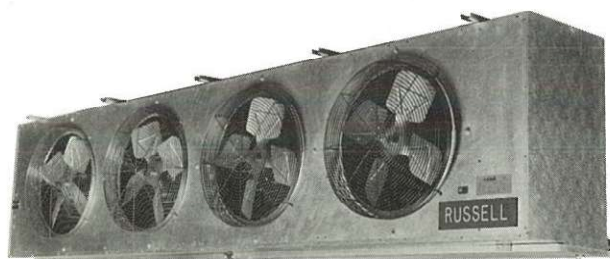


AMMONIA UNIT COOLERS

TECHNICAL BULLETIN NO. 103
JUNE, 1990



UL LISTED, CSA APPROVED.

RUSSELL ALL ALUMINUM SUPER TEMP II's are superior to all steel ammonia coils -

- completely compatible with NH₃ refrigerant
- they have a higher thermal conductivity resulting in improved refrigeration efficiency
- they weigh approximately 30% of an all steel coil at equal BTUH output resulting in lower costs for ceiling supports and installation
- they do not rust out

There are 7 models from 12,800 BTUH to 103,800 BTUH. The core is all aluminum - tubes and fins. Return bends and headers are Heliarc welded for durability. Liquid and suction line flange kits included.

SUPER-TEMP II FEATURES:

COIL — Heavy gauge aluminum fins with aluminum-tube cores for ammonia (R717) applications-direct expansion, recirculation or flooded.

MOTORS — Air Defrost models supplied with 1/3 H.P. 1050 R.P.M. motors. Electric and Hot Gas models utilize 3/4 H.P. 1625 R.P.M. motors for applications down to -60°F suction temperature. All motors are heavy duty ball bearing type, with internal overload protection.

AIR THROW — Air throw is approximately 60 to 75 feet. Air throw variation is caused by installation variables. Maximum air throw is obtained with high ceiling with no interference from beams, etc. For increased air throw up to 90 feet, an air straightener option is available.

ELECTRICAL — Factory wired to convenient terminal block. All catalog models U.L. listed. Units require fan-motor contactor if motor load exceeds 8 amps, 240 volts or all 3Ø application. See appropriate Wiring Diagram or Hot Gas Defrost Bulletin HG.

REFRIGERANTS — For use with R-717 (Ammonia).

DEFROST SYSTEM — Air defrost for medium temperatures, Electric or Hot Gas Defrost for low temperature. Defrost termination by temperature with adjustable, remote-bulb thermostat. Hot Gas circuiting arranged for reverse cycle or alternating evaporator.

NOTES — Contactors and timers available as options.

SELECTION/ORDERING INFORMATION

Select the correct All Aluminum Super-Temp II Unit Cooler(s) to meet application requirements and specify by part number. When ordering, specify the following:

1. Model number
2. Type of defrost (Air, Electric or Hot Gas)
3. Electrical characteristics (voltage, frequency, phase)
4. Refrigerant temperature
5. Entering air-to-refrigerant T.D.
6. Direct expansion, flooded, recirculated bottom feed or recirculated top feed

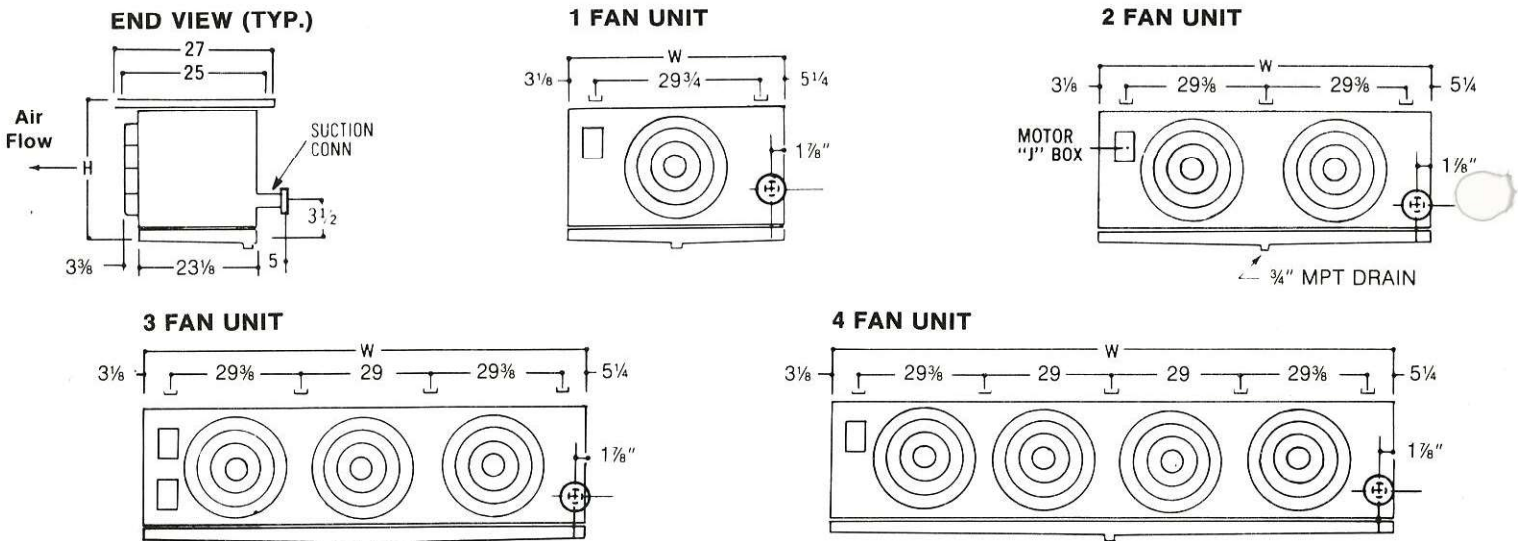
SPECIFICATIONS — All Aluminum Super Temps

