

BI-Lok®

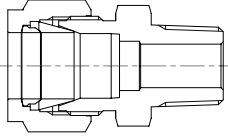
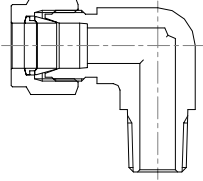
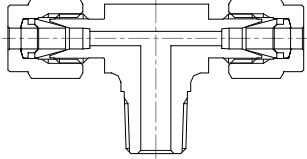
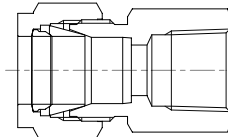
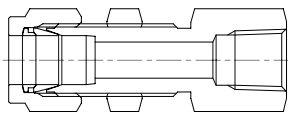
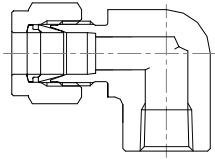
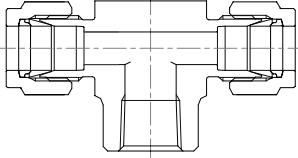
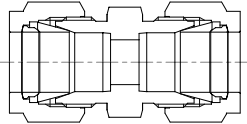
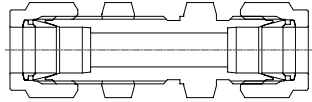
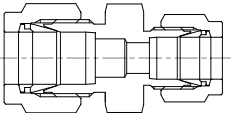
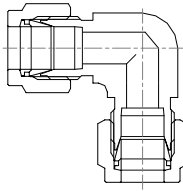
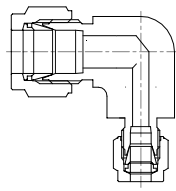
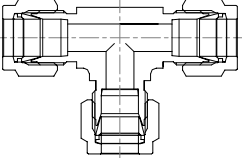
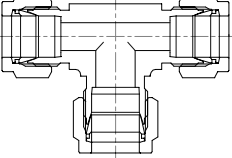
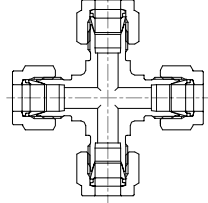
**DOUBLE FERRULE TYPE
TUBE FITTINGS**

DIMENSION SHEET

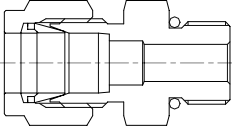
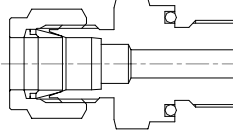
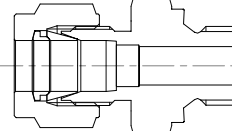
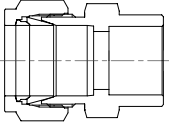
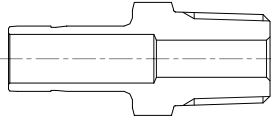
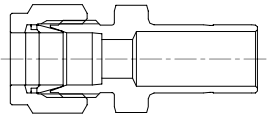
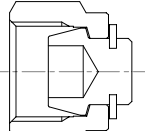
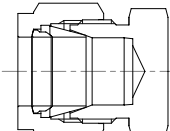
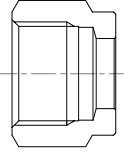


**SCHEDULE PIPE SERIES
STAINLESS STEEL TUBE**

IHARA SCIENCE CORPORATION

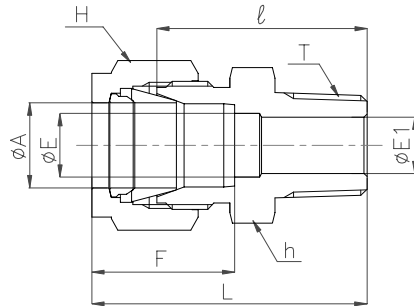
Visual Index

| | | |
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Visual Index

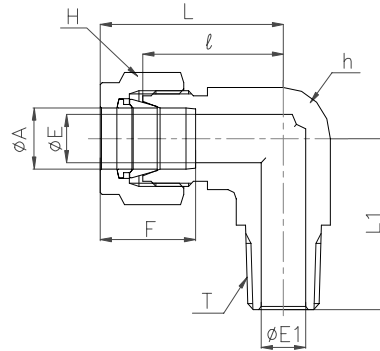
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|---|---|---|
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| <p>16 MDNA Nut</p>  | <p>16 DOF Front Ferrule</p>  | <p>16 DOB Back Ferrule</p>  |
| | | |
| | | |

| | | |
|---------------|-------------|---|
| BI-LoK | MDCT | Male Connector Connects schedule pipe to female tapered pipe thread |
|---------------|-------------|---|



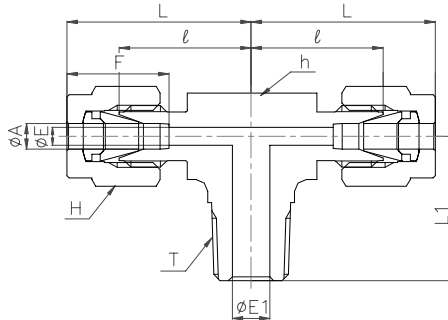
| Part No. | | A | T | E | Ei | h | H | l | L | F |
|--------------|---------------|--------------|-------|------|------|-----|-----|------|------|------|
| ANSI NPT | ISO/JIS R | mm | NPT/R | mm | mm | Hex | Hex | mm | mm | mm |
| MDCT 10.5-2 | MDCT 10.5-R2 | 10.5 (1/8 B) | 1/8 | 7.9 | 4.8 | 22 | 22 | 31.3 | 41.3 | 22.7 |
| MDCT 10.5-4 | MDCT 10.5-R4 | 10.5 (1/8 B) | 1/4 | 7.9 | 7.1 | 22 | 22 | 33.3 | 43.3 | 22.7 |
| MDCT 10.5-6 | | 10.5 (1/8 B) | 3/8 | 7.9 | 7.9 | 22 | 22 | 33.3 | 43.3 | 22.7 |
| | MDCT 10.5-R6 | 10.5 (1/8 B) | 3/8 | 7.9 | 7.9 | 22 | 22 | 34.3 | 44.3 | 22.7 |
| MDCT 10.5-8 | MDCT 10.5-R8 | 10.5 (1/8 B) | 1/2 | 7.9 | 7.9 | 22 | 22 | 38.9 | 48.9 | 22.7 |
| MDCT 13.8-4 | MDCT 13.8-R2 | 13.8 (1/4 B) | 1/8 | 10.4 | 4.8 | 22 | 24 | 31.3 | 41.9 | 23.3 |
| MDCT 13.8-6 | MDCT 13.8-R4 | 13.8 (1/4 B) | 1/4 | 10.4 | 7.1 | 22 | 24 | 33.3 | 43.9 | 23.3 |
| | | 13.8 (1/4 B) | 3/8 | 10.4 | 10.4 | 22 | 24 | 33.3 | 43.9 | 23.3 |
| | MDCT 13.8-R6 | 13.8 (1/4 B) | 3/8 | 10.4 | 10.4 | 22 | 24 | 34.3 | 44.9 | 23.3 |
| MDCT 13.8-8 | MDCT 13.8-R8 | 13.8 (1/4 B) | 1/2 | 10.4 | 10.4 | 22 | 24 | 38.9 | 49.5 | 23.3 |
| | MDCT 13.8-R12 | 13.8 (1/4 B) | 3/4 | 10.4 | 12.7 | 27 | 24 | 43.7 | 54.3 | 23.3 |
| MDCT 17.3-4 | MDCT 17.3-R4 | 17.3 (3/8 B) | 1/4 | 12.7 | 7.1 | 27 | 30 | 36.7 | 46.9 | 24.5 |
| MDCT 17.3-6 | | 17.3 (3/8 B) | 3/8 | 12.7 | 10.4 | 27 | 30 | 36.7 | 46.9 | 24.5 |
| | MDCT 17.3-R6 | 17.3 (3/8 B) | 3/8 | 12.7 | 10.4 | 27 | 30 | 37.7 | 47.9 | 24.5 |
| MDCT 17.3-8 | MDCT 17.3-R8 | 17.3 (3/8 B) | 1/2 | 12.7 | 12.7 | 27 | 30 | 41.7 | 51.9 | 24.5 |
| MDCT 17.3-12 | | 17.3 (3/8 B) | 3/4 | 12.7 | 12.7 | 27 | 30 | 41.7 | 51.9 | 24.5 |
| | MDCT 17.3-R12 | 17.3 (3/8 B) | 3/4 | 12.7 | 12.7 | 27 | 30 | 43.7 | 53.9 | 24.5 |
| MDCT 21.7-6 | MDCT 21.7-R2 | 21.7 (1/2 B) | 1/8 | 16.5 | 4.8 | 30 | 32 | 32.7 | 42.9 | 26.1 |
| | MDCT 21.7-R4 | 21.7 (1/2 B) | 1/4 | 16.5 | 7.1 | 30 | 32 | 36.7 | 46.9 | 26.1 |
| | | 21.7 (1/2 B) | 3/8 | 16.5 | 10.4 | 30 | 32 | 36.7 | 46.9 | 26.1 |
| | MDCT 21.7-R6 | 21.7 (1/2 B) | 3/8 | 16.5 | 10.4 | 30 | 32 | 37.7 | 47.9 | 26.1 |
| MDCT 21.7-8 | MDCT 21.7-R8 | 21.7 (1/2 B) | 1/2 | 16.5 | 12.7 | 30 | 32 | 41.7 | 51.9 | 26.1 |
| MDCT 21.7-12 | | 21.7 (1/2 B) | 3/4 | 16.5 | 16.5 | 30 | 32 | 41.7 | 51.9 | 26.1 |
| | MDCT 21.7-R12 | 21.7 (1/2 B) | 3/4 | 16.5 | 16.5 | 30 | 32 | 43.7 | 53.9 | 26.1 |

| | | |
|---------------|-------------|---|
| <i>BI-LoK</i> | MDLN | Male Elbow Connects schedule pipe to female tapered pipe thread |
|---------------|-------------|---|



