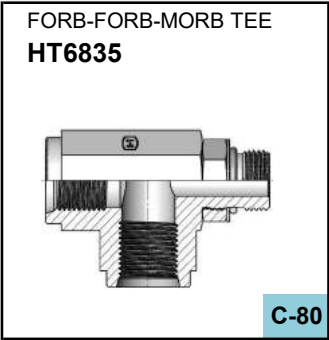
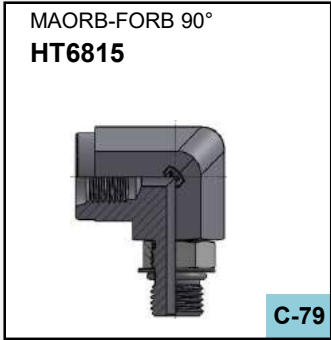
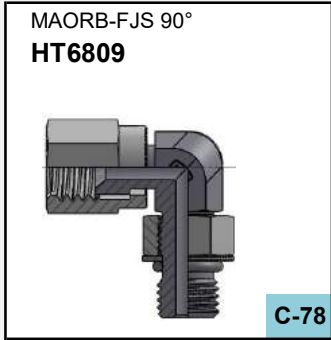
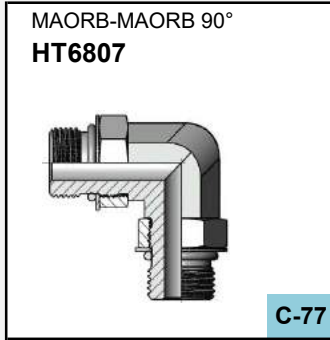
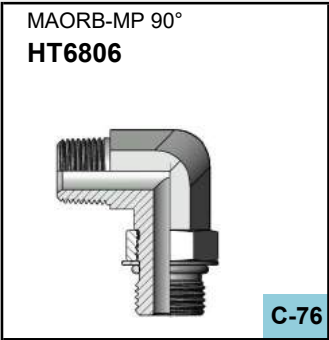
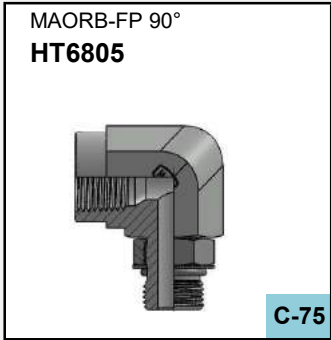
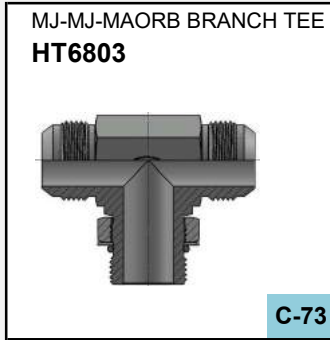
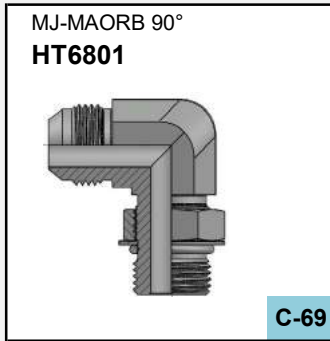
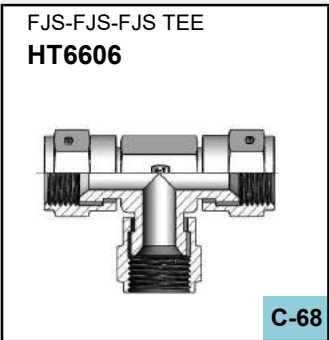
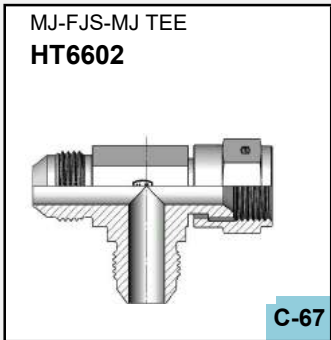
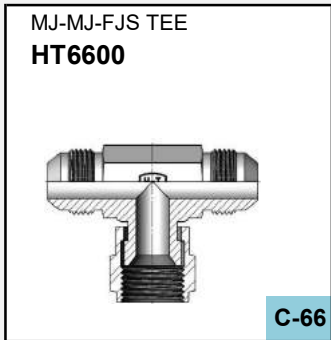
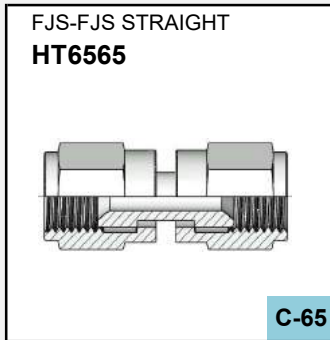
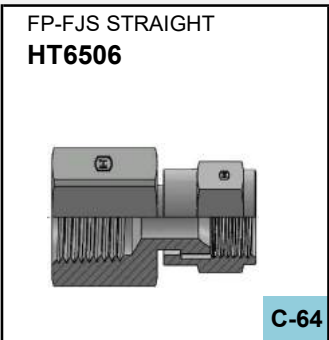
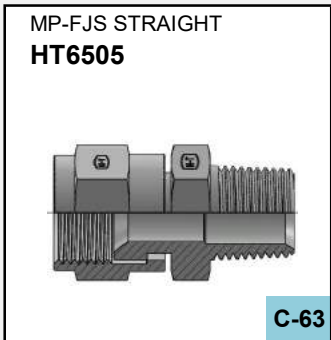
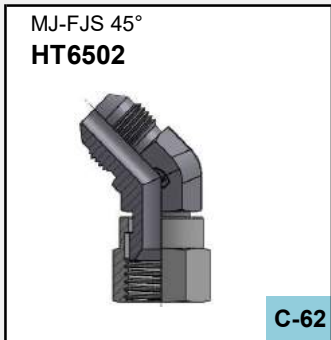
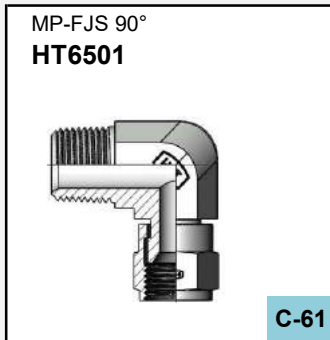


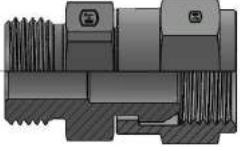
<p>JIC Cap Nut HT0304-C</p>  <p>C-01</p>	<p>BHLN HT0306</p>  <p>C-02</p>	<p>JIC Tube Nut HT0318</p>  <p>C-03</p>	<p>JIC Tube Sleeve HT0319</p>  <p>C-04</p>
<p>Bore-MJ Straight HT0403</p>  <p>C-05</p>	<p>MP-FPS Straight HT1404</p>  <p>C-06</p>	<p>FP-FPS Straight HT1405</p>  <p>C-07</p>	<p>MP-FPS 90° HT1501</p>  <p>C-08</p>
<p>MP-FPS 90° HT1502</p>  <p>C-09</p>	<p>MP-FPS 45° HT1503</p>  <p>C-10</p>	<p>MP-FPS-FPS TEE HT1601</p>  <p>C-11</p>	<p>FPS-FPS-FPS TEE HT1603</p>  <p>C-12</p>
<p>MJ-MJ STRAIGHT HT2403</p>  <p>C-13</p>	<p>MJ-MP STRAIGHT HT2404</p>  <p>C-14</p>	<p>MJ-FP STRAIGHT HT2405</p>  <p>C-15</p>	<p>FJ-MP STRAIGHT REDUCER. HT2406</p>  <p>C-16</p>
<p>MJ PLUG HT2408</p>  <p>C-17</p>	<p>MJ-MJ 90° HT2500</p>  <p>C-18</p>	<p>MJ-MP 90° HT2501</p>  <p>C-19</p>	<p>MJ-FP 90° HT2502</p>  <p>C-20</p>

<p>MJ-FP 45° HT2503</p>  <p>C-21</p>	<p>MJ-MJ-MP TEE HT2601</p>  <p>C-22</p>	<p>MJ-MJ-MJ TEE HT2603</p>  <p>C-23</p>	<p>MJ-MJ BULKHEAD HT2700</p>  <p>C-24</p>
<p>MJ-MJ BULKHEAD 90° HT2701</p>  <p>C-25</p>	<p>MJ-MJ BULKHEAD 45° HT2702</p>  <p>C-26</p>	<p>MJ-MJ-MJ BULKHEAD TEE HT2703</p>  <p>C-27</p>	<p>MJ-MJ-MJ BULKHEAD RUN TEE HT2704</p>  <p>C-28</p>
<p>MP-MJ BULKHEAD STR. HT2706</p>  <p>C-29</p>	<p>HB-MAORB 90° HT4601-NW0</p>  <p>C-30</p>	<p>HB-MAORB STRAIGHT HT4604-0</p>  <p>C-31</p>	<p>FP-FP STRAIGHT HT5000</p>  <p>C-32</p>
<p>MP-MP STRAIGHT HT5404</p>  <p>C-33</p>	<p>MP-FP STRAIGHT EXP. HT5405</p>  <p>C-34</p>	<p>MP-FP REDUCER BUSHING HT5406</p>  <p>C-35</p>	<p>HOLLOW HEX PIPE PLUG HT5406-HP</p>  <p>C-36</p>
<p>EXTERNAL HEX PIPE PLUG HT5406-P</p>  <p>C-37</p>	<p>MP-MP 90° HT5500</p>  <p>C-38</p>	<p>MP-MP 45° HT5501</p>  <p>C-39</p>	<p>MP-FP 90° STREET ELBOW HT5502</p>  <p>C-40</p>

<p>MP-FP 45° STREET ELBOW <b>HT5503</b></p>  <p>C-41</p>	<p>FP-FP 90° STREET ELBOW <b>HT5504</b></p>  <p>C-42</p>	<p>FP-FP 45° STREET ELBOW <b>HT5505</b></p>  <p>C-43</p>	<p>MP-MP-MP TEE <b>HT5600</b></p>  <p>C-44</p>
<p>MP-FP-FP STREET TEE <b>HT5602</b></p>  <p>C-45</p>	<p>MP-FP-MP TEE <b>HT5603</b></p>  <p>C-46</p>	<p>FP-FP-MP BRANCH TEE <b>HT5604</b></p>  <p>C-47</p>	<p>FP-FP-FP TEE <b>HT5605</b></p>  <p>C-48</p>
<p>FP-FP-FP-FP CROSS <b>HT5652</b></p>  <p>C-49</p>	<p>MJ-MORB STRAIGHT <b>HT6400-O</b></p>  <p>C-50</p>	<p>MJ-MORB STRAIGHT LONG <b>HT6400-L-O</b></p>  <p>C-51</p>	<p>MORB-MP STRAIGHT <b>HT6401-O</b></p>  <p>C-52</p>
<p>MORB-FJS STRAIGHT <b>HT6402</b></p>  <p>C-53</p>	<p>FORB-MP STRAIGHT <b>HT6404</b></p>  <p>C-54</p>	<p>FORB-FP STRAIGHT <b>HT6405</b></p>  <p>C-55</p>	<p>MORB EXTERNALHEX PLUG <b>HT6408-O</b></p>  <p>C-56</p>
<p>MORB HOLLOW HEX PLUG <b>HT6408-H-O</b></p>  <p>C-57</p>	<p>MORB-FORB STR.REDUCTOR <b>HT6410</b></p>  <p>C-58</p>	<p>FORB-FORB STRAIGHT <b>HT6425</b></p>  <p>C-59</p>	<p>MJ-FJS 90° <b>HT6500</b></p>  <p>C-60</p>

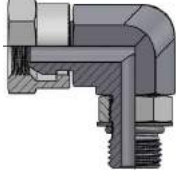


MORB-FPS STRAIGHT  
**HT6900**



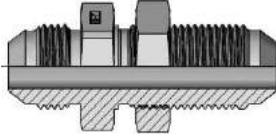
C-81

MORB-FPS 90°  
**HT6901**




C-82

MJ-MJ BULK. WITH LN  
**HT2700-LN**




C-83

PIPE CAP  
**HT5406-C**



C-84

FERRULE  
**HTC0319**



C-85

C-86

C-87

C-88

C-89

C-90

C-91

C-92

C-93

C-94

C-95

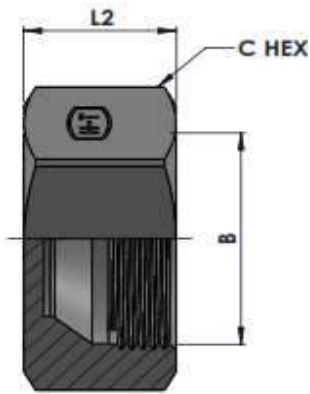
C-96

C-97

C-98

C-99

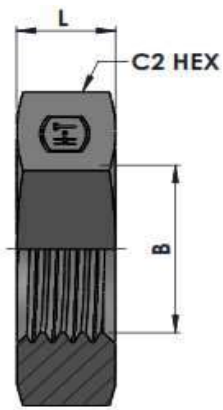
C-100



### XXHT0304-00 Series

#### JIC Cap Nut

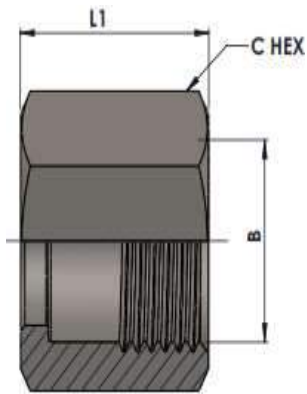
Tube O.D.	B THREAD	C Hex	L2 Length	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2B	9.53	12.70	HT0304-C-02	0.005	8-9	345
3/16"	3/8"-24UNF-2B	11.11	14.30	HT0304-C-03	0.007	11-12	345
1/4"	7/16"-20UNF-2B	14.29	15.10	HT0304-C-04	0.013	15-16	310
5/16"	1/2"-20UNF-2B	15.88	15.50	HT0304-C-05	0.016	19-21	275
3/8"	9/16"-18UNF-2B	17.46	15.90	HT0304-C-06	0.020	24-28	275
1/2"	3/4"-16UNF-2B	22.23	19.00	HT0304-C-08	0.038	49-53	275
5/8"	7/8"-14UNF-2B	25.40	21.40	HT0304-C-10	0.056	77-85	210
3/4"	1-1/16"-12UN-2B	31.75	23.00	HT0304-C-12	0.094	107-119	210
7/8"	1-3/16"-12UN-2B	34.92	24.60	HT0304-C-14	0.122	127-140	170
1"	1-5/16"-12UN-2B	38.10	25.80	HT0304-C-16	0.153	147-154	170
1-1/4"	1-5/8"-12UN-2B	50.80	27.00	HT0304-C-20	0.284	172-181	140
1-1/2"	1-7/8"-12UN-2B	57.15	30.20	HT0304-C-24	0.402	215-226	105
2"	2-1/2"-12UN-2B	73.00	36.50	HT0304-C-32	0.792	332-350	80



### XXHT0306-00 Series

#### BHLN Nut

Tube O.D.	B THREAD	C2 Hex	L Length	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2B	14.28	5.60	HT0306-02	0.008	8-9	345
3/16"	3/8"-24UNF-2B	15.87	5.60	HT0306-03	0.010	11-12	345
1/4"	7/16"-20UNF-2B	17.46	7.10	HT0306-04	0.015	15-16	310
5/16"	1/2"-20UNF-2B	19.05	7.10	HT0306-05	0.017	19-21	275
3/8"	9/16"-18UNF-2B	20.63	6.90	HT0306-06	0.020	24-28	275
1/2"	3/4"-16UNF-2B	25.40	7.90	HT0306-08	0.035	49-53	275
5/8"	7/8"-14UNF-2B	28.57	9.10	HT0306-10	0.050	77-85	210
3/4"	1-1/16"-12UN-2B	34.92	10.40	HT0306-12	0.086	107-119	210
7/8"	1-3/16"-12UN-2B	38.10	10.40	HT0306-14	0.102	127-140	170
1"	1-5/16"-12UN-2B	41.27	10.40	HT0306-16	0.120	147-154	170
1-1/4"	1-5/8"-12UN-2B	47.62	10.40	HT0306-20	0.160	172-181	140
1-1/2"	1-7/8"-12UN-2B	53.98	10.40	HT0306-24	0.206	215-226	105
2"	2-1/2"-12UN-2B	69.85	10.40	HT0306-32	0.344	332-350	80

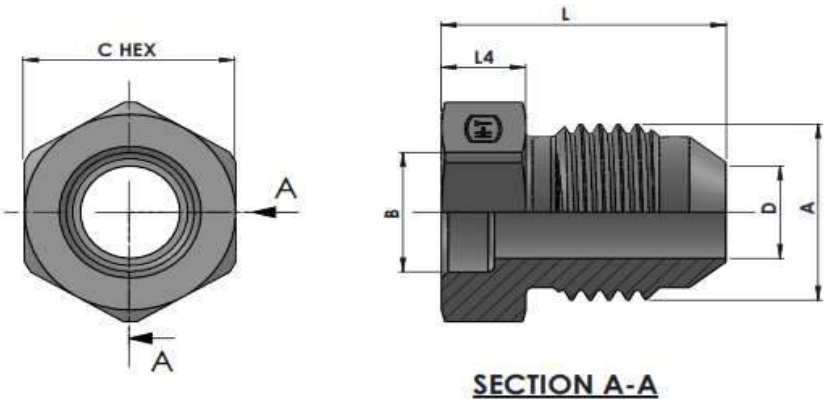


**XXHT0318-00 Series**  
**JIC Tube Nut**

Tube O.D.	B THREAD	C Hex	L1 Length	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2B	9.53	14.00	HT0318-02	0.005	8-9	345
3/16"	3/8"-24UNF-2B	11.11	15.50	HT0318-03	0.008	11-12	345
1/4"	7/16"-20UNF-2B	14.29	15.80	HT0318-04	0.013	15-16	310
5/16"	1/2"-20UNF-2B	15.88	17.30	HT0318-05	0.018	19-21	275
3/8"	9/16"-18UNF-2B	17.46	18.50	HT0318-06	0.023	24-28	275
1/2"	3/4"-16UNF-2B	22.23	21.60	HT0318-08	0.043	49-53	275
5/8"	7/8"-14UNF-2B	25.40	24.90	HT0318-10	0.065	77-85	210
3/4"	1-1/16"-12UN-2B	31.75	26.20	HT0318-12	0.108	107-119	210
7/8"	1-3/16"-12UN-2B	34.92	27.70	HT0318-14	0.138	127-140	170
1"	1-5/16"-12UN-2B	38.10	28.70	HT0318-16	0.170	147-154	170
1-1/4"	1-5/8"-12UN-2B	50.80	31.20	HT0318-20	0.328	172-181	140
1-1/2"	1-7/8"-12UN-2B	57.15	36.10	HT0318-24	0.480	215-226	105
2"	2-1/2"-12UN-2B	73.00	44.50	HT0318-32	0.966	332-350	80



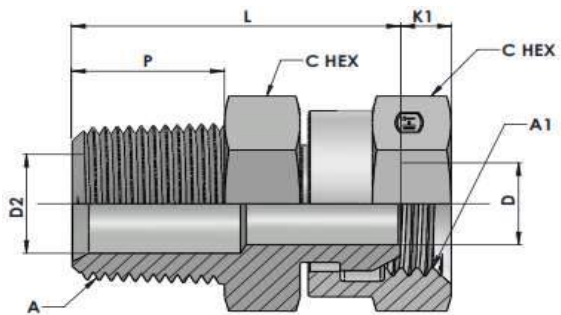




**SECTION A-A**

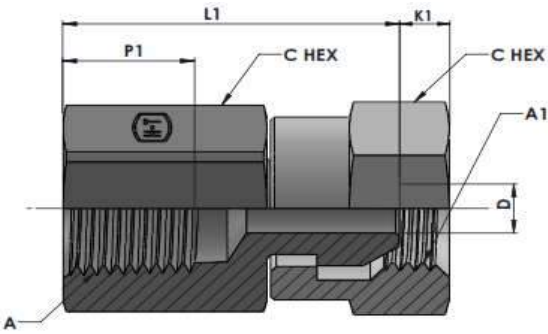
**HT0403-00-00 Series  
Bore-MJ Straight**

Tube O.D.	A THREAD	H Hex	L Length	D DRILL	L4 Length	B BORE	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	12.70	14.00	4.40	5.60	6.50	HT0403-04-04	0.015	15-16	345
5/16"	7/16"-20UNF-2A	12.70	14.00	4.40	5.60	8.10	HT0403-05-04	0.015	15-16	345
5/16"	1/2"-20UNF-2A	14.28	14.00	6.00	5.60	8.10	HT0403-05-05	0.019	19-21	345
3/8"	9/16"-18UNF-2A	15.88	14.10	7.50	6.40	9.68	HT0403-06-06	0.024	24-28	345
3/8"	3/4"-16UNF-2A	20.62	16.70	9.90	6.40	9.68	HT0403-06-08	0.048	49-53	310
1/2"	9/16"-18UNF-2A	20.62	14.10	7.50	6.40	12.85	HT0403-08-06	0.041	24-28	345
1/2"	3/4"-16UNF-2A	20.62	16.70	9.90	6.40	12.85	HT0403-08-08	0.048	49-53	310
1/2"	7/8"-14UNF-2A	23.80	19.30	12.30	7.90	12.85	HT0403-08-10	0.074	77-85	240
5/8"	3/4"-16UNF-2A	23.80	16.70	9.90	6.40	16.03	HT0403-10-08	0.064	49-53	310
5/8"	7/8"-14UNF-2A	23.80	19.30	12.30	7.90	16.03	HT0403-10-10	0.074	77-85	240
5/8"	1-1/16"-12UN-2A	31.75	21.90	15.50	9.70	16.03	HT0403-10-12	0.150	107-119	240
3/4"	3/4"-16UNF-2A	31.75	16.70	9.90	9.70	19.23	HT0403-12-08	0.114	49-53	310
3/4"	7/8"-14UNF-2A	31.75	19.30	12.30	9.70	19.23	HT0403-12-10	0.132	77-85	240
3/4"	1-1/16"-12UN-2A	31.75	21.90	15.50	9.70	19.23	HT0403-12-12	0.150	107-119	240
7/8"	1-3/16"-12UN-2A	34.92	22.60	18.30	9.70	22.40	HT0403-14-14	0.187	127-140	210
1"	1-1/16"-12UN-2A	34.92	21.90	15.50	9.70	25.58	HT0403-16-12	0.181	107-119	240
1"	1-5/16"-12UN-2A	34.92	23.10	21.50	9.70	25.58	HT0403-16-16	0.191	147-154	210
1"	1-5/8"-12UN-2A	42.88	24.30	27.50	11.70	25.58	HT0403-16-20	0.303	172-181	170
1-1/4"	1-5/16"-12UN-2A	42.88	23.10	21.50	11.70	31.95	HT0403-20-16	0.288	147-154	210
1-1/4"	1-5/8"-12UN-2A	42.88	24.30	27.50	11.70	31.95	HT0403-20-20	0.303	172-181	170
1-1/4"	1-7/8"-12UN-2A	50.80	27.50	33.50	13.50	31.95	HT0403-20-24	0.482	215-226	140
1-1/2"	1-5/8"-12UN-2A	50.80	24.30	27.50	13.50	38.30	HT0403-24-20	0.426	172-181	170
1-1/2"	1-7/8"-12UN-2A	50.80	27.50	33.50	13.50	38.30	HT0403-24-24	0.482	215-226	140
2"	2-1/2"-12UN-2A	66.67	33.90	45.20	17.30	51.00	HT0403-32-32	1.023	332-350	105



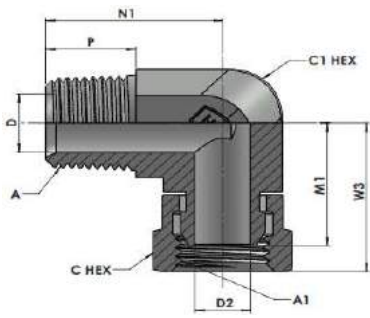
HT1404-00-00 Series  
MP-FPS Straight

Tube O.D.	A THREAD	A1 THREAD	C Hex	L Length	P Length	K1	D DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/8"-27NPTF-2	1/8"-27NPSM	14.28	23.90	9.10	3.00	4.80/2.80	3.30	HT1404-02-02	0.033	12-13	345
3/8"	1/4"-18NPTF-2	1/4"-18NPSM	17.46	31.20	14.20	4.30	5.80/5.30	7.10	HT1404-04-04	0.065	18-19	345
3/8"	1/4"-18NPTF-2	1/4"-18NPSM	20.63	37.30	14.20	4.80	9.10/8.10	7.10	HT1404-04-06	0.108	18-19	345
1/2"	3/8"-18NPTF-2	3/8"-18NPSM	19.05	33.00	14.20	4.30	5.80/5.30	10.30	HT1404-06-04	0.081	22-24	345
1/2"	3/8"-18NPTF-2	3/8"-18NPSM	22.22	33.00	14.20	4.80	9.10/8.10	10.30	HT1404-06-06	0.111	22-24	345
1/2"	3/8"-18NPTF-2	3/8"-18NPSM	25.40	36.00	14.20	6.60	12.20/11.20	10.30	HT1404-06-08	0.158	22-24	345
5/8"	1/2"-14NPTF-2	1/2"-14NPSM	22.22	39.30	19.00	4.30	5.80/5.30	13.50	HT1404-08-04	0.132	45-49	210
5/8"	1/2"-14NPTF-2	1/2"-14NPSM	25.40	39.60	19.00	4.80	9.10/8.10	13.50	HT1404-08-06	0.173	45-49	210
5/8"	1/2"-14NPTF-2	1/2"-14NPSM	25.40	40.90	19.00	6.60	12.20/11.20	13.50	HT1404-08-08	0.179	45-49	210
5/8"	1/2"-14NPTF-2	1/2"-14NPSM	31.75	44.20	19.00	6.40	16.80/15.50	13.50	HT1404-08-12	0.302	45-49	210
3/4"	3/4"-14NPTF-2	3/4"-14NPSM	28.58	41.90	19.00	6.60	12.20/11.20	18.30	HT1404-12-08	0.232	65-72	170
3/4"	3/4"-14NPTF-2	3/4"-14NPSM	31.75	44.50	19.00	8.40	16.80/15.20	18.30	HT1404-12-12	0.304	65-72	170
1"	1"-11-1/2NPTF-2	1"-11-1/2NPSM	38.10	50.80	23.90	8.40	22.40/19.80	23.80	HT1404-16-16	0.500	129-141	140
1-1/4"	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPSM	47.63	53.30	24.60	10.20	29.50/25.70	31.75	HT1404-20-20	0.821	160-176	80
1-1/2"	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPSM	53.98	58.70	25.40	10.20	31.80	34.50	HT1404-24-24	1.161	321-462	70
2"	2"-11-1/2NPTF-2	2"-11-1/2NPSM	66.38	62.50	26.20	10.20	43.70	45.50	HT1404-32-32	1.869	420-462	70



