		
G4x20-SR2	Start	97,445		Please consult factory	58,464	80,296	102,130	123,965	Exceeds MOP																			60	58,464	92	128,332				
	Min.	43,422				22,806	34,513	46,079		57,593																					22,806		59,894		
	End	68,065					29,112	50,929		72,747	94,566																					29,112		98,930	
G4x20-SR3	Start	81,914		Please consult factory	69,262	91,094	112,927	134,762	Exceeds MOP																				52	51,797	92	139,129			
	Min.	36,611				30,063	41,615	53,115		64,595																						20,722		66,890	
	End	57,275					44,631	66,448		88,266	110,085																					27,179		114,449	
G4x20-SR4	Start	67,466	Please consult factory	56,771	78,602	100,434	122,268	144,103	Exceeds MOP																				43	41,491	92	148,470			
	Min.	30,479				24,949	36,484	47,971		59,439	70,899																					16,789		73,191	
	End	47,941					37,255	59,070		80,886	102,704	124,523																				21,985		128,887	
G4x24-SR1	Start	111,323	Please consult factory	73,392	105,194	Exceeds MOP																							49	70,211	63	114,735			
	Min.	50,419					30,462	47,342																									28,758		52,379
	End	80,558						42,654	74,433																								39,476		83,967
G4x24-SR2	Start	97,147	Please consult factory	86,191	117,993	Exceeds MOP																							43	63,931	63	127,534			
	Min.	43,344					37,683	54,479																									25,809		59,504
	End	67,767						56,819	88,599																								34,575		98,133
G4x24-SR3	Start	81,616	65,188	96,989	128,791	Exceeds MOP																							36	52,468	63	138,332			
	Min.	36,532	27,942	44,761	61,488																											21,135		66,502	
	End	56,977	40,561	72,339	104,118																											27,850		113,652	
G4x24-SR4	Start	67,168	74,528	106,329	138,131	Exceeds MOP																							30	42,729	63	147,672			
	Min.	30,401	34,383	51,110	67,798																											17,512		72,803	
	End	47,644	54,999	86,777	118,556																											23,222		128,090	
G4x28-SR1	Start	110,048	92,701	Exceeds MOP																										34	65,762	45	115,151		
	Min.	50,083	41,119																													26,750		52,986	
	End	79,284	61,949																													35,030		84,383	
G4x28-SR2	Start	95,872	105,501	Exceeds MOP																										30	60,603	45	127,950		
	Min.	43,007	48,278																													24,393		60,112	
	End	66,493	76,115																													31,250		98,549	
G4x28-SR3	Start	80,341	116,298	Exceeds MOP																										25	48,953	45	138,748		
	Min.	36,196	55,304																													19,610		67,107	
	End	55,703	91,634																													24,338		114,068	

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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)																									
G5x16-SR2	Start	228,703																Please consult factory	175,940	193,488	211,037	179	174,185	200	211,037
	Min.	93,776															65,664		75,229	84,696	64,701		84,696		
	End	135,275																	82,529	100,071	117,615		80,775		117,615
G5x16-SR3	Start	183,905																Please consult factory	144,703	162,247	179,793	144	134,177	200	232,437
	Min.	77,094															56,388		65,844	75,235	50,656		103,175		
	End	113,882															74,693		92,231	109,771	64,170		162,398		
G5x16-SR4	Start	153,351																Please consult factory	127,221	144,763	162,306	121	111,435	200	250,041
	Min.	64,784															51,092		60,492	69,835	42,545		116,180		
	End	96,284															70,163		87,699	105,237	54,382		192,942		
G5x20-SR1	Start	254,555																Please consult factory	199,246	227,280	255,315	125	185,230	164	294,567
	Min.	107,205															77,940		93,025	107,985	70,327		128,824		
	End	159,530															104,239		132,264	160,290	90,228		199,529		
G5x20-SR2	Start	228,169																Please consult factory	196,011	224,043	252,077	112	173,587	164	319,364
	Min.	93,634															76,684		91,766	106,724	64,466		142,387		
	End	134,741															102,594		130,617	158,641	80,177		225,906		
G5x20-SR3	Start	183,371																Please consult factory	133,325	161,352	189,381	90	133,325	164	340,764
	Min.	76,952															50,290		65,459	80,432	50,290		160,342		
	End	113,348															63,319		91,337	119,356	63,319		270,690		
G5x20-SR4	Start	152,817																Please consult factory	122,903	150,929	178,956	76	111,693	164	358,368
	Min.	64,642															48,866		63,876	78,758	42,790		173,185		
	End	95,750															65,846		93,863	121,881	54,640		301,234		
G5x24-SR1	Start	254,170																Please consult factory	202,761	243,680	284,601	86	186,394	112	292,785
	Min.	107,102															79,871		101,816	123,561	70,998		127,898		
	End	159,145															107,753		148,658	189,566	91,391		197,748		
G5x24-SR2	Start	227,784																Please consult factory	186,641	227,558	268,477	77	174,366	112	317,582
	Min.	93,531															71,638		93,676	115,472	64,937		141,464		
