

# Torque - Pneumatic Double-Acting Actuator

Actuator Model	Imperial Unit	Stroke Direction	Operating Pressure, psig																MinOP psig	MOP psig	
			40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115			120
			Air Torque Output, lbf-in																		
CBB315	Start	Outboard	673	769	864	960	1,055	1,150	1,246	1,341	1,436	1,532	1,627	1,723	1,818	1,914	2,009	2,105	2,200	40	120
	Min		375	426	477	528	579	630	681	732	783	833	884	935	986	1,037	1,088	1,139	1,190		
	End		706	802	897	993	1,089	1,184	1,280	1,376	1,471	1,567	1,663	1,759	1,854	1,950	2,046	2,142	2,237		
CBB315	Start	Inboard	671	766	861	957	1,052	1,147	1,242	1,337	1,432	1,527	1,622	1,717	1,813	1,908	2,003	2,098	2,193	40	120
	Min		375	426	477	528	579	630	681	732	783	833	884	935	986	1,037	1,088	1,139	1,190		
	End		708	804	900	996	1,091	1,187	1,283	1,379	1,475	1,571	1,667	1,763	1,859	1,955	2,051	2,147	2,243		
CBB420	Start	Outboard	1,502	1,708	1,913	2,118	2,323	2,528	2,734	2,939	3,144	3,349	3,555	3,760	3,965	4,171	4,376	4,581	4,787	40	120
	Min		847	959	1,071	1,184	1,296	1,408	1,520	1,632	1,745	1,857	1,969	2,081	2,194	2,306	2,418	2,530	2,643		
	End		1,545	1,749	1,954	2,158	2,363	2,568	2,772	2,977	3,182	3,386	3,591	3,796	4,000	4,205	4,410	4,615	4,819		
CBB420	Start	Inboard	1,490	1,694	1,897	2,101	2,304	2,508	2,712	2,915	3,119	3,322	3,526	3,730	3,933	4,137	4,341	4,545	4,748	40	120
	Min		847	959	1,071	1,184	1,296	1,408	1,520	1,632	1,745	1,857	1,969	2,081	2,194	2,306	2,418	2,530	2,643		
	End		1,556	1,763	1,969	2,175	2,381	2,587	2,793	2,999	3,206	3,412	3,618	3,824	4,031	4,237	4,443	4,649	4,856		
CBB520	Start	Outboard	2,405	2,729	3,054	3,378	3,703	4,027	4,352											40	70
	Min		1,345	1,522	1,699	1,876	2,053	2,230	2,407												
	End		2,464	2,787	3,111	3,435	3,759	4,083	4,407												
CBB520	Start	Inboard	2,387	2,709	3,031	3,353	3,675	3,997	4,320											40	70
	Min		1,345	1,522	1,699	1,876	2,053	2,230	2,407												
	End		2,481	2,807	3,133	3,459	3,785	4,111	4,437												
CBB525	Start	Outboard	3,061	3,475	3,889	4,303	4,717	5,131	5,545	5,960	6,374	6,788	7,202	7,617	8,031	8,446	8,860	9,275	9,689	40	120
	Min		1,649	1,866	2,083	2,300	2,517	2,734	2,951	3,169	3,386	3,603	3,820	4,037	4,254	4,472	4,689	4,906	5,123		
	End		3,160	3,576	3,992	4,408	4,824	5,240	5,656	6,073	6,489	6,905	7,321	7,737	8,153	8,570	8,986	9,402	9,819		
CBB525	Start	Inboard	3,061	3,475	3,889	4,303	4,717	5,131	5,545	5,959	6,373	6,788	7,202	7,616	8,031	8,445	8,859	9,274	9,689	40	120
	Min		1,649	1,866	2,083	2,300	2,517	2,734	2,951	3,169	3,386	3,603	3,820	4,037	4,254	4,472	4,689	4,906	5,123		
	End		3,159	3,575	3,991	4,407	4,823	5,239	5,655	6,071	6,487	6,903	7,319	7,735	8,151	8,567	8,984	9,400	9,816		
CBB725	Start	Outboard	6,247	7,070	7,893	8,717	9,540	10,364	11,188	12,011	12,835									40	80
	Min		3,331	3,762	4,193	4,625	5,056	5,487	5,918	6,350	6,781										
	End		6,384	7,210	8,037	8,863	9,690	10,516	11,343	12,169	12,996										
CBB725	Start	Inboard	6,246	7,069	7,893	8,716	9,540	10,363	11,187	12,011	12,834									40	80
	Min		3,331	3,762	4,193	4,625	5,056	5,487	5,918	6,350	6,781										
	End		6,382	7,208	8,034	8,861	9,687	10,513	11,339	12,166	12,992										

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Imperial Unit	Spring Torque lb-in	Operating Pressure,psig																	MinOP psig	MOP psig			
			35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140			150	160	170
			Air Torque Output,lb-in																					