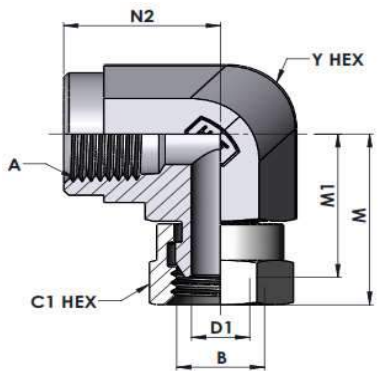
HT1405-00-00 Series  
MP-FPS Straight

Tube O.D.	A THREAD	A1 THREAD	C Hex	L1 Length	P1 Length	K1	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/8"-27NPTF-2	1/8"-27NPSM	14.28	23.90	11.70	3.00	2.80	HT1405-02-02	0.033	12-13	345
3/8"	1/4"-18NPTF-2	1/4"-18NPSM	17.46	31.20	12.70	4.30	5.80/5.30	HT1405-04-04	0.065	18-19	345
1/2"	3/8"-18NPTF-2	3/8"-18NPSM	22.22	33.30	17.30	4.80	9.10/8.10	HT1405-06-06	0.112	22-24	275
5/8"	1/2"-14NPTF-2	1/2"-14NPSM	25.40	39.60	19.00	6.60	12.20/11.20	HT1405-08-08	0.173	45-49	210
3/4"	3/4"-14NPTF-2	3/4"-14NPSM	31.75	41.10	17.50	8.40	16.80/15.20	HT1405-10-10	0.281	65-72	170
1"	1"-11-1/2NPTF-2	1"-11-1/2NPSM	38.10	50.80	22.50	8.40	22.40/19.80	HT1405-12-12	0.500	129-141	140
1-1/4"	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPSM	47.63	52.30	29.50	10.20	25.70	HT1405-16-16	0.805	160-176	80
1-1/2"	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPSM	53.98	55.40	29.50	10.20	31.80	HT1405-20-20	1.096	321-353	70
2"	2"-11-1/2NPTF-2	2"-11-1/2NPSM	66.68	68.10	30.00	10.20	43.70	HT1405-24-24	2.055	420-462	70



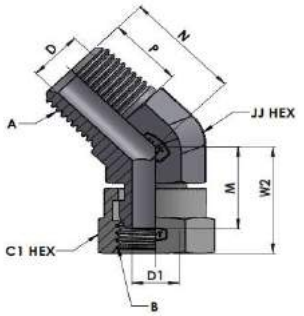
HT1501-00-00 Series  
MP-FPS 90°

A THREAD	A1 THREAD	C1 Hex	N1 Length	P Length	D DRILL	M1 Length	W3 Length	D2 DRILL	C Hex	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPSM	11.11	18.30	9.70	4.80	17.80	21.30	4.80/2.80	14.28	HT1501-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPSM	14.30	27.70	14.20	7.10	22.35	27.10	5.80/5.30	17.46	HT1501-04-04		18-19	345
3/8"-18NPTF-2	3/8"-18NPSM	19.00	31.00	14.20	10.30	25.15	30.50	9.10/8.10	22.23	HT1501-06-06		22-24	275
1/2"-14NPTF-2	1/2"-14NPSM	22.22	37.30	19.00	13.50	28.20	34.85	11.70	25.40	HT1501-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPSM	27.00	40.40	19.00	18.30	33.00	41.90	16.80/15.20	31.75	HT1501-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPSM	38.10	62.00	23.00	21.10	39.60	49.00	22.40	38.10	HT1501-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPSM	47.63	68.10	24.60	28.40	47.00	57.20	29.50	47.63	HT1501-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPSM	53.98	72.90	25.40	34.50	52.10	71.40	35.00	53.98	HT1501-24-24		321-353	70
2"-11-1/2NPTF-2	2"-11-1/2NPSM	66.68	85.60	26.20	45.50	61.00	72.90	47.70	66.68	HT1501-32-32		420-462	70



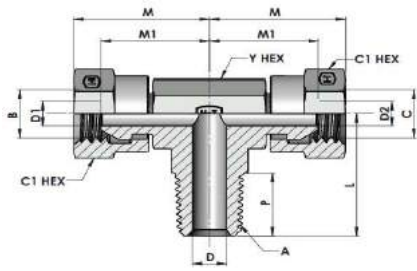
**HT1502-00-00 Series  
FP-FPS 45°**

A THREAD	B THREAD	Y Hex	N2 Length	M1 Length	M Length	D1 DRILL	C1 Hex	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPSM	14.27	12.70	15.75	19.30	3.80	14.27	HT1502-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPSM	19.05	17.53	19.30	24.13	5.60	17.48	HT1502-04-04		18-19	345
3/8"-18NPTF-2	3/8"-18NPSM	22.23	19.05	19.56	24.89	8.60	22.23	HT1502-06-06		22-24	275
1/2"-14NPTF-2	1/2"-14NPSM	26.97	23.88	21.08	28.19	11.70	25.4	HT1502-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPSM	33.32	25.40	24.38	33.27	16.10	31.75	HT1502-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPSM	41.28	30.23	29.97	38.86	21.10	38.1	HT1502-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPSM	47.63	36.58	31.24	41.91	27.60	47.63	HT1502-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPSM	65.07	37.08	37.08	47.75	33.50	53.98	HT1502-24-24		321-353	70



HT1503-00-00 Series  
MP-FPS 45°

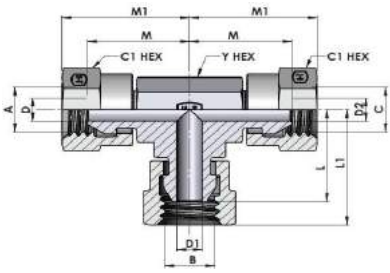
Tube O.D.	A THREAD	B THREAD	JJ Hex	N Length	P Length	D DRILL	M Length	W2 Length	D1 DRILL	C1 Hex	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/8"-27NPTF-2	1/8"-27NPSM	11.11	18.50	9.70	4.80	17.80	22.40	3.30	14.28	HT1503-02-02		12-13	345
3/8"	1/4"-18NPTF-2	1/4"-18NPSM	14.30	25.40	14.20	7.10	22.35	27.00	5.60	17.46	HT1503-04-04		18-19	345
1/2"	3/8"-18NPTF-2	3/8"-18NPSM	19.00	28.40	14.20	10.30	25.15	31.20	8.40	22.23	HT1503-06-06		22-24	275
5/8"	1/2"-14NPTF-2	1/2"-14NPSM	22.22	36.60	19.00	13.50	28.20	32.50	11.90	25.40	HT1503-08-08		45-49	210
3/4"	3/4"-14NPTF-2	3/4"-14NPSM	27.00	39.60	19.00	18.30	33.00	36.10	16.50	31.75	HT1503-12-12		65-72	170
1"	1"-11-1/2NPTF-2	1"-11-1/2NPSM	38.10	39.60	23.90	21.10	39.60	38.40	21.10	38.10	HT1503-16-16		129-141	140
1-1/4"	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPSM	47.63	475.00	24.60	28.40	47.00	46.00	28.40	47.63	HT1503-20-20		160-176	80
1-1/2"	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPSM	53.98	51.50	25.40	34.50	52.10	49.30	34.50	53.98	HT1503-24-24		321-353	70
2"	2"-11-1/2NPTF-2	2"-11-1/2NPSM	66.68	58.70	26.20	45.50	61.00	52.30	45.50	66.68	HT1503-32-32		420-462	70



**HT1601-00-00-00 Series  
MP-FPS-FPS TEE**

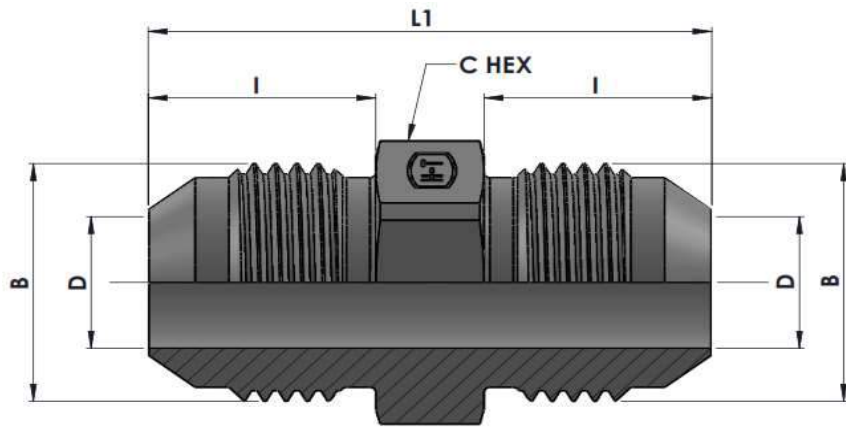
A THREAD	B THREAD	C THREAD	Y Hex	C1 Hex	M Length	M1 Length	L Length	P	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPSM	1/8"-27NPSM	11.11	14.27	21.30	17.80	18.30	9.70	4.70	3.80	3.80	HT1601-02-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPSM	1/4"-18NPSM	14.27	17.47	27.10	22.30	27.70	14.20	7.10	5.50	5.50	HT1601-04-04-04		18-19	345
3/8"-18NPTF-2	3/8"-18NPSM	3/8"-18NPSM	19.05	22.22	30.50	25.10	31.00	14.20	10.30	8.60	8.60	HT1601-06-06-06		22-24	275
1/2"-14NPTF-2	1/2"-14NPSM	1/2"-14NPSM	22.22	25.40	35.30	28.10	37.30	19.00	13.50	11.70	11.70	HT1601-08-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPSM	3/4"-14NPSM	26.97	31.75	41.90	33.00	40.40	19.00	18.26	16.10	16.10	HT1601-12-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPSM	1"-11-1/2NPSM	33.32	38.10	48.00	39.10	50.00	23.90	23.80	21.10	21.10	HT1601-16-16-16		129-141	140
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPSM	1-1/2"-11-1/2NPSM	41.27	47.62	54.60	43.90	60.45	24.60	31.75	27.60	27.60	HT1601-20-20-20		160-176	80
2"-11-1/2NPTF-2	2"-11-1/2NPSM	2"-11-1/2NPSM	47.62	53.97	58.60	48.00	67.00	26.20	38.10	33.40	33.40	HT1601-24-24-24		321-353	70





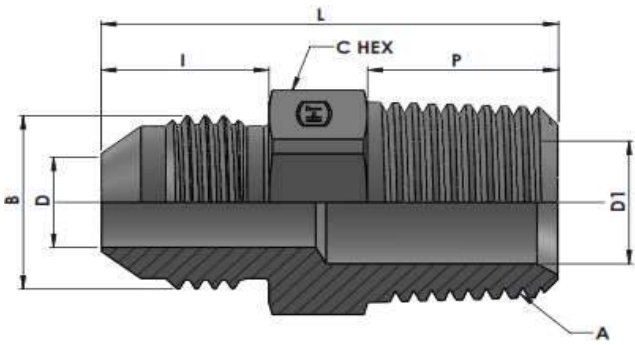
HT1603-00-00-00 Series  
FPS-FPS-FPS TEE

A THREAD	B THREAD	C THREAD	Y Hex	C1 Hex	M Length	M1 Length	L Length	L1 Length	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPSM	1/8"-27NPSM	1/8"-27NPSM	11.11	14.27	17.80	21.30	21.30	17.80	3.80	3.80	3.80	HT1603-02-02-02		12-13	345
1/4"-18NPSM	1/4"-18NPSM	1/4"-18NPSM	14.27	17.47	22.30	27.10	27.10	22.30	5.50	5.50	5.50	HT1603-04-04-04		18-19	345
3/8"-18NPSM	3/8"-18NPSM	3/8"-18NPSM	19.05	22.22	25.10	30.50	30.50	25.10	8.60	8.60	8.60	HT1603-06-06-06		22-24	275
1/2"-14NPSM	1/2"-14NPSM	1/2"-14NPSM	19.05	25.40	28.10	35.30	35.30	28.10	11.70	11.70	11.70	HT1603-08-08-08		45-49	210
3/4"-14NPSM	3/4"-14NPSM	3/4"-14NPSM	26.97	31.75	33.00	41.90	41.90	33.00	16.10	16.10	16.10	HT1603-12-12-12		65-72	170
1"-11-1/2NPSM	1"-11-1/2NPSM	1"-11-1/2NPSM	33.32	38.10	39.10	48.00	48.00	39.10	21.10	21.10	21.10	HT1603-16-16-16		129-141	140
1-1/2"-11-1/2NPSM	1-1/2"-11-1/2NPSM	1-1/2"-11-1/2NPSM	41.27	47.62	43.90	54.60	54.60	43.90	27.60	27.60	27.60	HT1603-20-20-20		160-176	80



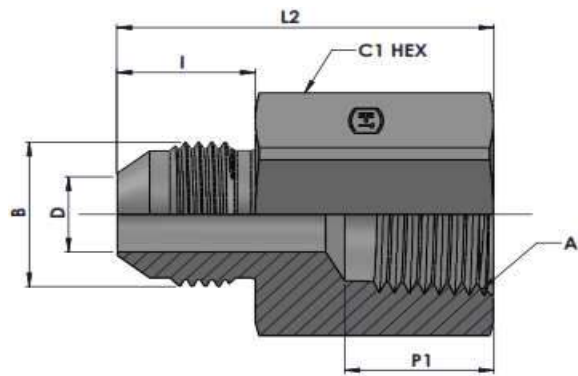
**HT2403-00-00 Series**  
**MJ-MJ STRAIGHT**

Tube O.D.	A THREAD	C Hex	L1 Length	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	11.11	29.70	11.40	1.60	HT2403-02-02	0.025	8-9	345
3/16"	3/8"-24UNF-2A	11.11	31.20	12.20	3.20	HT2403-03-03	0.026	11-12	345
1/4"	7/16"-20UNF-2A	12.70	34.80	14.00	4.40	HT2403-04-04	0.038	15-16	345
5/16"	1/2"-20UNF-2A	14.29	34.80	14.00	6.00	HT2403-05-05	0.048	19-21	345
3/8"	9/16"-18UNF-2A	15.88	35.80	14.10	7.50	HT2403-06-06	0.061	24-28	345
1/2"	3/4"-16UNF-2A	20.64	41.10	16.70	9.90	HT2403-08-08	0.119	49-53	310
5/8"	7/8"-14UNF-2A	23.81	47.50	19.30	12.30	HT2403-10-10	0.183	77-85	240
3/4"	1-1/16"-12UN-2A	28.58	54.90	21.90	15.50	HT2403-12-12	0.304	107-119	240
7/8"	1-3/16"-12UN-2A	31.75	56.10	22.60	18.30	HT2403-14-14	0.384	127-140	210
1"	1-5/16"-12UN-2A	34.93	57.20	23.10	21.40	HT2403-16-16	0.474	147-154	210
1-1/4"	1-5/8"-12UN-2A	42.86	61.70	24.30	27.40	HT2403-20-20	0.769	172-181	170
1-1/2"	1-7/8"-12UN-2A	50.80	69.80	27.50	33.30	HT2403-24-24	1.223	215-226	140
2"	2-1/2"-12UN-2A	66.68	86.40	33.90	45.20	HT2403-32-32	2.607	332-350	105



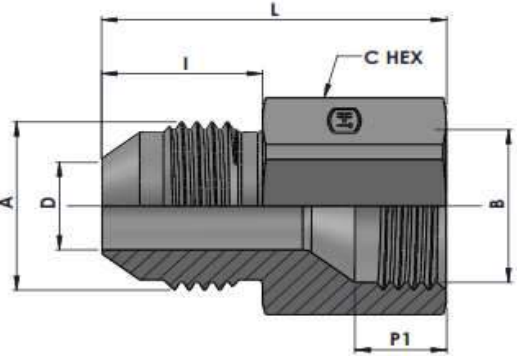
**HT2404-00-00 Series  
MJ-MP STRAIGHT**

Tube O.D	A THREAD	B THREAD	C Hex	L Length	I	D DRILL	P	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/8"-27NPTF-2	7/16"-20UNF-2A	12.70	30.99	14.00	4.40	9.70	4.80	HT2404-04-02	0.034		
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2A	14.29	36.06	14.00	4.40	14.20	7.00	HT2404-04-04	0.050		
1/4"	3/8"-18NPTF-2	7/16"-20UNF-2A	19.00	36.00	14.00	4.40	14.20	10.30	HT2404-04-06	0.088		
3/8"	1/4"-18NPTF-2	9/16"-18UNF-2A	15.87	36.32	14.10	7.50	14.20	7.13	HT2404-06-04	0.062		
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2A	19.05	36.30	14.10	7.50	14.20	10.30	HT2404-06-06	0.089		
3/8"	1/2"-14NPTF-2	9/16"-18UNF-2A	22.20	42.93	14.10	7.50	19.00	13.50	HT2404-06-08	0.144		
1/2"	1/4"-18NPTF-2	3/4"-16UNF-2A	20.63	38.90	16.70	9.90	14.20	7.10	HT2404-08-04	0.112		
1/2"	3/8"-18NPTF-2	3/4"-16UNF-2A	20.63	38.86	16.70	9.90	14.20	10.30	HT2404-08-06	0.112		
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2A	22.22	45.50	16.70	9.90	19.00	13.50	HT2404-08-08	0.152		
1/2"	3/4"-14NPTF-2	3/4"-16UNF-2A	28.58	46.99	16.70	9.90	19.00	18.30	HT2404-08-12	0.260		
5/8"	3/8"-18NPTF-2	7/8"-14UNF-2A	23.81	43.20	19.30	12.30	14.20	10.30	HT2404-10-06	0.166		
5/8"	1/2"-14NPTF-2	7/8"-14UNF-2A	23.81	48.00	19.30	12.30	19.00	13.50	HT2404-10-08	0.185		
5/8"	3/4"-14NPTF-2	7/8"-14UNF-2A	28.58	49.53	19.30	12.30	19.00	18.26	HT2404-10-12	0.275		
5/8"	1"-11-1/2NPTF-2	7/8"-14UNF-2A	34.90	54.60	19.30	12.30	23.90	23.80	HT2404-10-16	0.451		
3/4"	1/2"-14NPTF-2	1-1/16"-12UN-2A	28.58	52.30	21.90	15.50	19.00	13.50	HT2404-12-08	0.290		
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2A	28.58	52.30	21.90	15.50	19.00	18.26	HT2404-12-12	0.290		
3/4"	1"-11-1/2NPTF-2	1-1/16"-12UN-2A	34.92	57.20	21.90	15.50	23.90	23.80	HT2404-12-16	0.473		
1"	3/4"-14NPTF-2	1-5/16"-12UN-2A	34.93	53.60	23.10	21.40	19.00	18.26	HT2404-16-12	0.444		
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2A	34.93	58.40	23.10	21.40	23.90	23.80	HT2404-16-16	0.484		
1"	1-1/4"-11-1/2NPTF-2	1-5/16"-12UN-2A	42.86	61.00	23.10	21.40	24.60	31.75	HT2404-16-20	0.761		
1-1/4"	1"-11-1/2NPTF-2	1-5/8"-12UN-2A	42.86	61.50	24.30	27.50	23.90	23.80	HT2404-20-16	0.767		
1-1/4"	1-1/4"-11-1/2NPTF-2	1-5/8"-12UN-2A	42.86	62.20	24.30	27.40	24.60	31.80	HT2404-20-20	0.775		
1-1/2"	1-1/2"-11-1/2NPTF-2	1-7/8"-12UN-2A	50.80	68.10	27.50	33.30	25.40	38.00	HT2404-24-24	1.193		
2"	2"-11-1/2NPTF-2	2-1/2"-12UN-2A	66.68	79.00	33.90	45.20	26.20	49.00	HT2404-32-32	2.384		



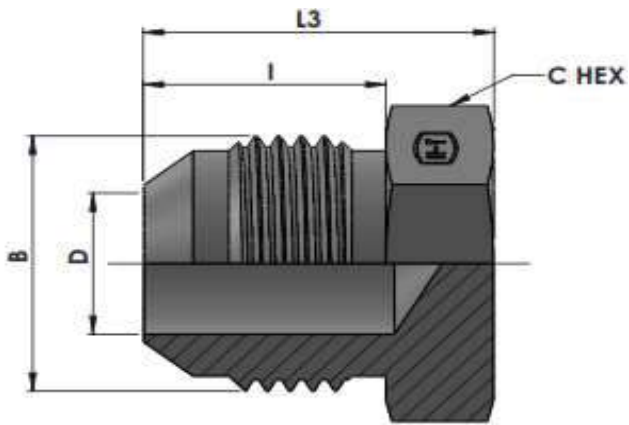
HT2405-00-00 Series  
MJ-FP STRAIGHT

Tube O.D.	A THREAD	B THREAD	C1 Hex	L2 Length	I	D DRILL	P1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/8"-27NPTF-2	7/16"-20UNF-2A	14.28	30.25	14.00	4.40	11.70	HT2405-04-02	0.042		
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2A	19.05	35.31	14.00	4.40	16.50	HT2405-04-04	0.087		
1/4"	3/8"-18NPTF-2	7/16"-20UNF-2A	22.22	36.83	14.00	4.40	17.30	HT2405-04-06	0.123		
1/4"	1/2"-14NPTF-2	7/16"-20UNF-2A	28.58	42.67	14.00	4.40	22.90	HT2405-04-08	0.237		
3/8"	1/4"-18NPTF-2	9/16"-18UNF-2A	19.05	35.56	14.10	7.50	16.50	HT2405-06-04	0.088		
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2A	22.22	37.08	14.10	7.50	17.00	HT2405-06-06	0.124		
3/8"	1/2"-14NPTF-2	9/16"-18UNF-2A	28.58	42.93	14.10	7.50	22.90	HT2405-06-08	0.238		
3/8"	3/4"-14NPTF-2	9/16"-18UNF-2A	34.93	44.45	14.10	7.50	23.10	HT2405-06-12	0.368		
1/2"	1/4"-18NPTF-2	3/4"-16UNF-2A	20.65	39.37	16.70	9.90	19.00	HT2405-08-04	0.114		
1/2"	3/8"-18NPTF-2	3/4"-16UNF-2A	22.22	39.62	16.70	9.90	17.00	HT2405-08-06	0.133		
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2A	28.58	45.47	16.70	9.90	18.00	HT2405-08-08	0.252		
5/8"	1/4"-18NPTF-2	7/8"-14UNF-2A	23.81	42.16	19.30	12.30	17.00	HT2405-10-04	0.162		
5/8"	3/8"-18NPTF-2	7/8"-14UNF-2A	23.81	42.40	19.30	12.30	17.30	HT2405-10-06	0.163		
5/8"	1/2"-14NPTF-2	7/8"-14UNF-2A	28.58	48.00	19.30	12.30	22.90	HT2405-10-08	0.266		
5/8"	3/4"-14NPTF-2	7/8"-14UNF-2A	34.93	49.50	19.30	12.30	23.10	HT2405-10-12	0.410		
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2A	34.93	52.32	21.90	15.50	23.10	HT2405-12-12	0.433		



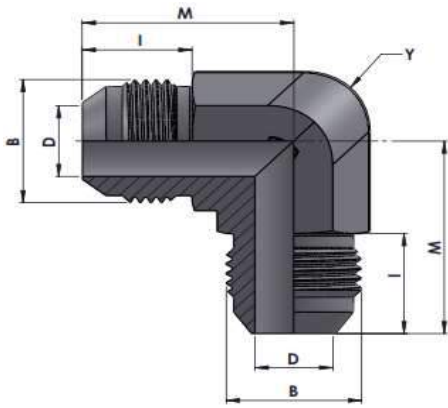
**HT2406-00-00 Series**  
**FJ-MP STRAIGHT**