	End	134,356															93,226		134,130	175,036	80,956		224,125		
G5x24-SR3	Start	182,985																Please consult factory	126,212	167,126	208,041	60	126,212	112	338,982
	Min.	76,850															46,434		68,601	90,382	46,434		159,424		
	End	112,963															56,208		97,108	138,010	56,208		268,909		
G5x24-SR4	Start	152,431																Please consult factory	143,815	184,729	225,644	52	111,086	112	356,586
	Min.	64,539															60,135		81,859	103,450	42,518		172,269		
	End	95,365															86,752		127,652	168,554	54,033		299,453		

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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)																										
G5x28-SR1	Start	252,521		Please consult factory	179,961	237,813	295,668	Exceeds MOP												60	179,961	80	295,668			
	Min.	106,664			68,033	99,238	129,995																	68,033	129,995	
	End	157,497			84,960	142,793	200,629																		84,960	200,629
G5x28-SR2	Start	226,135		Please consult factory	204,758	262,610	320,465	Exceeds MOP												54	170,048	80	320,465			
	Min.	93,091			81,990	112,910	143,554																	63,105	143,554	
	End	132,708			111,337	169,170	227,007																		76,639	227,007
G5x28-SR3	Start	181,337		Please consult factory	168,309	226,158	284,010	Exceeds MOP												44	133,602	80	341,865			
	Min.	76,412			69,757	100,514	131,051		161,503															51,018	161,503	
	End	111,315			98,292	156,121	213,954		271,791																63,596	271,791
G5x28-SR4	Start	150,783	128,068	185,913	243,761	301,613	359,468	Exceeds MOP												37	110,715	80	359,468			
	Min.	64,102	52,212	83,002	113,526	143,958	174,344																	42,828	174,344	
	End	93,717	71,010	128,836	186,665	244,498	302,335																		53,662	302,335
G5x32-SR1	Start	251,855		Please consult factory	210,961	286,714	Exceeds MOP													46	180,661	61	294,289			
	Min.	106,487			84,983	125,375																			68,558	129,391
	End	156,831			115,950	191,678																				85,660
G5x32-SR2	Start	225,469		Please consult factory	235,758	311,511	Exceeds MOP													41	167,583	61	319,086			
	Min.	92,913			98,743	138,949																			61,893	142,952
	End	132,042			142,327	218,056																				74,175
G5x32-SR3	Start	180,670	181,409	257,158	332,911	Exceeds MOP														33	128,387	61	340,486			
	Min.	76,235	76,899	117,032	156,922																				48,314	160,905
	End	110,649	111,387	187,111	262,839																					58,382
G5x32-SR4	Start	150,116	199,012	274,761	350,514	Exceeds MOP														28	108,119	61	358,090			
	Min.	63,924	90,067	129,971	169,771																				41,565	173,747
	End	93,051	141,931	217,655	293,383																					51,067
G5x36-SR1	Start	251,188	215,722	Exceeds MOP																36	177,306	48	292,558			
	Min.	106,310	87,685																						66,873	128,610
	End	156,164	120,710																							82,306
G5x36-SR2	Start	224,802	240,519	Exceeds MOP																33	173,291	48	317,355			
	Min.	92,735	101,430																						65,191	142,174
	End	131,375	147,087																							79,881
G5x36-SR3	Start	180,004	261,920	Exceeds MOP																26	127,465	48	338,755			
	Min.	76,058	119,684																						47,965	160,130
	End	109,982	191,871																							57,460

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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)																																			
G7x20-SR3	Start	366,531																Please consult factory	283,257	317,453	351,650	385,850	420,052	454,257	147	272,999	200	454,257							
	Min.	151,987																	107,763	126,304	144,671	162,935	181,133	199,276		102,148		199,276							
	End	221,909																		138,657	172,843	207,032	241,223	275,417		309,613		128,401	309,613						
G7x20-SR4	Start	307,573																Please consult factory	248,725	282,915	317,108	351,303	385,501	419,700	453,903	488,107	124	228,212	200	488,107					
	Min.	128,271																	97,212	115,636	133,908	152,097	170,235	188,318	206,385	224,419		86,037		224,419					
	End	188,067																		129,234	163,415	197,600	231,786	265,975	300,166	334,360		368,556		108,726	368,556				
G7x24-SR1	Start	503,373																Please consult factory	391,341	441,370	491,401	541,435	Exceeds MOP				138	381,336	178	581,464					
	Min.	207,111																	147,332	174,494	201,380	228,094		141,857	249,399										
	End	300,288																		188,284	238,300	288,319		338,340	178,282	378,359									
G7x24-SR2	Start	444,416																Please consult factory	375,166	425,192	475,220	525,251	575,285	Exceeds MOP				122	335,147	178	615,314				
	Min.	183,396																	146,789	173,720	200,434	227,033	253,559		124,998	274,715									
	End	266,446																		197,214	247,227	297,243	347,262		397,283	157,205	437,302								
G7x24-SR3	Start	366,031																Please consult factory	320,170	370,191	420,214	470,240	520,268	570,300	620,334	Exceeds MOP	275,154	178	660,362						