CBB315-SR40	Start	346	256	343	431	518	605	693	780	868	955	1,042	1,130	1,217	1,392	1,567	1,742	1,917	2,092	2,267	2,442	35	155	
	Min	144	104	152	200	247	294	342	388	435	482	529	576	623	717	810	904	998	1,091	1,185	1,279			
	End	194	124	216	307	398	489	580	671	763	854	945	1,036	1,127	1,310	1,492	1,675	1,857	2,040	2,222	2,405			
CBB415-SR40	Start	708	515	673	831	989	1,147	1,305	1,463	1,621	1,779	1,937	2,095	2,253	2,570	36	100							
	Min	286	196	285	371	456	542	627	711	796	881	966	1,050	1,135	1,304									
	End	386	230	395	559	724	889	1,053	1,218	1,383	1,547	1,712	1,876	2,041	2,371									
CBB420-SR40	Start	900	668	855	1,042	1,229	1,416	1,603	1,790	1,977	2,164	2,351	2,538	2,725	3,100	3,474	3,849	4,223	4,598	4,972	5,347	37	157	
	Min	327	248	357	463	568	672	776	880	984	1,087	1,191	1,294	1,397	1,604	1,811	2,017	2,224	2,430	2,637	2,844			
	End	391	275	483	690	898	1,106	1,314	1,522	1,730	1,938	2,146	2,354	2,561	2,977	3,393	3,809	4,225	4,642	5,058	5,474			
CBB520-SR40	Start	1,485	1,133	1,429	1,724	2,020	2,317	2,613	2,909	3,205	3,501	3,797	4,093	4,389	4,982	5,575	37	110						
	Min	519	399	574	742	908	1,073	1,237	1,400	1,564	1,727	1,891	2,054	2,217	2,543	2,869								
	End	599	420	746	1,072	1,399	1,725	2,051	2,377	2,704	3,030	3,356	3,682	4,009	4,662	5,314								
CBB525-SR40	Start	1,569	1,234	1,614	1,994	2,375	2,755	3,136	3,516	3,897	4,278	4,658	5,039	5,420	6,181	6,943	7,705	8,466	9,229	9,991	35	146		
	Min	675	500	705	907	1,108	1,309	1,510	1,710	1,910	2,110	2,310	2,510	2,709	3,109	3,508	3,908	4,308	4,707	5,107				
	End	980	652	1,033	1,415	1,797	2,178	2,560	2,942	3,324	3,705	4,087	4,469	4,851	5,615	6,378	7,142	7,906	8,670	9,435				
CBB725-SR40	Start	3,421	2,642	3,399	4,155	4,912	5,669	6,425	7,182	7,939	8,696	9,453	10,210	10,967	12,481	36	102							
	Min	1,427	1,012	1,422	1,825	2,226	2,625	3,023	3,421	3,819	4,216	4,614	5,011	5,408	6,202									
	End	2,043	1,270	2,029	2,787	3,545	4,303	5,062	5,820	6,578	7,337	8,095	8,853	9,612	11,129									
CBB315-SR60	Start	568			386	474	561	649	736	823	911	998	1,086	1,260	1,435	1,610	1,785	1,960	2,136	52	152			
	Min	235			148	198	246	293	341	388	435	482	529	623	717	811	905	998	1,092					
	End	326			175	266	357	448	539	631	722	813	904	1,087	1,269	1,452	1,634	1,817	1,999					
CBB415-SR60	Start	1,092			739	897	1,055	1,213	1,371	1,529	1,687	1,845	2,003	2,319	2,635	53	112							
	Min	450			281	369	456	542	627	712	797	882	967	1,137	1,306									
	End	637			340	504	669	834	998	1,163	1,328	1,492	1,657	1,986	2,316									
CBB420-SR60	Start	1,442				1,144	1,331	1,518	1,705	1,893	2,080	2,267	2,454	2,828	3,203	3,577	3,952	4,326	4,701	5,076	55	156		
	Min	530				448	556	662	767	871	976	1,080	1,184	1,391	1,598	1,805	2,012	2,219	2,426	2,632				
	End	663				564	772	980	1,187	1,395	1,603	1,811	2,019	2,435	2,851	3,267	3,683	4,099	4,515	4,932				
CBB520-SR60	Start	2,261				1,809	2,105	2,401	2,697	2,993	3,289	3,585	3,882	4,474	5,067	5,659	54	116						
	Min	854				723	892	1,058	1,223	1,388	1,552	1,716	1,879	2,206	2,533	2,859								
	End	1,107				948	1,274	1,600	1,926	2,253	2,579	2,905	3,231	3,884	4,537	5,190								
CBB525-SR60	Start	2,541				1,882	2,262	2,643	3,023	3,404	3,784	4,165	4,546	4,926	5,688	6,450	7,211	7,973	8,735	9,498	53	151		
	Min	1,046				693	903	1,108	1,311	1,513	1,715	1,916	2,117	2,318	2,719	3,119	3,519	3,919	4,319	4,719				
	End	1,474				823	1,205	1,586	1,968	2,350	2,731	3,113	3,495	3,877	4,641	5,405	6,168	6,932	7,697	8,461				
CBB725-SR60	Start	5,402				4,582	5,339	6,096	6,853	7,610	8,366	9,123	9,880	11,395	12,909	14,424	55	115						
