



Thermal Solutions Manufacturing

Heavy Duty Products

Cleveland, Ohio Plant Capabilities 2019

15600 Commerce Park Dr. Cleveland, Ohio. 44142 Phone: 1-800-776-4225 Fax: 1-216-267-2157

Thermal Solutions Manufacturing's Cleveland facility provides same-day service to its local customers and in most cases overnight service on in-stock radiators, condensers, complete truck radiators, charge air coolers, heaters and built to order Serpentine and Flat Fin cores for trucks, off-highway and industrial applications. Thermal Solutions Manufacturing offers coverage for both foreign and domestic passenger cars and light trucks. Our regional manufacturing plants and our national distribution system combine the local service you need with the fast delivery and model coverage you demand. Team up with Thermal Solutions Manufacturing.

Wherever you go, we have your Thermal Solution!

Flat Fin Cores

- Fins – Copper, Brass & Steel
- Fins per Inch – 6 – 7 – 8 – 9 – 10 - 11
- Tubes – ½” Smooth, Dimpled & ¾” Smooth
- Header Gauges – .032” solder-on, .040” & .050” light bolted, .100” heavy bolted
- Maximum header length 64”
- Corner Reinforcements - .100” brass
- Crank Box – FLAT FIN CORES ONLY

VT, VH, VTH, VTW Cores

- Maximum Core Size – VT 37” x 29 13/16”
- Maximum Core Size – VH 46” x 47”
- Maximum Core Size – VTH 45 1/2” x 40”
- Maximum Core Size – VTW 44” x 43”
- Fins - Copper
- Header Gauges – .032” solder on, 040”, .050” & .100” bolt on
- Tubes – ½” Smooth, Dimpled & 5/8" Smooth & Dimpled



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1/2" SMOOTH or DIMPLED TUBES with Non-Louvered Fin			
B & T "B" Style IN-LINE Tubes 1/2" Centers - "T" Style Staggered Tubes 9/16" Centers			
2 & 3 Rows Copper fin, 4 – 7 Rows Brass, Copper or Steel & 8 Row Brass or Steel			
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES
2	1 7/16"	6 FPI 48" x 60"	RADIUS W/ & W/O GROOVE FORMED & SQUARE CORNERS CRIMPED & DOUBLE FOLD SOLDER ON .032" & BOLTED .040" .050" & .100"* (64" MAX LENGTH)
3	2 3/16"	7 FPI 60" x 60"	
4	2 7/8"	8 FPI 48" x 60"	
5	3 5/8"	9 FPI 60" x 60"	
6	4 3/8"	10 FPI 48" x 48"	
7	5 1/16"	11 FPI 55" x 60"	
8	5 3/4"		
OTHER OPTIONS			
CORNER REINFORCEMENTS - .100 BRASS		OVER 50" WIDTH 2 PIECE CORE	
CRANK BOXES AND CRANK HOLES			

1/2" SMOOTH, DIMPLED or HEAVY WALLED STAGGERED TUBES ON 5/8" CENTERS				
R & S "R" Style Fin is Louvered, "S" Style Fin is NON-Louvered COPPER FINs				
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES	
3	1 3/4"	6 FPI 48" x 60"	RADIUS W/ & W/O GROOVE FORMED & SQUARE CORNERS CRIMPED & DOUBLE FOLD SOLDER ON .032" & BOLTED .040" .050" & .100"* (64" MAX LENGTH)	
4	2 3/8"	7 FPI 60" x 60"		
5	2 7/8"	8 FPI 48" x 60"		
6	3 7/16"	9 FPI 60" x 60"		
7	3 15/16"	10 FPI 48" x 48"		
8	4 7/16"	11 FPI 55" x 60"		
OTHER OPTIONS				
CORNER REINFORCEMENTS - .100 BRASS		OVER 50" WIDTH 2 PIECE CORE		
CRANK BOXES AND CRANK HOLES		FINs PER INCH 6, 7, 8, 9, 10 & 11		

3/4" SMOOTH STAGGERED TUBES ON 5/8" CENTERS			
X BRASS NON- LOUVERED FINs			
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES
3	2 7/16"	35" x 35"	RADIUS W/ & W/O GROOVE SQUARE W/ & W/O GROOVE SPECIAL HAND FORMED HEADERS DOUBLE FOLDED (CONVERSION BOX HEADER) .032" SOLDER & .050"*
4	3 3/16"	35" x 35"	
5	3 15/16"	35" x 35"	
6	4 11/16"	35" x 35"	
OTHER OPTIONS			
CORNER REINFORCEMENTS - .100" BRASS			