	Min.	151,853																	127,778	154,587	181,211	207,730	234,172	260,567	286,937		103,341		308,015						
	End	221,410																		175,560	225,568	275,579	325,592	375,608	425,627		475,648		130,555	515,667					
G7x24-SR4	Start	307,073																Please consult factory	253,987	304,003	354,021	404,041	454,064	504,090	554,119	604,150	654,184	Exceeds MOP				85	228,981	178	694,213
	Min.	128,138																	100,080	126,933	153,545	180,037	206,462	232,831	259,174	285,485	311,797		86,487	332,829					
	End	187,568																		134,495	184,498	234,503	284,511	334,522	384,535	434,551	484,570		534,591	109,495	574,610				
G7x28-SR1	Start	501,375																Please consult factory	397,313	468,148	538,987	Exceeds MOP				97	376,063	126	581,493						
	Min.	206,578																	151,322	189,634	227,529		194,254	265,071	335,893		139,674		250,161						
	End	298,290																		194,254	265,071		335,893									173,010	378,388		
G7x28-SR2	Start	442,417																Please consult factory	360,333	431,163	501,998	572,838	Exceeds MOP				86	332,002	126	615,343					
	Min.	182,863																	139,443	177,618	215,409	252,999		123,973	275,474										
	End	264,448																		182,385	253,197	324,014		394,836	154,061	437,331									
G7x28-SR3	Start	364,033																Please consult factory	334,556	405,381	476,211	547,046	617,886	Exceeds MOP				71	270,817	126	660,392				
	Min.	151,320																	136,182	174,014	211,584	249,024	286,379		101,638	308,770									
	End	219,412																		189,942	260,750	331,562	402,379		473,201	126,219	515,696								
G7x28-SR4	Start	305,075																Please consult factory	226,769	297,585	368,406	439,232	510,062	580,897	651,736	Exceeds MOP	226,769	126	694,242						
	Min.	127,605																	85,927	124,154	161,839	199,318	236,674	273,968	311,239		85,927		333,583						
	End	185,570																		107,284	178,082	248,885	319,693	390,505	461,322		532,144		107,284	574,639					

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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)																									
G7x32-SR1	Start	500,556				Please consult factory	430,782	523,604	Exceeds MOP										74	375,092	96	579,299			
	Min.	206,359				169,624	219,453															139,275		249,111	
	End	297,472					227,716	320,514															172,039		376,195
G7x32-SR2	Start	441,598			Please consult factory	371,817	464,633	557,454	Exceeds MOP										66	334,692	96	613,149			
	Min.	182,644				145,815	195,636	244,959															125,590		274,427
	End	263,630				193,866	286,659	379,457																156,750	
G7x32-SR3	Start	363,214		Please consult factory	324,054	416,865	509,681	602,502	Exceeds MOP										54	268,370	96	658,198			
	Min.	151,101				130,683	180,255	229,408		278,384													100,451		307,729
	End	218,593				179,443	272,231	365,023		457,821														123,773	
G7x32-SR4	Start	304,256	Please consult factory	265,099	357,905	450,715	543,531	636,353	Exceeds MOP										46	227,978	96	692,048			
	Min.	127,386				106,886	156,412	205,512		254,433	303,262												86,754		332,543
	End	184,751				145,604	238,386	331,174		423,966	516,764													108,493	
G7x36-SR1	Start	499,737		Please consult factory	393,918	511,661	Exceeds MOP												59	382,144	76	582,310			
	Min.	206,141				149,748		213,205															143,304		250,840
	End	296,653				190,860		308,574																179,089	
G7x36-SR2	Start	440,779		Please consult factory	427,768	545,512	Exceeds MOP												52	333,578	76	616,160			
	Min.	182,425				176,081		238,761															125,140		276,150
	End	262,811				249,803		367,517																155,637	
G7x36-SR3	Start	362,395	Please consult factory	355,079	472,817	590,560	Exceeds MOP												43	272,667	76	661,209			
	Min.	150,882				147,482		210,064	272,224														102,975		309,443
	End	217,774				210,460		328,168	445,882															128,069	
G7x36-SR4	Start	303,437	271,198	388,930	506,667	624,410	Exceeds MOP												36	224,107	76	695,059			
	Min.	127,167	110,334	173,014	235,159	297,116																84,812		334,255	
	End	183,932	151,702	269,403	387,111	504,825																	104,623		575,456
G7xT28-SR1	Start	495,168	Please consult factory	390,989	532,612	Exceeds MOP													49	376,828	63	575,101			
	Min.	204,921					149,594	225,835															141,839		248,467
	End	292,085					187,933	329,520																173,775	
G7xT28-SR2	Start	436,210	Please consult factory	424,840	566,463	Exceeds MOP													43	325,709	63	608,952			
	Min.	181,206					175,930	251,314															122,241		273,787
	End	258,243					246,876	388,463																147,770	
G7xT28-SR3	Start	357,826	328,274	469,888	611,511	Exceeds MOP													36	271,631	63	654,000			
	Min.	149,663	134,496	209,915	284,701																	103,803		307,092	
	End	213,206	183,662	325,240	466,828																		127,034		509,306
