# MidwayMetals 

the stainless steel innovators

## Products \& Services Catalogue

| SPECIFICATIONS： | ASTM A554 <br> ASTM A269 <br> AS1528 |  |
| :--- | :--- | :--- |
| LENGTHS： | 6 METRES |  |
| FINISH： | MILL FINISH | W |
|  | POLISHED 320 GRIT | P |
|  | POLISHED MIDWAY MIRROR | M |
|  | ANNEALED POLISHED 600 GRIT | PA |
|  | FOOD POLISHED 320 GRIT | F |



| SIZE mm |  | T304 |  |  |  |  | T316 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OD | WT | w | P | M | PA | $F$ | w | P | M | F | PA |
| 6.35 | 0.7 | T | A |  | ＊ |  |  |  |  |  |  |
| 6.35 | 0.9 | N | ＊ |  | ＊ |  |  |  |  |  | ＊ |
| 7.94 | 0.9 | N | $\stackrel{3}{*}$ |  | ＊ |  |  |  |  |  |  |
| 9.53 | 0.9 | $\stackrel{\rightharpoonup}{*}$ | $\star$ |  | $\star$ |  |  |  |  |  |  |
| 9.53 | 1.2 | N | $\star$ |  | ＊ |  | ＊ | ＊ |  |  | A |
| 9.53 | 1.6 | ＊ | $\star$ |  | $\star$ |  | $\star$ | $\star$ | $\star$ |  | ＊ |
| 12.7 | 1.2 | N | $\star$ |  | ＊ |  | 令 | $\star$ |  |  | ＊ |
| 12.7 | 1.6 | ＊ | $\star$ |  | ＊ |  | ＊ | $\star$ | $\star$ |  | $\star$ |
| 15.9 | 1.2 | ＊ | $\star$ |  | ＊ |  | A | ＊ |  |  | ＊ |
| 15.9 | 1.6 | ＊ | $\star$ |  | ＊ |  | ＊ | $\star$ | $\star$ |  | $\star$ |
| 19.05 | 0.9 | ＊ | $\star$ |  | ＊ |  |  |  |  |  |  |
| 19.05 | 1.2 |  | $\star$ |  | ＊ |  | ＊ | ＊ | $\star$ |  | ＊ |
| 19.05 | 1.6 | ＊ | $\star$ |  | ＊ |  | ＊ | $\star$ | $\star$ |  | $\star$ |
| 22.2 | 1.2 | ＊ | $\stackrel{*}{*}$ |  | ＊ |  | ＊ | $\star$ | $\star$ |  | ＊ |
| 22.2 | 1.6 | ＊ | $\star$ |  | ＊ |  | ＊ | $\star$ | $\star$ |  | $\star$ |
| 25.4 | 0.9 | ＊ | $\star$ |  | ＊ |  | ＊ | $\star$ | ＊ |  | ＊ |
| 25.4 | 1.2 | ＊ | $\star$ |  | ＊ |  | A | ＊ | $\star$ |  | \％ |
| 25.4 | 1.6 | ＊ | $\star$ |  | ＊ | $\star$ | ＊ | $\star$ | $\star$ | $\star$ | $\star$ |
| 28.6 | 1.2 | ＊ | ＊ |  | ＊ |  | ＊ | $\star$ | $\star$ |  |  |
| 28.6 | 1.6 | $\star$ | ＊ |  | $\star$ |  | ＊ | $\star$ | $\star$ |  |  |
| 31.8 | 1.2 | ＊ | $\star$ |  | ＊ | $\star$ | 令 | $\star$ | $\star$ |  | ＊ |
| 31.8 | 1.6 | $\star$ | $\star$ |  | ＊ | $\star$ | ＊ | $\star$ | $\star$ | $\star$ | $\star$ |
| 31.8 | 3.0 |  |  |  |  |  |  |  | $\star$ |  |  |
| 38.1 | 1.2 | $\star$ | $\star$ |  | $\star$ | $\star$ | $\star$ | $\star$ | ＊ |  | $\star$ |
| 38.1 | 1.6 | ＊ | $\star$ |  | 4 | $\star$ | A | $\star$ | $\star$ | $\star$ | $\star$ |
| 38.1 | 3.0 |  |  | ＊ |  |  |  |  | $\star$ |  |  |
| 41.28 | 1.6 |  | $\star$ |  |  |  |  |  | $\star$ |  |  |
| 44.4 | 1.2 | ＊ | ＊ |  | ＊ |  |  |  |  |  |  |
| 44.4 | 1.6 | \％ | $\star$ | $\star$ | ＊ | N | 令 | ＊ | $\star$ |  | A |
| 50.8 | 1.2 | む | $\star$ |  | t | $\star$ | $\star$ | $\star$ |  |  | ＊ |
| 50.8 | 1.6 | ＊ | $\star$ |  | \％ | $\star$ | ＊ | $\star$ | $\star$ | $\star$ | $\star$ |
| 50.8 | 2.0 | $\star$ | $\star$ |  |  |  |  | $\star$ | $\star$ |  |  |
| 50.8 | 3.0 |  |  | \％ |  |  |  |  | $\star$ |  |  |
| 57.15 | 1.6 |  |  |  |  |  |  | $\star$ |  |  |  |
| 63.5 | 1.2 | A | ＊ |  | ＊ |  |  |  |  |  |  |
| 63.5 | 1.6 | $\star$ | $\star$ |  | ＊ | $\star$ | ＊ | $\star$ | $\star$ | $\star$ | $\star$ |
| 63.5 | 2.0 |  |  |  |  |  |  | $\star$ |  |  |  |
| 63.5 | 3.0 |  |  |  |  |  |  |  | $\star$ |  |  |

## ARCHITECTURAL TUBE

| SPECIFICATIONS: | ASTM A554 |  |
| :--- | :--- | :--- |
| LENGTH: | 6 METRES |  |
| FINISH: | POLISHED MIRROR <br>  | POLISHED 400 grit P |$\quad$ M

SLOTTED HAND RAIL

| SIZE | T304 | T316 |  |
| :---: | :---: | :---: | :---: |
| $\boldsymbol{m m}$ |  | $\boldsymbol{P}$ | $\boldsymbol{M}$ |
| $50.8 \times 1.5-$ Single Slot | $\star$ | $\star$ | $\star$ |
| $63.5 \times 1.5-$ Single Slot | $\star$ | $\star$ | $\star$ |
| $76.2 \times 1.5-$ Single Slot | $\star$ | $\star$ | $\star$ |
| $50.8 \times 1.5-$ Double Slot | $\star$ | $\star$ | $\star$ |
| $50.8 \times 1.5-90$ Degree Slot | $\star$ | $\star$ | $\star$ |



OVAL / D TUBE

| SIZE | T304 | T316 |
| :---: | :---: | :---: |
| $\mathbf{m m}$ | $\boldsymbol{M}$ | $\boldsymbol{M}$ |
| $23 \times 38 \times 1.5 \mathrm{~mm}-$ Oval | $\star$ | $\star$ |
| $28 \times 46 \times 1.5 \mathrm{~mm}-$ Oval | $\star$ | $\star$ |
| $38 \times 62 \times 1.5 \mathrm{~mm}-$ Oval | $\star$ | $\star$ |
| $42 \times 75 \times 1.5 \mathrm{~mm}-$ Oval | $\star$ | $\star$ |



TRIANGULAR TUBE

| SIZE | T304 | T316 |
| :---: | :---: | :---: |
| $\mathbf{m m}$ | $\boldsymbol{M}$ | $\boldsymbol{M}$ |
| $37 \times 25 \times 1.5 \mathrm{~mm}$ | $\star$ | $\star$ |



## WELDED SQUARE \＆RECTANGLE TUBE

| SPECIFICATIONS： | ASTM A554 |  |
| :--- | :--- | :--- | :--- |
| LENGTH： | 6 METRES |  |
| FINISH： | POLISHED 180 HAIRLINE <br>  <br>  | POLISHED 400 grit 400 |

SQUARE TUBE

| SIZE | T304 | T316 |  |
| :---: | :---: | :---: | :---: |
| mm | SBP | SBP | 400 |
| $12.7 \times 12.7 \times .9$ | ＊ |  |  |
| $12.7 \times 12.7 \times 1.2$ | $\star$ | W |  |
| $19 \times 19 \times 1.2$ | $\star$ | ＊ |  |
| $19 \times 19 \times 1.6$ | $\star$ | $\star$ | $\star$ |
| $22.2 \times 22.2 \times 1.2$ | $\star$ | ＊ |  |
| $22.2 \times 22.2 \times 1.6$ | ＊ | む |  |
| $25.4 \times 25.4 \times 1.2$ | $\star$ | ＊ |  |
| $25.4 \times 25.4 \times 1.6$ | $\star$ | $\star$ | $\star$ |
| $31.8 \times 31.8 \times 1.2$ | ᄎ | ＊ |  |
| $31.8 \times 31.8 \times 1.6$ | $\star$ | $\star$ | $\star$ |
| $38.1 \times 38.1 \times 1.2$ | $\star$ | ふ |  |
| $38.1 \times 38.1 \times 1.6$ | $\star$ | $\star$ | $\star$ |
| $50.8 \times 50.8 \times 1.2$ | $\star$ | \％ |  |
| $50.8 \times 50.8 \times 1.6$ | $\star$ | $\star$ | $\star$ |


| SIZE | T304 | T316 |  |
| :---: | :---: | :---: | :---: |
| mm | SBP | SBP | 400 |
| $25 \times 25 \times 2$ | $\star$ | $\star$ | \％ |
| $25 \times 25 \times 3$ | $\star$ | $\star$ | ＊ |
| $32 \times 32 \times 2$ | $\star$ | $\star$ | ＊ |
| $32 \times 32 \times 3$ | $\star$ | $\star$ | ＊ |
| $38 \times 38 \times 2$ | $\star$ | ＊ |  |
| $38 \times 38 \times 3$ | $\star$ | $\star$ | $\star$ |
| $40 \times 40 \times 3$ | $\star$ | ふ | ふ |
| $50 \times 50 \times 2$ | $\star$ | ＊ |  |
| $50 \times 50 \times 3$ | $\star$ | $\star$ | $\star$ |
| $50 \times 50 \times 5$ | $\star$ | $\star$ | ＊ |
| $60 \times 60 \times 3$ | $\star$ | $\star$ | \％ |
| $80 \times 80 \times 2$ | $\star$ | む |  |
| $80 \times 80 \times 3$ | $\star$ | $\star$ | ＊ |
| $80 \times 80 \times 5$ | $\star$ | $\star$ | ＊ |
| $100 \times 100 \times 3$ | $\star$ | $\star$ | ＊ |
| $100 \times 100 \times 5$ | $\star$ | $\star$ | ＊ |
| $150 \times 150 \times 3$ | $\star$ | $\star$ | ＊ |
| $150 \times 150 \times 5$ | $\star$ | $\star$ | ＊ |
| $150 \times 150 \times 6$ | $\star$ | \％ | ＊ |
| $150 \times 150 \times 8$ | $\star$ | ＊ | ＊ |

