

Grupo AXIS



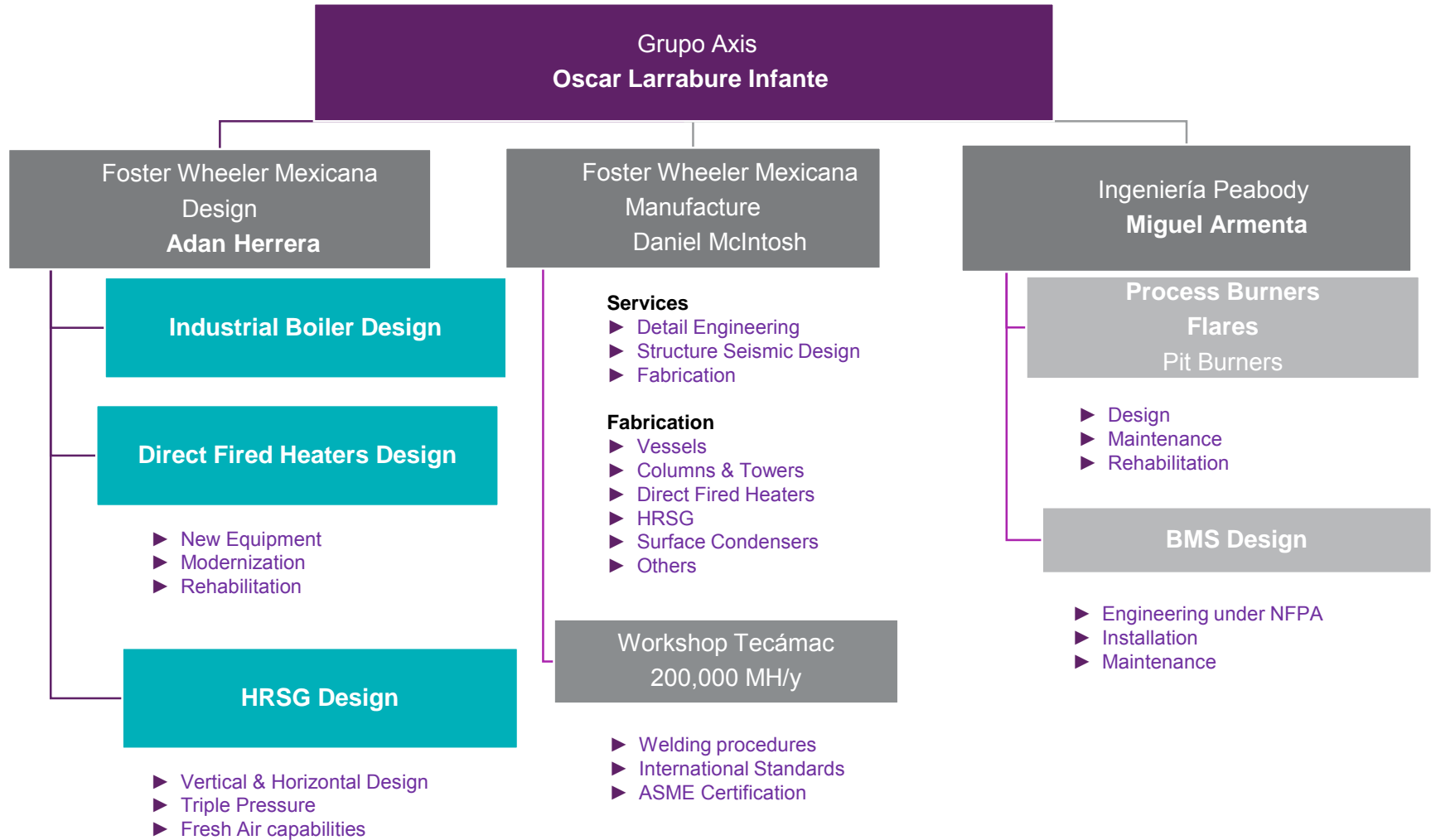
Grupo AXIS

Founded in 1969 and formed by two independent companies:

- ▶ Foster Wheeler Mexicana
- ▶ Ingeniería Peabody

Core business: Design and manufacturing of heat transfer equipment for the use in refining, petrochemical, chemical industry and power generation.