Tube O.D A	Tube O.D B	A THREAD	B THREAD	C Hex	L Length	I	D DRILL	P1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/4"	7/16"-20UNF-2A	7/16"-20UNF-2B	14.28	29.20	14.00	4.40	8.33	HT2406-04-04	0.040		
3/8"	1/4"	9/16"-18UNF-2A	7/16"-20UNF-2B	15.88	29.45	14.10	4.40	8.33	HT2406-04-06	0.050		
1/2"	1/4"	3/4"-16UNF-2A	7/16"-20UNF-2B	20.63	31.75	16.70	4.40	8.33	HT2406-04-08	0.092		
1/4"	3/8"	7/16"-20UNF-2A	9/16"-18UNF-2B	17.46	30.20	14.00	4.40	8.74	HT2406-06-04	0.062		
3/8"	3/8"	9/16"-18UNF-2A	9/16"-18UNF-2B	17.46	30.00	14.10	7.50	8.74	HT2406-06-06	0.062		
1/2"	3/8"	3/4"-16UNF-2A	9/16"-18UNF-2B	20.63	32.50	16.70	7.50	8.74	HT2406-06-08	0.094		
5/8"	3/8"	7/8"-14UNF-2A	9/16"-18UNF-2B	23.80	35.00	19.30	7.50	8.74	HT2406-06-10	0.135		
1/4"	1/2"	7/16"-20UNF-2A	3/4"-16UNF-2B	22.22	33.30	14.00	4.40	9.52	HT2406-08-04	0.112		
3/8"	1/2"	9/16"-18UNF-2A	3/4"-16UNF-2B	22.22	33.25	14.10	7.50	9.52	HT2406-08-06	0.111		
1/2"	1/2"	3/4"-16UNF-2A	3/4"-16UNF-2B	22.22	35.80	16.70	9.90	9.52	HT2406-08-08	0.120		
5/8"	1/2"	7/8"-14UNF-2A	3/4"-16UNF-2B	23.80	32.80	19.30	9.90	9.52	HT2406-08-10	0.126		
3/4"	1/2"	1-1/16"-12UN-2A	3/4"-16UNF-2B	28.58	40.90	21.90	9.90	9.52	HT2406-08-12	0.227		
1/4"	5/8"	7/16"-20UNF-2A	7/8"-14UNF-2B	25.40	35.80	14.00	4.40	11.91	HT2406-10-04	0.157		
3/8"	5/8"	9/16"-18UNF-2A	7/8"-14UNF-2B	25.40	35.80	14.10	7.50	11.91	HT2406-10-06	0.157		
1/2"	5/8"	3/4"-16UNF-2A	7/8"-14UNF-2B	25.40	38.10	16.70	9.90	11.91	HT2406-10-08	0.167		
3/4"	5/8"	1-1/16"-12UN-2A	7/8"-14UNF-2B	28.58	28.58	21.90	12.30	11.91	HT2406-10-12	0.158		
1"	5/8"	1-5/16"-12UN-2A	7/8"-14UNF-2B	34.93	44.70	23.10	12.30	11.91	HT2406-10-16	0.370		
1/4"	3/4"	7/16"-20UNF-2A	1-1/16"-12UN-2B	31.75	37.00	14.00	4.40	12.70	HT2406-12-04	0.253		
3/8"	3/4"	9/16"-18UNF-2A	1-1/16"-12UN-2B	31.75	37.00	14.10	7.50	12.70	HT2406-12-06	0.253		
1/2"	3/4"	3/4"-16UNF-2A	1-1/16"-12UN-2B	31.75	39.70	16.70	9.90	12.70	HT2406-12-08	0.272		
5/8"	3/4"	7/8"-14UNF-2A	1-1/16"-12UN-2B	31.75	42.20	19.30	12.30	12.70	HT2406-12-10	0.289		
3/4"	3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2B	31.75	45.00	21.90	15.50	15.50	HT2406-12-12	0.308		
1"	3/4"	1-5/16"-12UN-2A	1-1/16"-12UN-2B	34.93	46.20	23.10	15.50	12.70	HT2406-12-16	0.383		
1/4"	1"	7/16"-20UNF-2A	1-5/16"-12UN-2B	38.10	39.80	14.00	4.40	14.30	HT2406-16-04	0.392		
3/8"	1"	9/16"-18UNF-2A	1-5/16"-12UN-2B	38.10	39.90	14.10	7.50	14.30	HT2406-16-06	0.393		
1/2"	1"	3/4"-16UNF-2A	1-5/16"-12UN-2B	38.10	42.40	16.70	9.90	14.30	HT2406-16-08	0.418		
5/8"	1"	7/8"-14UNF-2A	1-5/16"-12UN-2B	38.10	45.00	19.30	12.30	14.30	HT2406-16-10	0.443		
3/4"	1"	1-1/16"-12UN-2A	1-5/16"-12UN-2B	38.10	47.75	21.90	15.50	14.30	HT2406-16-12	0.470		
1-1/4"	1"	1-5/8"-12UN-2A	1-5/16"-12UN-2B	42.86	51.22	24.30	21.44	14.30	HT2406-16-20	0.639		
1"	1-1/4"	1-5/16"-12UN-2A	1-5/8"-12UN-2B	50.80	50.10	23.10	21.40	14.30	HT2406-20-16	0.877		
1-1/2"	1-1/4"	1-7/8"-12UN-2A	1-5/8"-12UN-2B	50.80	54.50	27.50	27.38	14.30	HT2406-20-24	0.955		



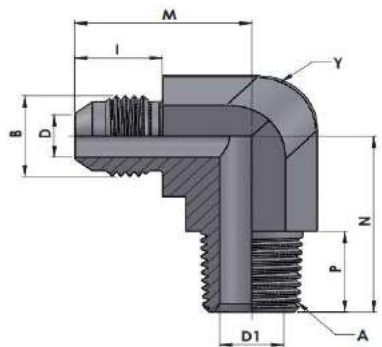
**HT2408-00 Series**  
**MJ PLUG**

Tube O.D.	B THREAD	C Hex	L3 Length	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	11.11	17.80	11.40	1.60	HT2408-02	0.015	8-9	345
3/16"	3/8"-24UNF-2A	11.11	18.50	12.20	3.20	HT2408-03	0.015	11-12	345
1/4"	7/16"-20UNF-2A	12.70	20.30	14.00	4.40	HT2408-04	0.022	15-16	345
5/16"	1/2"-20UNF-2A	14.28	20.30	14.00	6.00	HT2408-05	0.028	19-21	345
3/8"	9/16"-18UNF-2A	15.87	21.30	14.10	7.50	HT2408-06	0.036	24-28	345
1/2"	3/4"-16UNF-2A	20.63	23.90	16.70	9.90	HT2408-08	0.069	49-53	310
5/8"	7/8"-14UNF-2A	23.81	27.90	19.30	12.30	HT2408-10	0.107	77-85	240
3/4"	1-1/16"-12UN-2A	28.57	32.50	21.90	15.50	HT2408-12	0.180	107-119	240
7/8"	1-3/16"-12UN-2A	31.75	33.30	22.60	18.30	HT2408-14	0.228	127-140	210
1"	1-5/16"-12UN-2A	34.90	33.80	23.10	21.50	HT2408-16	0.279	147-154	210
1-1/4"	1-5/8"-12UN-2A	42.86	36.80	24.30	27.50	HT2408-20	0.459	172-181	170
1-1/2"	1-7/8"-12UN-2A	50.80	41.90	27.50	33.50	HT2408-24	0.734	215-226	140
2"	2-1/2"-12UN-2A	66.68	52.10	33.90	45.20	HT2408-32	1.572	332-350	105



**HT2500-00-00 Series**  
**MJ-MJ 90°**

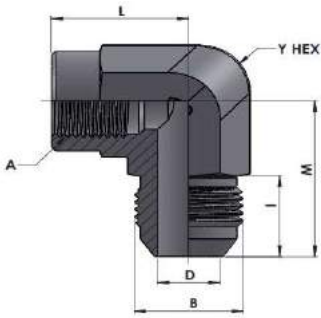
Tube O.D.	B THREAD	Y Hex	M	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	11.10	19.60	11.40	1.60	HT2500-02-02		8-9	345
3/16"	3/8"-24UNF-2A	11.10	21.10	12.20	3.20	HT2500-03-03		11-12	345
1/4"	7/16"-20UNF-2A	11.10	22.60	14.00	4.40	HT2500-04-04		15-16	345
5/16"	1/2"-20UNF-2A	14.30	24.10	14.00	6.00	HT2500-05-05		19-21	345
3/8"	9/16"-18UNF-2A	14.30	26.90	14.10	7.50	HT2500-06-06		24-28	345
1/2"	3/4"-16UNF-2A	19.00	31.80	16.70	9.90	HT2500-08-08		49-53	310
5/8"	7/8"-14UNF-2A	22.20	36.80	19.30	12.30	HT2500-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	27.00	42.20	21.90	15.50	HT2500-12-12		107-119	240
7/8"	1-3/16"-12UN-2A	33.30	45.70	22.60	18.30	HT2500-14-14		127-140	210
1"	1-5/16"-12UN-2A	33.30	46.00	23.10	21.50	HT2500-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	41.30	52.30	24.30	27.50	HT2500-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	47.60	59.20	27.50	33.50	HT2500-24-24		215-226	140
2"	2-1/2"-12UN-2A	63.50	77.70	33.90	45.20	HT2500-32-32		332-350	105



**HT2501-00-00 Series  
MJ-MP 90°**

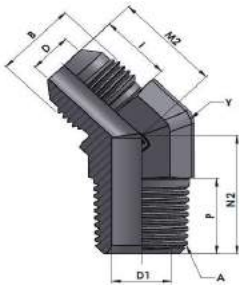
Tube O.D.	B THREAD	A THREAD	Y Hex	M	N	I	P	D DRILL	D 1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	1/8"-27NPTF-2	11.11	22.60	19.80	14.00	9.70	4.40	4.80	HT2501-04-02			
1/4"	7/16"-20UNF-2A	1/4"-18NPTF-2	14.30	26.90	27.70	14.00	14.20	4.40	7.00	HT2501-04-04			
3/8"	9/16"-18UNF-2A	3/8"-18NPTF-2	19.00	28.50	31.00	14.10	14.20	7.50	10.30	HT2501-06-06			
1/2"	3/4"-16UNF-2A	1/2"-14NPTF-2	22.22	33.80	37.40	16.70	19.00	9.90	13.50	HT2501-08-08			
3/8"	9/16"-18UNF-2A	1/4"-18NPTF-2	14.30	26.90	27.70	14.10	14.20	7.50	7.00	HT2501-06-04			
3/4"	1-1/16"-12UN-2A	3/4"-14NPTF-2	27.00	42.20	40.40	21.90	19.00	15.50	18.30	HT2501-12-12			





**HT2502-00-00 Series**  
**MJ-FP 90°**

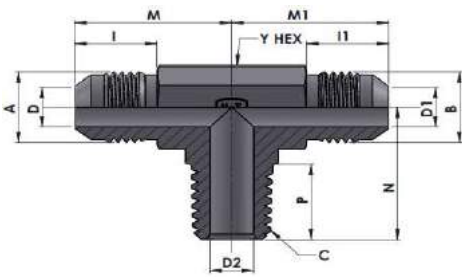
Tube O.D.	A THREAD	B THREAD	Y Hex	M	L	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	1/8"-27NPTF-2	5/16"-24UNF-2A	14.27	25.40	16.80	11.40	1.60	HT2502-02-02		8-9	345
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2A	19.05	31.00	22.40	14.00	4.40	HT2502-04-04		15-16	310
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2A	22.23	33.30	25.90	14.10	7.50	HT2502-06-06		24-28	275
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2A	26.97	38.60	31.20	16.70	9.90	HT2502-08-08		49-53	210
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2A	33.32	48.00	34.50	21.90	15.50	HT2502-12-12		107-119	170
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2A	41.28	55.10	41.10	23.10	21.40	HT2502-16-16		147-154	140
1-1/4"	1-1/4"-11-1/2NPTF-2	1-5/8"-12UN-2A	47.63	59.20	43.20	24.30	27.40	HT2502-20-20		172-181	80
1-1/2"	1-1/2"-11-1/2NPTF-2	1-7/8"-12UN-2A	65.07	73.40	52.80	27.50	33.30	HT2502-24-24		215-226	70
2"	2"-11-1/2NPTF-2	2"-12UN-2A	71.42	83.80	60.70	33.90	45.00	HT2502-32-32		332-350	70



**HT2503-00-00 Series**

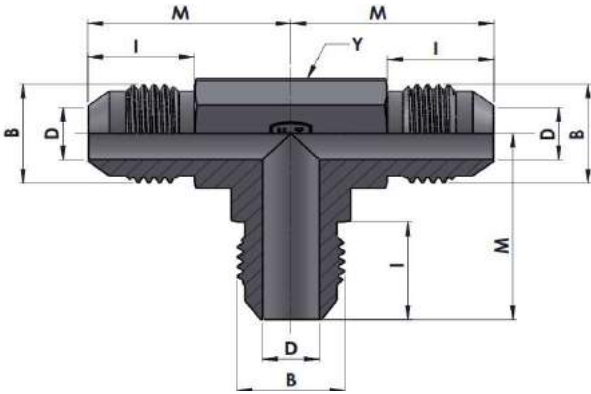
**MJ-MP 45°**

Tube O.D.	B THREAD	A THREAD	Y Hex	M2	N2	I	P	D DRILL	D 1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	1/4"-18NPTF-2	14.30	20.80	21.80	14.00	14.20	4.40	7.00	HT2503-04-04			
3/8"	9/16"-18UNF-2A	3/8"-18NPTF-2	19.05	22.00	24.10	14.10	14.20	7.50	10.30	HT2503-06-06			
1/2"	3/4"-16UNF-2A	1/2"-14NPTF-2	22.22	24.90	29.70	16.70	19.00	9.90	13.50	HT2503-08-08			
3/4"	1-1/16"-12UN-2A	3/4"-14NPTF-2	26.97	32.50	30.48	21.90	19.00	15.50	18.30	HT2503-12-12			
1"	1-5/16"-12UN-2A	1"-11-1/2NPTF-2	33.32	37.33	37.60	23.10	23.90	21.50	23.80	HT2503-16-16			
1-1/4"	1-5/8"-12UN-2A	1-1/4"-11-1/2NPTF-2	41.27	40.40	42.40	24.30	24.60	27.50	31.75	HT2503-20-20			
1-1/2"	1-7/8"-12UN-2A	1-1/2"-11-1/2NPTF-2	47.62	45.20	45.00	27.50	25.40	33.50	38.00	HT2503-24-24			
2"	2-1/2"-12UN-2A	2"-11-1/2NPTF-2	63.50	56.40	53.60	33.90	26.20	45.20	49.00	HT2503-32-32			

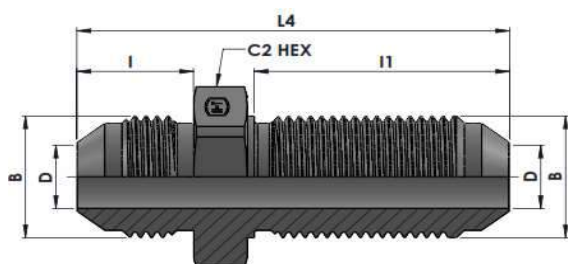


**HT2603-00-00-00 Series  
MJ-MJ-MP TEE**

Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	M	M1	N	I	I1	P	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	1/8"-27NPTF-2	11.10	19.60	19.60	18.30	11.40	11.40	9.70	1.60	1.60	4.80	HT2601-02-02-02		8-9	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	1/4"-18NPTF-2	11.10	22.60	22.60	19.80	14.00	14.00	9.70	4.40	4.40	4.80	HT2601-04-04-04		15-16	310
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	3/8"-18NPTF-2	14.30	26.90	26.90	27.70	14.10	14.10	14.20	7.50	7.50	7.00	HT2601-06-06-06		24-28	275
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	1/2"-14NPTF-2	19.00	31.80	31.80	31.00	16.70	16.70	14.20	9.90	9.90	10.30	HT2601-08-08-08		49-53	210
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	3/4"-14NPTF-2	27.00	42.20	42.20	40.40	21.90	21.90	19.00	15.50	15.50	18.30	HT2601-12-12-12		107-119	170
1"	1-5/16"-12UN-2A	1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	33.30	46.00	46.00	50.00	23.10	23.10	23.90	21.40	21.40	23.80	HT2601-16-16-16		147-154	140
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	1-1/4"-11-1/2NPTF-2	41.30	52.30	52.30	60.50	24.30	24.30	24.60	27.40	27.40	31.70	HT2601-20-20-20		172-181	80
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	1-1/2"-11-1/2NPTF-2	47.60	59.20	59.20	67.10	27.50	27.50	25.40	33.30	33.30	38.00	HT2601-24-24-24		215-226	70
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	2"-11-1/2NPTF-2	63.50	77.70	77.70	76.20	33.90	33.90	26.20	45.20	45.20	49.00	HT2601-32-32-32		332-350	70


**HT2603-00-00-00 Series**
**MJ-MJ-MJ TEE**

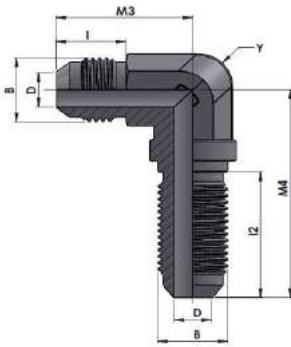
Tube O.D.	B THREAD	Y Hex	M	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	11.10	19.60	11.40	1.60	HT2603-02-02-02		8-9	345
3/16"	3/8"-24UNF-2A	11.10	21.10	12.20	3.20	HT2603-03-03-03		11-12	345
1/4"	7/16"-20UNF-2A	11.10	22.60	14.00	4.40	HT2603-04-04-04		15-16	345
5/16"	1/2"-20UNF-2A	14.30	24.10	14.00	6.00	HT2603-05-05-05		19-21	345
3/8"	9/16"-18UNF-2A	14.30	26.90	14.10	7.50	HT2603-06-06-06		24-28	345
1/2"	3/4"-16UNF-2A	19.00	31.80	16.70	9.90	HT2603-08-08-08		49-53	310
5/8"	7/8"-14UNF-2A	22.20	36.80	19.30	12.30	HT2603-10-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	27.00	42.20	21.90	15.50	HT2603-12-12-12		107-119	240
7/8"	1-3/16"-12UN-2A	33.30	45.70	22.60	18.30	HT2603-14-14-14		127-140	210
1"	1-5/16"-12UN-2A	33.30	46.00	23.10	21.50	HT2603-16-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	41.30	52.30	24.30	27.50	HT2603-20-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	47.60	59.20	27.50	33.50	HT2603-24-24-24		215-226	140
2"	2-1/2"-12UN-2A	63.50	77.70	33.90	45.20	HT2603-32-32-32		332-350	105



### HT2700-00-00 Series

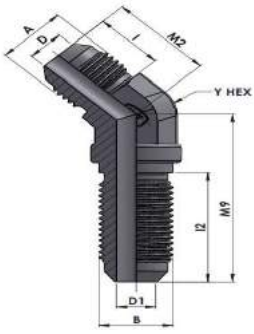
#### MJ-MJ BULKHEAD

Tube O.D.	B THREAD	C2 Hex	L4	l1	l	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	14.29	47.50	28.20	11.40	1.60	HT2700-02-02	0.066	8-9	345
3/16"	3/8"-24UNF-2A	15.88	48.30	28.20	12.20	3.20	HT2603-03-03	0.083	11-12	345
1/4"	7/16"-20UNF-2A	17.46	52.60	30.50	14.00	4.40	HT2603-04-04	0.109	15-16	345
5/16"	1/2"-20UNF-2A	19.05	52.60	30.50	14.00	6.00	HT2603-05-05	0.130	19-21	345
3/8"	9/16"-18UNF-2A	20.64	55.40	32.50	14.10	7.50	HT2603-06-06	0.160	24-28	345
1/2"	3/4"-16UNF-2A	25.40	62.00	36.60	16.70	9.90	HT2603-08-08	0.271	49-53	310
5/8"	7/8"-14UNF-2A	28.58	69.60	40.10	19.30	12.30	HT2603-10-10	0.386	77-85	240
3/4"	1-1/16"-12UN-2A	34.93	78.50	44.40	21.90	15.50	HT2603-12-12	0.650	107-119	240
7/8"	1-3/16"-12UN-2A	38.10	79.20	44.40	22.60	18.30	HT2603-14-14	0.780	127-140	210
1"	1-5/16"-12UN-2A	41.28	79.80	44.40	23.10	21.50	HT2603-16-16	0.923	147-154	210
1-1/4"	1-5/8"-12UN-2A	47.63	84.10	45.70	24.30	27.50	HT2603-20-20	1.295	172-181	170
1-1/2"	1-7/8"-12UN-2A	53.98	89.40	46.00	27.50	33.50	HT2603-24-24	1.768	215-226	140
2"	2-1/2"-12UN-2A	69.85	106.70	53.10	33.90	45.20	HT2603-32-32	3.533	332-350	105



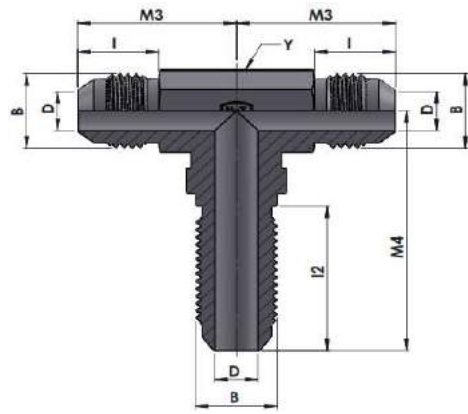
**HT2701-00-00 Series**  
**MJ-MJ BULKHEAD 90°**

Tube O.D.	B THREAD	Y Hex	M3	M4	I2	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	11.10	22.40	38.10	23.40	11.40	1.60	HT2701-02-02		8-9	345
3/16"	3/8"-24UNF-2A	11.10	23.90	38.10	23.40	12.20	3.20	HT2701-03-03		11-12	345
1/4"	7/16"-20UNF-2A	11.10	24.60	40.40	25.90	14.00	4.40	HT2701-04-04		15-16	345
5/16"	1/2"-20UNF-2A	14.30	26.90	43.70	25.90	14.00	6.00	HT2701-05-05		19-21	345
3/8"	9/16"-18UNF-2A	14.30	27.70	46.00	27.70	14.10	7.50	HT2701-06-06		24-28	345
1/2"	3/4"-16UNF-2A	19.00	34.50	53.60	31.80	16.70	9.90	HT2701-08-08		49-53	310
5/8"	7/8"-14UNF-2A	22.20	39.60	60.70	35.30	19.30	12.30	HT2701-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	27.00	45.20	67.80	39.60	21.90	15.50	HT2701-12-12		107-119	240
7/8"	1-3/16"-12UN-2A	33.30	48.80	71.10	39.60	22.60	18.30	HT2701-14-14		127-140	210
1"	1-5/16"-12UN-2A	33.30	49.30	71.10	39.60	23.10	21.50	HT2701-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	41.30	55.10	79.20	40.90	24.30	27.50	HT2701-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	47.60	59.40	86.90	41.10	27.50	33.50	HT2701-24-24		215-226	140
2"	2-1/2"-12UN-2A	63.50	73.40	104.40	48.50	33.90	45.20	HT2701-32-32		332-350	105



**HT2702-00-00 Series**  
**MJ-MJ BULKHEAD 45°**

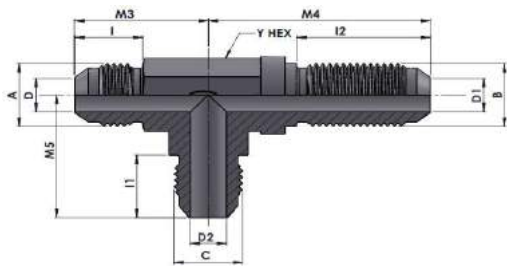
Tube O.D.	A THREAD	B THREAD	Y Hex	M2	M9	I	I2	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	11.10	17.50	36.10	11.40	23.40	1.60	1.60	HT2702-02-02		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	11.10	17.50	36.10	12.20	23.40	3.20	3.20	HT2702-03-03		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	11.10	18.30	38.90	14.00	25.90	4.40	4.40	HT2702-04-04		15-16	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	14.30	19.60	42.20	14.00	25.90	6.00	6.00	HT2702-05-05		19-21	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	21.10	42.40	14.10	27.70	7.50	7.50	HT2702-06-06		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	24.90	49.30	16.70	31.80	9.90	9.90	HT2702-08-08		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	22.20	28.20	55.10	19.30	35.30	12.30	12.30	HT2702-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	32.50	62.00	21.90	39.60	15.50	15.50	HT2702-12-12		107-119	240
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	36.80	63.50	22.60	39.60	18.30	18.30	HT2702-14-14		127-140	210
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	37.30	65.00	23.10	39.60	21.50	21.50	HT2702-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	40.40	67.30	24.30	40.90	27.50	27.50	HT2702-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	45.20	67.80	27.50	41.10	33.50	33.50	HT2702-24-24		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	56.40	73.90	33.90	48.50	45.20	45.20	HT2702-32-32		332-350	105



