

Data sheet

Date: August 2011

DOC.DSB.CBA300.US

Bettis CBA-300 Series

Technical data sheet - Imperial



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Sheet No.: C3PI 1.01 RevB

Date: April 2010

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 (PSIG)								
		40	50	60	70	80	90	100	110	120
		Pressure Torque Output Start/Min./End (lb-in)								
CBA730	Start/End	7388	9235	11082	12929	14776	16623	18470		
	Minimum	4248	5310	6372	7434	8496	9558	10620		
CBA830	Start/End	9697	12121	14545	16969	19393				
	Minimum	5575	6969	8363	9757	11151				
CBA930	Start/End	12313	15391	18470						
	Minimum	7080	8850	10620						
CBA1030	Start/End	16270	20337							
	Minimum	9355	11694							

**Spring-Return Actuators
CBA-300-Series**

Actuator Model	Spring Torque (in-lbs) Start/Min./End		Operating Pressure (PSIG)											
			40	50	60	70	80	90	100	110	120	130	140	150
			Pressure Torque Output Start/Min./End (lb-in)											
CBA730-SR40	Start	4383	4589	6436	8283	10130	11977	13824	15671	17518	19365	21212		
	Min.	1759	1808	2782	3747	4712	5677	6641	7599	8557	9515	10473		
	End	2532	2544	4391	6238	8085	9932	11779	13626	15473	17319	19166		
CBA730-SR60	Start	6748		5225	7095	8965	10835	12705	14575	16445	18315	20185	22055	
	Min.	2625		1704	2709	3692	4657	5622	6587	7552	8517	9483	10446	
	End	3732		1892	3762	5632	7502	9372	11242	13112	14982	16852	18722	
CBA730-SR80	Start	9340				8033	9903	11773	13643	15513	17383	19253	21123	
	Min.	3450				2565	3591	4578	5564	6529	7494	8459	9424	
	End	4576				2767	4637	6507	8377	10247	12117	13987	15857	
CBA730-SR100	Start	11755						10637	12530	14423	16316	18210	20103	21996
	Min.	4301						3499	4513	5500	6488	7458	8423	9388
	End	5792						4046	5939	7832	9725	11619	13512	15405
Actuator Model	Spring Torque (in-lbs) Start/Min./End		Pressure Torque Output Start/Min./End (lb-in)											
			40	50	60	70	80	90	100	110	120	130	140	150
			Operating Pressure (PSIG)											



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Sheet No.: C3PI 1.02 RevB

Date: April 2010

CBA-300 Series

Torque Ratings – (Pneumatic)

All Published Torques are Guaranteed Minimum Values.

**Spring-Return Actuators
CBA-300-Series (cont.)**

Actuator Model	Spring Torque (in-lbs) Start/Min./End		Operating Pressure (PSIG)													
			40	50	60	70	80	90	100	110	120	130	140	150		
			Pressure Torque Output Start/Min./End (lb-in)													
CBA830-SR40	Start	5739	6029	8453	10877	13301	15725	18149	20573							
	Min.	2330	2406	3700	4982	6263	7545	8826	10099							
	End	3318	3354	5778	8202	10626	13050	15474	17899							
CBA830-SR60	Start	9010		7299	9783	12268	14753	17237	19722	22207						
	Min.	3443		2216	3587	4898	6189	7471	8753	10035						
	End	4637		2226	4711	7196	9680	12165	14650	17135						
CBA830-SR80	Start	12171				10786	13271	15756	18241	20725						
	Min.	4565				3400	4772	6083	7394	8679						
	End	5978				3605	6089	8574	11059	13544						
CBA830-SR100	Start	15438						14385	16870	19354	21839					
	Min.	5677						4560	5935	7258	8569					
	End	7218						4873	7358	9842	12327					
CBA930-SR40	Start	7471	7849	11004	14159	17315	20470									
	Min.	3063	3163	4866	6551	8237	9922									
	End	4317	4364	7519	10674	13829	16985									
CBA930-SR60	Start	11942		9602	12757	15912	19067	22223								
	Min.	4470		2577	4691	6425	8145	9830								
	End	5586		2577	5732	8888	12043	15194								
CBA930-SR80	Start	15872				13771	16927	20082								
	Min.	5977				4442	6258	7993								
	End	7523				4544	7699	10854								
CBA930-SR100	Start	19822						17899	21054							
	Min.	7500						6009	7808							
	End	9498						6489	9644							
CBA1030-SR40	Start	9929	10455	14624	18793	22962										
	Min.	4036	4178	6431	8658	10885										
	End	5629	5703	9872	14041	18210										
CBA1030-SR60	Start	15924		12989	17159	21328										
	Min.	5839		3245	6204	8507										
	End	7108		3245	7415	11584										
CBA1030-SR80	Start	20580				17626	21796									
	Min.	7978				5937	8299									
	End	10457				6438	10607									
Actuator Model	Spring Torque (in-lbs) Start/Min./End		Pressure Torque Output Start/Min./End (lb-in)													
			40	50	60	70	80	90	100	110	120	130	140	150		
			Operating Pressure (PSIG)													