G7xT28-SR4	Start	298,868	362,125	503,739	645,362	Exceeds MOP													30	220,520	63	687,850			
	Min.	125,947	160,176	235,010	309,565																	84,220		331,907	
	End	179,364	242,605	384,183	525,771																		101,036		568,249

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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)																											
G8x24-SR1	Start	744,286																		Please consult factory	546,171	604,998	663,828	173	504,994	200	663,828
	Min.	323,449																	218,840		250,367	281,728	196,626		281,728		
	End	501,998																			303,912	362,730	421,552		262,741		421,552
G8x24-SR2	Start	598,913																		Please consult factory	387,396	446,211	505,028	140	387,396	200	740,329
	Min.	266,872																	155,213		186,721	218,009	155,213		342,302		
	End	425,508																			214,022	272,828	331,637		214,022		566,903
G8x24-SR3	Start	507,818																		Please consult factory	334,066	392,874	451,685	119	328,185	200	804,618
	Min.	226,612																	134,968		166,411	197,646	131,808		383,626		
	End	361,228																			187,502	246,302	305,104		181,623		657,985
G8x28-SR1	Start	741,887																		Please consult factory	570,106	653,582	737,064	122	503,330	172	920,742
	Min.	322,814																	232,617		277,207	321,563	196,632		418,700		
	End	499,599																			327,844	411,307	494,776		261,077		678,428
G8x28-SR2	Start	596,514																		Please consult factory	396,213	479,672	563,137	98	379,522	172	997,243
	Min.	266,239																	160,803		205,402	249,690	151,826		478,380		
	End	423,109																			222,838	306,285	389,737		206,149		823,780
G8x28-SR3	Start	505,419																		Please consult factory	377,048	460,502	543,961	84	326,979	172	1,061,532
	Min.	225,979																	158,809		203,163	247,301	131,977		519,477		
	End	358,830																			230,478	313,920	397,367		180,416		914,862
G8x32-SR1	Start	740,917																		Please consult factory	579,277	688,794	798,317	93	502,619	131	918,800
	Min.	322,557																	237,662		296,077	354,126	196,384		417,780		
	End	498,629																			337,014	446,514	556,021		260,367		676,486
G8x32-SR2	Start	595,544																		Please consult factory	436,764	546,268	655,779	75	382,014	131	995,301
	Min.	265,983																	182,677		240,893	298,775	153,324		477,464		
	End	422,140																			263,383	372,871	482,365		208,641		821,838
G8x32-SR3	Start	504,449																		Please consult factory	391,555	501,053	610,557	64	325,859	131	1,059,590
	Min.	225,723																	166,693		224,764	282,551	131,542		518,561		
	End	357,860																			244,983	354,464	463,953		179,297		912,920
G8x36-SR1	Start	739,947																		Please consult factory	595,555	734,595	873,643	73	498,231	103	915,358
	Min.	322,300																	246,518		320,510	394,074	194,164		416,094		
	End	497,660																			353,289	492,309	631,336		255,979		673,045
G8x36-SR2	Start	594,574																		Please consult factory	393,997	533,023	672,056	59	380,094	103	991,860
	Min.	265,727																	159,938		234,028	307,505	152,466		475,784		
	End	421,170																			220,622	359,627	498,640		206,721		818,397
G8x36-SR3	Start	503,479																		Please consult factory	319,266	458,285	597,312	50	319,266	103	1,056,148
	Min.	225,467																	128,180		202,309	275,728	128,180		516,881		
	End	356,890																			172,705	311,704	450,709		172,705		909,479

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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)																					
G8x40-SR1	Start	738,977	Please consult factory	514,598	686,639	858,687	Exceeds MOP												59	497,394	84	927,509	
	Min.	322,043		203,194	295,237	386,321																193,889	422,646
	End	496,690		272,343	444,359	616,383																	255,142
G8x40-SR2	Start	593,604	Please consult factory	419,066	591,099	763,140	Exceeds MOP												48	384,660	84	1,004,010	
	Min.	265,471		173,571	264,935	355,676		446,150														155,112	482,310
	End	420,200		245,687	417,695	589,711		761,734														211,286	830,546
G8x40-SR3	Start	502,509	Please consult factory	483,354	655,388	827,429	Exceeds MOP												41	328,531	84	1,068,299	
	Min.	225,211		215,762	306,503	396,965		487,280														133,364	523,407
	End	355,920		336,769	508,777	680,793		852,816														181,969	921,628
G8xT32-SR1	Start	732,119	Please consult factory	570,265	789,225	Exceeds MOP													47	504,579	65	898,709	
	Min.	320,227		235,256	351,727																	199,877	409,602
	End	489,833		328,002	546,930																	262,327	656,398
G8xT32-SR2	Start	586,746	427,819	646,766	865,726	Exceeds MOP													38	384,031	65	975,210	
	Min.	263,661	180,289	296,404	411,729															156,812		469,317	
	End	413,343	254,439	473,354	692,281															210,658		801,750	
