

**Data sheet**

Date: August 2011  
DOC.DSB.CBA300.US

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# Bettis CBA-300 Series

Technical data sheet - T ^ d æ



## Data sheet

Sheet No.: C3PM 1.01 Rev. C

Date: January 2011

# CBA-300 Series

## Torque Ratings – (Pneumatic)

All Published Torques are Guaranteed Minimum Values.

### Double-Acting Actuators CBA-300-Series

Actuator Model	Stroke Position	Operating Pressure (Bar)						
		3	3.5	4	5	5.5	6	7
		Pressure Torque Output Start/Min./End (Nm)						
CBA730	Start/End	908	1059	1211	1513	1664	1816	2118
	Minimum	522	609	696	870	957	1044	1218
CBA830	Start/End	1192	1390	1589	1986	2185		
	Minimum	685	799	914	1142	1256		
CBA930	Start/End	1513	1765	2018				
	Minimum	870	1015	1160				
CBA1030	Start/End	1999	2333					
	Minimum	1150	1341					

### Spring-Return Actuators CBA-300-Series

Actuator Model	Spring Torque (Nm) Start/Min./End		Operating Pressure (Bar)											
			3	3.5	4	5	5.5	6	7	7.5	8	9	9.5	10
			Pressure Torque Output Start/Min./End (Nm)											
CBA730-SR40	Start	495	564	738	905	1186	1349	1510	1797	1957	2115	2406		
	Min.	199	222	319	409	551	639	725	872	956	1039	1188		
	End	286	313	504	681	946	1119	1287	1563	1729	1892	2174		
CBA730-SR60	Start	763		599	775	1049	1221	1388	1672	1837	2001	2290	2452	
	Min.	297		195	296	432	525	614	755	844	930	1076	1161	
	End	422		217	411	659	845	1024	1289	1465	1637	1912	2082	
CBA730-SR80	Start	1055				940	1116	1286	1565	1733	1899	2184	2349	
	Min.	390				300	405	500	638	729	819	960	1048	
	End	517				324	522	711	961	1145	1324	1587	1763	
CBA730-SR100	Start	1328						1162	1437	1611	1782	2066	2235	2403
	Min.	486						382	518	614	709	846	937	1025
	End	654						442	681	875	1062	1318	1502	1683
Actuator Model	Spring Torque (Nm) Start/Min./End		Pressure Torque Output Start/Min./End (Nm)											
			3	3.5	4	5	5.5	6	7	7.5	8	9	9.5	10
			Operating Pressure (Bar)											

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# Data sheet

Sheet No.: C3PM 1.02 Rev. C

Date: January 2011

# CBA-300 Series

## Torque Ratings – (Pneumatic)

All Published Torques are Guaranteed Minimum Values.

### Spring-Return Actuators

#### CBA-300-Series (cont.)

Actuator Model	Spring Torque (Nm) Start/Min./End		Operating Pressure (Bar)														
			3	3.5	4	5	5.5	6	7	7.5	8	9	9.5	10			
			Pressure Torque Output Start/Min./End (Nm)														
CBA830-SR40	Start	649	741	970	1188	1557	1771	1982	2360								
	Min.	263	296	424	544	733	850	964	1158								
	End	375	412	663	896	1244	1470	1690	2053								
CBA830-SR60	Start	1018		837	1069	1436	1662	1883	2262	2481							
	Min.	389		254	392	573	697	816	1004	1121							
	End	524		255	515	842	1090	1329	1680	1914							
CBA830-SR80	Start	1375				1262	1495	1721	2092	2315							
	Min.	516				398	538	664	848	970							
	End	676				422	686	937	1268	1513							
CBA830-SR100	Start	1744						1571	1935	2162	2386						
	Min.	642						498	681	811	936						
	End	816						532	844	1100	1347						
CBA930-SR40	Start	844	965	1262	1547	2026	2306										
	Min.	346	389	558	716	964	1118										
	End	488	536	862	1166	1618	1913										
CBA930-SR60	Start	1349		1101	1393	1862	2148	2427									
	Min.	505		296	512	752	918	1074									
	End	631		296	626	1040	1357	1660									
CBA930-SR80	Start	1794				1612	1907	2194									
	Min.	675				520	705	873									
	End	850				532	867	1186									
CBA930-SR100	Start	2240						1955	2415								
	Min.	848						656	896								
	End	1073						709	1106								
CBA1030-SR40	Start	1122	1285	1677	2053	2687											
	Min.	456	513	738	946	1274											
	End	636	701	1132	1534	2131											
CBA1030-SR60	Start	1799		1490	1874	2496											
	Min.	660		372	678	996											
	End	803		372	810	1356											
CBA1030-SR80	Start	2326				2063	2455										
	Min.	902				695	935										
	End	1182				753	1195										
Actuator Model	Spring Torque (Nm) Start/Min./End		Pressure Torque Output Start/Min./End (Nm)														
			3	3.5	4	5	5.5	6	7	7.5	8	9	9.5	10			
			Operating Pressure (Bar)														



