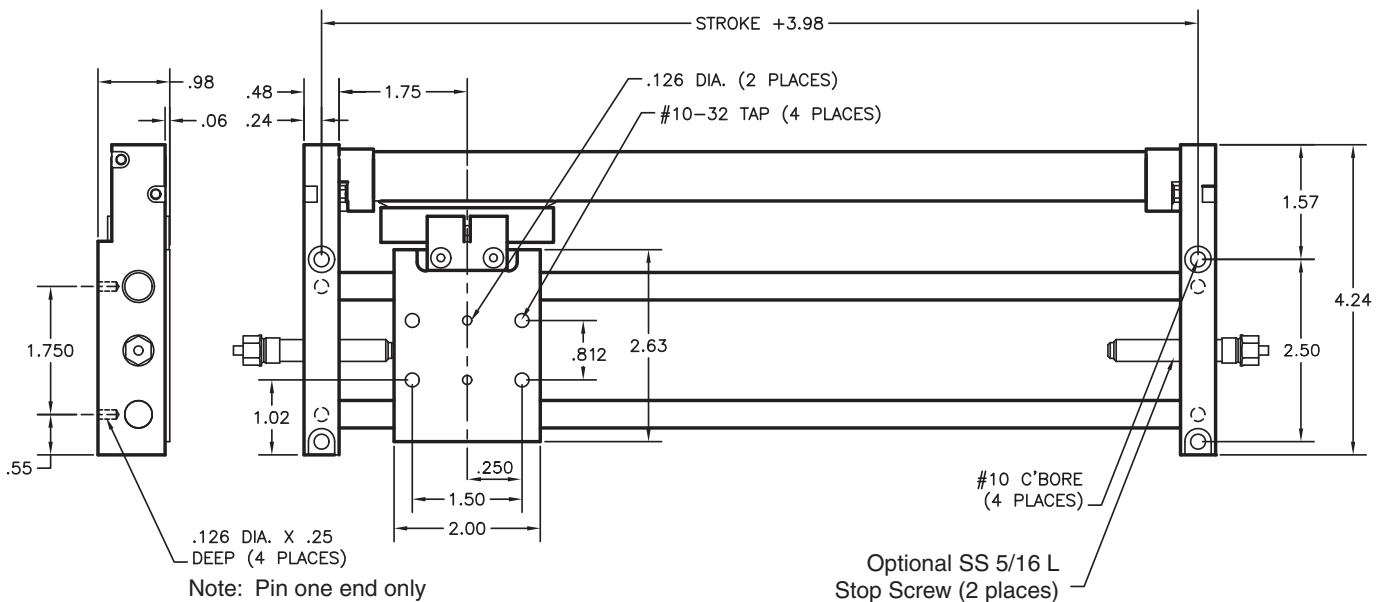# ES-1 Table Slide

Barrington
Automation

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
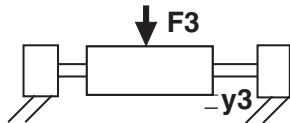- End of stroke sensing switches are available for stopscrews

Dimensions

STROKE +3.98

.98
.48
1.75
.126 DIA. (2 PLACES)
#10-32 TAP (4 PLACES)
.06 .24
1.57
4.24
1.750
.812 2.63
1.02
2.50
.250
1.50
#10 C'BORE (4 PLACES)
.55
2.00
.126 DIA. X .25 DEEP (4 PLACES)
Note: Pin one end only
Optional SS 5/16 L
Stop Screw (2 places)

NOTE: Flow controls are recommended for all applications.
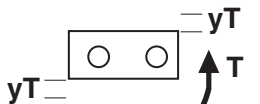
BARRINGTON Automation

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

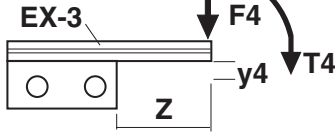Force diagrams below depict the load and the resultant deflection caused by that force (or torque).

Load Factor (X)

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=X*F1
y3=y1/X

T=F3*0.87/X
yT = y1/2 or
yT = y3*X/2

F3 Load vs. Travel at set Deflection (y3) for the ES-1

0.020
0.005
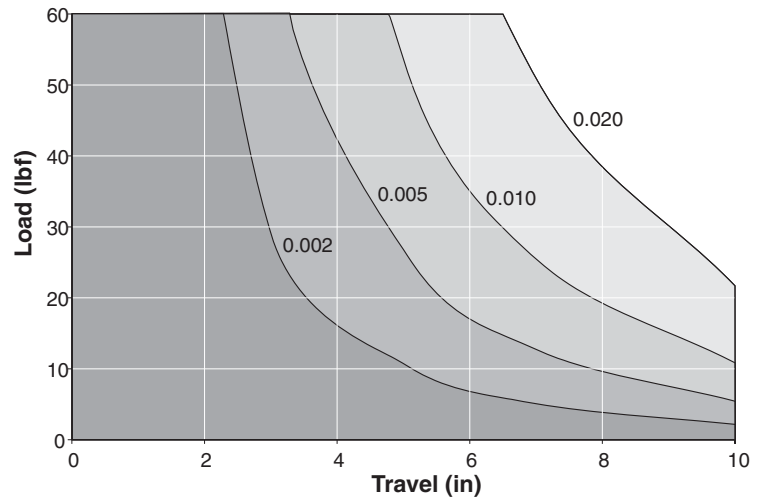0.010
0.002

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*z3/(9.78E+07)

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 49-53