

LINEAR ACTUATOR

MODULAR ACTUATORS

100 to 2000 lbs (444 to 8896 N)



FEATURES & BENEFITS

- Integral housing flange engineered for NEMA 56 frame motor. C-face mounting. (NEMA 42 and 48 and IEC71 frame motor C-face mounting options available).
- Rated loads to 2,000 lbs, depending on actuator gear ratio and motor horsepower.
- Lift speeds to 170 inches per minute (varied with load and hp/rpm of motor).
- Standard travel up to 24 inches (consult Duff-Norton engineering for longer travel options).
- Can be tandem-coupled for synchronous operation.
- Optional motors, limit switches and position indicating transducer.
- Clevis attachment accessories available for mounting: eye bracket, clevis bracket and pivot pin.

OPTIONS

- Limit switches
- Transducers

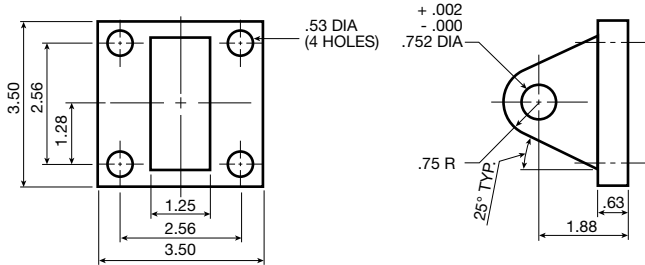
WARNING

These actuators are intended for industrial use only and should not be used to lift, support or otherwise transport people unless you have a written statement from Duff-Norton company which authorizes the specific actuator unit, as used in your application, as suitable for moving people.

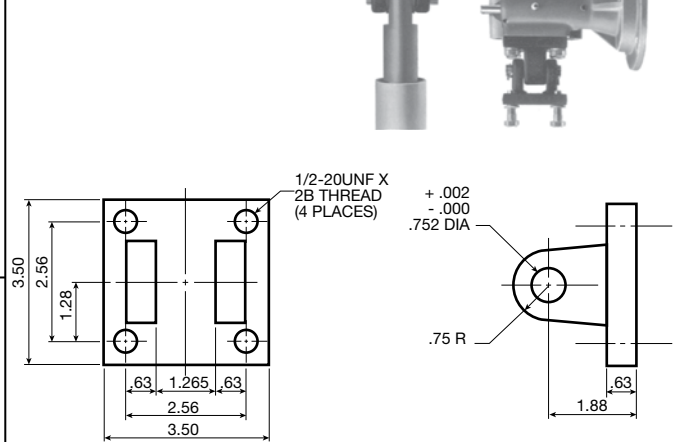
CLEVIS ACCESSORIES

Clevis attachments are available for modular actuators. Attachments are suitable for either housing end or translating tube end. Mounting hardware is not included.

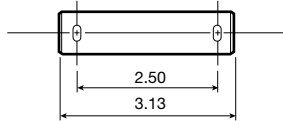
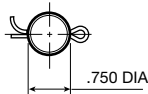
Eye Bracket SK2465-60EB



Clevis Bracket SK2465-61CB



Pivot Pin SK2465-62PP



Pivot Pin Washer H4211C

ORDERING INFORMATION (for special motor flange)

Required Motor Information:

Manufacturer _____

Type _____

AH _____

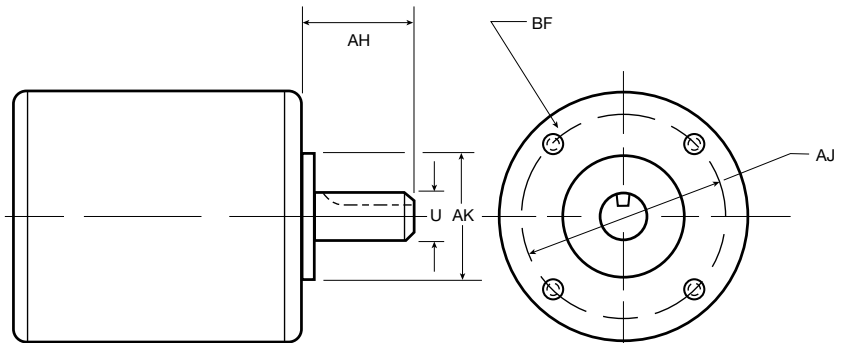
AK _____

AJ _____

U _____

Key Size _____

BF _____



LIMIT SWITCH

POSITION	1	2	3	4
M-2462, M-2463, BM-2462, BM-2463	C	A	D	C
M-2464, M-2465, BM-2464, BM-2465	C	X	D	C

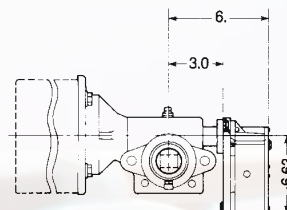
(A) Minimum positions of nut may be affected.

(C) Rotary Limit Switch extends below base of actuator unit.

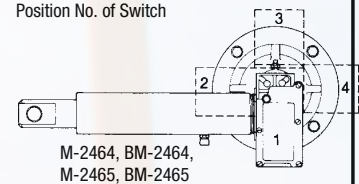
(D) Sealed electric elbow would extend below base of actuator unit.