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Sheet No.: C3PM 2.01 RevB

Date: August 2010

# CBA-300 Series

## Performance Data – (Pneumatic)

### Double-Acting Actuators

#### CBA-300 Series

Actuator Model	Volume (cu cm) ▲		Maximum Operating Pressure (MOP)* (Bar)	Maximum Allowable Working Pressure (MAWP)** (Bar)	Approximate Weight of Actuator (kg)
	Outboard	Inboard (Housing)			
CBA 730	4260.6	9209.5	7.2	13.8	59
CBA 830	5588.0	10373.0	5.5	13.8	63.5
CBA 930	7095.6	11683.9	4.5	11.7	70.3
CBA 1030	9373.4	13666.8	3.4	9.0	77.1

### Spring-Return Actuators

#### CBA-300 Series

Actuator Model	Volume (cu cm) ▲	Maximum Operating Pressure (MOP)* (Bar)	Maximum Allowable Working Pressure (MAWP)** (Bar)	Approximate Weight of Actuator (kg)
◆ CBA730-SR40	9209.5	9.3	13.8	71.7
SR60	9209.5	9.7	13.8	72.8
SR80	9209.5	10.0	13.8	73.9
SR100	9209.5	10.3	13.8	74.4
◆ CBA830-SR40	10373.0	7.2	13.8	81.6
SR60	10373.0	7.6	13.8	83.7
SR80	10373.0	8.0	13.8	85.3
SR100	10373.0	8.3	13.8	87.3
◆ CBA930-SR40	11683.9	5.9	11.7	88.5
SR60	11683.9	6.2	11.7	91.6
SR80	11683.9	6.6	11.7	93.7
SR100	11683.9	7.2	11.7	93.0
◆ CBA1030-SR40	13666.8	4.8	9.0	99.8
SR60	13666.8	5.2	9.0	102.5
SR80	13666.8	5.5	9.0	105.9

Notes:

◆ CBA-SRXXM mechanical handwheel overrides are available on these models. The override adds approximately 12 lbs. (5kg) to the weight of the standard CB model.

▲ Maximum volume including cavity required for calculating consumption per stroke.

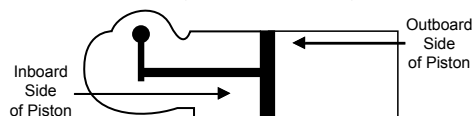
\*\* **Maximum Operating Pressure (MOP)** - The pressure required to produce the maximum rated torque of the actuator.

\*\*\* **Maximum Allowable Working Pressure (MAWP)** is the maximum static pressure that may be applied to a fully stroked actuator against the travel stops.

Standard installation produces clockwise rotation when the outboard side of piston is pressurized.

Standard installation produces counterclockwise rotation when the inboard side of piston is pressurized.

