



# FLAGG-FLOW

## Tables, Terms and Warranty

**Table 1\*\***

Dimensions and Weights and Tolerances in Diameter and Wall Thickness for Copper Threadless Pipe (TP) Sizes

Nominal Dimensions, in.				Tolerances, in.			
Standard Pipe Size, in.	Outside Diameter	Inside Diameter	Wall Thickness	Cross-Sectional Area of Bore, sq. in.	Nominal Weight, lb. per ft.	Average Outside Diameter,* all minus	Wall Thickness, plus and minus
1/4	0.540	0.410	0.065	0.132	0.376	0.004	0.0035
3/8	0.675	0.545	0.065	0.233	0.483	0.004	0.004
1/2	0.840	0.710	0.065	0.396	0.613	0.005	0.004
3/4	1.050	0.920	0.065	0.665	0.780	0.005	0.004
1	1.315	1.185	0.065	1.10	0.989	0.005	0.004
1-1/4	1.600	1.530	0.065	1.84	1.26	0.006	0.004
1-1/2	1.900	1.770	0.065	2.46	1.45	0.006	0.004
2	2.375	2.245	0.065	3.96	1.83	0.007	0.006
2-1/2	2.875	2.745	0.065	5.92	2.22	0.007	0.006
3	3.500	3.334	0.083	8.73	3.45	0.008	0.007
3-1/2	4.000	3.810	0.095	11.4	4.52	0.008	0.007
4	4.500	4.286	0.107	14.4	5.72	0.010	0.009
5	5.562	5.298	0.132	22.0	8.73	0.012	0.010
6	6.625	6.309	0.158	31.3	12.4	0.014	0.010
8	8.625	8.215	0.205	53.0	21.0	0.018	0.014
10	10.750	10.238	0.256	82.3	32.7	0.018	0.016
12	12.750	12.124	0.313	115	47.4	0.018	0.020

\*The average outside diameter of a tube is the average of the maximum and minimum outside diameters, as determined at any one cross-section of the tube.

\*\*Table I, "Standard Specification for Threadless Copper Pipe, ASTM Designation; B 302-61," reprinted with permission of the American Society for Testing and Materials.

### Terms

Flagg-Flow fittings and flanges (g) are furnished grooved for but less brazing rings. Brazing rings are furnished loose and must be ordered separate. Brazing rings are not inserted at the factory.

Remittances must be made in funds free of exchange or collection charges.

The amount of any excise, sales, purchase, use, transaction, or other similar tax imposed or assessed under any effective statute applicable to material sold by us shall be borne by the purchaser, and if same are payable by us, will be added to the purchase price. All orders and/or contracts are accepted subject to the understanding that we are not liable for delays or inability to ship caused by fire, strikes, acts of God, or other circumstances beyond our control.

All orders and/or contracts are received subject to final acceptance by our general office.

Claims for shortages must be made immediately upon receipt of material, and be accompanied by the following information:

- Itemized list of shortages.
- Order number of shipment in question.
- Package number.
- Gross and Net weights of package.

(This information is essential as our shipments are checked by count and weight.)

Claims for loss or damage to material in transit must be made directly to the carrier. Our material is sold F.O.B. Plant and our responsibility ceases after the material is delivered to carrier in good condition.

Material must not be returned without our express permission given in writing, and then only in accordance with our shipping instructions and term.

Order for material of special design or specification are made to customer's order and are not subject to cancellation or return.

All orders received by us for delivery under Government Contracts are accepted subject to the provisions of the United States Government's standard termination clause in effect at the time order is accepted by us.

Prices and designs are subject to change without notice.

**Credit Terms: Upon Approval**

**Table II**

Class 200 70-30 CU. NI. Tube MIL-T-16420 F (Ships)

Nominal Size	Outside Diameter	Wall Thickness	Weight per Foot Calculated	Weight per Foot (Max.)*	Outside Diameter Tolerance all Minus
1/4	.540	.065	.376	.414	.005
3/8	.675	.065	.483	.531	.005
1/2	.840	.065	.614	.675	.006
3/4	1.050	.065	.780	.858	.006
1	1.315	.065	.990	1.09	.008
1-1/4	1.660	.072	1.39	1.53	.008
1-1/2	1.900	.072	1.60	1.76	.008
2	2.375	.083	2.32	2.55	.010
2-1/2	2.875	.083	2.82	3.10	.010
3	3.500	.095	3.94	4.33	.012
3-1/2	4.00	.095	4.52	4.97	.012
4	4.500	.109	5.83	6.41	.015
5	5.563	.125	8.28	9.11	.017
6	6.625	.134	10.60	11.70	.020
8	8.625	.148	15.30	16.80	.026
10	10.750	.187	24.10	26.50	.030
12	12.750	.250	38.10	41.90	.035

\*Includes 10% overweight allowance per foot of individual tube.

### Warranty

Lee Brass will, at its election, furnish replacement fittings without cost or will credit your account with the cost of such fittings for all fittings purchased by you and found by Lee Brass to have defects in materials and workmanship. Lee Brass' obligation to furnish replacement parts herein will be limited to making replacements at its factory at no charge to you for those items returned to Lee Brass, shall be found to be defective in material and workmanship under normal use and service. Lee Brass's obligation to furnish replacement fittings shall not apply to any item which has been subject to abuse or misuse, or to any fitting damaged from causes other than the normal and ordinary use of the fittings.

Except as expressly stated above, seller makes no warranty, expressed or implied, whether of merchantability or fitness for any particular purpose or use or otherwise, on any product, or on any parts or labor furnished during the sale, delivery or servicing of any product.

Except as expressly stated above, Seller shall not be liable to the Buyer or to any other person, firm, or corporation for any incidental or consequential loss, damage, or injury arising out of any breach of warranty or any other act or default relating to Buyer's order or to product or services provided to Buyer, even if any such loss, damage, or injury is caused by Seller's negligence. The correction of defects as provided in the warranty statement above shall constitute Seller's full obligation with respect to all claims and Seller's liability shall in no event exceed the unit purchase price of the product in question.

Any lawsuit or other action based upon breach of the contract or upon other claim arising out of this sale (other than an action by Seller for any amount due to Seller by Buyer) must be commenced within one year from the date of the tender of delivery by Seller or, in the case of a cause of action based upon an alleged breach of warranty, within one year from the date within the warranty period on which the defect is or should have been discovered by Buyer.

Lee Brass