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Sheet No.: C3PI 2.01 RevC

Date: August 2011

CBA-300 Series

Performance Data – (Pneumatic)

Double-Acting Actuators CBA-300 Series

Actuator Model	Volume (cu in) ▲		Maximum System Pressure (MSP)* (PSIG)	Maximum Operating Pressure (MOP)* (PSIG)	Maximum Allowable Working Pressure (MAWP)** (PSIG)	Approximate Weight of Actuator (lbs)
	Outboard	Inboard (Housing)				
CBA 730	260	562	120	105	200	130
CBA 830	341	633	90	80	200	140
CBA 930	433	713	70	65	170	155
CBA 1030	572	834	55	50	130	170

Spring-Return Actuators CBA-300 Series

Actuator Model	Volume (cu in) ▲	Maximum System Pressure (MSP)* (PSIG)	Maximum Operating Pressure (MOP)* (PSIG)	Maximum Allowable Working Pressure (MAWP)** (PSIG)	Approximate Weight of Actuator (lbs)
◆ CBA730-SR40	562	150	135	200	158
SR60	562	155	140	200	160.5
SR80	562	160	145	200	163
SR100	562	165	150	200	164
◆ CBA830-SR40	633	125	105	160	180
SR60	633	125	110	160	184.5
SR80	633	130	115	160	188
SR100	633	140	120	160	192.5
◆ CBA930-SR40	713	120	85	200	195
SR60	713	120	90	200	202
SR80	713	120	95	200	206.5
SR100	713	120	105	200	205
◆ CBA1030-SR40	834	95	70	160	220
SR60	834	100	75	160	225.5
SR80	834	110	80	160	233.5
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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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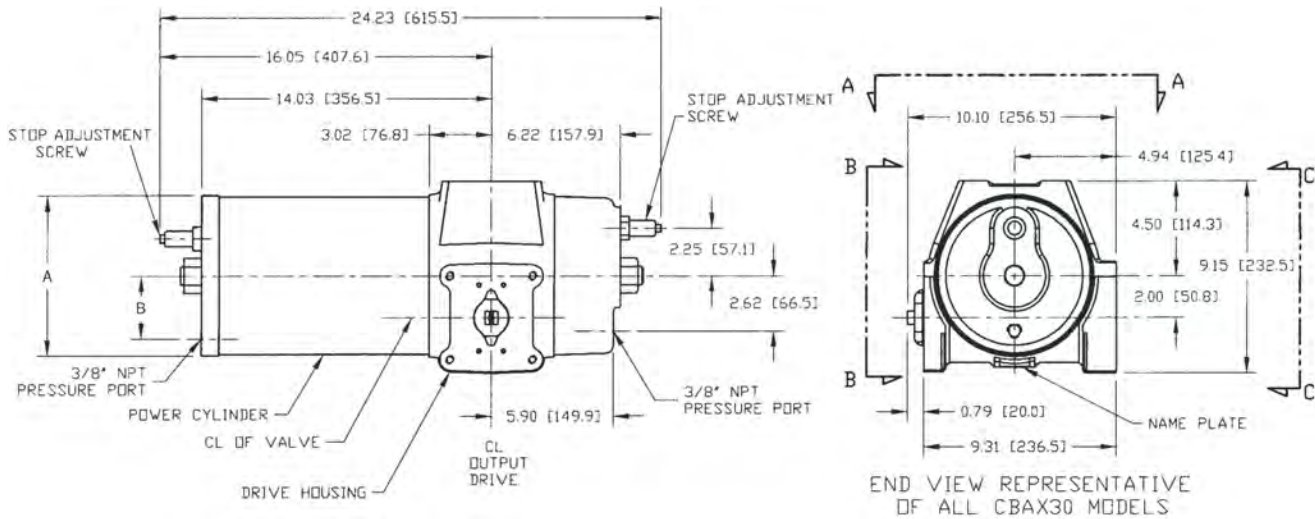
Sheet No.: C3PI 3.01 RevB