(X) Recommended

(- -) Not recommended



Position No. of Switch



M-2464, BM-2464,
M-2465, BM-2465

M-2462, BM-2462,
M-2463, BM-2463

LINEAR ACTUATOR

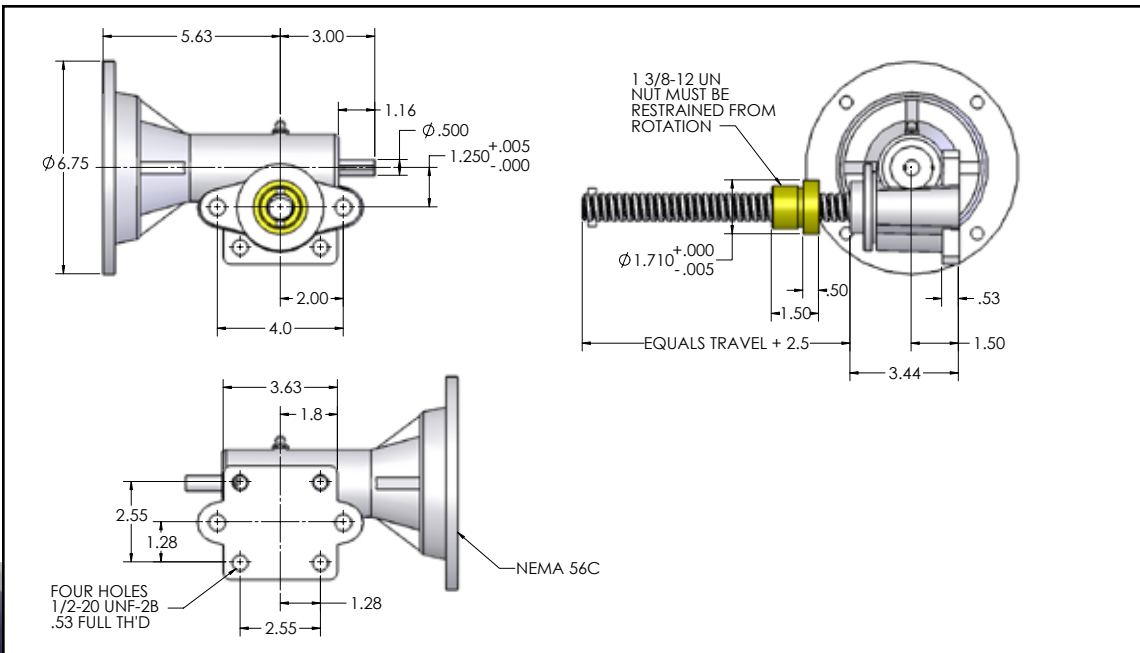
MODULAR ACTUATORS

ROTATING MACHINE SCREW MODELS

FEATURES & BENEFITS

- Integral 56 frame, C-face mounting flange.
- Three-piece flexible coupling for easy motor assembly (included).
- Four threaded holes in base for standard hydraulic cylinder, clevis end accessory attachment. Tapped 1/2 20 UNF-2B.
- Rolled thread lifting screw, with work hardened finish, reduces coefficient of friction between screw and lifting nut. Provides smooth, efficient operation and long service.
- Steel worm and bronze gear set for quiet operation. Available in 5:1 and 20:1 ratios.
- Rugged, lightweight aluminum housing is corrosion resistant.
- Bronze lifting nut for longer life.
- Standard grease fitting on housing for easy lubrication of worm gear.
- Stop-pin at end of lifting screw prevents inadvertent run-off of lifting nut.

DIMENSIONS



PRODUCT INFORMATION

Model Number	"T" Screw Diameter	Turns of Worm 1 in Travel		Torque lb/in at 1000 lb Loads		Motor RPM	Rated Loads (lbs)						Lifting Speed in/min	
		Ratio		Ratio			1/3 HP Motor		1/2 HP Motor		3/4 HP Motor		Ratio	
		5:1	20:1	5:1	20:1		5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1
M-2462	0.875 Dia. Acme 0.25 Pitch R.H. Double	10	40	39	18	1725	300	700	500	1000	700	1500	170	43
						1140	450	1000	700	1500	1100	2000	114	28
M-2463	1.0 Dia. Acme 0.25 Pitch R.H. Single	20	80	29	14	1725	400	900	600	1400	900	2000	86	21
						1140	600	1400	900	2000	1400	2000	57	14

Note: 1. Model M-2462 is self lowering and a motor brake should be used.
 2. Model M-2463 may drift 0.75 in (20:1 ratio) to 2.0 in (5:1 ratio) when motor is shut off. If this is undesirable, a motor brake should be employed.
 3. When ordering other than 56C-face actuators contact applications engineering at 800-477-5002.

