

# TURBO COMPRESSORS

PROCESS GAS COMPRESSORS | AIR COMPRESSOR | MVR COMPRESSORS





## The advantages at one glance

**Energy efficient**

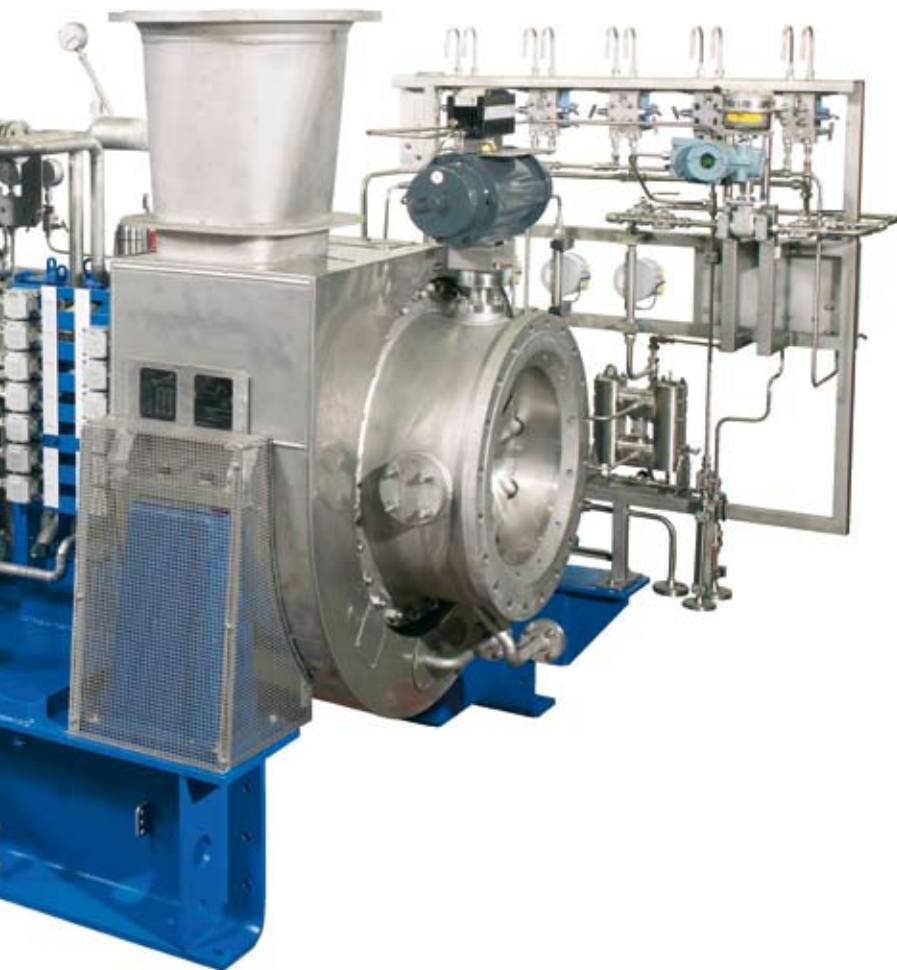
**Custom-built solutions by modular design**

**Broad range of materials**

**Flexibility in design (API 617, ISO, ASME etc.)**

**Minimal maintenance requirements**





**High operational reliability**

**Low capital expenditure and  
minimized TCO**

**Compact design**

**Over 60 years experience**

**Quality made in Germany**



## Designed for high performance

### Sealing systems

#### Dry gas seals

- Single, double or tandem arrangement

#### Turbo-labyrinth seal

#### Seal gas panels

- Compact design tandem arrangement
- Also for hazardous areas



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### Impellers

- Closed or semi-open 3-D design
- Milled or welded
- Broad range of materials
- High efficiency
- Easy dismantling with Hirth-type serration arrangement