Date: April 2010

CBA-300 Series

Dimensions – (Pneumatic) In.

Double-Acting Actuators CBAX30



ACTUATORS SHOWN ROTATED TO FULL CLOCKWISE POSITION

Actuator Model	A	B
CBA 730	7.63	3.00
CBA 830	8.63	3.50
CBA 930	9.63	4.00
CBA 1030	10.88	4.50

Note: Not Certified dimensional drawings. Such drawings available on request.
Contact factory with correct model designation and serial number.
All dimensions are expressed in inches.

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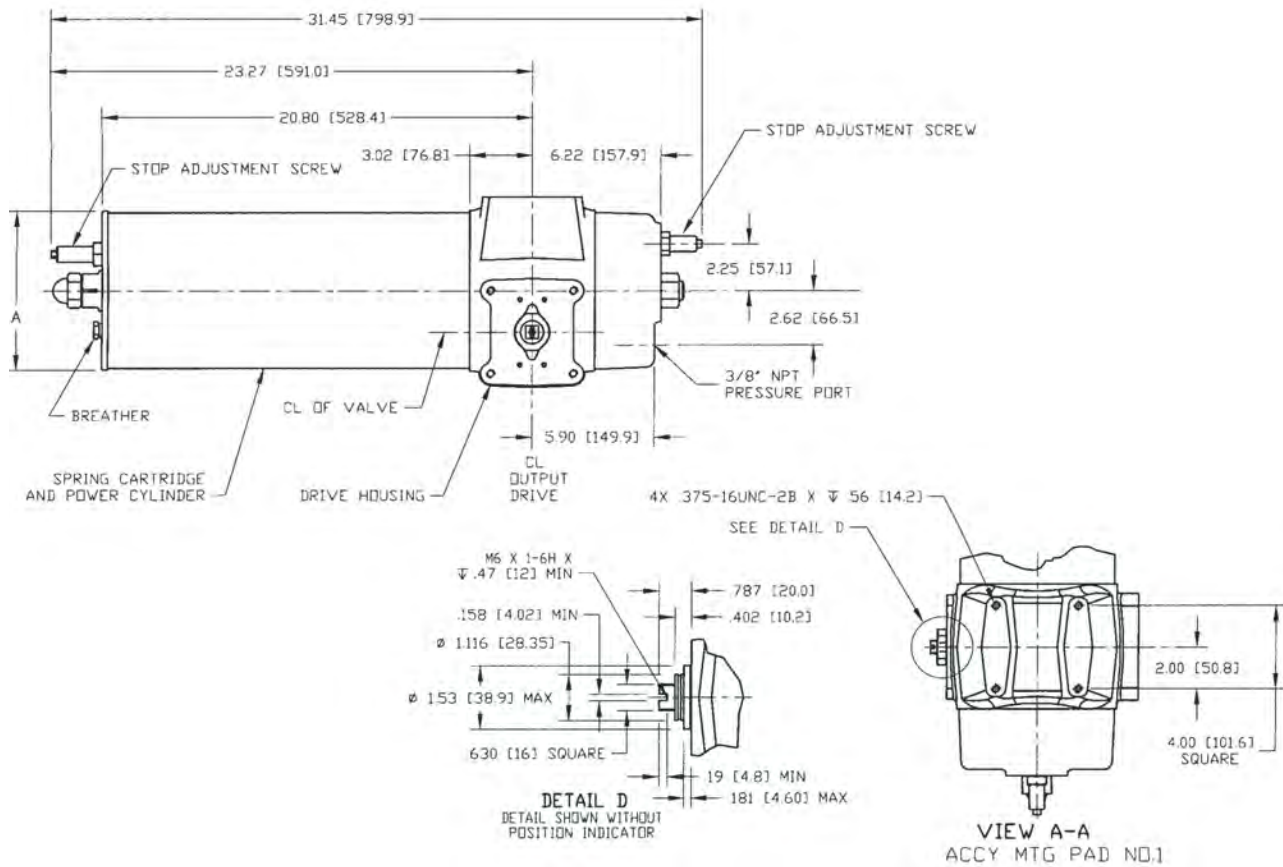
Sheet No.: C3PI 3.02 RevB