## WELDED SQUARE \& RECTANGLE TUBE

## RECTANGLE TUBE

| SIZE | T304 |  | T316 |  |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{m m}$ | SBP | SBP | $\mathbf{4 0 0}$ |  |
| $38.1 \times 25.4 \times 1.6$ | $\star$ | $\star$ |  |  |
| $50.8 \times 25.4 \times 1.2$ | $\star$ | $\star$ |  |  |
| $50.8 \times 25.4 \times 1.6$ | $\star$ | $\star$ | $\star$ |  |
| $80 \times 40 \times 1.6$ | $\star$ | $\star$ | $\star$ |  |
| $76.2 \times 25.4 \times 2.0$ | $\star$ | $\star$ | $\star$ |  |
| $150 \times 100 \times 3.0$ | $\star$ | $\star$ | $\star$ |  |



| SIZE | T304 |  | T316 |
| :---: | :---: | :---: | :---: |
| $\boldsymbol{m m}$ | SBP | SBP | $\mathbf{4 0 0}$ |
| $50 \times 10 \times 2$ | $\star$ |  | $\star$ |
| $50 \times 25 \times 3$ | $\star$ | $\star$ | $\star$ |
| $60 \times 40 \times 3$ | $\star$ | $\star$ | $\star$ |
| $80 \times 40 \times 3$ | $\star$ | $\star$ | $\star$ |
| $100 \times 50 \times 2$ | $\star$ | $\star$ | $\star$ |
| $100 \times 50 \times 3$ | $\star$ | $\star$ | $\star$ |
| $100 \times 50 \times 5$ | $\star$ | $\star$ | $\star$ |
| $150 \times 50 \times 6$ | $\star$ | $\star$ | $\star$ |
| $150 \times 75 \times 5$ | $\star$ | $\star$ | $\star$ |
| $150 \times 100 \times 5$ | $\star$ | $\star$ | $\star$ |
| $150 \times 100 \times 6$ | $\star$ | $\star$ | $\star$ |
| $200 \times 100 \times 5$ | $\star$ | $\star$ | $\star$ |
| $200 \times 100 \times 6$ | $\star$ | $\star$ | $\star$ |


| SPECIFICATIONS: | AUSTRALIAN STANDARD 1528 <br>  <br>  <br>  <br>  <br>  <br>  <br> FART 3-1975 <br> BENDS |  |
| :--- | :--- | :--- |
|  | CLR 1.50 |  |
|  | BENDS | UNPOLISHED \& POLISHED |
|  | OTHERS | POLISHED |


| SIzE |  | THICK <br> mm | $90^{\circ}$ BEND |  | $45^{\circ}$ BEND |  | $\begin{gathered} 180^{\circ} \\ \text { BEND } \\ 316 \end{gathered}$ | EQUAL TEE |  | $\begin{gathered} \text { Y Y } \\ \hline \text { PIECE } \\ \hline 316 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { CAP } \\ & 316 \end{aligned}$ | CROSS <br> 316 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Inch | mm |  | 304 | 316 | 304 | 316 |  | 304 | 316 |  |  |  |
| 1/2 | 12.7 | 1.6 |  | $\star$ |  | $\star$ |  |  | $\star$ |  |  |  |
| 5/8 | 15.88 | 1.6 |  | $\star$ |  |  |  |  |  |  |  |  |
| 3/4 | 19.05 | 1.6 | $\star$ | $\star$ |  | $\star$ | * |  | $\star$ |  | $\star$ |  |
| 1 | 25.4 | 1.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | $\grave{3}$ | $\star$ | * |
| $11 / 4$ | 31.8 | 1.6 | $\star$ | $\star$ |  | $\star$ | $\star$ | $\star$ | $\star$ | * | $\star$ | A |
| $11 / 2$ | 38.1 | 1.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | $\star$ | $\hat{3}$ | $\star$ | $\star$ |
| $13 / 4$ | 44.45 | 1.6 |  | $\star$ |  |  |  |  |  |  |  |  |
| 2 | 50.8 | 1.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ |
| $21 / 2$ | 63.5 | 1.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * |
| 3 | 76.2 | 1.6 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | $\star$ | $\star$ | $\star$ | $\star$ |
| $31 / 2$ | 88.9 | 1.6 |  | $\star$ |  |  |  |  |  |  |  |  |
| 4 | 101.6 | 1.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\cdots$ | $\star$ | * |
| 5 | 127 | 1.6 | $\star$ | $\star$ | * | $\star$ | $\cdots$ | $\star$ | $\star$ | * | * | A |
| 6 | 152.4 | 1.6 | $\star$ | $\star$ | * | $\star$ | * | * | $\star$ | * | * | * |
| 8 | 203.2 | 1.6 | $\hat{\sim}$ | $\pi$ | * | $\hat{*}$ | * | * | $\star$ |  | $\star$ |  |
| 10 | 254 | 1.6 | * | $\stackrel{*}{*}$ | * | $\star$ | W |  | * |  |  |  |
| 12 | 305 | 1.6 | ) | * | * | N | H |  | * |  |  |  |
| 4 | 101.6 | 2 |  | $\star$ |  |  |  |  | * |  |  |  |
| 5 | 127 | 2 | $\star$ | $\star$ |  |  |  |  | * |  |  |  |
| 6 | 152.4 | 2 | $\star$ | $\star$ | $\star$ | $\star$ |  |  | $\star$ |  |  |  |
| 8 | 203.2 | 2 | $\star$ | $\star$ |  |  |  |  | * |  |  |  |
| 10 | 254 | 2 | $\star$ | $\star$ |  |  |  |  | * |  |  |  |
| 12 | 305 | 2 | * | $\star$ |  |  |  |  | H |  |  |  |

REDUCING TUBE FITTINGS

\(\begin{array}{ll}SPECIFICATIONS: \& AUSTRALIAN STANDARD 1528<br>\& PART 3-1975\end{array}\)<br>FINISH:<br>POLISHED

| OD |  | TK | CONCENTRIC REDUCER | ECCENTRIC REDUCER | REDUCING TEE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| mm | Inch | mm |  |  |  |
| $19.1 \times 12.7$ | $3 / 4 \times 1 / 2$ | 1.6 | $\star$ | * | $\star$ |
| $25.4 \times 12.7$ | $1 \times 1 / 2$ | 1.6 | $\star$ | * | $\star$ |
| $25.4 \times 19.1$ | $1 \times 3 / 4$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $31.8 \times 19.1$ | $11 / 4 \times 3 / 4$ | 1.6 | $\star$ | * | * |
| $31.8 \times 25.4$ | $11 / 4 \times 1$ | 1.6 | $\star$ | * | * |
| $38.1 \times 12.7$ | $13 / 4 \times 1 / 2$ | 1.6 | $\star$ | * | * |
| $38.1 \times 19.1$ | $11 / 2 \times 3 / 4$ | 1.6 | $\star$ | * | * |
| $38.1 \times 25.4$ | $11 / 2 \times 1$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $38.1 \times 31.8$ | $11 / 2 \times 11 / 4$ | 1.6 | $\star$ | $\star$ | * |
| $50.8 \times 12.7$ | $2 \times 1 / 2$ | 1.6 | $\star$ | $\star$ | * |
| $50.8 \times 19.1$ | $2 \times 3 / 4$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $50.8 \times 25.4$ | $2 \times 1$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $50.8 \times 31.8$ | $2 \times 11 / 4$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $50.8 \times 38.1$ | $2 \times 11 / 2$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $63.5 \times 19.1$ | $21 / 2 \times 3 / 4$ | 1.6 | $\star$ | * | $\star$ |
| $63.5 \times 25.4$ | $21 / 2 \times 1$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $63.5 \times 31.8$ | $21 / 2 \times 11 / 4$ | 1.6 | $\star$ | $\star$ | * |
| $63.5 \times 38.1$ | $21 / 2 \times 11 / 2$ | 1.6 | $\star$ | $\star$ | * |
| $63.5 \times 50.8$ | $21 / 2 \times 2$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $76.2 \times 19.1$ | $3 \times 3 / 4$ | 1.6 | $\star$ | * | * |
| $76.2 \times 25.4$ | $3 \times 1$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $76.2 \times 31.8$ | $3 \times 11 / 4$ | 1.6 | $\star$ | * | * |
| $76.2 \times 38.1$ | $3 \times 11 / 2$ | 1.6 | $\star$ | $\star$ | * |
| $76.2 \times 50.8$ | $3 \times 2$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $76.2 \times 63.5$ | $3 \times 21 / 2$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $101.6 \times 25.4$ | $4 \times 1$ | 1.6 | $\star$ | $\star$ | * |
| $101.6 \times 38.1$ | $4 \times 11 / 2$ | 1.6 | $\star$ | * | * |
| $101.6 \times 50.8$ | $4 \times 2$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $101.6 \times 63.5$ | $4 \times 21 / 2$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $101.6 \times 76.2$ | $4 \times 3$ | 1.6 | $\star$ | $\star$ | $\star$ |
| $127 \times 50.8$ | $5 \times 2$ | 1.6 | $\star$ | A | A |
| 127. $\times 63.5$ | $5 \times 21 / 2$ | 1.6 | * | $\star$ | * |
| $127 \times 76.2$ | $5 \times 3$ | 1.6 | $\star$ | $\star$ | A |
| $127 \times 101.6$ | $5 \times 4$ | 1.6 | $\star$ | $\star$ | N |
| $152.4 \times 25.4$ | $6 \times 1$ | 1.6 | $\star$ | * | * |
| $152.4 \times 50.8$ | $6 \times 2$ | 1.6 | $\star$ | $\star$ | * |
| $152.4 \times 63.5$ | $6 \times 21 / 2$ | 1.6 | $\star$ | $\star$ | * |
| $152.4 \times 76.2$ | $6 \times 3$ | 1.6 | $\star$ | $\star$ | * |
| $152.4 \times 101.6$ | $6 \times 4$ | 1.6 | $\star$ | $\star$ | * |
| $152.4 \times 127$ | $6 \times 5$ | 1.6 | $\star$ | $\star$ | * |
| $203.2 \times 101.6$ | $8 \times 4$ | 1.6 | $\star$ | $\star$ | * |
| $203.2 \times 127$ | $8 \times 5$ | 1.6 | $\star$ | * | * |
| $203.2 \times 152.4$ | $8 \times 6$ | 1.6 | $\star$ | * | * |

## TECHNICAL DATA

## TUBE FITTING DIMENSIONS

CENTRE-TO-FACE DIMENSIONS OF $45^{\circ}, 90^{\circ} \& 180^{\circ}$ TUBE BENDS


AS SHORT TEE / EQUAL TEE

| NOMINAL <br> SIZE | CENTRE-TO-FACE DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: |
| Size | oD | D | L.1 |
|  | mm |  |  |
| $1 / 2$ | 12.7 | 38.2 | 19.1 |
| $3 / 4$ | 19.1 | 57.2 | 28.6 |
| 1.0 | 25.4 | 76.2 | 38.1 |
| $11 / 4$ | 31.8 | 95.4 | 47.7 |
| 1.5 | 38.1 | 114 | 57.0 |
| 2.0 | 50.8 | 152.4 | 76.2 |
| 2.5 | 63.5 | 190 | 95.0 |
| 3.0 | 76.2 | 228.4 | 114.2 |
| 4.0 | 101.6 | 304.8 | 152.4 |



DIMENSIONS OF TUBE CROSS

| NOMINAL SIZE | CENTRE-TO-FACE DIMENSIONS |  |
| :---: | :---: | :---: |
|  | $\mathbf{A}$ | $\boldsymbol{B}$ |
| $\mathbf{m m}$ | $\mathbf{m m}$ | $\mathbf{m m}$ |
| 25.4 | 76.2 | 38.1 |
| 31.8 | 114 | 57.0 |
| 50.8 | 152.4 | 76.2 |
| 76.2 | 228.4 | 114.2 |
| 101.6 | 304.8 | 152.4 |



DIMENSIONS OF WELDED TYPE 'Y' PIECE

| NOMINAL SIZE | CENTRE-TO-FACE DIMENSIONS |  |
| :---: | :---: | :---: |
|  | $\mathbf{A}$ | $\mathbf{B}$ |
| $\boldsymbol{m m}$ | $\mathbf{m m}$ | $\boldsymbol{m m}$ |
| 25.4 | 88 | 72 |
| 31.8 | 110 | 90 |
| 38.1 | 132 | 108 |
| 50.8 | 176 | 143 |
| 63.5 | 220 | 179 |
| 76.2 | 264 | 215 |
| 101.6 | 352 | 287 |
| 127 | 359 | 440 |
| 152.4 | 430 | 529 |


