### SIAD MACCHINE

## Wet CO<sub>2</sub> Compressor: new design, featuring efficiency and innovation

Wet CO<sub>2</sub> and its recovery will put any compression system under stress: the problems arising due to the presence of water need to be addressed in a specific way in order to avoid risks of corrosion or wear.

For this reason, thanks to its long experience, SIAD Macchine Impianti has developed a new product to ensure all the quality standards of the gas, while maintaining high performance. The innovative design offers cross-efficiency:

- specific with respect to the problems of wet CO<sub>2</sub>;
- general for the operation of each individual compressor.

Efficiency ensuring high reliability of the system, its durability and minimizing consumption.





Specific food-grade CO<sub>2</sub> distance piece

### Food-grade CO<sub>2</sub>

Completely oil-free operation results in a significant improvement in the purity of the gas, thanks to the design of

#### Applications

- Food & Beverage
- Biogas
- Ammonia
- Hydrogen
- Wellhead

the distance piece and the use of specific materials for foodgrade CO<sub>2</sub> application.

- Ethanol
- Combustion
- Dry ice
- Chemicals
- Gas Treatment

**Compressors Division** 

#### An evolved technical background

SIAD Macchine Impianti has applied all its technical expertise to identify the main factors that increase the lifetime of the machine and reduce consumption. The following interventions increase the service life of the system and the MTBM (Mean Time Between Maintenance):

 optimized balancing of compressor masses to reduce vibration, with consequent increased life of the components;

- low piston linear velocity, ensuring longer life of the seals;
- layout optimization with
  linearization of the piping and
  the use of wider pipes, to obtain
  low gas circulation speed. This
  is essential in order to reduce
  pressure losses and favor
  separation of the condensate,

for more efficient operation and reduced consumption;

 ad hoc design in accordance with the principles of operation and maintenance ergonomics, in addition to being fully automated for remote operation.

#### **Highlights**

Lower maintenance costs Minimized plant downtime thanks to the redesign of the compressor with perfect balancing of the components, hence less wear.

#### **Energy saving**

Optimized fluid dynamics with a significant reduction in energy consumption compared to the previous compressor model.



Model	Capacity kg/h	Intel pressures bar (a)	Delivery pressure bar (a)	Number of compression stages
TS2-2	150	atmospheric	19	2
WS1-2	250	atmospheric	19	2
WS2-2	650	atmospheric	19	2
MS2-2	1 100	atmospheric	19	2
MS2-2	2 100	atmospheric	19	2

Typical sizes of CO, compressors - Other models available on request

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