

# Pumping and Gas Handling Solutions for the Oil and Gas Industry



 **Ensival Moret**  
A Moret Industries Company

 / Making Progress Together



[www.ensival-moret.com](http://www.ensival-moret.com)



## Pumps and Systems for the Oil and Gas Industry

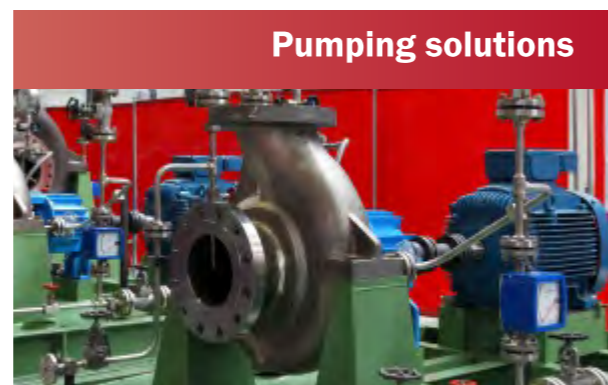
### Ensival Moret Experience

#### MANUFACTURING RANGE

- High-temperature and high-pressure pumps
- Highly corrosion resistant pumps
- Custom engineered pumping solutions with proven design ensuring high safety and reliability for your installation
- Oil production and Refinery Auxiliaries
- Cryogenic pumps

#### KNOW-HOW

- Temperature : from -160 °C up to + 600°C.
- Pressure : 200 bar. (higher pressure upon request)
- Expertise : Low NPSH, Corrosion resistant
- Metallurgy : exotic alloys ( titanium, hastelloy, zirconium,...)



Ensival Moret supplies, to high technical standards, a complete range of horizontal, vertical, single or multi-stage centrifugal pumps, axial flow pumps and complex packaged equipment complying with API 610.

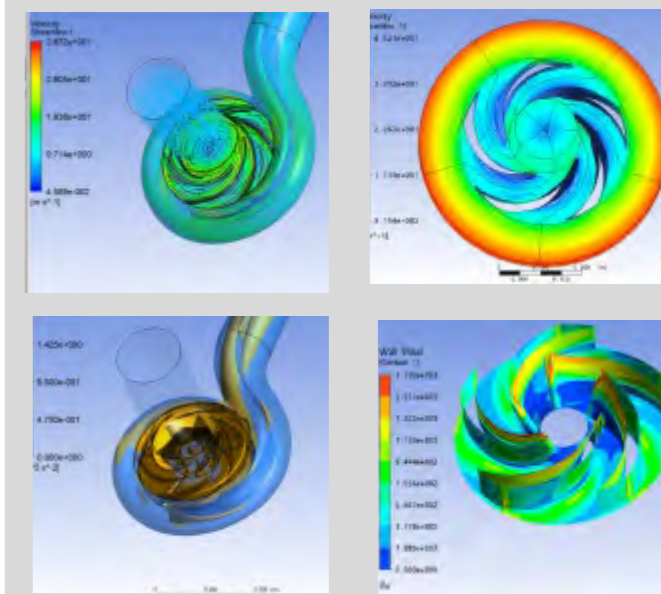
From standard API pumps to special pumps in cast steel or stainless steels, Ensival Moret provides efficient, reliable and tailor-made solutions to satisfy a wide variety of requirements involving pumps in the Oil and Gas industry.

All these types of pumps can be manufactured in all API classes materials, as well as exotic materials (hastelloy, titanium, zirconium...)

Thanks to these numerous designs and to reliable partners in pump drivers, sealing and monitoring, Ensival Moret can offer engineered solutions to meet specific oil and gas project requirements.

### / Ensival Moret continuously invests in R&D tools:

Experienced engineers utilize the latest softwares to optimize pump and system design with computational fluid dynamics simulations (backed by empirical tests), static and dynamic stress and thermal analyses.





## Pumps : a complete package solutions for the oil and gas industry



Single stage process pump - OH2

- **Flow** : up to 4,500 m<sup>3</sup>/h
- **Head** : up to 320 m
- **Special features** :
  - Closed impeller with relief vanes
  - Reinforced design for high t° and pressure



Low-flow pump - OH2

- **Flow** : up to 20 m<sup>3</sup>/h
- **Head** : up to 300 m
- **For low-flow and high head requirements**



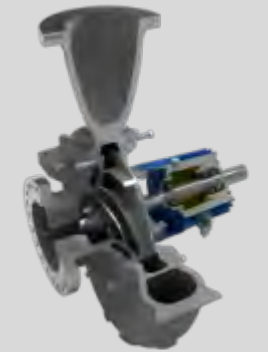
Radial casing split pump - BB2

- **Flow** : up to 2,800 m<sup>3</sup>/h
- **Head** : up to 500 m
- **Impeller types** :
  - with double-suction impeller
  - 2 stages with closed impeller



Multistage barrel pump - BB5

- **Flow** : up to 800 m<sup>3</sup>/h
- **Head** : up to 1200 m
- **For high pressure requirements**



Single stage process pump - OH2

- **Flow** : up to 3,600 m<sup>3</sup>/h
- **Head** : up to 50 m
- **Special design with open impeller and semi-open impeller with wear plate**



