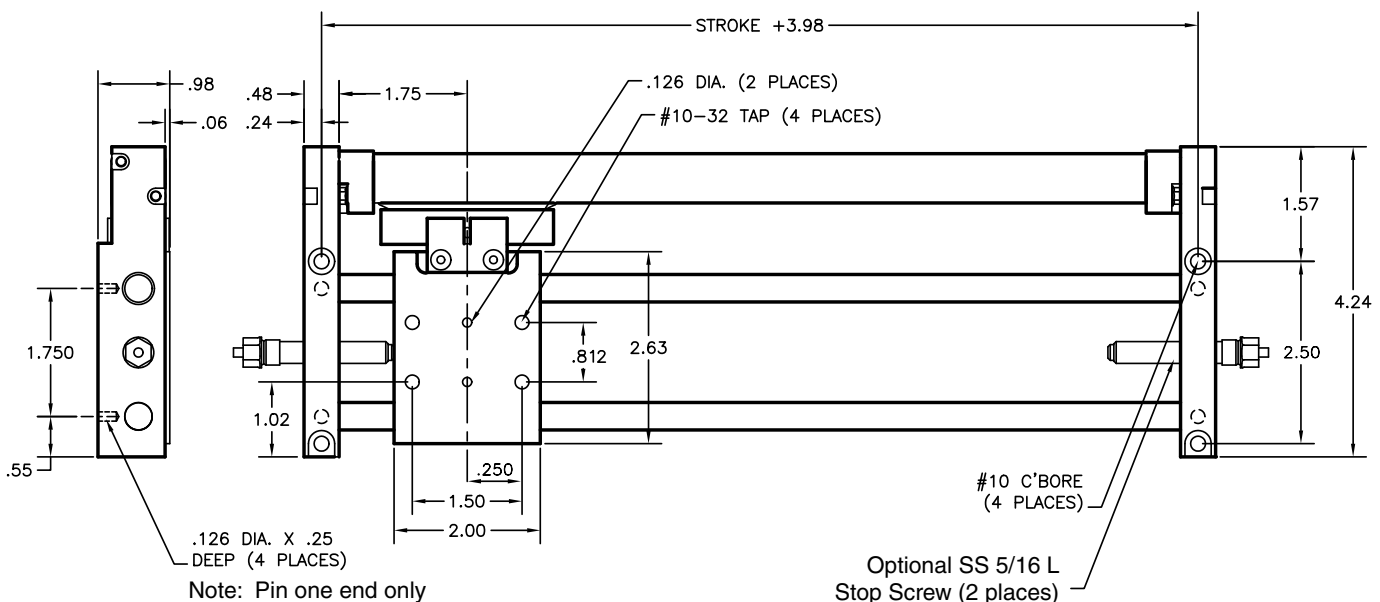




## F Features

- External mounted rodless cylinder
- Rodless cylinder for short overall length
- 0.375 dia. case hardened & ground shafts
- 4 linear ball bearings and seals for extended cycle life
- Tapped & dowel pin holes in anodized body for ease of mounting
- Tapped & dowel pin holes in anodized end plates for ease of mounting
- Hardened adjustable stopscrews for accurate and repeatable positioning
- End of stroke sensing switches are available for stopscrews

## Dimensions



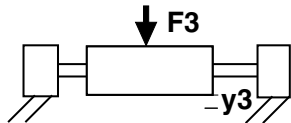
NOTE: Flow controls are recommended for all applications.

# ES-1 Table Slide

## Technical Data

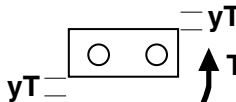
Bore = .38"  
 Force @ 80 psi = 9 lbs  
 Operating medium = compressed air 60-100 psi  
 Air connection = 10-32  
 Repeat accuracy = +/-0.0005"  
 Life expectancy = >100 million travel inches

Force diagrams below depict the load and the resultant deflection caused by that force (or torque).



$$F3 = X * F1$$

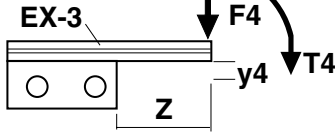
$$y3 = y1 / X$$



$$T = F3 * 0.87 / X$$

$$yT = y1 / 2 \text{ or}$$

$$yT = y3 * X / 2$$

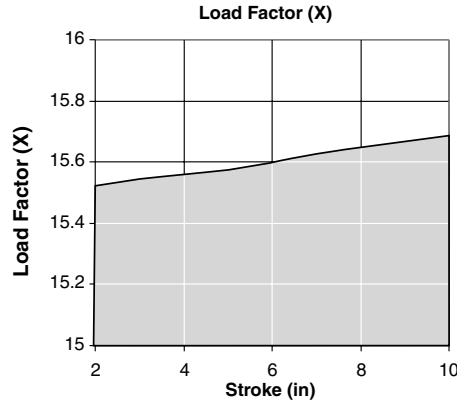


For  $T4 = T$ ;  
 If  $T4 = F4 * (z + 0.87)$  and  $T = F3 * 0.87 / X$  then,  

$$F4 = F3 * 0.87 / (X * (z + 0.87))$$

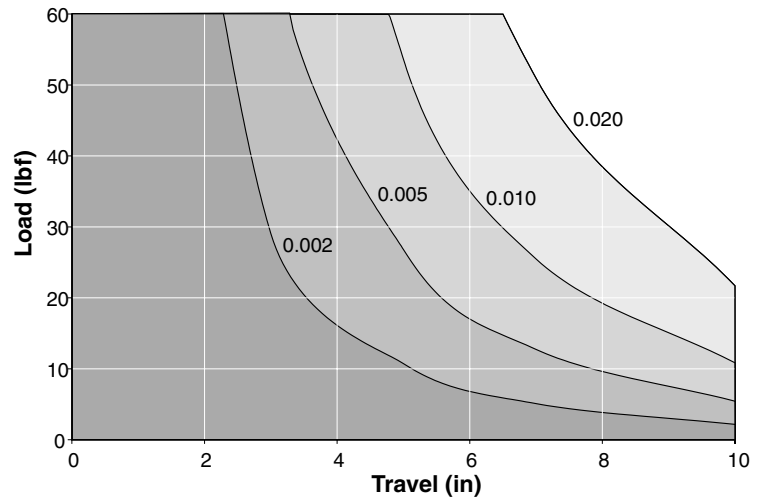
-F4 is the force that will cause a deflection (yT) at the block's edge. To determine the deflection at the cantilever end use the following:  

$$y4 = F4 * z^3 / (9.78E+07)$$



The load factor (X) is used in calculations as a relationship between a load on the ends (F1) versus a load in the center (F3).

**F3 Load vs. Travel at set Deflection (y<sub>3</sub>) for the ES-1**



## Ordering & Options

**ES - 1** -  -

STROKE  
(1" to 10")

C = Base ES with  
internal air cushion standard  
SS = with 2 Stop Screws

No Shocks Available

For end of stroke sensing,  
see page 143-149