**HT2703-00-00-00 Series**  
**MJ-MJ-MJ BULKHEAD TEE**

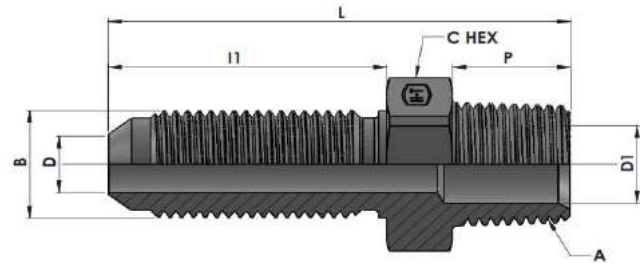
Tube O.D.	B THREAD	Y Hex	M3	M4	I2	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	11.10	22.40	38.10	23.40	11.40	1.60	HT2703-02-02-02		8-9	345
3/16"	3/8"-24UNF-2A	11.10	23.90	38.10	23.40	12.20	3.20	HT2703-03-03-03		11-12	345
1/4"	7/16"-20UNF-2A	11.10	24.60	40.40	25.90	14.00	4.40	HT2703-04-04-04		15-16	345
5/16"	1/2"-20UNF-2A	14.30	26.90	43.70	25.90	14.00	6.00	HT2703-05-05-05		19-21	345
3/8"	9/16"-18UNF-2A	14.30	27.70	46.00	27.70	14.10	7.50	HT2703-06-06-06		24-28	345
1/2"	3/4"-16UNF-2A	19.00	34.50	53.60	31.80	16.70	9.90	HT2703-08-08-08		49-53	310
5/8"	7/8"-14UNF-2A	22.20	39.60	60.70	35.30	19.30	12.30	HT2703-10-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	27.00	45.20	67.80	39.60	21.90	15.50	HT2703-12-12-12		107-119	240
7/8"	1-3/16"-12UN-2A	33.30	48.80	71.10	39.60	22.60	18.30	HT2703-14-14-14		127-140	210
1"	1-5/16"-12UN-2A	33.30	49.30	71.10	39.60	23.10	21.50	HT2703-16-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	41.30	55.10	79.20	40.90	24.30	27.50	HT2703-20-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	47.60	59.40	86.90	41.10	27.50	33.50	HT2703-24-24-24		215-226	140
2"	2-1/2"-12UN-2A	63.50	73.40	104.40	48.50	33.90	45.20	HT2703-32-32-32		332-350	105





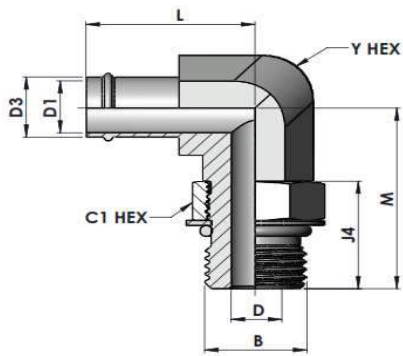
HT2704-00-00-00 Series  
MJ-MJ-MJ BULKHEAD RUN TEE

Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	M3	M4	M5	I	I2	I1	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	5/16"-24UNF-2A	11.10	22.40	38.10	22.40	11.40	23.40	11.40	1.60	1.60	1.60	HT2704-02-02-02		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	3/8"-24UNF-2A	11.10	23.90	38.10	23.90	12.20	23.40	12.20	3.20	3.20	3.20	HT2704-03-03-03		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	7/16"-20UNF-2A	11.10	24.60	40.40	24.60	14.00	25.90	14.00	4.40	4.40	4.40	HT2704-04-04-04		15-16	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	1/2"-20UNF-2A	14.30	26.90	43.70	26.90	14.00	25.90	14.00	6.00	6.00	6.00	HT2704-05-05-05		19-21	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	27.70	46.00	27.70	14.10	27.70	14.10	7.50	7.50	7.50	HT2704-06-06-06		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	34.50	53.60	34.50	16.70	31.80	16.70	9.90	9.90	9.90	HT2704-08-08-08		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	7/8"-14UNF-2A	22.20	39.60	60.70	39.60	19.30	35.30	19.30	12.30	12.30	12.30	HT2704-10-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	45.20	67.80	45.20	21.90	39.60	21.90	15.50	15.50	15.50	HT2704-12-12-12		107-119	240
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	48.80	71.10	48.80	22.60	39.60	22.60	18.30	18.30	18.30	HT2704-14-14-14		127-140	210
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	49.30	71.10	49.30	23.10	39.60	23.10	21.50	21.50	21.50	HT2704-16-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	55.10	79.20	55.10	24.30	40.90	24.30	27.50	27.50	27.50	HT2704-20-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	59.40	86.90	59.40	27.50	41.10	27.50	33.50	33.50	33.50	HT2704-24-24-24		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	73.40	104.40	73.40	33.90	48.50	33.90	45.20	45.20	45.20	HT2704-32-32-32		332-350	105



**HT2706-00-00 Series**  
**MP-MJ BULKHEAD STR.**

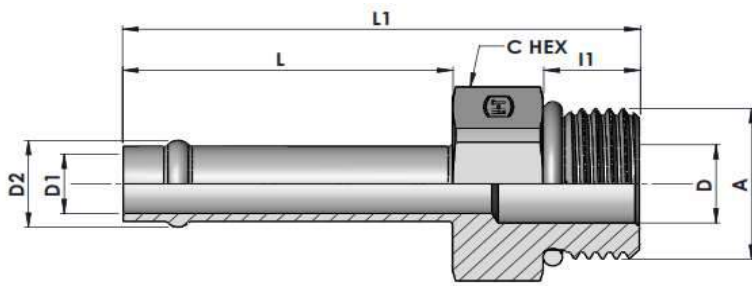
Tube O.D.	A THREAD	B THREAD	C Hex	L	l1	P	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2A	17.47	53.60	30.50	14.20	4.40	7.00	HT2706-04-04	0.111		
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2A	20.63	55.60	32.50	14.20	7.50	10.30	HT2706-06-06	0.161		
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2A	25.40	66.00	36.60	19.00	9.90	13.50	HT2706-08-08	0.289		
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2A	34.92	75.70	21.90	19.00	15.50	18.30	HT2706-12-12	0.626		
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2A	41.27	80.51	23.10	23.90	21.50	23.80	HT2706-16-16	0.931		
1-1/4"	1-1/4"-11-1/2NPTF-2	1-5/8"-12UN-2A	47.62	84.58	24.30	24.60	27.50	31.70	HT2706-20-20	1.302		
1-1/2"	1-1/2"-11-1/2NPTF-2	1-7/8"-12UN-2A	53.97	87.37	27.50	25.40	33.50	38.00	HT2706-24-24	1.727		
2"	2"-11-1/2NPTF-2	2-1/2"-12UN-2A	69.85	99.00	33.90	26.20	45.20	49.00	HT2706-32-32	3.278		



## HT4601-00-00 Series

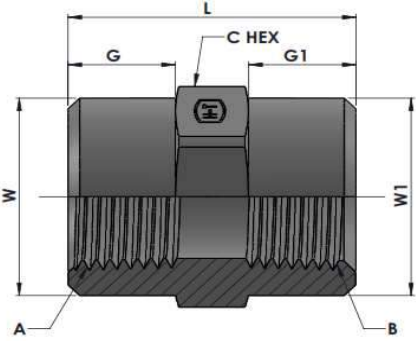
## HB-MAORB 90°

Tube O.D.	B THREAD	Y Hex	C1 Hex	L	M	J4	D DRILL	D1 DRILL	D3 TUBE OD	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	12.70	12.30	44.50	26.20	18.20	4.40	4.80	6.35	HT4601-04-04-NWO'		15-16	345
3/8"	9/16"-18UNF-2A	15.88	17.48	46.00	31.80	19.10	7.50	7.50	9.52	HT4601-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2A	20.62	22.23	48.40	36.90	21.90	9.90	10.30	12.70	HT4601-08-08-NWO'		49-53	310
3/4"	1-1/16"-12UN-2A	28.58	31.75	52.40	49.20	21.90	12.30	15.90	19.05	HT4601-12-12-NWO'		107-119	240
1"	1-5/16"-12UN-2A	34.93	38.10	55.50	52.00	23.10	21.40	21.40	25.40	HT4601-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2A	44.45	47.63	60.30	57.20	29.00	27.40	27.80	31.75	HT4601-20-20-NWO'		172-181	170
1-1/2"	1-7/8"-12UN-2A	50.80	53.98	63.50	60.70	29.00	33.30	34.10	38.10	HT4601-24-24-NWO'		215-226	140
2"	2-1/2"-12UN-2A	66.68	69.85	71.40	73.40	29.00	45.20	46.80	50.8	HT4601-32-32-NWO'		332-350	105



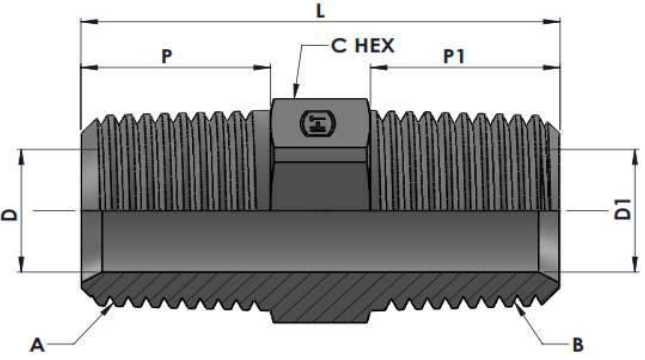
**HT4604-00-00 Series**  
**HB-MORB STRAIGHT**

A THREAD	C Hex	L1	L	I1	D DRILL	D1 DRILL	D2	Part Number	Weight	Torque N-m	Working pressure in Bar
3/4"-16UNF-2A	22.22	59.70	38.10	11.13	9.90	7.50	10.95	HT4604-06-08			
1-5/16"-12UN-2A	38.10	66.00	38.10	15.09	21.40	21.40	26.90	HT4604-16-16			



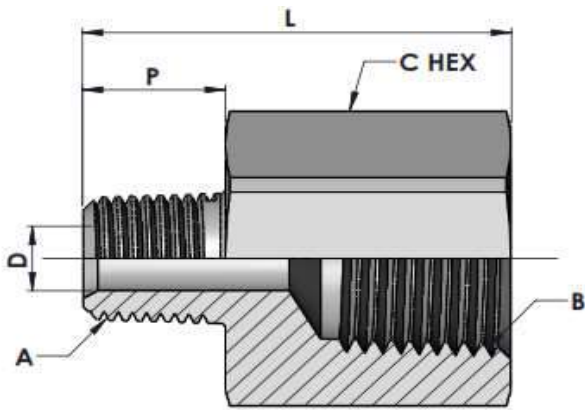
**HT5000-00-00 Series  
FP-FP STRAIGHT**

A THREAD	B THREAD	C Hex	L	G	G1	W	W1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	15.88	19.00	8.00	8.00	15.88	15.88	HT5000-02-02	0.033		
1/4"-18NPTF-2	1/4"-18NPTF-2	19.05	28.70	10.90	10.60	19.05	19.05	HT5000-04-04	0.071		
3/8"-18NPTF-2	1/4"-18NPTF-2	22.22	28.70	10.90	10.90	22.22	19.05	HT5000-06-04	0.096		
3/8"-18NPTF-2	3/8"-18NPTF-2	22.22	28.70	10.90	10.90	22.22	22.22	HT5000-06-06	0.096		
1/2"-14NPTF-2	3/8"-18NPTF-2	28.57	38.10	14.20	10.90	28.58	22.22	HT5000-08-06	0.211		
1/2"-14NPTF-2	1/2"-14NPTF-2	28.57	38.10	14.20	14.20	28.58	28.58	HT5000-08-08	0.211		
3/4"-14NPTF-2	3/4"-14NPTF-2	34.90	38.90	14.20	14.20	34.92	34.92	HT5000-12-12	0.322		
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	41.27	48.00	17.50	17.50	41.28	41.28	HT5000-16-16	0.555		
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	50.80	49.00	20.00	20.00	50.80	50.80	HT5000-20-20	0.858		
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	60.33	49.00	17.50	17.50	60.33	60.33	HT5000-24-24	1.210		



**HT5404-00-00 Series  
MP-MP STRAIGHT**

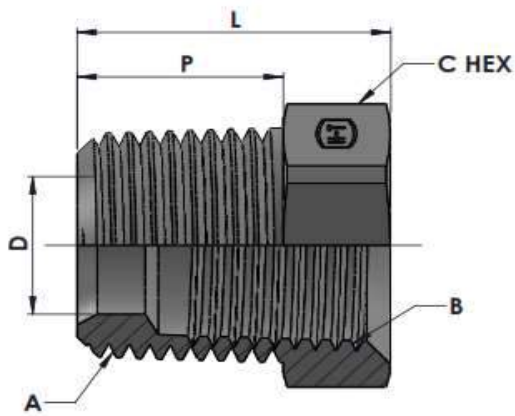
A THREAD	B THREAD	C Hex	L	P	P1	D	D1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	11.11	26.90	9.70	9.70	4.80	4.80	HT5404-02-02	0.023		
1/4"-18NPTF-2	1/8"-27NPTF-2	15.87	32.00	14.20	9.70	7.00	4.80	HT5404-04-02	0.055		
1/4"-18NPTF-2	1/4"-18NPTF-2	15.87	36.80	14.20	14.20	7.10	7.10	HT5404-04-04	0.063		
3/8"-18NPTF-2	1/8"-27NPTF-2	19.05	32.00	14.20	9.70	10.30	4.80	HT5404-06-02	0.079		
3/8"-18NPTF-2	1/4"-18NPTF-2	19.05	36.85	14.20	14.20	10.30	7.10	HT5404-06-04	0.091		
3/8"-18NPTF-2	3/8"-18NPTF-2	19.05	36.80	14.20	14.20	10.30	10.30	HT5404-06-06	0.091		
1/2"-14NPTF-2	1/4"-18NPTF-2	22.22	43.20	19.00	14.20	13.50	7.10	HT5404-08-04	0.145		
1/2"-14NPTF-2	3/8"-18NPTF-2	22.22	43.20	19.00	14.20	13.50	10.30	HT5404-08-06	0.145		
1/2"-14NPTF-2	1/2"-14NPTF-2	22.22	48.00	19.00	19.00	13.50	13.50	HT5404-08-08	0.161		
3/4"-14NPTF-2	1/2"-14NPTF-2	28.58	49.80	19.00	19.00	18.00	13.50	HT5404-12-08	0.276		
3/4"-14NPTF-2	3/4"-14NPTF-2	28.58	49.80	19.00	19.00	18.26	18.26	HT5404-12-12	0.276		
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	34.90	49.40	23.90	23.90	23.80	23.80	HT5404-16-16	0.408		
1-1/4"-11-1/2NPTF-2	1"-11-1/2NPTF-2	44.45	62.20	24.60	23.90	31.75	23.80	HT5404-20-16	0.834		
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	44.45	63.00	24.60	24.60	31.75	31.75	HT5404-20-20	0.845		
1-1/2"-11-1/2NPTF-2	1"-11-1/2NPTF-2	50.80	66.50	24.40	23.90	38.00	23.80	HT5404-24-16	1.165		
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	50.80	66.30	25.40	25.40	38.00	38.00	HT5404-24-24	1.161		



### HT5405-00-00 Series

#### MP-FP STRAIGHT EXPANDER

A THREAD	B THREAD	C Hex	L	P	D	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"-18NPTF-2	1/8"-27NPTF-2	19.05	35.30	14.20	7.00	HT5405-04-04	0.087	345	18-19
1/4"-18NPTF-2	3/8"-18NPTF-2	22.22	36.60	12.20	7.00	HT5405-04-06	0.123	275	18-19
1/4"-18NPTF-2	1/2"-14NPTF-2	28.58	42.70	14.20	7.00	HT5405-04-08	0.237	210	18-19
3/8"-18NPTF-2	3/8"-18NPTF-2	22.22	36.60	14.20	10.30	HT5405-06-06	0.123	275	22-24
1/2"-14NPTF-2	1/2"-14NPTF-2	28.58	47.50	19.00	13.50	HT5405-08-08	0.263	210	45-49
3/4"-14NPTF-2	3/4"-14NPTF-2	34.92	46.00	19.00	18.26	HT5405-12-12	0.381	170	65-72
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	41.27	60.20	23.90	23.80	HT5405-16-16	0.696	140	129-141
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	50.80	63.20	24.60	31.75	HT5404-20-20	1.107	80	160-176
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	60.32	64.30	25.40	38.10	HT5404-24-24	1.588	70	321-353
2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	73.00	67.50	26.20	49.20	HT5404-32-32	2.441	70	420-462

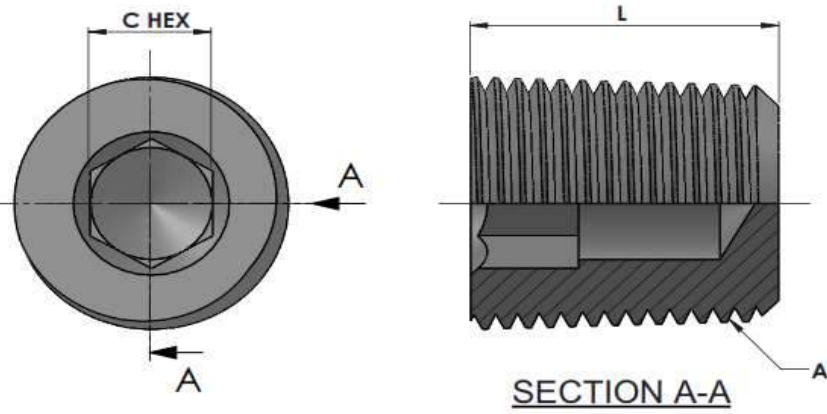


**HT5406-00-00 Series**  
**MP-FP REDUCER BUSHING**

A THREAD	B THREAD	C Hex	L	P	D	Part Number
1/4"-18NPTF-2	1/8"-27NPTF-2	15.88	21.60	14.20	8.45	HT5406-04-02
3/8"-18NPTF-2	1/8"-27NPTF-2	19.05	21.60	14.20	8.45	HT5406-06-02
3/8"-18NPTF-2	1/4"-18NPTF-2	19.05	21.60	14.20	10.30	HT5406-06-04
1/2"-14NPTF-2	1/4"-18NPTF-2	22.22	27.90	19.00	10.90	HT5406-08-04
1/2"-14NPTF-2	3/8"-18NPTF-2	22.22	27.90	19.00	13.50	HT5406-08-06
3/4"-14NPTF-2	1/4"-18NPTF-2	28.58	29.72	19.00	11.11	HT5406-12-04
3/4"-14NPTF-2	3/8"-18NPTF-2	28.58	29.72	19.00	14.50	HT5406-12-06
3/4"-14NPTF-2	1/2"-14NPTF-2	28.58	29.70	19.00	18.00	HT5406-12-08
1"-11-1/2NPTF-2	3/8"-18NPTF-2	34.92	34.54	23.90	14.30	HT5406-16-06
1"-11-1/2NPTF-2	1/2"-14NPTF-2	34.92	34.54	23.90	18.00	HT5406-16-08
1"-11-1/2NPTF-2	3/4"-14NPTF-2	34.92	34.57	23.90	22.87	HT5406-16-12
1-1/4"-11-1/2NPTF-2	1"-11-1/2NPTF-2	44.45	37.30	24.60	29.00	HT5406-20-16
1-1/2"-11-1/2NPTF-2	1"-11-1/2NPTF-2	50.80	39.90	25.40	29.00	HT5406-24-16
1-1/2"-11-1/2NPTF-2	3/4"-14NPTF-2	50.80	39.90	25.40	23.00	HT5406-24-12
1-1/2"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	50.80	39.90	25.40	37.45	HT5406-24-20
2"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	63.50	44.50	26.20	37.40	HT5406-32-20
2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	63.50	44.50	26.20	43.55	HT5406-32-24

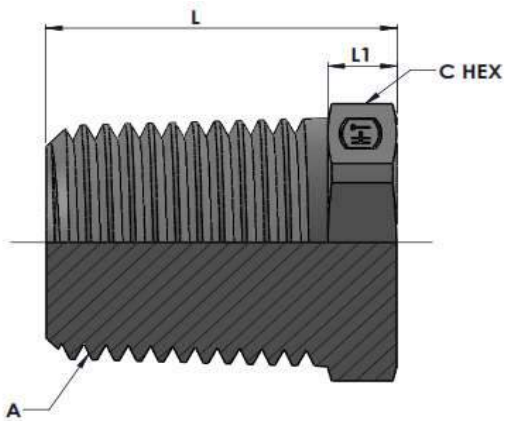


Weight	Torque N-m	Working pressure in Bar
0.037		
0.053		
0.053		
0.093		
0.093		
0.165		
0.165		
0.165		
0.286		''
0.286		
0.286		
0.500		
0.699		
0.699		
0.699		
1.218		
1.218		



**HT5406-HP-00 Series  
HOLLOW HEX PIPE PLUG**

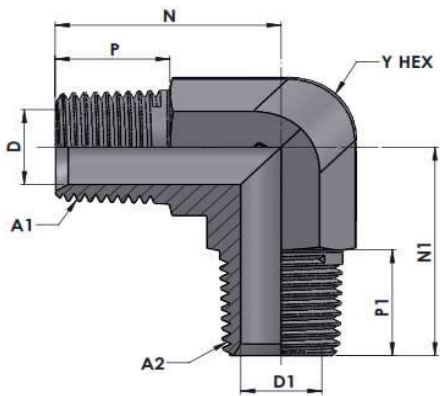
A THREAD	C Hex	RD	L	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	4.76	11.11	7.62	HT5406-HP-02	0.006	12-13	345
1/4"-18NPTF-2	6.35	14.28	11.68	HT5406-HP-04	0.016	18-19	345
3/8"-18NPTF-2	7.95	17.46	11.68	HT5406-HP-06	0.024	22-24	275
1/2"-14NPTF-2	9.53	22.22	15.49	HT5406-HP-08	0.052	45-49	210
3/4"-14NPTF-2	14.30	26.98	15.75	HT5406-HP-12	0.078	65-72	170
1"-11-1/2NPTF-2	15.88	34.92	19.56	HT5406-HP-16	0.162	129-141	140
1-1/4"-11-1/2NPTF-2	19.05	42.86	21.08	HT5406-HP-20	0.263	160-176	80
1-1/2"-11-1/2NPTF-2	25.40	49.21	21.08	HT5406-HP-24	0.346	321-353	70
2"-11-1/2NPTF-2	25.40	61.91	21.08	HT5406-HP-32	0.548	420-462	70



### HT5406-P-00 Series

#### EXTERNAL HEX PIPE PLUG

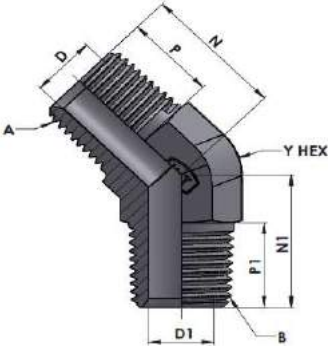
A THREAD	C Hex	L	L1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	11.11	14.30	4.80	HT5406-P-02	0.012	12-13	345
1/4"-18NPTF-2	14.28	19.00	4.30	HT5406-P-04	0.026	18-19	345
3/8"-18NPTF-2	17.46	19.90	5.60	HT5406-P-06	0.041	22-24	275
1/2"-14NPTF-2	22.22	28.50	5.60	HT5406-P-08	0.096	45-49	210
3/4"-14NPTF-2	28.58	29.70	10.70	HT5406-P-12	0.165	65-72	170
1"-11-1/2NPTF-2	34.92	34.55	10.70	HT5406-P-16	0.286	129-141	140
1-1/4"-11-1/2NPTF-2	44.45	37.30	12.70	HT5406-P-20	0.500	160-176	80
1-1/2"-11-1/2NPTF-2	50.80	39.90	14.50	HT5406-P-24	0.699	321-353	70
2"-11-1/2NPTF-2	63.50	44.50	18.30	HT5406-P-32	1.218	420-462	70



**HT5500-00-00 Series  
MP-MP 90°**

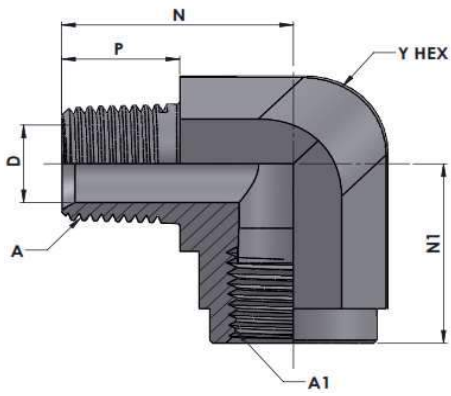
A1 THREAD	A2 THREAD	Y Hex	N	P	N1	P1	D	D1
1/8"-27NPTF-2	1/8"-27NPTF-2	11.11	19.80	9.70	19.80	9.70	4.80	4.80
1/4"-18NPTF-2	1/4"-18NPTF-2	14.28	27.70	14.20	27.70	14.20	7.10	7.10
3/8"-18NPTF-2	3/8"-18NPTF-2	19.05	31.00	14.20	31.00	14.20	10.30	10.30
1/2"-14NPTF-2	1/2"-14NPTF-2	22.22	37.30	19.00	37.30	19.00	13.50	13.50
3/4"-14NPTF-2	1/2"-14NPTF-2	27.00	40.40	19.00	40.40	19.00	8.00	13.50
3/4"-14NPTF-2	3/4"-14NPTF-2	27.00	40.40	19.00	40.40	19.00	18.30	18.30
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	33.32	50.00	23.90	50.00	23.90	23.80	23.80
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	41.27	60.45	24.60	60.45	24.60	31.75	31.75
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	47.62	67.00	24.40	67.00	24.40	38.00	38.00
2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	63.50	76.20	26.20	76.20	26.20	49.00	49.00

Part Number	Weight	Torque N-m	Working pressure in Bar
HT5500-02-02		12-13	345
HT5500-04-04		18-19	345
HT5500-06-06		22-24	275
HT5500-08-08		45-49	210
HT5500-12-08		22-24	210
HT5500-12-12		65-72	170
HT5500-16-16		129-141	140
HT5500-20-20		160-176	80
HT5500-24-24		321-353	70
HT5500-32-32		420-462	70



