

### Technical Data Sheet

### Hydraulic Flow Test Bench for diesel injection nozzles

Test bench for measuring of the hydraulic flow, hydraulic flow map and CCP (critical cavitation point) in the two different pressure ranges 0 – 200 bar and 200 – 2500 bar

#### Technical data



Pressure	$p_{\max} = 2500 \text{ bar}$
max. nozzle flow rate	10 l/min
Working fluid	HLP 46, 950 l SRS Calibration Fluid, 200 l
Compressed air supply Required amount	$p = 6 - 10 \text{ bar}$ $Q = 500 - 800 \text{ l/min}$
Cooling water Required cooling power	$t_{in} = < 12 \text{ °C}$ 130 kW
Temperature fluid tank	+/- 2 K
Pressure control accuracy	+/- 0,5 bar (up to 200 bar) +/- 10 bar (200 – 2500 bar)
Size (WxTxH)	4300 x 1890 x 2150 mm
Weight	approx. 7500 kg
Pre-fuse	250 A
Power supply voltage	230 / 400 V, 120 kVA

#### Dimensions base frame

#### Electricity

#### Characteristics / function / procedure

The hydraulic flow test bench is used to test diesel injection nozzles up to a maximum static test pressure of 2500 bar. The test bench can be operated in two pressure ranges (up to 200 and 2500 bar). For the pressure range up to 200 bar and the simultaneous flow test against atmospheric pressure a special outlet chamber is available.

##### Special characteristics:

- Maximum static test pressure 2500 bar, predefined pressure increase
- Maximum flow rate of the specimen 10 l/min
- Back pressure control up to a maximum of 1000 bar with MAXIMATOR proportional valve
- Flow rate measuring up to 350 bar in front of the nozzle, otherwise > 350 bar behind the nozzle
- Back pressure volume measuring up to a maximum of 1000 bar back pressure
- 4 pressure intensifier tandem operated
- Hydraulical clamping device for nozzles up to 50 kN inside the test chamber
- Nozzle pin adjustment 0...1mm up to 5 kN
- Use of standardized modules

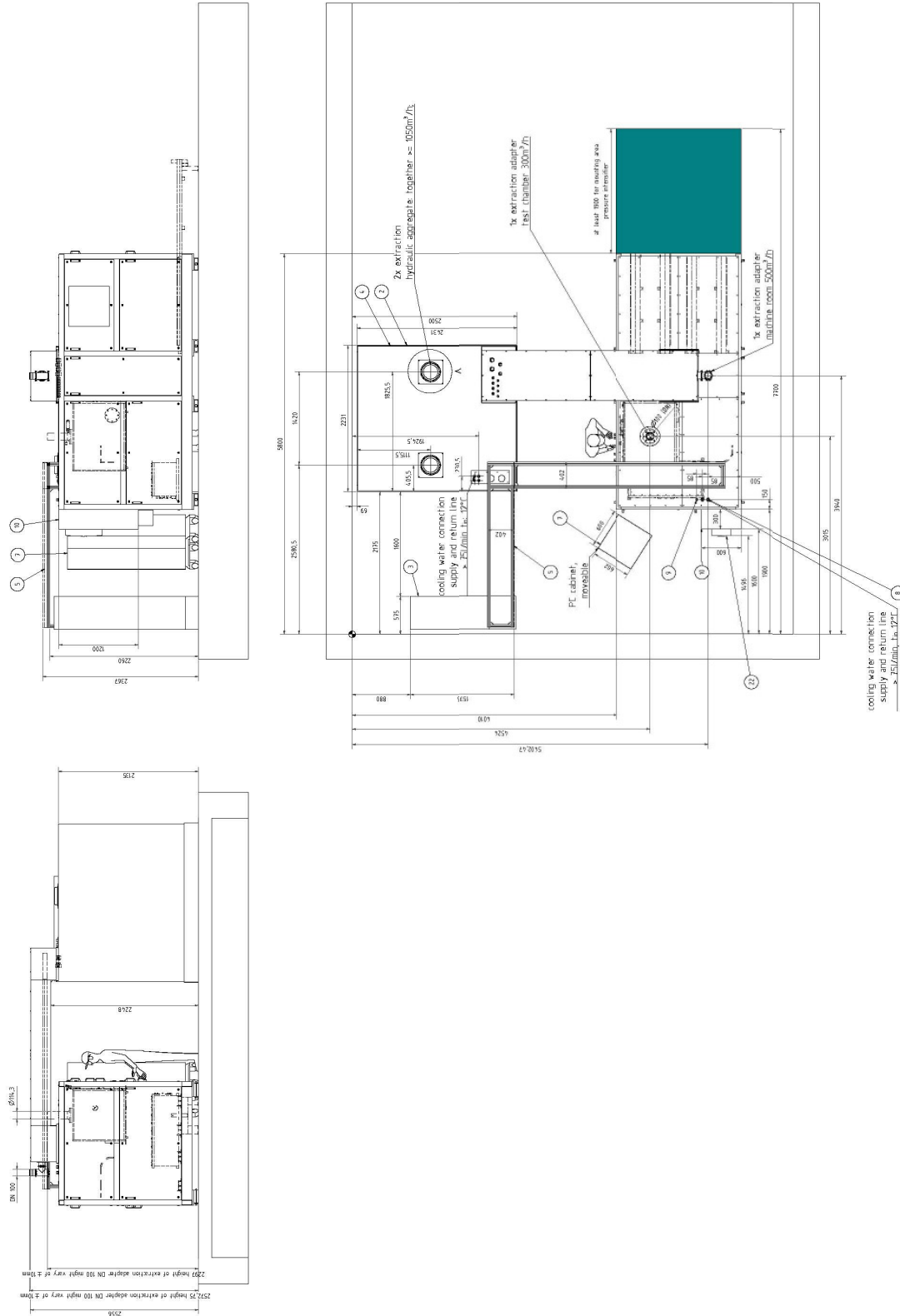
The hydraulic flow test bench consists of the following 4 assemblies:

- Test bench housing with:
  - Test chamber and clamping device
  - Flow rate test device
  - Back pressure valve control
  - Connections for pressure, return flow and cooling water
  - Pressure intensifier
  - Test fluid tank with fluid supply
- Hydraulic aggregate with sound protection hood
- Electrical cabinet
- PC operating cabinet

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MAXIMATOR GmbH, Lange Strasse 6, 99734 Nordhausen, Telephone +49 3631 9533–0, Telefax +49 3631 9533–5010, [www.maximator.de](http://www.maximator.de), [info@maximator.de](mailto:info@maximator.de)

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