

Bettis GTD-Series

Pneumatic Double-Acting Actuator Torque Chart Metric

BETTIS™



Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End		Operating Pressure, (barg)																MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)	
			30	35	37.5	40	45	47.5	50	55	60	62.5	65	70	72.5	75	80	85					90
			Pressure Torque Output: Start/Min./End (Nm)																				
GTD01x03.5	Outboard	Start	1,807	2,140	2,306	2,473	2,805	2,970	3,136	3,467	3,798	3,963	4,129	4,459	4,624	4,788	5,118	5,447	Exceeds MOP	27.6	88.9	1,647	5,703
		Min	980	1,154	1,241	1,328	1,502	1,589	1,676	1,850	2,024	2,111	2,197	2,371	2,457	2,544	2,717	2,890				896	3,025
		End	1,805	2,138	2,304	2,470	2,802	2,967	3,133	3,464	3,794	3,960	4,125	4,454	4,619	4,784	5,113	5,441				1,646	5,698
	Inboard	Start	1,643	1,949	2,102	2,254	2,559	2,711	2,863	3,167	3,471	3,622	3,774	4,077	4,228	4,379	4,681	4,983				1,497	5,218
		Min	894	1,054	1,134	1,214	1,374	1,454	1,534	1,693	1,853	1,932	2,012	2,171	2,250	2,330	2,489	2,647				817	2,771
		End	1,642	1,947	2,100	2,252	2,556	2,708	2,860	3,164	3,467	3,619	3,770	4,073	4,224	4,375	4,676	4,978				1,495	5,213
GTD01x04.0	Outboard	Start	2,399	2,834	3,052	3,269	3,703	3,920	4,137	4,570	5,003	5,219	5,435	Exceeds MOP	27.6	68.1	2,190	5,703					
		Min	1,293	1,521	1,635	1,749	1,976	2,090	2,204	2,431	2,658	2,771	2,885				1,184	3,025					
		End	2,397	2,832	3,049	3,266	3,699	3,916	4,133	4,565	4,998	5,214	5,430				2,188	5,697					
	Inboard	Start	2,236	2,643	2,847	3,051	3,457	3,661	3,864	4,270	4,675	4,878	5,080				2,040	5,331					
		Min	1,208	1,421	1,528	1,635	1,848	1,954	2,061	2,274	2,487	2,593	2,699				1,105	2,831					
		End	2,233	2,641	2,844	3,048	3,454	3,657	3,860	4,265	4,670	4,873	5,075				2,038	5,326					
GTD2x04.0	Outboard	Start	2,891	3,418	3,681	3,944	4,469	4,732	4,994	5,518	6,042	6,303	6,565	7,088	7,349	7,610	8,131	Exceeds MOP	27.6	84.8	2,638	8,632	
		Min	1,561	1,837	1,974	2,112	2,387	2,525	2,663	2,937	3,212	3,349	3,487	3,761	3,898	4,035	4,309				1,428	4,572	
		End	2,889	3,415	3,678	3,941	4,465	4,728	4,990	5,514	6,037	6,298	6,560	7,082	7,343	7,604	8,125				2,636	8,625	
	Inboard	Start	2,581	3,056	3,293	3,531	4,004	4,241	4,477	4,950	5,422	5,658	5,894	6,365	6,600	6,835	7,305				2,353	7,756	
		Min	1,399	1,648	1,772	1,896	2,144	2,268	2,392	2,640	2,888	3,012	3,136	3,383	3,507	3,630	3,877				1,279	4,114	
		End	2,579	3,054	3,291	3,528	4,001	4,238	4,474	4,946	5,418	5,653	5,889	6,359	6,595	6,830	7,299				2,351	7,750	
