# THERMOFIN

# <u>Inermofin</u>

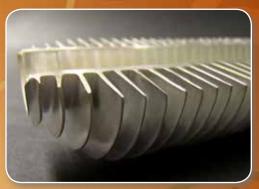
Heat exchanger manufacturer

Efficiency-Driven Heat Exchanger Creators

### Thermofin's expertise : Heat transfer

Since 1993, Thermofin has designed, manufactured and marketed a large range of high quality heat transfer products. Over the years, Thermofin has become one of North America's leading manufacturer of extruded aluminium finned tubes. Thermofin's extended surface finned tubes are routinely integrated in many reputable OEM's equipment as well as being a central part of Thermofin's own line of quality heat exchangers. Custom made tube finning machines were developed and constructed by Thermofin, allowing for a thorough understanding of the aluminium extruded tube finning process, providing Thermofin with an unmatched manufacturing flexibility.

story



Powerfin: aluminum extruded fin tube

Building on its excellent expertise in heat transfer, Thermofin has also developed numerous lines of heat exchanger products that meet the requirements of the highest international quality standards. Its engineering, research and development department can count on many highly qualified specialists: PhDs in heat transfer and materials, mechanical and heat transfer Engineers, ASME Code specialists, etc.

Most Thermofin heat exchangers have been conceived for the industrial sector. Due to the great variety and complexity of industrial processes, heat exchangers serving industrial clients must not only be custom made but must also respect stringent technical and quality standards. Accordingly, Thermofin's straight arrow attitude and purpose has enabled it to become a reference for heat transfer expertise and heat exchanger solutions. Many Thermofin heat exchangers have found their place in key industrial sectors such as energy and petrochemicals, markets for which quality and reliability of equipments are essential.

Thermofin's factories are conveniently situated near major highways in the municipalities of Candiac, Sainte-Catherine and Saint-Nicolas within the province of Quebec. They are also of easy access from the Pierre Elliott Trudeau International Airport, the Montreal Port and major railways.

With 80 000 square feet (7 500 m<sup>2</sup>) of covered surface, Thermofin's three manufacturing plants can together produce more than 1000 km of extruded fin tubes per year, making Thermofin one of the premier fin tube producer in North America. To reach its objectives, Thermofin has secured the required tooling:

- 4 tube finning machines.
- 2 overhead cranes with 20 Tonnes capacity and 40 feet of clearance under the hooks.
- Numerous CNC machines for the preparation of tubesheets and other parts.
- A heat transfer testing bench to validate thermal performance.



Thermofin factory in Candiac



Thermofin factory in Sainte-Catherine



Thermofin factory in Saint-Nicolas

- A rinsing station meeting the prescriptions of ISO 4406 for oil exchangers (type T-REX) to guarantee the highest of cleanliness level for transformer coolers.
- A mobile press allowing for expedited ITEX plate and frame heat exchanger assembly.



#### ITEX : Gasketed plate heat exchangers

The ITEX plate and frame heat exchangers are the product of many years of research and development both from the thermal and the operational point of view. In fact, nothing has been overlooked in their design: the particular geometry of the plates offers the best compromise between thermal performance (heat transfer coefficient) and energy efficiency (pressure drop). The many technological innovations (patented plug-in joints, lateral removal of studbolts, self-locking nuts) that are part of the current improved design of the ITEX exchangers will surely make a difference to their maintenance.







By combining our reknowned extruded aluminum fin tubes with carefully selected tube liner and header material, Thermofin's customized generator and motor coolers were conceived and developed according to two fundamental Thermofin qualities: DURABILITY AND EFFICIENCY.

#### POWERFIN : Aluminum extruded finned tubes and heat pipes

At the heart of most Thermofin heat exchangers' technology lies Thermofin's aluminum extruded finned tubes, they are the lead actors on which rests the efficiency and longevity of our units. Their particular design (mono or bimetal) provides great resistance (fin stiffness) as well as exceptional heat transfer characteristics (longevity, temperature range). The mechanical bond joining liner tubes and aluminum wall insures no corrosion occurs between fin and tube, a key factor in permitting the delivery of the specified duty by your heat exchanger, it also offers superior durability.

> Based on Thermofin's extruded fin tube technology, our selection of heat pipes is designed to suit the need of the Original Equipment Manufacturer. Whether they be bent in 'U' shape or equipped with end fitting to facilitate their filling, Thermofin's heat pipe designs are devoted to match your thermal and geometrical requirements. Their superior thermal performance is partly linked to the fintube inside capillary surface, created during the tube manufacture, this surface promotes the refrigerant migration.