Note: Actuator may be installed opposite of that shown above



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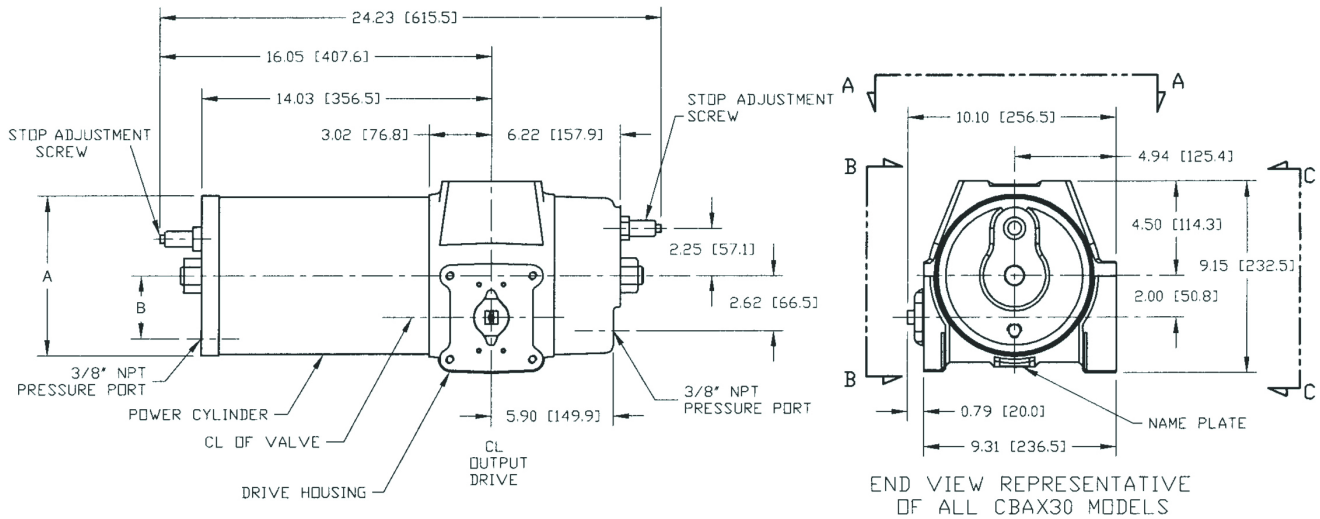
# Data sheet

Sheet No.: C3PM 3.01 RevB  
Date: August 2010

# CBA-300 Series

## Dimensions – (Pneumatic) mm.

### Double-Acting Actuators CBAX30



ACTUATORS SHOWN ROTATED TO FULL CLOCKWISE POSITION

Actuator Model	A	B
CBA 730	193.8	76.2
CBA 830	219.2	88.9
CBA 930	244.6	101.6
CBA 1030	276.4	114.3

Note: Not Certified dimensional drawings. Such drawings available on request.  
Contact factory with correct model designation and serial number.  
**Metric dimensions in parentheses.**



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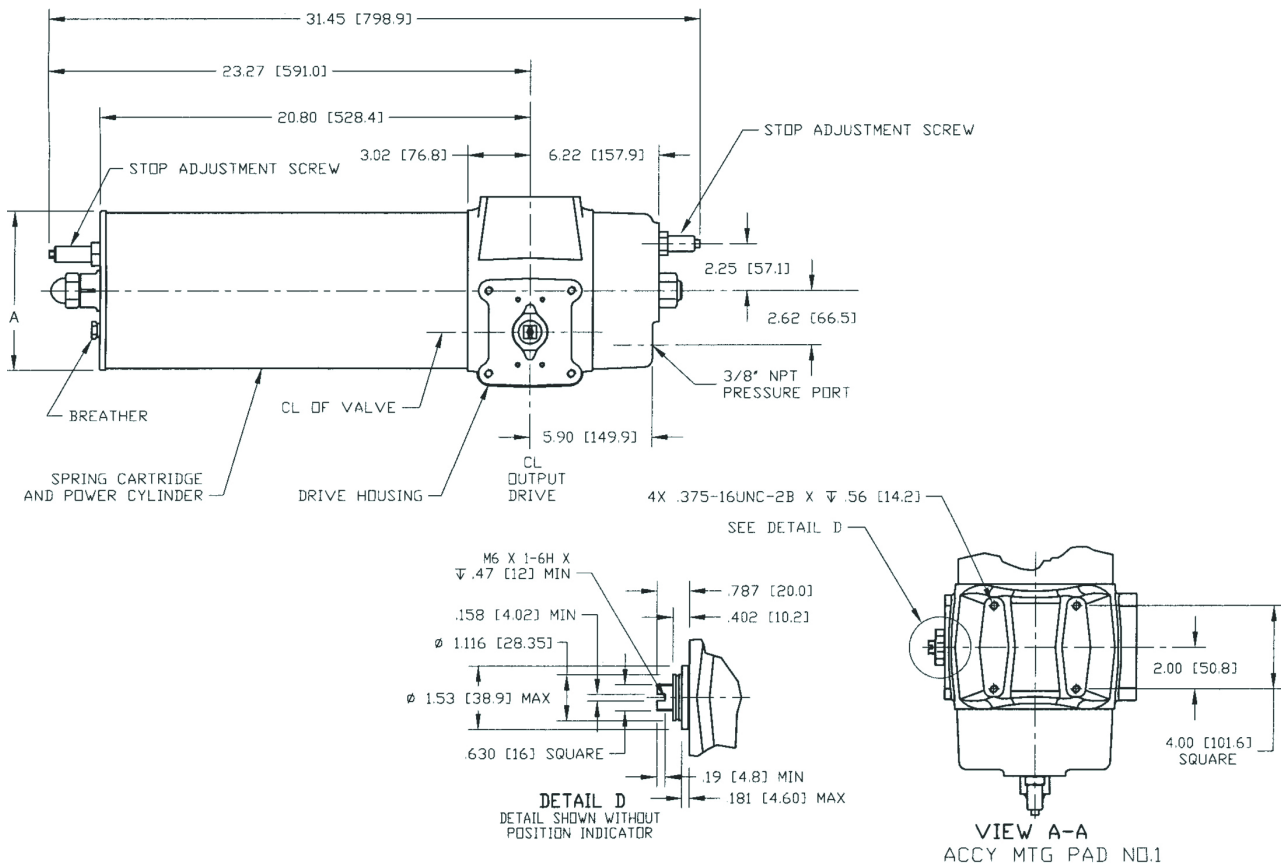
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Sheet No.: C3PM 3.02 RevB  
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# CBA-300 Series