Business structure





Company Profile

Design, manufacturing and erection of:

- ▶ Boilers up to 990,000 pph
- ▶ Fired Heaters
- ▶ HRSG up to 50MWe
- ▶ Surface Condensers and Feed Water Heaters

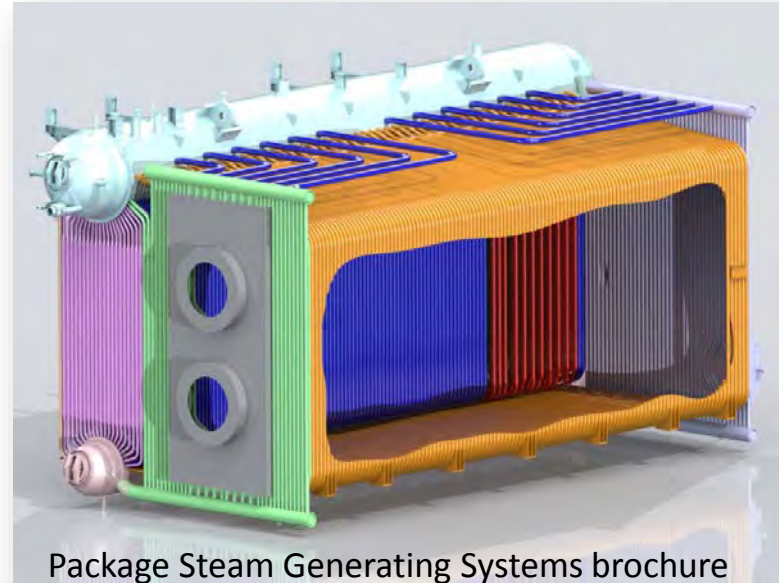
Boilers:

Services

- ▶ Design
- ▶ Manufacture
- ▶ Installation
- ▶ Modernization
- ▶ Revamps & Rehabilitation

To:

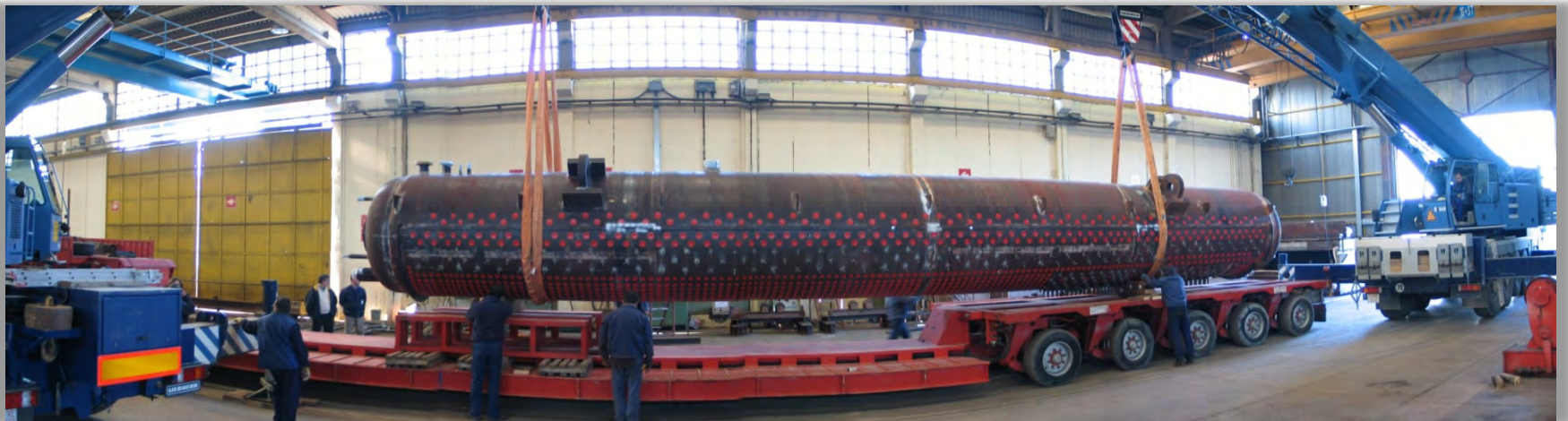
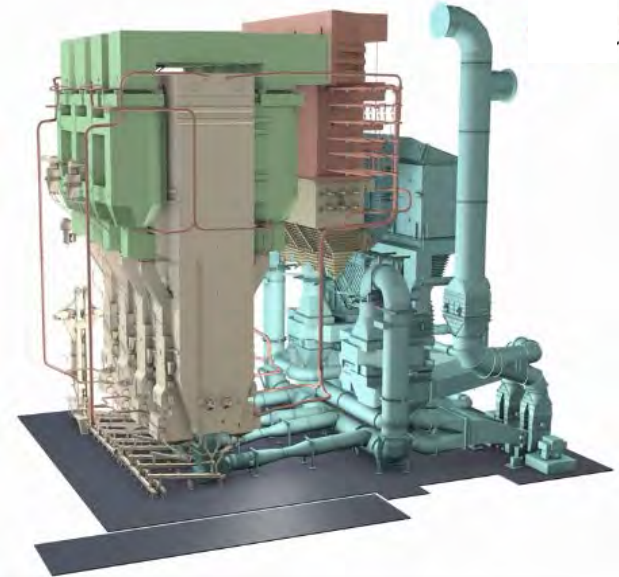
- ▶ Old Steam Generators any brand
- ▶ Package Boilers
- ▶ Industrial Boilers
- ▶ Utility Boilers
- ▶ BCF Boilers
- ▶ CBF Boilers