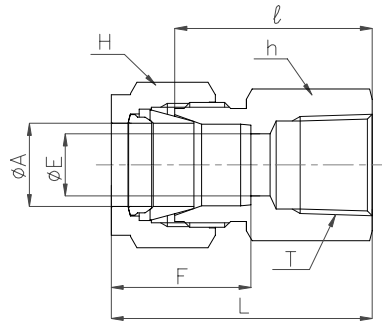
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|--------------|---------------|--------------|-------|------|------|-----|-----|------|------|----------------|------|
| ANSI NPT | ISO/JIS R | mm | NPT/R | mm | mm | Hex | Hex | mm | mm | mm | mm |
| MDLN 10.5-2 | MDLN 10.5-R2 | 10.5 (1/8 B) | 1/8 | 7.9 | 4.8 | 22 | 22 | 27.0 | 37.0 | 25.5 | 22.7 |
| MDLN 10.5-4 | MDLN 10.5-R4 | 10.5 (1/8 B) | 1/4 | 7.9 | 7.1 | 22 | 22 | 27.0 | 37.0 | 29.5 | 22.7 |
| MDLN 10.5-6 | MDLN 10.5-R6 | 10.5 (1/8 B) | 3/8 | 7.9 | 10.4 | 22 | 22 | 27.0 | 37.0 | 29.5 | 22.7 |
| MDLN 10.5-8 | MDLN 10.5-R8 | 10.5 (1/8 B) | 1/2 | 7.9 | 12.7 | 24 | 22 | 27.0 | 37.0 | 34.0 | 22.7 |
| MDLN 13.8-4 | MDLN 13.8-R4 | 13.8 (1/4 B) | 1/4 | 10.4 | 7.1 | 22 | 24 | 27.0 | 37.6 | 29.5 | 23.3 |
| MDLN 13.8-6 | MDLN 13.8-R6 | 13.8 (1/4 B) | 3/8 | 10.4 | 10.4 | 22 | 24 | 27.0 | 37.6 | 29.5 | 23.3 |
| MDLN 13.8-8 | MDLN 13.8-R8 | 13.8 (1/4 B) | 1/2 | 10.4 | 12.7 | 24 | 24 | 27.0 | 37.6 | 34.0 | 23.3 |
| MDLN 13.8-12 | MDLN 13.8-R12 | 13.8 (1/4 B) | 3/4 | 10.4 | 18.3 | 27 | 24 | 28.2 | 38.8 | 37.5 | 23.3 |
| MDLN 17.3-6 | MDLN 17.3-R6 | 17.3 (3/8 B) | 3/8 | 12.7 | 10.4 | 27 | 30 | 28.2 | 38.4 | 31.5 | 24.5 |
| MDLN 17.3-8 | MDLN 17.3-R8 | 17.3 (3/8 B) | 1/2 | 12.7 | 12.7 | 27 | 30 | 28.2 | 38.4 | 35.5 | 24.5 |
| MDLN 17.3-12 | MDLN 17.3-R12 | 17.3 (3/8 B) | 3/4 | 12.7 | 18.3 | 27 | 30 | 28.2 | 38.4 | 37.5 | 24.5 |
| MDLN 21.7-6 | MDLN 21.7-R6 | 21.7 (1/2 B) | 3/8 | 16.5 | 10.4 | 30 | 32 | 32.5 | 42.7 | 36.5 | 26.1 |
| MDLN 21.7-8 | MDLN 21.7-R8 | 21.7 (1/2 B) | 1/2 | 16.5 | 12.7 | 30 | 32 | 32.5 | 42.7 | 40.5 | 26.1 |
| MDLN 21.7-12 | MDLN 21.7-R12 | 21.7 (1/2 B) | 3/4 | 16.5 | 18.3 | 30 | 32 | 32.5 | 42.7 | 42.5 | 26.1 |

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|---------------|-------------|--|
| <i>BI-LoK</i> | MDTN | Male Branch Tee Connects schedule pipe to female tapered pipe thread |
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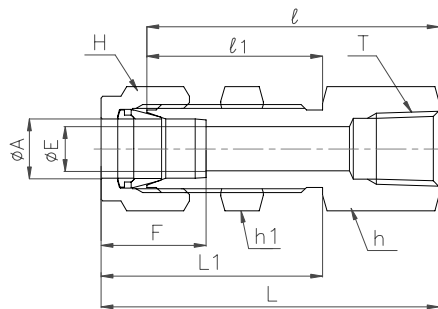
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|-------------|--------------|--------------|-------|------|------|------|-----|------|------|----------------|------|
| ANSI NPT | ISO/JIS R | mm | NPT/R | mm | mm | Flat | Hex | mm | mm | mm | mm |
| MDTN 10.5-4 | MDTN 10.5-R4 | 10.5 (1/8 B) | 1/4 | 7.9 | 7.1 | 22 | 22 | 27.0 | 37.0 | 29.5 | 22.7 |
| MDTN 10.5-6 | MDTN 10.5-R6 | 10.5 (1/8 B) | 3/8 | 7.9 | 10.4 | 22 | 22 | 27.0 | 37.0 | 29.5 | 22.7 |
| MDTN 13.8-4 | MDTN 13.8-R4 | 13.8 (1/4 B) | 1/4 | 10.4 | 7.1 | 22 | 24 | 27.0 | 37.6 | 29.5 | 23.3 |
| MDTN 13.8-6 | MDTN 13.8-R6 | 13.8 (1/4 B) | 3/8 | 10.4 | 10.4 | 22 | 24 | 27.0 | 37.6 | 29.5 | 23.3 |
| MDTN 17.3-6 | MDTN 17.3-R6 | 17.3 (3/8 B) | 3/8 | 12.7 | 10.4 | 27 | 30 | 28.2 | 38.4 | 31.5 | 24.5 |
| MDTN 17.3-8 | MDTN 17.3-R8 | 17.3 (3/8 B) | 1/2 | 12.7 | 12.7 | 27 | 30 | 28.2 | 38.4 | 35.5 | 24.5 |
| MDTN 21.7-6 | MDTN 21.7-R6 | 21.7 (1/2 B) | 3/8 | 16.5 | 10.4 | 30 | 32 | 32.5 | 42.7 | 36.5 | 26.1 |
| MDTN 21.7-8 | MDTN 21.7-R8 | 21.7 (1/2 B) | 1/2 | 16.5 | 12.7 | 30 | 32 | 32.5 | 42.7 | 40.5 | 26.1 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDSA | Female Connector Connects schedule pipe to male tapered pipe thread |
|---------------|-------------|---|