Date: April 2010

CBA-300 Series

Dimensions – (Pneumatic) In.

Spring-Return Actuators CBAX30-SRX



ACTUATORS SHOWN ROTATED TO FULL CLOCKWISE POSITION

Actuator Model	A
CBA 730 -SRX	7.69
CBA 830 -SRX	8.69
CBA 930 -SRX	9.69
CBA 1030-SRX	11.00

Note: Not Certified dimensional drawings. Such drawings available on request.
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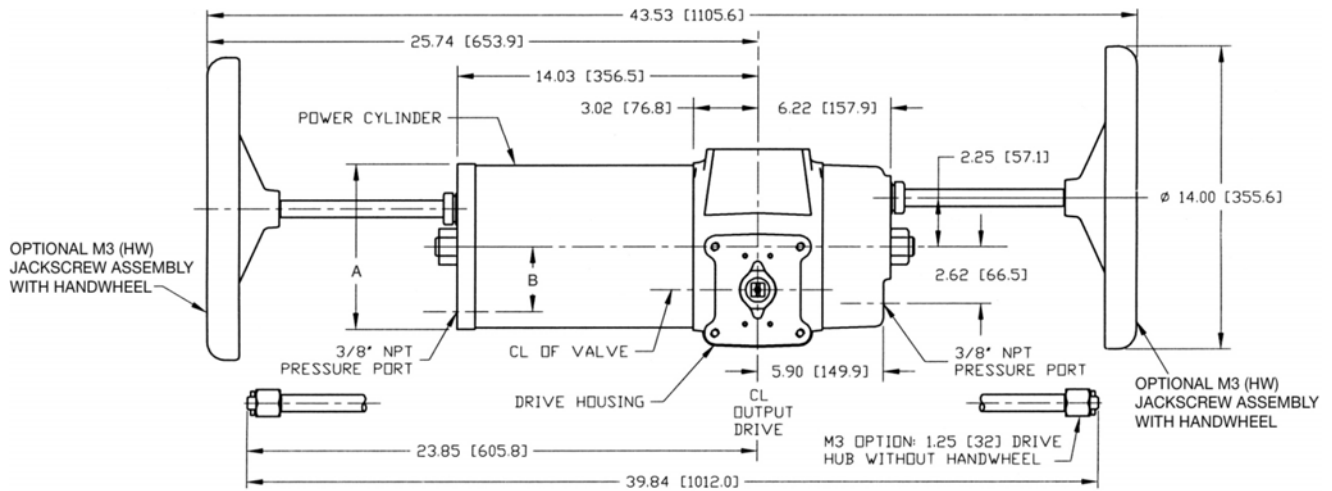
Sheet No.: C3PI 3.03 RevB

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CBA-300 Series

Dimensions – (Pneumatic) In.

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



Actuator Model	A	B
CBA 730-M3HW	7.63	3.00
CBA 830-M3HW	8.63	3.50
CBA 930-M3HW	9.63	4.00
CBA 1030-M3HW	10.88	4.50