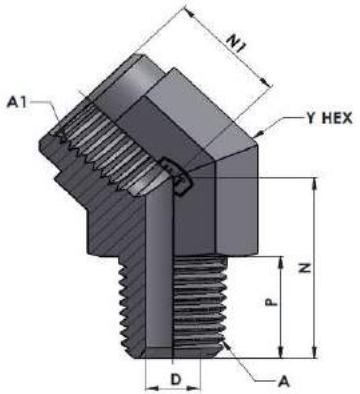
HT5501-00-00 Series  
MP-MP 45°

A1 THREAD	A2 THREAD	Y Hex	N	P	N1	P1	D	D1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	11.11	16.30	9.70	16.30	9.70	4.80	4.80	HT5501-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPTF-2	14.28	21.80	14.20	21.80	14.20	7.10	7.10	HT5501-04-04		18-19	345
3/8"-18NPTF-2	3/8"-18NPTF-2	19.05	24.10	14.20	24.10	14.20	10.30	10.30	HT5501-06-06		22-24	275
1/2"-14NPTF-2	1/2"-14NPTF-2	22.22	29.70	19.00	29.70	19.00	13.50	13.50	HT5501-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPTF-2	27.00	30.50	19.00	30.50	19.00	18.30	18.30	HT5501-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	33.32	37.60	23.90	37.60	23.90	23.80	23.80	HT5501-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	41.27	42.40	24.60	42.40	24.60	31.75	31.75	HT5501-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	47.62	45.00	24.40	45.00	24.40	38.00	38.00	HT5501-24-24		321-353	70



**HT5502-00-00 Series  
MP-FP 90°**

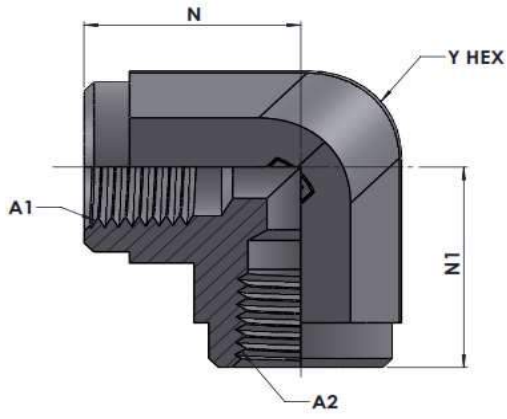
A	THREAD	A1	THREAD	Y Hex	N	P	N1	D	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	-18NPTF-2	1/4"	-18NPTF-2	19.00	27.70	14.20	22.40	7.10	HT5502-04-04		18-19	345
3/8"	-18NPTF-2	3/8"	-18NPTF-2	22.22	32.00	14.20	25.90	10.30	HT5502-06-06		22-24	275
1/2"	-14NPTF-2	1/2"	-14NPTF-2	27.00	37.30	19.00	31.20	13.50	HT5502-08-08		45-49	210
3/4"	-14NPTF-2	3/4"	-14NPTF-2	33.32	32.70	19.00	34.50	18.30	HT5502-12-12		65-72	170
1"	-11-1/2NPTF-2	1"	-11-1/2NPTF-2	41.27	43.10	23.90	41.10	23.80	HT5502-16-16		129-141	140
1-1/4"	-11-1/2NPTF-2	1-1/4"	-11-1/2NPTF-2	47.62	60.45	24.60	43.10	31.75	HT5502-20-20		160-176	80
1-1/2"	-11-1/2NPTF-2	1-1/2"	-11-1/2NPTF-2	65.07	67.00	24.40	52.80	38.00	HT5502-24-24		321-353	70
2"	-11-1/2NPTF-2	2"	-11-1/2NPTF-2	71.42	76.20	26.20	60.70	49.00	HT5502-32-32		420-462	70



HT5503-00-00 Series  
MP-FP 45°

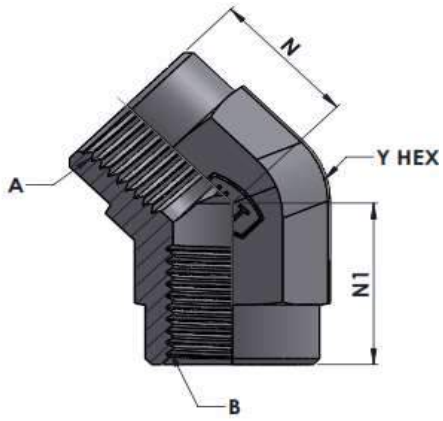
A	THREAD	A1	THREAD	Y Hex	N	P	N1	D	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	-18NPTF-2	1/4"	-18NPTF-2	19.00	26.70	14.20	15.70	7.00	HT5503-04-04		18-19	345
3/8"	-18NPTF-2	3/8"	-18NPTF-2	22.22	26.90	14.20	18.30	10.30	HT5503-06-06		22-24	275
1/2"	-14NPTF-2	1/2"	-14NPTF-2	27.00	34.00	19.00	23.10	13.50	HT5503-08-08		45-49	210
3/4"	-14NPTF-2	3/4"	-14NPTF-2	33.32	35.00	19.00	24.63	18.30	HT5503-12-12		65-72	170
1"	-11-1/2NPTF-2	1"	-11-1/2NPTF-2	41.27	43.70	23.90	28.44	23.80	HT5503-16-16		129-141	140
1-1/4"	-11-1/2NPTF-2	1-1/4"	-11-1/2NPTF-2	47.62	45.70	24.60	41.40	31.75	HT5503-20-20		160-176	80
1-1/2"	-11-1/2NPTF-2	1-1/2"	-11-1/2NPTF-2	65.07	52.30	24.40	42.90	38.00	HT5503-24-24		321-353	70





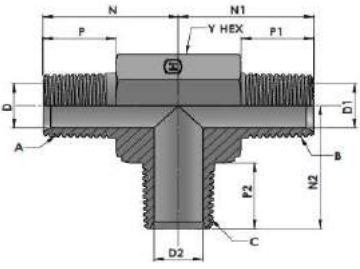
**HT5504-00-00 Series**  
**FP-FP 90° STREET ELBOW**

A	THREAD	A1	THREAD	Y Hex	N	N1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	-18NPTF-2	1/4"	-18NPTF-2	19.05	22.40	22.40	HT5504-04-04		18-19	345
3/8"	-18NPTF-2	3/8"	-18NPTF-2	22.22	25.90	25.90	HT5504-06-06		22-24	275
1/2"	-14NPTF-2	1/2"	-14NPTF-2	26.97	31.20	31.20	HT5504-08-08		45-49	210
3/4"	-14NPTF-2	3/4"	-14NPTF-2	33.32	34.50	34.50	HT5504-12-12		65-72	170
1"	-11-1/2NPTF-2	1"	-11-1/2NPTF-2	41.27	41.10	41.10	HT5504-16-16		129-141	140
1-1/4"	-11-1/2NPTF-2	1-1/4"	-11-1/2NPTF-2	47.62	43.10	43.10	HT5504-20-20		160-176	80
1-1/2"	-11-1/2NPTF-2	1-1/2"	-11-1/2NPTF-2	65.07	52.80	52.80	HT5504-24-24		321-353	70



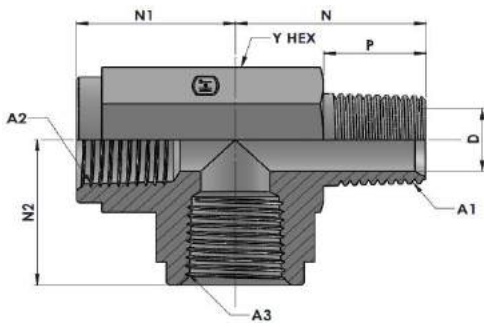
**HT5505-00-00 Series**  
**FP-FP 45° STREET ELBOW**

A	THREAD	B	THREAD	Y Hex	N	N1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	27NPTF-2	1/8"	27NPTF-2	14.27	12.70	12.70	HT5505-02-02		18-19	345
1/4"	18NPTF-2	1/4"	18NPTF-2	19.05	17.50	17.50	HT5505-04-04		22-24	275
3/8"	18NPTF-2	3/8"	18NPTF-2	22.23	19.10	19.10	HT5505-06-06		45-49	210
1/2"	14NPTF-2	1/2"	14NPTF-2	26.97	23.90	23.90	HT5505-08-08		65-72	170
3/4"	14NPTF-2	3/4"	14NPTF-2	33.32	25.40	25.40	HT5505-12-12		129-141	140
1"	11-1/2NPTF-2	1"	11-1/2NPTF-2	41.28	30.20	30.20	HT5505-16-16		160-176	80
1-1/4"	11-1/2NPTF-2	1-1/4"	11-1/2NPTF-2	47.63	36.60	36.60	HT5505-20-20		321-353	70



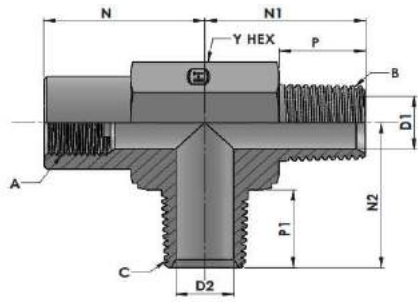
**HT5600-00-00-00 Series  
MP-MP-MP TEE**

A	THREAD	B	THREAD	C	THREAD	Y Hex	N	N1	N2	P	P1	P2	D	D1	D2	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	-27NPTF-2	1/8"	-27NPTF-2	1/8"	-27NPTF-2	11.13	19.80	19.80	19.80	9.70	9.70	9.70	4.5	4.5	4.5	HT5600-02-02-02		12-13	345
1/4"	-18NPTF-2	1/4"	-18NPTF-2	1/4"	-18NPTF-2	14.27	27.70	27.70	27.70	14.20	14.20	14.20	7.1	7.1	7.1	HT5600-04-04-04		14-19	345
3/8"	-18NPTF-2	3/8"	-18NPTF-2	3/8"	-18NPTF-2	19.05	31.00	31.00	31.00	14.20	14.20	14.20	10.3	10.3	10.3	HT5600-06-06-06		22-24	245
1/2"	-14NPTF-2	1/2"	-14NPTF-2	1/2"	-14NPTF-2	22.23	37.30	37.30	37.30	19.00	19.00	19.00	13.5	13.5	13.5	HT5600-08-08-08		45-49	210
3/4"	-14NPTF-2	3/4"	-14NPTF-2	3/4"	-14NPTF-2	26.97	40.40	40.40	40.40	19.00	19.00	19.00	18.3	18.3	18.3	HT5600-12-12-12		65-72	170
1"-11-1/2	NPTF-2	1"-11-1/2	NPTF-2	1"-11-1/2	NPTF-2	33.32	50.00	50.00	50.00	23.90	23.90	23.90	23.8	23.8	23.8	HT5600-16-16-16		129-141	140
1-1/4"	-11-1/2	NPTF-2	1-1/4"	-11-1/2	NPTF-2	41.25	60.50	60.50	60.50	24.60	24.60	24.60	31.8	31.8	31.8	HT5600-20-20-20		160-176	80
2"	-11-1/2	NPTF-2	2"	-11-1/2	NPTF-2	63.5	76.20	76.20	76.20	24.40	24.40	24.40	49.23	49.23	49.23	HT5600-32-32-32		420-462	70



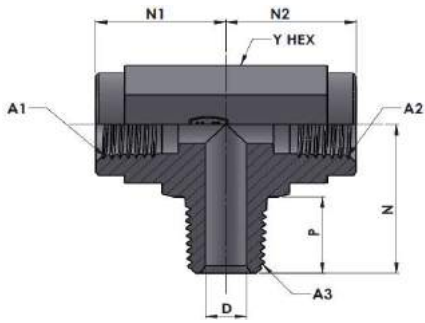
HT5602-00-00-00 Series  
MP-FP-FP STREET TEE

A1 THREAD	A2 THREAD	A3 THREAD	Y Hex	N	N1	N2	P	D	Part Number	Weight	Torque N m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	1/8"-27NPTF-2	14.30	19.80	16.80	16.80	9.70	4.80	HT5602-02-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPTF-2	1/4"-18NPTF-2	19.00	27.70	22.40	22.40	14.20	7.00	HT5602-04-04-04		14-19	345
3/8"-18NPTF-2	3/8"-18NPTF-2	3/8"-18NPTF-2	22.23	31.00	25.90	25.90	14.20	10.30	HT5602-06-06-06		22-24	245
1/2"-14NPTF-2	1/2"-14NPTF-2	1/2"-14NPTF-2	27.00	37.30	31.20	31.20	19.00	13.50	HT5602-08-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPTF-2	3/4"-14NPTF-2	33.34	40.40	34.50	34.50	19.00	18.00	HT5602-12-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	41.27	43.10	41.10	41.10	23.90	23.80	HT5602-16-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	47.62	60.45	43.10	43.10	24.60	31.75	HT5602-20-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	65.07	67.00	52.80	52.80	24.40	38.00	HT5602-24-24-24		321-353	70
2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	71.42	76.20	60.70	60.70	26.20	49.00	HT5602-32-32-32		420-462	70



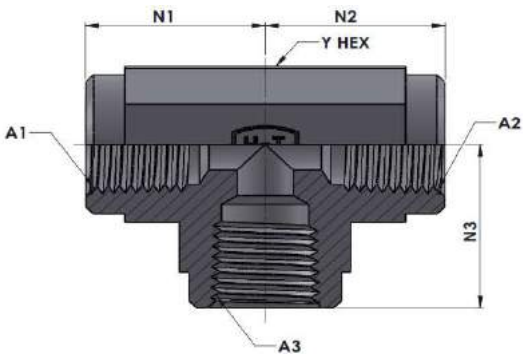
HT5603-00-00-00 Series  
MP-FP-MP TEE

A THREAD	B THREAD	C THREAD	Y Hex	N	N1	N2	P	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	1/8"-27NPTF-2	14.27	16.80	19.80	19.80	9.70	4.80	4.80	HT5603-02-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPTF-2	1/4"-18NPTF-2	19.05	22.40	27.70	27.70	14.20	7.00	7.00	HT5603-04-04-04		14-19	345
3/8"-18NPTF-2	3/8"-18NPTF-2	3/8"-18NPTF-2	22.23	25.90	31.00	31.00	14.20	10.30	10.30	HT5603-06-06-06		22-24	245
1/2"-14NPTF-2	1/2"-14NPTF-2	1/2"-14NPTF-2	26.97	31.20	37.30	37.30	19.00	13.50	13.50	HT5603-08-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPTF-2	3/4"-14NPTF-2	33.32	34.50	40.40	40.40	19.00	18.00	18.00	HT5603-12-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	41.28	41.10	43.20	43.20	23.90	23.80	23.80	HT5603-16-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	47.63	43.20	60.50	60.50	24.60	31.75	31.75	HT5603-20-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	65.07	52.80	67.10	67.10	24.40	38.00	38.00	HT5603-24-24-24		321-353	70



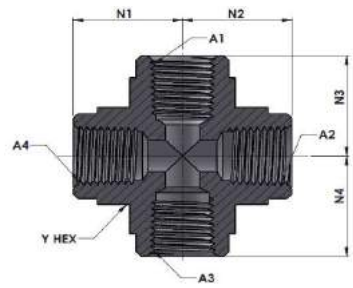
HT5604-00-00-00 Series  
FP-FP-MP BRANCH TEE

A1 THREAD	A2 THREAD	A3 THREAD	Y Hex	N	N1	N2	P	D	Part Number	Weight	Torque N m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	1/8"-27NPTF-2	14.27	19.80	16.70	16.70	9.70	4.80	HT5604-02-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPTF-2	1/4"-18NPTF-2	19.00	27.70	22.40	22.40	14.20	7.10	HT5604-04-04-04		14-19	345
3/8"-18NPTF-2	3/8"-18NPTF-2	3/8"-18NPTF-2	22.22	31.00	25.90	25.90	14.20	10.30	HT5604-06-06-06		22-24	245
1/2"-14NPTF-2	1/2"-14NPTF-2	1/2"-14NPTF-2	27.00	37.30	31.20	31.20	19.00	13.50	HT5604-08-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPTF-2	3/4"-14NPTF-2	33.32	40.30	34.50	34.50	19.00	18.00	HT5604-12-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	41.27	43.10	41.10	41.10	23.90	23.80	HT5604-16-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	47.62	60.40	43.10	43.10	24.60	31.75	HT5604-20-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	65.07	60.70	52.80	52.80	24.40	38.00	HT5604-24-24-24		321-353	70



HT5605-00-00-00 Series  
FP-FP-FP TEE

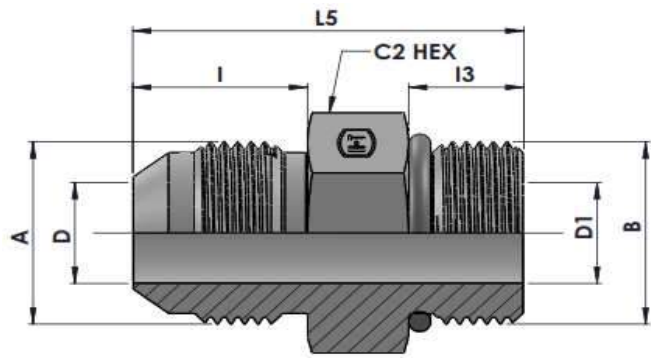
A1 THREAD	A2 THREAD	A3 THREAD	Y Hex	N1	N2	N3	Part Number	Weight	Torque N·m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	1/8"-27NPTF-2	14.27	16.70	16.70	16.70	HT5605-02-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPTF-2	1/4"-18NPTF-2	19.05	22.40	22.40	22.40	HT5605-04-04-04		14-19	345
3/8"-18NPTF-2	3/8"-18NPTF-2	3/8"-18NPTF-2	22.22	25.90	25.90	25.90	HT5605-06-06-06		22-24	245
1/2"-14NPTF-2	1/2"-14NPTF-2	1/2"-14NPTF-2	27.00	31.20	31.20	31.20	HT5605-08-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPTF-2	3/4"-14NPTF-2	33.33	34.50	34.50	34.50	HT5605-12-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	41.28	41.10	41.10	41.10	HT5605-16-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	41.27	43.10	43.10	43.10	HT5605-20-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	47.62	52.80	52.80	52.80	HT5605-24-24-24		321-353	70
2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	65.07	60.70	60.70	60.70	HT5605-32-32-32		420-462	70



HT5652-00-00-00-00 Series  
FP-FP-FP-FP CROSS

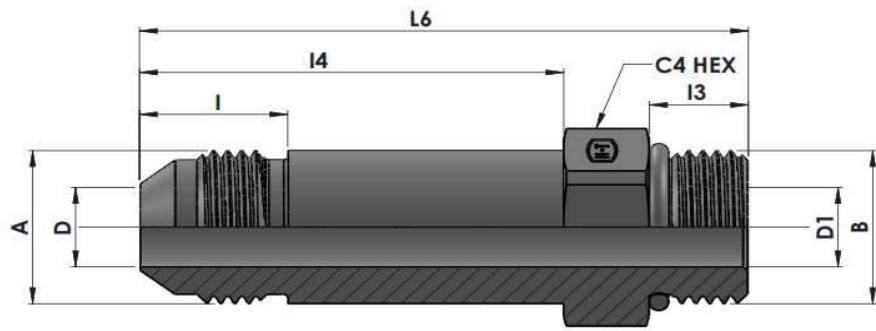
A1 THREAD	A2 THREAD	A3 THREAD	A 4 THREAD	Y Hex	N1	N2	N3	N4	Part Number	Weight	Torque m	Working pressure in Bar
1/8"-27NPTF-2	1/8"-27NPTF-2	1/8"-27NPTF-2	1/8"-27NPTF-2	14.27	16.70	16.70	16.70	16.70	HT5652-02-02-02-02		12-13	345
1/4"-18NPTF-2	1/4"-18NPTF-2	1/4"-18NPTF-2	1/4"-18NPTF-2	19.05	22.40	22.40	22.40	22.40	HT5652-04-04-04-04		14-19	345
3/8"-18NPTF-2	3/8"-18NPTF-2	3/8"-18NPTF-2	3/8"-18NPTF-2	22.22	25.90	25.90	25.90	25.90	HT5652-06-06-06-06		22-24	245
1/2"-14NPTF-2	1/2"-14NPTF-2	1/2"-14NPTF-2	1/2"-14NPTF-2	26.97	31.20	31.20	31.20	31.20	HT5652-08-08-08-08		45-49	210
3/4"-14NPTF-2	3/4"-14NPTF-2	3/4"-14NPTF-2	3/4"-14NPTF-2	33.32	34.50	34.50	34.50	34.50	HT5652-12-12-12-12		65-72	170
1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	1"-11-1/2NPTF-2	41.27	41.10	41.10	41.10	41.10	HT5652-16-16-16-16		129-141	140
1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	1-1/4"-11-1/2NPTF-2	46.35	43.10	43.10	43.10	43.10	HT5652-20-20-20-20		160-176	80
1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	1-1/2"-11-1/2NPTF-2	65.07	52.80	52.80	52.80	52.80	HT5652-24-24-24-24		321-353	70
2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	2"-11-1/2NPTF-2	71.42	60.70	60.70	60.70	60.70	HT5652-32-32-32-32		420-462	70





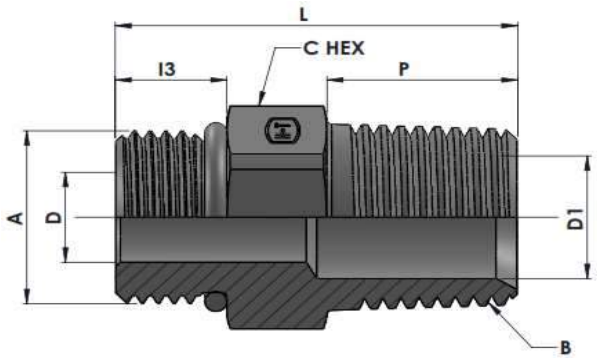
**HT6400-00-00-O Series**  
**MJ-MORB STRAIGHT**

Tube O.D	A THREAD	B THREAD	C4 Hex	L5 Length	I	I3	D DRILL	D1 DRILL	Part Number	Weight	Torque Nm	Working pressure in Bar
1/4"	7/16"-20UNF-2A	1/2"-20UNF-2A	15.88	31.20	14.00	9.14	4.40	6.00	HT6400-04-05-O	0.053		
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	14.28	31.24	14.00	9.14	4.40	4.40	HT6400-04-04-O	0.043		
1/4"	7/16"-20UNF-2A	9/16"-18UNF-2A	17.46	32.70	14.00	9.93	4.40	7.50	HT6400-04-06-O	0.068		
1/4"	7/16"-20UNF-2A	3/4"-16UNF-2A	22.22	34.80	14.00	11.13	4.40	9.90	HT6400-04-08-O	0.117		
3/8"	9/16"-18UNF-2A	7/16"-20UNF-2A	15.88	32.30	14.10	9.14	7.50	4.40	HT6400-06-04-O	0.055		
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	17.46	33.00	14.10	9.93	7.50	7.50	HT6400-06-06-O	0.068		
3/8"	9/16"-18UNF-2A	3/4"-16UNF-2A	22.22	35.00	14.10	11.13	7.50	9.90	HT6400-06-08-O	0.117		
3/8"	9/16"-18UNF-2A	7/8"-14UNF-2A	25.40	38.10	14.10	12.70	7.50	12.30	HT6400-06-10-O	0.167		
3/8"	9/16"-18UNF-2A	1-1/16"-12UN-2A	31.75	42.16	14.10	15.09	7.50	15.50	HT6400-06-12-O	0.288		
1/2"	3/4"-16UNF-2A	9/16"-18UNF-2A	20.63	36.58	16.70	9.93	9.90	7.50	HT6400-08-06-O	0.106		
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	22.22	37.60	16.70	16.70	9.9	9.9	HT6400-08-08-O	0.126		
1/2"	3/4"-16UNF-2A	7/8"-14UNF-2A	25.40	40.64	16.70	12.70	9.90	12.30	HT6400-08-10-O	0.178		
1/2"	3/4"-16UNF-2A	1-1/16"-12UN-2A	31.75	44.70	16.70	18.09	9.90	15.50	HT6400-08-12-O	0.306		
5/8"	7/8"-14UNF-2A	3/4"-16UNF-2A	25.40	41.65	19.30	11.13	12.30	9.90	HT6400-10-08-O	0.182		
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	25.40	43.20	19.30	12.70	12.30	12.30	HT6400-10-10-O	0.189		
5/8"	7/8"-14UNF-2A	1-1/16"-12UN-2A	31.75	47.20	19.30	15.09	12.30	15.50	HT6400-10-12-O	0.323		
3/4"	1-1/16"-12UN-2A	3/4"-16UNF-2A	28.58	49.28	21.90	11.13	15.50	9.90	HT6400-12-08-O	0.273		
3/4"	1-1/16"-12UN-2A	7/8"-14UNF-2A	28.58	47.75	21.90	12.70	15.50	12.30	HT6400-12-10-O	0.265		
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	31.75	50.00	21.90	15.09	15.50	15.50	HT6400-12-12-O	0.342		
3/4"	1-1/16"-12UN-2A	1-5/16"-12UN-2A	38.10	50.50	21.90	15.09	15.50	21.40	HT6400-12-16-O	0.498		
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	38.10	51.80	23.10	15.09	21.40	21.40	HT6400-16-16-O	0.510		
1"	1-5/16"-12UN-2A	1-5/8"-12UN-2A	47.62	52.90	23.10	15.09	23.10	15.09	HT6400-16-20-O	0.814		
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	47.60	55.10	24.30	15.09	27.40	15.09	HT6400-20-20-O	0.847		
1-1/4"	1-5/8"-12UN-2A	1-5/16"-12UN-2A	42.86	59.20	24.30	15.09	27.50	21.50	HT6400-20-16-O	0.738		