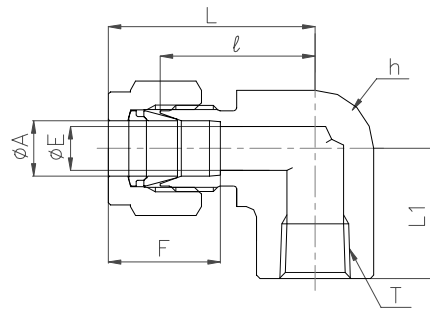
| Part No. | | A | T | E | h | H | l | L | F |
|--------------|---------------|-------------|--------|------|-----|-----|------|------|------|
| ANSI NPT | ISO/JIS Rc | mm | NPT/Rc | mm | Hex | Hex | mm | mm | mm |
| MDSA 10.5-2 | MDSA 10.5-R2 | 10.5(1/8 B) | 1/8 | 7.9 | 22 | 22 | 28.6 | 38.6 | 22.7 |
| MDSA 10.5-4 | MDSA 10.5-R4 | 10.5(1/8 B) | 1/4 | 7.9 | 22 | 22 | 32.6 | 42.6 | 22.7 |
| MDSA 10.5-6 | MDSA 10.5-R6 | 10.5(1/8 B) | 3/8 | 7.9 | 22 | 22 | 32.9 | 42.9 | 22.7 |
| MDSA 10.5-8 | MDSA 10.5-R8 | 10.5(1/8 B) | 1/2 | 7.9 | 27 | 22 | 36.6 | 46.6 | 22.7 |
| MDSA 10.5-12 | MDSA 10.5-R12 | 10.5(1/8 B) | 3/4 | 7.9 | 32 | 22 | 40.9 | 50.9 | 22.7 |
| MDSA 13.8-4 | MDSA 13.8-R4 | 13.8(1/4 B) | 1/4 | 10.4 | 22 | 24 | 32.6 | 43.2 | 23.3 |
| MDSA 13.8-6 | MDSA 13.8-R6 | 13.8(1/4 B) | 3/8 | 10.4 | 22 | 24 | 32.9 | 43.5 | 23.3 |
| MDSA 13.8-8 | MDSA 13.8-R8 | 13.8(1/4 B) | 1/2 | 10.4 | 27 | 24 | 36.6 | 47.2 | 23.3 |
| MDSA 13.8-12 | MDSA 13.8-R12 | 13.8(1/4 B) | 3/4 | 10.4 | 32 | 24 | 40.9 | 51.5 | 23.3 |
| MDSA 17.3-4 | MDSA 17.3-R4 | 17.3(3/8 B) | 1/4 | 12.7 | 27 | 30 | 33.0 | 43.2 | 24.5 |
| MDSA 17.3-6 | MDSA 17.3-R6 | 17.3(3/8 B) | 3/8 | 12.7 | 27 | 30 | 33.4 | 43.6 | 24.5 |
| MDSA 17.3-8 | MDSA 17.3-R8 | 17.3(3/8 B) | 1/2 | 12.7 | 27 | 30 | 37.4 | 47.6 | 24.5 |
| MDSA 17.3-12 | MDSA 17.3-R12 | 17.3(3/8 B) | 3/4 | 12.7 | 32 | 30 | 40.9 | 51.1 | 24.5 |
| MDSA 21.7-8 | MDSA 21.7-R8 | 21.7(1/2 B) | 1/2 | 16.5 | 30 | 32 | 39.9 | 50.1 | 26.1 |
| MDSA 21.7-12 | MDSA 21.7-R12 | 21.7(1/2 B) | 3/4 | 16.5 | 32 | 32 | 40.9 | 51.1 | 26.1 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDSS | Bulkhead Female Connector Connects schedule pipe to male ISO tapered pipe thread |
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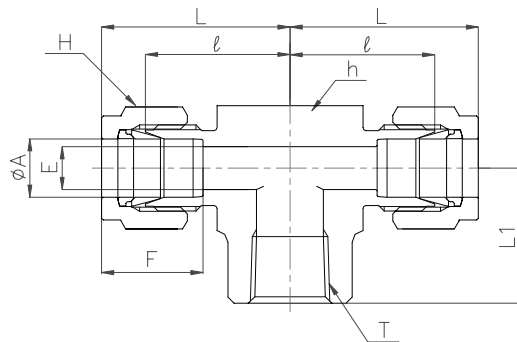
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|--------------|-------------|-----|------|-----|----------------|-----|------|----------------|------|----------------|------|-------|-------|
| | mm | Rc | mm | Hex | Hex | Hex | mm | mm | mm | mm | mm | Hole | Thick |
| MDSA 10.5-R4 | 10.5(1/8 B) | 1/4 | 7.9 | 24 | 24 | 22 | 52.7 | 32.0 | 62.7 | 42.0 | 22.7 | 19.4 | 11.1 |
| MDSA 13.8-R6 | 13.8(1/4 B) | 3/8 | 10.4 | 27 | 27 | 24 | 53.5 | 32.5 | 64.1 | 43.1 | 23.3 | 21.0 | 12.1 |
| MDSA 17.3-R6 | 17.3(3/8 B) | 3/8 | 12.7 | 30 | 30 | 30 | 59.6 | 38.1 | 69.8 | 48.3 | 24.5 | 25.8 | 14.9 |
| MDSA 21.7-R8 | 21.7(1/2 B) | 1/2 | 16.5 | 36 | 36 | 32 | 70.0 | 42.0 | 80.2 | 52.2 | 26.1 | 29.0 | 19.5 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDLF | Female Elbow Connects schedule pipe to male tapered pipe thread |
|---------------|-------------|---|



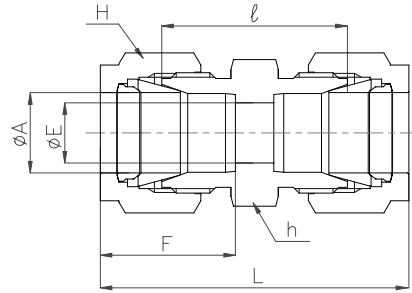
| Part No. | | A | T | E | h | H | ℓ | L | L ₁ | F |
|-------------|--------------|--------------|--------|------|------|-----|------|------|----------------|------|
| ANSI NPT | ISO/JIS Rc | mm | NPT/Rc | mm | Flat | Hex | mm | mm | mm | mm |
| MDLF 10.5-4 | MDLF 10.5-R4 | 10.5 (1/8 B) | 1/4 | 7.9 | 22 | 22 | 27.0 | 37.0 | 22.5 | 22.7 |
| MDLF 10.5-6 | MDLF 10.5-R6 | 10.5 (1/8 B) | 3/8 | 7.9 | 24 | 22 | 27.0 | 37.0 | 22.5 | 22.7 |
| MDLF 13.8-4 | MDLF 13.8-R4 | 13.8 (1/4 B) | 1/4 | 10.4 | 22 | 24 | 27.0 | 37.6 | 22.5 | 23.3 |
| MDLF 13.8-6 | MDLF 13.8-R6 | 13.8 (1/4 B) | 3/8 | 10.4 | 24 | 24 | 27.0 | 37.6 | 22.5 | 23.3 |
| MDLF 17.3-4 | MDLF 17.3-R4 | 17.3 (3/8 B) | 1/4 | 12.7 | 27 | 30 | 28.2 | 38.4 | 27.0 | 24.5 |
| MDLF 17.3-6 | MDLF 17.3-R6 | 17.3 (3/8 B) | 3/8 | 12.7 | 27 | 30 | 28.2 | 38.4 | 28.5 | 24.5 |
| MDLF 21.7-6 | MDLF 21.7-R6 | 17.3 (1/2 B) | 3/8 | 16.5 | 30 | 32 | 32.5 | 42.7 | 32.5 | 26.1 |
| MDLF 21.7-8 | MDLF 21.7-R8 | 17.3 (1/2 B) | 1/2 | 16.5 | 30 | 32 | 32.5 | 42.7 | 32.5 | 26.1 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDTH | Female Branch Tee Connects schedule pipe to male tapered pipe thread |
|---------------|-------------|--|



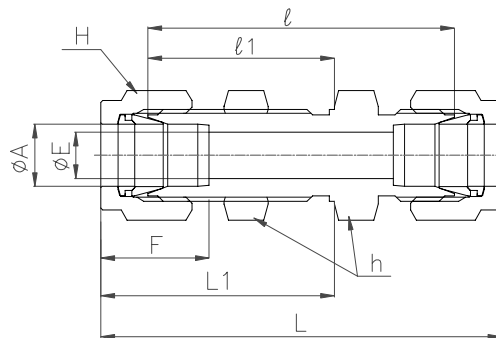
| Part No. | | A | T | E | h | H | ℓ | L | L ₁ | F |
|--------------|---------------|--------------|-----|------|------|-----|------|------|----------------|------|
| ANSI NPT | ISO/JIS Rc | mm | NPT | mm | Flat | Hex | mm | mm | mm | mm |
| MDTH 10.5-4 | MDTH 10.5-R4 | 10.5 (1/8 B) | 1/4 | 7.9 | 22 | 22 | 27.0 | 37.0 | 22.5 | 22.7 |
| MDTH 10.5-6 | MDTH 10.5-R6 | 10.5 (1/8 B) | 3/8 | 7.9 | 24 | 22 | 27.0 | 37.0 | 22.5 | 22.7 |
| MDTH 10.5-8 | MDTH 10.5-R8 | 10.5 (1/8 B) | 1/2 | 7.9 | 27 | 22 | 28.2 | 38.2 | 28.5 | 22.7 |
| MDTH 13.8-4 | MDTH 13.8-R4 | 13.8 (1/4 B) | 1/4 | 10.4 | 22 | 24 | 27.0 | 37.6 | 22.5 | 23.3 |
| MDTH 13.8-6 | MDTH 13.8-R6 | 13.8 (1/4 B) | 3/8 | 10.4 | 24 | 24 | 27.0 | 37.6 | 22.5 | 23.3 |
| MDTH 13.8-8 | MDTH 13.8-R8 | 13.8 (1/4 B) | 1/2 | 10.4 | 27 | 24 | 28.2 | 38.8 | 28.5 | 23.3 |
| MDTH 17.3-6 | MDTH 17.3-R6 | 17.3 (3/8 B) | 3/8 | 12.7 | 27 | 30 | 28.2 | 38.4 | 28.5 | 24.5 |
| MDTH 17.3-8 | MDTH 17.3-R8 | 17.3 (3/8 B) | 1/2 | 12.7 | 27 | 30 | 28.2 | 38.4 | 28.5 | 24.5 |
| MDTH 17.3-12 | MDTH 17.3-R12 | 17.3 (3/8 B) | 3/4 | 12.7 | 36 | 30 | 32.5 | 42.7 | 32.5 | 24.5 |
| MDTH 21.7-6 | MDTH 21.7-R6 | 21.7 (1/2 B) | 3/8 | 16.5 | 30 | 32 | 32.5 | 42.7 | 32.5 | 26.1 |
| MDTH 21.7-8 | MDTH 21.7-R8 | 21.7 (1/2 B) | 1/2 | 16.5 | 30 | 32 | 32.5 | 42.7 | 32.5 | 26.1 |
| MDTH 21.7-12 | MDTH 21.7-R12 | 21.7 (1/2 B) | 3/4 | 16.5 | 36 | 32 | 32.5 | 42.7 | 32.5 | 26.1 |