GTD2x05.0	Outboard	Start	4,618	5,441	5,852	6,263	7,084	7,494	7,904	Exceeds MOP	27.6	54.3	4,223	8,609									
		Min	2,474	2,905	3,120	3,335	3,766	3,981	4,196				2,267	4,565									
		End	4,614	5,437	5,847	6,258	7,078	7,488	7,898				4,220	8,602									
	Inboard	Start	4,309	5,080	5,465	5,850	6,620	7,004	7,389				3,938	8,049									
		Min	2,312	2,716	2,918	3,120	3,523	3,724	3,926				2,118	4,272									
		End	4,305	5,076	5,461	5,846	6,615	6,999	7,383				3,935	8,042									
GTD3x05.0	Outboard	Start	5,599	6,599	7,099	7,598	8,596	9,094	9,592	10,588	11,582	12,079	12,576	13,568	14,064	14,559	Exceeds MOP	27.6	78.0	5,118	15,153		
		Min	3,002	3,526	3,788	4,050	4,573	4,834	5,095	5,617	6,139	6,400	6,660	7,181	7,442	7,702				2,751	8,014		
		End	5,596	6,596	7,095	7,595	8,592	9,090	9,588	10,583	11,577	12,074	12,570	13,562	14,057	14,552				5,116	15,146		
	Inboard	Start	5,056	5,966	6,420	6,874	7,782	8,235	8,688	9,593	10,497	10,949	11,400	12,302	12,752	13,202				4,619	13,742		
		Min	2,719	3,195	3,433	3,671	4,147	4,385	4,622	5,097	5,572	5,809	6,046	6,519	6,756	6,993				2,490	7,277		
		End	5,054	5,963	6,417	6,871	7,778	8,231	8,684	9,589	10,492	10,944	11,395	12,296	12,746	13,196				4,617	13,736		
GTD3x06.0	Outboard	Start	8,185	9,627	10,347	11,067	12,506	13,225	13,943	Exceeds MOP	27.6	54.2	7,493	15,150									
		Min	4,366	5,121	5,498	5,875	6,629	7,006	7,382				4,004	8,015									
		End	8,181	9,622	10,342	11,062	12,500	13,219	13,937				7,489	15,143									
	Inboard	Start	7,642	8,994	9,669	10,344	11,692	12,366	13,039				6,993	14,169									
		Min	4,083	4,790	5,144	5,497	6,203	6,556	6,909				3,743	7,502									
		End	7,639	8,990	9,664	10,339	11,687	12,360	13,033				6,990	14,163									
GTD4x06.0	Outboard	Start	9,908	11,660	12,535	13,410	15,157	16,031	16,903	18,647	20,390	21,260	22,130	23,869	24,738	25,606	27,341	29,075	Exceeds MOP	27.6	89.3	9,066	30,565
		Min	5,293	6,211	6,669	7,127	8,043	8,501	8,958	9,873	10,787	11,244	11,700	12,613	13,069	13,525	14,437	15,348				4,853	16,131
		End	9,901	11,651	12,526	13,400	15,146	16,019	16,891	18,634	20,375	21,245	22,114	23,852	24,720	25,588	27,322	29,054				9,060	30,543
	Inboard	Start	8,735	10,291	11,069	11,846	13,398	14,174	14,949	16,497	18,044	18,817	19,589	21,132	21,903	22,674	24,214	25,752				7,987	27,074
		Min	4,680	5,495	5,903	6,310	7,123	7,530	7,936	8,749	9,560	9,966	10,372	11,182	11,587	11,992	12,801	13,610				4,289	14,305
		End	8,729	10,284	11,061	11,837	13,389	14,163	14,938	16,485	18,031	18,803	19,575	21,117	21,888	22,658	24,196	25,734				7,982	27,055

