

Welding Information

Due to same coefficients of expansion and reducing, fitting material and material to be welded shall be the same. All socket port is of machined taper at the end which facilitates proper tube fit, consistent assembly and alignment.

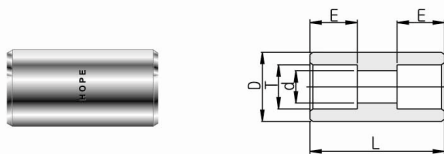
Standard material

316 stainless steel is the standard material, fitting made from forgings are manufactured from materials to ASTM A-314 and ASME SA-182 and fittings made from bar stock are manufactured from materials to ASTM A-276 and ASME SA-479.

Pressure ratings

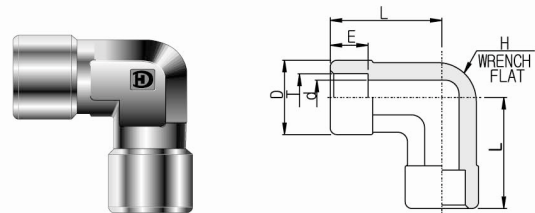
Pressure ratings for Hope weld fittings are in accordance with ANSI B31.3 and safety factor 4:1 is reflected to all working pressure listed.

Union(H-SWFC)



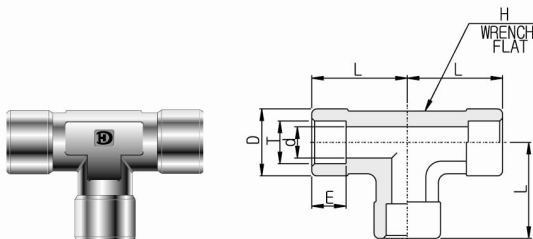
| T Tube O.D | Part Number | d | D | E | L | Working Pressure | |
|------------------|----------------|------|------|------|------|------------------|-----|
| | | | | | | psig | bar |
| 1/4 | H-SWFC- 4T | 4.6 | 13.0 | 7.1 | 19.0 | 10,000 | 689 |
| 3/8 | H-SWFC- 6T | 7.1 | 15.8 | 7.9 | 22.4 | 7,600 | 523 |
| 1/2 | H-SWFC- 8T | 10.2 | 19.0 | 9.7 | 26.9 | 6,200 | 427 |
| 5/8 | H-SWFC-10T | 12.7 | 24.0 | 10.4 | 30.2 | 6,400 | 440 |
| 3/4 | H-SWFC-12T | 15.7 | 26.9 | 11.2 | 33.3 | 5,500 | 378 |
| 1 | H-SWFC-16T | 22.1 | 35.0 | 15.7 | 36.6 | 5,200 | 358 |

Union Elbow(H-SWLA)



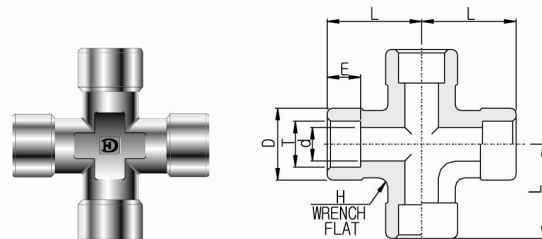
| T Tube O.D | Part Number | d | D | E | H Wrench Flat | L | Working Pressure | |
|------------------|----------------|------|------|------|---------------------|------|------------------|-----|
| | | | | | | | psig | bar |
| 1/4 | H-SWLA- 4T | 4.6 | 13.4 | 7.1 | 11.1 | 21.8 | 11,300 | 778 |
| 3/8 | H-SWLA- 6T | 7.1 | 15.8 | 7.9 | 12.7 | 26.4 | 8,400 | 578 |
| 1/2 | H-SWLA- 8T | 10.2 | 20.6 | 9.7 | 17.4 | 29.7 | 7,800 | 537 |
| 5/8 | H-SWLA-10T | 12.7 | 23.8 | 10.4 | 20.6 | 36.1 | 6,700 | 461 |
| 3/4 | H-SWLA-12T | 15.7 | 28.6 | 11.2 | 25.4 | 37.0 | 6,700 | 461 |
| 1 | H-SWLA-16T | 22.1 | 35.0 | 15.7 | 31.8 | 46.5 | 6,100 | 420 |