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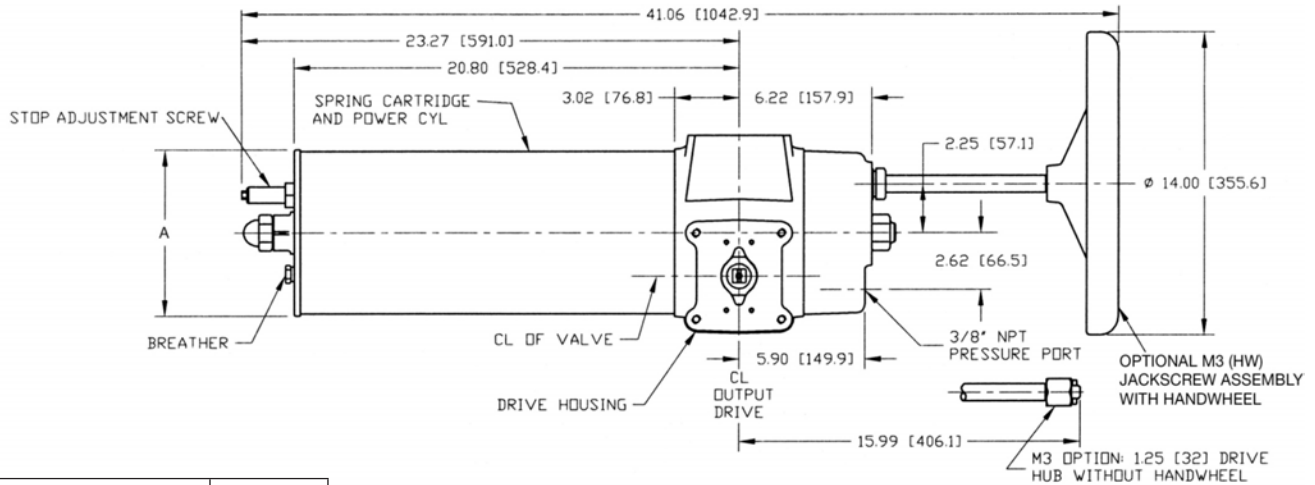
CBA-300 Series

Dimensions – (Pneumatic) In.

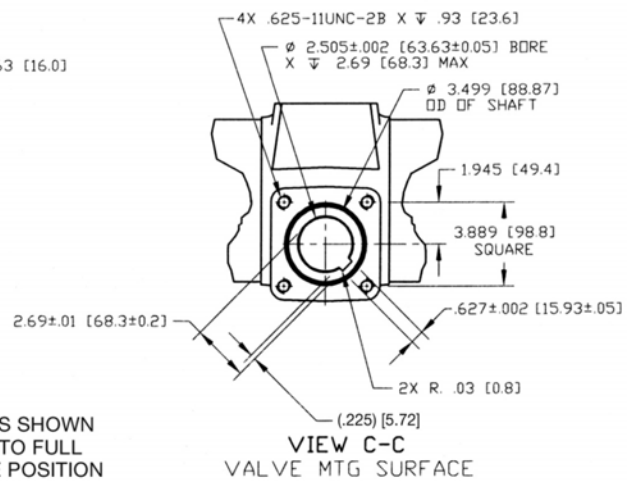
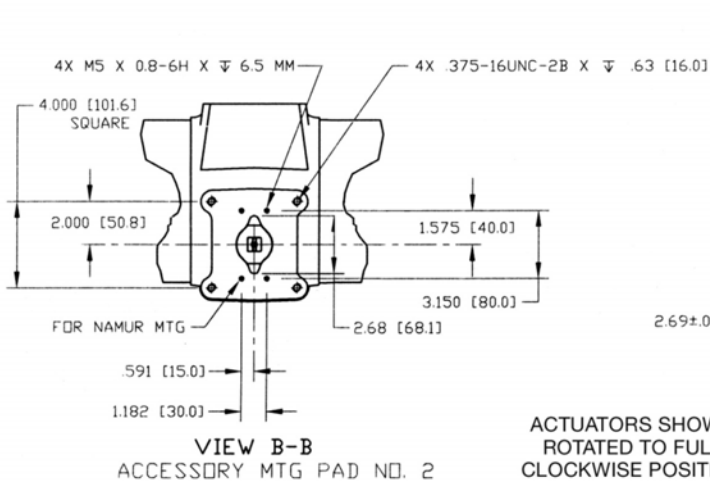
M3(HW) Override

Spring-Return Actuators

CBAX30-SRX-M3(HW)



Actuator Model	A
CBA 730-SRX-M3HW	7.69
CBA 830-SRX-M3HW	8.69
CBA 930-SRX-M3HW	9.69
CBA 1030-SRX-M3HW	11.00



