



Suva
refrigerants

Suva 404A
Refrigerant Piping Guide

System Capacity BTU/Hr.	Discharge Line Size Compressor to Condenser 1F° (3 psi) pressure drop maximum					Liquid Condensate Line Condenser to Receiver Condensate drain / vent					Liquid Line Size Receiver to TXV 1F° (3 psi) pressure drop maximum					System Capacity Tons/Hr.	System Capacity BTU/Hr.
	Equivalent Line Lengths ... feet																
	25	50	75	100	150	25	50	75	100	150	25	50	75	100	150		
18,000	1/2	5/8	5/8	5/8	5/8	1/2	1/2	1/2	1/2	5/8	3/8	3/8	3/8	3/8	1/2	18,000	1.50
24,000	5/8	5/8	5/8	3/4	3/4	1/2	1/2	5/8	5/8	5/8	3/8	3/8	3/8	1/2	1/2	24,000	2.00
30,000	5/8	5/8	3/4	3/4	3/4	1/2	5/8	5/8	5/8	5/8	3/8	1/2	1/2	1/2	1/2	30,000	2.50
36,000	5/8	3/4	3/4	3/4	7/8	5/8	5/8	5/8	5/8	3/4	1/2	1/2	1/2	1/2	5/8	36,000	3.00
42,000	5/8	3/4	3/4	7/8	7/8	5/8	5/8	5/8	5/8	3/4	1/2	1/2	1/2	1/2	5/8	42,000	3.50
48,000	3/4	3/4	7/8	7/8	1 1/8	5/8	5/8	5/8	3/4	3/4	1/2	1/2	1/2	5/8	48,000	4.00	
60,000	3/4	7/8	7/8	1 1/8	1 1/8	5/8	5/8	3/4	3/4	3/4	1/2	1/2	5/8	5/8	60,000	5.00	
92,000	7/8	1 1/8	1 1/8	1 1/8	1 1/8	5/8	3/4	3/4	7/8	7/8	1/2	5/8	5/8	3/4	92,000	7.50	
120,000	7/8	1 1/8	1 1/8	1 3/8	1 3/8	3/4	7/8	7/8	7/8	1 1/8	5/8	3/4	3/4	7/8	120,000	10.00	
150,000	1 1/8	1 1/8	1 3/8	1 3/8	1 5/8	3/4	7/8	7/8	1 1/8	1 1/8	5/8	3/4	3/4	7/8	150,000	12.50	
180,000	1 1/8	1 3/8	1 3/8	1 3/8	1 5/8	7/8	7/8	1 1/8	1 1/8	1 3/8	3/4	3/4	7/8	1 1/8	180,000	15.00	
240,000	1 1/8	1 3/8	1 3/8	1 5/8	1 5/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8	3/4	7/8	7/8	1 1/8	240,000	20.00	
300,000	1 3/8	1 3/8	1 5/8	1 5/8	2 1/8	1 1/8	1 3/8	1 3/8	1 3/8	1 3/8	7/8	7/8	1 1/8	1 1/8	300,000	25.00	
360,000	1 3/8	1 5/8	1 5/8	2 1/8	2 1/8	1 1/8	1 3/8	1 3/8	1 3/8	1 5/8	7/8	1 1/8	1 1/8	1 3/8	360,000	30.00	
420,000	1 5/8	1 5/8	2 1/8	2 1/8	2 1/8	1 1/8	1 3/8	1 3/8	1 3/8	1 5/8	7/8	1 1/8	1 1/8	1 3/8	420,000	35.00	
480,000	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8	1 3/8	1 3/8	1 3/8	1 5/8	1 5/8	1 1/8	1 1/8	1 1/8	1 3/8	480,000	40.00	
540,000	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	1 1/8	1 1/8	1 3/8	1 3/8	540,000	45.00	
600,000	1 5/8	2 1/8	2 1/8	2 1/8	2 5/8	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	1 1/8	1 1/8	1 3/8	1 3/8	600,000	50.00	

- Refer to DuPont Refrigerant Expert, version 2.0 for actual velocities and pressure drops.
- Equivalent length is actual length plus friction losses caused by fittings and accessories.
- Line sizes are expressed in outside diameter of type "L" copper tubing.
- Line sizes are calculated at rated full load system capacity.
- All selections are based on a maximum of 65° F return gas entering the compressor and a refrigerant condensing and liquid line temperature of 105° F.