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

Torque - Pneumatic Double-Acting Actuator

Actuator Model	Stroke Direction Start/Min./End	Operating Pressure, (barg)																MinOP (barg)	Torque @ MinOP (Nm)	MOP (barg)	Torque @ MOP (Nm)				
		30	35	37.5	40	45	47.5	50	55	60	62.5	65	70	72.5	75	80	85					90			
		Pressure Torque Output: Start/Min./End (Nm)																							
GTD4x07.0	Start	Outboard	13,639	16,026	17,218	18,410	20,792	21,982	23,171	25,549	27,924	29,111	30,298	Exceeds MOP								27.6	65.6	12,493	30,583
	Min		7,259	8,508	9,132	9,756	11,004	11,627	12,251	13,497	14,742	15,365	15,987		6,659	16,136									
	End		13,630	16,014	17,206	18,397	20,777	21,966	23,155	25,531	27,904	29,091	30,276		12,484	30,561									
	Start	Inboard	12,466	14,657	15,752	16,845	19,032	20,124	21,216	23,398	25,578	26,667	27,756		11,414	28,017									
	Min		6,645	7,792	8,365	8,938	10,084	10,656	11,228	12,372	13,515	14,087	14,658		6,094	14,795									
	End		12,457	14,646	15,740	16,833	19,018	20,110	21,201	23,381	25,560	26,648	27,736		11,406	27,997									
GTD4x08.0	Start	Outboard	17,937	21,052	22,608	24,164	27,272	28,825	30,377	Exceeds MOP											27.6	50.2	16,441	30,501	
	Min		9,523	11,154	11,969	12,784	14,412	15,226	16,040		8,740	16,105													
	End		17,925	21,037	22,592	24,146	27,252	28,804	30,355		16,429	30,479													
	Start	Inboard	16,765	19,684	21,142	22,600	25,513	26,968	28,422		15,362	28,538													
	Min		8,910	10,439	11,203	11,966	13,493	14,255	15,018		8,176	15,079													
	End		16,753	19,670	21,127	22,584	25,494	26,948	28,402		15,351	28,518													
GTD5x08.0	Start	Outboard	23,163	27,190	29,201	31,212	35,229	37,236	39,243	43,252	47,257	49,258	51,258	55,255	57,252	59,248	63,238	67,224	Exceeds MOP	27.6	87.3	21,229	69,057		
	Min		12,306	14,415	15,468	16,522	18,628	19,680	20,732	22,835	24,936	25,986	27,036	29,134	30,183	31,232	33,328	35,423				11,293	36,386		
	End		23,155	27,181	29,192	31,201	35,218	37,224	39,230	43,238	47,241	49,242	51,241	55,237	57,233	59,229	63,217	67,202				21,222	69,034		
	Start	Inboard	21,244	24,950	26,802	28,653	32,350	34,198	36,044	39,733	43,418	45,259	47,099	50,777	52,614	54,450	58,120	61,786				19,463	63,472		
	Min		11,302	13,244	14,214	15,184	17,122	18,091	19,059	20,994	22,928	23,895	24,861	26,792	27,758	28,722	30,651	32,579				10,369	33,465		
	End		21,237	24,942	26,793	28,643	32,340	34,186	36,032	39,720	43,404	45,244	47,084	50,760	52,597	54,432	58,101	61,766				19,457	63,451		
GTD5x09.0	Start	Outboard	29,500	34,599	37,146	39,693	44,782	47,324	49,866	54,945	60,021	62,556	65,091	Exceeds MOP								27.6	68.9	27,051	69,043
	Min		15,639	18,309	19,643	20,977	23,643	24,976	26,308	28,972	31,633	32,964	34,293		14,356	36,367									
	End		29,490	34,587	37,134	39,680	44,767	47,309	49,850	54,928	60,001	62,536	65,070		27,042	69,021									
	Start	Inboard	27,581	32,360	34,747	37,134	41,903	44,286	46,667	51,427	56,182	58,558	60,933		25,285	64,635									
	Min		14,635	17,138	18,388	19,639	22,138	23,387	24,635	27,131	29,626	30,872	32,119		13,433	34,062									
	End		27,572	32,349	34,736	37,121	41,889	44,271	46,652	51,410	56,164	58,539	60,913		25,277	64,614									
GTD5x10.0	Start	Outboard	36,595	42,893	46,039	49,185	55,472	58,613	61,753	68,030	Exceeds MOP										27.6	55.8	33,570	69,033	