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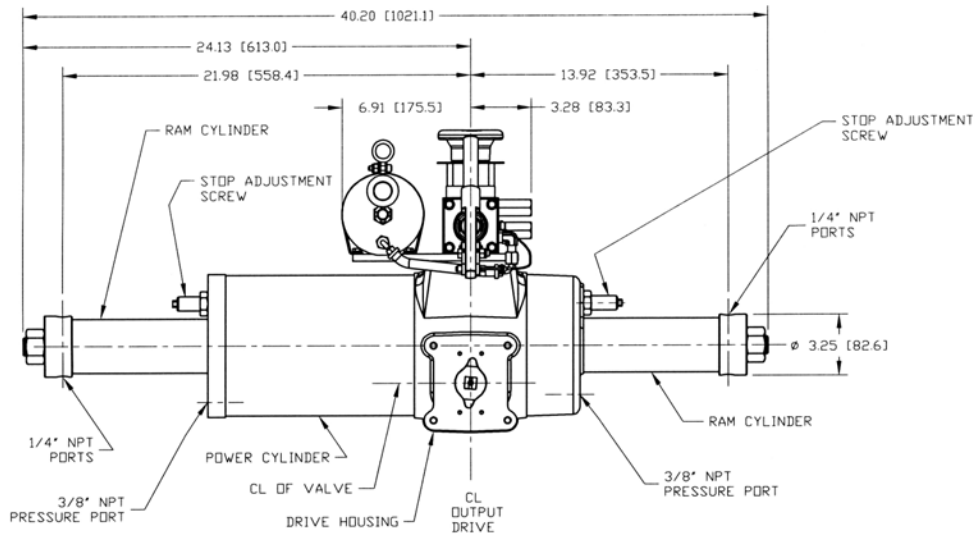
CBA-300 Series

Dimensions – (Pneumatic) In.