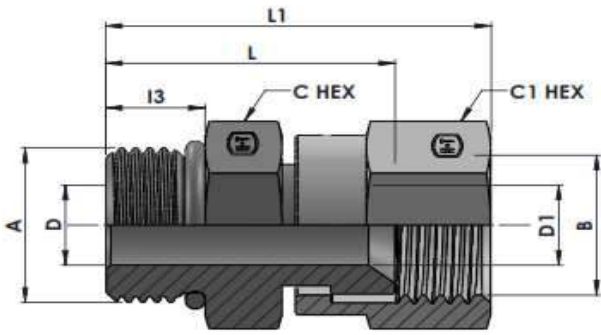
HT6400-L-00-00-O Series  
MJ-MORB STRAIGHT LONG

Tube O.D	A THREAD	B THREAD	C4 Hex	L6 Length	I4	I	I3	D DRILL	D1 DRILL	Part Number	Weight	Torque N·m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	11.11	45.50	29.70	11.40	7.54	1.60	1.60	HT6400-L-02-02	0.038		
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	12.70	47.50	31.80	12.20	7.54	3.20	3.20	HT6400-L-03-03	0.052		
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	14.28	52.80	35.30	14.00	9.14	4.40	4.40	HT6400-L-04-04	0.073		
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	15.88	54.40	36.80	14.00	9.14	6.00	6.00	HT6400-L-05-05	0.093		
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	17.46	58.70	39.60	14.10	9.93	7.50	7.50	HT6400-L-06-06	0.121		
3/8"	9/16"-18UNF-2A	3/4"-16UNF-2A	22.22	66.00	39.60	14.10	11.13	7.50	9.90	HT6400-L-06-08	0.221		
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	22.23	68.60	47.80	16.70	11.13	9.90	9.90	HT6400-L-08-08	0.230		
1/2"	3/4"-16UNF-2A	7/8"-14UNF-2A	25.40	74.67	50.00	16.70	12.70	9.90	12.30	HT6400-L-08-10	0.327		
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	25.40	77.20	53.10	19.30	12.70	12.30	12.30	HT6400-L-10-10	0.338		
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	31.75	91.70	63.50	21.90	15.09	15.50	15.50	HT6400-L-12-12	0.627		
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	34.93	96.50	68.30	22.60	15.09	18.30	18.30	HT6400-L-14-14	0.799		
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	38.10	101.10	72.10	23.10	15.09	21.50	21.50	HT6400-L-16-16	0.996		
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	47.63	119.10	88.10	24.30	15.09	27.50	27.50	HT6400-L-20-20	1.834		
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	53.98	131.30	98.60	27.50	15.09	33.50	33.50	HT6400-L-24-24	2.597		
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	60.33	159.80	122.90	33.90	15.09	45.20	45.20	HT6400-L-32-32	3.947		



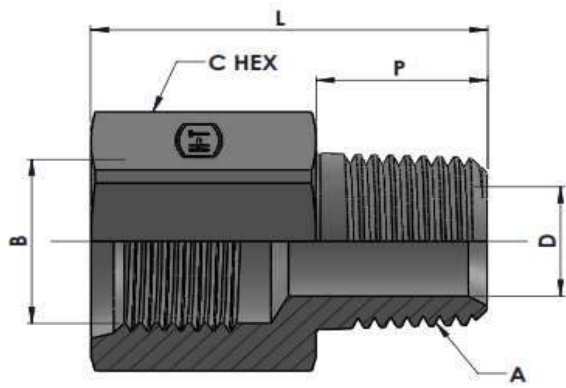
**HT6401-00-00-O Series**  
**MORB-MP STRAIGHT**

Tube O.D	A THREAD	B THREAD	C Hex	L Length	I3	P	D DRILL	D1 DRILL	Part Number	Weight	Torque N.m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	1/4"-18NPTF-2	14.28	31.75	9.14	14.20	4.40	7.10	HT6401-04-04-O			
3/8"	9/16"-18UNF-2A	3/8"-18NPTF-2	19.05	32.30	9.93	14.20	7.50	10.30	HT6401-06-06-O			
3/8"	9/16"-18UNF-2A	1/4"-18NPTF-2	17.46	32.20	9.93	14.20	7.50	7.10	HT6401-06-04-O			
3/8"	9/16"-18UNF-2A	1/2"-14NPTF-2	22.22	40.90	9.93	19.00	7.50	13.50	HT6401-06-08-O			
1/2"	3/4"-16UNF-2A	3/8"-18NPTF-2	22.22	35.30	11.13	14.20	9.90	10.30	HT6401-08-06-O			
1/2"	3/4"-16UNF-2A	1/2"-14NPTF-2	22.22	40.10	11.13	19.00	9.90	13.50	HT6401-08-08-O			
3/4"	1-1/16"-12UN-2A	1/2"-14NPTF-2	31.75	46.75	15.09	19.00	15.50	13.50	HT6401-12-08-O			
3/4"	1-1/16"-12UN-2A	3/4"-14NPTF-2	31.75	47.24	15.09	19.00	15.50	18.26	HT6401-12-12-O			
1"	1-5/16"-12UN-2A	1"-11-1/2NPTF-2	38.10	52.83	15.09	23.90	21.40	23.80	HT6401-16-16-O			



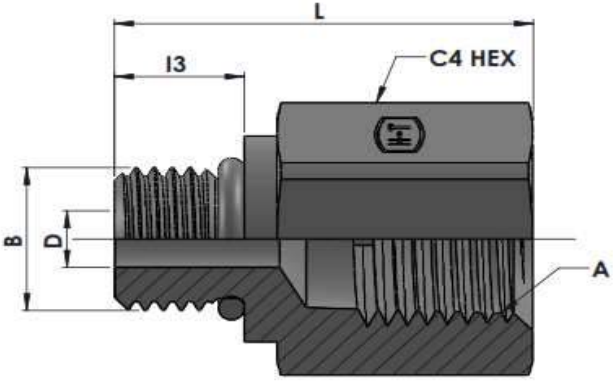
**HT6402-00-00-O Series**  
**MORB-FJS STRAIGHT**

Tube O.D	A THREAD	B THREAD	C Hex	C1 Hex	L Length	L1	I3	D DRILL	D1 DRILL	Part Number	Weight	Torque N·m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2B	14.27	14.27	25.90	33.20	9.14	4.40	4.40	HT6402-04-04-O	0.036		
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2B	17.46	17.46	29.20	38.70	9.93	7.50	7.50	HT6402-06-06-O	0.060		
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2B	22.22	17.46	31.20	40.70	11.13	9.90	7.50	HT6402-08-06-O	0.105		
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2B	22.22	22.22	32.50	43.30	11.13	9.90	9.90	HT6402-08-08-O	0.109		
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2B	25.40	25.40	36.30	47.70	12.70	12.30	9.90	HT6402-10-10-O	0.159		
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2B	31.75	31.75	41.40	54.60	15.09	15.50	15.50	HT6402-12-12-O	0.283		
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2B	38.10	38.10	43.70	57.60	15.09	21.50	21.50	HT6402-16-16-O	0.431		



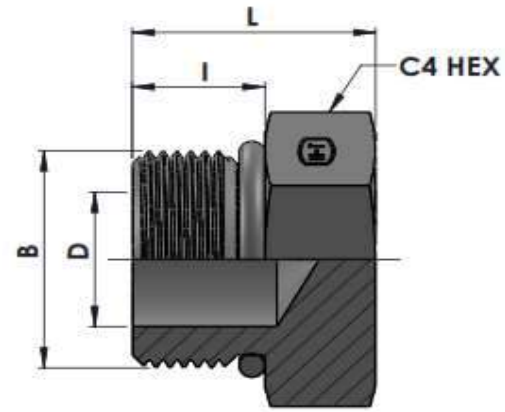
**HT6404-00-00 Series  
FORB-MP STRAIGHT**

Tube O.D	A THREAD	B THREAD	C Hex	L Length	P	D DRILL	Part Number	Weight	Torque m	N	Working pressure in Bar
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2B	17.47	33.30	14.20	7.10	HT6404-04-04	0.069			
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2B	20.62	34.20	14.20	10.30	HT6404-06-06	0.099			
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2B	26.97	41.90	19.00	13.50	HT6404-08-08	0.207			
5/8"	1/2"-14NPTF-2	7/8"-14UNF-2B	28.58	44.20	19.00	13.50	HT6404-10-08	0.245			
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2B	34.92	48.50	19.00	18.26	HT6404-12-12	0.401			
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2B	41.27	53.30	23.90	23.80	HT6404-16-16	0.616			



**HT6405-00-00-O Series  
FORB-FP STRAIGHT**

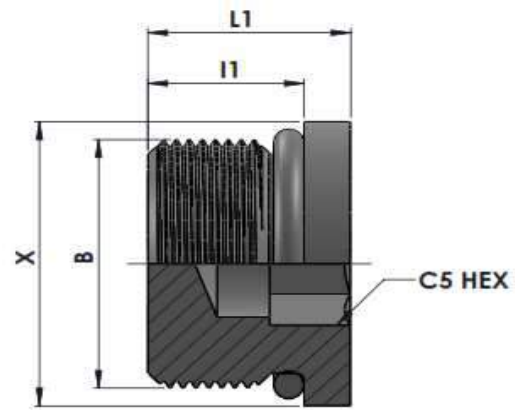
Tube O.D	A THREAD	B THREAD	C4 Hex	L Length	I3	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	1/8"-27NPTF-2	14.28	25.20	9.14	4.40	HT6405-04-02-O	0.035		
1/4"	7/16"-20UNF-2A	1/4"-18NPTF-2	19.05	29.50	9.14	4.40	HT6405-04-04-O	0.073		
3/8"	9/16"-18UNF-2A	1/4"-18NPTF-2	19.05	31.30	9.93	7.50	HT6405-06-04-O	0.077		
1/2"	3/4"-16UNF-2A	3/8"-18NPTF-2	22.23	33.80	11.13	9.90	HT6405-08-06-O	0.113		
1/2"	3/4"-16UNF-2A	1/2"-14NPTF-2	28.58	43.50	11.13	9.90	HT6405-08-08-O	0.241		
5/8"	7/8"-14UNF-2A	1/2"-14NPTF-2	28.58	41.40	12.70	12.30	HT6405-10-08-O	0.230		
3/4"	1-1/16"-12UN-2A	1/2"-14NPTF-2	31.75	43.70	15.09	15.50	HT6405-12-08-O	0.299		
1-1/4"	1-5/8"-12UN-2A	1-1/4"-11-1/2NPTF-2	50.80	58.40	15.09	27.40	HT6405-20-20-O	1.023		
1-1/2"	1-7/8"-12UN-2A	1-1/2"-11-1/2NPTF-2	60.32	60.30	15.09	33.30	HT6405-24-24-O	1.489		
2"	2"-12UN-2A	2"-11-1/2NPTF-2	73.02	73.00	15.09	42.20	HT6405-32-32-O	2.642		



### HT6408-00-O Series

#### MORB EXTERNAL HEX PLUG

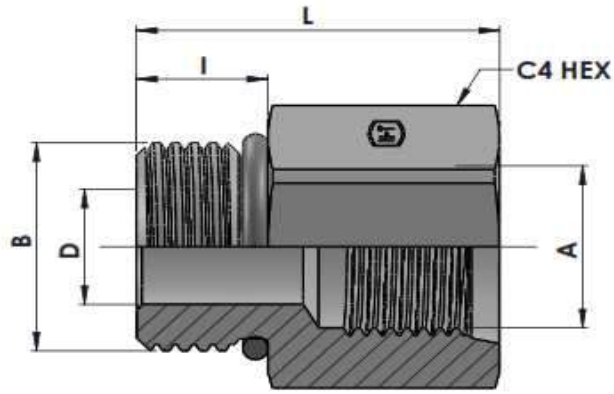
Tube O.D.	B THREAD	C4 Hex	L Length	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	11.11	15.20	7.54	2.40	HT6408-02-O	0.013	8-9	345
3/16"	3/8"-24UNF-2A	12.70	15.20	7.54	3.20	HT6408-03-O	0.017	11-12	345
1/4"	7/16"-20UNF-2A	14.28	17.00	9.14	5.20	HT6408-04-O	0.024	18-20	345
5/16"	1/2"-20UNF-2A	15.87	17.00	9.14	5.90	HT6408-05-O	0.029	23-26	345
3/8"	9/16"-18UNF-2A	17.46	18.50	9.93	7.50	HT6408-06-O	0.038	29-33	275
1/2"	3/4"-16UNF-2A	22.22	20.30	11.13	10.70	HT6408-08-O	0.068	49-53	210
5/8"	7/8"-14UNF-2A	25.40	23.60	12.70	12.70	HT6408-10-O	0.103	59-64	210
3/4"	1-1/16"-12UN-2A	31.75	27.70	15.09	16.70	HT6408-12-O	0.190	93-102	170
7/8"	1-3/16"-12UN-2A	34.92	27.70	15.09	18.70	HT6408-14-O	0.229	122-134	170
1"	1-5/16"-12UN-2A	38.10	28.40	15.09	22.20	HT6408-16-O	0.280	151-166	140
1-1/4"	1-5/8"-12UN-2A	47.62	30.50	15.09	27.80	HT6408-20-O	0.469	198-218	80
1-1/2"	1-7/8"-12UN-2A	53.97	32.30	15.09	34.10	HT6408-24-O	0.639	209-231	70
2"	2-1/2"-12UN-2A	69.85	36.30	15.09	46.10	HT6408-32-O	1.202	296-325	70



**HT6408-H-00-O Series**  
**MORB HOLLOW HEX PLUG**

Tube O.D.	B THREAD	C5 Hex	X RD	L1 Length	l1	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	3.18	11.13	10.20	7.54	HT6408-H02-O	0.008	8-9	345
3/16"	3/8"-24UNF-2A	3.18	12.70	10.20	7.54	HT6408-H03-O	0.010	11-12	345
1/4"	7/16"-20UNF-2A	4.78	14.30	11.90	9.14	HT6408-H04-O	0.015	18-20	345
5/16"	1/2"-20UNF-2A	4.78	15.88	11.90	9.14	HT6408-H05-O	0.018	23-26	345
3/8"	9/16"-18UNF-2A	6.35	17.48	12.70	9.93	HT6408-H06-O	0.024	29-33	275
1/2"	3/4"-16UNF-2A	7.95	22.23	14.70	11.13	HT6408-H08-O	0.045	49-53	210
5/8"	7/8"-14UNF-2A	9.52	25.40	16.50	12.70	HT6408-H10-O	0.066	59-64	210
3/4"	1-1/16"-12UN-2A	14.30	31.75	19.50	15.09	HT6408-H12-O	0.121	93-102	170
7/8"	1-3/16"-12UN-2A	14.30	34.93	19.50	15.09	HT6408-H14-O	0.147	122-134	170
1"	1-5/16"-12UN-2A	15.88	38.10	19.50	15.09	HT6408-H16-O	0.174	151-166	140
1-1/4"	1-5/8"-12UN-2A	19.05	47.63	19.50	15.09	HT6408-H20-O	0.273	198-218	80
1-1/2"	1-7/8"-12UN-2A	19.05	53.98	19.50	15.09	HT6408-H24-O	0.350	209-231	70
2"	2-1/2"-12UN-2A	19.05	69.85	19.50	15.09	HT6408-H32-O	0.586	296-325	70

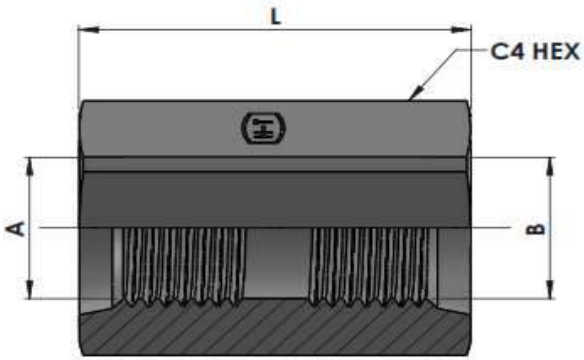




### HT6410-00-00-O Series

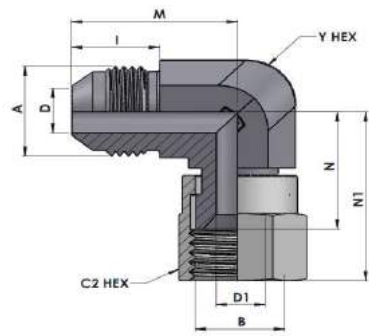
### MORB-FORB STR.REDUCER

A THREAD	B THREAD	C4 Hex	L Length	I	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
9/16"-18UNF-2B	3/4"-16UNF-2A	22.23	30.75	11.13	9.90	HT6410-08-06-O	0.103	49-53	210
3/4"-16UNF-2B	3/4"-16UNF-2A	27.00	37.50	11.13	9.90	HT6410-08-08-O	0.186	49-53	210
3/4"-16UNF-2B	7/8"-14UNF-2A	27.00	35.10	12.70	12.30	HT6410-10-08-O	0.174	59-64	210
3/4"-16UNF-2B	1-1/16"-12UN-2A	31.75	37.60	15.09	15.50	HT6410-12-08-O	0.257	93-102	170
7/8"-14UNF-2B	1-1/16"-12UN-2A	31.75	40.00	15.09	15.50	HT6410-12-10-O	0.274	93-102	170
3/4"-16UNF-2B	1-5/16"-12UN-2A	38.10	25.40	15.09	17.30	HT6410-16-08-O	0.250	151-166	140
1-1/16"-12UN-2B	1-5/16"-12UN-2A	38.10	43.94	15.09	21.30	HT6410-16-12-O	0.433	151-166	140
1-5/16"-12UN-2B	1-5/16"-12UN-2A	41.27	43.94	15.09	21.30	HT6410-16-16-O	0.508	151-166	140
1-7/8"-12UN-2B	1-7/8"-12UN-2A	63.50	50.20	15.09	34.10	HT6410-24-24-O	1.374	209-231	70



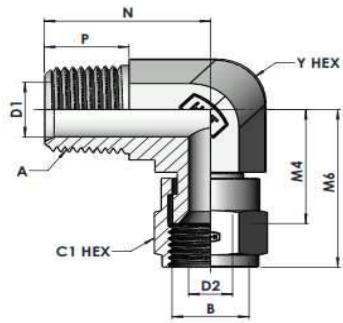
**HT6425-00-00 Series**  
**FORB-FORB STRAIGHT**

Tube O.D.	A THREAD	B THREAD	C4 Hex	L Length	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	17.46	30.00	HT6425-04-04	0.062	18-20	345
3/8"	9/16"-18UNF-2B	9/16"-18UNF-2B	20.64	32.00	HT6425-06-06	0.093	29-33	275
1/2"	3/4"-16UNF-2B	3/4"-16UNF-2B	26.97	36.00	HT6425-08-08	0.178	49-53	210
5/8"	7/8"-14UNF-2B	7/8"-14UNF-2B	28.57	40.60	HT6425-10-10	0.225	59-64	210
3/4"	1-1/16"-12UN-2B	1-1/16"-12UN-2B	34.92	46.70	HT6425-12-12	0.386	93-102	170
1"	1-5/16"-12UN-2B	1-5/16"-12UN-2B	41.27	46.70	HT6425-16-16	0.540	122-134	170



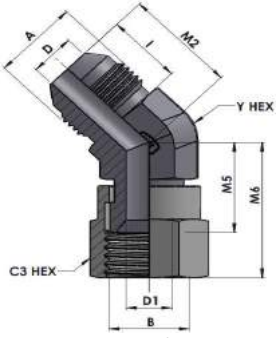
HT6500-00-00 Series  
MJ-FJS 90°

Tube O.D.	A THREAD	B THREAD	Y Hex	C2 Hex	M	N	N1	I	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2B	11.10	11.11	19.60	16.00	23.90	11.40	1.60	1.60	HT6500-02-02		8-9	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2B	11.11	14.28	22.60	16.70	25.40	14.00	4.40	4.40	HT6500-04-04		15-16	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2B	14.30	17.46	26.90	22.30	31.80	14.10	7.50	7.50	HT6500-06-06		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2B	19.00	22.22	31.80	24.40	35.10	16.70	9.90	9.90	HT6500-08-08		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	22.22	25.40	36.80	34.30	41.10	19.30	12.30	12.30	HT6500-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2B	27.00	31.75	42.20	30.10	44.40	21.90	15.50	15.50	HT6500-12-12		107-119	240
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2B	33.30	41.28	46.00	35.70	50.80	23.10	21.50	21.50	HT6500-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.63	52.30	42.80	58.70	24.30	27.50	27.50	HT6500-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	59.20	47.20	65.80	27.50	33.50	33.50	HT6500-24-24		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	77.70	62.10	85.90	33.90	45.00	45.00	HT6500-32-32		332-350	105



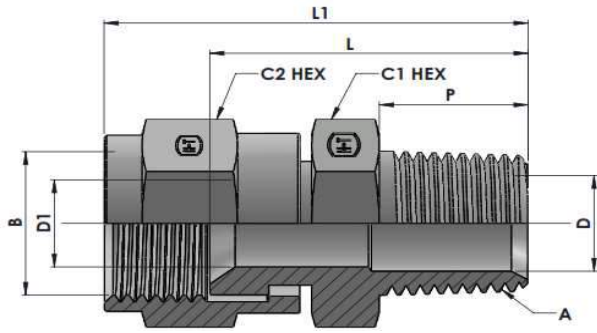
**HT6501-00-00 Series  
MP-FJS 90°**

Tube O.D.	A	THREAD	B	Y	C1	N	M4	M6	P	D1	D2	Part Number	Weight	Torque N-m	Working pressure in Bar
		THREAD	THREAD	Hex	Hex					DRILL	DRILL				
1/4"	1/4"	18NPTF-2	7/16"	14.27	14.27	27.69	20.32	29.21	9.70	7.10	4.40	HT6501-04-04		18-19	345
3/8"	3/8"	18NPTF-2	9/16"	19.05	17.47	31.00	23.10	32.70	14.20	10.30	7.50	HT6501-06-06		22-24	275
1/2"	1/2"	14NPTF-2	3/4"	22.22	22.22	37.30	27.69	38.60	14.20	13.40	9.90	HT6501-08-08		45-49	210
3/4"	3/4"	14NPTF-2	1-1/16"	26.97	31.75	40.40	29.90	44.40	19.00	18.26	15.46	HT6501-12-12		65-72	170
1"	1"	11-1/2NPTF-2	1-5/16"	33.32	38.10	50.00	35.56	50.80	23.90	23.80	21.10	HT6501-16-16		129-141	140
1-1/4"	1-1/4"	11-1/2NPTF-2	1-5/8"	41.27	50.80	60.45	41.40	58.70	24.60	31.75	27.38	HT6501-20-20		160-176	80
1-1/2"	1-1/2"	11-1/2NPTF-2	1-7/8"	47.62	57.15	67.00	47.50	65.80	25.40	38.10	33.30	HT6501-24-24		321-353	70
2"	2"	11-1/2NPTF-2	2-1/2"	63.50	73.00	76.20	61.70	85.80	26.20	49.20	45.23	HT6501-24-24		420-462	70



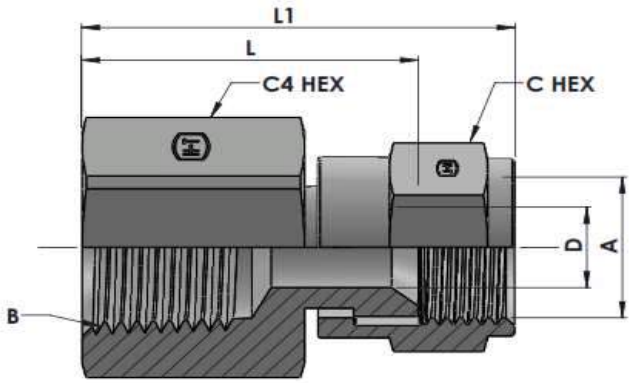
**HT6502-00-00 Series  
MJ-FJS 45°**

Tube O.D.	A THREAD	B THREAD	Y Hex	C3 Hex	M2	M5	M6	I	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2B	11.10	11.11	17.50	16.00	23.90	11.40	1.60	1.60	HT6502-02-02		8-9	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2B	11.11	14.28	17.50	15.60	23.90	14.00	4.40	4.40	HT6502-04-04		15-16	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2B	14.30	17.46	21.10	18.90	28.40	14.10	7.50	7.50	HT6502-06-06		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2B	19.00	22.22	24.90	21.60	32.50	16.70	9.90	9.90	HT6502-08-08		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	22.22	25.40	28.20	23.90	36.60	19.30	12.30	12.30	HT6502-10-10		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2B	27.00	31.75	32.50	23.80	38.10	21.90	15.50	15.50	HT6502-12-12		107-119	240
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2B	33.30	41.28	37.30	29.30	44.40	23.10	21.50	21.50	HT6502-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.63	40.40	35.70	51.60	24.30	27.50	27.50	HT6502-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	45.20	38.60	57.20	27.50	33.50	33.50	HT6502-24-24		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	56.40	50.10	73.90	33.90	45.00	45.00	HT6502-32-32		332-350	105



