Ascent 70

Copper fittings manufactured from 99.9% pure copper (C12200) for use in commercial, industrial, and medical refrigeration applications. Designed for use with high-pressure refrigerants within AS/NZS compliance requirements.

Up to 70 bar
SMALLER SIZES

C12200
99.9% PURE COPPER

DN8 – DN100
1/4" UP TO 4-1/8"

SPECIFICATIONS

SIZE RANGE	1/4" up to 4-1/8"
DN SIZE RANGE	DN8 up to DN100
MATERIAL	99.9% pure copper (C12200), seamless construction
OPERATING TEMPERATURE	-25°C to 65°C
MAXIMUM WORKING PRESSURE	Up to 70 bar (7 MPa) for smaller sizes
REFRIGERANT COMPATIBILITY	R-134a, R-404A, R-32, R-410A, R-448A
TUBE COMPATIBILITY	Copper and copper-iron alloy tube to AS/NZS 1571
CONNECTION TYPE	Brazing fittings (flare and compression are not suitable)
MANUFACTURING STANDARDS	AS/NZS 1200, AS/NZS 1571, AS 4041, AS/NZS 5149

COMPLIANCE & STANDARDS

- AS/NZS 1200 – Pressure Equipment
- AS/NZS 1571 – Copper Tube for Refrigeration
- AS 4041 – Pressure Piping
- AS/NZS 5149 – Refrigerating Systems and Heat Pumps (safety)

INSTALLATION GUIDELINES

- Use high-silver brazing alloys (minimum 5% silver) for stronger joints
- Nitrogen purge the system during brazing to avoid internal oxidation
- Pressure test to AS/NZS 5149 requirements before system startup

WORKING PRESSURE BY SIZE

SIZE	BAR AT 121°C	BAR AT 150°C
1/4"	68.9	98.3
3/8"	68.9	96.7
1/2"	68.9	86.7
5/8"	68.9	76.7
3/4"	68.9	68.9
7/8"	62.0	63.3
1-1/8"	48.2	60.0
1-3/8"	48.2	60.0
1-5/8"	48.2	56.7
2-1/8"	48.2	53.3
2-5/8"	48.2	48.2

Indicative working pressures: 121°C values follow the UL 207 rating method, 150°C values the EN 14276-2 method; wall thicknesses and sizes above 2-5/8" per ASME B16.22. The stated temperature is the reference point for the rating, not a ceiling on gas temperature.

TESTING & CERTIFICATION

- Pressure tested to AS/NZS 5149 requirements before commissioning
- Nitrogen purged during brazing to prevent internal oxidation
- Manufactured under ISO 9001 quality systems

APPLICATIONS

- Commercial refrigeration (supermarkets, food retail, cold rooms)
- Industrial cooling (processing plants, cold storage, ice rinks)
- Medical and pharmaceutical refrigeration
- Beverage and dairy refrigeration systems