## Dimensions – (Pneumatic) mm.

### Spring-Return Actuators CBAX30-SRX



ACTUATORS SHOWN ROTATED TO FULL CLOCKWISE POSITION

Actuator Model	A
CBA 730-SRX	195.3
CBA 830-SRX	220.7
CBA 930-SRX	246.1
CBA 1030-SRX	279.4

Note: Not Certified dimensional drawings. Such drawings available on request.  
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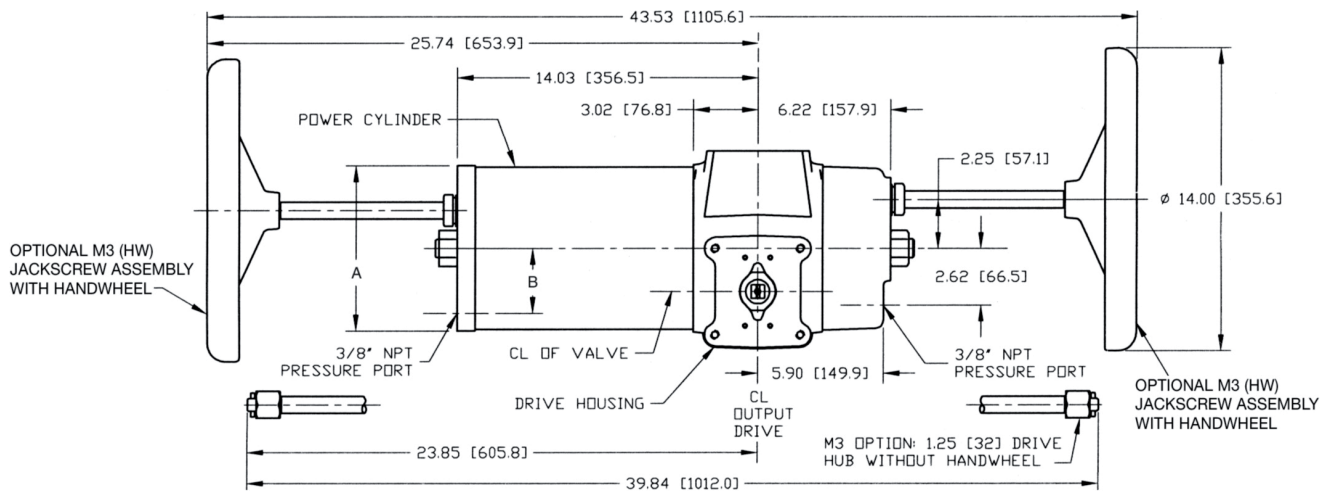
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Sheet No.: C3PM 3.03 RevB  
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**CBA-300 Series**

**Dimensions – (Pneumatic) mm.**

**M3(HW) Override**  
**Double-Acting Actuators**  
**CBAX30-M3(HW)**



Actuator Model	A	B
CBA 730-M3HW	193.8	76.2
CBA 830-M3HW	219.2	88.9
CBA 930-M3HW	244.6	101.6
CBA 1030-M3HW	276.4	114.3

