Russell

HVAC Custom Coils

Russell

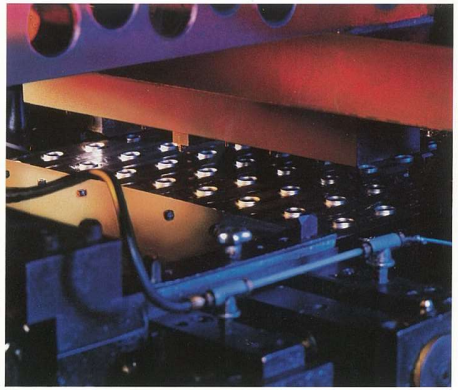
HVAC Custom Coils

With over 30 years of experience in the manufacturing of heat transfer components, Russell has the coil you need to meet your specific requirements. Russell prides itself in the design, testing and manufacturing of every coil that leaves its door.

Whether you have need for a replacement, custom or off-the-shelf coil, Russell will assist you in the application and selection of your specific coil heat transfer requirements. Coil selection and performance are all calculated by microprocessor, using software developed by Russell's engineering department.

Russell's heating and cooling coils are used in a variety of ways in residential, commercial and industrial application. With seven fin patterns using ⅜", ½" and ⅝" tube diameters with a range of fin spacing from four to sixteen fins per inch as well as inline and staggered tube patterns, versatility meets application.

Russell is headquartered in Brea, California, with satellite manufacturing facilities in Arizona and Tennessee. Capacity and capability are available to handle single custom coil orders, as well as orders for large coils in large quantities. All orders are processed and shipped on a timely basis. (Average coil lead time for 1991 was 4 weeks). Russell also offers a quick-ship program for coils needed in a hurry.

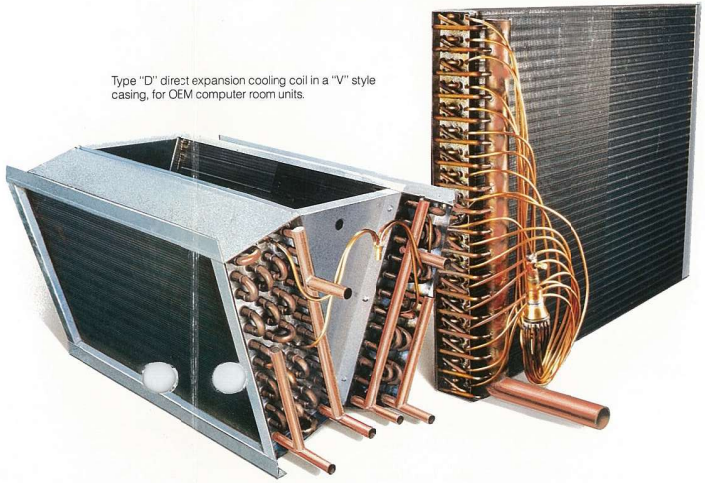


Type "D" custom direct expansion cooling coil using R-503 refrigerant for an environmental test chamber.

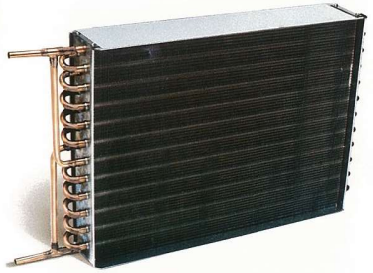
Type "C" refrigerant condenser/heat reclaim coil engineered to match client specific requirements.

Type "W" chilled/hot water/steam coils, available with special coatings and constructed of special materials. (See last page of brochure for options).

Type "D" direct expansion cooling coil in a "V" style casing, for OEM computer room units.



Type "B" duct booster coils with slip and drive casing. Also available with flanged casing.



Cover: Type "C" condenser coil with copper fins and aluminum casing.

