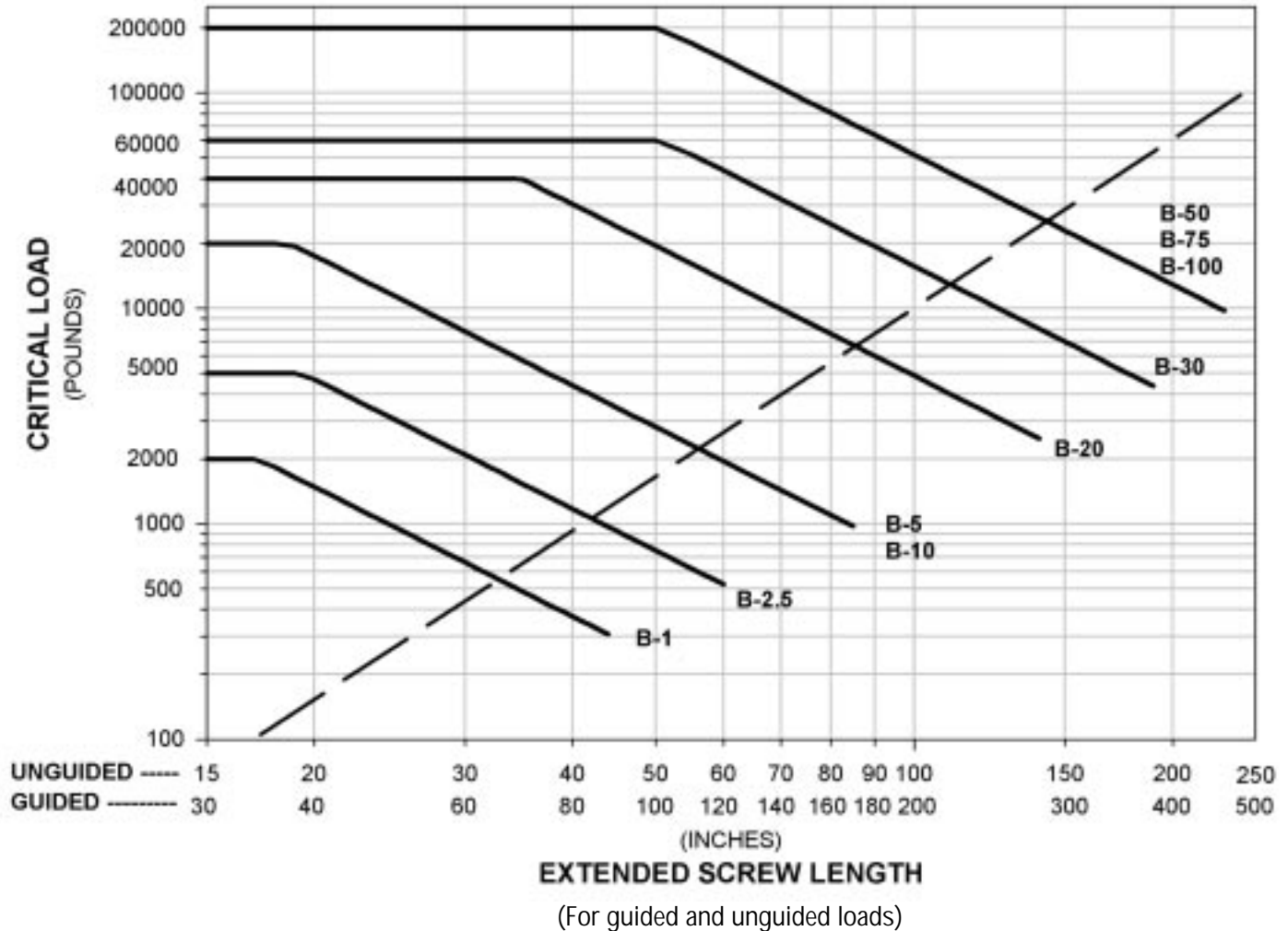


B-SERIES BALL SCREW COLUMN BUCKLE CHART



The maximum ESL values in the chart above are based on a **2:1 factor of safety against column buckle**, and on a standard design with a top plate, or a rotating design travel nut. Increased load screw lengths are not shown where the slenderness ratio exceeds 400.

1. Determine extended screw length: (ESL)

The ESL is the distance in inches the load screw can extend from the housing. See layout page for the model selected to determine ESL.

2. Determine the adjusted screw length: (ASL)

The chart above is for a standard design top plate or the rotating design travel nut. For other design configurations you must adjust the ESL value using the F factor multiplier to determine the adjusted screw length.

$$ASL = ESL \times F$$

F = Column Factor Multiplier

DESIGN CONFIGURATION	F factor	Guided K factor	Unguided K factor
Standard Design Top Plate	1	0.65	1.3
Rotating Design Traveling Nut	1	0.65	1.3
Standard Design Clevis End	1.25	0.8	1.6
Keyed Design Top Plate	1.25	0.65	1.3
Keyed Design Clevis End	2	0.65	1.6

3. Select correct size Uni-lift:

On the chart above, draw a horizontal line to represent the maximum load (P_1). Using the set of ESL values that apply to your design (guided or unguided), draw a vertical line to represent the ESL or ASL. All of the Uni-Lift's above the point of intersection will be acceptable.

Screw lengths above the dotted line comply with AISC maximum slenderness ratio $KL/r=200$ specified for design and fabrication of structural steel buildings. This data is for reference only and is not a limiting factor, except as required.

K=Column Factor

L=Extended Screw Length (ESL)

r=Radius of Gyration

See Technical Specifications (Table 7)

for r values