'Y' PIECE


CONCENTRIC REDUCER


ECCENTRIC REDUCER


REDUCING TEE

| SIZE |  | TK | $\begin{aligned} & \text { CONCENTRIC } \\ & \text { REDUCER } \end{aligned}$ |  | ECCENTRIC REDUCER |  | REDUCING TEE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mm | Inch |  | A | B | A | B | A | B |
| $19.1 \times 12.7$ | $3 / 4 \times 1 / 2$ | 1.6 | 20 | 20 | 20 | 22 |  |  |
| $25.4 \times 12.7$ | $1 \times 1 / 2$ | 1.6 | 25 | 25 | 25 | 27 |  |  |
| $25.4 \times 19.1$ | $1 \times 3 / 4$ | 1.6 | 25 | 25 |  |  |  |  |
| $31.8 \times 19.1$ | $11 / 4 \times 3 / 4$ | 1.6 | 32 | 32 |  |  |  |  |
| $31.8 \times 25.4$ | $11 / 4 \times 1$ | 1.6 | 32 | 32 | 32 | 34 |  |  |
| $38.1 \times 12.7$ | $11 / 2 \times 1 / 2$ | 1.6 | 38 | 40 | 38 | 40 |  |  |
| $38.1 \times 19.1$ | $11 / 2 \times 3 / 4$ | 1.6 | 38 | 38 | 38 | 40 |  |  |
| $38.1 \times 25.4$ | $11 / 2 \times 1$ | 1.6 | 38 | 38 | 38 | 40 | 70 | 89 |
| $38.1 \times 31.8$ | $11 / 2 \times 11 / 4$ | 1.6 | 38 | 38 | 38 | 40 |  |  |
| $50.8 \times 12.7$ | $2 \times 1 / 2$ | 1.6 | 51 | 54 |  |  |  |  |
| $50.8 \times 19.1$ | $2 \times 3 / 4$ | 1.6 | 51 | 54 | 50 | 52 |  |  |
| $50.8 \times 25.4$ | $2 \times 1$ | 1.6 | 51 | 52 | 50 | 53 | 83 | 90 |
| $50.8 \times 31.8$ | $2 \times 11 / 4$ | 1.6 | 51 | 52 | 50 | 53 | 93 | 120 |
| $50.8 \times 38.1$ | $2 \times 11 / 2$ | 1.6 | 51 | 52 | 50 | 53 | 100 | 131 |
| $63.5 \times 19.1$ | $21 / 2 \times 3 / 4$ | 1.6 | 63 | 65 |  |  |  |  |
| $63.5 \times 25.4$ | $21 / 2 \times 1$ | 1.6 | 63 | 65 | 63 | 65 |  |  |
| $63.5 \times 31.8$ | $21 / 2 \times 11 / 4$ | 1.6 | 63 | 65 | 63 | 65 |  |  |
| $63.5 \times 38.1$ | $21 / 2 \times 11 / 2$ | 1.6 | 63 | 63 | 63 | 65 | 114 | 133 |
| $63.5 \times 50.8$ | $21 / 2 \times 2$ | 1.6 | 63 | 63 | 63 | 65 | 130 | 178 |
| $76.2 \times 19.1$ | $3 \times 3 / 4$ | 1.6 | 76 | 80 |  |  | 107 | 110 |
| $76.2 \times 25.4$ | $3 \times 1$ | 1.6 | 76 | 80 | 76 | 80 | 111 | 100 |
| $76.2 \times 31.8$ | $3 \times 11 / 4$ | 1.6 | 76 | 80 |  |  |  |  |
| $76.2 \times 38.1$ | $3 \times 11 / 2$ | 1.6 | 76 | 76 | 76 | 80 | 125 | 133 |
| $76.2 \times 50.8$ | $3 \times 2$ | 1.6 | 76 | 76 | 76 | 80 | 140 | 178 |
| $76.2 \times 63.5$ | $3 \times 21 / 2$ | 1.6 | 76 | 76 | 76 | 81 | 159 | 229 |
| $101.6 \times 25.4$ | $4 \times 1$ | 1.6 | 102 | 107 | 101 | 110 |  |  |
| $101.6 \times 38.1$ | $4 \times 11 / 2$ | 1.6 | 102 | 107 | 101 | 110 | 154 | 133 |
| $101.6 \times 50.8$ | $4 \times 2$ | 1.6 | 102 | 103 | 101 | 110 | 171 | 178 |
| $101.6 \times 63.5$ | $4 \times 21 / 2$ | 1.6 | 102 | 103 | 101 | 110 | 188 | 229 |
| $101.6 \times 76.2$ | $4 \times 3$ | 1.6 | 102 | 103 | 101 | 110 | 189 | 254 |
| $127 \times 50.8$ | $5 \times 2$ | 1.6 | 127 | 132 | 127 | 138 |  |  |
| 127. $\times 63.5$ | $5 \times 21 / 2$ | 1.6 | 127 | 132 | 127 | 138 |  |  |
| $127 \times 76.2$ | $5 \times 3$ | 1.6 | 127 | 127 | 127 | 140 | 218 | 254 |
| $127 \times 101.6$ | $5 \times 4$ | 1.6 | 127 | 127 | 127 | 140 | 218 | 292 |
| $152.4 \times 38.1$ | $6 \times 11 / 2$ | 1.6 | 153 | 165 |  |  |  |  |
| $152.4 \times 50.8$ | $6 \times 2$ | 1.6 | 153 | 161 | 152 | 162 |  |  |
| $152.4 \times 63.5$ | $6 \times 21 / 2$ | 1.6 | 153 | 158 | 152 | 165 |  |  |
| $152.4 \times 76.2$ | $6 \times 3$ | 1.6 | 153 | 158 | 152 | 162 | 244 | 254 |
| $152.4 \times 101.6$ | $6 \times 4$ | 1.6 | 153 | 153 | 152 | 162 | 252 | 300 |
| $152.4 \times 127$ | $6 \times 5$ | 1.6 | 153 | 153 | 152 | 162 | 385 | 380 |
| $203.2 \times 101.6$ | $8 \times 4$ | 1.6 | 205 | 208 | 205 | 215 | 304 | 300 |
| $203.2 \times 127$ | $8 \times 5$ | 1.6 | 205 | 212 | 205 | 215 | 330 | 380 |
| $203.2 \times 152.4$ | $8 \times 6$ | 1.6 | 205 | 205 | 205 | 215 | 348 | 440 |

## BSM/RJT FITTINGS



| SIZE <br> mm | $\begin{aligned} & \text { ROUND } \\ & \text { SLOTTED } \\ & \text { NUT } \end{aligned}$ | $\begin{aligned} & \text { HEX. } \\ & \text { NUT } \end{aligned}$ | PLANN <br> LINER | $\begin{aligned} & \text { MALE } \\ & \text { PART } \end{aligned}$ | O-RING EPDM | O-RING <br> TEFLON | O-RING VITON | $\begin{aligned} & \text { CIP } \\ & \text { SEAL } \end{aligned}$ | BLANK CAP | BLANK NUT | ALUM. SPANNER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25.4 | $\star$ | $\star$ | * | $\star$ | $\star$ | * | $\star$ | $\star$ | $\star$ | A | $\star$ |
| 38.1 | $\star$ | $\star$ | $\star$ | * | $\star$ | $\pm$ | $\star$ | $\star$ | $\star$ | N | $\star$ |
| 50.8 | $\star$ | $\star$ | * | $\star$ | $\star$ | E | $\star$ | * | $\star$ | E | $\star$ |
| 63.5 | $\star$ | $\star$ | * | $\star$ | $\star$ | A | $\star$ | $\star$ | * | $\pm$ | $\star$ |
| 76.2 | * | $\star$ | * | * | * | E | * | * | * | * | * |
| 101.6 | $\star$ | $\star$ | $\star$ | * | $\star$ | A | $\star$ | * | $\star$ | A | $\star$ |
| 127.0 | A | $\star$ | * | * | $\star$ | A | * | * | * | * | $\star$ |
| 152.4 | A | $\star$ | * | $\star$ | * | * | $\star$ | $\star$ | * | * | $\star$ |

HYGIENIC FLAT FACE FITTINGS

| SIZE <br> mm | HEX. NUT | FLAT FACE LNER | MALE PART LP REMOVED | $\begin{aligned} & \text { SEAL } \\ & \text { EPDM } \end{aligned}$ | $\begin{aligned} & \text { SEAL } \\ & \text { TEFLON } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12.7 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ |
| 19.05 | $\star$ | $\star$ | $\star$ | $\star$ | * |
| 25.4 | $\star$ | $\star$ | $\star$ | $\star$ | * |
| 38.1 | $\star$ | $\star$ | $\star$ | $\star$ | A |
| 50.8 | $\star$ | $\star$ | $\star$ | $\star$ | * |
| 63.5 | $\star$ | $\star$ | $\star$ | $\star$ | * |
| 76.2 | $\star$ | $\star$ | $\star$ | $\star$ | * |
| 101.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ |
| 127.0 | $\star$ | * | * | * | * |
| 152.4 | * | $\star$ | $\star$ | $\star$ | * |

TUBE CLAMPS

| SIZE <br> mm | PLAIN | BOSSED | $\begin{aligned} & \text { LONG } \\ & \text { TANG } \end{aligned}$ | $\begin{aligned} & \text { DOUBLE } \\ & \text { BOLTED } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 12.7 |  |  |  | $\star$ |
| 19.05 | $\star$ | $\star$ |  | $\star$ |
| 25.4 | $\star$ | $\star$ | $\star$ | $\star$ |
| 31.8 | $\star$ | $\star$ | $\star$ | $\star$ |
| 38.1 | $\star$ | $\star$ | $\star$ | $\star$ |
| 50.8 | $\star$ | $\star$ | $\star$ | $\star$ |
| 63.5 | $\star$ | $\star$ | $\star$ | $\star$ |
| 76.2 | $\star$ | $\star$ | $\star$ | $\star$ |
| 101.6 | $\star$ | $\star$ | $\star$ | $\star$ |
| 127.0 | * | $\stackrel{*}{*}$ | * | $\star$ |
| 152.4 | $\star$ | $\star$ | $\star$ | $\star$ |
| 203.2 |  |  |  | $\star$ |

SPECIFICATIONS: Triclover Fittings to AS1528, Part 2-1976

TRICLOVER FITTINGS


| SIZE mm | $\begin{aligned} & \text { CLAMP } \\ & \text { BODY } \end{aligned}$ | $\begin{aligned} & \text { FERRULE } \\ & \text { LONG } \end{aligned}$ | $\begin{aligned} & \text { BLANK } \\ & \text { CAP } \end{aligned}$ | SEAL EPDM | SEAL BUNA | $\begin{aligned} & \text { SEAL } \\ & \text { TEFLON } \end{aligned}$ | SEAL <br> VITON |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19.05 | $\star$ | $\star$ | $\star$ | $\star$ | * | $\star$ | * |
| 25.4 | $\star$ | $\star$ | $\star$ | $\star$ | ※ | * | $\star$ |
| 38.1 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | $\star$ |
| 50.8 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | $\star$ |
| 63.5 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | $\star$ |
| 76.2 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | $\star$ |
| 101.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ | $\star$ | $\star$ |
| 127.0 | $\star$ | $\pm$ | $\pm$ | $\pm$ | $\pm$ | $\pm$ | $\pm$ |
| 152.4 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | $\star$ |

HEXAGONAL NUT

| SIZE mm | A | $\boldsymbol{B}$ | $\boldsymbol{C}$ |
| :---: | :---: | :---: | :---: |
| 25.4 | $42.266 \times$ 8TPI WHIT | 33.45 | 22.2 |
| 38.1 | $54.966 \times$ 8TPI WHIT | 46.0 | 22.2 |
| 50.8 | $67.920 \times 6$ TPI WHIT | 58.67 | 22.2 |
| 63.5 | $80.620 \times 6$ TPI WHIT | 71.4 | 22.2 |
| 76.2 | $93.320 \times 6$ TPI WHIT | 84.1 | 22.2 |
| 101.6 | $118.720 \times 6$ TPI WHIT | 109.7 | 22.2 |
| 127.0 | $144.000 \times$ 6TPI WHIT | 134.9 | 22.2 |
| 152.4 | $169.520 \times 6$ TPI WHIT | 163.0 | 22.2 |



