

Mini SMART DUPLEX

THE HIGHEST PERFORMANCE IN A COMPACT UNIT

Our Mini SMART DUPLEX is a CO₂ booster unit with **6 compressors** and an **integrated ECO2SMART system**. A unit that combines 3 key factors highly demanded by the market: **EFFICIENCY + POWER + ADAPTATION to MACHINE ROOMS** (its compact dimensions and low height make it suitable for small machine rooms). The **Mini-SD** delivers outstanding performance with 3 compressors for medium temperature (MT), 2 compressors for low temperature (LT), and 1 ECO2SMART compressor.

COOLING POWER: 50 to 150 kW

APPLICATIONS: 1.000 to 2.000 m². MT / LT

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- » INDUSTRIAL APPLICATIONS

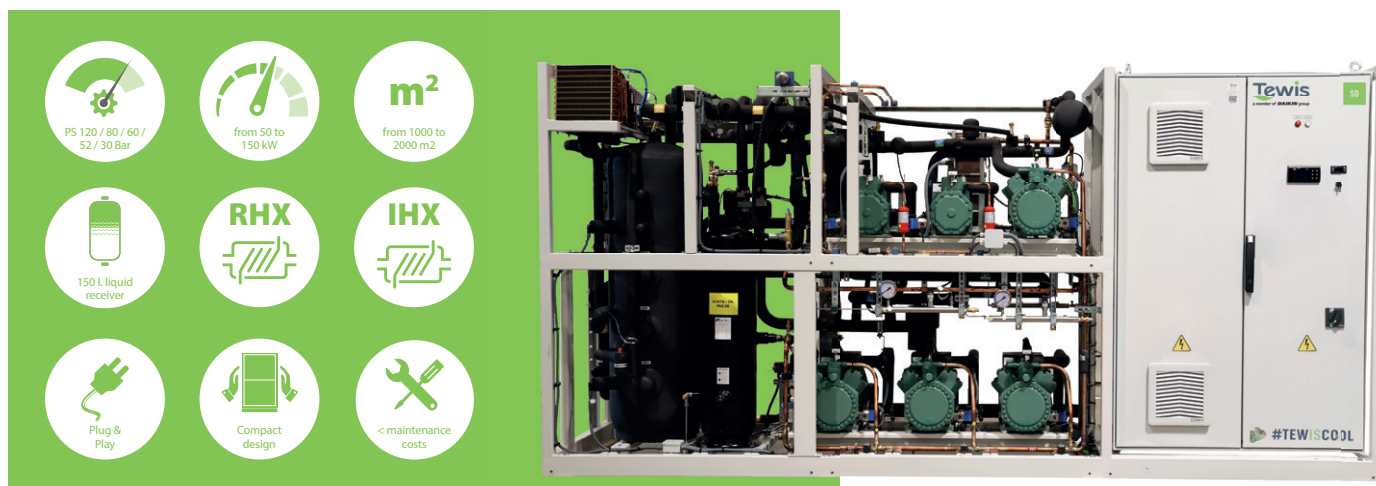
ECO2SMART

EXCLUSIVE HIGH EFFICIENCY CO₂ SYSTEM by TEWIS

The Mini-Smart Duplex comes **equipped with our exclusive ECO2SMART system**, a mechanical subcooling solution that significantly **enhances the efficiency of our CO₂ units, even in extremely high temperatures**. It is the only system on the market that **starts operating at 10°C**, resulting in energy savings for a large part of the year. **It operates exclusively with CO₂**, requiring no additional components or complementary systems to ensure its performance.

MAIN BENEFITS

- ✓ 100% CO₂ = minimal environmental footprint.
- ✓ Compact and simple design (only 1 m depth).
- ✓ Maximum power with 6 compressors.
- ✓ Large-capacity vertical receiver (1 x 150 L).
- ✓ Remote control (accessible from anywhere).
- ✓ Ease of commissioning and maintenance.
- ✓ Option for 1 RHX for tap water or heating.
- ✓ Total length of less than 4 m.
- ✓ Wide range of optional features available.



STANDARD EQUIPMENT

- ECO2SMART compressor.
- Tubular chassis.
- Vertical liquid receiver (1 x 150 L).
- Oil separator and accumulator.
- 6 compressors.
- Frequency inverter for the first MT compressor, first LT compressor, and ECO2SMART compressor.
- Electronic refrigerant level sensors.
- All connections made of copper.
- Manometers.

AVAILABLE OPTIONS

- RHX (Heat Recovery Exchanger).
- Gas cooler bypass.
- IHX (Internal Heat Exchanger).
- Dual bypass valves for gas and high pressure.
- Onboard emergency unit.
- 10" touchscreen TMS (Tewis Machine Supervisor)
- Option for ECOLINE+ compressors (permanent magnet motors – LSPM).
- Enclosed and soundproofed.

CO2 DESIGN PRESSURES

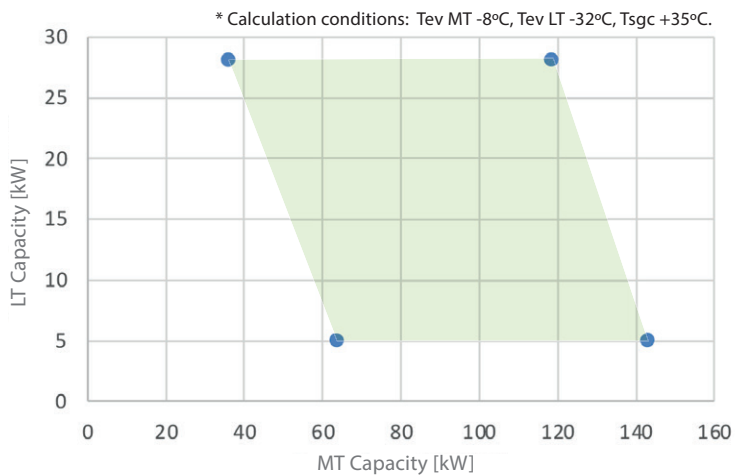
- MP (MT Suction): 52 bar.
- LP (LT Suction): 30 bar.
- IP (Receiver and Liquid Line): 60 bar.
- ECO2 (ECO2SMART Suction): 80 bar.
- HP (Discharge): 120 bar.

AVAILABLE DRIVERS

- Tewis.
- Danfoss.
- Carel.
- Wurm.

COMPRESSORS

- BITZER.



With just 1 m depth, all components are easily accessible, significantly reducing installation and maintenance times and costs. Additionally, the Mini Smart Duplex can be fully enclosed and soundproofed for outdoor installation.

The Mini-SD unit comes standard with our **ECOSMART** system, which contributes to significant energy consumption savings related to refrigeration.