	Min	2,208				1,774	2,183	2,588	2,990	3,391	3,791	4,190	4,589	5,385	6,181	6,976								
	End	3,130				2,320	3,078	3,836	4,594	5,353	6,111	6,870	7,628	9,145	10,662	12,180								

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Imperial Unit	Spring Torque lb-in	Operating Pressure,psig																	MinOP psig	MOP psig				
			35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140			150	160	170	
			Air Torque Output,lb-in																						
CBB315-SR80	Start	791								604	692	779	867	954	1,129	1,304	1,479	1,654	1,829	2,004			70	150	
	Min	326								243	291	339	387	434	529	623	717	811	905	999					
	End	458									316	407	499	590	681	863	1,046	1,228	1,411	1,593	1,776				
CBB415-SR80	Start	1,476								1,151	1,309	1,467	1,625	1,784	2,100	2,416	2,732						70	117	
	Min	604								461	548	634	720	805	976	1,146	1,316								
	End	856									614	778	943	1,108	1,272	1,602	1,931	2,260							
CBB420-SR80	Start	1,963								1,474	1,661	1,848	2,035	2,223	2,597	2,971	3,346	3,720	4,095	4,470	4,844			72	161
	Min	715								554	663	770	876	981	1,190	1,399	1,607	1,814	2,022	2,229	2,436				
	End	894									665	873	1,081	1,289	1,497	1,913	2,329	2,745	3,161	3,577	3,993	4,409			
CBB520-SR80	Start	3,104								2,341	2,637	2,933	3,229	3,525	4,118	4,711	5,303							72	120
	Min	1,147								885	1,056	1,224	1,391	1,556	1,886	2,214	2,542								
	End	1,464									1,082	1,408	1,734	2,061	2,387	3,040	3,693	4,345							
CBB525-SR80	Start	3,538								2,887	3,267	3,648	4,029	4,409	5,171	5,932	6,694	7,456	8,218	8,981	9,743			71	159
	Min	1,430								1,085	1,293	1,498	1,702	1,905	2,309	2,712	3,114	3,515	3,916	4,316	4,717				
	End	1,991									1,352	1,734	2,115	2,497	2,879	3,643	4,407	5,171	5,935	6,699	7,463	8,227			
CBB725-SR80	Start	7,260								5,794	6,551	7,308	8,065	8,822	10,336	11,851	13,365							72	124
	Min	2,953								2,170	2,582	2,990	3,395	3,798	4,600	5,399	6,197								
	End	4,190									2,735	3,493	4,252	5,010	5,769	7,286	8,803	10,320							
CBB315-SR100	Start	1,014											737	825	1,000	1,175	1,350	1,525	1,700	1,875	2,050			87	164
	Min	415											288	337	433	528	623	717	811	905	999				
	End	587											367	458	640	823	1,005	1,188	1,370	1,553	1,735				
CBB415-SR100	Start	2,020												1,724	2,040	2,357								93	114
	Min	738												621	799	973									
	End	916												727	1,056	1,386									
CBB420-SR100	Start	2,551												1,982	2,356	2,731	3,105	3,480	3,854	4,229	4,604	4,979		92	166
	Min	916												746	962	1,174	1,384	1,593	1,802	2,010	2,218	2,425			
	End	1,135												908	1,324	1,740	2,156	2,572	2,988	3,404	3,820	4,237			
CBB520-SR100	Start	4,250													3,409	4,001	4,594	5,187						97	132
	Min	1,624													1,382	1,717	2,048	2,377							
	End	2,174													1,891	2,544	3,197	3,850							
CBB525-SR100	Start	4,455												3,471	3,852	4,614	5,375	6,137	6,899	7,661	8,423	9,186		88	163
	Min	1,808												1,285	1,494	1,905	2,312	2,716	3,119	3,521	3,923	4,324			
	End	2,549												1,579	1,961	2,725	3,489	4,253	5,017	5,781	6,545	7,310			
CBB725-SR100	Start	9,562													8,040	9,554	11,069	12,583						94	124
	Min	3,706													2,886	3,716	4,532	5,340							
	End	4,972													3,464	4,981	6,498	8,015							

# Torque - Pneumatic

## Double-Acting Actuator

Actuator Model	Imperial Unit	Stroke Direction	Operating Pressure,psig																MinOP psig	MOP psig	