G8xT32-SR3	Start	495,651	492,108	711,055	930,014	Exceeds MOP													32	316,960	65	1,039,499	
	Min.	223,401	222,403	337,831	452,918															129,155		510,415	
	End	349,064	345,521	564,436	783,363															170,399		892,832	
G8xT36-SR1	Start	730,179	585,628	863,642	Exceeds MOP														37	502,227	52	919,246	
	Min.	319,714	243,868	391,435																199,013		420,786	
	End	487,893	343,363	621,336																259,975		676,932	
G8xT36-SR2	Start	584,806	662,129	940,143	Exceeds MOP														30	384,131	52	995,747	
	Min.	263,149	304,893	451,238																157,291		480,458	
	End	411,403	488,715	766,688																210,757		822,284	
G8xT36-SR3	Start	493,711	726,418	1,004,431	Exceeds MOP														25	309,425	52	1,060,036	
	Min.	222,889	346,301	492,359																125,526		521,555	
	End	347,124	579,797	857,769																162,865		913,366	

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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)																																			
G10x28-SR2	Start	1,383,986																Please consult factory	1,091,757	1,200,447	1,309,144	175	1,037,414	200	1,309,144												
	Min.	574,494															419,568		478,406	536,770	389,921					536,770											
	End	843,139																	550,973	659,639	768,313					496,643	768,313										
G10x28-SR3	Start	1,262,044													Please consult factory	1,010,820	1,119,495	1,228,177	1,336,867	1,445,565	159	999,953	200	1,445,565													
	Min.	504,734												370,244		429,763	488,621	547,003	605,118	364,251					605,118												
	End	706,748												455,578		564,230	672,889	781,555	890,229	444,714					890,229												
G10x28-SR4	Start	1,011,321													Please consult factory	798,032	906,685	1,015,345	1,124,013	1,232,688	1,341,370	1,450,060	1,558,758	128	776,302	200	1,558,758										
	Min.	413,553												300,011		359,055	417,457	475,480	533,271	590,924	648,391	705,844	288,092					705,844									
	End	593,579												380,337		488,966	597,603	706,247	814,898	923,557	1,032,223	1,140,897	358,612					1,140,897									
G10x32-SR1	Start	1,716,433													Please consult factory	1,401,974	1,544,894	1,687,823	1,830,761	165	1,330,516	200	1,830,761														
	Min.	699,161												531,876		609,381	686,292	762,748	840,203					917,658	995,113	492,736	762,748										
	End	1,003,552												689,161		832,050	974,948	1,117,854	1,260,762					1,405,670	1,550,578	617,719	1,117,854										
G10x32-SR2	Start	1,382,712													Please consult factory	1,134,985	1,277,880	1,420,784	1,563,696	1,706,617	1,849,546	1,992,483	133	1,034,963	200	1,992,483											
	Min.	574,154												443,160		520,142	596,534	672,584	748,384	823,990	899,545	388,708					899,545										
	End	841,865												594,192		737,056	879,928	1,022,809	1,165,699	1,308,597	1,451,503	494,192					1,451,503										
G10x32-SR3	Start	1,260,770													Please consult factory	1,128,518	1,271,405	1,414,301	1,557,205	1,700,117	1,843,037	1,985,966	2,128,904	121	999,927	200	2,128,904										
	Min.	504,392												434,801		511,980	588,532	664,672	740,528	816,225	891,778	967,231	364,379					967,231									
	End	705,474												573,251		716,107	858,971	1,001,844	1,144,725	1,287,614	1,430,512	1,573,418	444,688					1,573,418									
G10x32-SR4	Start	1,010,046													Please consult factory	813,101	955,963	1,098,833	1,241,711	1,384,598	1,527,494	1,670,398	1,813,310	1,956,230	2,099,159	2,242,097	97	770,244	200	2,242,097							
	Min.	413,212												308,426		385,744	462,207	538,186	613,900	689,443	764,810	840,149	915,369	990,544	1,065,721	284,920					1,065,721						
	End	592,305												395,403		538,234	681,073	823,920	966,776	1,109,640	1,252,513	1,395,394	1,538,283	1,681,181	1,824,087	352,556					1,824,087						
G10x36-SR1	Start	1,715,159													Please consult factory	1,333,483	1,515,175	1,696,877	Exceeds MOP								129	1,315,314	158	1,842,245							
	Min.	698,820												494,512		593,452	691,279	789,119													886,959	984,799	1,082,639	1,180,479	1,278,319	484,496	769,006
	End	1,002,278												620,684		802,337	983,999	1,165,652													1,347,305	1,528,958	1,710,611	1,892,264	2,073,917	602,520	1,129,336
G10x36-SR2	Start	1,381,437													Please consult factory	1,131,848	1,313,522	1,495,205	1,676,897	1,858,599	Exceeds MOP							104	1,022,849	158	2,003,968						
	Min.	573,813												441,622		539,369	636,294	732,750	828,896	925,042												1,021,188	1,117,334	1,213,480	382,243	905,731	
	End	840,591												591,056		772,690	954,333	1,135,986	1,317,648	1,500,300												1,681,952	1,863,604	2,045,256	482,080	1,462,985	
G10x36-SR3	Start	1,259,495													Please consult factory	1,086,605	1,268,269	1,449,943	1,631,626	1,813,318	1,995,020	Exceeds MOP							95	995,776	158	2,140,388					
	Min.	504,050												412,160		510,451	607,706	704,337	800,642	896,684	993,026												1,089,068	1,185,110	1,281,152	362,261	973,400
