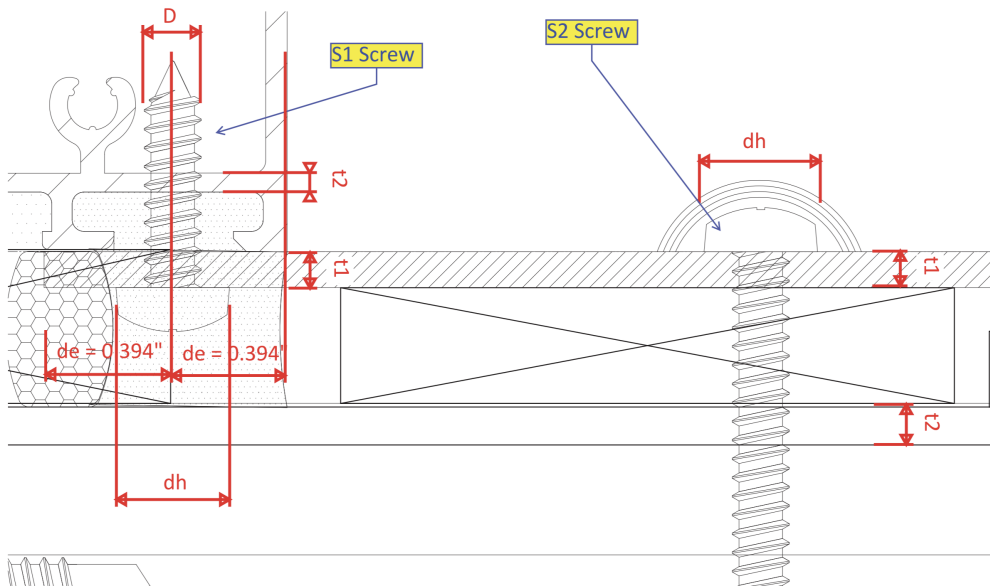


Close-Up Details of Screw Connections



S1 SCREW CAPACITY ANALYSIS

Check #12 Tapping Screw Connecting Anchor Plate to Receptor

PROPERTIES

| | | |
|--|--------------------------------|-----------------|
| Material in contact with screw head | S235JR | |
| Material not in contact with screw head | Alum 6060-T5 | |
| Top Sheet | | |
| Yield Stress of material contact with the head [Fy1] | 33 | ksi |
| Tensile Stress of material contact with the head [Fu1] | 52 | ksi |
| Thickness contact with the head [t1] | 0.12 | in |
| Bottom Sheet | | |
| Yield Stress of material not contact with the head [Fy2] | 17 | ksi |
| Tensile Stress of material not contact with the head [Fu2] | 23 | ksi |
| Thickness not contact with the head [t2] | 0.08 | in |
| $t_2/t_1=$ | 0.667 | |
| Fastener | | |
| Screw size/designation | #12 (5.5 Metric) - Zinc plated | |
| Fastener Yield Stress [Fy.fast] | 33 | ksi |
| Fastener Tensile Stress [Fu.fast] | 60 | ksi |
| Screw nominal diameter [D] | 0.217 | in |
| Screw head diameter [dh] | 0.405 | in |
| Section Area of Fastener [AR] | 0.037 | in ² |
| ASD Safety Factor | 3 | |

APPLIED LOADS

| | | |
|------------------|-------|-----|
| Shear Load [V] | 93.02 | lbs |
| Tension Load [T] | 0.00 | lbs |

ALLOWABLE LOADS