| | | |
|---------------|-------------|--------------------------------------|
| <i>BI-LoK</i> | MDUA | Union Connects schedule pipes |
|---------------|-------------|--------------------------------------|



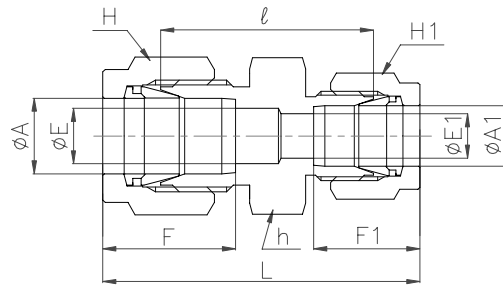
| Part No. | A | E | h | H | l | L | F |
|-----------|--------------|------|----|----|------|------|------|
| | mm | mm | mm | mm | mm | mm | mm |
| MDUA 10.5 | 10.5 (1/8 B) | 7.9 | 22 | 22 | 32.0 | 52.0 | 22.7 |
| MDUA 13.8 | 13.8 (1/4 B) | 10.4 | 22 | 24 | 32.0 | 53.2 | 23.3 |
| MDUA 17.3 | 17.3 (3/8 B) | 12.7 | 27 | 30 | 34.5 | 54.9 | 24.5 |
| MDUA 21.7 | 21.7 (1/2 B) | 16.5 | 30 | 32 | 36.0 | 56.4 | 26.1 |

| | | |
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| <i>BI-LoK</i> | MDSU | Bulkhead Union Connects schedule pipes |
|---------------|-------------|---|



| Part No. | A | E | h | H | l | l ₁ | L | L ₁ | F | Panel | |
|-----------|--------------|------|-----|-----|------|----------------|------|----------------|------|-------|-------|
| | mm | mm | Hex | Hex | mm | mm | mm | mm | mm | hole | thick |
| MDSU 10.5 | 10.5 (1/8 B) | 7.9 | 24 | 22 | 50.8 | 32.0 | 70.8 | 42.0 | 22.7 | 19.4 | 11.1 |
| MDSU 13.8 | 13.8 (1/4 B) | 10.4 | 27 | 24 | 52.5 | 32.5 | 73.7 | 43.1 | 23.3 | 21.0 | 12.1 |
| MDSU 17.3 | 17.3 (3/8 B) | 12.7 | 30 | 30 | 58.7 | 38.1 | 79.1 | 48.3 | 24.5 | 25.8 | 14.9 |
| MDSU 21.7 | 21.7 (1/2 B) | 16.5 | 36 | 32 | 66.0 | 42.0 | 86.4 | 52.2 | 26.1 | 29.0 | 19.5 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDUR | Reducing Union Connects schedule pipe to fractional tube |
|---------------|-------------|--|



| Part No. | A | | A ₁ | | E | E ₁ | h | H | H ₁ | ℓ | L | F | F ₁ |
|-------------|-------------|-----|----------------|------|------|----------------|----|-------|----------------|------|------|------|----------------|
| | mm | in | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| MDUR 10.5-4 | 10.5 (1/8B) | 1/4 | 6.35 | 7.9 | 4.8 | 22 | 22 | 14.29 | 30.5 | 48.0 | 22.7 | 15.4 | |
| MDUR 10.5-6 | 10.5 (1/8B) | 3/8 | 9.53 | 7.9 | 7.1 | 22 | 22 | 17.46 | 32.5 | 50.0 | 22.7 | 17.0 | |
| MDUR 17.3-6 | 17.3 (3/8B) | 3/8 | 9.53 | 12.7 | 7.1 | 27 | 30 | 17.46 | 34.5 | 52.2 | 24.5 | 17.0 | |
| MDUR 21.7-8 | 21.7 (1/2B) | 1/2 | 12.7 | 16.5 | 10.4 | 30 | 32 | 22.23 | 36.0 | 56.5 | 26.1 | 23.0 | |

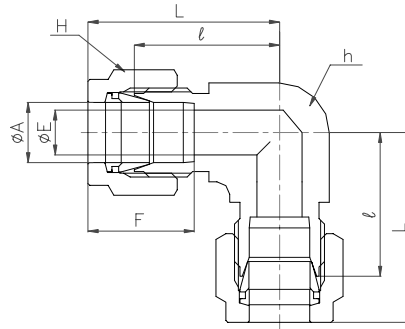
| | | |
|---------------|-------------|--|
| BI-LoK | MDUR | Reducing Union Connects schedule pipe to metric tube |
|---------------|-------------|--|

| Part No. | A | A ₁ | E | E ₁ | h | H | H ₁ | ℓ | L | F | F ₁ |
|---------------|-------------|----------------|------|----------------|----|----|----------------|------|------|------|----------------|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| MDUR 13.8-12M | 13.8 (1/4B) | 12 | 10.4 | 9.5 | 22 | 24 | 22 | 32.0 | 52.8 | 23.3 | 22.9 |
| MDUR 17.3-16M | 17.3 (3/8B) | 16 | 12.7 | 12.7 | 27 | 30 | 27 | 34.5 | 54.9 | 24.5 | 24.5 |
| MDUR 21.7-12M | 21.7 (1/2B) | 12 | 16.5 | 9.5 | 30 | 32 | 22 | 36.0 | 56.4 | 26.1 | 22.9 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDUR | Reducing Union Connects schedule pipes |
|---------------|-------------|--|

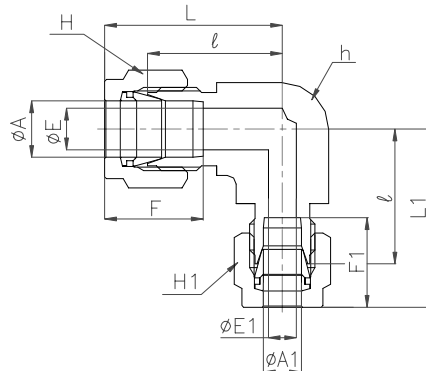
| Part No. | A | A ₁ | E | E ₁ | h | H | H ₁ | ℓ | L | F | F ₁ |
|----------------|-------------|----------------|------|----------------|----|----|----------------|------|------|------|----------------|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| MDUR 13.8-10.5 | 13.8 (1/4B) | 10.5 (1/8B) | 10.4 | 7.9 | 22 | 24 | 22 | 32.0 | 52.6 | 23.3 | 22.7 |
| MDUR 17.3-10.5 | 17.3 (3/8B) | 10.5 (1/8B) | 12.7 | 7.9 | 27 | 30 | 22 | 34.5 | 54.7 | 24.5 | 22.7 |
| MDUR 17.3-13.8 | 17.3 (3/8B) | 13.8 (1/4B) | 12.7 | 10.4 | 27 | 30 | 24 | 34.5 | 55.3 | 24.5 | 23.3 |
| MDUR 21.7-10.5 | 21.7 (1/2B) | 10.5 (1/8B) | 16.5 | 7.9 | 30 | 32 | 22 | 36.0 | 56.2 | 26.1 | 22.7 |
| MDUR 21.7-13.8 | 21.7 (1/2B) | 13.8 (1/4B) | 16.5 | 10.4 | 30 | 32 | 24 | 36.0 | 56.8 | 26.1 | 23.3 |
| MDUR 21.7-17.3 | 21.7 (1/2B) | 17.3 (3/8B) | 16.5 | 12.7 | 30 | 32 | 30 | 36.0 | 56.4 | 26.1 | 24.5 |

| | | |
|---------------|-------------|---|
| <i>BI-LoK</i> | MDLA | Union Elbow Connects schedule pipes |
|---------------|-------------|---|