PLAIN LINER

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | $\boldsymbol{D}$ | $\boldsymbol{E}$ |
| :---: | ---: | ---: | ---: | ---: | :---: |
| 25.4 | 22.2 | 25.65 | 32.5 | 41.3 | 19.5 |
| 38.1 | 34.9 | 38.35 | 45.2 | 54.0 | 19.5 |
| 50.8 | 47.6 | 51.05 | 57.9 | 66.7 | 19.5 |
| 63.5 | 60.3 | 63.75 | 70.6 | 79.4 | 19.5 |
| 76.2 | 73.0 | 76.45 | 83.3 | 92.1 | 19.5 |
| 101.6 | 97.6 | 101.85 | 108.7 | 117.5 | 19.5 |
| 127.0 | 123.8 | 127.00 | 134.0 | 142.9 | 23.5 |
| 152.4 | 148.0 | 152.50 | 161.8 | 169.1 | 23.5 |

MALE PART

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | $\boldsymbol{D}$ |
| :---: | ---: | ---: | :---: | :---: |
| 25.4 | 22.2 | 25.65 | $45.72 \times 8$ TPI WHIT | 27 |
| 38.1 | 34.9 | 38.35 | $58.42 \times 8$ TPI WHIT | 27 |
| 50.8 | 47.6 | 51.05 | $72.72 \times 6$ TPI WHIT | 27 |
| 63.5 | 60.3 | 63.75 | $85.42 \times 6$ TPI WHIT | 27 |
| 76.2 | 73.0 | 76.45 | $98.12 \times 6$ TPI WHIT | 27 |
| 101.6 | 97.6 | 101.85 | $123.52 \times 6$ TPI WHIT | 27 |
| 127.0 | 123.8 | 127.00 | $148.30 \times 6$ TPI WHIT | 24 |
| 152.4 | 148.0 | 152.50 | $174.32 \times 6$ TPI WHIT | 24 |

O-RING (EPDM,TEFLON, VITON)

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ |
| :---: | :---: | :---: | :---: |
| 25.4 | 33.3 | 6.6 | 3.2 |
| 38.1 | 46.0 | 6.6 | 3.2 |
| 50.8 | 58.7 | 6.6 | 3.2 |
| 63.5 | 71.4 | 6.6 | 3.2 |
| 76.2 | 84.1 | 6.6 | 3.2 |
| 101.6 | 109.5 | 6.6 | 3.2 |
| 127.0 | 134.9 | 6.6 | 3.2 |
| 152.4 | 162.6 | 6.6 | 3.2 |



## ROUND SLOTTED NUT

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | SLOTS |
| :---: | :---: | ---: | ---: | :---: |
| 25.4 | $42.266 \times 8$ TPI WHIT | 58.5 | 33.45 | 4 |
| 38.1 | $54.966 \times 8$ TPI WHIT | 74.0 | 46.0 | 4 |
| 50.8 | $67.920 \times 6$ TPI WHIT | 85.5 | 58.67 | 6 |
| 63.5 | $80.620 \times 6$ TPI WHIT | 98.5 | 71.4 | 6 |
| 76.2 | $93.320 \times 6$ TPI WHIT | 111.6 | 84.1 | 8 |
| 101.6 | $119.000 \times 6$ TPI WHIT | 138.0 | 109.7 | 8 |
| 152.4 | $169.520 \times 6$ TPI WHIT | 197.0 | 163.0 | 10 |

HEXAGONAL BLANK NUT

| SIZE mm | A | $\boldsymbol{B}$ | C |
| :---: | :---: | :---: | :---: |
| 25.4 | $42.266 \times 8$ TPI WHIT | 22.2 | 4 |
| 38.1 | $54.966 \times 8$ TPI WHIT | 22.2 | 4 |
| 50.8 | $67.920 \times 6$ TPI WHIT | 22.2 | 4 |
| 63.5 | $80.620 \times 6$ TPI WHIT | 22.2 | 4 |
| 76.2 | $93.320 \times 6$ TPI WHIT | 22.2 | 4 |
| 101.6 | $118.720 \times 6$ TPI WHIT | 22.2 | 4 |

## FLAT FACE LINER

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | $\boldsymbol{D}$ |
| :---: | :---: | :---: | :---: | :---: |
| 25.4 | 22.2 | 41.3 | 25.8 | 32.5 |
| 38.1 | 34.9 | 54.0 | 38.5 | 45.2 |
| 50.8 | 47.6 | 66.7 | 51.2 | 57.9 |
| 63.5 | 60.3 | 79.4 | 63.9 | 70.6 |
| 76.2 | 73.0 | 92.1 | 76.6 | 83.3 |
| 101.6 | 97.6 | 117.5 | 102.2 | 108.7 |

MALE PART (LIP REMOVED)

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ |
| :---: | :---: | :---: | :---: |
| 25.4 | 22.2 | 25.65 | $45.72 \times 8$ T WHIT |
| 38.1 | 34.9 | 38.35 | $58.42 \times 8$ T WHIT |
| 50.8 | 47.6 | 51.05 | $72.72 \times 6$ T WHIT |
| 63.5 | 60.3 | 63.75 | $85.42 \times 6$ T WHIT |
| 76.2 | 73.0 | 76.45 | $98.12 \times 6$ T WHIT |
| 101.6 | 97.6 | 101.85 | $123.52 \times 6$ TWHIT |

## TECHNICAL DATA

TRICLOVER FITTINGS

## CLAMP HEAVY DUTY

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ |
| :---: | :---: | :---: |
| $12.7-19.05$ | 20 | 28 |
| 38.1 | 43.6 | 53.6 |
| 50.8 | 57 | 67 |
| 63.5 | 70.6 | 80.6 |
| 76.2 | 84 | 94 |
| 101.6 | 112 | 122 |
| 152.4 | 155 | 170 |

FERRULE LONG

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | $\boldsymbol{D}$ |
| :---: | :---: | :---: | :---: | :---: |
| 12.7 | 9.45 | 12.75 | 25.2 | 28.6 |
| 19.05 | 15.75 | 19.05 | 25.2 | 28.6 |
| 25.4 | 22.2 | 25.4 | 50.5 | 28.6 |
| 38.1 | 34.9 | 38.1 | 50.5 | 28.6 |
| 50.8 | 47.6 | 50.8 | 64.0 | 28.6 |
| 63.5 | 60.3 | 63.5 | 77.5 | 28.6 |
| 76.2 | 73.0 | 76.2 | 91.0 | 28.6 |
| 101.6 | 97.6 | 101.6 | 119.0 | 28.6 |
| 152.4 | 146.8 | 152.5 | 166.8 | 28.6 |

FLANGE SEAL

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ |
| :---: | :---: | :---: |
| 25.4 | 22.8 | 52.7 |
| 38.1 | 35.8 | 52.7 |
| 50.8 | 48.8 | 66.2 |
| 63.5 | 60.5 | 79.7 |
| 76.2 | 73.1 | 93.2 |
| 101.6 | 97.8 | 121.2 |



BLANK CAP

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ |
| :---: | :---: | :---: |
| $12.7-19.05$ | 25.2 | 5.0 |
| $25.4-38.1^{\prime \prime}$ | 50.5 | 6.3 |
| 50.8 | 64.0 | 6.3 |
| 63.5 | 77.5 | 6.3 |
| 76.2 | 91.0 | 6.3 |
| 101.6 | 119.0 | 7.9 |
| 152.4 | 166.7 | 11.1 |



## STANDARD SEAL

| SIZE mm | $\boldsymbol{A}$ | $\boldsymbol{B}$ |
| :---: | :---: | :---: |
| 12.7 | 21.8 | 9.9 |
| 19.05 | 21.8 | 16.3 |
| 25.4 | 50.0 | 22.7 |
| 38.1 | 50.0 | 35.9 |
| 50.8 | 63.5 | 48.6 |
| 63.5 | 76.2 | 61.3 |
| 76.2 | 88.9 | 74.0 |
| 101.6 | 118.0 | 98.6 |

## VALVES \& EQUIPMENT



BUTTERFLY VALVES

ball Valves


PLUG VALVES


CHECK VALVES


SIGHT GLASSES


SPRAY BALLS


SAMPLING VALVES


LEVEL GAUGES


SHUT OFF \& DIVERT VALVES


FILTERS \& STRAINERS


PRESSURE RELIEF VALVES


TANK VENTS

NOTE: A comprehensive hygienic valves and equipment catalogue is available upon request.

## PLATE FLANGES - TUBE

| SPECIFICATIONS: | AS2129 |  |
| :--- | :--- | :--- |
|  | TABLE FLANGES |  |
| TYPE: | SLIP-ON WELD | SOW |
|  | BLIND | BL |
| CLASS: | TABLE D, E, F \& H |  |



SLIP-ON


BLIND

| CRADE | SIZE I.D | TABLE D |  | TABLE E |  | TABLE F |  | TABLE H |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | mm | SLIP-ON | BLIND | SLIP-ON | BLIND | SLIP-ON | BLIND | SLIP-ON | BLIND |
| 304L | 12.7 |  |  | $\star$ | $\star$ | $\star$ | $\star$ | * | * |
|  | 19.05 |  |  | $\star$ | $\star$ | $\star$ | * | $\star$ | * |
|  | 25.4 |  |  | $\star$ | $\star$ | $\pm$ | * | A | A |
|  | 31.8 |  |  | $\star$ | $\star$ | $\star$ | $\star$ | * | * |
|  | 38.1 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * | * |
|  | 50.8 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * |
|  | 63.5 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * | * |
|  | 76.2 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * |
|  | 101.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * |
|  | 127 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ | $\star$ | * | * |
|  | 152.4 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ | $\star$ | * | * |
|  | 203.2 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * |
|  | 254 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ | $\star$ | * | * |
|  | 304.8 | $\star$ | $\star$ | $\star$ | $\star$ | * | $\pm$ | $\pm$ | $\star$ |
|  | 356 | $\star$ | $\star$ | $\star$ | * | $\star$ | * | * | * |
|  | 406.4 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ | $\star$ | $\star$ |
|  | 457.2 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * |
|  | 508 | $\star$ | * | * | * | $\star$ | * | * | * |
|  | 609.6 | A | $\star$ | $\star$ | * | * | * | * | * |
| 316L | 12.7 |  |  | $\star$ | $\star$ | * | $\star$ | $\star$ | * |
|  | 19.05 |  |  | $\star$ | $\star$ | $\star$ | * | * | * |
|  | 25.4 |  |  | $\star$ | $\star$ | * | * | $\star$ | $\star$ |
|  | 31.8 |  |  | $\star$ | $\star$ | * | * | * | $\star$ |
|  | 38.1 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * | $\star$ |
|  | 50.8 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | A | $\star$ | $\star$ |
|  | 63.5 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * |
|  | 76.2 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | A | $\star$ | * |
|  | 101.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * |
|  | 127 | $\star$ | $\star$ | $\star$ | $\star$ | A | $\star$ | A | * |
|  | 152.4 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ | * | * | * |
|  | 203.2 | $\star$ | $\star$ | $\star$ | $\star$ | $\pm$ | * | * | * |
|  | 254 | $\star$ | $\star$ | $\star$ | $\star$ | H | N | A | A |
|  | 304.8 | $\star$ | $\star$ | $\star$ | $\star$ | A | A | * | * |
|  | 356 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * |
|  | 406.4 | $\star$ | $\star$ | $\star$ | $\star$ | A | A | * | * |
|  | 457.2 | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * | A |
|  | 508 | $\star$ | $\star$ | $\star$ | $\star$ | A | * | * | * |
|  | 609.6 | $\star$ | $\star$ | $\star$ | $\star$ | $\star$ | * | * | * |