LINEAR ACTUATOR

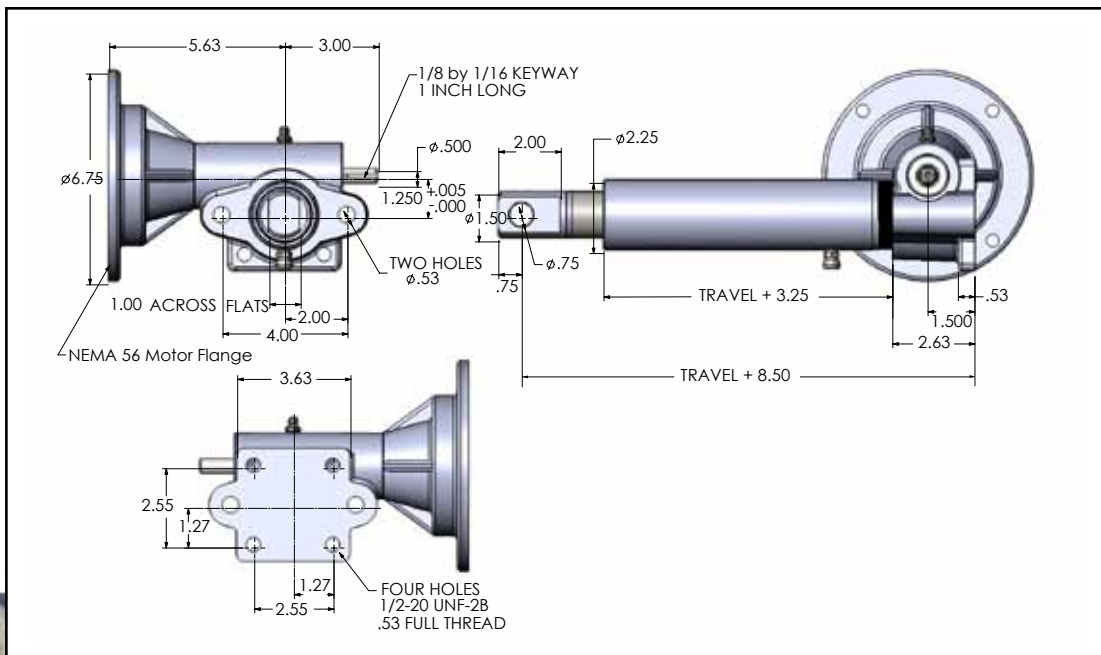
MODULAR ACTUATORS

TRANSLATING TUBE MACHINE SCREW MODELS

FEATURES & BENEFITS

- Outer aluminum tube is corrosion-resistant and protects translating tube, lifting screw and nut.
- Wiper-scraper seal in end of outer tube keeps dirt out and lubricants in.
- Bronze guide bushing in the outer tube reduces lateral movement of translating tube.
- Translating tube is zinc coated for weather-resistance.
- Single or double lead lifting screw and nut for high efficiency and longer wear.
- Vented in outer tube to prevent pressure build-up in the actuator
- Furnished with standard clevis end on translating tube. Threaded end is available on special order, depending on application, any type of threaded connection may be substituted.

DIMENSIONS



PRODUCT INFORMATION

Model Number	"T" Screw Dia.	Turns of Worm 1" Travel		Torque lb./in. @ 1000 lb. Loads		Motor RPM	Rated Loads (lbs)						Lifting Speed in. / min.	
		Ratio		Ratio			1/3 HP Motor		1/2 HP Motor		3/4 HP Motor		Ratio	
		5:1	20:1	5:1	20:1		5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1
M-2464	0.875 Dia. Acme 0.25 Pitch R.H. Double	10	40	39	18	1725	300	700	500	1000	700	1500	170	43
						1140	450	1000	700	1500	1100	2000	114	28
M-2465	1.0 Dia. Acme 0.25 Pitch R.H. Single	20	80	29	14	1725	400	900	600	1400	900	2000	86	21
						1140	600	1400	900	2000	1400	2000	57	14

- Note:
1. Model M-2464 is self lowering and a motor brake should be used.
 2. Model M-2465 may drift 0.75 in. (20:1 ratio) to 2.0 in. (5:1 ratio) when motor is shut off. If this is undesirable, a motor brake should be employed.
 3. When ordering other than 56C-face actuators contact applications engineering at 800-477-5002.