Model #	CAPACITY, BTUH @ 10° T.D. EVAPORATOR TEMPERATURE				CFM	No. & Size Fan	Liquid Conn.	Suction Conn.	Hot Gas Conn.	Dimensions		Weight
	+20° F	+0° F	-20° F	-40° F						H	W	
ASU 14-128	15,700	13,800	12,800	10,200	3040	1-18"	½" FPT	1¼" FPT	½" FPT	22"	38¼"	150
ASU 14-154	18,900	16,600	15,400	12,300	3040	1-18"	½"	1¼"	½"	22"	38¼"	170
ASU 14-175	21,500	18,900	17,500	14,000	3750	1-20"	½"	1¼"	½"	26"	38¼"	190
ASU 24-257	31,600	27,700	25,700	20,600	6080	2-18"	½"	1¼"	½"	22"	67¼"	260
ASU 24-308	37,800	33,200	30,800	24,600	6080	2-18"	½"	1¼"	½"	22"	67¼"	295
ASU 24-349	42,900	37,600	34,900	27,900	7500	2-20"	½"	1¼"	½"	26"	67¼"	320
ASU 34-455	55,900	49,100	45,500	36,400	10,100	3-18"	½"	1¼"	½"	22"	96¼"	400
ASU 34-524	64,400	56,500	52,400	41,900	12,450	3-20"	½"	1½"	¾"	26"	96¼"	450
ASU 44-615	75,600	66,400	61,500	49,200	13,300	4-18"	½"	1½"	¾"	22"	125¼"	530
ASU 44-695	85,400	75,000	69,500	55,600	16,400	4-20"	½"	1½"	¾"	26"	125¼"	560
ASU 44-845	103,800	91,200	84,500	67,600	16,400	4-20"	½"	2"	¾"	34"	125¼"	715

For flooded or recirc operation, increase capacity by 15%
On 50 Hertz multiply CFM by .83 and BTUH by .9

All refrigerant connections are flange type except as noted.
Steel mating flanges with garlock gaskets are supplied.

MECHANICAL SPECIFICATIONS — Mounting and dimensions



ELECTRICAL SPECIFICATIONS — Amps

MODEL NUMBER	AIR DEFROST 1/3 HP MOTOR			HOT GAS OR ELEC 3/4 HP MOTOR		ELECTRIC DEFROST			
	115/1	230/1	460/1	230/1	460/1	230V	460V	PH	WATTS
ASU 14-128	7.1	3.2	1.7	4.2	2.1	15.9	8.0	1	3660
ASU 14-154	7.1	3.2	1.7	4.2	2.1	15.9	8.0	1	3660
ASU 14-175	7.1	3.2	1.7	4.2	2.1	23.7	11.9	1	5460
ASU 24-257	14.2	6.4	3.4	8.4	4.2	32.3	16.2	1	7440
ASU 24-308	14.2	6.4	3.4	8.4	4.2	32.3	16.2	1	7440
ASU 24-349	14.2	6.4	3.4	8.4	4.2	29.5	14.7	3	11040
ASU 34-455	21.3	9.6	5.1	12.6	6.3	26.5	13.3	3	10560
ASU 34-524	21.3	9.6	5.1	12.6	6.3	40.0	20.0	3	15960
ASU 44-615	28.4	12.8	6.8	16.8	8.4	35.2	17.6	3	14040
ASU 44-695	28.4	12.8	6.8	16.8	8.4	33.1/23.6	27.2	3	21240
ASU 44-845	28.4	12.8	6.8	16.8	8.4	33.1/23.6	27.2	3	21240