| Guidelines for Welding of Three Sheets Together |  |  |  |
| :--- | :--- | :--- | :--- |
| Upper Sheet: U |  |  |  |
| Middle Sheet: M |  |  |  |
| Lower Sheet: L |  |  |  |
|  |  |  |  |
| Sheet Sizes | Tip Dia <br> Suitable for | Weld <br> Schedules | Max Thickness <br> Ratio |
| $U=L$ | $U$ | $U$ | - |
| $U<L$ | $U$ | $U$ | $U: L=1: 4$ |
| $U=M=L$ | $U$ | $U+10 \%$ | - |
| $M<U<L$ | $U$ | $U+10 \%$ | $U: L=1: 2.5$ |
| $U<L<M$ | $L$ | $L+10 \%$ | $U: L=1: 2.5$ |
| $U<M<L$ | $M$ | $M+10 \%$ | $U: L=1: 2.5$ |
| $U=L>M$ | $U$ | $U+10 \%$ | $U: M=1: 4$ |
| $U=L<M$ | $U$ | $U+10 \%$ | $U: M=1: 3$ |
| $U<M=L$ | $L$ | $L+10 \%$ | $U: L=1: 2.5$ |
| $U=M<L$ | $U$ | $U+15 \%$ | $U: L=1: 2.5$ |

Starting values based on experience and experiments

