



Thermal Solutions Manufacturing

Heavy Duty Products

DALLAS, TX. Plant Capabilities 2019

3051 W. Commerce Dallas, TX. 75212 Phone: 1-800-776-9605 Fax: 214-638-1445

Thermal Solutions Manufacturing's Dallas 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, Solder Coated Brass & Steel
- Fins Per Inch 3, 4, 4 ½, 5, 5 ½, 6, 7, 8, 9, 10 & 11
- Tubes – ½" Smooth, Dimpled & ¾" Smooth.
- Header Gauges – Solder on .032", Bolted headers – .040", .050", .100" & .125"
- Corner Reinforcements - .101" & .125" brass
- Crank Box – Solid & Rubber Pipe
- Center Bar & Fin Construction 7 & 9 fpi
- Tin Paste Face Coating
- Lead & NO Lead Solder
- Pan/Dish Headers
- LeMaster Cores
-

VT – VH – VTD – VTH– VTW Cores

- Maximum Core Size – VT 44" x 42"
- Maximum Core Size – VH 48" x 48"
- Maximum Core Size – VTD 48" x 48"
- Maximum Core Size – VTH 48" x 48"
- Maximum Core Size – VTW 44" x 42"
- Fins - Copper
- Fins per Inch – 10 – 16 fpi
- Tubes – ½" Smooth, Dimpled and Heavy Walled, 5/8" Smooth & Dimpled
- Header Gauges – Solder on – .032", Bolted headers – .040 & .050 VH & VTH
Ultra-Fused VTD Core .050
- Lead & NO Lead Solder
-

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| B & T B = 1/2" SMOOTH, DIMPLED or HEAVY WALLED IN LINE TUBES ON 1/2" CENTERS T = 1/2" SMOOTH, DIMPLED or HEAVY WALLED STAGGERED TUBES ON 9/16" CENTERS BRASS or SOLDER COATED BRASS FINs | | | |
|---|------------|---|--|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER MAX DIP POT SIZE 90" ANYTHING OVER MUST TYPES BE HAND RUN & MAY INCUR ADD'L CHARGES |
| 2 | 1 1/2" | | 2 ROW ONLY BUILT WITH .004" BRASS |
| 3 | 2 1/4" | 8, 10 & 11 FPI 74 3/4" x 90" | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 4 | 3" | | PAN/DISH & BUCKET HEADER |
| 5 | 3 3/4" | | FORMED & SQUARE CORNERS |
| 6 | 4 1/2" | All Other FPI's 72" x 90" | CRIMPED & CONVERSION BOX HEADER |
| 7 | 5 1/4" | | .032" SOLDER or .040", .050", .100" & .125" BOLTED |
| 8 | 6" | | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| CORES OVER 60" WIDE MAYBE TWO PIECE TIN PASTE FACE COAT (TPFC) MAX HDR SIZE 17" x 106" CORNER REINFORCEMENTS .101" & .125" BRASS FPI 3 - 4 - 4 1/2 - 5 - 5 1/2 - 6 - 7 - 8 - 9 - 10 - 11 CRANK BOXES & CRANK HOLES | | | |

| R & S 1/2" SMOOTH, DIMPLED OR HEAVY WALLED STAGGERED TUBES ON 5/8" CENTERS "R" Fin Louvered COPPER FINs ONLY, "S" Fin NON LOUVERED BRASS or SOLDER COATED BRASS FINs ONLY | | | |
|---|------------|---|--|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER MAX DIP POT SIZE 90" ANYTHING OVER MUST TYPES BE HAND RUN & MAY INCUR ADD'L CHARGES |
| 3 | 1 3/4" | | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 4 | 2 3/8" | 8, 10 & 11 FPI 74 3/4" x 90" | PAN/DISH & BUCKET HEADER |
| 5 | 2 7/8" | | FORMED & SQUARE CORNERS |
| 6 | 3 7/16" | | CRIMPED & CONVERSION BOX HEADER |
| 7 | 3 15/16" | All Other FPI's 72" x 90" | .032" SOLDER or .040", .050", .100" & .125" BOLTED |
| 8 | 4 1/2" | | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| CORES OVER 60" WIDE MAYBE TWO PIECE TIN PASTE FACE COAT (TPFC) MAX HDR SIZE 17" x 106" CORNER REINFORCEMENTS .101" & .125" BRASS FPI 3 - 4 - 4 1/2 - 5 - 5 1/2 - 6 - 7 - 8 - 9 - 10 - 11 CRANK BOXES & CRANK HOLES | | | |