	End	704,200												531,347		712,971	894,605	1,076,249	1,257,902	1,439,564	1,621,216												1,802,869	1,984,522	2,166,175	440,538	1,584,900
G10x36-SR4	Start	1,008,772													Please consult factory	836,497	1,018,143	1,199,798	1,381,462	1,563,136	1,744,819	1,926,511	2,108,213	Exceeds MOP						77	782,006	158	2,253,581				
	Min.	412,872												321,371		419,276	516,118	612,395	708,406	804,177	899,864	995,425	1,091,086											1,186,647	1,282,208	291,605	1,071,876
	End	591,031												418,794		600,400	782,015	963,640	1,145,274	1,326,917	1,508,570	1,690,232	1,871,885											2,053,538	364,315	1,835,569	

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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)																						
G10x40-SR1	Start	1,713,885								Please consult factory	1,445,912	1,670,961	Exceeds MOP								105	1,333,392	128	1,851,007	
	Min.	698,480								556,069	677,505	677,505										494,634		773,821	
	End	1,001,004									733,090	958,089		958,089										620,594	1,138,096
G10x40-SR2	Start	1,380,163								Please consult factory	1,157,568	1,382,596	Exceeds MOP								84	1,022,557	128	2,012,730	
	Min.	573,473									455,706	576,478		576,478										382,280	910,493
	End	839,317										616,771		841,749	1,066,739										481,788
G10x40-SR3	Start	1,258,221								Please consult factory	1,068,972	1,293,989	Exceeds MOP								77	1,001,468	128	2,149,151	
	Min.	503,708									402,711	524,457		644,652										365,614	978,160
	End	702,925										513,717		738,686	963,665										446,229
G10x40-SR4	Start	1,007,498								Please consult factory	732,161	957,157	Exceeds MOP								60	732,161	128	2,262,344	
	Min.	412,532									264,290	386,783		506,945										264,290	1,076,626
	End	589,757										314,480		539,428	764,386										314,480
G10xT32-SR1	Start	1,705,124								Please consult factory	1,532,903	1,818,610	Exceeds MOP								82	1,304,350	100	1,818,610	
	Min.	696,141									606,146	759,504		759,504										481,588	759,504
	End	992,245										820,062		1,105,706	1,105,706										591,558
G10xT32-SR2	Start	1,371,402								Please consult factory	1,123,263	1,408,936	Exceeds MOP								66	1,008,998	100	1,980,332	
	Min.	571,134									439,997	593,384		745,209										377,696	896,338
	End	830,558										582,473		868,083	1,153,711										468,233
G10xT32-SR3	Start	1,249,460								Please consult factory	974,028	1,259,684	Exceeds MOP								60	974,028	100	2,116,753	
	Min.	501,357									353,226	508,835		661,522										353,226	964,033
	End	694,167										418,794		704,388	989,999										418,794
G10xT32-SR4	Start	998,737								Please consult factory	801,581	1,087,221	Exceeds MOP								49	773,018	100	2,229,946	
	Min.	410,193									305,278	459,121		610,806										289,629	1,062,530
	End	580,998										383,886		669,463	955,057										355,329

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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)																								
G10xT36-SR1	Start	1,702,575			Please consult factory	1,502,131	1,865,403	Exceeds MOP													65	1,320,502	80	1,865,403			
	Min.	695,461				589,932	784,856																		490,939	784,856	
	End	989,697				789,296	1,152,489																			607,706	1,152,489
G10xT36-SR2	Start	1,368,853			Please consult factory	1,300,600	1,663,853	Exceeds MOP													52	1,010,011	80	2,027,125			
	Min.	570,454				535,919	729,296		921,418																378,735	921,418	
	End	828,010				759,771	1,122,945		1,486,138																	469,245	1,486,138
G10xT36-SR3	Start	1,246,911			Please consult factory	1,073,786	1,437,021	Exceeds MOP													48	1,001,141	80	2,163,546			
	Min.	500,673				408,657	604,271		797,199	989,085																368,760	989,085
	End	691,618				518,531	881,686		1,244,860	1,608,053																445,902	1,608,053
G10xT36-SR4	Start	996,188	823,763	1,186,979	1,550,214	1,913,467	2,276,739	Exceeds MOP													38	751,122	80	2,276,739			
	Min.	409,512	317,914	512,724	705,005	896,438	1,087,527																		278,093	1,087,527	
	End	578,450	406,063	769,200	1,132,355	1,495,529	1,858,722																		333,438	1,858,722	
G10xT40-SR1	Start	1,700,027			Please consult factory	1,656,729		Exceeds MOP													52	1,296,749	64	1,836,724			
	Min.	694,780				673,686																				478,337	770,022
	End	987,149				943,860																				583,959	1,123,816
G10xT40-SR2	Start	1,366,305			Please consult factory	1,368,479	1,818,451	Exceeds MOP													42	1,008,515	64	1,998,446			
	Min.	569,773				572,708	811,591																			378,443	906,733
	End	825,461				827,635	1,277,509																			467,750	1,457,465
G10xT40-SR3	Start	1,244,363	1,054,947	1,504,899	1,954,872			Exceeds MOP													38	964,959	64	2,134,867			
	Min.	499,990	398,878	640,899	879,378																				349,245	974,400	