Note: Not Certified dimensional drawings. Such drawings available on request.  
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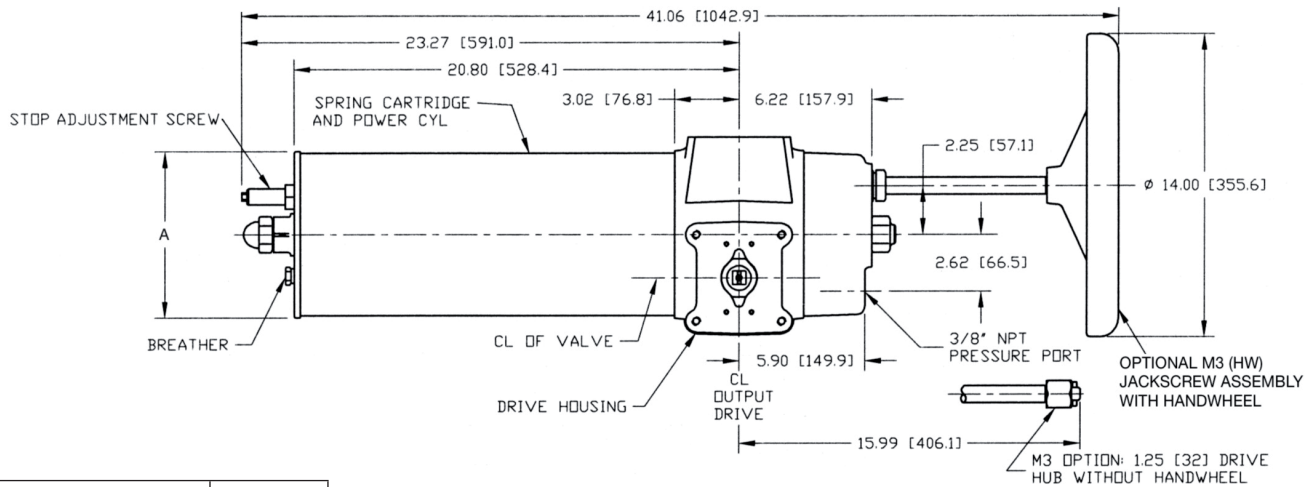
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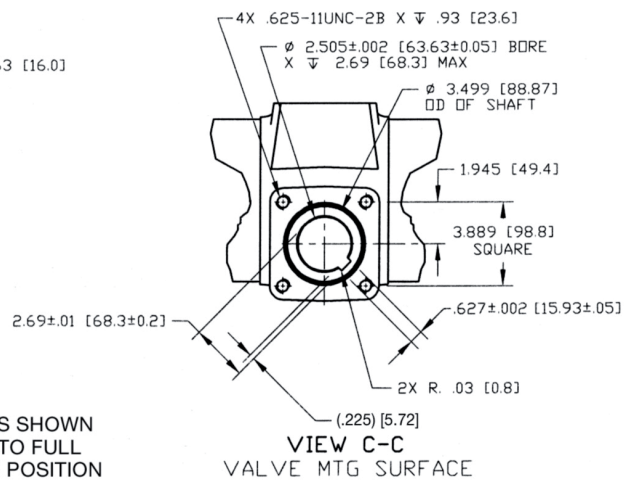
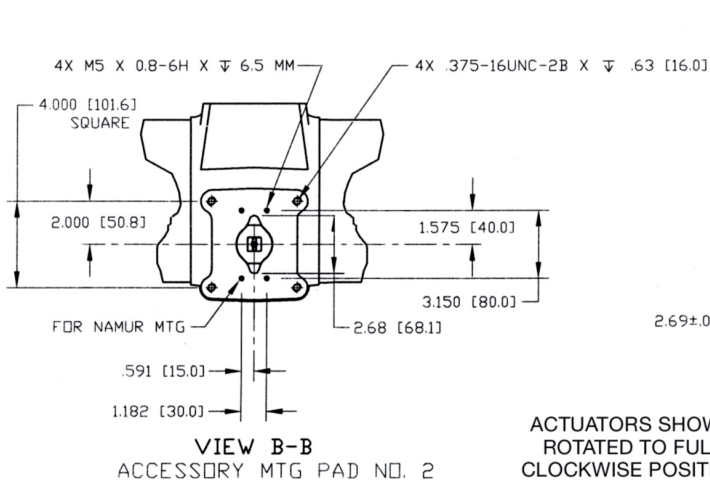
# CBA-300 Series