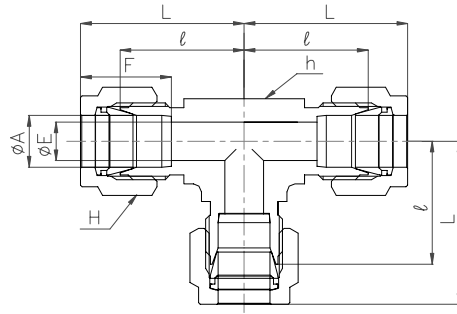
| Part No. | A | E | h | H | l | L | F |
|-----------|--------------|------|----|----|------|------|------|
| | mm | mm | mm | mm | mm | mm | mm |
| MDLA 10.5 | 10.5 (1/8 B) | 7.9 | 22 | 22 | 27.0 | 37.0 | 22.7 |
| MDLA 13.8 | 13.8 (1/4 B) | 10.4 | 22 | 24 | 27.0 | 37.6 | 23.3 |
| MDLA 17.3 | 17.3 (3/8 B) | 12.7 | 27 | 30 | 28.2 | 38.4 | 24.5 |
| MDLA 21.7 | 21.7 (1/2 B) | 16.5 | 30 | 32 | 32.5 | 42.7 | 26.1 |

| | | |
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| <i>BI-LoK</i> | MDLR | Reducing Union Elbow Connects schedule pipes |
|---------------|-------------|--|



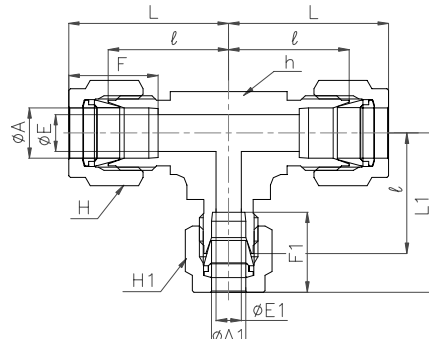
| Part No. | A | A ₁ | E | E ₁ | h | H | H ₁ | l | L | L ₁ | F | F ₁ |
|---------------|-------------|----------------|------|----------------|----|----|----------------|------|------|----------------|------|----------------|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| MDLR13.8-10.5 | 13.8 (1/4B) | 10.5 (1/8B) | 10.4 | 7.9 | 22 | 24 | 22 | 27.0 | 37.6 | 37.0 | 23.3 | 22.7 |
| MDLR17.3-10.5 | 17.3 (3/8B) | 10.5 (1/8B) | 12.7 | 7.9 | 27 | 30 | 22 | 28.2 | 38.4 | 38.2 | 24.5 | 22.7 |
| MDLR17.3-13.8 | 17.3 (3/8B) | 13.8 (1/4B) | 12.7 | 10.4 | 27 | 30 | 24 | 28.2 | 38.4 | 38.8 | 24.5 | 23.3 |
| MDLR21.7-10.5 | 21.7 (1/2B) | 10.5 (1/8B) | 10.5 | 7.9 | 30 | 32 | 22 | 32.5 | 42.7 | 42.5 | 26.1 | 22.7 |
| MDLR21.7-13.8 | 21.7 (1/2B) | 13.8 (1/4B) | 13.8 | 10.4 | 30 | 32 | 24 | 32.5 | 42.7 | 43.1 | 26.1 | 23.3 |
| MDLR21.7-17.3 | 21.7 (1/2B) | 17.3 (3/8B) | 17.3 | 12.7 | 30 | 32 | 30 | 32.5 | 42.7 | 42.7 | 26.1 | 24.5 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDTA | Union Tee Connects schedule pipes |
|---------------|-------------|---|



| Part No. | A | E | h | H | l | L | F |
|-----------|--------------|------|----|----|------|------|------|
| | mm | mm | mm | mm | mm | mm | mm |
| MDTA 10.5 | 10.5 (1/8 B) | 7.9 | 22 | 22 | 27.0 | 37.0 | 22.7 |
| MDTA 13.8 | 13.8 (1/4 B) | 10.4 | 22 | 24 | 27.0 | 37.6 | 23.3 |
| MDTA 17.3 | 17.3 (3/8 B) | 12.7 | 27 | 30 | 28.2 | 38.4 | 24.5 |
| MDTA 21.7 | 21.7 (1/2 B) | 16.5 | 30 | 32 | 32.5 | 42.7 | 26.1 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDTR | Reducing Union Tee Connects schedule pipe to fractional tube |
|---------------|-------------|--|

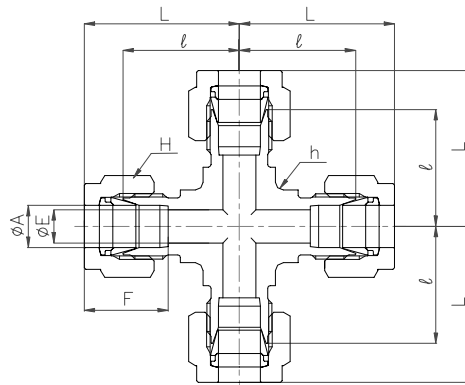


| Part No. | A | A ₁ | E | E ₁ | h | H | H ₁ | l | L | L ₁ | F | F ₁ | |
|-------------|-------------|----------------|------|----------------|------|----|----------------|-------|------|----------------|------|----------------|------|
| | mm | in | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | |
| MDTR 10.5-6 | 10.5 (1/8B) | 3/8 | 9.53 | 7.9 | 7.1 | 22 | 22 | 17.46 | 27.0 | 37.0 | 34.5 | 22.7 | 17.0 |
| MDTR 21.7-8 | 21.7 (1/2B) | 1/2 | 12.7 | 16.5 | 10.4 | 30 | 32 | 22.23 | 32.5 | 42.7 | 42.8 | 26.1 | 23.0 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDTR | Reducing Union Tee Connects schedule pipes |
|---------------|-------------|--|

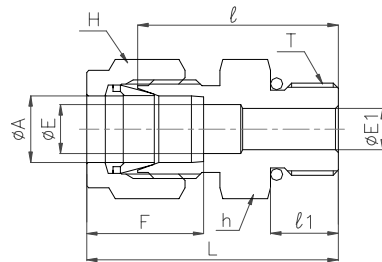
| Part No. | A | A ₁ | E | E ₁ | h | H | H ₁ | l | L | L ₁ | F | F ₁ |
|----------------|-------------|----------------|------|----------------|----|----|----------------|------|------|----------------|------|----------------|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| MDTR 13.8-10.5 | 13.8 (1/4B) | 10.5 (1/8B) | 10.4 | 7.9 | 22 | 24 | 22 | 27.0 | 37.6 | 37.0 | 23.3 | 22.7 |
| MDTR 17.3-13.8 | 17.3 (3/8B) | 13.8 (1/4B) | 12.7 | 10.4 | 27 | 30 | 24 | 28.2 | 38.4 | 38.8 | 24.5 | 23.3 |
| MDTR 21.7-17.3 | 21.7 (1/2B) | 17.3 (3/8B) | 16.5 | 12.7 | 30 | 32 | 30 | 32.5 | 42.7 | 42.7 | 26.1 | 24.5 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDXA | Union Cross Connects schedule pipes |
|---------------|-------------|---|



| Part No. | A | E | h | H | l | L | F |
|-----------|--------------|------|----|----|------|------|------|
| | mm | mm | mm | mm | mm | mm | mm |
| MDXA 10.5 | 10.5 (1/8 B) | 7.9 | 22 | 22 | 27.0 | 36.9 | 22.6 |
| MDXA 13.8 | 13.8 (1/4 B) | 10.4 | 22 | 24 | 27.0 | 37.1 | 22.8 |
| MDXA 17.3 | 17.3 (3/8 B) | 12.7 | 27 | 30 | 28.2 | 38.4 | 24.5 |
| MDXA 21.7 | 21.7 (1/2 B) | 16.5 | 30 | 32 | 32.5 | 44.8 | 26.1 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDCU | O-ring seal Male Connector for straight thread Connects schedule BI-LOK port to female UNF thread |
|---------------|-------------|---|

