

SERIES FRABO FRIO: PRESSURE AND TEMPERATURE LIMIT RATES

Nominal diameter (inches)	Temperature from -40°C up to a 95°C				Temperature from 95°C up to 120°C			
	Estimated Burst Pressure (bar)	Estimated Burst Pressure SF=2	Estimated Burst Pressure SF=3	Estimated Burst Pressure SF=4	Estimated Burst Pressure (bar)	Estimated Burst Pressure SF=2	Estimated Burst Pressure SF=3	Estimated Burst Pressure SF=4
1/4	242,0	121,0	80,7	60,5	198,0	99,0	66,0	49,5
3/8	191,0	95,5	63,7	47,8	157,0	78,5	52,3	39,3
1/2	164,0	82,0	54,7	41,0	135,0	67,5	45,0	33,8
5/8	147,0	73,5	49,0	36,8	121,0	60,5	40,3	30,3
3/4	131,0	65,5	43,7	32,8	108,0	54,0	36,0	27,0
7/8	120,0	60,0	40,0	30,0	98,0	49,0	32,7	24,5
1	138,0	69,0	46,0	34,5	113,0	56,5	37,7	28,3
1 1/8	106,0	53,0	35,3	26,5	89,0	44,5	29,7	22,3
1 3/8	95,0	47,5	31,7	23,8	80,0	40,0	26,7	20,0
1 5/8	94,0	47,0	31,3	23,5	79,0	39,5	26,3	19,8
2 1/8	83,0	41,5	27,7	20,8	70,0	35,0	23,3	17,5
2 5/8	76,0	38,0	25,3	19,0	64,0	32,0	21,3	16,0
3 1/8	72,0	36,0	24,0	18,0	60,0	30,0	20,0	15,0
3 5/8	71,0	35,5	23,7	17,8	60,0	30,0	20,0	15,0
4 1/8	70,0	35,0	23,3	17,5	59,0	29,5	19,7	14,8

The values shown in the table above have been calculated by using the formula shown on the right.

PS= Estimated Burst Pressure (bar)

Rm= Estimated mechanical resistance of the fitting material (Copper Cu DHP) (N/mm²)

S= Fitting thickness (mm) Dn= nominal diameter (mm)

FS=Safety factor K=Correction Coefficient

$$PS = K \times \frac{Rm \times S}{Dn \times FS}$$

That the copper end fittings belonging to the series FRABO FRIO comply with the requirements of ASME B 16-22 standard and shall be hard brazed according the relevant rules of good practice.

The application of the fittings is limited to the compatible fluids within the pressure and temperature limits prescribed in the table above (ask Fra.Bo's technical service for further details).

REMARK

The application framework described by standards EN 14276 and EN 378 requires, in relation to burst pressure calculation, a FS ≥ 3