Mechanical Property Requirements

<table>
<thead>
<tr>
<th></th>
<th>Type A</th>
<th>Type B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>61,000 psi min</td>
<td>65,000 psi min</td>
</tr>
<tr>
<td>Yield Strength</td>
<td>49,000 psi min</td>
<td>51,000 psi min</td>
</tr>
<tr>
<td>Elongation (% in 2&quot;)</td>
<td>17% min</td>
<td>20% min</td>
</tr>
<tr>
<td>Elongation(% in 5x dia)</td>
<td>14% min</td>
<td>15% min</td>
</tr>
<tr>
<td>Reduction of Area</td>
<td>50% min</td>
<td>50% min</td>
</tr>
</tbody>
</table>

Type A Studs are general purpose studs
Type B Studs are headed, bent, or of other configuration that are used as essential component in composite beam design.

Stud Specification

<table>
<thead>
<tr>
<th>Material</th>
<th>Low Carbon Steel (1010-1020) ASTM A29 ASTM A108</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stud Diameter (D)</td>
<td>1&quot;</td>
</tr>
<tr>
<td>Stud Standard Length (L)</td>
<td>4-1/4</td>
</tr>
<tr>
<td>Stud Head Diameter (HD)</td>
<td>1-5/8</td>
</tr>
<tr>
<td>Stud Head Thickness (HT)</td>
<td>1/2</td>
</tr>
<tr>
<td>Stud Part #</td>
<td>HSC 1 414</td>
</tr>
<tr>
<td>Ferrule Part #</td>
<td>FER16-F</td>
</tr>
</tbody>
</table>