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Z 1/2" SMOOTH, DIMPLED or HEAVY WALLED CANTED TUBES ON 5/8" CENTERS 3 & 4 ROW ONLY COPPER or BRASS, Everything else BRASS or STEEL NON-LOUVERED FINS			
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES
3	2 3/16"	59" x 59"	RADIUS W/ & W/O GROOVE
4	2 15/16"	59" x 59"	SQUARE W/ & W/O GROOVE
5	3 11/16"	59" x 59"	SPECIAL HAND FORMED HEADERS
6	4 7/16"	59" x 59"	DOUBLE FOLDED (CONVERSION BOX HEADER)
7	5 3/16"	59" x 59"	.032" SOLDER & .050"* or .100"* BOLTED
8	6"	59" x 59"	
OTHER OPTIONS <div style="text-align: center;">CORNER REINFORCEMENTS - .100" BRASS</div>			

VT 1/2" SMOOTH, DIMPLED or HEAVY WALLED TUBES ON .550" CENTERS LOUVERED COPPER SERPENTINE FIN			
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES
2	1 1/4"	37" x 29 13/16"	RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER
3	2"	37" x 29 13/16"	SQUARE W/ & W/O DROP SEAMS
4	2 5/8"	37" x 29 13/16"	SPECIAL HAND FORMED HEADERS
5	3 1/4"	37" x 29 13/16"	CRIMPED & DOUBLE FOLD CONVERSION
(TWO CORES 1 1/4" & 2")			.032 SOLDER ON HEADERS ONLY NO LONGER OFFER 1 1/4" GM SIDES
OTHER OPTIONS <div style="text-align: center;">MINIMUM CORE - 11" x 11" FINS PER INCH - 12</div>			

VTW 1/2" SMOOTH, DIMPLED or HEAVY WALLED TUBES ON .550" CENTERS NON-LOUVERED COPPER SERPENTINE FIN			
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES
2	1 1/4"	44" x 43"	RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER
3	2"	44" x 43"	SQUARE W/ & W/O GROOVE
4	2 5/8"	44" x 43"	SPECIAL HAND FORMED HEADERS
5	3 1/4"	44" x 43"	CRIMPED & DOUBLE FOLDED (CONVERSION BOX HEADER)
6	3 7/8"	44" x 43"	SOLDER ON .032" & BOLTED .040" .050" & .100"* (64" MAX LENGTH)
OTHER OPTIONS <div style="text-align: center;">MINIMUM CORE SIZE - 11" x 11" FINS PER INCH - 8 & 9</div>			



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VH 5/8" SMOOTH or DIMPLED TUBES ON 1/2" CENTERS LOUVERED COPPER SERPENTINE FINS			
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES
2	1 1/2"	46" x 47"	RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER
3	2 1/4"	46" x 47"	SQUARE W/ & W/O GROOVE
4	3"	46" x 47"	SPECIAL HAND FORMED HEADERS
5	3 3/4"	46" x 47"	CRIMPED & DOUBLE FOLDED (CONVERSION BOX HEADER)
			.032" SOLDER ON & .050" BOLT ON
OTHER. OPTIONS FINS PER INCH - 14 - 15 - 16 MIN. CORE SIZE - (ANY THICKNESS) - 14 1/4" x 7"			

VTH 5/8" SMOOTH or DIMPLED TUBES ON .421" CENTERS HIGHLY LOUVERED COPPER SERPENTINE FINS			
ROWS DEEP	CORE DEPTH	MAX CORE SIZE	HEADER TYPES
2	1 1/2"	45 1/2" x 40"	RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER
3	2 1/4"	45 1/2" x 40"	SQUARE W/ & W/O GROOVE
4	3"	45 1/2" x 40"	SPECIAL HAND FORMED HEADERS
5	3 3/4"	45 1/2" x 40"	.032" SOLDER ON & .050" BOLT ON
OTHER. OPTIONS FINS PER INCH - 14 - 15 - 16 MIN. CORE SIZE - (ANY THICKNESS) - 14 1/4" x 7"			