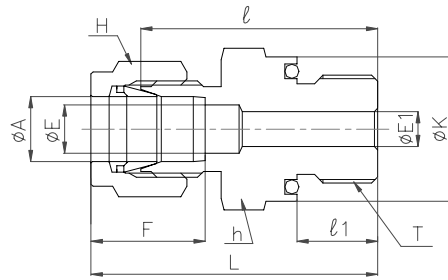


| Part No. | A | T | E | E1 | h | H | l | l1 | L | F | O-ring |
|-------------|--------------|---------|------|------|-----|-----|------|------|------|------|--------|
| | mm | UNF | mm | mm | Hex | Hex | mm | mm | mm | mm | AS568 |
| MDCU 10.5-4 | 10.5 (1/8 B) | 7/16-20 | 7.9 | 5.1 | 22 | 22 | 27.5 | 9.1 | 37.5 | 22.7 | 904 |
| MDCU 10.5-6 | 10.5 (1/8 B) | 9/16-18 | 7.9 | 7.1 | 22 | 22 | 29.0 | 9.9 | 39.0 | 22.7 | 906 |
| MDCU 13.8-6 | 13.8 (1/4 B) | 9/16-18 | 10.4 | 7.1 | 22 | 24 | 30.0 | 9.9 | 40.6 | 23.3 | 906 |
| MDCU 17.3-6 | 17.3 (3/8 B) | 9/16-18 | 12.7 | 7.1 | 27 | 30 | 30.8 | 9.9 | 41.0 | 24.5 | 906 |
| MDCU 17.3-8 | 17.3 (3/8 B) | 3/4-16 | 12.7 | 10.4 | 27 | 30 | 32.8 | 11.0 | 43.0 | 24.5 | 908 |
| MDCU 21.7-8 | 21.7 (1/2 B) | 3/4-16 | 16.5 | 10.4 | 30 | 32 | 35.0 | 11.0 | 45.2 | 26.1 | 908 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDCU | O-ring seal Male Connector for straight thread Connects schedule BI-LOK port to female ISO straight thread |
|---------------|-------------|--|

| Part No. | A | T | E | E1 | h | H | K | l | l1 | L | F | O-ring |
|--------------|--------------|-----|------|------|-----|-----|----|----|----|------|------|----------|
| | mm | G | mm | mm | Hex | Hex | mm | mm | mm | mm | mm | JISB2401 |
| MDCU 10.5-G4 | 10.5 (1/8 B) | 1/4 | 7.9 | 6.4 | 22 | 22 | 19 | 34 | 12 | 44.0 | 22.7 | 1B-P-11 |
| MDCU 10.5-G6 | 10.5 (1/8 B) | 3/8 | 7.9 | 7.9 | 22 | 22 | 22 | 34 | 12 | 44.0 | 22.7 | 1B-P-14 |
| MDCU 13.8-G4 | 13.8 (1/4 B) | 1/4 | 10.4 | 6.4 | 22 | 24 | 19 | 34 | 12 | 44.6 | 23.3 | 1B-P-11 |
| MDCU 17.3-G6 | 17.3 (3/8 B) | 3/8 | 12.7 | 7.9 | 27 | 30 | 22 | 35 | 12 | 45.2 | 24.5 | 1B-P-14 |
| MDCU 17.3-G8 | 17.3 (3/8 B) | 1/2 | 12.7 | 12.0 | 27 | 30 | 27 | 39 | 14 | 49.2 | 24.5 | 1B-P-18 |
| MDCU 21.7-G8 | 21.7 (1/2 B) | 1/2 | 16.5 | 12.0 | 30 | 32 | 27 | 40 | 14 | 50.2 | 26.1 | 1B-P-18 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDCO | O-ring seal Male Connector for straight thread Connects schedule BI-LOK port to female UNF thread |
|---------------|-------------|---|

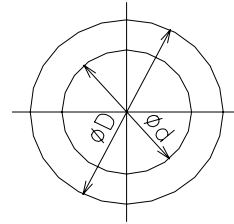
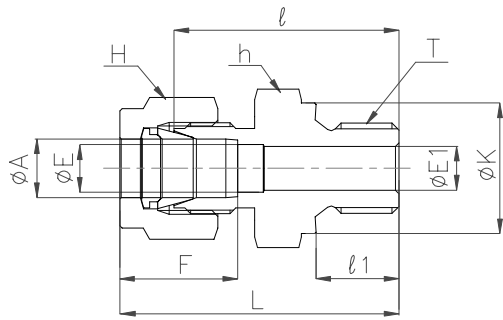


| Part No. | A | T | E | E1 | K | h | H | l | l1 | L | F | O-ring |
|-------------|--------------|---------|------|------|------|-----|-----|------|------|------|------|--------|
| | mm | UNF | mm | mm | mm | Hex | Hex | mm | mm | mm | mm | AS568 |
| MDCO 10.5-6 | 10.5 (1/8 B) | 9/16-18 | 7.9 | 7.1 | 23.6 | 24 | 22 | 34.5 | 11.9 | 44.5 | 22.7 | 113 |
| MDCO 13.8-6 | 13.8 (1/4 B) | 9/16-18 | 10.4 | 7.1 | 23.6 | 24 | 24 | 34.5 | 11.9 | 45.1 | 23.3 | 113 |
| MDCO 17.3-8 | 17.3 (3/8 B) | 3/4-16 | 12.7 | 10.4 | 28.4 | 30 | 30 | 36.0 | 11.9 | 46.2 | 24.5 | 116 |
| MDCO 21.7-8 | 21.7 (1/2 B) | 3/4-16 | 16.5 | 10.4 | 28.4 | 30 | 32 | 36.0 | 11.9 | 46.2 | 26.1 | 116 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDCO | O-ring seal Male Connector for straight thread Connects schedule BI-LOK port to female ISO straight thread |
|---------------|-------------|--|

| Part No. | A | T | E | E1 | h | H | K | l | l1 | L | F | O-ring |
|---------------|--------------|-----|------|------|-----|-----|------|------|----|------|------|----------|
| | mm | G | mm | mm | Hex | Hex | mm | mm | mm | mm | mm | JISB2401 |
| MDCO 10.5-G4 | 10.5 (1/8 B) | 1/4 | 7.9 | 6.4 | 24 | 22 | 23.5 | 35.5 | 12 | 45.5 | 22.7 | 4D-P-15 |
| MDCO 10.5-G6 | 10.5 (1/8 B) | 3/8 | 7.9 | 7.9 | 27 | 22 | 26.5 | 35.5 | 12 | 45.5 | 22.7 | 4D-P-18 |
| MDCO 10.5-G8 | 10.5 (1/8 B) | 1/2 | 7.9 | 12.0 | 32 | 22 | 31.5 | 39.5 | 14 | 49.5 | 22.7 | 4D-P-22 |
| MDCO 13.8-G6 | 13.8 (1/4 B) | 3/8 | 10.4 | 7.9 | 27 | 24 | 26.5 | 35.5 | 12 | 46.1 | 23.3 | 4D-P-18 |
| MDCO 13.8-G8 | 13.8 (1/4 B) | 1/2 | 10.4 | 12.0 | 32 | 24 | 31.5 | 39.5 | 14 | 50.1 | 23.3 | 4D-P-22 |
| MDCO 17.3-G6 | 17.3 (3/8 B) | 3/8 | 12.7 | 7.9 | 27 | 30 | 26.5 | 36.5 | 12 | 46.7 | 24.5 | 4D-P-18 |
| MDCO 17.3-G8 | 17.3 (3/8 B) | 1/2 | 12.7 | 12.0 | 32 | 30 | 31.5 | 40.5 | 14 | 50.7 | 24.5 | 4D-P-22 |
| MDCO 21.7-G8 | 21.7 (1/2 B) | 1/2 | 16.5 | 12.0 | 32 | 32 | 31.5 | 40.5 | 14 | 50.7 | 26.1 | 4D-P-22 |
| MDCO 21.7-G12 | 21.7 (1/2 B) | 3/4 | 16.5 | 16.0 | 41 | 32 | 40.5 | 45.5 | 18 | 55.7 | 26.1 | 4D-P-28 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDCJ | Gasket seal Male Connector for straight thread Connects schedule BI-LOK port to female ISO straight thread |
|---------------|-------------|---|

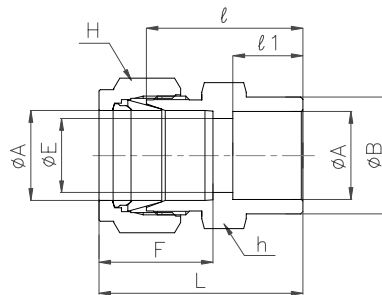


Gasket Material : Copper

| Part No. | T | D | d | t |
|----------|------|----|------|---|
| KP-A-03 | G1/4 | 22 | 14 | 2 |
| KP-A-05 | G3/8 | 26 | 17 | 2 |
| KP-A-07 | G1/2 | 32 | 21.5 | 2 |