## PLATE FLANGE DIMENSIONS



TABLE D

| SIZE | SLIP ON BORE | OUTER DIA. | THICKNESS | BOLT CIRCLE DIA. | \# OF HOLES | DIA. OF HOLES |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mm | SOW | OD | TK | PCD |  |  |
| 12.7 | 13.7 | 95 | 5 | 67 | 4 | 14 |
| 19.05 | 20.1 | 100 | 5 | 73 | 4 | 14 |
| 25.4 | 26.4 | 115 | 5 | 83 | 4 | 14 |
| 31.8 | 32.8 | 120 | 6 | 87 | 4 | 14 |
| 38.1 | 39.3 | 135 | 6 | 98 | 4 | 14 |
| 50.8 | 52 | 150 | 8 | 114 | 4 | 18 |
| 63.5 | 64.5 | 165 | 8 | 127 | 4 | 18 |
| 76.2 | 77.5 | 185 | 10 | 146 | 4 | 18 |
| 88.9 | 90.4 | 205 | 10 | 165 | 4 | 18 |
| 101.6 | 103 | 215 | 10 | 178 | 4 | 18 |
| 127 | 128.5 | 255 | 13 | 210 | 8 | 18 |
| 152.4 | 154 | 280 | 13 | 235 | 8 | 18 |
| 203.2 | 204.5 | 335 | 13 | 292 | 8 | 18 |
| 254 | 256 | 405 | 16 | 356 | 8 | 22 |
| 304.8 | 306.5 | 455 | 19 | 406 | 12 | 22 |
| 355.6 | 358 | 525 | 22 | 470 | 12 | 26 |
| 381 | 384 | 550 | 22 | 495 | 12 | 26 |
| 406.4 | 409 | 580 | 22 | 521 | 12 | 26 |
| 457.2 | 460 | 640 | 25 | 584 | 12 | 26 |
| 508 | 510.5 | 705 | 29 | 641 | 16 | 26 |
| 558.8 | 561 | 760 | 29 | 699 | 16 | 30 |
| 609.6 | 612 | 825 | 32 | 756 | 16 | 30 |
| 711.2 | 714 | 910 | 38 | 845 | 20 | 30 |
| 762 | 764.5 | 995 | 38 | 927 | 20 | 33 |
| 812.8 | 815.5 | 1060 | 38 | 984 | 20 | 36 |
| 863.6 | 866 | 1090 | 50 | 1016 | 20 | 36 |
| 914.4 | 917.5 | 1175 | 50 | 1092 | 24 | 36 |

TABLE E

| SIZE | SLIP ON BORE | OUTER DIA. | THICKNESS | BOLT CIRCLE DIA. | \# OF HOLES | DIA. OF HOLES |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mm | SOW | OD | TK | PCD |  |  |
| 12.7 | 13.7 | 95 | 6 | 67 | 4 | 14 |
| 19.05 | 20.1 | 100 | 6 | 73 | 4 | 14 |
| 25.4 | 26.4 | 115 | 7 | 83 | 4 | 14 |
| 31.8 | 32.8 | 120 | 8 | 87 | 4 | 14 |
| 38.1 | 39.3 | 135 | 9 | 98 | 4 | 14 |
| 50.8 | 52 | 150 | 10 | 114 | 4 | 18 |
| 63.5 | 64.5 | 165 | 10 | 127 | 4 | 18 |
| 76.2 | 77.5 | 185 | 11 | 146 | 4 | 18 |
| 88.9 | 90.4 | 205 | 13 | 165 | 8 | 18 |
| 101.6 | 103 | 215 | 13 | 178 | 8 | 18 |
| 127 | 128.5 | 255 | 14 | 210 | 8 | 18 |
| 152.4 | 154 | 280 | 17 | 235 | 8 | 22 |
| 203.2 | 204.5 | 335 | 19 | 292 | 8 | 22 |
| 254 | 256 | 405 | 22 | 356 | 12 | 22 |
| 304.8 | 306.5 | 455 | 25 | 406 | 12 | 26 |
| 355.6 | 358 | 525 | 29 | 470 | 12 | 26 |
| 381 | 384 | 550 | 32 | 495 | 12 | 26 |
| 406.4 | 409 | 580 | 32 | 521 | 12 | 26 |
| 457.2 | 460 | 640 | 35 | 584 | 16 | 26 |
| 508 | 510.5 | 705 | 38 | 641 | 16 | 26 |
| 558.8 | 561 | 760 | 44 | 699 | 16 | 30 |
| 609.6 | 612 | 825 | 48 | 756 | 16 | 33 |
| 711.2 | 714 | 910 | 54 | 845 | 20 | 33 |
| 762 | 764.5 | 995 | 54 | 927 | 20 | 36 |
| 812.8 | 815.5 | 1060 | 54 | 984 | 20 | 36 |
| 863.6 | 866 | 1090 | 57 | 1016 | 20 | 36 |
| 914.4 | 917.5 | 1175 | 64 | 1092 | 24 | 36 |


| SPECIFICATIONS: | ASTM A269 <br>  <br>  <br> ASTM A213 (ON REQUEST) |
| :--- | :--- |
| LENGTHS: | FIXED 6 METRES |
| FINISH: | ANNEALED \& PICKLED <br> BRIGHT ANNEALED |


| SIZE mm |  | TP304 | TP316 |
| :---: | :---: | :---: | :---: |
| OD | WT |  |  |
| 3.18 | 0.7 | * | $\star$ |
| 4.76 | 0.7 | $\pm$ | $\star$ |
| 6.35 | 0.9 | * | $\star$ |
| 6.35 | 1.2 | $\pm$ | $\star$ |
| 6.35 | 1.6 | * | $\star$ |
| 7.94 | 0.9 | $\pm$ | * |
| 7.94 | 1.2 | E | $\star$ |
| 7.94 | 1.6 | * | $\star$ |
| 9.53 | 0.9 | * | $\star$ |
| 9.53 | 1.2 | * | $\star$ |
| 9.53 | 1.6 | * | $\star$ |
| 12.7 | 0.9 | $\star$ | $\star$ |
| 12.7 | 1.2 | * | $\star$ |
| 12.7 | 1.6 | ※ | $\star$ |
| 15.88 | 1.2 | * | $\star$ |
| 15.88 | 1.6 | * | $\star$ |
| 19.05 | 1.2 | * | $\star$ |
| 19.05 | 1.6 | * | $\star$ |
| 19.05 | 2.0 | * | $\star$ |
| 25.4 | 1.2 | * | $\star$ |
| 25.4 | 1.6 | * | $\star$ |
| 25.4 | 2 | * | $\star$ |
| 31.8 | 1.6 | * | $\star$ |
| 31.8 | 2 | * | * |
| 38.1 | 1.6 | * | $\star$ |
| 38.1 | 2 | * | $\star$ |
| 38.1 | 3 | * | $\star$ |
| 50.8 | 1.6 | * | $\star$ |
| 50.8 | 2 | A | $\star$ |
| 50.8 | 3 | * | $\star$ |
| 6.00 | 1.0 |  | $\star$ |
| 8.00 | 1.0 |  | $\star$ |
| 10.00 | 1.0 |  | $\star$ |
| 12.00 | 1.0 |  | $\star$ |