Single or multistage pump - VS1

- **Flow** : up to 10,000 m<sup>3</sup>/h
- **Head** : up to 350 m
- **Impeller types** :
  - mixed flow impellers
  - radial impellers



Vertical multistage can pump - VS6

- **Flow** : up to 400 m<sup>3</sup>/h
- **Head** : up to 1,200 m
- **Impeller types** :
  - Mixed flow impellers with volute casing
  - Radial flow impellers with volute casing
  - Radial impellers with tie bolt design



Vertical sump pump - VS4

- **Flow** : up to 2,000 m<sup>3</sup>/h
- **Head** : up to 100 m
- **Long shaft design**



Vertical sump pump - VS5

- **Flow** : up to 3,500 m<sup>3</sup>/h
- **Head** : up to 150 m
- **Cantilever design**



Loop reactor pump

- **Flow** : up to 30,000 m<sup>3</sup>/h
- **Head** : up to 50 m
- **High flow and high pressure applications**



## Flare gas and vapour recovery system

### / Flare gas recovery system

Flare is used to burn hydrocarbons coming from different steps of the oil refining process, or from the gas field operation, but it is primarily a safety device. You cannot remove the flare, you cannot prevent hydrocarbons from reaching the flare, but you can eliminate non-safety flaring.

### Typically, all waste gases go to flare:

- Relief valve leakage
- Control valve leakage
- Normal gas flow rates
- Vent gas
- Header sweep gas
- Emergency Releases

Some are clean enough and can be used to feed a power generation system directly or can be sent to storage/distribution facilities, some are not and need to be redirected to the inlet of the refining process. A Flare Gas Recovery Unit pays back for itself in 16 to 48 months, depending on the complexity of the installation.

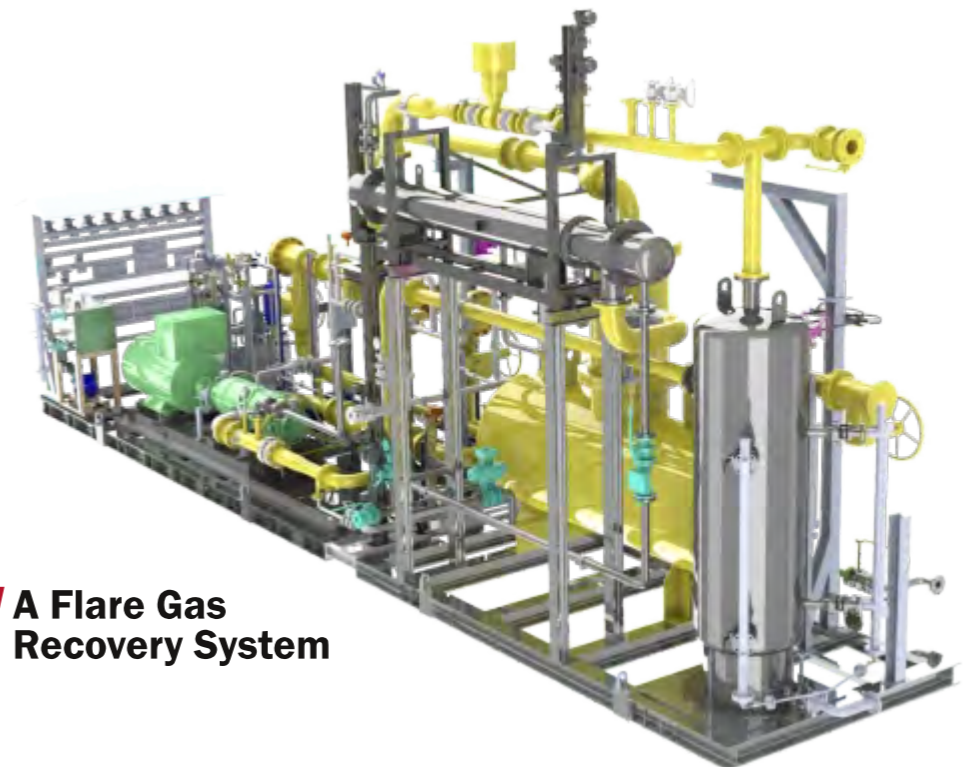
With over 35 references, MPR Industries is a leading global supplier of Flare Gas Recovery Systems.



### / Vapour recovery system

MPR Industries is a leading supplier of systems designed to handle hydrocarbon vapours coming out of all storage and process facilities. Vapour Recovery Units supplied by MPR Industries enable to meet all new regulations in terms of storage design, vapour capturing and reuse. They are designed to handle hydrocarbon gases containing all types of impurities such as H<sub>2</sub>S, asphaltenes/bitumen, chlorides, etc...

Our systems are designed to maximize Return On Investment and have an average lifetime of 30 years. Their design allows MTBF of up to 40.000 hrs.



**/ A Flare Gas Recovery System**

### About MPR Industries

MPR Industries is a subsidiary of Ensival Moret. Within the Ensival Moret Division, MPR Industries is in charge of supplying air and gas handling solutions. With a volumetric technology using sliding vane or liquid ring, MPR Industries offers a complete range of compressors and vacuum pumps which can reach flows up to 22,000 m<sup>3</sup>/h (97,000 USgpm)

More information about air and gas handling solutions : [www.mpr-industries.com](http://www.mpr-industries.com)



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