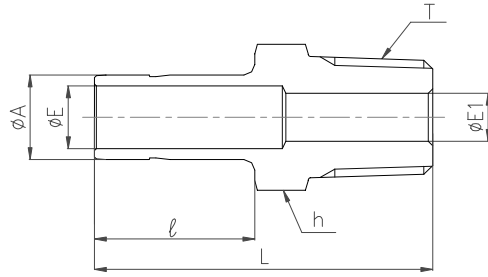
| Part No. | A | T | E | Ei | h | H | K | l | l ₁ | L | F |
|--------------|--------------|-----|------|------|-----|-----|------|------|----------------|------|------|
| | mm | G | mm | mm | Hex | Hex | mm | mm | mm | mm | mm |
| MDCJ 10.5-G4 | 10.5 (1/8 B) | 1/4 | 7.9 | 5.9 | 22 | 22 | 18.0 | 33.0 | 11.2 | 43.0 | 22.7 |
| MDCJ 10.5-G6 | 10.5 (1/8 B) | 3/8 | 7.9 | 7.9 | 22 | 22 | 21.8 | 33.0 | 11.2 | 43.0 | 22.7 |
| MDCJ 10.5-G8 | 10.5 (1/8 B) | 1/2 | 7.9 | 11.9 | 27 | 22 | 26.0 | 38.9 | 14.2 | 48.9 | 22.7 |
| MDCJ 13.8-G4 | 13.8 (1/4 B) | 1/4 | 10.4 | 5.9 | 22 | 24 | 18.0 | 33.0 | 11.2 | 43.6 | 23.3 |
| MDCJ 13.8-G6 | 13.8 (1/4 B) | 3/8 | 10.4 | 7.9 | 22 | 24 | 21.8 | 33.0 | 11.2 | 43.6 | 23.3 |
| MDCJ 13.8-G8 | 13.8 (1/4 B) | 1/2 | 10.4 | 11.9 | 27 | 24 | 26.0 | 38.9 | 14.2 | 49.5 | 23.3 |
| MDCJ 17.3-G4 | 17.3 (3/8 B) | 1/4 | 12.7 | 5.9 | 27 | 30 | 18.0 | 34.9 | 11.2 | 45.1 | 24.5 |
| MDCJ 17.3-G6 | 17.3 (3/8 B) | 3/8 | 12.7 | 7.9 | 27 | 30 | 21.8 | 34.9 | 11.2 | 45.1 | 24.5 |
| MDCJ 17.3-G8 | 17.3 (3/8 B) | 1/2 | 12.7 | 11.9 | 27 | 30 | 26.0 | 38.9 | 14.2 | 49.1 | 24.5 |
| MDCJ 21.7-G4 | 21.7 (1/2 B) | 1/4 | 16.5 | 5.9 | 30 | 32 | 18.0 | 36.9 | 11.2 | 47.1 | 26.1 |
| MDCJ 21.7-G6 | 21.7 (1/2 B) | 3/8 | 16.5 | 7.9 | 30 | 32 | 21.8 | 36.9 | 11.2 | 47.1 | 26.1 |
| MDCJ 21.7-G8 | 21.7 (1/2 B) | 1/2 | 16.5 | 11.9 | 30 | 32 | 26.0 | 40.9 | 14.2 | 51.1 | 26.1 |

| | | |
|---------------|-------------|---|
| BI-LoK | MDCW | Tube socket weld Connector Connects schedule pipes |
|---------------|-------------|---|



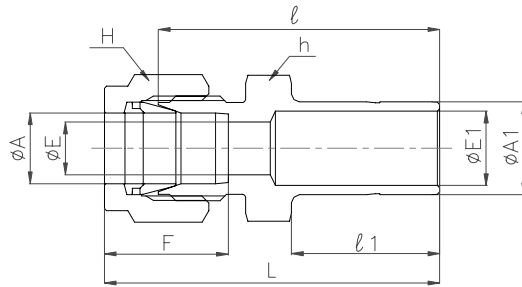
| Part No. | A | E | h | H | B | l | l ₁ | L | F |
|----------------|--------------|------|----|----|----|------|----------------|------|------|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| MDCW 10.5-10.5 | 10.5 (1/8 B) | 7.9 | 22 | 22 | 20 | 32.0 | 10.0 | 42.0 | 22.7 |
| MDCW 13.8-13.8 | 13.8 (1/4 B) | 10.4 | 22 | 24 | 20 | 32.0 | 12.7 | 42.6 | 23.3 |
| MDCW 17.3-17.3 | 17.3 (3/8 B) | 12.7 | 27 | 30 | 26 | 34.6 | 14.0 | 44.8 | 24.5 |
| MDCW 21.7-21.7 | 21.7 (1/2 B) | 16.5 | 32 | 32 | 29 | 36.0 | 14.0 | 46.2 | 26.1 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDHA | Male Adapter Connects schedule BI-LOK port to female ISO tapered pipe thread |
|---------------|-------------|--|



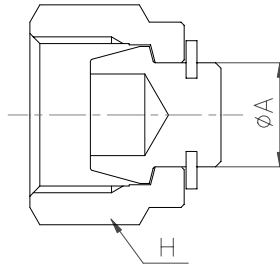
| Part No. | A | T | E | E1 | h | l | L |
|--------------|--------------|-----|------|------|-----|------|----|
| | mm | R | mm | mm | Hex | mm | mm |
| MDHA 10.5-R4 | 10.5 (1/8 B) | 1/4 | 7.9 | 7.1 | 14 | 23.5 | 44 |
| MDHA 10.5-R6 | 10.5 (1/8 B) | 3/8 | 7.9 | 7.9 | 19 | 23.5 | 44 |
| MDHA 13.8-R4 | 13.8 (1/4 B) | 1/4 | 10.4 | 7.1 | 17 | 23.5 | 45 |
| MDHA 13.8-R6 | 13.8 (1/4 B) | 3/8 | 10.4 | 10.4 | 19 | 23.5 | 45 |
| MDHA 17.3-R6 | 17.3 (3/8 B) | 3/8 | 12.7 | 10.4 | 19 | 25.2 | 48 |
| MDHA 17.3-R8 | 17.3 (3/8 B) | 1/2 | 12.7 | 12.7 | 22 | 25.2 | 51 |
| MDHA 21.7-R6 | 21.7 (1/2 B) | 3/8 | 16.5 | 10.4 | 24 | 27.0 | 50 |
| MDHA 21.7-R8 | 21.7 (1/2 B) | 1/2 | 16.5 | 12.7 | 24 | 27.0 | 54 |

| | | |
|---------------|-------------|--|
| BI-LoK | MDRE | Reducer Connects schedule pipe to schedule BI-LOK port |
|---------------|-------------|--|



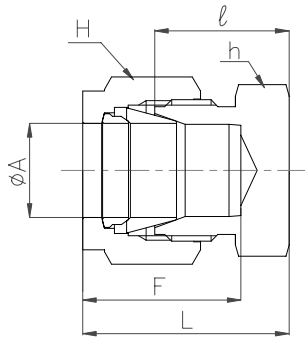
| Part No. | A (Tube OD) | A1 (Tube OD) | E | E1 | h | H | l | l ₁ | L | F |
|----------------|--------------|--------------|------|------|-----|-----|------|----------------|------|------|
| | mm | mm | mm | mm | Hex | Hex | mm | mm | mm | mm |
| MDRE 10.5-13.8 | 10.5 (1/8 B) | 13.8 (1/4 B) | 7.9 | 10.4 | 22 | 22 | 43.0 | 23.5 | 53.0 | 22.7 |
| MDRE 13.8-10.5 | 13.8 (1/4 B) | 10.5 (1/8 B) | 10.4 | 7.9 | 22 | 24 | 43.2 | 23.5 | 53.8 | 23.3 |
| MDRE 13.8-17.3 | 13.8 (1/4 B) | 17.3 (3/8 B) | 10.4 | 12.0 | 22 | 24 | 45.0 | 25.2 | 55.6 | 23.3 |
| MDRE 17.3-13.8 | 17.3 (3/8 B) | 13.8 (1/4 B) | 12.7 | 10.4 | 27 | 30 | 43.5 | 23.5 | 53.7 | 24.5 |
| MDRE 17.3-21.7 | 17.3 (3/8 B) | 21.7 (1/2 B) | 12.7 | 16.5 | 27 | 30 | 47.0 | 27.0 | 57.2 | 24.5 |
| MDRE 21.7-17.3 | 13.8 (1/4 B) | 17.3 (3/8 B) | 16.5 | 12.7 | 30 | 32 | 45.0 | 25.2 | 55.2 | 26.1 |

| | | |
|---------------|-------------|-----------------------|
| <i>BI-LoK</i> | MDBA | Plug Schedule pipe |
|---------------|-------------|-----------------------|



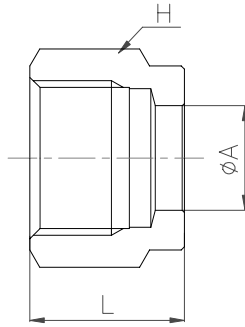
| Part No. | A | h (Hex) | Snap ring |
|-----------|-------------|---------|-----------------------|
| | mm | mm | |
| MDBA 10.5 | 10.5 (1/8B) | 22 | E Type (JIS B2805-8) |
| MDBA 13.8 | 13.8 (1/4B) | 24 | E Type (JIS B2805-12) |
| MDBA 17.3 | 17.3 (3/8B) | 30 | C Type (JIS B2804-17) |
| MDBA 21.7 | 21.7 (1/2B) | 32 | E Type (US-81S) |

| | | |
|---------------|-------------|----------------------------------|
| <i>BI-LoK</i> | MDCA | Cap Caps end of Schedule pipe |
|---------------|-------------|----------------------------------|