## SEAMLESSMWELDED TUBE TECHNICAL DATA

## APPROXIMATE MASS \& THEORETICAL BURSTING PRESSURE FOR SEAMLESS \& WELDED TUBE (WELDED REFER NOTES)

| WT | mm SWG | 0.45 | 0.51 | 0.61 | 0.71 | 0.91 | 1.22 | 1.63 | 2.03 | 2.64 | 3.25 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 26 | 25 | 23 | 22 | 20 | 18 | 16 | 14 | 12 | 10 |
| OD mm | Inch |  |  |  |  |  |  |  |  |  |  |
| 3.18 | 1/8 | $\begin{gathered} 0.030 \\ 145.8 \end{gathered}$ | $\begin{array}{r} 0.034 \\ 165.2 \end{array}$ | $\begin{array}{r} 0.039 \\ 197.6 \end{array}$ | $\begin{aligned} & 0.043 \\ & 230.0 \end{aligned}$ | $\begin{array}{r} 0.051 \\ 294.7 \end{array}$ |  |  |  |  |  |
| 4.76 | 3/16 | $\begin{gathered} 0.048 \\ 97.4 \end{gathered}$ | $\begin{aligned} & 0.053 \\ & 440.4 \end{aligned}$ | $\begin{aligned} & 0.062 \\ & 132.0 \end{aligned}$ | $\begin{aligned} & 0.071 \\ & 153.6 \end{aligned}$ | $\begin{array}{r} 0.086 \\ 196.9 \end{array}$ |  |  |  |  |  |
| 6.35 | 1/4 | $\begin{aligned} & 0.065 \\ & 73.0 \end{aligned}$ | $\begin{gathered} 0.073 \\ 82.7 \end{gathered}$ | $\begin{gathered} 0.086 \\ 98.9 \end{gathered}$ | $\begin{array}{r} 0.099 \\ 115.2 \end{array}$ | $\begin{aligned} & 0.122 \\ & 146.6 \end{aligned}$ | 197.9 | 264.4 |  |  |  |
| 7.94 | 5/16 | $\begin{gathered} 0.083 \\ 58.4 \end{gathered}$ | $\begin{gathered} 0.093 \\ 66.2 \end{gathered}$ | $\begin{aligned} & 0.110 \\ & 79.1 \end{aligned}$ | $\begin{gathered} 0.127 \\ 92.1 \end{gathered}$ | $\begin{aligned} & 0.158 \\ & 118.0 \end{aligned}$ | $\begin{array}{r} 0.202 \\ 158.3 \end{array}$ | $\begin{gathered} 0.254 \\ 211.4 \end{gathered}$ |  |  |  |
| 9.53 | 3/8 | $\begin{gathered} 0.101 \\ 48.6 \end{gathered}$ | $\begin{gathered} 0.113 \\ 55.1 \end{gathered}$ | $\begin{gathered} 0.134 \\ 65.9 \end{gathered}$ | $\begin{gathered} 0.154 \\ 76.7 \end{gathered}$ | $\begin{gathered} 0.193 \\ 98.4 \end{gathered}$ | $\begin{aligned} & 0.250 \\ & 131.9 \end{aligned}$ | $\begin{array}{r} 0.358 \\ 176.2 \end{array}$ |  |  |  |
| 12.70 | 1/2 | $\begin{aligned} & 0.136 \\ & 36.5 \end{aligned}$ | $\begin{gathered} 0.153 \\ 41.4 \end{gathered}$ | $\begin{gathered} 0.182 \\ 49.5 \end{gathered}$ | $\begin{gathered} 0.210 \\ 57.6 \end{gathered}$ | $\begin{gathered} 0.265 \\ 73.8 \end{gathered}$ | $\begin{gathered} 0.345 \\ 98.9 \end{gathered}$ | $\begin{aligned} & 0.445 \\ & 132.2 \end{aligned}$ | $\begin{gathered} 0.534 \\ 164.6 \end{gathered}$ |  |  |
| 15.88 | 5/8 |  | $\begin{gathered} 0.193 \\ 33.1 \end{gathered}$ | $\begin{gathered} 0.230 \\ 39.6 \end{gathered}$ | $\begin{gathered} 0.266 \\ 46.1 \end{gathered}$ | $\begin{gathered} 0.336 \\ 59.0 \end{gathered}$ | $\begin{aligned} & 0.441 \\ & 79.1 \end{aligned}$ | $\begin{aligned} & 0.573 \\ & 105.7 \end{aligned}$ | $\begin{gathered} 0.693 \\ 131.7 \end{gathered}$ |  |  |
| 19.05 | 3/4 |  | $\begin{gathered} 0.233 \\ 27.6 \end{gathered}$ | $\begin{gathered} 0.277 \\ 33.0 \end{gathered}$ | $\begin{gathered} 0.321 \\ 38.4 \end{gathered}$ | $\begin{gathered} 0.407 \\ 49.2 \end{gathered}$ | $\begin{gathered} 0.536 \\ 66.0 \end{gathered}$ | $\begin{gathered} 0.700 \\ 88.1 \end{gathered}$ | $\begin{gathered} 0.852 \\ 109.8 \end{gathered}$ | $\begin{aligned} & 1.068 \\ & 142.7 \end{aligned}$ | $\begin{aligned} & 1.266 \\ & 175.7 \end{aligned}$ |
| 22.23 | 7/8 |  | $\begin{gathered} 0.273 \\ 23.6 \end{gathered}$ | $\begin{gathered} 0.325 \\ 28.3 \end{gathered}$ | $\begin{gathered} 0.377 \\ 32.9 \end{gathered}$ | $\begin{gathered} 0.478 \\ 42.2 \end{gathered}$ | $\begin{gathered} 0.632 \\ 56.5 \end{gathered}$ | $\begin{gathered} 0.828 \\ 75.5 \end{gathered}$ | $\begin{gathered} 1.011 \\ 94.1 \end{gathered}$ | $\begin{aligned} & 1.275 \\ & 122.3 \end{aligned}$ | $\begin{aligned} & 1.521 \\ & 150.6 \end{aligned}$ |
| 25.40 | 1 |  | $\begin{gathered} 0.313 \\ 20.7 \end{gathered}$ | $\begin{gathered} 0.373 \\ 24.7 \end{gathered}$ | $\begin{gathered} 0.432 \\ 28.8 \end{gathered}$ | $\begin{gathered} 0.550 \\ 36.9 \end{gathered}$ | $\begin{gathered} 0.727 \\ 49.5 \end{gathered}$ | $\begin{gathered} 0.955 \\ 66.1 \end{gathered}$ | $\begin{gathered} 1.170 \\ 82.3 \end{gathered}$ | $\begin{aligned} & 1.482 \\ & 107.1 \end{aligned}$ | $\begin{aligned} & 1.775 \\ & 131.8 \end{aligned}$ |
| 28.58 | 11/8 |  |  |  | $\begin{gathered} 0.488 \\ 25.6 \end{gathered}$ | $\begin{gathered} 0.621 \\ 32.8 \end{gathered}$ | $\begin{gathered} 0.823 \\ 44.0 \end{gathered}$ | $\begin{gathered} 1.083 \\ 58.7 \end{gathered}$ | $\begin{gathered} 1.329 \\ 73.2 \end{gathered}$ | $\begin{gathered} 1.689 \\ 95.1 \end{gathered}$ | $\begin{array}{r} 2.030 \\ 117.1 \end{array}$ |
| 31.75 | 11/4 |  |  |  | $\begin{gathered} 0.543 \\ 23.0 \end{gathered}$ | $\begin{gathered} 0.692 \\ 29.5 \end{gathered}$ | $\begin{gathered} 0.919 \\ 36.6 \end{gathered}$ | $\begin{gathered} 1.211 \\ 52.9 \end{gathered}$ | $\begin{gathered} 1.488 \\ 65.9 \end{gathered}$ | $\begin{gathered} 1.895 \\ 85.6 \end{gathered}$ | $\begin{aligned} & 2.284 \\ & 105.4 \end{aligned}$ |
| 38.10 | 11/2 |  |  |  |  | $\begin{gathered} 0.835 \\ 24.6 \end{gathered}$ | $\begin{array}{r} 1.110 \\ 33.0 \end{array}$ | $\begin{gathered} 1.466 \\ 44.1 \end{gathered}$ | $\begin{gathered} 1.806 \\ 54.9 \end{gathered}$ | $\begin{gathered} 2.309 \\ 71.4 \end{gathered}$ | $\begin{gathered} 2.793 \\ 87.9 \end{gathered}$ |
| 44.45 | 13/4 |  |  |  |  | $\begin{gathered} 0.977 \\ 21.1 \end{gathered}$ | $\begin{gathered} 1.301 \\ 28.3 \end{gathered}$ | $\begin{gathered} 1.721 \\ 37.8 \end{gathered}$ | $\begin{aligned} & 2.124 \\ & 47.0 \end{aligned}$ | $\begin{gathered} 2.722 \\ 61.2 \end{gathered}$ | $\begin{gathered} 3.302 \\ 75.3 \end{gathered}$ |
| 50.80 | 2 |  |  |  |  | $\begin{gathered} 1.120 \\ 18.5 \end{gathered}$ | $\begin{gathered} 1.492 \\ 24.7 \end{gathered}$ | $\begin{gathered} 1.976 \\ 33.0 \end{gathered}$ | $\begin{gathered} 2.441 \\ 41.2 \end{gathered}$ | $\begin{gathered} 3.135 \\ 53.5 \end{gathered}$ | $\begin{gathered} 3.811 \\ 65.9 \end{gathered}$ |
| 63.50 | 21/2 |  |  |  |  |  | $\begin{gathered} 1.874 \\ 19.8 \end{gathered}$ | $\begin{gathered} 2.487 \\ 26.4 \end{gathered}$ | $\begin{gathered} 3.077 \\ 32.9 \end{gathered}$ | $\begin{gathered} 3.962 \\ 42.8 \end{gathered}$ | $\begin{aligned} & 4.829 \\ & 52.7 \end{aligned}$ |
| 76.20 | 3 |  |  |  |  |  | $\begin{gathered} 2.256 \\ 16.5 \end{gathered}$ | $\begin{array}{r} 2.997 \\ 22.0 \end{array}$ | $\begin{gathered} 3.713 \\ 27.5 \end{gathered}$ | $\begin{gathered} 4.789 \\ 35.7 \end{gathered}$ | $\begin{aligned} & 5.847 \\ & 43.9 \end{aligned}$ |
| 88.90 | 31/2 |  |  |  |  |  |  | $\begin{gathered} 3.508 \\ 18.9 \end{gathered}$ | $\begin{gathered} 4.349 \\ 23.5 \end{gathered}$ | $\begin{gathered} 5.616 \\ 30.6 \end{gathered}$ | $\begin{gathered} 6.864 \\ 37.7 \end{gathered}$ |
| 101.60 | 4 |  |  |  |  |  |  | $\begin{gathered} 4.018 \\ 16.5 \end{gathered}$ | $\begin{gathered} 4.984 \\ 20.6 \end{gathered}$ | $\begin{gathered} 6.443 \\ 26.8 \end{gathered}$ | $\begin{gathered} 7.882 \\ 32.9 \end{gathered}$ |
| 127.00 | 5 |  |  |  |  |  |  | $\begin{gathered} 5.039 \\ 13.2 \end{gathered}$ | $\begin{gathered} 6.256 \\ 16.5 \end{gathered}$ | $\begin{gathered} 8.096 \\ 21.4 \end{gathered}$ | $\begin{gathered} 9.918 \\ 26.4 \end{gathered}$ |
| 152.40 | 6 |  |  |  |  |  |  | $\begin{gathered} 6.060 \\ 11.0 \end{gathered}$ | $\begin{gathered} 7.527 \\ 13.7 \end{gathered}$ | $\begin{gathered} 9.750 \\ 17.8 \end{gathered}$ | $\begin{gathered} 11.954 \\ 22.0 \end{gathered}$ |
| 203.20 | 8 |  |  |  |  |  |  | ${ }_{8.3}^{8.102}$ | $\begin{gathered} 10.071 \\ 10.3 \end{gathered}$ | $\begin{gathered} 13.057 \\ 13.4 \end{gathered}$ | $\begin{gathered} 16.025 \\ 16.5 \end{gathered}$ |

1 Figures shown in bold are the Theoretical Weight of the tube, calculated using the nominal outside diameter and wall thickness as in the formula: $W=C(d-t) t$. Where $W=$ Weight $(\mathrm{kg} / \mathrm{m}), C=0.02466 \mathrm{~d}=$ Specified $O D$ (millimetres) $t=$ Specified WT (millimetres)

2 Figures shown in italics are the Theoretical Bursting Pressure of Grade 316, 304 and 321 seamless tube, calculated using Barlow's thin wall formula and where $S=515 \mathrm{MPa}: P=\frac{2 s t}{D}$

Where: $\mathrm{P}=$ Theoretical Bursting Pressure $(\mathrm{MPa}) \mathrm{S}=$ Tensile Strength $(\mathrm{MPa}) \mathrm{t}=$ Wall thickness (millimetres) $\mathrm{D}=$ Outside diameter (millimetres) For Theoretical Bursting Pressure of Grades 316, 304 and 321 welded tube, multiply the figures shown in the table by 0.85 (Weld Joint Efficiency). For Theoretical Bursting Pressure of Grades 316 L and 304 L seamless tube $\mathrm{S}=485 \mathrm{MPa}$, multiply the figure shown in the table by 0.9417 . For Theoretical Bursting Pressure of Grades 316L and 304L welded tube, multiply the figures shown in the table by 0.8005 ( $\mathrm{S}=485 \mathrm{MPa} \times$ 0.85 Weld Joint Efficiency)

This Table is a guide only and should not be used to determine availability of products. Call your supplier or ASSDA to determine availability.

COMPRESSION FITTINGS

TUBE TO TUBE UNION
UEDUCING UNION CUR

TUBE TO MALE PIPE
MALE CONNECTOR
CMC

TUBE TO FEMALE PIPE
FEMALECONNECTOR

STUB TUBE CONNECTOR

|  | BULKHEAD REDUCER CBR | =_mmen <br> MALE ADAPTER CAM |
| :---: | :---: | :---: |
|  |  |  |
| fEMALE ADAPTOR CAF | $\begin{aligned} & \text { PORT CONNECTOR } \\ & \text { CPC } \end{aligned}$ | REDUCING PORT CONNECTOR CPR |
| $8$ |  |  |
| FLANGE LAPPED TUBE CONNECTOR CFTC |  |  |

## TUBE TO AN TUBE



TUBE TO SAE/MS O-RING


PLUG \& CAP


TUBE TO TUBE UNION


## ADJUSTABLE FEET \& INSERTS

(M16 THREAD)

STAINLESS STEEL ADJUSTABLE FOOT

| BASE SIZE | $\mathbf{3 0 4}$ |
| :---: | :---: |
| 32 mm | $\star$ |
| 50 mm | $\star$ |
| 65 mm | $\star$ |



SQUARE TUBE NYLON INSERTS

| BASE SIZE | $\mathbf{3 0 4}$ |
| :---: | :---: |
| 25 mm | $\star$ |
| 32 mm | $\star$ |
| 38 mm | $\star$ |



STAINLESS STEEL TUBE SADDLES

| SIZE | $\mathbf{3 0 4}$ |
| :---: | :---: |
| $1 / 4^{\prime \prime}$ | $\star$ |
| $3 / 8^{\prime \prime}$ | $\star$ |
| $1 / 2^{\prime \prime}$ | $\star$ |
| $3 / 4^{\prime \prime}$ | $\star$ |
| $11^{\prime \prime}$ | $\star$ |
| $11 / 4^{\prime \prime}$ | $\star$ |
| $11 / 2^{\prime \prime}$ | $\star$ |
| $22^{\prime \prime}$ | $\star$ |

STAINLESS STEEL CONCEALED FLANGES

| TUBE SIZE | 304 | 316 |
| :---: | :---: | :---: |
| 1/2" | $\star$ | * |
| 3/4" | $\star$ | $\star$ |
| $1^{\prime \prime}$ | $\star$ | $\star$ |
| 1 1/4" | $\star$ | $\star$ |
| 1 1/2" | $\star$ | $\star$ |
| 2" | $\star$ | $\star$ |
| 2 1/2" | $\star$ | $\star$ |
| 3" | * | $\star$ |
| 4" | $\star$ | $\star$ |

T316 SOLID PUSH-IN CAPS

| TO SUIT O.D | $\mathbf{3 1 6}$ |
| :---: | :---: |
| 25.4 mm | $\star$ |
| 31.8 mm | $\star$ |
| 38.1 mm | $\star$ |
| 50.8 mm | $\star$ |
| 63.5 mm | $\star$ |
| 76.2 mm | $\star$ |



## FACE RINGS

| SPECIFICATIONS: | FLAT FACE RINGS |
| :--- | :--- |
| MANUFACTURE: | FLAT FACE MANUFACTURED <br> FROM SHEET |


| SPECIFICATIONS: | ANGLE NECK FACE RINGS |
| :--- | :--- |
| MANUFACTURE: | ANGLE NECK MANUFACTURED |
|  | FROM ANGLE |

flat face rings

| INSIDE <br> DIAMETER | MATERIAL | GRADE <br> $\mathbf{3 1 6}$ |
| :---: | :---: | :---: |
| $\mathbf{m m}$ |  |  |
| 38.1 | 3 mm Thick | $\grave{\star}$ |
| 50.8 | 3 mm Thick | $\star$ |
| 63.5 | 3 mm Thick | $\star$ |
| 76.2 | 3 mm Thick | $\grave{ }$ |

## EXPANSION FLANGES



| SIZE | $\mathbf{3 0 4}$ |
| :---: | :---: |
| $3 / 4^{\prime \prime}$ | $\star$ |
| $1^{\prime \prime}$ | $\star$ |
| $11 / 4^{\prime \prime}$ | $\star$ |
| $11 / 2^{\prime \prime}$ | $\star$ |
| $2{ }^{\prime \prime}$ | $\star$ |
| $21 / 2^{\prime \prime}$ | $\star$ |
| $3^{\prime \prime}$ | $\star$ |
| $4^{\prime \prime}$ | $\star$ |
| $6^{\prime \prime}$ | $\star$ |

- Provides a hygenic seal for wall, floor and ceiling penetrations of process piping in food and beverage plants
- Allows lineal expansion and contraction of pipework without permitting the entry of water, dust, vapours or insects
- Can be adapted for steam pipes or non-standard tube sizes
- Suitable for cip hosedowns
- Eliminate potential health hazards
- Minimises damage during refurbishment
- Professional finish

There are two types of HEAVY DUTY A-JUSTA-FOOT ${ }^{\text {TM }}$. In both types the whole unit is made in STAINLESS STEEL. The HD range is ball jointed and has 50 degree angle adjustment.