	End	689,070	499,696	949,550	1,399,425																				409,728	1,579,380	
G10xT40-SR4	Start	993,639	1,168,140	1,618,092	2,068,065			Exceeds MOP													31	763,201	64	2,248,060			
	Min.	408,832	503,217	741,271	978,207																				285,325	1,072,875	
	End	575,902	750,365	1,200,219	1,650,093																				345,514	1,830,049	

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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)																								
G13x40-SR1	Start	3,818,510																	Please consult factory	3,391,223	3,678,995	182	3,161,015	200	3,678,995	
	Min.	1,491,002																1,262,944		1,419,755	1,136,038					1,419,755
	End	2,036,193																		1,609,183	1,896,769					1,379,124
G13x40-SR2	Start	3,295,711																	Please consult factory	2,789,388	3,077,120	157	2,703,072	200	3,940,395	
	Min.	1,293,194																1,021,202		1,178,583	973,481					1,642,566
	End	1,774,963																		1,268,968	1,556,513					1,182,708
G13x40-SR3	Start	2,746,696																	Please consult factory	2,526,509	2,814,213	131	2,267,586	200	4,252,938	
	Min.	1,073,215																956,982		1,112,870	814,571					1,878,954
	End	1,462,623																		1,242,578	1,530,096					983,824
G13x40-SR4	Start	2,223,896																	Please consult factory	1,924,877	2,212,541	106	1,809,815	200	4,514,338	
	Min.	875,407																715,571		871,934	652,062					2,092,061
	End	1,201,392																		902,567	1,190,044					787,580
G13x44-SR1	Start	3,816,775																	Please consult factory	3,163,819	3,513,233	150	3,163,819	165	3,687,946	
	Min.	1,490,534																1,137,814		1,329,889	1,137,814					1,424,824
	End	2,034,459																		1,381,926	1,731,114					1,381,926
G13x44-SR2	Start	3,293,975																	Please consult factory	2,726,435	3,075,819	129	2,691,497	165	3,949,346	
	Min.	1,292,726																986,691		1,178,098	967,290					1,647,534
	End	1,773,228																		1,206,056	1,555,214					1,171,140
G13x44-SR3	Start	2,744,961																	Please consult factory	2,340,253	2,689,607	108	2,270,383	165	4,261,889	
	Min.	1,072,747																855,063		1,045,811	816,386					1,883,882
	End	1,460,889																		1,056,443	1,405,571					986,619
G13x44-SR4	Start	2,222,161																	Please consult factory	1,902,988	2,252,313	87	1,798,193	165	4,523,288	
	Min.	874,939																703,817		893,681	645,898					2,096,976
	End	1,199,658																		880,692	1,229,790					775,965
G13x48-SR1	Start	3,815,127																	Please consult factory	3,341,840	3,758,806	125	3,133,362	140	3,758,806	
	Min.	1,490,090																1,236,296		1,463,351	1,121,099					1,463,351
	End	2,032,812																		1,559,831	1,976,528					1,351,489
G13x48-SR2	Start	3,292,327																	Please consult factory	2,769,354	3,186,289	108	2,685,969	140	4,020,206	
	Min.	1,292,282																1,010,611		1,238,255	964,440					1,685,408
	End	1,771,581																		1,248,947	1,665,612					1,165,616
G13x48-SR3	Start	2,743,312																	Please consult factory	2,248,076	2,664,978	90	2,248,076	140	4,332,749	
	Min.	1,072,302																804,246		1,032,711	804,246					1,921,486
	End	1,459,241																		964,326	1,380,958					964,326
G13x48-SR4	Start	2,220,512																	Please consult factory	2,092,590	2,509,476	73	1,800,780	140	4,594,149	
	Min.	874,494																807,566		1,031,878	647,614					2,134,417
	End	1,198,010																		1,070,171	1,486,787					778,550

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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)																								
G13x52-SR1	Start	3,813,478								Please consult factory	3,314,305	3,804,702	Exceeds MOP							107	3,167,189	120	3,804,702				
	Min.	1,489,645									1,221,346	1,488,335									1,140,107		1,488,335				
	End	2,031,164									1,532,314	2,022,394									1,385,294		2,022,394				
G13x52-SR2	Start	3,290,678								Please consult factory	3,085,326	3,575,705	4,066,102	Exceeds MOP							92	2,693,035	120	4,066,102			
	Min.	1,291,837									1,183,696	1,448,149	1,710,024									968,612		1,710,024			
	End	1,769,933									1,564,714	2,054,776	2,544,855									1,172,677		2,544,855			
G13x52-SR3	Start	2,741,663								Please consult factory	2,417,162	2,907,506	3,397,868	3,888,247	4,378,644	Exceeds MOP							77	2,270,062	120	4,378,644	
	Min.	1,071,858									897,921	1,163,765	1,426,027	1,686,471	1,945,927									816,730		1,945,927	
	End	1,457,594									1,133,303	1,623,329	2,113,373	2,603,435	3,093,514									986,298		3,093,514	
G13x52-SR4	Start	2,218,864								Please consult factory	1,697,926	2,188,236	2,678,562	3,168,906	3,659,268	4,149,647	4,640,044	Exceeds MOP						60	1,697,926	120	4,640,044
	Min.	874,050									590,354	859,608	1,122,423	1,382,794	1,642,023	1,900,533	2,158,736								590,354		2,158,736
	End	1,196,363									675,763	1,165,755	1,655,764	2,145,790	2,635,834	3,125,896	3,615,975								675,763		3,615,975