Union Tee(H-SWTA)



| T Tube O.D | Part Number | d | D | E | H Wrench Flat | L | Working Pressure | |
|------------------|----------------|------|------|------|---------------------|------|------------------|-----|
| | | | | | | | psig | bar |
| 1/8 | H-SWTA- 2T | 2.3 | 13.4 | 2.5 | 11.1 | 15.0 | 11,800 | 813 |
| 1/4 | H-SWTA- 4T | 4.6 | 13.4 | 7.1 | 11.1 | 21.8 | 11,300 | 778 |
| 3/8 | H-SWTA- 6T | 7.1 | 15.8 | 7.9 | 12.7 | 26.4 | 8,400 | 578 |
| 1/2 | H-SWTA- 8T | 10.2 | 20.6 | 9.7 | 17.4 | 29.7 | 7,800 | 537 |
| 5/8 | H-SWTA-10T | 12.7 | 23.8 | 10.4 | 20.6 | 36.1 | 6,700 | 461 |
| 3/4 | H-SWTA-12T | 15.7 | 28.6 | 11.2 | 25.4 | 37.0 | 6,700 | 461 |
| 1 | H-SWTA-16T | 22.1 | 35.0 | 15.7 | 31.8 | 46.5 | 6,100 | 420 |

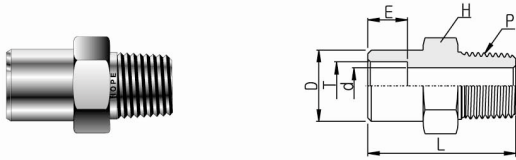
Union Cross(H-SWXA)



| T Tube O.D | Part Number | d | D | E | H Wrench Flat | L | Working Pressure | |
|------------------|----------------|------|------|------|---------------------|------|------------------|-----|
| | | | | | | | psig | bar |
| 1/4 | H-SWXA- 4T | 4.6 | 13.4 | 7.1 | 11.1 | 21.8 | 11,300 | 778 |
| 3/8 | H-SWXA- 6T | 7.1 | 15.8 | 7.9 | 12.7 | 26.4 | 8,400 | 578 |
| 1/2 | H-SWXA- 8T | 10.2 | 20.6 | 9.7 | 17.4 | 29.7 | 7,800 | 537 |
| 3/4 | H-SWXA-12T | 15.7 | 28.6 | 11.2 | 25.4 | 37.0 | 6,700 | 461 |
| 1 | H-SWXA-16T | 22.1 | 35.0 | 15.7 | 31.8 | 46.5 | 6,100 | 420 |

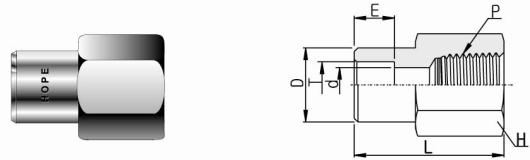
All dimensions are in millimeters unless otherwise specified. Dimensions are for reference only, subject to change.

Male Connector(H-SSD)



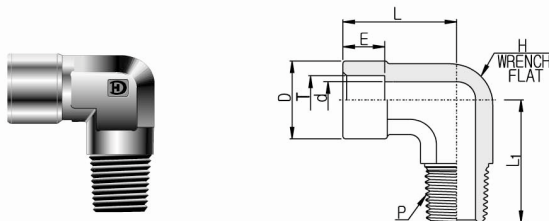
| T Tube O.D | P-NPT Female Pipe Size | Part Number | d | D | E | H HEX | L | Working Pressure | |
|------------------|------------------------------|----------------|------|------|-----|----------|------|---------------------|-----|
| | | | | | | | | psig | bar |
| 1/4 | 1/4 | H-SSD4T- 4N | 4.6 | 12.2 | 7.1 | 14.2 | 29.2 | 7,500 | 516 |
| 3/8 | 1/4 | H-SSD6T- 4N | 7.1 | 15.3 | 7.9 | 15.8 | 31.8 | 7,500 | 516 |
| 3/8 | 3/8 | H-SSD6T- 6N | 7.1 | 15.3 | 7.9 | 17.4 | 31.8 | 7,300 | 502 |
| 3/8 | 1/2 | H-SSD6T- 8N | 7.1 | 15.3 | 7.9 | 22.2 | 37.3 | 7,200 | 496 |
| 1/2 | 1/4 | H-SSD8T- 4N | 7.1 | 18.5 | 9.7 | 19.05 | 33.3 | 6,200 | 427 |
| 1/2 | 3/8 | H-SSD8T- 6N | 9.4 | 18.5 | 9.7 | 19.05 | 33.3 | 6,200 | 427 |
| 1/2 | 1/2 | H-SSD8T- 8N | 10.2 | 18.5 | 9.7 | 22.2 | 38.9 | 6,200 | 427 |