## Dimensions – (Pneumatic) mm.

**M3(HW) Override**  
**Spring-Return Actuators**  
**CBAX30-SRX-M3(HW)**



Actuator Model	A
CBA 730-SRX-M3HW	195.3
CBA 830-SRX-M3HW	220.7
CBA 930-SRX-M3HW	246.1
CBA 1030-SRX-M3HW	279.4



Note: Not Certified dimensional drawings. Such drawings available on request.  
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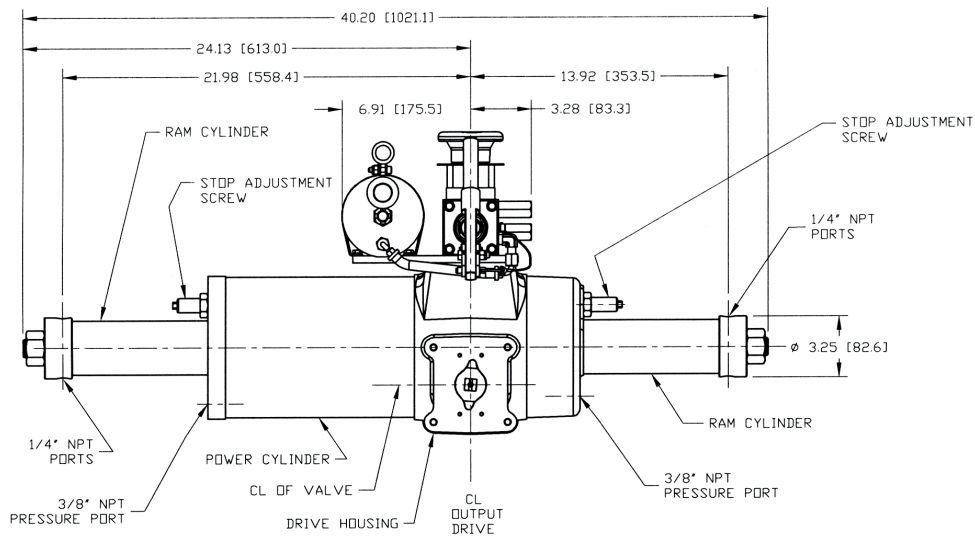
# CBA-300 Series

