



Sabre CRi Master

Compact All Makes
Common Rail Injector Tester



Advanced Common Rail Injector Testing

Key features overview

- Fast - typically 1 minute per test step
- High flow delivery output
- Highly accurate testing and stability
- Simplified and fast injector clamping/changeover
- Advanced magmah user interface
- Very easy installation

Ultimate user flexibility

Central to the Sabre's design are exceptional levels of user-control, enabling the full customisation of test conditions and parameters.

Tests can be run in fully automatic or manual mode and existing test plans can be modified as easily as new ones can be created.

When generating a new test plan the operator is able to intervene at all stages. Even percentage tolerances for each step can be assigned individually, enabling the magmah software to automatically assign limits according to the parameters set.

Be an expert

The intuitive 10" TFT touchscreen and user-friendly interface enables workshops at all levels to fully utilise the Sabre's highly advanced software functionality.

The Sabre is as comprehensive or as simple as you want it to be, whether your requirement is for a fast and accurate function tester, or for a repair-quality evaluation of injector performance.

Whatever your needs, the Sabre CRi Master ensures the highest standards of Common Rail injector testing capability are achieved.

Anywhere, anytime, anyplace

The Sabre CRi Master is ready to be used as soon as it has been filled with ISO4113 calibration fluid and plugged in to a domestic power socket. There is no need to connect to a compressed air supply or a water supply.

It can be easily positioned on a worktop with the help of its eyelets and retractable roller balls.

All machines are delivered fully calibrated and loaded with popular test plans.



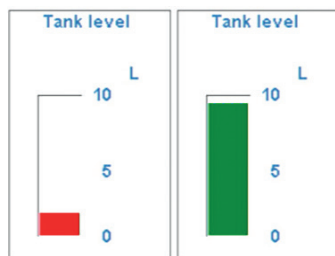
Simple fixturing



Eyelets



Retractable roller balls on rear feet



Tank level indicator

Advanced cooling

The Sabre utilises 3 air-to-oil heat exchangers to regulate and stabilise temperatures ensuring test-to-test and machine-to-machine repeatability. This superior cooling performance enables injectors to run for extended test periods.

Patented technology

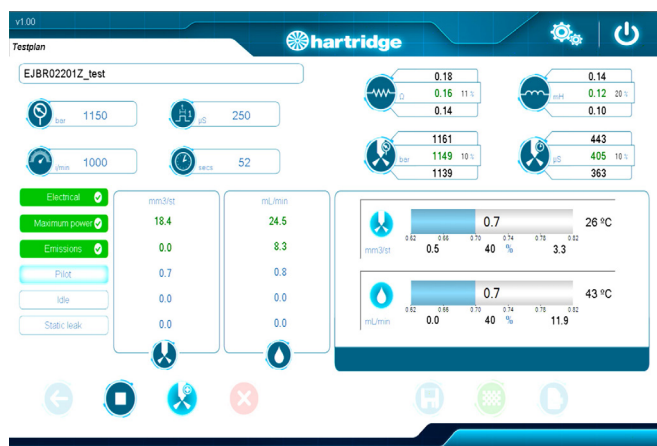
By utilising an internal Common Rail pump along with a patented closed loop control system, the Sabre is able to generate an impressive level of flow, even at high pressures. It does this despite running on domestic power connections and without having to rely on an external compressed air supply.



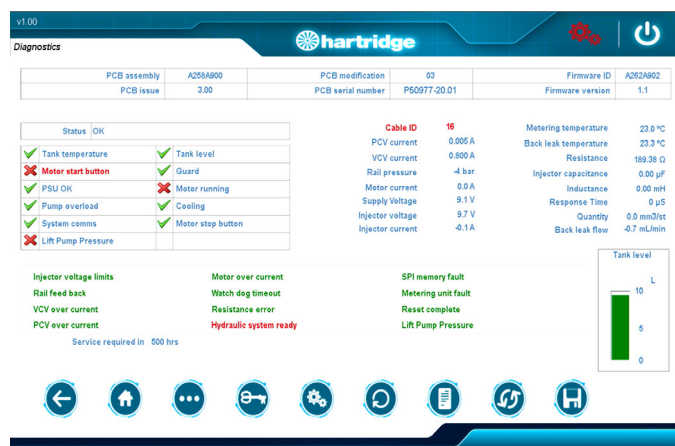
Windows 10 magmah^{sharp} touchscreen application

The new magmah^{sharp} interface seamlessly integrates in to the Windows 10 platform to enable absolute control and flexibility through the 10" TFT touchscreen.

To print off the colour reports, users can connect a printer to the Sabre front mounted USB ports or print, email, transfer them via Wifi.

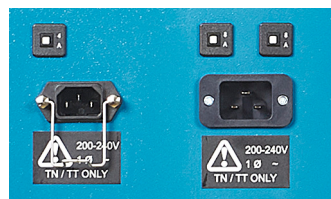


Main test screen



Diagnostic screen

The Sabre CRi Master is fast, accurate and easy to use.



240 Vac domestic electrical connection

Installation requirements

- Two domestic mains electrical connections required
 - High voltage: 1 of 200-240 Vac (10 amps) and 1 of 200-240 Vac (16 amps)
 - Low voltage: 1 of 100-120 Vac (10 amps) and 1 of 200-240 Vac (16 amps)*
 - * with step-up transformer included
- 160kg fully loaded (145kg dry)
- Dimensions 610mm (W), 610mm (D), 110mm (H)
- Uses ISO4113 calibration fluid

Injector measurements

- | | |
|------------------------------------|------------------------------|
| • Coil resistance | 0 - 200 Ω |
| • Inductance (coil injectors only) | 0 - 20 mH |
| • Capacitance (piezo injectors) | 0 - 12 μ F |
| • Response time measurements | 0 - 999 μ S |
| • Backleak flow measurements | 0 - 290 mL/min |
| • Delivery measurements | 0 - 400 mm ³ /str |
| • Backleak temperature | 0 - 180° |



Technical specification

- | | |
|----------------------------|----------------------------|
| • Rail Pressure | 0 - 1800 bar |
| • Injection Speed | 120 - 3000 ipm |
| • Pulse Width | 0 - 4000 μ S |
| • Time Delay | 0 - 600 seconds |
| • Tank Capacity | 10 litres |
| • Tank Filtration | 2 μ m |
| • Metering Unit Filtration | 60 μ m |
| • Backleak Filtration | 60 μ m |
| • High Pressure Flow | 600 - 250 cc/min |
| • Fluid Cooling | Air to oil heat exchangers |



Contact your local **Hartridge™** distributor for more detailed information or visit hartridge.com



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Continuous development is taking place. Hartridge reserves the right to alter the design and/or specification without prior notice.

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