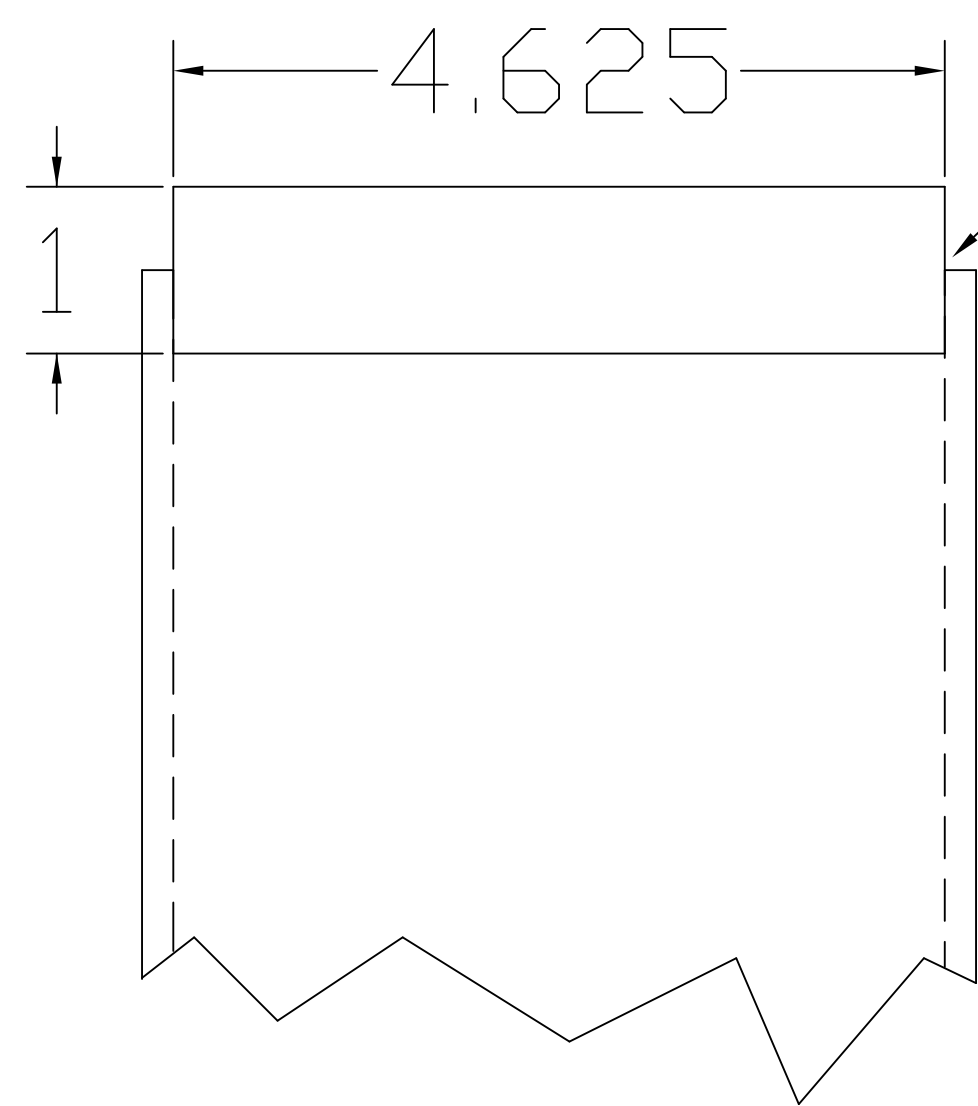
