

## CASE STUDY

<b>PRODUCT:</b>	COLMAC COIL CUSTOM INDUSTRIAL AIR COOLER
<b>APPLICATION:</b>	MED TEMPERATURE (33°F) CHEESE BLAST COOLING
<b>FACILITY:</b>	7,250 SQ FT (58 FT X 125 FT) BLAST COOLING ROOM
<b>(QTY) X MODEL:</b>	(5) X SPR22-4314-G-42-5-45PG-R/L-E-D
<b>SPECIFICATIONS:</b>	44 Tons Capacity, 33F Room, 8F EGT 45% Propylene Glycol 70,000 CFM Airflow 5/8" x 0.025 Copper Tubes, 12 Rows Deep 0.010" Aluminum Fins, 4 per Inch 3 x 5 Hp., 1140 rpm, Cast Aluminum Fans Electric Defrost 67.5 sq. ft. Face Area, 8,005 sq. ft. Total Surface Area 4,450 lbs. Dry Weight Overall Dimensions: 153" H x 54" D x 181" L

### DESCRIPTION:

Recently, a large Midwest U. S. food processing company decided to increase the capacity of one of their cheese processing plants. The plant produces processed cheese products for various markets primarily in North America. Approximately 200,000 pounds per day of processed cheese product comes out of the cookers at approximately 165F, which then must be quickly cooled to 100F or less to avoid loss of product quality.

A local design build contractor contacted Colmac Coil to develop a custom air cooler design to match the customer's requirements. An existing chiller system was utilized to provide the 8F propylene glycol to the air coolers. A special cabinet configuration was developed by Colmac Coil at the direction of the contractor to fit the required cooling capacity into the available space while circulating air in the needed quantity and orientation. Air is drawn into the unit at the base, passes vertically up through the coil block, turns 90 degrees and is discharged back into the room at the top of the unit. Defrosting is achieved with electric heating elements.

*"The Heat Transfer Experts"*

