

ELECTRIC CYLINDERS QUICK REFERENCE

Use the following charts to select the electric cylinder that best fits your application. Refer to drawings on page 130. Contact Joyce with questions regarding the proper selection of electric cylinders.

2.5-Ton Thrust Capacity Electric Cylinders											
Model	Max Static Capacity (tons)	Screw Lead (in)	Linear Speed (in/min)	External Gearbox Ratio	Estimated Efficiency	Max Dynamic Load at HP (lbs)					
						.33HP	.5HP	.75HP	1HP	1.5HP	2HP
ACME Screw											
ECAL242.5	2.5	0.250	1.76	10	14%	5,000					
ECAL242.5	2.5	0.250	2.38	7.5	15%	5,000					
ECAH242.5	2.5	0.500	3.53	10	20%	5,000					
ECAH242.5	2.5	0.500	4.76	7.5	21%	5,000					
ECAH122.5	2.5	0.500	7.06	10	25%	4,234	5,000				
ECAH122.5	2.5	0.500	9.52	7.5	26%	3,219	5,000				
ECAH62.5	2.5	0.500	14.12	10	28%	2,374	3,701	5,000			
ECAL242.5	2.5	0.250	18.23	Direct drive	21%	756	1,543				
ECAH62.5	2.5	0.500	19.04	7.5	29%	1,787	2,811	4,317			
ECAH62.5	2.5	0.500	27.78	5	30%	1,213	1,946	3,025			
ECAH242.5	2.5	0.500	36.46	Direct drive	30%	525	1,072				
ECAH122.5	2.5	0.500	72.92	Direct drive	33%		555	1,010	1,464	2,373	
ECAH62.5	2.5	0.500	145.83	Direct drive	36%			512	754	1,238	1,723
Ball Screw											
ECBL242.5	2.5	0.250	1.76	10	30%	5,000					
ECBL242.5	2.5	0.250	2.38	7.5	32%	5,000					
ECBL122.5	2.5	0.250	3.53	10	38%	5,000					
ECBL122.5	2.5	0.250	4.76	7.5	40%	5,000					
ECBL62.5	2.5	0.250	7.06	10	43%	5,000					
ECBL62.5	2.5	0.250	9.52	7.5	45%	5,000					
ECBL62.5	2.5	0.250	13.89	5	47%	3,752	5,000				
ECBL242.5	2.5	0.250	18.23	Direct drive	46%	1,624	3,315				
ECBM62.5	2.5	0.500	19.04	7.5	45%	2,763	4,347	5,000			
ECBM62.5	2.5	0.500	27.78	5	47%	1,876	3,010	4,678	5,000		
ECBL122.5	2.5	0.250	36.46	Direct drive	52%	762	1,718	3,123	4,528	5,000	
ECBH62.5	2.5	1.000	38.08	7.5	45%	1,381	2,173	3,338			
ECBH62.5	2.5	1.000	55.56	5	47%	938	1,505	2,339	3,247		
ECBL62.5	2.5	0.250	72.92	Direct drive	55%		833	1,582	2,331	3,830	5,000
ECBM62.5	2.5	0.500	145.83	Direct drive	55%			791	1,166	1,915	2,664
ECBH62.5	2.5	1.000	291.67	Direct drive	55%				583	957	1,332

2.5-Ton Electric Cylinders			
	Maximum Rise		Cylinder Tube Torque
	Vertical Operation	Horizontal Operation	(in*lb) Per Pound Thrust
ACME Screw			
ECAL	28"	21"	.098
ECAH	28"	21"	.139
Ball Screw			
ECBL	41"	31"	.045
ECBM	44"	33"	.089
ECBH	41"	31"	.178

Selection Guidelines:

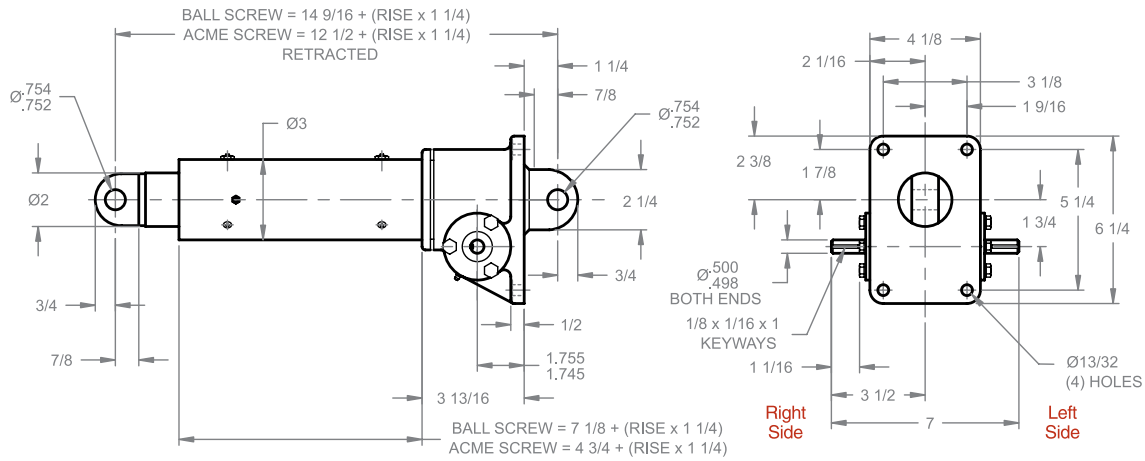
- Select the model most closely matching your desired load and speed requirements. The chart is sorted by static capacity, then screw type (ACME or ball), then travel speed.
- To determine the maximum rise for the model selected, see maximum rise chart above.
- L, M, and H in the model numbers designate low, medium, or high screw leads.
- ECA models are not suitable for duty cycles greater than 25%.
- **All models with efficiencies >30% require a brake motor.**
- Models with efficiencies ≤30% are self-locking in the absence of vibration. A brake motor is required if vibration is present or faster stopping times are desired.
- Loads and speeds shown assume use of a 1750 rpm 3ph AC induction motor.
- Cylinder tube torque per pound thrust is the means to calculate how much torque must be resisted at the mounting locations of the cylinder. To calculate torque (in*lb), multiply the value in the chart times the load in pounds.
- When ordering cylinders with a ComDRIVE reducer the listed part number should specify the proper 4 letter ComDRIVE shaft code from page 121. Units with a "direct drive" listing should specify the proper 4 letter motor mount code listed on page 121.
- Note: For normal operation, the translating tube end must be restrained from rotation.