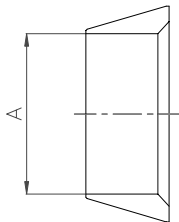
| Part No. | A | h (Hex) | H | ℓ | L | F |
|-----------|-------------|---------|----|--------|------|------|
| | mm | mm | mm | mm | mm | mm |
| MDCA 10.5 | 10.5 (1/8B) | 22 | 22 | 19.8 | 29.8 | 22.7 |
| MDCA 13.8 | 13.8 (1/4B) | 22 | 24 | 19.8 | 30.4 | 23.3 |
| MDCA 17.3 | 17.3 (3/8B) | 27 | 30 | 22.0 | 32.2 | 24.5 |
| MDCA 21.7 | 21.7 (1/2B) | 30 | 32 | 22.3 | 32.5 | 26.1 |

| | | |
|---------------|-------------|-----------------------------|
| <i>BI-LoK</i> | MDNA | Nut Schedule pipe |
|---------------|-------------|-----------------------------|



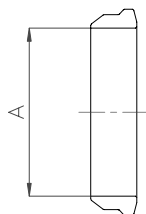
| Part No. | A | H (Hex) | L | M (UNF) |
|-----------|-------------|---------|------|--------------|
| | mm | mm | mm | |
| MDNA 10.5 | 10.5 (1/8B) | 22 | 17.5 | 3/4-20UNEF |
| MDNA 13.8 | 13.8 (1/4B) | 24 | 17.4 | 13/16-20UNEF |
| MDNA 17.3 | 17.3 (3/8B) | 30 | 17.4 | 1-20UNEF |
| MDNA 21.7 | 21.7 (1/2B) | 32 | 17.4 | 1-1/8-20UN |

| | | |
|---------------|-------------|---------------------------------------|
| <i>BI-LoK</i> | MDOF | Front Ferrule Schedule pipe |
|---------------|-------------|---------------------------------------|

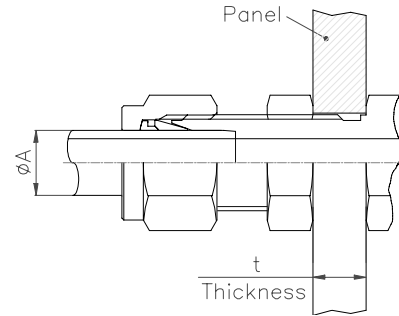
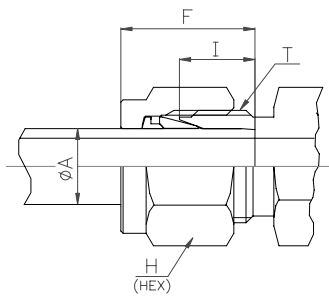


| Part No. | A |
|-----------|-------------|
| | mm |
| MDOF 10.5 | 10.5 (1/8B) |
| MDOF 13.8 | 13.8 (1/4B) |
| MDOF 17.3 | 17.3 (3/8B) |
| MDOF 21.7 | 21.7 (1/2B) |

| | | |
|---------------|-------------|--------------------------------------|
| <i>BI-LoK</i> | MDOB | Back Ferrule Schedule pipe |
|---------------|-------------|--------------------------------------|



| Part No. | A |
|-----------|-------------|
| | mm |
| MDOB 10.5 | 10.5 (1/8B) |
| MDOB 13.8 | 13.8 (1/4B) |
| MDOB 17.3 | 17.3 (3/8B) |
| MDOB 21.7 | 21.7 (1/2B) |



Fractional tube series

| Nominal Size | Tube end dimensional data | | | | | | Panel size for Bulkhead | | |
|--------------|---------------------------|-------|-------------------------|------|---------|-------|-------------------------|-------------------------|----------------------------|
| | A (Tube O.D) | | T Unify Straight thread | I mm | H (Hex) | | F mm | Panel Hole Drill dia mm | Panel wall thickness(t) mm |
| | in | mm | | | in | mm | | | |
| 1 | 1/16 | 1.59 | 10-32 | 4.9 | 5/16 | 7.94 | 8.9 | 5.2 | 3.0 |
| 2 | 1/8 | 3.18 | 5/16-20 | 6.4 | 7/16 | 11.11 | 13.0 | 8.3 | 12.7 |
| 3 | 3/16 | 4.76 | 3/8-20 | 7.2 | 1/2 | 12.7 | 13.8 | 9.9 | 12.7 |
| 4 | 1/4 | 6.35 | 7/16-20 | 7.9 | 9/16 | 14.29 | 15.4 | 11.5 | 10.2 |
| 5 | 5/16 | 7.94 | 1/2-20 | 8.8 | 5/8 | 15.88 | 16.3 | 13.1 | 10.9 |
| 6 | 3/8 | 9.53 | 9/16-20 | 9.5 | 11/16 | 17.46 | 17.0 | 14.7 | 11.2 |
| 8 | 1/2 | 12.7 | 3/4-20 | 12.7 | 7/8 | 22.23 | 23.0 | 19.4 | 12.7 |
| 10 | 5/8 | 15.88 | 7/8-20 | 14.3 | 1 | 25.4 | 24.6 | 22.6 | 12.7 |
| 12 | 3/4 | 19.05 | 1-20 | 14.3 | 1-1/8 | 28.58 | 24.6 | 25.8 | 16.8 |
| 14 | 7/8 | 22.23 | 1-1/8-20 | 15.9 | 1-1/4 | 31.75 | 26.1 | 29.0 | 19.6 |
| 16 | 1 | 25.4 | 1-5/16-20 | 19.1 | 1-1/2 | 38.1 | 31.6 | 33.7 | 19.1 |

Metric tube series

| Nominal Size | Tube end dimensional data | | | | | | Panel size for Bulkhead | | |
|--------------|---------------------------|----|-------------------------|------|---------|------|-------------------------|-------------------------|----------------------------|
| | A (Tube O.D) | | T Unify Straight thread | I mm | H (Hex) | | F mm | Panel Hole Drill dia mm | Panel wall thickness(t) mm |
| | mm | mm | | | mm | mm | | | |
| 2M | 2 | | 1/4-24 | 5.5 | 1 2 | 11.1 | 6.7 | 3.0 | |
| 3M | 3 | | 5/16-20 | 6.4 | 1 2 | 13.0 | 8.3 | 12.7 | |
| 4M | 4 | | 3/8-20 | 7.2 | 1 3 | 13.9 | 9.9 | 10.4 | |
| 6M | 6 | | 7/16-20 | 7.9 | 1 4 | 15.4 | 11.5 | 9.7 | |
| 8M | 8 | | 1/2-20 | 8.8 | 1 7 | 16.3 | 13.1 | 11.4 | |
| 10M | 1 0 | | 5/8-20 | 9.5 | 1 9 | 17.3 | 16.3 | 11.6 | |
| 12M | 1 2 | | 3/4-20 | 12.7 | 2 2 | 22.9 | 19.4 | 13.1 | |
| 15M | 1 5 | | 7/8-20 | 14.3 | 2 7 | 24.3 | 22.6 | 12.0 | |
| 16M | 1 6 | | 7/8-20 | 14.3 | 2 7 | 24.5 | 22.6 | 12.0 | |
| 18M | 1 8 | | 1-20 | 14.3 | 3 0 | 24.5 | 25.8 | 16.7 | |
| 20M | 2 0 | | 1-1/16-20 | 14.3 | 3 0 | 24.5 | 27.0 | 16.7 | |
| 22M | 2 2 | | 1-1/8-20 | 15.9 | 3 2 | 26.1 | 29.0 | 16.7 | |
| 25M | 2 5 | | 1-5/16-20 | 19.1 | 4 1 | 31.6 | 33.7 | 20.0 | |

Schedule pipe series

| Nominal Size | Tube end dimensional data | | | | | | Panel size for Bulkhead | | |
|--------------|---------------------------|------|-------------------------|------|---------|------|-------------------------|-------------------------|----------------------------|
| | A (Tube O.D) | | T Unify Straight thread | I mm | H (Hex) | | F mm | Panel Hole Drill dia mm | Panel wall thickness(t) mm |
| | in | mm | | | mm | mm | | | |
| 10.5 | 1/8 B | 10.5 | 3/4-20 | 12.7 | 2 2 | 22.7 | 19.4 | 11.1 | |
| 13.8 | 1/4 B | 13.8 | 13/16-20 | 12.7 | 2 4 | 23.3 | 21.0 | 12.1 | |
| 17.3 | 3/8 B | 17.3 | 1-20 | 14.3 | 3 0 | 24.5 | 25.8 | 14.9 | |
| 21.7 | 1/2 B | 21.7 | 1-1/8-20 | 15.9 | 3 2 | 26.1 | 29.0 | 19.5 | |