LINEAR ACTUATOR

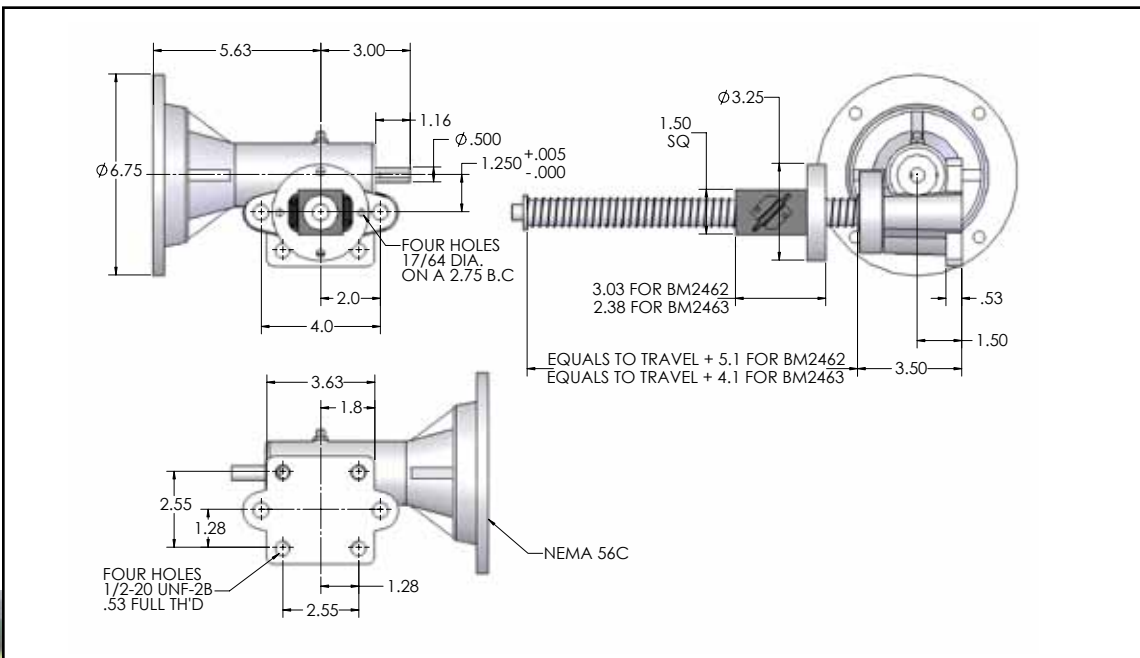
MODULAR ACTUATORS

ROTATING BALL SCREW MODELS

FEATURES & BENEFITS

- Integral 56 frame, C-face mounting flange.
- Three-piece flexible coupling for easy motor assembly (included).
- Four threaded holes in base for standard clevis end accessory attachment. Tapped 1/2-20 UNF-2B.
- Ball-bearing type screw and mating nut with rolling contact reduces friction to a minimum providing capability for higher speed and longer life with less power requirement.
- Steel worm and bronze gear set for quiet operation. Available in 5:1 and 20:1 ratios.
- Rugged, lightweight aluminum housing is corrosion resistant.
- Standard grease fitting on housing for easy lubrication of worm gear.
- Stop-disc at end of lifting screw prevents inadvertent run-off of ball nut.

DIMENSIONS



PRODUCT INFORMATION

Model Number	"T" Screw Diameter	Turns of Worm 1in Travel		Torque lb/in at 1000 lb Loads		Motor RPM	Rated Loads (lbs)								Lifting Speed in/min	
		Ratio		Ratio			1/4 HP Motor		1/3 HP Motor		1/2 HP Motor		3/4 HP Motor		Ratio	
		5:1	20:1	5:1	20:1		5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1
		5:1	20:1	5:1	20:1		5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1
BM-2462	1.00 Dia. x 1.000 Lead Ball Screw	5	-	5.3	-	1725	100	-	200	-	300	-	500	-	345	-
						1140	200	-	300	-	500	-	700	-	228	-
BM-2463	1.00 Dia. x 0.250 Lead Ball Screw	20	80	1.3	0.6	1725	600	1500	900	2000	1300	-	2000	-	86	21
						1140	1000	-	1300	-	2000	-	-	-	57	14

Note:

1. Model BM-2462 and BM-2463 are self lowering and a motor brake must be used.
2. Due to high travel speed of BM-2462, it is important that a brake with a minimum response time be used. An independently controlled direct acting brake (6ft-lb for 3/4 HP motors and 3ft-lb for smaller motors) is recommended.
3. When ordering other than 56C-face actuators contact applications engineering at 800-477-5002.