			40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115			120
			Air Torque Output,lb-in																		
CBA730	Start	Outboard	7,560	8,559	9,559	10,558	11,558	12,557	13,557	14,557	15,556	16,556	17,556	18,556	19,556	20,556	21,556			40	105
	Min		4,039	4,563	5,087	5,611	6,134	6,658	7,182	7,706	8,230	8,754	9,278	9,802	10,326	10,850	11,374				
	End		7,728	8,730	9,732	10,734	11,736	12,739	13,741	14,744	15,746	16,748	17,751	18,754	19,756	20,759	21,762				
CBA730	Start	Inboard	7,557	8,556	9,555	10,554	11,553	12,552	13,551	14,550	15,549	16,549	17,548	18,548	19,547	20,547	21,547			40	105
	Min		4,039	4,563	5,087	5,611	6,134	6,658	7,182	7,706	8,230	8,754	9,278	9,802	10,326	10,850	11,374				
	End		7,731	8,734	9,736	10,739	11,742	12,744	13,747	14,750	15,753	16,756	17,759	18,762	19,765	20,768	21,771				
CBA830	Start	Outboard	10,014	11,328	12,641	13,954	15,267	16,580	17,894	19,207	20,521	21,834								40	80
	Min		5,333	6,021	6,709	7,397	8,085	8,774	9,462	10,150	10,838	11,526									
	End		10,204	11,520	12,836	14,153	15,469	16,786	18,102	19,419	20,735	22,052									
CBA830	Start	Inboard	10,010	11,323	12,635	13,948	15,260	16,573	17,886	19,199	20,512	21,825								40	80
	Min		5,333	6,021	6,709	7,397	8,085	8,774	9,462	10,150	10,838	11,526									
	End		10,208	11,525	12,842	14,159	15,476	16,793	18,110	19,427	20,744	22,062									
CBA930	Start	Outboard	12,805	14,474	16,142	17,811	19,480	21,149	22,819											40	65
	Min		6,803	7,677	8,551	9,426	10,300	11,174	12,048												
	End		13,016	14,688	16,361	18,033	19,706	21,378	23,051												
CBA930	Start	Inboard	12,799	14,467	16,135	17,804	19,472	21,140	22,809											40	65
	Min		6,803	7,677	8,551	9,426	10,300	11,174	12,048												
	End		13,021	14,695	16,368	18,041	19,714	21,388	23,061												
CBA1030	Start	Outboard	17,036	19,243	21,450	23,657														40	50
	Min		9,030	10,186	11,341	12,497															
	End		17,276	19,487	21,698	23,910															
CBA1030	Start	Inboard	17,029	19,235	21,441	23,647														40	50
	Min		9,030	10,186	11,341	12,497															
	End		17,284	19,496	21,708	23,920															

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			35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140			150	160	170
			Air Torque Output,lb-in																					
CBA730-SR40	Start	4,286	3,384	4,329	5,273	6,218	7,163	8,108	9,054	9,999	10,944	11,889	12,835	13,780	15,671	17,562	19,454	21,346	23,238				35	135
	Min	1,749	1,271	1,786	2,291	2,793	3,293	3,792	4,290	4,787	5,285	5,781	6,278	6,775	7,268	8,760	9,753	10,745	11,738					
CBA830-SR40	End	2,432	1,551	2,499	3,448	4,396	5,345	6,293	7,242	8,190	9,139	10,087	11,036	11,985	13,883	15,780	17,678	19,577	21,475				35	105
	Start	5,695	4,544	5,785	7,027	8,268	9,510	10,752	11,993	13,235	14,477	15,719	16,961	18,203	20,688	23,173								
CBA930-SR40	Min	2,322	1,711	2,386	3,049	3,708	4,364	5,019	5,673	6,327	6,980	7,632	8,285	8,937	10,241	11,545							35	85
	End	3,245	2,118	3,363	4,609	5,855	7,100	8,346	9,592	10,838	12,084	13,330	14,576	15,822	18,315	20,807								
CBA1030-SR40	Start	7,317	5,865	7,443	9,021	10,599	12,177	13,755	15,333	16,911	18,490	20,068	21,647	23,225									35	70
	Min	2,978	2,207	3,063	3,906	4,743	5,577	6,409	7,240	8,070	8,900	9,729	10,558	11,386										
CBA730-SR60	End	4,174	2,750	4,333	5,915	7,498	9,081	10,664	12,247	13,830	15,413	16,996	18,579	20,162									52	140
	Start	9,839	7,954	10,041	12,127	14,214	16,301	18,388	20,475	22,562	24,649													