	Min		19,368	22,665	24,313	25,961	29,254	30,900	32,546	35,836		17,785	36,362												
	End		36,583	42,879	46,024	49,169	55,453	58,594	61,733	68,007		33,559	69,011												
	Start	Inboard	34,676	40,654	43,640	46,626	52,593	55,574	58,554	64,511		31,805	65,463												
	Min		18,364	21,494	23,059	24,622	27,749	29,311	30,873	33,995		16,861	34,495												
	End		34,664	40,640	43,626	46,611	52,576	55,556	58,535	64,490		31,794	65,442												
GTD7x10.0	Start	Outboard	44,889	52,624	56,489	60,353	68,074	71,932	75,789	83,497	91,200	95,048	98,896	106,586	110,429	114,270	121,949	129,622	137,290	27.6	90.3	41,174	137,749		
	Min		23,782	27,834	29,859	31,884	35,931	37,954	39,976	44,019	48,060	50,079	52,098	56,135	58,152	60,169	64,201	68,232	72,260			21,836	72,502		
	End		44,878	52,611	56,475	60,337	68,057	71,914	75,770	83,476	91,177	95,024	98,871	106,559	110,401	114,241	121,918	129,589	137,255			41,163	137,715		
	Start	Inboard	41,367	48,515	52,086	55,656	62,791	66,355	69,919	77,040	84,155	87,710	91,264	98,367	101,916	105,464	112,556	119,642	126,723			37,933	127,148		
	Min		21,939	25,684	27,555	29,426	33,167	35,036	36,904	40,640	44,374	46,239	48,105	51,834	53,698	55,561	59,287	63,010	66,731			20,140	66,955		
	End		41,356	48,503	52,073	55,642	62,775	66,339	69,901	77,021	84,134	87,688	91,241	98,342	101,891	105,438	112,528	119,612	126,691			37,924	127,116		
GTD7x12.0	Start	Outboard	65,068	76,205	81,770	87,332	98,449	104,004	109,556	120,653	131,741	137,282	Exceeds MOP								27.6	62.7	59,718	137,725	
	Min		34,395	40,230	43,145	46,061	51,888	54,800	57,712	63,533	69,350	72,258		31,593	72,490										
	End		65,051	76,186	81,749	87,310	98,424	103,977	109,528	120,623	131,708	137,248		59,703	137,691										
	Start	Inboard	61,546	72,096	77,368	82,636	93,166	98,428	103,687	114,197	124,698	129,945		56,478	130,365										
	Min		32,552	38,080	40,842	43,604	49,124	51,883	54,641	60,154	65,665	68,419		29,898	68,639										
	End		61,530	72,078	77,348	82,616	93,143	98,403	103,660	114,168	124,667	129,913		56,464	130,332										

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

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19200 Northwest Freeway
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USA
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Av. Hollingsworth
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SP 18087-105
Brazil
T +55 15 3413 8888

ASIA PACIFIC

No. 9 Gul Road
#01-02 Singapore 629361
T +65 6777 8211

No. 1 Lai Yuan Road
Wuqing Development Area
Tianjin 301700
P. R. China
T +86 22 8212 3300

MIDDLE EAST & AFRICA

P. O. Box 17033
Jebel Ali Free Zone
Dubai
T +971 4 811 8100

P. O. Box 10305
Jubail 31961
Saudi Arabia
T +966 3 340 8650

24 Angus Crescent
Longmeadow Business Estate East
P.O. Box 6908 Greenstone
1616 Modderfontein Extension 5
South Africa
T +27 11 451 3700

EUROPE

Holland Fisor 6
Székesfehérvár 8000
Hungary
T +36 22 53 09 50

Strada Biffi 165
29017 Fiorenzuola d'Arda (PC)
Italy
T +39 0523 944 411

For complete list of sales and manufacturing sites, please visit www.emerson.com/actuationtechnologieslocations or contact us at info.actuationtechnologies@emerson.com

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