ELECTRIC CYLINDERS

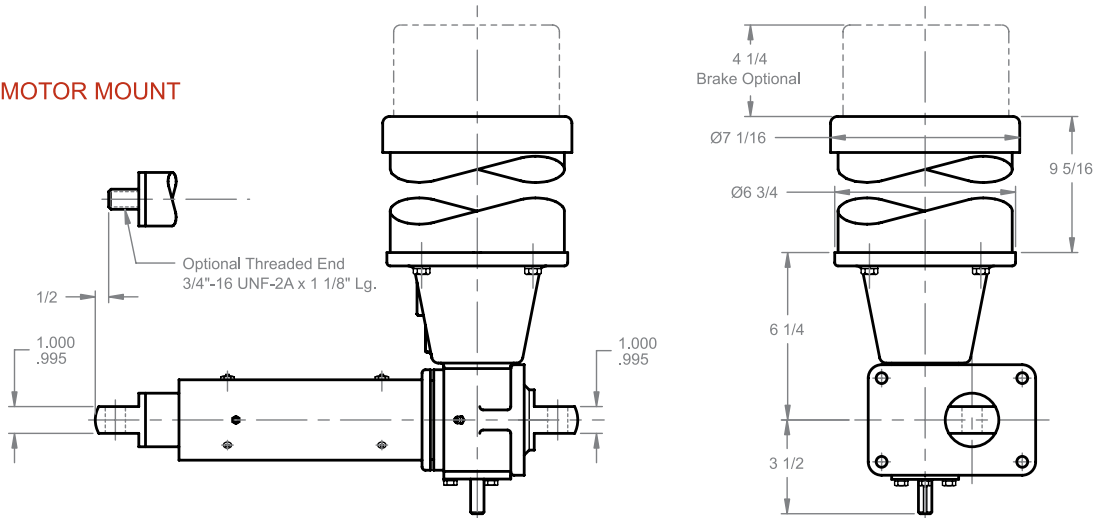
2 1/2 TON ELECTRIC CYLINDER

ECA (ACME SCREW)
ECB (BALL SCREW)

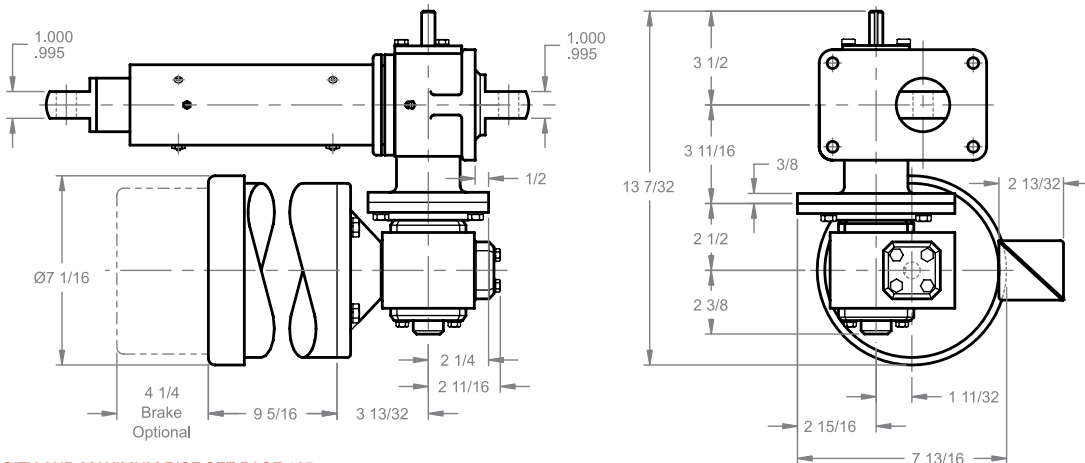
STANDARD



MOTOR MOUNT



ComDRIVE®



NOTE: FOR CAPACITY AND MAXIMUM RISE SEE PAGE 125.

Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.