CBA830-SR60	Min	3,963	2,957	4,092	5,207	6,314	7,417	8,517	9,616	10,714	11,811												54	110
	End	5,510	3,657	5,749	7,842	9,934	12,027	14,120	16,212	18,305	20,398													
CBA930-SR60	Start	6,764			4,965	5,910	6,855	7,800	8,745	9,691	10,636	11,581	12,527	14,418	16,309	18,200	20,092	21,984					55	90
	Min	2,692			1,719	2,247	2,761	3,269	3,773	4,275	4,776	5,276	5,774	6,771	7,767	8,761	9,755	10,749						
CBA1030-SR60	End	3,686			1,916	2,865	3,813	4,762	5,710	6,659	7,608	8,556	9,505	11,403	13,301	15,199	17,097	18,995					72	145
	Start	9,241				8,201	9,443	10,684	11,926	13,168	14,410	15,652	16,894	19,379	21,864									
CBA830-SR80	Min	3,513				2,963	3,646	4,318	4,984	5,646	6,306	6,964	7,621	8,932	10,241								73	115
	End	4,555				3,553	4,798	6,044	7,290	8,536	9,782	11,028	12,274	14,767	17,259									
CBA930-SR80	Start	12,057				10,832	12,411	13,989	15,567	17,145	18,724	20,302	21,881										73	95
	Min	4,433				3,777	4,655	5,514	6,364	7,207	8,048	8,886	9,721											
CBA1030-SR80	End	5,519				4,338	5,921	7,504	9,087	10,670	12,253	13,836	15,420										71	80
	Start	16,198				14,734	16,821	18,908	20,995	23,083	25,170													
CBA730-SR100	Min	5,830				5,039	6,207	7,347	8,473	9,591	10,703												90	150
	End	7,077				5,665	7,757	9,850	11,943	14,036	16,129													
CBA830-SR100	Start	9,546							7,841	8,786	9,731	10,676	11,622	13,513	15,404	17,296	19,188	21,080	22,972				92	120
	Min	3,585							2,658	3,192	3,713	4,227	4,736	5,747	6,752	7,753	8,753	9,751	10,747					
CBA930-SR100	End	4,591							2,927	3,875	4,824	5,773	6,722	8,619	10,517	12,415	14,313	16,211	18,110				91	105
	Start	12,686							10,506	11,748	12,990	14,232	15,474	17,959	20,444	22,929								
CBA730-SR100	Min	4,715							3,524	4,228	4,913	5,589	6,258	7,587	8,908	10,224							91	105
	End	5,976							3,844	5,090	6,336	7,582	8,828	11,320	13,813	16,305								
CBA830-SR100	Start	16,225							13,515	15,093	16,672	18,250	19,829	22,986									91	105
	Min	6,001							4,515	5,410	6,281	7,140	7,991	9,680										
CBA930-SR100	End	7,572							4,917	6,500	8,083	9,666	11,250	14,416									91	105
	Start	21,134							17,447	19,535	21,622	23,709												
CBA730-SR100	Min	8,065							6,069	7,232	8,371	9,498											90	150
	End	10,627							7,004	9,097	11,190	13,283												
CBA830-SR100	Start	11,984										9,448	10,394	12,285	14,176	16,068	17,959	19,851	21,744				90	150
	Min	4,511										3,122	3,663	4,708	5,731	6,744	7,751	8,755	9,756					
CBA930-SR100	End	5,820										3,334	4,282	6,180	8,078	9,976	11,874	13,772	15,671				92	120
	Start	16,237											14,160	16,645	19,129	21,615								
CBA730-SR100	Min	5,902											4,774	6,166	7,520	8,856							91	105
	End	7,290											5,275	7,767	10,260	12,752								
CBA830-SR100	Start	20,413											17,736	20,894	24,052								91	105
	Min	7,586											6,142	7,893	9,604									
CBA930-SR100	End	9,666											7,059	10,226	13,393								91	105
	Start																							



# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Imperial Unit	Spring Torque lb-in	Operating Pressure,psig																	MinOP psig	MOP psig			
			35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140			150	160	170
			Air Torque Output,lb-in																					
CBB315-SR40	Start	346	256	343	431	518	605	693	780	868	955	1,042	1,130	1,217	1,392	1,567	1,742	1,917	2,092	2,267	2,442		35	155
	Min	144	104	152	200	247	294	342	388	435	482	529	576	623	717	810	904	998	1,091	1,185	1,279			