LINEAR ACTUATOR

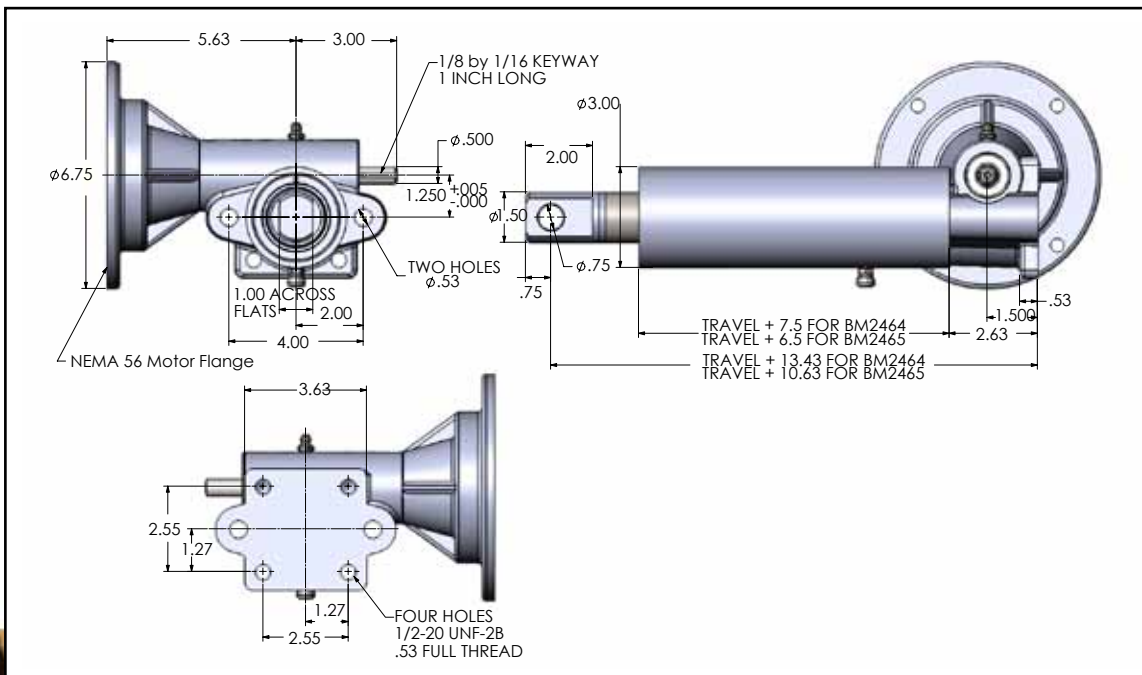
MODULAR ACTUATORS

TRANSLATING TUBE BALL SCREW MODELS

FEATURES & BENEFITS

- Outer aluminum tube is corrosion-resistant and protects translating tube, lifting screw and nut.
- Wiper-scraper seal in end of outer tube keeps dirt out and lubricants in.
- Bronze guide bushing in the outer tube reduces lateral movement of translating tube.
- Translating tube is zinc coated for weather-resistance.
- Single or quadruple lead ball-bearing type lifting screw and nut for higher efficiency and longer life.
- Vented in outer tube to prevent pressure build-up in the actuator
- Furnished with standard clevis end on translating tube. Threaded end is available on special order, depending on application, any type of threaded connection may be substituted.

DIMENSIONS



PRODUCT INFORMATION

Model Number	"T" Screw Diameter	Turns of Worm 1in Travel		Torque lb/in at 1000 lb Loads		Motor RPM	Rated Loads (lbs)								Lifting Speed in/min	
		Ratio		Ratio			1/4 HP Motor		1/3 HP Motor		1/2 HP Motor		3/4 HP Motor		Ratio	
		5:1	20:1	5:1	20:1		5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1	5:1	20:1
BM-2464	1.00 Dia. x 1.000 Lead Ball Screw	5	-	5.3	-	1725	100	-	200	-	300	-	500	-	345	-
						1140	200	-	300	-	500	-	700	-	228	-
BM-2465	1.00 Dia. x 0.250 Lead Ball Screw	20	80	1.3	0.6	1725	600	1500	900	2000	1300	-	2000	-	86	21
						1140	1000	-	1300	-	2000	-	-	-	57	14

- Note:**
1. Model BM-2464 and BM-2465 are self lowering and a motor brake must be used.
 2. Due to high travel speed of BM-2464, it is important that a brake with a minimum response time be used. An independently controlled direct acting brake (6ft-lb for 3/4 HP motors and 3ft-lb for smaller motors) is recommended.
 3. When ordering other than 56C-face actuators contact applications engineering at 800-477-5002.