The HDA range has a swivelling stud which is totally captive in the base, it has 10 degree angle adjustment and is ideal where there is a requirement to resist and upward force.

Both the HD and HDA ranges have anti-slip pads, and are available with BOLTDOWN holes in the base.
They can both be adjusted in position under the machine and have high load ratings.
To compliment the feet there is a range of Threaded Tube Ends, in round and square, which are designed to be welded into the tube.

HD = HEAVY DUTY A-JUSTA-FOOT ${ }^{T M} 121$ SERIES (STAINLESS STEEL) COMPLETE WITH ANTI SLIP PADS

| MIDWAY CODES | PART NO. | SIZE | A | $B$ | C | D | E | RATING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 121/40/M8/60 | 40xM8 | 40 | 60 | 30 | 18 | M8 | 500 kg |
|  | 121/40/M10/60 | 40xM10 | 40 | 60 | 30 | 18 | M10 | 700 kg |
| TFAJFHD1260090 | 121/60/M12/90 | $60 \times \mathrm{M} 12$ | 60 | 90 | 40 | 17 | M12 | 1200 kg |
|  | 121/60/M12/190 | 60xM12x190 | 60 | 190 | 40 | 17 | M12 | 1200 kg |
| TFAJFHD1660090 | 121/60/M16/90 | 60xM16 | 60 | 90 | 40 | 17 | M16 | 2000 kg |
| TFAJFHD1660190 | 121/60/M16/190 | 60xM16x190 | 60 | 190 | 40 | 17 | M16 | 2000 kg |
|  | 121/60/M20/90 | 60xM20 | 60 | 90 | 40 | 17 | M20 | 3500 kg |
|  | 121/60/M20/190 | 60xM20x190 | 60 | 190 | 40 | 17 | M20 | 3500 kg |
|  | 121/60/M24/90 | 60xM24 | 60 | 90 | 40 | 17 | M24 | 4500 kg |
|  | 121/60/M24/190 | 60xM24x190 | 60 | 190 | 40 | 17 | M24 | 4500 kg |
|  | 121/90/M12/90 | $90 \times \mathrm{M} 12$ | 90 | 90 | 48 | 19 | M12 | 1200 kg |
|  | 121/90/M12/190 | 90xM12x190 | 90 | 190 | 48 | 19 | M12 | 1200 kg |
| TFAJFHD1690090 | 121/90/M16/90 | $90 \times \mathrm{M} 16$ | 90 | 90 | 48 | 19 | M16 | 2000 kg |
| TFAJFHD1690190 | 121/90/M16/190 | 90xM16x190 | 90 | 190 | 48 | 19 | M16 | 2000 kg |
|  | 121/90/M20/90 | 90xM20 | 90 | 90 | 48 | 19 | M20 | 3500 kg |
|  | 121/90/M20/190 | 90xM20x190 | 90 | 190 | 48 | 19 | M20 | 3500kg |
|  | 121/90/M24/90 | 90xM24 | 90 | 90 | 48 | 19 | M24 | 4500kg |
|  | 121/90/M24/190 | 90xM24x190 | 90 | 190 | 48 | 19 | M24 | 4500 kg |
|  | 121/125/M12/90 | 125xM12 | 125 | 90 | 45 | 22 | M12 | 1200 kg |
|  | 121/125/M16/90 | 125xM16 | 125 | 90 | 45 | 22 | M16 | 2000 kg |
|  | 121/125/M16/190 | 125xM16x190 | 125 | 190 | 45 | 22 | M16 | 2000 kg |
| TFAJFHD20125090 | 121/125/M20/90 | 125xM20 | 125 | 90 | 45 | 22 | M20 | 3500 kg |
| TFAJFHD20125190 | 121/125/M20/190 | 125xM20x190 | 125 | 190 | 45 | 22 | M20 | 3500 kg |
|  | 121/125/M24/90 | 125xM24 | 125 | 90 | 45 | 22 | M24 | 4500kg |
| TFAJFHD24125190 | 121/125/M24/190 | 125xM24x90 | 125 | 190 | 45 | 22 | M24 | 4500kg |



HDA STANDARD 221 SERIES

|  | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | D | $\boldsymbol{E}$ | $\boldsymbol{F}$ | $\boldsymbol{G}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BASE | BASE <br> HEIGHT | OVERALL <br> HEIGHT | STUD | THREAD <br> LENGTH | PIVOT <br> ANGLE | RATING |
| HDA221/90/M16/70 | 90 | 45 | 115 | M16 | 70 | 10 deg | 2000 kg |
| HDA221/90/M16/170 | 90 | 45 | 215 | M 16 | 170 | 10 deg | 2000 kg |
| HDA221/90/M20/70 | 90 | 45 | 115 | M 20 | 70 | 10 deg | 3000 kg |
| HDA221/90/M20/170 | 90 | 45 | 215 | M 20 | 170 | 10 deg | 3000 kg |
| HDA221/90/M24/70 | 90 | 45 | 115 | M 24 | 70 | 10 deg | 4000 kg |
| HDA221/90/M24/170 | 90 | 45 | 215 | M 24 | 170 | 10 deg | 4000 kg |

The A-JUSTA-FOOT ${ }^{\text {TM }}$ is a multi-adjustable pedestal foot, ideal for industrial, commercial, workshop or food industry applications.

The special insert in the base helps to absorb vibration and means your machinery will stay exactly where you put it.


A-JUSTA-FOOT ${ }^{\text {TM }}$ is avaliable in a large variety of sizes.
Special requirements can often be produced.

BALL JOINTED A-JUSTA-FOOTTM (STAINLESS STEEL) 21 SERIES

| MIDWAY CODES | PART NO. | SIZE | A | B | C | D | $E$ | RATING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TFAJFBJ0840080 | 21/40/M8/80 | 40xM8 | 40 | 80 | 33 | 20 | M8 | 350 kg |
| TFAJFBJ1040060 | 21/40/M10/60 | 40xM10 | 40 | 60 | 33 | 20 | M10 | 500 kg |
| TFAJFBJ1260065 | 21/60/M12/65 | 60xM12 | 60 | 65 | 51 | 25 | M12 | 800 kg |
| TFAJFBJ1660065 | 21/60/M16/65 | 60xM16 | 60 | 65 | 51 | 25 | M16 | 1000kg |
| TFAJFBJ1290065 | 21/90/M12/65 | 90xM12 | 90 | 65 | 51 | 25 | M12 | 800 kg |
| TFAJFBJ1690065 | 21/90/M16/65 | 90xM16 | 90 | 65 | 51 | 25 | M16 | 1000kg |
| TFAJFBJ1660165 | 21/60/M16/165 | 60xM16 | 60 | 165 | 51 | 25 | M16 | 1000kg |
| TFAJFBJ1690165 | 21/90/M16/165 | 90xM16 | 90 | 165 | 51 | 25 | M16 | 1000kg |
|  | 21/60/M20/165 | 60xM20 | 60 | 100 | 51 | 25 | M20 | 1000kg |
|  | 21/60/M20/165 | 60xM20 | 60 | 165 | 51 | 25 | M20 | 1000kg |
|  | 21/90/M20/100 | 90xM20 | 90 | 100 | 51 | 25 | M20 | 1000kg |
| TFAJFBJ2090165 | 21/90/M20/165 | 90xM20 | 90 | 165 | 51 | 25 | M20 | 1000kg |



A-JUSTA-FOOT ${ }^{\top M}$ is avaliable in other stud lengths (B) as required

BOLT DOWN A-JUSTA-FOOT ${ }^{\text {TM }}$ (STAINLESS STEEL) 31 SERIES

| MIDWAY CODES | PART NO. | SIZE | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | $\boldsymbol{D}$ | $\boldsymbol{E}$ | RATING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TFAJFBD0840080 | $31 / 40 / \mathrm{M} 8 / 80^{*}$ | $40 x \mathrm{M} 8$ | 60 | 80 | 33 | 20 | M 8 | 350 kg |
| TFAJFBD1040060 | $31 / 40 / \mathrm{M} 10 / 60^{*}$ | $40 x \mathrm{M} 10$ | 60 | 60 | 33 | 20 | M 10 | 500 kg |
| TFAJFBD1260065 | $31 / 60 / \mathrm{M} 12 / 65$ | $60 x \mathrm{M} 12$ | 80 | 65 | 51 | 23 | M 12 | 800 kg |
| TFAJFBD1660065 | $31 / 60 / \mathrm{M} 16 / 65$ | $60 x \mathrm{M} 16$ | 80 | 65 | 51 | 23 | M 16 | 1000 kg |
| TFAJFBD1660165 | $31 / 60 / \mathrm{M} 16 / 165$ | $60 x \mathrm{M} 16$ | 80 | 165 | 51 | 23 | M 16 | 1000 kg |
|  | $31 / 60 / \mathrm{M} 20 / 100$ | $60 x \mathrm{M} 20$ | 80 | 100 | 51 | 23 | M 20 | 1000 kg |
| TFAJFBD2060165 | $31 / 60 / \mathrm{M} 20 / 165$ | $60 x \mathrm{M} 20$ | 80 | 165 | 51 | 23 | M 20 | 1000 kg |
| TFAJFBD1290065 | $31 / 90 / \mathrm{M} 12 / 65$ | $90 x \mathrm{M12}$ | 60 | 65 | 51 | 25 | M 12 | 800 kg |
| TFAJFBD1690065 | $31 / 90 / \mathrm{M} 16 / 65$ | $90 x \mathrm{M} 16$ | 60 | 65 | 51 | 25 | M 16 | 1000 kg |
| TFAJFBD1690165 | $31 / 90 / \mathrm{M} 16 / 165$ | $90 x \mathrm{M} 16$ | 60 | 165 | 51 | 25 | M 16 | 1000 kg |
|  | $31 / 90 / \mathrm{M} 20 / 100$ | $90 x \mathrm{M} 20$ | 60 | 100 | 51 | 25 | M 20 | 1000 kg |
| TFAJFBD2090165 | $31 / 90 / \mathrm{M} 20 / 165$ | $90 x \mathrm{M} 20$ | 60 | 165 | 51 | 25 | M 20 | 1000 kg |



A-JUSTA-FOOT ${ }^{\text {TM }}$ is avaliable in other stud lengths $(B)$ as required