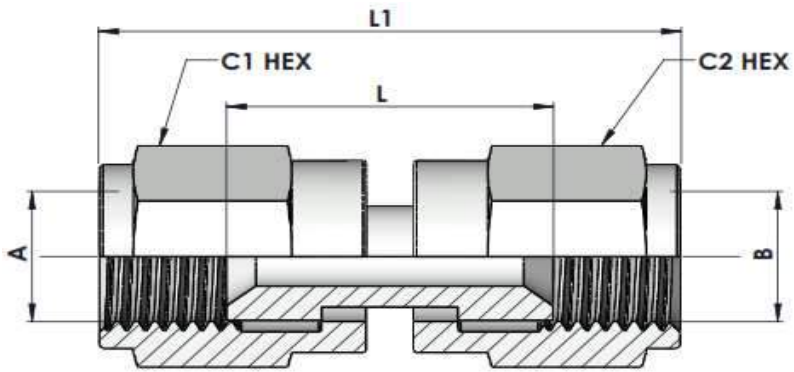
**HT6505-00-00 Series  
MP-FJS STRAIGHT**

Tube O.D.	A THREAD	B THREAD	C1 Hex	C2 Hex	L	L1	P	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2B	15.88	14.28	30.48	39.37	14.20	7.00	4.40	HT6505-04-04	0.052		
3/8"	1/4"-18NPTF-2	9/16"-18UNF-2B	14.28	17.46	33.02	42.54	14.20	7.00	7.50	HT6505-04-06	0.046		
3/8"	3/8"-18NPTF-2	7/16"-20UNF-2B	19.05	14.28	31.24	40.13	14.20	10.30	4.40	HT6505-06-04	0.077		
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2B	19.05	17.46	32.00	41.65	14.20	10.30	7.50	HT6505-06-06	0.079		
1/2"	3/8"-18NPTF-2	3/4"-16UNF-2B	22.22	22.22	33.27	44.19	14.20	10.30	9.90	HT6505-06-08	0.111		
5/8"	3/8"-18NPTF-2	7/8"-14UNF-2A	23.81	25.40	34.54	47.24	14.20	10.30	12.30	HT6505-06-10	0.133		
3/8"	1/2"-14NPTF-2	9/16"-18UNF-2B	22.22	17.46	38.35	47.75	19.00	13.50	7.50	HT6505-08-06	0.129		
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2B	22.22	22.22	39.62	50.29	19.00	13.50	9.90	HT6505-08-08	0.133		
3/4"	1/2"-14NPTF-2	1-1/16"-12UN-2B	25.40	31.75	40.13	54.61	19.00	13.50	15.50	HT6505-08-12	0.176		
1/2"	3/4"-14NPTF-2	3/4"-16UNF-2B	28.58	22.22	42.41	53.08	19.00	18.30	9.90	HT6505-12-08	0.235		
5/8"	3/4"-14NPTF-2	7/8"-14UNF-2A	28.58	25.40	43.18	56.05	19.00	18.30	12.30	HT6505-12-10	0.239		
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2B	28.58	31.75	43.68	57.91	19.00	18.30	15.50	HT6505-12-12	0.242		
1"	3/4"-14NPTF-2	1-5/16"-12UN-2B	34.92	38.10	44.95	60.19	19.00	18.30	21.50	HT6505-12-16	0.372		
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2B	34.92	38.10	50.03	65.02	23.90	23.80	21.50	HT6505-16-16	0.414		
1-1/2"	1-1/2"-11-1/2NPTF-2	1-7/8"-12UN-2B	50.80	57.15	57.65	78.51	25.40	38.10	33.32	HT6505-24-24	1.010		



**HT6506-00-00 Series**  
**FP-FJS STRAIGHT**

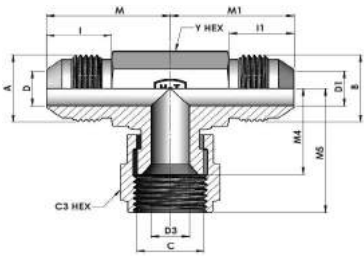
Tube O.D.	A THREAD	B THREAD	C4 Hex	C Hex	L	L1	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/8"-27NPTF-2	7/16"-20UNF-2B	14.28	14.28	24.90	33.60	4.40	HT6506-02-04	0.034		
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2B	19.05	14.28	29.70	38.40	4.40	HT6506-04-04	0.073		
1/4"	3/8"-18NPTF-2	7/16"-20UNF-2B	22.22	14.28	31.50	40.20	4.40	HT6506-06-04	0.106		
3/8"	1/4"-18NPTF-2	9/16"-18UNF-2B	19.05	17.46	32.00	41.50	7.50	HT6506-04-06	0.079		
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2B	22.22	17.46	33.30	42.80	7.50	HT6506-06-06	0.112		
3/8"	1/2"-14NPTF-2	9/16"-18UNF-2B	28.58	17.46	39.10	48.60	7.50	HT6506-08-06	0.217		
1/2"	3/8"-18NPTF-2	3/4"-16UNF-2B	22.22	22.22	34.50	45.20	9.90	HT6506-06-08	0.116		
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2B	28.58	22.22	37.60	48.30	9.90	HT6506-08-08	0.208		
5/8"	3/8"-18NPTF-2	7/8"-14UNF-2A	23.82	25.40	35.60	48.30	12.30	HT6506-06-10	0.137		
5/8"	1/2"-14NPTF-2	7/8"-14UNF-2A	28.58	25.40	41.15	53.85	12.30	HT6506-08-10	0.228		
5/8"	3/4"-14NPTF-2	7/8"-14UNF-2A	34.93	25.40	42.65	55.35	12.30	HT6506-12-10	0.353		
3/4"	1/2"-14NPTF-2	1-1/16"-12UN-2B	24.58	31.75	42.20	56.50	15.50	HT6506-08-12	0.173		
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2B	34.93	31.75	43.70	58.00	15.50	HT6506-12-12	0.362		
1"	3/4"-14NPTF-2	1-5/16"-12UN-2B	34.93	38.10	40.90	56.00	21.50	HT6506-12-16	0.339		
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2B	41.28	38.10	51.30	66.40	21.50	HT6506-16-16	0.593		



**HT6565-00-00 Series**  
**FJS-FJS STRAIGHT**

Tube O.D.	A THREAD	B THREAD	C1 Hex	C2 Hex	L	L1	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2B	7/16"-20UNF-2B	14.30	14.30	15.20	35.30	4.40	HT6565-04-04		15-16	345
3/8"	9/16"-18UNF-2B	9/16"-18UNF-2B	17.47	17.47	21.30	40.60	7.50	HT6565-06-06		24-28	345
1/2"	3/4"-16UNF-2B	3/4"-16UNF-2B	22.22	22.22	23.87	45.70	9.90	HT6565-08-08		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	25.40	25.40	25.40	50.80	12.30	HT6565-10-10		77-85	240
3/4"	1-1/16"-12UN-2B	1-1/16"-12UN-2B	31.75	31.75	27.10	56.10	15.50	HT6565-12-12		107-119	240
1"	1-5/16"-12UN-2B	1-5/16"-12UN-2B	38.10	38.10	30.20	60.70	21.50	HT6565-16-16		147-154	210
1-1/4"	1-5/8"-12UN-2B	1-5/8"-12UN-2B	50.80	50.80	32.50	65.00	27.40	HT6565-20-20		172-181	170
1-1/2"	1-7/8"-12UN-2B	1-7/8"-12UN-2B	57.15	57.15	36.00	72.60	33.30	HT6565-24-24		215-226	140

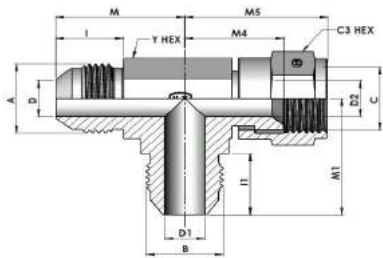




HT6500-00-00-00 Series

MJ-MJ-FJS TEE

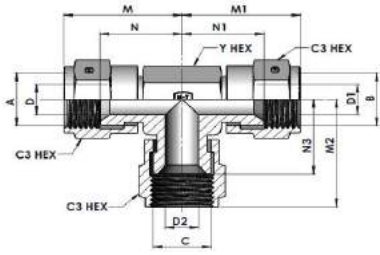
Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	C3 Hex	M	M1	M4	M5	I	I1	D DRILL	D1 DRILL	D3 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	5/16"-24UNF-2B	11.10	11.11	19.60	19.60	16.70	24.60	11.40	11.40	1.60	1.60	1.60	HT6600-02-02-02		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	3/8"-24UNF-2B	11.10	12.70	21.10	21.10	17.10	25.40	12.20	12.20	3.20	3.20	3.20	HT6600-03-03-03		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	7/16"-20UNF-2B	11.10	14.28	22.60	22.60	16.70	25.40	14.00	14.00	4.40	4.40	4.40	HT6600-04-04-04		18-20	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	1/2"-20UNF-2B	14.30	15.88	24.10	24.10	17.40	26.90	14.00	14.00	6.00	6.00	6.00	HT6600-05-05-05		23-26	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	9/16"-18UNF-2B	14.30	17.46	26.90	26.90	22.30	31.80	14.10	14.10	7.50	7.50	7.50	HT6600-06-06-06		29-33	275
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	3/4"-16UNF-2B	19.00	22.22	31.80	31.80	24.40	35.10	16.70	16.70	9.90	9.90	9.90	HT6600-08-08-08		49-53	210
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	7/8"-14UNF-2B	22.20	25.40	36.80	36.80	28.40	41.10	19.30	19.30	12.30	12.30	12.30	HT6600-10-10-10		59-64	210
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	42.20	42.20	30.10	44.40	21.90	21.90	15.50	15.50	15.50	HT6600-12-12-12		93-102	170
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	34.63	45.70	45.70	30.50	45.20	22.60	22.60	18.30	18.30	18.30	HT6600-14-14-14		122-134	170
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	41.28	46.00	46.00	35.70	50.80	23.10	23.10	21.40	21.40	21.40	HT6600-16-16-16		151-166	140
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.63	52.30	52.30	42.80	58.70	24.30	24.30	27.40	27.40	27.40	HT6600-20-20-20		198-218	80
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	59.20	59.20	47.20	65.80	27.50	27.50	33.30	33.30	33.30	HT6600-24-24-24		209-231	70
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	77.70	77.70	62.10	85.90	33.90	33.90	45.20	45.20	45.20	HT6600-32-32-32		296-325	70



HT6503-00-00-00 Series

MJ-FJS-MJ TEE

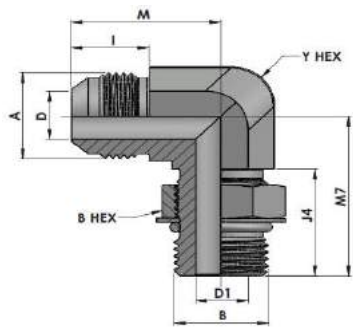
Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	C3 Hex	M	M1	M4	M5	I	I1	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	5/16"-24UNF-2B	11.10	11.11	19.60	19.60	16.70	24.60	11.40	11.40	1.60	1.60	1.60	HT6602-02-02-02		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	3/8"-24UNF-2B	11.10	12.70	21.10	21.10	17.10	25.40	12.20	12.20	3.20	3.20	3.20	HT6602-03-03-03		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	7/16"-20UNF-2B	11.10	14.28	22.60	22.60	16.70	25.40	14.00	14.00	4.40	4.40	4.40	HT6602-04-04-04		18-20	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	1/2"-20UNF-2B	14.30	15.88	24.10	24.10	17.40	26.90	14.00	14.00	6.00	6.00	6.00	HT6602-05-05-05		23-26	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	9/16"-18UNF-2B	14.30	17.46	26.90	26.90	22.30	31.80	14.10	14.10	7.50	7.50	7.50	HT6602-06-06-06		29-33	275
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	3/4"-16UNF-2B	19.00	22.22	31.80	31.80	24.40	35.10	16.70	16.70	9.90	9.90	9.90	HT6602-08-08-08		49-53	210
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	7/8"-14UNF-2B	22.20	25.40	36.80	36.80	28.40	41.10	19.30	19.30	12.30	12.30	12.30	HT6602-10-10-10		59-64	210
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	42.20	42.20	30.10	44.40	21.90	21.90	15.50	15.50	15.50	HT6602-12-12-12		93-102	170
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	34.63	45.70	45.70	30.50	45.20	22.60	22.60	18.30	18.30	18.30	HT6602-14-14-14		122-134	170
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	41.28	46.00	46.00	35.70	50.80	23.10	23.10	21.40	21.40	21.40	HT6602-16-16-16		151-166	140
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.63	52.30	52.30	42.80	58.70	24.30	24.30	27.40	27.40	27.40	HT6602-20-20-20		198-218	80
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	59.20	59.20	47.20	65.80	27.50	27.50	33.30	33.30	33.30	HT6600-24-24-24		209-231	70
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	77.70	77.70	62.10	85.90	33.90	33.90	45.20	45.20	45.20	HT6600-32-32-32		296-325	70



HT6506-00-00-00 Series

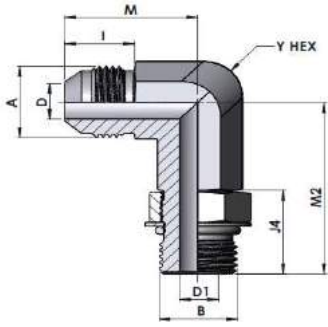
FJS-FJS-FJS TEE

Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	C3 Hex	M	M1	M2	N	N1	N2	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2B	7/16"-20UNF-2B	7/16"-20UNF-2B	11.10	14.28	22.60	22.60	22.60	16.70	16.70	16.70	4.40	4.40	4.40	HT6606-04-04-04		18-20	345
3/8"	9/16"-18UNF-2B	9/16"-18UNF-2B	9/16"-18UNF-2B	14.30	17.46	26.90	26.90	26.90	22.30	22.30	22.30	7.50	7.50	7.50	HT6606-06-06-06		29-33	275
1/2"	3/4"-16UNF-2B	3/4"-16UNF-2B	3/4"-16UNF-2B	19.00	22.22	31.80	31.80	31.80	24.40	24.40	24.40	9.90	9.90	9.90	HT6606-08-08-08		49-53	210
5/8"	7/8"-14UNF-2B	7/8"-14UNF-2B	7/8"-14UNF-2B	22.20	25.40	36.80	36.80	36.80	28.40	28.40	28.40	12.30	12.30	12.30	HT6606-10-10-10		59-64	210
3/4"	1-1/16"-12UN-2B	1-1/16"-12UN-2B	1-1/16"-12UN-2B	27.00	31.75	42.20	42.20	42.20	30.10	30.10	30.10	15.50	15.50	15.50	HT6606-12-12-12		93-102	170
1"	1-5/16"-12UN-2B	1-5/16"-12UN-2B	1-5/16"-12UN-2B	33.30	41.28	46.00	46.00	46.00	37.50	37.50	37.50	21.40	21.40	21.40	HT6606-16-16-16		151-166	140



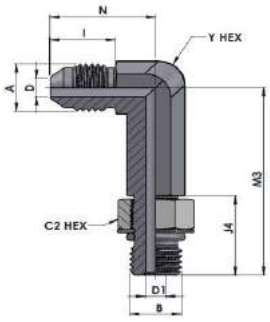
**HT6801-00-00 Series**  
**MJ-MAORB 90°**

Tube O.D.	A THREAD	B THREAD	Y Hex	B Hex	M	M7	I	J4	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	9/16"-18UNF-2A	14.30	17.46	26.80	31.80	14.00	19.10	4.40	7.50	HT6801-04-06-NWO'			
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	11.11	14.28	22.60	26.20	14.00	18.50	4.40	4.40	HT6801-04-04-NWO'			
5/16"	1/2"-20UNF-2A	9/16"-18UNF-2A	14.30	17.46	26.60	31.80	14.00	19.10	6.00	7.50	HT6801-05-04-NWO'			
3/8"	9/16"-18UNF-2A	7/16"-20UNF-2A	14.30	14.28	26.90	30.30	14.10	18.50	7.50	7.50	HT6801-06-04-NWO'			
3/8"	9/16"-18UNF-2A	1/2"-20UNF-2A	14.30	15.87	26.90	30.30	14.10	18.50	7.50	6.00	HT6801-06-05-NWO'			
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	17.46	26.90	31.80	14.10	19.10	7.50	7.50	HT6801-06-06-NWO'			
3/8"	9/16"-18UNF-2A	3/4"-16UNF-2A	19.00	22.22	29.00	36.90	14.10	25.25	7.50	9.90	HT6801-06-08-NWO'			
3/8"	9/16"-18UNF-2A	7/8"-14UNF-2A	22.22	25.40	31.00	43.20	14.10	29.20	7.50	12.30	HT6801-06-10-NWO'			
1/2"	3/4"-16UNF-2A	9/16"-18UNF-2A	19.00	17.46	31.80	33.35	16.70	19.00	9.90	7.50	HT6801-08-06-NWO'			
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	22.22	31.80	36.80	16.70	21.90	9.90	9.90	HT6801-08-08-NWO'			
1/2"	3/4"-16UNF-2A	7/8"-14UNF-2A	22.22	25.40	33.80	43.20	16.70	25.40	9.90	12.30	HT6801-08-10-NWO'			
1/2"	3/4"-16UNF-2A	1-1/16"-12UN-2A	27.00	31.75	36.07	49.30	16.70	29.00	9.90	15.50	HT6801-08-12-NWO'			
5/8"	7/8"-14UNF-2A	3/4"-16UNF-2A	22.22	22.22	36.80	39.10	19.30	21.90	12.30	9.90	HT6801-10-08-NWO'			
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	22.22	25.40	36.80	43.20	19.3	25.40	12.30	12.30	HT6801-10-10-NWO'			
3/4"	1-1/16"-12UN-2A	7/8"-14UNF-2A	27.00	25.40	42.20	45.20	21.90	25.40	15.50	12.30	HT6801-12-10-NWO'			
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	42.20	49.30	21.90	29.00	15.50	15.50	HT6801-12-12-NWO'			
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	38.10	46.00	52.10	23.10	29.00	21.40	21.40	HT6801-16-16-NWO'			
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.60	52.30	57.20	24.30	29.00	27.40	27.40	HT6801-20-20-NWO'			



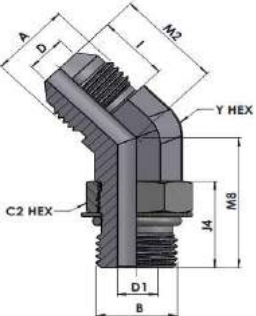
HT6801-L-00-00 Series  
MJ-MAORB 90° LONG

Tube O.D.	A THREAD	B THREAD	Y Hex	C2 Hex	M	M2	I	J4	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	11.10	11.11	19.60	37.34	11.40	15.00	1.60	1.60	HT6801-L-02-02-NWO'		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	11.10	12.70	21.10	38.86	12.20	15.00	3.20	3.20	HT6801-L-03-03-NWO'		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	11.10	14.28	22.60	43.94	14.00	18.50	4.40	4.40	HT6801-L-04-04-NWO'		15-16	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	14.30	15.87	24.10	47.24	14.00	18.50	6.00	6.00	HT6801-L-05-05-NWO'		19-21	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	17.46	26.90	52.83	14.10	19.10	7.50	7.50	HT6801-L-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	22.22	31.80	62.99	16.70	21.90	9.90	9.90	HT6801-L-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	22.20	25.40	36.80	73.41	19.30	25.40	12.30	12.30	HT6801-L-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	42.20	84.84	21.90	29.00	15.50	15.50	HT6801-L-12-12-NWO'		107-119	240
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	34.90	45.70	90.42	22.60	29.00	18.30	18.30	HT6801-L-14-14-NWO'		127-140	210
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	38.10	46.00	94.49	23.10	29.00	21.40	21.40	HT6801-L-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.60	52.30	112.01	24.30	29.00	27.40	27.40	HT6801-L-20-20-NWO'		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	59.20	122.17	27.50	29.00	33.30	33.30	HT6801-L-24-24-NWO'		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	77.70	151.89	33.90	29.00	45.20	45.20	HT6801-L-32-32-NWO'		332-350	105



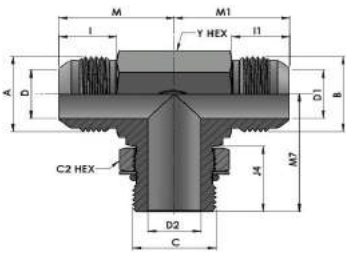
**HT6801-LL-00-00 Series  
MJ-MAORB 90° X-LONG**

Tube O.D.	A THREAD	B THREAD	Y Hex	C2 Hex	N	M3	I	J4	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	11.10	11.11	18.30	37.34	11.40	15.00	1.60	1.60	HT6801-LL-02-02-NWO'		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	11.10	12.70	18.30	38.86	12.20	15.00	3.20	3.20	HT6801-LL-03-03-NWO'		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	11.10	14.28	19.80	43.64	14.00	18.50	4.40	4.40	HT6801-LL-04-04-NWO'		15-16	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	14.30	15.87	19.80	47.24	14.00	18.50	6.00	6.00	HT6801-LL-05-05-NWO'		19-21	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	17.46	27.70	52.83	14.10	19.10	7.50	7.50	HT6801-LL-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	22.22	31.00	62.99	16.70	21.90	9.90	9.90	HT6801-LL-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	22.20	25.40	37.30	73.41	19.30	25.40	12.30	12.30	HT6801-LL-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	40.40	84.84	21.90	29.00	15.50	15.50	HT6801-LL-12-12-NWO'		107-119	240
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	34.90	42.90	90.42	22.60	29.00	18.30	18.30	HT6801-LL-14-14-NWO'		127-140	210
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	38.10	50.00	94.49	23.10	29.00	21.40	21.40	HT6801-LL-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.60	60.50	112.01	24.30	29.00	27.40	27.40	HT6801-LL-20-20-NWO'		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	67.10	122.17	27.50	29.00	33.30	33.30	HT6801-LL-24-24-NWO'		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	76.20	151.89	33.90	29.00	45.20	45.20	HT6801-LL-32-32-NWO'		332-350	105



**HT6802-00-00 Series  
MJ-MAORB 45°**

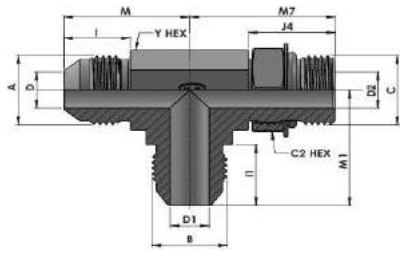
Tube O.D.	A THREAD	B THREAD	Y Hex	C2 Hex	M2	M8	I	J4	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	11.10	11.11	17.50	22.40	11.40	15.00	1.60	1.60	HT6802-02-02-NWO'		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	11.10	12.70	17.50	22.40	12.20	15.00	3.20	3.20	HT6802-03-03-NWO'		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	11.10	14.28	18.30	26.70	14.00	18.50	4.40	4.40	HT6802-04-04-NWO'		15-16	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	14.30	15.87	19.30	26.70	14.00	18.50	6.00	6.00	HT6802-05-05-NWO'		19-21	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	17.46	21.10	29.00	14.10	19.10	7.50	7.50	HT6802-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	22.22	24.90	33.00	16.70	21.90	9.90	9.90	HT6802-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	22.20	25.40	28.20	38.60	19.30	25.40	12.30	12.30	HT6802-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	32.50	43.90	21.90	29.00	15.50	15.50	HT6802-12-12-NWO'		107-119	240
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	34.90	36.80	47.20	22.60	29.00	18.30	18.30	HT6802-14-14-NWO'		127-140	210
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	38.10	37.30	47.20	23.10	29.00	21.40	21.40	HT6802-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.60	40.40	48.50	24.30	29.00	27.40	27.40	HT6802-20-20-NWO'		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	45.20	48.50	27.50	29.00	33.30	33.30	HT6802-24-24-NWO'		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	56.40	47.20	33.90	29.00	45.20	45.20	HT6802-32-32-NWO'		332-350	105



HT6803-00-00-00 Series  
MJ-MJ-MAORB BRANCH TEE

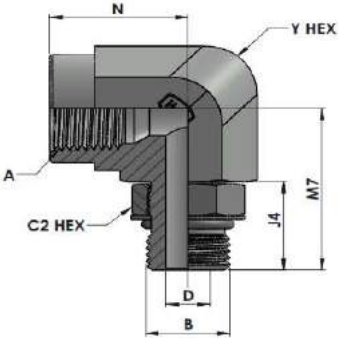
Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	C2 Hex	M	M1	M7	I	I1	J4	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	5/16"-24UNF-2A	11.10	11.11	19.60	19.60	23.90	11.40	11.40	15.00	1.60	1.60	1.60	HT6803-02-02-02-NWO'		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	3/8"-24UNF-2A	11.10	12.70	21.10	21.10	23.90	12.20	12.20	15.00	3.20	3.20	3.20	HT6803-03-03-03-NWO'		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	7/16"-20UNF-2A	11.10	14.28	22.60	22.60	26.20	14.00	14.00	18.50	4.40	4.40	4.40	HT6803-04-04-04-NWO'		15-16	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	1/2"-20UNF-2A	14.30	15.87	24.10	24.10	28.70	14.00	14.00	18.50	6.00	6.00	6.00	HT6803-05-05-05-NWO'		19-21	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	17.46	26.90	26.90	31.80	14.10	14.10	19.10	7.50	7.50	7.50	HT6803-06-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	22.22	31.80	31.80	36.80	16.70	16.70	21.90	9.90	9.90	9.90	HT6803-08-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	7/8"-14UNF-2A	22.20	25.40	36.80	36.80	43.20	19.30	19.30	25.40	12.30	12.30	12.30	HT6803-10-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	42.20	42.20	49.30	21.90	21.90	29.00	15.50	15.50	15.50	HT6803-12-12-12-NWO'		107-119	240
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	34.90	45.70	45.70	50.80	22.60	22.60	29.00	18.30	18.30	18.30	HT6803-14-14-14-NWO'		127-140	210
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	38.10	46.00	46.00	52.10	23.10	23.10	29.00	21.40	21.40	21.40	HT6803-16-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.60	52.30	52.30	57.20	24.30	24.30	29.00	27.40	27.40	27.40	HT6803-20-20-20-NWO'		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	59.20	59.20	60.70	27.50	27.50	29.00	33.30	33.30	33.30	HT6803-24-24-24-NWO'		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	77.70	77.70	73.40	33.90	33.90	29.00	45.20	45.20	45.20	HT6803-32-32-32-NWO'		332-350	105





