COLD START TEST BENCH VP & VOP PUMPS
This machine has been designed and built to test, in lower temperature, the automotive oil pumps or vacuum pumps.

Components:

- Single station, structure in carbon steel with bench size of 2300 mm x 1100 mm, height 2350 (indicative)
- Cabinet support and rear engine cage.
- Modular steel platform (Fe360B) with leveling feet
- oil tank - size of 300 mm x 500 mm, depth 350 mm (indicative)
- Aluminum base plan
- Interface plates, 1 for compartment
- Motor shaft group for testing pumps, including torque, speed, phase
- Cabinet for motors drivers
- Cabinet for control and regulation electronics
- Vacuum capacity
- Data acquisition system.

Cold Start TB

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MECHANICAL INTERFACE
The machine is equipped with a mechanical interface used to hook up a customer pump's interface.

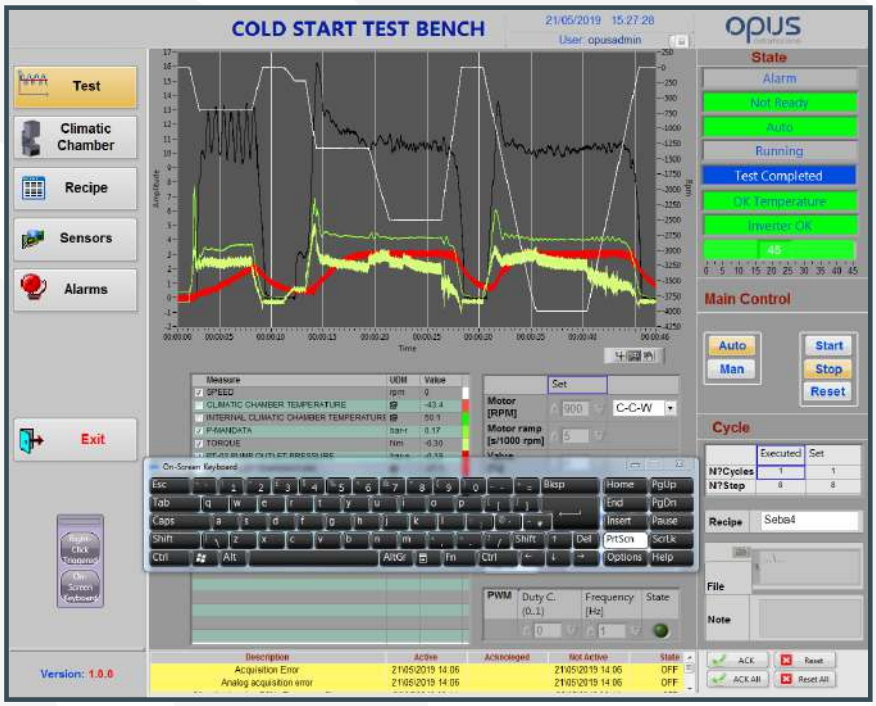
CLIMATIC CHAMBER
The test bench is equipped with an innovative climatic chamber which include a vertical sliding cover and an internal air cooled recirculating system.

Features:

- Internal dimension: W 850mm / H 1000mm / D 700mm
- Construction in stainless steel AISI 304 with insulation 80mm
- Compressor, evaporator and condenser are arranged at the bottom of the chamber
- Front sealed cover equipped with pneumatic cylinders for lifting and closing operation.
- Safety device to avoid the accidental door movements.
- Dripping oil collection fond under oil tank.

Main Parameters:

- **Climatic chamber temperature:**
  from ambient temperature to -40°C
- **Electrical Motor performance:**
  Max speed 5000rpm (closed loop controlled by encoder)
  Max torque 28NM@5000rpm or 200NM@300rpm
- Max vacuum volume 6L
- Max oil pressure 25bar



DESCRIPTION	RANGE	UNIT	ACCURACY
torque sensor	± 0-500 ± 0-100	Nm	0,05 0,1
pump inlet pressure	0-3	Bar A	± 0,1% f.s.
pump outlet pressure	0-25	Bar	± 0,35% f.s.
pump internal pressure	0-30	Bar A	± 0,1% f.s.
pump inlet temperature	-50÷150	deg-C	± 0.3 + (± 0.1 % MS)
pump outlet temperature	-50÷150	deg-C	± 0.3 + (± 0.1 % MS)
thermal chamber temperature	-50÷150	deg-C	± 0.3 + (± 0.1 % MS)
Mass Flow Transmitter DN50	-0÷1700	l/min	
Air controlled Proportional Valve PN40-DN25	Depending of application	CV	

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CERTIFIED QUALITY MANAGEMENT SYSTEM
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