	End	194	124	216	307	398	489	580	671	763	854	945	1,036	1,127	1,310	1,492	1,675	1,857	2,040	2,222	2,405			
CBB415-SR40	Start	708	515	673	831	989	1,147	1,305	1,463	1,621	1,779	1,937	2,095	2,253	2,570								36	100
	Min	286	196	285	371	456	542	627	711	796	881	966	1,050	1,135	1,304									
	End	386	230	395	559	724	889	1,053	1,218	1,383	1,547	1,712	1,876	2,041	2,371									
CBB420-SR40	Start	900	668	855	1,042	1,229	1,416	1,603	1,790	1,977	2,164	2,351	2,538	2,725	3,100	3,474	3,849	4,223	4,598	4,972	5,347		37	157
	Min	327	248	357	463	568	672	776	880	984	1,087	1,191	1,294	1,397	1,604	1,811	2,017	2,224	2,430	2,637	2,844			
	End	391	275	483	690	898	1,106	1,314	1,522	1,730	1,938	2,146	2,354	2,561	2,977	3,393	3,809	4,225	4,642	5,058	5,474			
CBB520-SR40	Start	1,485	1,133	1,429	1,724	2,020	2,317	2,613	2,909	3,205	3,501	3,797	4,093	4,389	4,982	5,575							37	110
	Min	519	399	574	742	908	1,073	1,237	1,400	1,564	1,727	1,891	2,054	2,217	2,543	2,869								
	End	599	420	746	1,072	1,399	1,725	2,051	2,377	2,704	3,030	3,356	3,682	4,009	4,662	5,314								
CBB525-SR40	Start	1,569	1,234	1,614	1,994	2,375	2,755	3,136	3,516	3,897	4,278	4,658	5,039	5,420	6,181	6,943	7,705	8,466	9,229	9,991			35	146
	Min	675	500	705	907	1,108	1,309	1,510	1,710	1,910	2,110	2,310	2,510	2,709	3,109	3,508	3,908	4,308	4,707	5,107				
	End	980	652	1,033	1,415	1,797	2,178	2,560	2,942	3,324	3,705	4,087	4,469	4,851	5,615	6,378	7,142	7,906	8,670	9,435				
CBB725-SR40	Start	3,421	2,642	3,399	4,155	4,912	5,669	6,425	7,182	7,939	8,696	9,453	10,210	10,967	12,481								36	102
	Min	1,427	1,012	1,422	1,825	2,226	2,625	3,023	3,421	3,819	4,216	4,614	5,011	5,408	6,202									
	End	2,043	1,270	2,029	2,787	3,545	4,303	5,062	5,820	6,578	7,337	8,095	8,853	9,612	11,129									
CBA730-SR40	Start	4,286	3,384	4,329	5,273	6,218	7,163	8,108	9,054	9,999	10,944	11,889	12,835	13,780	15,671	17,562	19,454	21,346	23,238				35	135
	Min	1,749	1,271	1,786	2,291	2,793	3,293	3,792	4,290	4,787	5,285	5,781	6,278	6,775	7,768	8,760	9,753	10,745	11,738					
	End	2,432	1,551	2,499	3,448	4,396	5,345	6,293	7,242	8,190	9,139	10,087	11,036	11,985	13,883	15,780	17,678	19,577	21,475					
CBA830-SR40	Start	5,695	4,544	5,785	7,027	8,268	9,510	10,752	11,993	13,235	14,477	15,719	16,961	18,203	20,688	23,173							35	105
	Min	2,322	1,711	2,386	3,049	3,708	4,364	5,019	5,673	6,327	6,980	7,632	8,285	8,937	10,241	11,545								
	End	3,245	2,118	3,363	4,609	5,855	7,100	8,346	9,592	10,838	12,084	13,330	14,576	15,822	18,315	20,807								
CBA930-SR40	Start	7,317	5,865	7,443	9,021	10,599	12,177	13,755	15,333	16,911	18,490	20,068	21,647	23,225									35	85
	Min	2,978	2,207	3,063	3,906	4,743	5,577	6,409	7,240	8,070	8,900	9,729	10,558	11,386										
	End	4,174	2,750	4,333	5,915	7,498	9,081	10,664	12,247	13,830	15,413	16,996	18,579	20,162										
CBA1030-SR40	Start	9,839	7,954	10,041	12,127	14,214	16,301	18,388	20,475	22,562	24,649												35	70
	Min	3,963	2,957	4,092	5,207	6,314	7,417	8,517	9,616	10,714	11,811													
	End	5,510	3,657	5,749	7,842	9,934	12,027	14,120	16,212	18,305	20,398													

# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Imperial Unit	Spring Torque lb-in	Operating Pressure,psig																	MinOP psig	MOP psig				
			35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140			150	160	170	
			Air Torque Output,lb-in																						
CBB315-SR60	Start	568				386	474	561	649	736	823	911	998	1,086	1,260	1,435	1,610	1,785	1,960	2,136			52	152	