| Z 1/2" SMOOTH, DIMPLED or HEAVY WALLED CANTED TUBES ON 5/8" CENTERS BRASS, SOLDER COATED BRASS or STEEL FINs | | | |
|---|------------|---|--|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER MAX DIP POT SIZE 90" ANYTHING OVER MUST TYPES BE HAND RUN & MAY INCUR ADD'L CHARGES |
| 3 | 2 3/16" | Yes 3r Steel | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 4 | 2 15/16" | 8, 10 & 11 FPI 74 3/4" x 90" | PAN/DISH & BUCKET HEADER |
| 5 | 3 11/16" | | FORMED & SQUARE CORNERS W & W/O GROOVE |
| 6 | 4 7/16" | | CRIMPED & CONVERSION BOX HEADER |
| 7 | 5 3/16" | All Other FPI's 72" x 90" | .032" SOLDER or .040", .050", .100" & .125" BOLTED |
| 8 | 6" | | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| CORES OVER 60" WIDE MAYBE TWO PIECE TIN PASTE FACE COAT (TPFC) MAX HDR SIZE 17" x 106" CORNER REINFORCEMENTS .101" & .125" BRASS FPI 3 - 4 - 4 1/2 - 5 - 5 1/2 - 6 - 7 - 8 - 9 - 10 - 11 CRANK BOXES & CRANK HOLES | | | |

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| X 3/4" SMOOTH STAGGERED TUBES ON 5/8" CENTERS NON LOUVERED BRASS or SOLDER COATED BRASS FINs | | | |
|--|------------|---------------------------------|--|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES MAX DIP POT SIZE 90" ANYTHING OVER MUST BE HAND RUN & MAY INCUR ADD'L CHARGES |
| 2 | 1 7/8" | | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 3 | 2 1/4" | 8, 10 & 11 FPI 74 3/4" x 90" | PAN/DISH & BUCKET HEADER |
| 4 | 3" | | FORMED & SQUARE CORNERS W & W/O GROOVE |
| 5 | 3 3/4" | | CRIMPED & CONVERSION BOX HEADER |
| 6 | 4 5/8" | All Other FPI's 72" x 90" | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| 7 | 5 1/4" | | .032" SOLDER or .040", .050", .100" & .125" BOLTED |
| 8 | 6 1/8" | | |
| CORES OVER 60" WIDE MAYBE TWO PIECE TIN PASTE FACE COAT (TPFC) MAX HDR SIZE 17" x 106" CORNER REINFORCEMENTS .101" & .125" BRASS FPI 3 - 4 - 4 1/2 - 5 - 5 1/2 - 6 - 7 - 8 - 9 - 10 - 11 CRANK BOXES & CRANK HOLES !!! NO DIMPLED TUBES !!! | | | |

| XS 3/4" SMOOTH STAGGERED TUBES ON 5/8" CENTERS NON LOUVERED BRASS or SOLDER COATED BRASS FINs | | | |
|--|------------|---------------------------------|--|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES MAX DIP POT SIZE 90" ANYTHING OVER MUST BE HAND RUN & MAY INCUR ADD'L CHARGES |
| | | | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 3 | 2 5/8" | 8, 10 & 11 FPI 74 3/4" x 90" | PAN/DISH & BUCKET HEADER |
| | | | FORMED & SQUARE CORNERS W & W/O GROOVE |
| 5 | 4" | | CRIMPED & CONVERSION BOX HEADER |
| | | All Other FPI's 72" x 90" | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| | | | .032" SOLDER or .040", .050", .100" & .125" BOLTED |
| CORES OVER 60" WIDE MAYBE TWO PIECE TIN PASTE FACE COAT (TPFC) MAX HDR SIZE 17" x 106" CORNER REINFORCEMENTS .101" & .125" BRASS FPI 3 - 4 - 4 1/2 - 5 - 5 1/2 - 6 - 7 - 8 - 9 - 10 - 11 CRANK BOXES & CRANK HOLES !!! NO DIMPLED TUBES !!! | | | |

| T-12 3/4" SMOOTH STAGGERED TUBES ON 7/16" CENTERS NON LOUVERED COPPER FINs | | | |
|--|------------|---------------------------------|--|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES MAX DIP POT SIZE 90" ANYTHING OVER MUST BE HAND RUN & MAY INCUR ADD'L CHARGES |
| 2 | 1 13/16" | | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 3 | 2 11/16" | 8, 10 & 11 FPI 74 3/4" x 90" | PAN/DISH & BUCKET HEADER |
| 4 | 3 9/16" | | FORMED & SQUARE CORNERS W & W/O GROOVE |
| 5 | 4 7/16" | | CRIMPED & CONVERSION BOX HEADER |
| 6 | 5 5/16" | All Other FPI's 72" x 90" | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| 7 | 6 1/8" | | .032" SOLDER or .040", .050", .100" & .125" BOLTED |
| 8 | 7" | | |
| CORES OVER 60" WIDE MAYBE TWO PIECE TIN PASTE FACE COAT (TPFC) MAX HDR SIZE 17" x 106" CORNER REINFORCEMENTS .101" & .125" BRASS FPI 3 - 4 - 4 1/2 - 5 - 5 1/2 - 6 - 7 - 8 - 9 - 10 - 11 CRANK BOXES & CRANK HOLES !!! NO DIMPLED TUBES !!! | | | |



