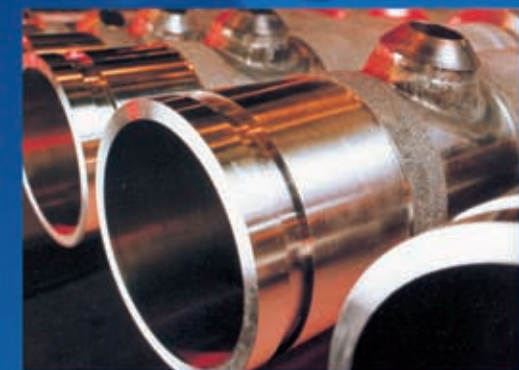
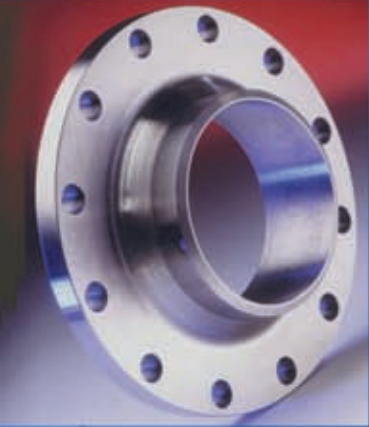


A large range of products





A network all over the world

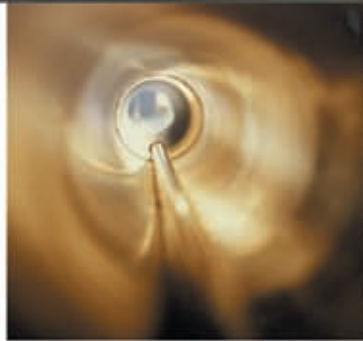


Manoir Industries Pîtres Plant

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The Expertise



MANAURITE

Integrated Solutions for Hydrocarbon Processing



MANOIR INDUSTRIES

Manoir Industries and the Petrochemical industry

For over 40 years, Manoir Industries has offered high quality solutions employing the widest range of technical expertise housed under one roof and with a consistent QA/QC standard.

In metallurgy

By developing a range of innovative proprietary alloys, called **MANAURITE**.

In casting techniques

By using a combination of state of the art equipment and the latest technology to manufacture tubes or transition pieces by centrifugation, and fittings or tube sheets by static moulding.



Manoir Industries, a foundry and forging specialist

The group's activities cover 10 various markets, with an international sales network including offices and representatives worldwide to meet customers'specific requests.

With 8 manufacturing plants, the group has been actively involved in developing new alloys and processes to improve the mechanical and metallurgical properties of petrochemical furnace internals.

High quality standards, extensive history of know-how, a commitment to excellence combined with skilled and experienced teams, state-of-the-art technology and facilities are focused to achieve customer satisfaction.

In metal processing technologies

By using the most suitable machining or welding techniques and processes.

In QA/QC high standard

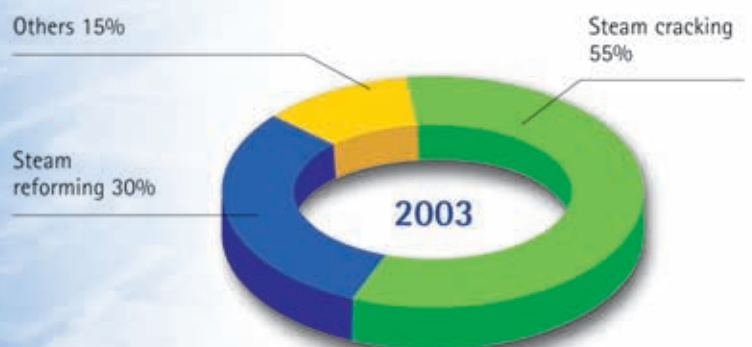
By taking advantage of their outstanding experience of the most demanding markets, including nuclear power plants.

This commitment to always remain one step ahead of the game, draws us to favour an R&D oriented strategy to offer unrivalled solutions to an increasingly fast moving industry.

In innovation

Innovative concepts are also available, such as:

- the CoatAlloy™ range of advanced anti-coking coating surfaces promoted through the exclusive alliance with Bodycote International Plc.
- the cast internally finned Vulcan tubes recently developed by Manoir.



A tradition of advanced innovation in metallurgy



MAIN MANAURITE ALLOYS

		50/50Nb	XTM	XM	40X	36X	900B	900	20
Temperature Limit	°F	1652** 2102	2192	2012*	2102	1922	1976	1832	1850
	°C	900** 1150	1200	1100*	1150	1050	1080	1000	1010

Applications	STEAM CRACKING	Radiant coils		■	■	■	■	■	■	
		Radiant tubes		■	■	■	■	■	■	
		Shield tubes						■	■	■
		Transfer lines						■	■	
	STATICS	Tube sheets brackets	■		■		■			■
		Radiant coil hangers	■		■		■			■
	REFORMING	Ammonia			■		■			■
		Hydrogen			■		■			■
		Methanol		■		■				
		Iron ore reduction		■	■	■	■			
		Manifolds						■	■	
		Shield tubes			■		■	■		■

Manoir industries has consistently offered new solutions from within its alloy portfolio to optimise creep and carburization resistance, thermal shock resistance, and specific corrosion resistance. All being dedicated to stand up against more severe operating conditions offering a longer material life expectancy.

NEW MANAURITE

		XT0	X0*	40X0	XOR*
Temperature limit	°F	2192	2084	2138	2012
	°C	1200	1140	1170	1100
Applications	Steam cracking	■	■	■	
	Reforming				■



*For specific applications, higher limits can be granted.
**In severe fuel ash corrosion environments.

From liquid steel to high performance products

To counter the highest operating temperatures and the most severe process conditions, Manoir Industries has developed its own specific range of High Nickel / High Chromium alloys known and patented under the Manaurite name, as well as suitable metal processing and welding technologies.



Static casting: sand or ceramic moulding

Complementing its centrifugal casting capabilities, Manoir Industries manufactures statically cast fittings by sand or ceramic moulding techniques for pieces where intricate shapes meet with high smoothness requirements. All the processes are verified by the cad/cam facilities.

Machining, welding skills

Manoir Industries policy is to machine 100% of its castings by CNC machines. Whatever the diameter, every tube element is internally machined by one single pass.

The surface finish obtained is 125 RMS maximum but can be 63 RMS or better if necessary, for any tube diameter.

Manoir Industries has developed a new technology for machining small diameter tubes, such as 1 inch.I.D. offering an alternative to wrought tubes in steam cracking furnaces whatever the design.



Quality assurance and quality control

As required by the end user, Manoir Industries accepts for inspection to be performed in accordance with ASME, ASTM, STOOMWEZEN, TUV, PED and other international inspection standards. Manoir Industries also has an ISO certified Quality Assurance System.



Inspections confirm the tube OD and ID integrity for the total length and permits Manoir Industries to supply their customers with the highest possible quality. Macrostructures and microstructures are checked on test samples or on the end products. Laboratories at our Pitres plant have the necessary equipment for testing high grade materials and providing our customers with material test reports for each manufactured product.