* Denotes also avaliable with single hole flange


FIXED A-JUSTA-FOOTTM (STAINLESS STEEL) 41 SERIES

| MIDWAY GODES | PART NO. | SIZE | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{D}$ | $\boldsymbol{E}$ | RATING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TFAJFFX084035 | $41 / 40 / \mathrm{M} 8 / 35$ | $40 \times \mathrm{M} 8$ | 40 | 35 | 20 | M 8 | 350 kg |
| TFAJFFX104035 | $41 / 40 / \mathrm{M} 10 / 35$ | $40 \times \mathrm{M} 10$ | 40 | 35 | 20 | M 10 | 500 kg |
|  | $41 / 60 / \mathrm{M} 12 / 60$ | 60 x 12 | 60 | 60 | 25 | M 12 | 800 kg |



41 SERIES
sQUARE THREADED TUBE END (STAINLESS STEEL)
11 SERIES (G) IS RECOMMENDED ID TUBE SIZE

sQuare threaded tube end

+ SOUARE PLUG

| MIDWAY CODES | PART NO. | SIZE | A | B | c | D | E | F | G | RATING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TFAJFSTI0819 | 11/9/M8 | 19xM8 | 19 | M8 | 22.5 | 24.8 | 9 | 16 | 15-16 | 50 kg |
| TFAJFSTI0825 | 11/25M8 | 25xM8 | 25 | M8 | 39 | 44 | 10 | 23.5 | 22-23 | 250 kg |
| TFAJFSTI1025 | 11/25/M10 | 25xM10 | 25 | M10 | 39 | 44 | 11 | 23.5 | 22-23 | 250 kg |
| TFAJFSTI1225 | 11/25/M12 | 25xM12 | 25 | M12 | 39 | 44 | 13 | 23.5 | 22-23 | 250 kg |
| TFAJFSTI1625 | 11/25/M16 | 25xM16 | 25 | M16 | 39 | 44 | 16.5 | 23.5 | 22-23 | 250 kg |
|  | 11/30/M8 | 30xM8 | 30 | M8 | 39 | 45 | 10 | 26.8 | 26-27 | 350 kg |
|  | 11/30/M10 | $30 \times \mathrm{M} 10$ | 30 | M10 | 39 | 45 | 11 | 26.8 | 26-27 | 350kg |
|  | 11/30/M12 | 30xM12 | 30 | M12 | 39 | 45 | 13 | 26.8 | 26-27 | 350 kg |
|  | 11/30/M16 | 30xM16 | 30 | M16 | 39 | 45 | 16.5 | 26.8 | 26-27 | 350 kg |
| TFAJFSTI0832 | 11/32/M8 | $32 \times \mathrm{M} 8$ | 32 | M8 | 39 | 45 | 10 | 30 | 28-29 | 350 kg |
| TFAJFSTI1032 | 11/32/M10 | $32 \times \mathrm{M} 10$ | 32 | M10 | 39 | 45 | 11 | 30 | 28-29 | 350 kg |
| TFAJFSTI1232 | 11/32/M12 | $32 \times \mathrm{M} 12$ | 32 | M12 | 39 | 45 | 13 | 30 | 28-29 | 350 kg |
| TFAJFSTI1632 | 11/32/M16 | $32 \times \mathrm{M} 16$ | 32 | M16 | 39 | 45 | 16.5 | 30 | 28-29 | 350 kg |
|  | 11/35/M8 | $35 \times \mathrm{M} 8$ | 35 | M8 | 39 | 45 | 11 | 32.2 | 31-32 | 350 kg |
|  | 11/35/M10 | 35xM10 | 35 | M10 | 39 | 45 | 11 | 32.2 | 31-32 | 400 kg |
|  | 11/35/M12 | $35 \times \mathrm{M} 12$ | 35 | M12 | 39 | 45 | 13 | 32.2 | 31-32 | 400 kg |
| TFAJFSTI1635 | 11/35/M16 | $35 \times \mathrm{M} 16$ | 35 | M16 | 39 | 45 | 16.5 | 32.2 | 31-32 | 400kg |
| TFAJFSTI0838 | 11/38/M8 | 38xM8 | 38 | M8 | 41 | 45 | 10 | 36 | 35-36 | 500 kg |
| TFAJFSTI1038 | 11/38/M10 | $38 \times \mathrm{M} 10$ | 38 | M10 | 41 | 47 | 17.7 | 36 | 35-36 | 500 kg |
| TFAJFSTI1238 | 11/38/M12 | $38 \times \mathrm{M} 12$ | 38 | M12 | 41 | 47 | 13 | 36 | 35-36 | 500 kg |
| TFAJFSTI1638 | 11/38/M16 | 38xM16 | 38 | M16 | 41 | 47 | 18 | 36 | 35-36 | 500 kg |
|  | 11/40/M10 | 40xM10 | 40 | M10 | 39 | 45 | 11 | 36.8 | 36-37 | 500 kg |
|  | 11/40/M12 | 40xM12 | 40 | M12 | 39 | 45 | 13 | 36.8 | 36-37 | 500 kg |
|  | 11/40/M16 | 40xM16 | 40 | M16 | 39 | 45 | 16.5 | 36.8 | 36-37 | 500 kg |
| TFAJFSTI1050 | 11/51/M10 | 51xM10 | 51 | M10 | 39 | 45 | 11 | 48 | 47-48 | 750 kg |
| TFAJFSTI1250 | 11/51/M12 | 51xM12 | 51 | M12 | 39 | 45 | 13 | 48 | 47-48 | 750 kg |
| TFAJFSTI1650 | 11/51/M16 | 51xM16 | 51 | M16 | 39 | 45 | 18 | 48 | 47-48 | 750 kg |
|  | 11/51/M20 | 51xM20 | 51 | M20 | 39 | 45 | 18 | 48 | 47-48 | 750 kg |

ROUND THREADED TUBE END (STAINLESS STEEL)
81 SERIES


ROUND THREADED TUBE END

| MIDWMY CODES | PART NO. | SIZE | $\boldsymbol{A}$ | $\boldsymbol{B}$ | $\boldsymbol{C}$ | $\boldsymbol{D}$ | $\boldsymbol{E}$ | $\boldsymbol{F}$ | $\boldsymbol{G}$ | $\boldsymbol{R A T I N G}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $81 / 25 / \mathrm{M} 8$ | $25 \times \mathrm{M} 8$ | 25 | M 8 | 38 | 46.5 | 11 | 23 | 22 | 100 kg |
|  | $81 / 25 / \mathrm{M} 10$ | $25 \times \mathrm{M} 10$ | 25 | M 10 | 38 | 46.5 | 12 | 23 | 22 | 100 kg |
|  | $81 / 25 / \mathrm{M} 12$ | $25 \times \mathrm{M} 12$ | 25 | M 12 | 38 | 46.5 | 14 | 23 | 22 | 100 kg |
|  | TFAJFRTI1032 | $81 / 32 / \mathrm{M} 10$ | $32 \times \mathrm{M} 10$ | 32 | M 10 | 39 | 45 | 12 | 29.5 | $28-29$ |
|  | $81 / 32 / \mathrm{M} 12$ | $32 \times \mathrm{M} 12$ | 32 | M 12 | 39 | 45 | 14 | 29.5 | $28-29$ | 250 kg |
|  | $81 / 32 / \mathrm{M} 16$ | $32 \times \mathrm{M} 16$ | 32 | M 16 | 39 | 45 | 18 | 29.5 | $28-29$ | 250 kg |
| TFAJFRTI1038 | $81 / 38 / \mathrm{M} 10$ | $38 \times \mathrm{M} 10$ | 38 | M 10 | 38 | 45 | 12 | 35.5 | $35-36$ | 300 kg |
| TFAJFRTI1238 | $81 / 38 / \mathrm{M} 12$ | $38 \times \mathrm{M} 12$ | 38 | M 12 | 38 | 45 | 14 | 35.5 | $35-36$ | 300 kg |
| TFAJFRTI1638 | $81 / 38 / \mathrm{M} 16$ | $38 \times \mathrm{M} 16$ | 38 | M 16 | 38 | 45 | 18 | 35.5 | $35-36$ | 300 kg |
|  | $81 / 40 / \mathrm{M} 8$ | $40 \times \mathrm{M} 8$ | 40 | M 8 | 39 | 45 | 11 | 36.8 | $36-37$ | 350 kg |
|  | $81 / 40 / \mathrm{M} 10$ | $40 \times \mathrm{M} 10$ | 40 | M 10 | 39 | 45 | 12 | 36.8 | $36-37$ | 500 kg |
|  | $81 / 40 / \mathrm{M} 12$ | $40 \times \mathrm{M} 12$ | 40 | M 12 | 39 | 45 | 14 | 36.8 | $36-37$ | 500 kg |
|  | $81 / 40 / \mathrm{M} 16$ | $40 \times \mathrm{M} 16$ | 40 | M 16 | 39 | 45 | 18 | 36.8 | $36-37$ | 500 kg |
| TFAJFRTI1250 | $81 / 51 / \mathrm{M} 12$ | $51 \times \mathrm{M} 12$ | 51 | M 12 | 38 | 45 | 14 | 48 | $47-48$ | 450 kg |
| TFAJFRTI1650 | $81 / 51 / \mathrm{M} 16$ | $51 \times \mathrm{M} 16$ | 51 | M 16 | 38 | 45 | 18 | 48 | $47-48$ | 450 kg |
| TFAJFRTI1665 | $81 / 62 / \mathrm{M} 16$ | $62 \times \mathrm{M} 16$ | 62 | M 16 | 38 | 45 | 18 | 60.5 | $60-61$ | 450 kg |



## HEAD OFFICE \& COIL CENTRE

Street: 56 Business Street YATALA OLD 4207
Postal: PO Box 621 BEENLEIGH OLD 4207 AUSTRALIA
$\boldsymbol{P}(07) 33829500$ । $\boldsymbol{F}(07) 38078150$
E headoffice@midwaymetals.com.au

## ALBURY

Prospero Court ALBURY NSW 2640
$\boldsymbol{P}(02) 60414000$ I $\boldsymbol{F}(02) 60414422$
Ealbury@midwaymetals.com.au

## BRISBANE

56 Business Street YATALA OLD 4207 P(07) 32872811 I F(07) 38072687
Ebrisbane@midwaymetals.com.au

## MELBOURNE

33 Tatterson Road DANDENONG VIC 3175
$\boldsymbol{P}(03) 97915111$ । $\boldsymbol{F}(03) 97915333$
E melbourne@midwaymetals.com.au

## NEWCASTLE

12 Sandringham Avenue THORNTON NSW 2322
P(02) 49663800 I F (02) 49663811
E newcastle@midwaymetals.com.au
PERTH
471 Victoria Road MALAGA WA 6090 P(08) 92486944 । $\boldsymbol{F}(08) 92486955$
E perth@midwaymetals.com.au

## SYDNEY

24-28 Lockwood Road, ERSKINE PARK NSW 2759 $\boldsymbol{P}(02) 96708900$ । $\boldsymbol{F}(02) 98342441$
Esydney@midwaymetals.com.au

## TOWNSVILLE

331-335 Woolcock Street GARBUTT QLD 4814 $\boldsymbol{P}(07) 47288777$ । $\boldsymbol{F}(07) 47288778$
E townsville@midwaymetals.com.au

## AUCKLAND

$\boldsymbol{P}+6494244194$ । $\boldsymbol{F}+6494244194$
E auckland@midwaymetals.com.au

## VIETNAM

$\boldsymbol{P}+84351848468$ I $\boldsymbol{F}+84351848456$
E info@midwaymetals.com.vn
www.midwaymetals.com.au
ABN: 88001831090

## DISCLAIMER

The technical information contained in this publication should not be relied on for specific applications without first securing competent advice. Whilst all care is taken to ensure that the information contained herein is accurate and up-to-date, Midway Metals Pty Ltd does not warrant its accuracy or completeness and does not accept liability for errors or omissions.

## COPYRIGHT

All rights reserved. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without prior written permission of Midway Metals.