	Min	235				148	198	246	293	341	388	435	482	529	623	717	811	905	998	1,092					
	End	326				175	266	357	448	539	631	722	813	904	1,087	1,269	1,452	1,634	1,817	1,999					
CBB415-SR60	Start	1,092				739	897	1,055	1,213	1,371	1,529	1,687	1,845	2,003	2,319	2,635							53	112	
	Min	450				281	369	456	542	627	712	797	882	967	1,137	1,306									
	End	637				340	504	669	834	998	1,163	1,328	1,492	1,657	1,986	2,316									
CBB420-SR60	Start	1,442					1,144	1,331	1,518	1,705	1,893	2,080	2,267	2,454	2,828	3,203	3,577	3,952	4,326	4,701	5,076		55	156	
	Min	530					448	556	662	767	871	976	1,080	1,184	1,391	1,598	1,805	2,012	2,219	2,426	2,632				
	End	663					564	772	980	1,187	1,395	1,603	1,811	2,019	2,435	2,851	3,267	3,683	4,099	4,515	4,932				
CBB520-SR60	Start	2,261						1,809	2,105	2,401	2,697	2,993	3,289	3,585	3,882	4,474	5,067	5,659					54	116	
	Min	854						723	892	1,058	1,223	1,388	1,552	1,716	1,879	2,206	2,533	2,859							
	End	1,107						948	1,274	1,600	1,926	2,253	2,579	2,905	3,231	3,884	4,537	5,190							
CBB525-SR60	Start	2,541						1,882	2,262	2,643	3,023	3,404	3,784	4,165	4,546	4,926	5,688	6,450	7,211	7,973	8,735	9,498	53	151	
	Min	1,046						693	903	1,108	1,311	1,513	1,715	1,916	2,117	2,318	2,719	3,119	3,519	3,919	4,319	4,719			
	End	1,474						823	1,205	1,586	1,968	2,350	2,731	3,113	3,495	3,877	4,641	5,405	6,168	6,932	7,697	8,461			
CBB725-SR60	Start	5,402							4,582	5,339	6,096	6,853	7,610	8,366	9,123	9,880	11,395	12,909	14,424				55	115	
	Min	2,208							1,774	2,183	2,588	2,990	3,391	3,791	4,190	4,589	5,385	6,181	6,976						
	End	3,130							2,320	3,078	3,836	4,594	5,353	6,111	6,870	7,628	9,145	10,662	12,180						
CBA730-SR60	Start	6,764							4,965	5,910	6,855	7,800	8,745	9,691	10,636	11,581	12,527	14,418	16,309	18,200	20,092	21,984	52	140	
	Min	2,692							1,719	2,247	2,761	3,269	3,773	4,275	4,776	5,276	5,774	6,771	7,767	8,761	9,755	10,749			
	End	3,686							1,916	2,865	3,813	4,762	5,710	6,659	7,608	8,556	9,505	11,403	13,301	15,199	17,097	18,995			
CBA830-SR60	Start	9,241								8,201	9,443	10,684	11,926	13,168	14,410	15,652	16,894	19,379	21,864				54	110	
	Min	3,513								2,963	3,646	4,318	4,984	5,646	6,306	6,964	7,621	8,932	10,241						
	End	4,555								3,553	4,798	6,044	7,290	8,536	9,782	11,028	12,274	14,767	17,259						
CBA930-SR60	Start	12,057								10,832	12,411	13,989	15,567	17,145	18,724	20,302	21,881						55	90	
	Min	4,433								3,777	4,655	5,514	6,364	7,207	8,048	8,886	9,721								
	End	5,519								4,338	5,921	7,504	9,087	10,670	12,253	13,836	15,420								
CBA1030-SR60	Start	16,198								14,734	16,821	18,908	20,995	23,083	25,170									55	75
	Min	5,830								5,039	6,207	7,347	8,473	9,591	10,703										
	End	7,077								5,665	7,757	9,850	11,943	14,036	16,129										



# Torque - Pneumatic Spring-Return Actuator

Actuator Model	Imperial Unit	Spring Torque lb-in	Operating Pressure,psig																	MinOP psig	MOP psig				
			35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140			150	160	170	
			Air Torque Output,lb-in																						
CBB315-SR80	Start	791								604	692	779	867	954	1,129	1,304	1,479	1,654	1,829	2,004			70	150	
	Min	326								243	291	339	387	434	529	623	717	811	905	999					
	End	458									316	407	499	590	681	863	1,046	1,228	1,411	1,593	1,776				
CBB415-SR80	Start	1,476								1,151	1,309	1,467	1,625	1,784	2,100	2,416	2,732						70	117	
	Min	604								461	548	634	720	805	976	1,146	1,316								
	End	856									614	778	943	1,108	1,272	1,602	1,931	2,260							