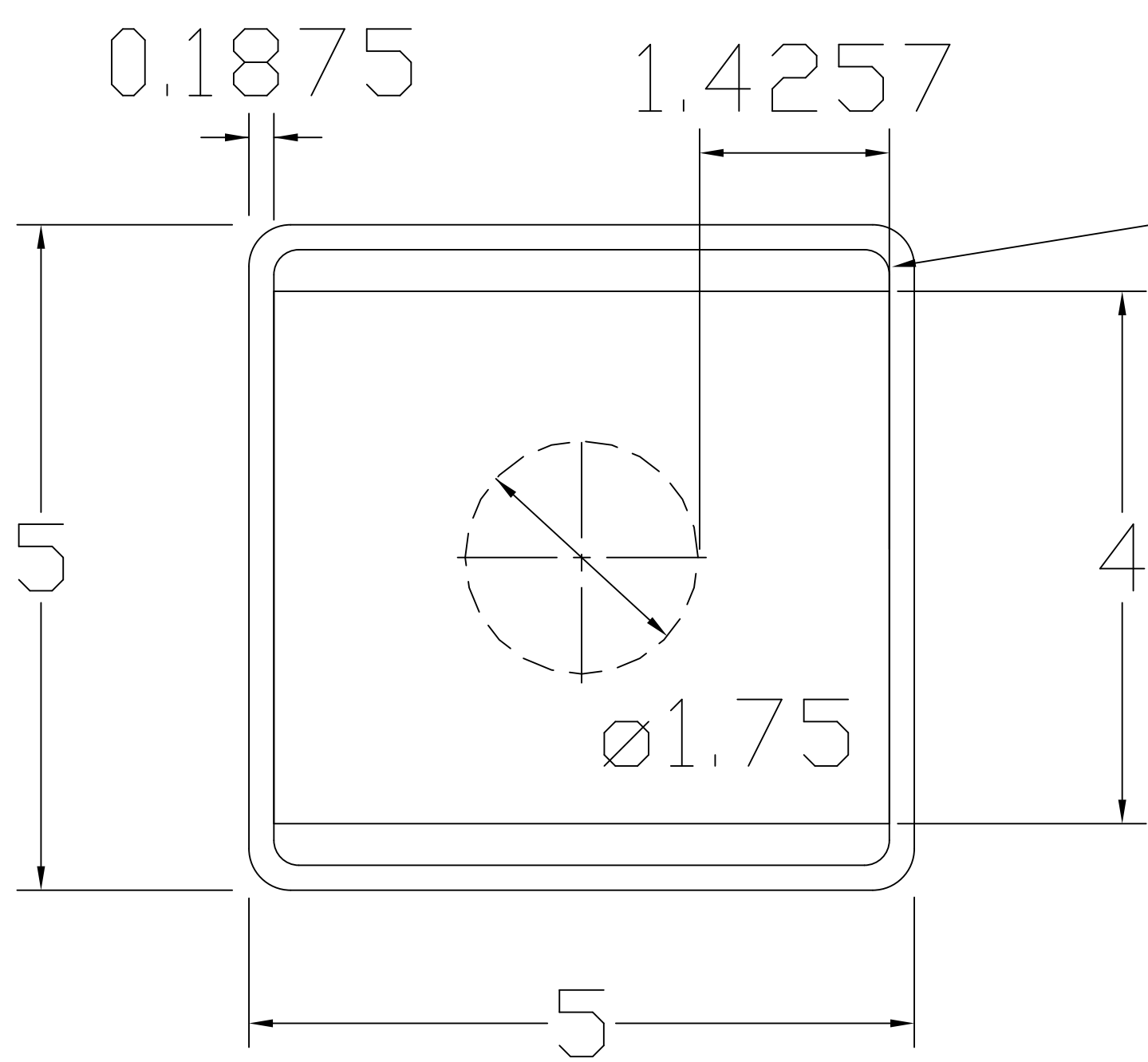