M11 Override

Double-Acting Actuators

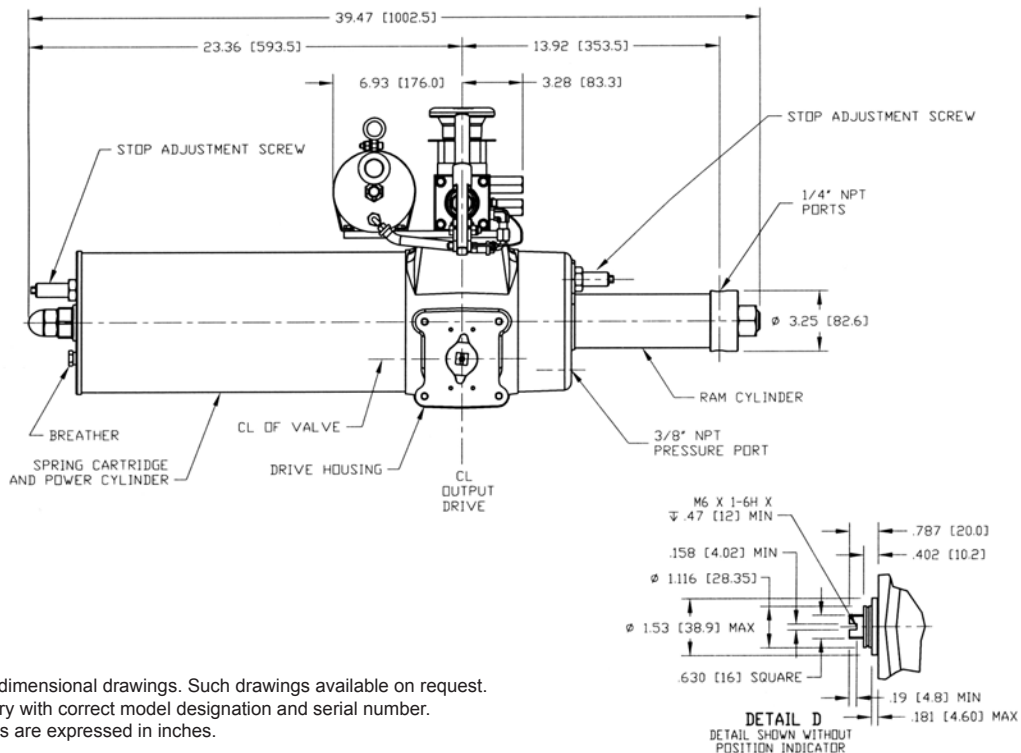
CBAX30-M11



ACTUATORS SHOWN ROTATED TO FULL CLOCKWISE POSITION

Spring-Return Actuators

CBAX30-SRX-M11



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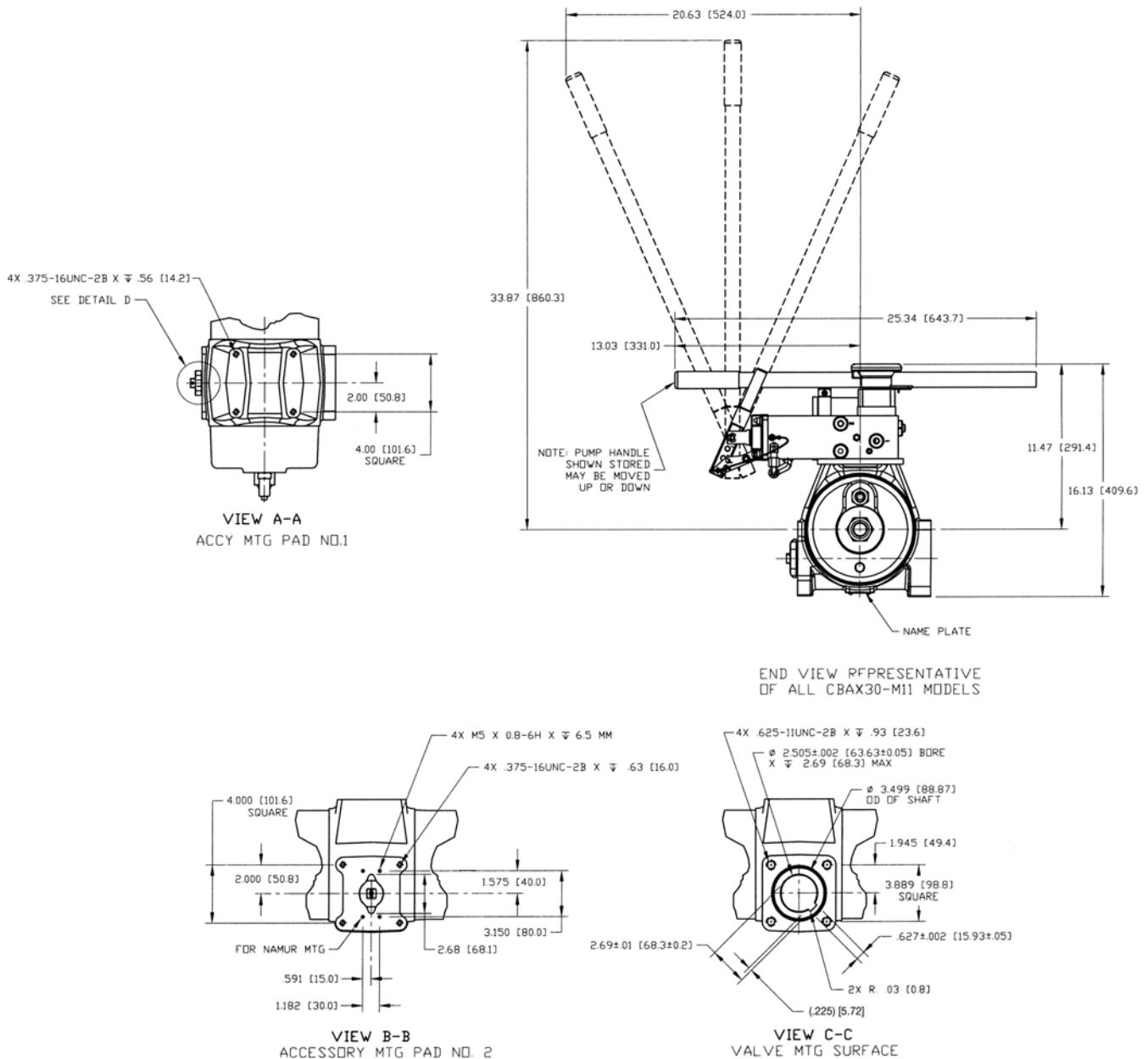
CBA-300 Series

Dimensions – (Pneumatic) In.

M11 Override

Spring-Return Actuators

CBAX30-SRX-M11



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