Boilers:

Services

- ▶ CFB Boiler repair under agreement
- ▶ Spare parts manufacture
- ▶ Pressure parts fabrication
- ▶ Installation



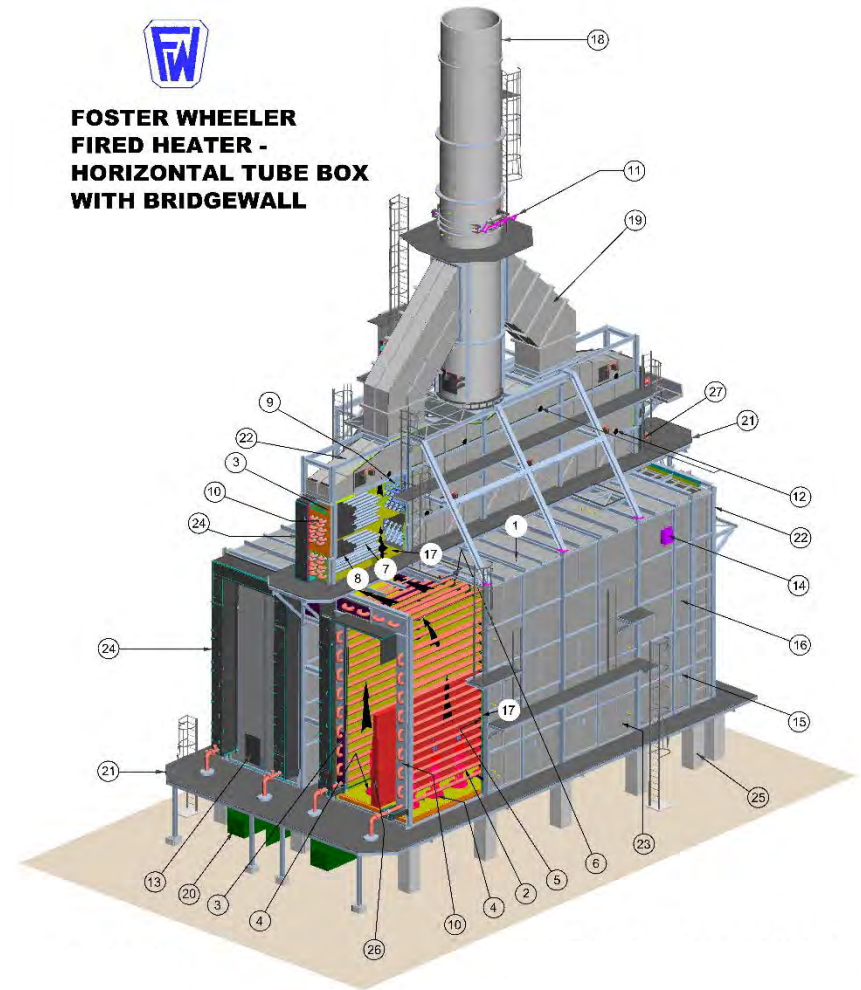
Fired Heaters:

Services

- ▶ Design
- ▶ Manufacture
- ▶ Installation
- ▶ Modernization
- ▶ Revamps & Rehabilitation

To:

- ▶ Old Fired Heaters any brand
- ▶ Vertical Cylindrical Type
- ▶ Horizontal Tube Box Type
- ▶ Arbor Type





Company Profile

- ▶ Design, manufacturing and detail Engineering of Industrial Metal Products.
- ▶ ISO 9001:2008 Quality Assurance System.
- ▶ ASME Certification “R”, “S”, “U” and “NBR”.



Company Certifications

THE NATIONAL BOARD OF BOILER & PRESSURE VESSEL INSPECTORS
Certificate of Authorization

This is to certify that

AXIS INDUSTRIAL S.A. DE C.V.
 KM. 48.5 CARRETERA FEDERAL

CERTIFICATE OF AUTHORIZATION

The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

SCOPE:
 Manufacture and

ASME

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COMPANY:
 Axis Industrial, S.A. De C.V.
 Km. 48.5 Carretera Federal Mexico-Pachuca
 Tecamac Edo. De Mexico 55755
 Mexico

SCOPE:
 Manufacture of pressure vessels at the above location and field sites controlled by the above location (This authorization does not cover impregnated graphite)

AUTHORIZED: September 24, 2014
EXPIRES: November 26, 2017
CERTIFICATE NUMBER: 31,825