CBB420-SR80	Start	1,963								1,474	1,661	1,848	2,035	2,223	2,597	2,971	3,346	3,720	4,095	4,470	4,844			72	161
	Min	715								554	663	770	876	981	1,190	1,399	1,607	1,814	2,022	2,229	2,436				
	End	894									665	873	1,081	1,289	1,497	1,913	2,329	2,745	3,161	3,577	3,993	4,409			
CBB520-SR80	Start	3,104								2,341	2,637	2,933	3,229	3,525	4,118	4,711	5,303							72	120
	Min	1,147								885	1,056	1,224	1,391	1,556	1,886	2,214	2,542								
	End	1,464									1,082	1,408	1,734	2,061	2,387	3,040	3,693	4,345							
CBB525-SR80	Start	3,538								2,887	3,267	3,648	4,029	4,409	5,171	5,932	6,694	7,456	8,218	8,981	9,743			71	159
	Min	1,430								1,085	1,293	1,498	1,702	1,905	2,309	2,712	3,114	3,515	3,916	4,316	4,717				
	End	1,991									1,352	1,734	2,115	2,497	2,879	3,643	4,407	5,171	5,935	6,699	7,463	8,227			
CBB725-SR80	Start	7,260								5,794	6,551	7,308	8,065	8,822	10,336	11,851	13,365							72	124
	Min	2,953								2,170	2,582	2,990	3,395	3,798	4,600	5,399	6,197								
	End	4,190									2,735	3,493	4,252	5,010	5,769	7,286	8,803	10,320							
CBA730-SR80	Start	9,546								7,841	8,786	9,731	10,676	11,622	13,513	15,404	17,296	19,188	21,080	22,972				72	145
	Min	3,585								2,658	3,192	3,713	4,227	4,736	5,747	6,752	7,753	8,753	9,751	10,747					
	End	4,591									2,927	3,875	4,824	5,773	6,722	8,619	10,517	12,415	14,313	16,211	18,110				
CBA830-SR80	Start	12,686								10,506	11,748	12,990	14,232	15,474	17,959	20,444	22,929							73	115
	Min	4,715								3,524	4,228	4,913	5,589	6,258	7,587	8,908	10,224								
	End	5,976									3,844	5,090	6,336	7,582	8,828	11,320	13,813	16,305							
CBA930-SR80	Start	16,225								13,515	15,093	16,672	18,250	19,829	22,986									73	95
	Min	6,001								4,515	5,410	6,281	7,140	7,991	9,680										
	End	7,572									4,917	6,500	8,083	9,666	11,250	14,416									
CBA1030-SR80	Start	21,134								17,447	19,535	21,622	23,709											71	80
	Min	8,065								6,069	7,232	8,371	9,498												
	End	10,627									7,004	9,097	11,190	13,283											

## Torque - Pneumatic Spring-Return Actuator

Actuator Model	Imperial Unit	Spring Torque lb-in	Operating Pressure,psig																	MinOP psig	MOP psig			
			35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140			150	160	170
			Air Torque Output,lb-in																					
CBB315-SR100	Start	1,014																				87	164	
	Min	415										737	825	1,000	1,175	1,350	1,525	1,700	1,875	2,050				
	End	587										288	337	433	528	623	717	811	905	999				
CBB415-SR100	Start	2,020																				93	114	
	Min	738																						
	End	916																						
CBB420-SR100	Start	2,551																				92	166	
	Min	916																						
	End	1,135																						
CBB520-SR100	Start	4,250																				97	132	
	Min	1,624																						
	End	2,174																						
CBB525-SR100	Start	4,455																				88	163	
	Min	1,808																						
	End	2,549																						
CBB725-SR100	Start	9,562																				94	124	
	Min	3,706																						
	End	4,972																						
CBA730-SR100	Start	11,984																				90	150	
	Min	4,511																						
	End	5,820																						
CBA830-SR100	Start	16,237																				92	120	
	Min	5,902																						
	End	7,290																						
CBA930-SR100	Start	20,413																				91	105	
	Min	7,586																						
	End	9,666																						