Female Connector(H-SSB)



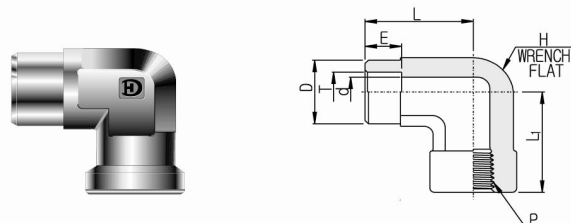
| T Tube O.D | P-NPT Female Pipe Size | Part Number | d | D | E | H HEX | L | Working Pressure | |
|------------------|------------------------------|----------------|------|------|------|----------|------|---------------------|-----|
| | | | | | | | | psig | bar |
| 1/8 | 1/8 | H-SSB 2T- 2N | 2.3 | 7.4 | 2.5 | 14.2 | 21.1 | 6,100 | 420 |
| 1/4 | 1/8 | H-SSB 4T- 2N | 4.6 | 12.2 | 7.1 | 14.2 | 26.7 | 6,100 | 420 |
| 1/4 | 1/4 | H-SSB 4T- 4N | 4.6 | 12.2 | 7.1 | 19.05 | 30.0 | 6,200 | 427 |
| 3/8 | 1/4 | H-SSB 6T- 4N | 7.1 | 15.3 | 7.9 | 19.05 | 31.5 | 6,200 | 427 |
| 1/2 | 3/8 | H-SSB 8T- 6N | 10.2 | 18.5 | 9.7 | 22.2 | 34.5 | 5,000 | 344 |
| 1/2 | 1/2 | H-SSB 8T- 8N | 10.2 | 18.5 | 9.7 | 26.9 | 40.4 | 4,600 | 316 |
| 5/8 | 1/2 | H-SSB10T- 8N | 12.7 | 23.4 | 10.4 | 24.9 | 41.9 | 4,600 | 316 |
| 3/4 | 3/4 | H-SSB12T-12N | 15.7 | 26.7 | 11.2 | 33.3 | 43.9 | 4,300 | 296 |

Male Elbow(H-SLG)



| T Tube O.D | P-NPT Male Pipe Size | Part Number | d | D | E | H Wrench Flat | L | L ₁ | Working Pressure | |
|------------------|----------------------------|----------------|------|------|------|---------------------|------|----------------|---------------------|-----|
| | | | | | | | | | psig | bar |
| 1/4 | 1/4 | H-SLG 4T- 4N | 4.6 | 15.8 | 7.1 | 12.7 | 20.1 | 26.7 | 7,500 | 516 |
| 3/8 | 1/4 | H-SLG 6T- 4N | 7.1 | 15.8 | 7.9 | 12.7 | 26.4 | 26.7 | 7,500 | 516 |
| 3/8 | 3/8 | H-SLG 6T- 6N | 7.1 | 20.6 | 7.9 | 17.4 | 24.6 | 29.7 | 7,300 | 502 |
| 3/8 | 1/2 | H-SLG 6T- 8N | 7.1 | 23.8 | 7.9 | 20.6 | 25.9 | 36.0 | 7,200 | 496 |
| 1/2 | 1/2 | H-SLG 8T- 8N | 10.2 | 23.8 | 9.7 | 20.6 | 27.4 | 36.0 | 6,200 | 427 |
| 3/4 | 3/4 | H-SLG12T-12N | 15.7 | 28.6 | 11.2 | 25.4 | 37.0 | 37.0 | 6,700 | 461 |