## Dimensions – (Pneumatic) mm.

### M11 Override

#### Double-Acting Actuators

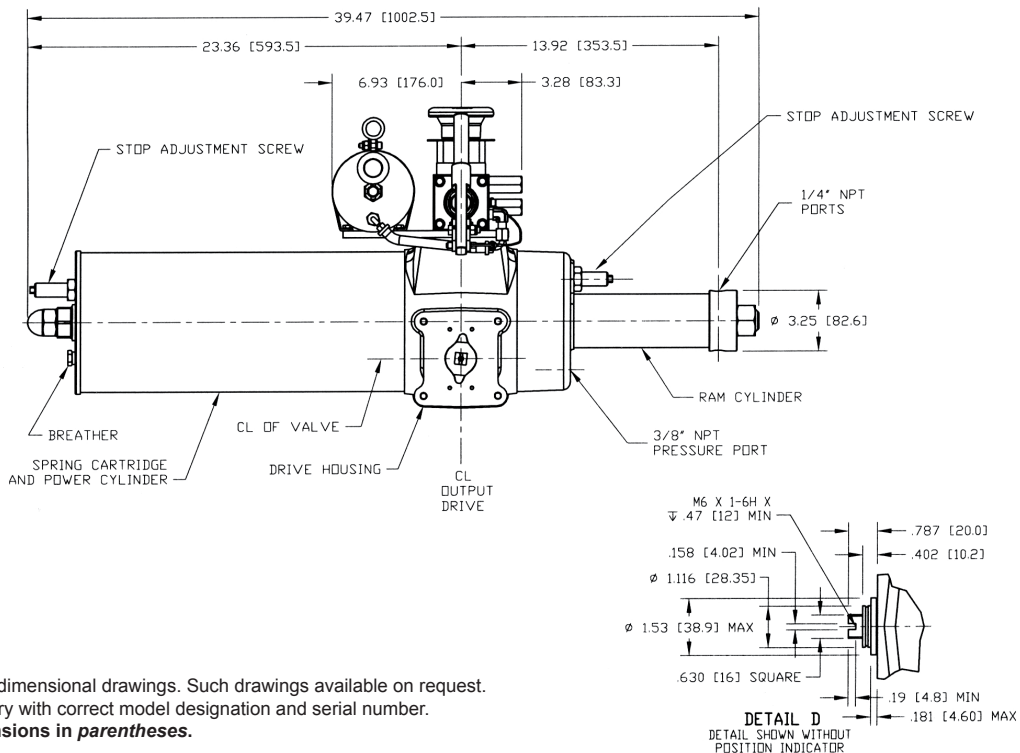
#### CBAX30-M11



ACTUATORS SHOWN ROTATED TO FULL CLOCKWISE POSITION

### Spring-Return Actuators

#### CBAX30-SRX-M11



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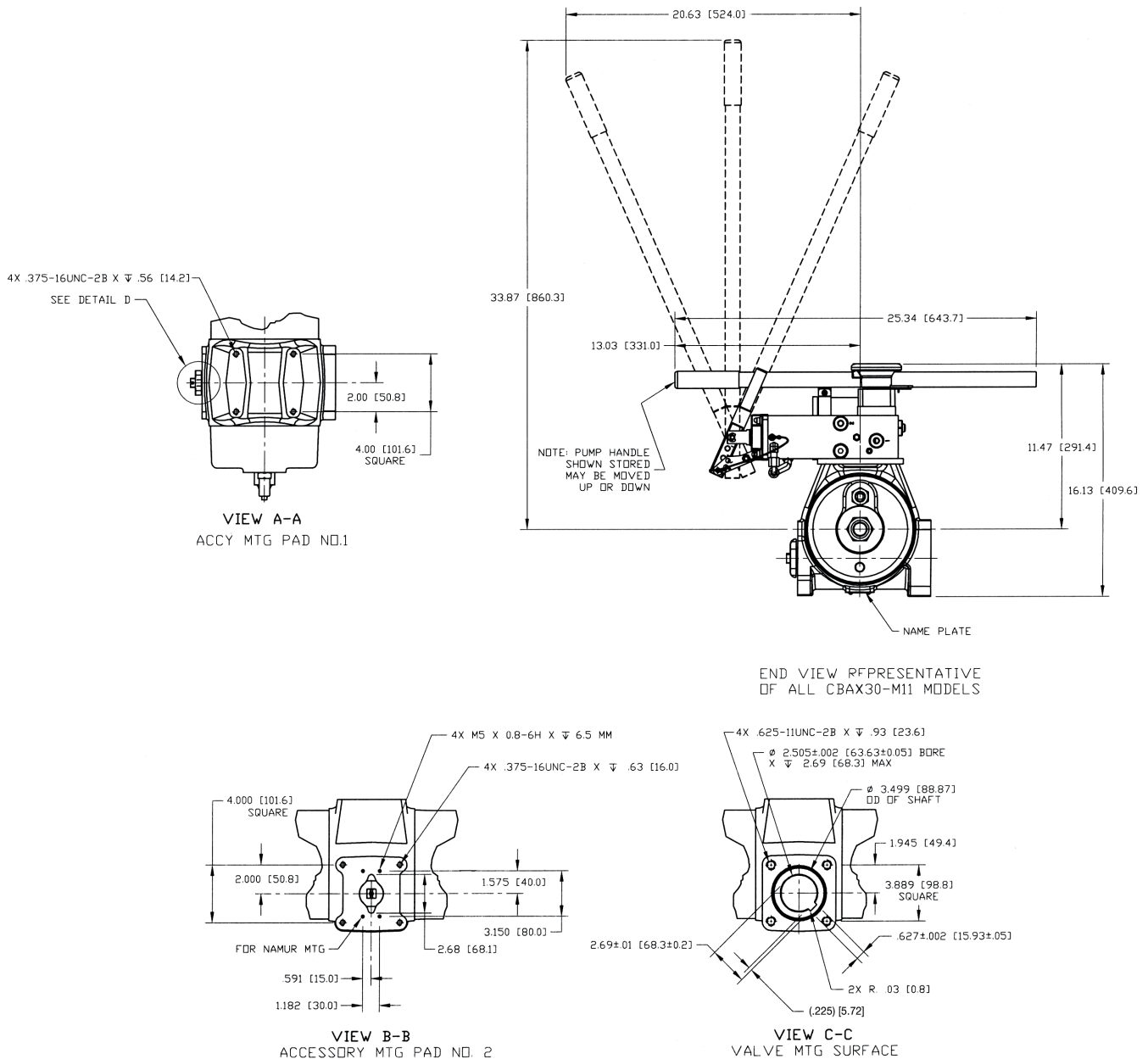
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**CBA-300 Series**