STEP DESIGN:



$(4 \times 1 \times 1) / 6 = .67 \text{ IN}^3$
 $(24000 \times 1.43) / 2 = 17160 \text{ LBS-IN}$
 $17160 / .67 = 25740 \text{ PSI}$
 $65000 / 25740 = 2.5$

RAM FORCE:
24000 LBS
1.75" DIA

TUBE

TYP.

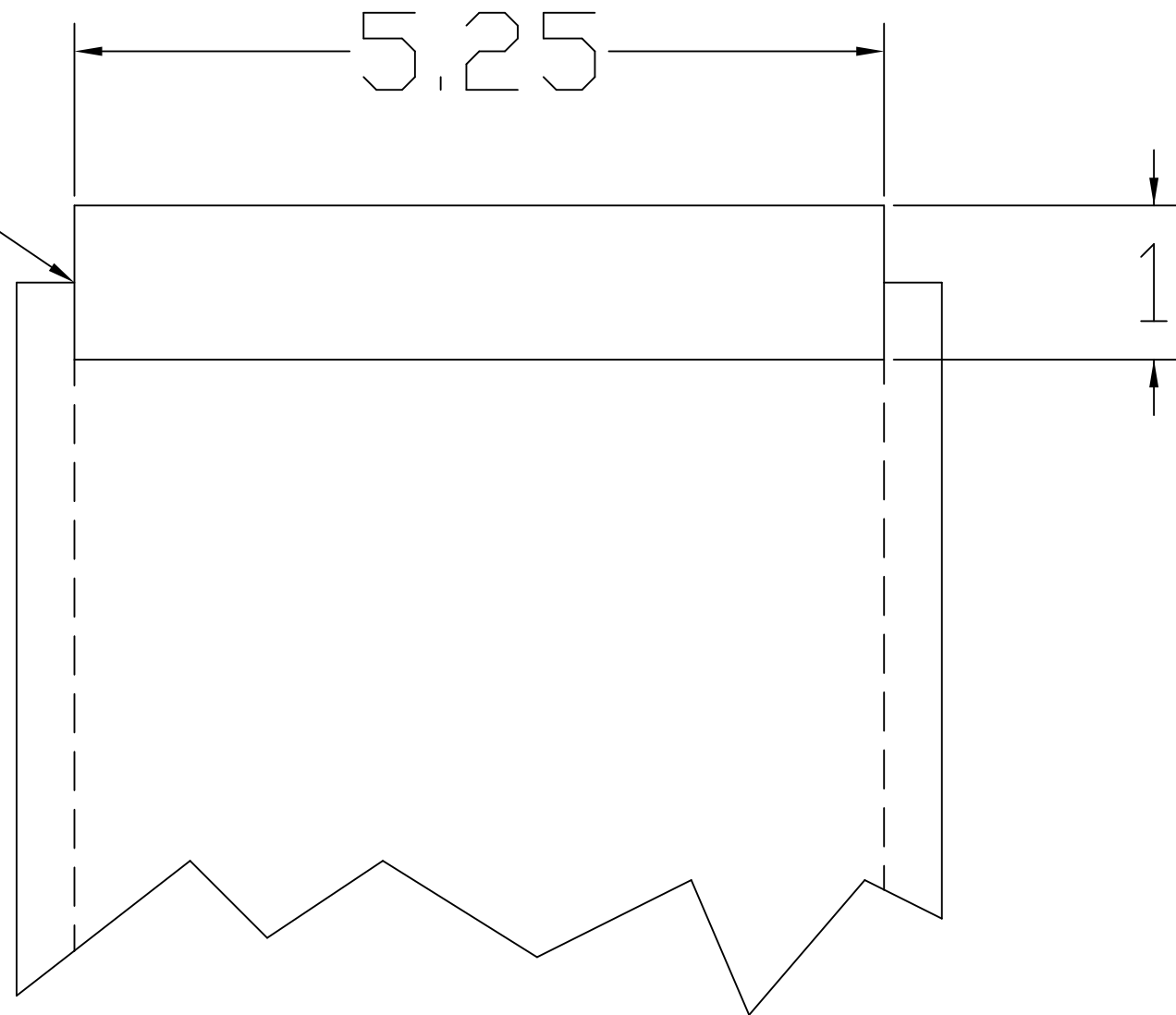
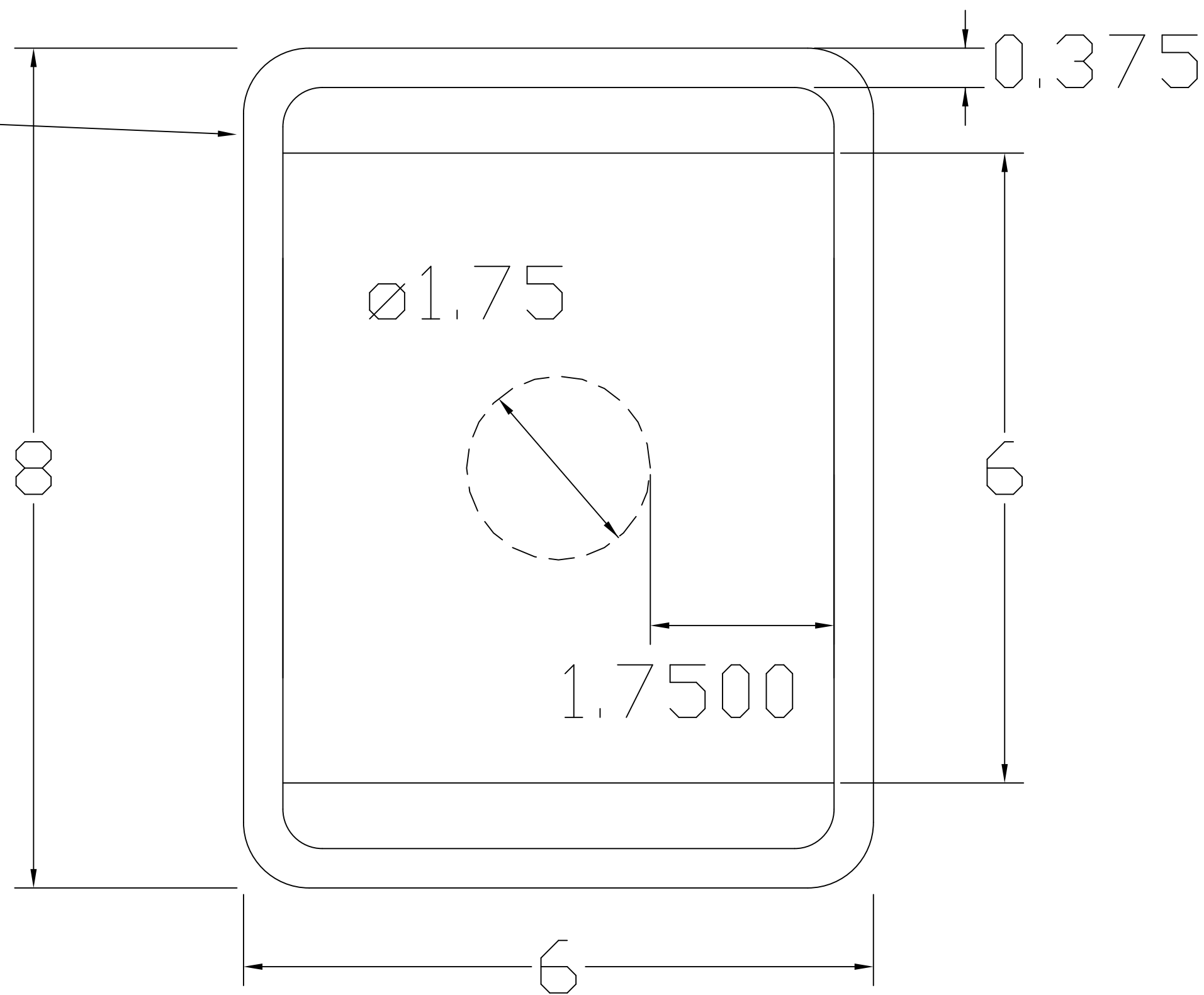
1/4

TYP.

3/8

END PLATE

SINGLE DESIGN:



$(6 \times 1 \times 1) / 6 = 1 \text{ IN}^3$
 $(24000 \times 1.75) / 2 = 21000 \text{ LBS-IN}$
 $21000 / 1 = 21000 \text{ PSI}$
 $65000 / 21000 = 3.1$

SECTION MODULUS
BENDING MOMENT
BENDING STRESS
STRESS SAFETY FACTOR