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| VTD 5/8" SMOOTH or DIMPLED TUBES ON .570" CENTERS LOUVERED SERPENTINE COPPER FINs | | | |
|--|------------|---------------|---|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES |
| 2 | 1 1/2" | 48" x 49" | WELDED TUBE TO .050" HEADER, BOLT ON HEADERS ONLY |
| 3 | 2 1/4" | 48" x 49" | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 3/8" WIDER |
| 4 | 3" | 48" x 49" | BUCKET HEADER |
| 5 | 3 3/4" | 48" x 49" | FORMED & SQUARE CORNERS W & W/O GROOVE |
| | | | CRIMPED & CONVERSION BOX HEADER |
| | | | .032 SOLDER, .050 BOLTED |
| MINIMUM CORE HEIGHT- 24" Tall FINS PER INCH - 12 - 13 -14 - 15 - 16 | | | |
| !!! NO CRANK BOXES !!! | | | |
| VTH 5/8" SMOOTH or DIMPLED TUBES ON .421" CENTERS HIGHLY LOUVERED SERPENTINE COPPER FINs | | | |
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES |
| 2 | 1 1/2" | 47" x 49" | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 3/8" WIDER |
| 3 | 2 1/4" | 47" x 49" | BUCKET HEADER |
| 4 | 3" | 47" x 49" | FORMED & SQUARE CORNERS W & W/O GROOVE |
| 5 | 3 3/4" | 47" x 49" | CRIMPED & CONVERSION BOX HEADER |
| | | | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| | | | .032 SOLDER, .040 or .050 BOLTED |
| MINIMUM CORE SIZE - 10" Tall FINS PER INCH - 12 - 13 -14 - 15 - 16 | | | |
| CRANK BOXES ON BOTTOM HEADER ONLY | | | |
| VH 5/8" SMOOTH or DIMPLED TUBES ON 1/2" CENTERS SERPENTINE LOUVERED COPPER FINs | | | |
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES |
| 2 | 1 1/2" | 47" x 49" | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 3/8" WIDER |
| 3 | 2 1/4" | 47" x 49" | BUCKET HEADER |
| 4 | 3" | 47" x 49" | FORMED & SQUARE CORNERS W & W/O GROOVE |
| 5 | 3 3/4" | 47" x 49" | CRIMPED & CONVERSION BOX HEADER |
| | | | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| | | | .032 SOLDER, .050 BOLTED |
| MINIMUM CORE HEIGHT - 10" FINS PER INCH - 12 - 13 -14 - 15 - 16 | | | |



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| VT 1/2" SMOOTH, DIMPLED or HEAVY WALLED TUBES ON .550" CENTERS LOUVERED SERPENTINE COPPER FINs | | | |
|--|------------|--|---|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES |
| 2 | 1 1/4" | 44" x 42" | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 3 | 2" | 44" x 42" | BUCKET HEADER, .040" & .050" BOLT ON HEADERS |
| 4 | 2 5/8" | 44" x 42" | FORMED & SQUARE CORNERS W & W/O GROOVE |
| | | | CRIMPED & CONVERSION BOX HEADER |
| | | | RIBBED - w/ 1 3/4" CONTINUOUS OVERHANG ONE SIDE |
| MINIMUM CORE HEIGHT - 7 " | | FINS PER INCH - 10 - 11 - 12 - 13 - 14 | |
| <u>CRANK BOXES ON BOTTOM HEADER ONLY</u> | | | |

| VTW 1/2" SMOOTH, DIMPLED or HEAVY WALLED TUBES ON .550" CENTERS NON-LOUVERED SERPENTINE COPPER FINs | | | |
|---|------------|----------------------------|---|
| ROWS DEEP | CORE DEPTH | MAX CORE SIZE | HEADER TYPES |
| 3 | 2" | 44" x 42" | RADIUS W/ & W/O GROOVE, W/GROOVE MUST BE 1/4" WIDER |
| 4 | 2 5/8" | 44" x 42" | BUCKET HEADER, .040" & .050" BOLT ON HEADERS |
| 5 | 3 1/4" | 44" x 42" | FORMED & SQUARE CORNERS W & W/O GROOVE |
| 6 | 4" | 44" x 42" | CRIMPED & CONVERSION BOX HEADER |
| | | | .032" SOLDER, .040" & .050" BOLT ON |
| MINIMUM CORE HEIGHT - 7 " | | FINS PER INCH - 8 - 9 - 10 | |
| <u>CRANK BOXES ON BOTTOM HEADER ONLY</u> | | | |