**Dimensions – (Pneumatic) mm.**

**M11 Override**  
**Spring-Return Actuators**  
**CBAX30-SRX-M11**



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**NORTH & SOUTH AMERICA**

18703 GH Circle  
PO Box 508  
Waller, TX 77484  
USA  
T +1 281 727 5300  
F +1 281 727 5353

2500 Park Avenue West  
Mansfield, OH 44906  
USA  
T +1 419 529 4311  
F +1 419 529 3688

9009 King Palm Drive  
Tampa, FL 33619  
USA  
T +1 813 630 2255  
F +1 813 630 9449

13840 Pike Road  
Missouri City, Texas 77489  
USA  
T +1 281 499 1561  
F +1 281 499 8445

Av. Hollingsworth,  
325, Iporanga Sorocaba,  
SP 18087-105  
Brazil  
T +55 15 3238 3788  
F +55 15 3228 3300

**MIDDLE EAST & AFRICA**

P. O. Box 17033  
Dubai  
United Arab Emirates  
T +971 4 811 8100  
F +971 4 886 5465

P. O. Box 105958  
Abu Dhabi  
United Arab Emirates  
T +971 2 697 2000  
F +971 2 555 0364

P. O. Box 3911  
Al Khobar 31952  
Saudi Arabia  
T +966 3 814 7560  
F +966 3 814 7570

P. O. Box 10305  
Jubail 31961  
Saudi Arabia  
T +966 3 340 8650  
F +966 3 340 8790

P. O. Box 32281  
Doha  
Qatar  
T +974 4 576777  
F +974 4 315448

2 Monteer Road, Isando  
Kempton Park, 1600  
South Africa  
T +27 11 974 3336  
F +27 11 974 7005

**EUROPE**

Asveldweg 11  
7556 BR Hengelo (O)  
The Netherlands  
T +31 74 256 1010  
F +31 74 291 0938

Siemensring 112  
47877 Willich  
Germany  
T +49 2154 499 660  
F +49 2154 499 6613

25, Rue de Villeneuve  
Silic – BP 40434  
94583 Rungis  
France  
T +33 1 49 79 73 00  
F +33 1 49 79 73 99

Via Montello 71/73  
20038 Seregno (Milan)  
Italy  
T +39 0362 2285 207  
F +39 0362 2436 55

6 Bracken Hill  
South West Industrial Estate  
Peterlee SR8 2LS  
United Kingdom  
T +44 191 518 0020  
F +44 191 518 0032

2A Szturmowa Str  
02-678 Warsaw  
Poland  
T +48 22 45 89 237  
F +48 22 45 89 231

C/ Francisco Gervás, 1  
28108 Alcobendas – Madrid  
Spain  
T +34 0913 586 000  
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Letnikovskaya Str. 10-2  
115114 Moscow  
Russia and FSU  
T +7 495 981 98 11  
F +7 495 981 98 10

**ASIA PACIFIC**

No. 9 Gul Road  
#01-02 Singapore 629361  
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9/F Gateway Building  
No. 10 Ya Bao Road  
Chaoyang District  
Beijing 100020  
P.R.China  
T +86 10 5821 1188  
F +86 10 5821 1100

No.15 Xing Wang Road  
Wuqing Development Area  
Tianjin 301700  
P.R.China  
T +86 22 8212 3300  
F +86 22 8212 3308

Lot 13112, Mukim Labu  
Kawasan Perindustrian Nilai  
71807 Nilai, Negeri Sembilan  
Malaysia  
T +60 6 799 2323  
F +60 6 799 9942

471 Mountain Highway  
Bayswater, Victoria 3153  
Australia  
T +61 3 9721 0200  
F +61 3 9720 0588

Delphi B Wing, 601 & 602  
6th Floor, Central Avenue  
Powai, Mumbai – 400 076  
India  
T +91 22 6662 0566  
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NOF, Shinagawa Konan Bldg  
1-2-5, Higashi-shinagawa  
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