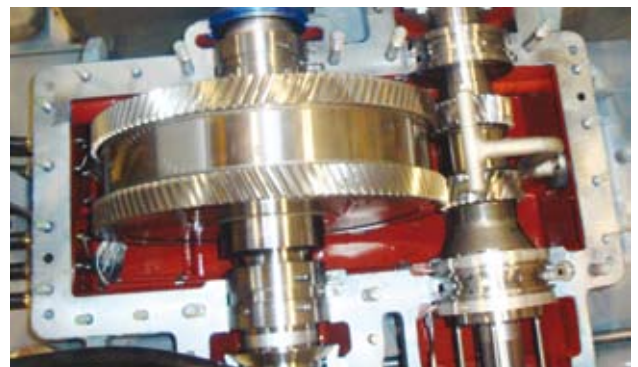
### Gearboxes

Hydrodynamic radial and axial bearings

Temperature and vibration monitoring

Single helical gears      Double helical gears

- Thrust collar input shaft





### Oil supply systems

- Integrated system according to DIN, API 614, customized
- Compact design / skid mounted
- Low cost and space requirements due to compact and integrated design



### Drives

#### Electric motors

- Low / medium / high voltage
- Air / water cooled
- Anti-friction / sleeve bearings



#### Steam turbines

- API 611/612 or DIN 4312 design
- Direct drive / geared design
- Electro-hydraulic speed governing

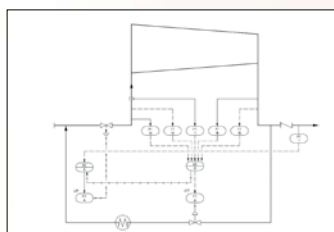
### Flow Control Devices

- Variable inlet guide vanes (IGV)
- Variable diffuser vanes (DGV)
- Combination of IGV and DGV
- Control valves (butterfly / globe)
- Kickback via cooled bypass
- Variable speed drives (VSD)





# Turn key system



Anti-Surge Control Systems



Noise Abatement



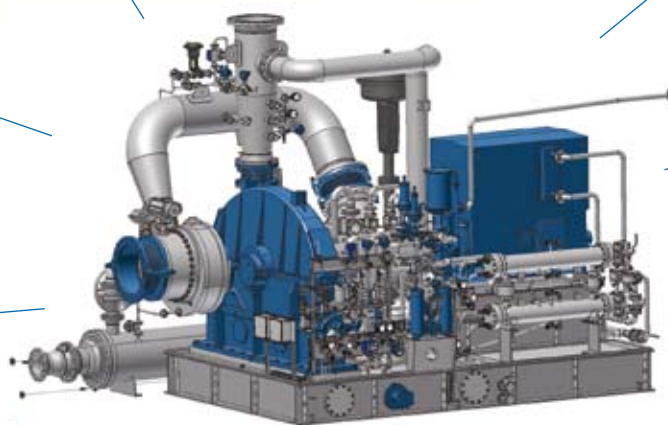
Installation and Commissioning



Local Control Panels / Control Cabinets



Auxiliary Equipment



Risk Analysis



Bypass Coolers



Process Monitoring



Remote Access



Drives - VSD System



Documentation



# Portfolio of FIMA

## Refinery

- Claus process
- Continuous catalytic reforming (CCR)
- Desulphurisation
- Hydrogen
- Recontacting
- Reforming compression
- Tail gas treatment

## Chemicals

- Sulphuric acid
- Butyl
- Methanol
- Formaldehyde
- Propylene oxide
- Ethylene oxide

## Chemical conversion

- Coal gasification

## Polymers & Selected Petrochemicals

- Acrylic acid
- Butadiene
- Aromatics
- Polyester (PET/PTB)
- Polyamide 6
- Melamine
- Polyamide
- Polypropylene
- Polyethylene
- Purified terephthalic acid (PTA)

## Renewables

- Bioethanol

## Others

- Sulfur recovery unit (SRU)
- Vapour recovery unit (VRU)
- Waste gas treatment
- Acid gas treatment

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