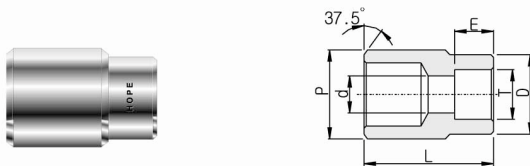
Female Elbow(H-SLD)



| T Tube O.D | P-NPT Female Pipe Size | Part Number | d | D | E | H Wrench Flat | L | L ₁ | Working Pressure | |
|------------------|------------------------------|----------------|------|------|-----|---------------------|------|----------------|---------------------|-----|
| | | | | | | | | | psig | bar |
| 1/4 | 1/4 | H-SLD4T-4N | 4.6 | 12.2 | 7.1 | 17.4 | 22.9 | 29.7 | 6,200 | 427 |
| 3/8 | 1/4 | H-SLD6T-4N | 7.1 | 15.3 | 7.9 | 17.4 | 25.1 | 29.7 | 7,000 | 482 |
| 3/8 | 1/2 | H-SLD6T-8N | 7.1 | 15.3 | 7.9 | 25.4 | 28.7 | 37.0 | 5,400 | 372 |
| 1/2 | 1/2 | H-SLD8T-8N | 10.2 | 18.5 | 9.7 | 25.4 | 30.2 | 37.0 | 5,400 | 372 |

Pipe Weld to Tube Socket Weld(H-SWRM)

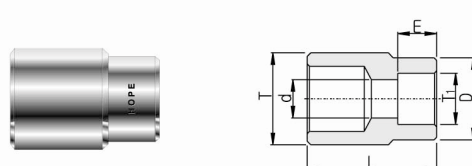
Used to reduce from a pipe butt weld or pipe socket weld to a smaller tube size



| P Pipe Size | T Tube Socket Size | Part Number | d | D | E | L | Working Pressure | |
|-------------------|-----------------------------|----------------|------|------|-----|------|---------------------|-----|
| | | | | | | | psig | bar |
| 1/4 | 1/4 | H-SWRM 4P- 4T | 4.6 | 13.7 | 7.1 | 22.4 | 9,600 | 661 |
| 3/8 | 3/8 | H-SWRM 6P- 6T | 7.1 | 15.3 | 7.9 | 26.2 | 7,600 | 523 |
| 3/8 | 1/2 | H-SWRM 6P- 8T | 10.2 | 18.5 | 9.7 | 27.9 | 6,200 | 427 |
| 1/2 | 1/4 | H-SWRM 8P- 4T | 4.6 | 12.2 | 7.1 | 28.4 | 7,300 | 502 |
| 1/2 | 3/8 | H-SWRM 8P- 6T | 7.1 | 15.3 | 7.9 | 28.4 | 7,300 | 502 |
| 1/2 | 1/2 | H-SWRM 8P- 8T | 10.2 | 18.5 | 9.7 | 30.2 | 6,200 | 427 |
| 3/4 | 3/8 | H-SWRM12P- 6T | 7.1 | 15.3 | 7.9 | 38.1 | 6,200 | 427 |
| 3/4 | 1/2 | H-SWRM12P- 8T | 10.2 | 18.5 | 9.7 | 38.1 | 6,200 | 427 |

Tube Weld to Tube Socket Weld(H-SWRM)

Used to reduce from a tube butt weld or tube socket weld to a smaller tube size



| T Tube Size | T ₁ Tube Socket Size | Part Number | d | D | E | L | Working Pressure | |
|-------------------|--|----------------|------|------|-----|------|---------------------|-----|
| | | | | | | | psig | bar |
| 1/4 | 1/8 | H-SWRM 4T-2T | 2.3 | 7.4 | 2.5 | 14.2 | 11,800 | 813 |
| 3/8 | 1/4 | H-SWRM 6T-4T | 4.6 | 12.2 | 7.1 | 19.1 | 7,700 | 530 |
| 1/2 | 1/4 | H-SWRM 8T-4T | 4.6 | 18.2 | 7.1 | 22.4 | 7,000 | 482 |
| 1/2 | 3/8 | H-SWRM 8T-6T | 8.1 | 15.7 | 7.9 | 22.4 | 7,000 | 482 |
| 3/4 | 1/2 | H-SWRM12T-8T | 10.2 | 18.5 | 9.7 | 28.4 | 5,900 | 406 |
| 1 | 1/2 | H-SWRM16T-8T | 10.2 | 18.5 | 9.7 | 35.1 | 5,600 | 344 |

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