G13xT40-SR1	Start	3,800,331								Please consult factory	3,659,461	Exceeds MOP									91	3,141,714	100	3,659,461			
	Min.	1,486,099									1,414,454											1,130,685		1,414,454			
	End	2,018,026									1,877,247											1,359,836		1,877,247			
G13xT40-SR2	Start	3,277,531								Please consult factory	2,770,342	3,345,588	3,920,861	Exceeds MOP							78	2,655,296	100	3,920,861			
	Min.	1,288,291									1,015,961	1,329,081	1,637,352									952,232		1,637,352			
	End	1,756,795									1,249,935	1,824,808	2,399,709									1,134,963		2,399,709			
G13xT40-SR3	Start	2,728,517								Please consult factory	2,507,666	3,082,885	3,658,131	4,233,404	Exceeds MOP							65	2,220,066	100	4,233,404		
	Min.	1,068,312									951,835	1,262,305	1,569,005	1,873,800							793,389		1,873,800				
	End	1,444,455									1,223,747	1,798,594	2,373,467	2,948,368							936,334		2,948,368				
G13xT40-SR4	Start	2,205,717								Please consult factory	2,193,874	2,769,066	3,344,284	3,919,531	4,494,804	Exceeds MOP							53	1,791,256	100	4,494,804	
	Min.	870,504									866,899	1,174,869	1,480,013	1,783,786	2,086,922							646,914		2,086,922			
	End	1,183,225									1,171,389	1,746,209	2,321,055	2,895,928	3,470,829							769,032		3,470,829			
G13xT44-SR1	Start	3,796,861								Please consult factory	3,492,363	Exceeds MOP									75	3,143,065	83	3,701,946			
	Min.	1,485,163									1,324,188											1,132,058		1,438,125			
	End	2,014,558									1,710,258											1,361,185		1,919,705			
G13xT44-SR2	Start	3,274,061								Please consult factory	3,055,173	3,753,763	Exceeds MOP								65	2,705,889	83	3,963,346			
	Min.	1,287,355									1,172,496	1,548,616								980,993		1,660,560					
	End	1,753,327									1,534,581	2,232,719								1,185,524		2,442,166					
G13xT44-SR3	Start	2,725,046								Please consult factory	2,669,155	3,367,716	4,066,306	Exceeds MOP							54	2,250,034	83	4,275,889			
	Min.	1,067,376									1,040,295	1,415,059	1,785,987							810,742		1,896,815					
	End	1,440,987									1,385,132	2,083,240	2,781,378							966,282		2,990,825					
G13xT44-SR4	Start	2,202,246								Please consult factory	2,232,025	2,930,555	3,629,116	4,327,706	Exceeds MOP							44	1,812,921	83	4,537,288		
	Min.	869,568									888,209	1,261,429	1,631,133	1,999,446							659,695		2,109,869				
	End	1,179,756									1,209,516	1,907,594	2,605,701	3,303,839							790,683		3,513,286				

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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)																										
G13xT48-SR1	Start	3,793,563			2,902,742	3,736,449	Exceeds MOP													60	2,902,742	70	3,736,449			
	Min.	1,484,274		Please consult factory	997,811	1,457,320																		997,811	1,457,320	
	End	2,011,262			1,121,018	1,954,185																			1,121,018	1,954,185
G13xT48-SR2	Start	3,270,764			3,164,142	3,997,849	Exceeds MOP													54	2,663,934	70	3,997,849			
	Min.	1,286,466		Please consult factory	1,232,282	1,679,467																		958,328	1,679,467	
	End	1,750,032			1,643,479	2,476,646																			1,143,595	2,476,646
G13xT48-SR3	Start	2,721,749			2,643,010	3,476,684	Exceeds MOP													45	2,226,185	70	4,310,391			
	Min.	1,066,486		Please consult factory	1,026,749	1,473,633		1,915,587																798,174	1,915,587	
	End	1,437,692			1,359,004	2,192,138		3,025,305																	942,449	3,025,305
G13xT48-SR4	Start	2,198,949	2,070,768	2,904,410	3,738,084	4,571,791	Exceeds MOP													37	1,820,682	70	4,571,791			
	Min.	868,679	801,644	1,248,182	1,689,290	2,128,548																		664,721	2,128,548	
	End	1,176,461	1,048,363	1,881,465	2,714,600	3,547,767																			798,439	3,547,767
G13xT52-SR1	Start	3,790,266			3,780,860	Exceeds MOP														53	3,094,448	60	3,780,860			
	Min.	1,483,384		Please consult factory	1,481,905																				1,106,305	1,481,905
	End	2,007,967			1,998,568																				1,312,600	1,998,568
G13xT52-SR2	Start	3,267,466			3,061,677	4,042,260	Exceeds MOP													46	2,669,453	60	4,042,260			
	Min.	1,285,576		Please consult factory	1,177,279	1,703,689																			962,072	1,703,689
	End	1,746,737			1,541,081	2,521,029																			1,149,111	2,521,029
G13xT52-SR3	Start	2,718,452	2,393,671	3,374,219	4,354,803	Exceeds MOP														38	2,197,565	60	4,354,803			
	Min.	1,065,597	891,482	1,419,743	1,939,637																				782,901	1,939,637
	End	1,434,397	1,109,826	2,089,740	3,069,688																				913,848	3,069,688
G13xT52-SR4	Start	2,195,652	2,655,071	3,635,619	4,616,203	Exceeds MOP														31	1,772,607	60	4,616,203			
	Min.	867,789	1,116,180	1,635,783	2,152,477																				638,772	2,152,477
	End	1,173,166	1,632,287	2,612,201	3,592,149																				750,395	3,592,149

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

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