General Capabilities

PATTERN	TUBE DIAMETER	TUBE CENTERS	CONFIGURATION	FINS PER INCH	MAX[1] ROWS	MAX. FIN LT.	MAX. FIN HT.
C	5/8"	2" x 2"	INLINE	4-16	16	216"	90"
E	1/2"	1½" x 1.299"	STAGGERED	4-16	24	216"	90"
G	5/8"	1½" x 1½"	INLINE	4-16	16	216"	90"
H	1/2"	1¼" x 1.083"	STAGGERED	5-16	16	216"	90"
K	5/8"	1½" x 1.299"	STAGGERED	4-16	24	216"	90"
J	3/8"	1" X 1"	INLINE	5-16	8	120"	48"

[1] Coils over 8 rows deep will be made in two pieces. [2] Coils in less than 6 fins per inch are available in .008" thick fin stock only.

MATERIAL	FINS	TUBES	HEADERS	CASING
ALUMINUM	.006, .0085, .010[1]	.035, .049[2]	YES	.080" TO .040"
COPPER	.006	.018, .025, .035, .049	YES	.125" TO .040"
GALVANIZED STEEL	—	—	YES[3]	14 TO 20 GA.
STAINLESS STEEL	—	—	—	16 TO 22 GA.

[1] Also available in .006" polyester coated. [2] 5/8" tubing only. [3] Schedule 40 black steel.

Coil Specifications

Furnish and install as specified, Russell HVAC heating and/or cooling coils of the type and capacity as listed in the equipment schedule.

Tubes—Tube core to be (3/8"), (1/2"), (5/8") OD, and selected for the specified duty under continuous operation at the maximum duty detailed in the schedule. Tube material to be seamless copper. Tube to be permanently expanded into the fins to ensure positive contact for optimal heat transfer efficiency.

Fin Surface—Secondary surface shall consist of continuous plate fins of (aluminum) (copper), accurately sized and spaced, completely die formed to a corrugated surface to cause a proper air flow pattern for maximum heat transfer at the specified air side pressure loss. The number of rows and fins per inch shall be (as scheduled), (selected to meet the scheduled duty). Tube holes shall be accurately sized with full die-formed collars (clean punched) that completely cover the tube surface between each fin and accurately space adjacent fins.

Circuiting—Circuiting shall be selected to provide the scheduled capacity within the maximum pressure drop as shown in the schedule. All circuits are to be of equal length to maximize even distribution of fluid through the coil tubing.

Headers—Headers shall be (copper), (schedule 40 steel), seamless construction, with (ferrous), (non-ferrous) supply, return and drain connections on water coils. Threaded supply and return shall be (MPT), (NPT), (FPT), with (supply at the bottom and return at the top on all water coils), (large and drainable returns at the bottom of all steam coils), (suction return at the bottom on refrigerant coils). High temperature brazing shall be used to join tubes into headers.

Casings (except Slip & Drive Casings)—Casings shall be heavy gauge (galvanized), (stainless steel), (aluminum), (copper), and shall be constructed so that mounting and support of the coil within the ductwork or piece of equipment is accomplished without modification to the coil, ductwork, or piece of equipment is accomplished. The casing shall be flanged on each of the four sides, both front and back. Intermediate supports shall be provided for added stability whenever finned length exceeds 48" unsupported.

Slip & Drive Casing—Booster coil casings are to be fabricated from 18 gauge steel suitable for direct duct mounting using standard sheet metal slip and drive strips. The casing shall be furnished with a slip-and-drive receiving flange on each of the four sides, both front and back.

DX & Refrigerant Coils—Shall be suitable for any type refrigerant as specified, and shall be provided with single or multiple independent distributor(s) for (face), (row), (intertwined control), as specified. All tube connections are to be brazed using a high temperature process for pressure integrity. All refrigerant coils shall be leak tested in warm water 380 PSIG then dehydrated and capped at the factory.

Chilled Water Coils—Shall be tested at 380 PSIG under warm water, and suitable for 300 PSIG operating pressure.

Steam Coils—Shall be standard or steam distributing type as specified, and furnished.

Russell

221 S. Berry Street, P.O. Box 1030 • Brea, CA 92622-1030 • Telephone (714) 529-1935 • Fax (714) 529-7203

P/N 113343-013 Rev. 0 2/92 A3000