Roger A. Scher
 Vice President, Conformity Assessment

Paul M. Wynn
 Director, Conformity Assessment

The American Society of Mechanical Engineers

THE NATIONAL BOARD OF BOILER & PRESSURE VESSEL INSPECTORS
Certificate of Authorization

This is to certify that

AXIS INDUSTRIAL, S.A. DE C.V.
 KM. 48.5 CARRETERA FEDERAL
 MEXICO-PACHUCA
 TECAMAC, EDO. DE MEXICO - 55740
 MEXICO

ASME

ISO 9008

NBR Registration

TR
 TUV RHEINLAND

Registro de Certificación
Certificate of Registration

El presente certificado es un documento de carácter técnico que acredita el cumplimiento de los requisitos de la Norma Mexicana NMX-C-001-IMNC-2008 (ISO 9001:2008) en el ámbito de la fabricación y montaje de componentes de acero para la industria de generación de energía eléctrica.

AXIS INDUSTRIAL S.A. DE C.V.

ISO 9001

DNV-GL

ASME Certificates

ISO 9008 Certification

Manufactured Products

Design and Manufacture:

- ▶ Vessels
- ▶ Heads
- ▶ Columns & Towers
- ▶ Heat Exchangers
- ▶ Stacks

Other Services:

- ▶ Heat Treatments
- ▶ Quenching
- ▶ ASME Stamp



Company Profile

- ▶ Burner Management Systems Design.
- ▶ Exclusive Peabody Technology.
- ▶ ISO 9001:2008 Quality Assurance System.

Main products:

Design and Manufacture:

- ▶ Low NOx burners for boilers
- ▶ Low NOx burners for Fired Heaters
- ▶ Flares Self-Supported
- ▶ Pit Burners and Derrick

Services:

- ▶ BMS design
- ▶ Characterization of old burner systems
- ▶ Improvement of efficiency on Burner systems



Ingeniería Peabody Presentation

Ingeniería Peabody



Boiler Burners

► Site – CFE Tula



Pit Burners

► Site – Nuevo Pemex



Flares

► Site – Cadereyta Refinery

Recently Executed Projects

- 20 Process Columns – Minatitlan Refinery



Recently Executed Projects



CCR La Cangrejera



23.10.2011 12:54



CCR La Cangrejera



Tula Refinery Sector 8

Recently Executed Projects



SD Boiler CB2N at PEMEX Madero's Refinery 550,000 pph

Exported Projects

- ▶ Direct Fired Heater 780 tons for Chevron CCR – USA Pascagoula, Mississippi
- ▶ 2 Condensers and 14 Feed Water Heaters - Chile Mejillones
- ▶ Condenser – Loma la Lata, Argentina
- ▶ Condenser – El Pilar, Argentina
- ▶ 2 packages Boilers – USA Barrick Gold Strike
- ▶ Economizer – USA Idaho Agrium
- ▶ Package Boilers Pressure Parts – Canada Edmonton
- ▶ Feed Water Heaters – USA Tonopah & Mojave Solar Power Plant
- ▶ 3 Boiler Pressure Parts – USA North West Read Water
- ▶ Steam Drum HP – USA SunCoke Energy

Exported Projects



Heat Exchanger Mejillones Chile



Condenser Loma la Lata Argentina

Condensers brochure



Condenser El Pilar Argentina

Experience to Revamp Industrial Equipment

- ▶ Direct Fired Heater Revamp at Tula's Refinery
- ▶ Revamp of Waste Heat Recovery Boiler at Catalytic Plant Salina Cruz Oaxaca Refinery
- ▶ Direct Fired Heater Revamp at Hydrodesulphurization at Cadereyta's Refinery
- ▶ Revamp and Upgrade of 2 Surface Condensers at CFE CC Tula



Convection Section Coker Minatitlan Refinery



Rehabilitation ABA Tula's Refinery



Boiler Substitution CB2 Madero Refinery

Package boiler 77 T/h Tula's Petrochemical Complex



Executed Projects 2017

- HRSG for IPP

Cogeneration 50MWe



- Fabrication and Erection of

2 HRSG 220MWe each

For Public CC PP

With High Percentage of

Local Content



Executed Projects 2017



**Harps for two HRSG
CC 615MW Valle de México**



Executed Projects 2018

- Fabrication and Erection of 2 HRSG 220MWe each for Public CC PP



Executed Projects 2018

- Revamp of Condenser for Two U-3 & U-6 for Project CFE 311 RM CCC TULA Packages 1 Y 2



- Shop fabrication



- Dismantling and erection of Unit 6.

Area



Land Area: 968,800 sq Ft
Shop Area: 60,000 sq Ft

Location