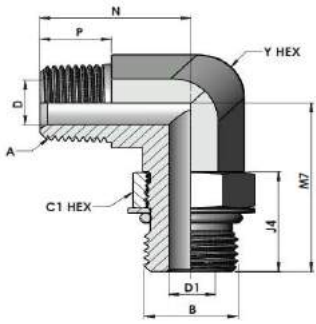
**HT6804-00-00-00 Series**  
**MJ-MAORB-MJ RUN TEE**

Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	C2 Hex	M	M7	M1	I	J4	I1	D DRILL	D1 DRILL	D2 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	5/16"-24UNF-2A	5/16"-24UNF-2A	11.10	11.11	19.60	23.90	19.60	11.40	15.00	11.40	1.60	1.60	1.60	HT6804-02-02-02-NWO'		8-9	345
3/16"	3/8"-24UNF-2A	3/8"-24UNF-2A	3/8"-24UNF-2A	11.10	12.70	21.10	23.90	21.10	12.20	15.00	12.20	3.20	3.20	3.20	HT6804-03-03-03-NWO'		11-12	345
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	7/16"-20UNF-2A	11.10	14.28	22.60	26.20	22.60	14.00	18.50	14.00	4.40	4.40	4.40	HT6804-04-04-04-NWO'		15-16	345
5/16"	1/2"-20UNF-2A	1/2"-20UNF-2A	1/2"-20UNF-2A	14.30	15.87	24.10	28.70	24.10	14.00	18.50	14.00	6.00	6.00	6.00	HT6804-05-05-05-NWO'		19-21	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	9/16"-18UNF-2A	14.30	17.46	26.90	31.80	26.90	14.10	19.10	14.10	7.50	7.50	7.50	HT6804-06-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	3/4"-16UNF-2A	19.00	22.22	31.80	36.80	31.80	16.70	21.90	16.70	9.90	9.90	9.90	HT6804-08-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2A	7/8"-14UNF-2A	7/8"-14UNF-2A	22.20	25.40	36.80	43.20	36.80	19.30	25.40	19.30	12.30	12.30	12.30	HT6804-10-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	1-1/16"-12UN-2A	27.00	31.75	42.20	49.30	42.20	21.90	29.00	21.90	15.50	15.50	15.50	HT6804-12-12-12-NWO'		107-119	240
7/8"	1-3/16"-12UN-2A	1-3/16"-12UN-2A	1-3/16"-12UN-2A	33.30	34.90	45.70	50.80	45.70	22.60	29.00	22.60	18.30	18.30	18.30	HT6804-14-14-14-NWO'		127-140	210
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.30	38.10	46.00	52.10	46.00	23.10	29.00	23.10	21.40	21.40	21.40	HT6804-16-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.30	47.60	52.30	57.20	52.30	24.30	29.00	24.30	27.40	27.40	27.40	HT6804-20-20-20-NWO'		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.60	53.98	59.20	60.70	59.20	27.50	29.00	27.50	33.30	33.30	33.30	HT6804-24-24-24-NWO'		215-226	140
2"	2-1/2"-12UN-2A	2-1/2"-12UN-2A	2-1/2"-12UN-2A	63.50	69.85	77.70	73.40	77.70	33.90	29.00	33.90	45.20	45.20	45.20	HT6804-32-32-32-NWO'		332-350	105



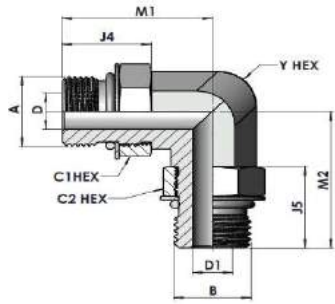
HT6805-00-00 Series  
MAORB-FP 90°

Tube O.D.	A THREAD	B THREAD	Y Hex	C2 Hex	N	M7	J4	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2A	19.05	14.28	22.30	32.00	18.20	4.4	HT6805-04-04-NWO'		15-16	345
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2A	22.22	17.46	25.90	35.80	19.10	7.50	HT6805-06-06-NWO'		24-28	345
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2A	26.97	22.22	31.20	41.10	21.90	9.90	HT6805-08-08-NWO'		49-53	310
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2A	33.30	31.75	34.50	52.00	21.90	12.30	HT6805-12-12-NWO'		107-119	240
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2A	41.27	38.10	41.10	57.10	23.10	21.40	HT6805-16-16-NWO'		147-154	210
1-1/4"	1-1/4"-11-1/2NPTF-2	1-5/8"-12UN-2A	47.62	47.60	43.10	60.70	29.00	27.40	HT6805-20-20-NWO'		172-181	170
1-1/2"	1-1/2"-11-1/2NPTF-2	1-7/8"-12UN-2A	65.07	53.97	52.80	73.40	29.00	33.30	HT6805-24-24-NWO'		215-226	140
1-1/4"	2"-11-1/2NPTF-2	2"-12UN-2A	71.42	69.85	60.70	76.70	29.00	45.20	HT6805-32-32-NWO'		332-350	105



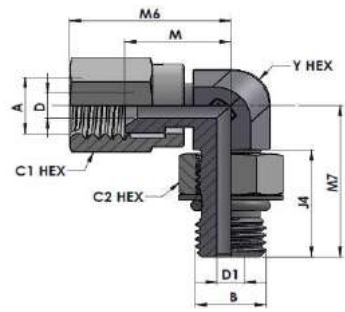
HT6806-00-00 Series  
MAORB-FP 90°

Tube O.D.	A THREAD	B THREAD	Y Hex	C1 Hex	N	M7	P	J4	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	1/4"-18NPTF-2	7/16"-20UNF-2A	14.27	14.28	27.70	30.20	9.70	18.20	4.8	4.4	HT6806-04-04-NWO'		15-16	345
3/8"	3/8"-18NPTF-2	9/16"-18UNF-2A	19.05	17.46	31.00	33.50	14.20	19.10	7.00	7.50	HT6806-06-06-NWO'		24-28	345
1/2"	1/2"-14NPTF-2	3/4"-16UNF-2A	22.23	22.22	37.30	39.10	14.20	21.90	10.30	9.90	HT6806-08-08-NWO'		49-53	310
3/4"	3/4"-14NPTF-2	1-1/16"-12UN-2A	26.97	31.75	40.40	49.30	19.00	21.90	18.30	12.30	HT6806-12-12-NWO'		107-119	240
1"	1"-11-1/2NPTF-2	1-5/16"-12UN-2A	33.32	38.10	50.00	52.10	23.90	23.10	23.80	21.40	HT6806-16-16-NWO'		147-154	210
1-1/4"	1-1/4"-11-1/2NPTF-2	1-5/8"-12UN-2A	41.28	47.60	60.50	57.20	24.60	29.00	31.70	27.40	HT6806-20-20-NWO'		172-181	170
1-1/2"	1-1/2"-11-1/2NPTF-2	1-7/8"-12UN-2A	47.63	53.97	67.10	60.70	25.40	29.00	38.00	33.30	HT6806-24-24-NWO'		215-226	140
1-1/4"	2"-11-1/2NPTF-2	2"-12UN-2A	63.50	69.85	76.20	73.40	26.20	29.00	49.00	45.20	HT6806-32-32-NWO'		332-350	105



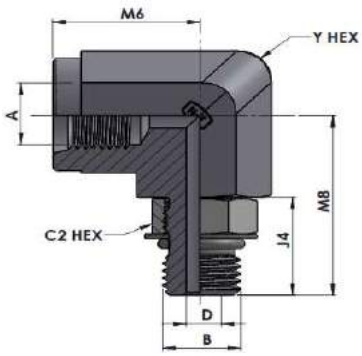
**HT6807-00-00 Series  
MAORB-MAORB 90°**

Tube O.D.	A THREAD	B THREAD	Y Hex	C1 Hex	C2 Hex	M1	M2	J4	J5	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2A	7/16"-20UNF-2A	11.13	14.28	14.28	26.2	26.2	18.20	18.20	4.4	4.4	HT6807-04-04-NWO'		15-16	345
3/8"	9/16"-18UNF-2A	9/16"-18UNF-2A	14.27	17.46	17.46	31.8	31.8	19.10	19.10	7.50	7.50	HT6807-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2A	3/4"-16UNF-2A	19.05	22.22	22.22	36.8	36.8	21.90	21.90	9.90	9.90	HT6807-08-08-NWO'		49-53	310
3/4"	1-1/16"-12UN-2A	1-1/16"-12UN-2A	26.97	31.75	31.75	49.3	49.3	21.90	21.90	12.30	12.30	HT6807-12-12-NWO'		107-119	240
1"	1-5/16"-12UN-2A	1-5/16"-12UN-2A	33.32	38.10	38.10	52.1	52.1	23.10	23.10	21.40	21.40	HT6807-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2A	1-5/8"-12UN-2A	41.28	47.60	47.60	57.2	57.2	29.00	29.00	27.40	27.40	HT6807-20-20-NWO'		172-181	170
1-1/2"	1-7/8"-12UN-2A	1-7/8"-12UN-2A	47.63	53.97	53.97	60.7	60.7	29.00	29.00	33.30	33.30	HT6807-24-24-NWO'		215-226	140



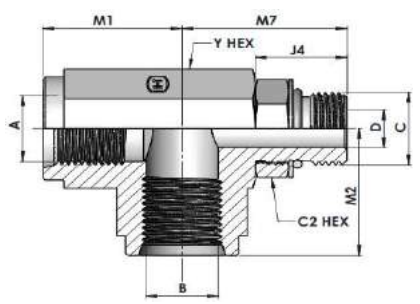
HT6809-00-00 Series  
MAORB-FJS 90°

Tube O.D.	A THREAD	B THREAD	Y Hex	C1 Hex	C2 Hex	M	M6	M7	J4	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2B	7/16"-20UNF-2A	11.11	14.30	14.28	17.30	25.40	26.10	18.20	4.40	4.40	HT6809-04-04-NWO'		15-16	345
3/8"	9/16"-18UNF-2B	9/16"-18UNF-2A	14.28	17.46	17.46	22.00	31.75	31.70	19.10	7.50	7.50	HT6809-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2B	3/4"-16UNF-2A	19.05	22.22	22.22	20.30	35.00	36.80	21.90	9.90	9.90	HT6809-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2B	7/8"-14UNF-2A	22.22	25.40	25.40	30.40	41.10	43.10	25.40	12.30	12.30	HT6809-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2B	1-1/16"-12UN-2A	26.97	31.75	31.75	34.80	44.40	49.20	21.90	12.30	12.30	HT6809-12-12-NWO'		107-119	240
1"	1-5/16"-12UN-2B	1-5/16"-12UN-2A	33.30	38.10	38.10	36.80	50.80	52.00	23.10	21.40	21.40	HT6809-16-16-NWO'		147-154	210
1-1/4"	1-5/8"-12UN-2B	1-5/8"-12UN-2A	41.27	47.62	50.80	40.00	58.60	57.10	29.00	27.40	27.40	HT6809-20-20-NWO'		172-181	170



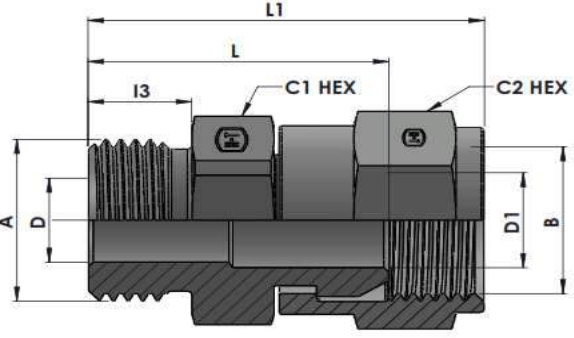
HT6815-00-00 Series  
MAORB-FORB 90°

Tube O.D.	A THREAD	B THREAD	Y Hex	C2 Hex	M6	M8	J4	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2B	7/16"-20UNF-2A	19.05	14.28	16.00	31.20	18.20	4.40	HT6815-04-04-NWO'		15-16	345
3/8"	9/16"-18UNF-2B	9/16"-18UNF-2A	22.22	17.46	19.00	35.00	19.10	7.50	HT6815-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2B	3/4"-16UNF-2A	26.97	22.22	22.30	40.30	21.90	9.90	HT6815-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2B	7/8"-14UNF-2A	26.97	25.40	25.90	45.90	25.40	12.30	HT6815-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2B	1-1/16"-12UN-2A	33.30	31.75	30.70	50.80	21.90	12.30	HT6815-12-12-NWO'		107-119	240
1"	1-5/16"-12UN-2B	1-5/16"-12UN-2A	41.27	38.10	33.70	57.10	23.10	21.40	HT6815-16-16-NWO'		147-154	210



HT6835-00-00-00 Series  
 MAORB-FORB-FORB TEE

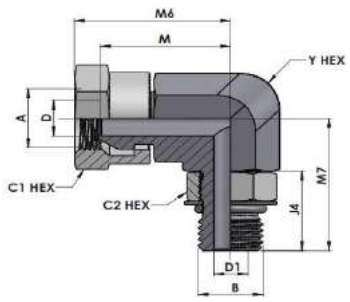
Tube O.D.	A THREAD	B THREAD	C THREAD	Y Hex	C2 Hex	M1	M2	M7	J4	D DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
1/4"	7/16"-20UNF-2B	7/16"-20UNF-2B	7/16"-20UNF-2A	19.05	14.28	16.00	16.00	31.20	18.20	4.40	HT6835-04-04-04-NWO'		15-16	345
3/8"	9/16"-18UNF-2B	9/16"-18UNF-2B	9/16"-18UNF-2A	22.22	17.46	19.10	19.10	35.10	19.10	7.50	HT6835-06-06-06-NWO'		24-28	345
1/2"	3/4"-16UNF-2B	3/4"-16UNF-2B	3/4"-16UNF-2A	26.97	22.22	22.40	22.40	40.40	21.90	9.90	HT6835-08-08-08-NWO'		49-53	310
5/8"	7/8"-14UNF-2B	7/8"-14UNF-2B	7/8"-14UNF-2A	26.97	25.40	25.90	25.90	46.00	25.40	12.30	HT6835-10-10-10-NWO'		77-85	240
3/4"	1-1/16"-12UN-2B	1-1/16"-12UN-2B	1-1/16"-12UN-2A	33.30	31.75	30.70	30.70	50.80	21.90	12.30	HT6835-12-12-12-NWO'		107-119	240
1"	1-5/16"-12UN-2B	1-5/16"-12UN-2B	1-5/16"-12UN-2A	41.27	38.10	33.80	33.80	57.20	23.10	21.40	HT6835-16-16-16-NWO'		147-154	210



**HT6900-00-00 Series  
MAORB-FPS STRAIGHT**

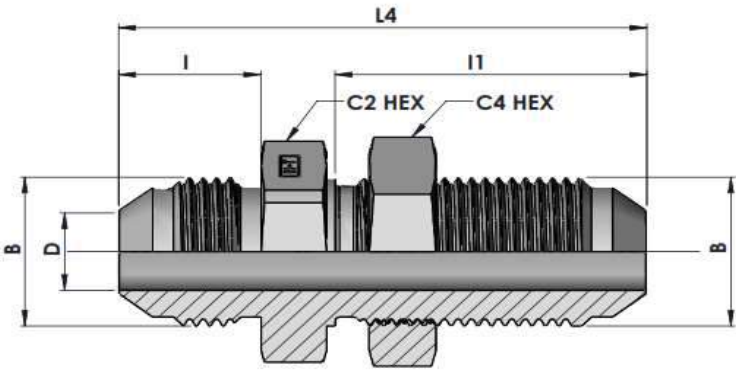
Tube O.D.	A THREAD	B THREAD	C1 Hex	C2 Hex	L	L1	I3	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
3/8"	7/16"-20UNF-2A	1/4"-18NPSM	17.47	17.46	27.20	32.00	9.93	7.50	5.80/5.30	HT6900-06-04			
3/8"	9/16"-18UNF-2A	3/8"-18NPSM	17.47	22.22	31.75	37.45	9.93	7.50	9.10/8.10	HT6900-06-06			
3/8"	9/16"-18UNF-2A	3/8"-18NPSM	20.63	25.40	32.75	39.85	9.93	7.50	12.20/11.20	HT6900-06-08			
1/2"	3/4"-16UNF-2A	1/4"-18NPSM	22.22	17.46	29.70	34.55	11.13	9.90	5.80/5.30	HT6900-08-04			
1/2"	3/4"-16UNF-2A	3/8"-18NPSM	22.22	22.22	31.20	35.60	11.13	9.90	9.10/8.10	HT6900-08-06			
1/2"	3/4"-16UNF-2A	1/2"-14NPSM	22.22	25.40	32.30	39.40	11.13	9.90	12.20/11.20	HT6900-08-08			
5/8"	7/8"-14UNF-2A	3/8"-18NPSM	25.40	22.22	32.00	37.35	12.70	12.30	9.10/8.10	HT6900-10-06			
5/8"	7/8"-14UNF-2A	1/2"-14NPSM	25.40	25.40	35.60	40.90	12.70	12.30	12.20/11.20	HT6900-10-08			
3/4"	1-1/16"-12UN-2A	3/8"-18NPSM	31.75	22.22	35.80	41.00	15.09	15.50	9.10/8.10	HT6900-12-06			
3/4"	1-1/16"-12UN-2A	1/2"-14NPSM	31.75	25.40	36.80	44.00	15.09	15.500	12.20/11.20	HT6900-12-08			
1"	1-5/16"-12UN-2A	1"-11-1/2NPSM	38.10	38.10	43.43	52.32	15.09	21.30	21.30	HT6900-16-16			





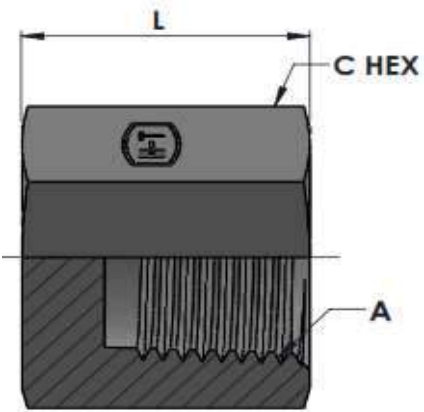
HT6901-00-00 Series  
MAORB-FPS 90°

Tube O.D.	A THREAD	B THREAD	Y Hex	C1 Hex	C2 Hex	M	M6	M7	J4	D DRILL	D1 DRILL	Part Number	Weight	Torque N-m	Working pressure in Bar
3/8"	1/4"-18NPSM	7/16"-20UNF-2A	14.30	17.46	17.46	23.90	28.70	31.80	19.10	5.80/5.30	7.50	HT6901-06-04-NWO'			
3/8"	3/8"-18NPSM	9/16"-18UNF-2A	19.00	22.22	17.46	28.40	33.20	31.80	19.10	9.10/8.10	7.50	HT6901-06-06-NWO'			
1/2"	3/8"-18NPSM	3/4"-16UNF-2A	19.00	22.22	122.22	28.40	33.20	36.80	21.90	9.10/8.10	9.90	HT6901-08-06-NWO'			
1/2"	1/2"-14NPSM	3/4"-16UNF-2A	19.00	25.40	22.22	28.20	35.50	36.80	21.90	12.20/11.20	9.90	HT6901-08-08-NWO'			
3/4"	3/4"-14NPSM	1-1/16"-12UN-2A	27.00	31.75	31.75	35.30	43.70	50.80	29.00	16.80/15.20	15.50	HT6901-12-12-NWO'			



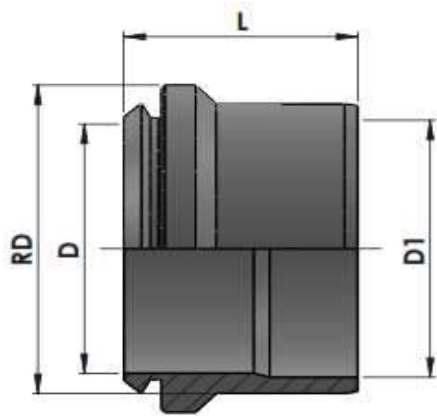
**HT2700-00-00 Series  
MJ-MJ BULKHEAD**

Tube O.D.	B THREAD	C2 Hex	L4	l1	l	D DRILL	C4 Hex	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"	5/16"-24UNF-2A	14.29	47.50	28.20	11.40	1.60	14.29	HT2700-02-02-LN	0.074	8-9	345
3/16"	3/8"-24UNF-2A	15.88	48.30	28.20	12.20	3.20	15.88	HT2603-03-03-LN	0.093	11-12	345
1/4"	7/16"-20UNF-2A	17.46	52.60	30.50	14.00	4.40	17.46	HT2603-04-04-LN	0.124	15-16	345
5/16"	1/2"-20UNF-2A	19.05	52.60	30.50	14.00	6.00	19.05	HT2603-05-05-LN	0.147	19-21	345
3/8"	9/16"-18UNF-2A	20.64	55.40	32.50	14.10	7.50	20.64	HT2603-06-06-LN	0.18	24-28	345
1/2"	3/4"-16UNF-2A	25.40	62.00	36.60	16.70	9.90	25.40	HT2603-08-08-LN	0.306	49-53	310
5/8"	7/8"-14UNF-2A	28.58	69.60	40.10	19.30	12.30	28.58	HT2603-10-10-LN	0.436	77-85	240
3/4"	1-1/16"-12UN-2A	34.93	78.50	44.40	21.90	15.50	34.93	HT2603-12-12-LN	0.736	107-119	240
7/8"	1-3/16"-12UN-2A	38.10	79.20	44.40	22.60	18.30	38.10	HT2603-14-14-LN	0.882	127-140	210
1"	1-5/16"-12UN-2A	41.28	79.80	44.40	23.10	21.50	41.28	HT2603-16-16-LN	1.043	147-154	210
1-1/4"	1-5/8"-12UN-2A	47.63	84.10	45.70	24.30	27.50	47.63	HT2603-20-20-LN	1.455	172-181	170
1-1/2"	1-7/8"-12UN-2A	53.98	89.40	46.00	27.50	33.50	53.98	HT2603-24-24-LN	1.974	215-226	140
2"	2-1/2"-12UN-2A	69.85	106.70	53.10	33.90	45.20	69.85	HT2603-32-32-LN	3.877	332-350	105



**HT5406-C-00 Series**  
**PIPE CAP**

B THREAD	C Hex	L	Part Number	Weight	Torque N-m	Working pressure in Bar
1/8"-27NPTF-2	14.27	14.00	HT5406-C-02	0.02	12-13	345
1/4"-18NPTF-2	19.05	20.60	HT5406-C-04	0.05	18-19	345
3/8"-18NPTF-2	20.62	20.60	HT5406-C-06	0.06	22-24	275
1/2"-14NPTF-2	25.40	25.40	HT5406-C-08	0.11	45-49	210
3/4"-14NPTF-2	30.18	28.70	HT5406-C-12	0.18	65-72	170
1"-11-1/2NPTF-2	38.10	29.50	HT5406-C-16	0.29	129-141	140
1-1/4"-11-1/2NPTF-2	50.80	31.80	HT5406-C-20	0.56	160-141	80
1-1/2"-11-1/2NPTF-2	60.33	39.10	HT5406-C-24	0.97	321-353	70
2"-11-1/2NPTF-2	73.03	41.70	HT5406-C-32	1.51	420-462	70



**HTC0319-00 Series**  
**FERRULE**

RD	L	D	D1	Part Number	Weight	Torque N-m	Working pressure in Bar
6.02	7.32	3.30	3.56	HTC0319-02	0.002	345	8-9
7.80	8.36	4.90	5.21	HTC0319-03	0.003	345	11-12
9.32	9.22	6.48	8.61	HTC0319-04	0.005	310	15-16
10.92	9.32	8.08	8.38	HTC0319-05	0.008	275	19-21
12.50	9.98	9.65	9.98	HTC0319-06	0.011	275	24-28
16.84	10.90	12.83	13.23	HTC0319-08	0.021	275	49-53
19.81	11.23	16.03	16.43	HTC0319-10	0.030	210	77-85
23.50	12.06	19.20	19.61	HTC0319-12	0.045	210	107-119
27.00	12.06	22.38	22.78	HTC0319-14	0.060	170	127-140
30.15	12.06	25.55	25.96	HTC0319-16	0.074	170	147-154
36.73	12.06	32.00	32.38	HTC0319-20	0.110	140	172-181
43.03	12.06	38.35	38.71	HTC0319-24	0.152	105	215-226
56.13	12.93	51.16	51.46	HTC0319-32	0.276	80	332-350