#### T-REX : TRansformer heat EXchangers

Thermofin's Transformer oil coolers insure the integrity of the Transformer because of the care taken during manufacturing and the attention to quality control. Particular attention to cleanliness by production and management is one of the cornerstone of our manufacturing approach for transformer coolers.





#### EOLIA : Industrial air cooled heat exchangers

The robust construction of Thermofin's air coolers coupled with a design of unparalleled adaptability warrants that your process constraints and requirements are met. A careful selection of materials and parts will also provide assurances that noise level and structural integrity are respected or improved upon!

#### CALEOS : Shell and tubes heat exchanger

Specificity and efficiency, qualities that best express the know-how and particular expertise that Thermofin has been able to develop in the domain of shell and tubes heat exchangers. Whether you need express retubing, repair, alterations or, alternatively, a complete custom designed new heat exchanger, Thermofin is able to propose top-notch engineering service, unparalleled quality control and superior manufacturing.



## Products



#### ICOIL: Industrial heating ant cooling coils

Thermofin's ICOIL heat exchangers are custom made to meet your needs. By optimizing the mechanical and thermal design in accordance with your specific requirements, Thermofin's team of engineers and designers will insure you get the right equipment for the job.

#### HYDROCOOL: Thrust and guide bearing oil coolers

Through years of hands-on experience and the development with its partners of unique custom made solutions, Thermofin has been able to establish itself as a market leader in the design and manufacture of bearing coolers. Whether the heat exchange needs to be forced or natural convection, through single or double tube arranged to fit you specific geometrical requirements, Thermofin holds profound understanding of the heat transfer mechanisms insuring adequate sizing and efficient cooling. It will fit and it will cool.



Based on its vast experience in steam equipment and systems, Thermofin has developed its own steam coil design and selection software. Our control of the construction process, from design to fabrication enables Thermofin to offer the end user a variety of materials and arrangements, making our range of steam coils as diverse as your applications. Therefore, whether the steam is in vacuum or at high pressure, there is always a Thermofin steam coil that will satisfy your needs.

EXEL: Brazed plate heat exchangers

Consisting of six (6) sizes, the range of EXEL Brazed plate heat exchangers was developed to answer the exacting needs of the OEMs. Beyond the stocked models, the EXEL range has the vocation of being infinitely variable to suit the end product arrangement; it may even be substituted for another equipment.

> Thermofin's range of Panel Radiators will preserve and prolong the lifespan of your transformer while improving the reliability and power of your installation.

#### Custom unit heater

In order to provide both efficiency and variety, Thermofin has applied its considerable experience with heat exchangers to the development of a range of unit heaters that is sure to meet your needs. All of Thermofin's unit heaters are constructed with corrosion resistant 14 BWG stainless steel casings able to withstand the exacting environment usual to their typical site of operation.

#### Custom industrial grilles

THERMOFIN

Modern and esthetically pleasing, Thermofin's air handling grilles were developed using specialized alloys and aluminium profiles. Of custom made or standard sizes, Thermofin's grilles may be produced and shipped within days.

#### Cristopia : Energy Storage

At a time when there is more and more talk about the environment and the rationalization of energy usage, thermal energy storage represents a technical solution adapted to industrial cooling and air conditioning systems.









Panel Radiators







## Certification

At both the design and the construction stage, Thermofin is always conscious of quality. Accordingly, the Quality Control Department is equipped with recognized quality control tools and numerous procedures. Thermofin's team of inspectors is always involved in the development of the products and their construction to insure the highest industry quality standards are met, they are also qualified to perform some Non Destructive Examination or otherwise oversee the work of outside N.D.E. agencies. Aditutovo

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- ISO 9001
- ASME Sect. VIII Div. 1
- ASME Sect. IX
- U Stamp
- UM Stamp
- National Board "R" Stamp
- CSA
- CRN
- API Standards
- TEMA Standards
- ABS
- Lloyd's Register Marine
- DNV
- China License

# Thermofin: Shining on the International stage

Thermofin offers its know-how, technology, service and products all over the world thanks to its experts and its commercial network.

From Australia to America, from the far reaches of Asia, Europe or Africa; the most varied of clientele have sought Thermofin's products.

Over the years, Thermofin has acquired an international reputation for quality by relying on its principal force:

## **ITS CUSTOMERS !**



47 boul Marie-Victorin

Heat exchanger hanufacturer

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