Injection System Cleaning (ISC) machine

CLEANING MACHINE FOR INJECTION SYSTEM OF PETROL AND DIESEL ENGINES
The Injection System Cleaning (ISC) machine operates using the vehicle battery (12 Vdc) and cleans injection systems of petrol and diesel engines without disassembly and during engine running.

The pump is a magnet drive gear pump. The magnet drive principle provides a totally sealed pump chamber capable of handling a wide range of corrosive liquids with a high degree of safety. The housing of the pump and the internal metal parts are in stainless steel and the gears are in Peek.

Features:
- Operates without disassembly of fuel system components.
- Easy to connect and easy handling.
- Fluid delivery can be adjusted to the degree of fouling and engine displacement.
- When the treatment is completed, the apparatus automatically stops and an alarm is activated.
- The machine can be switched off at any time during the treatment.
- Safety protection against over-current and inverse polarity.
- Completely closed tank, avoids escaping of cleaning liquid vapours.
- Safety cap on tank with protection against under- and over-pressure.
- Provided with complete set of adapters for European market.
- The machine is portable.
- Can be connected to all petrol injection systems (K, KE, L, LE, LH, Motronic, Mono-jetronic, Renix, direct injection, etc.) and diesel engines (prechamber and direct injection, common rail, injection-pump unit).
- Suitable for passenger cars and trucks, marine and stationary engines.
- Precision pressure regulator with lockout
- Pressure can be adjusted to suit any type of injection system.
- Treatment time can be adjusted from 1 to 99 minutes.
- Automatic stop after treatment time or minimum level
- Time display in minutes and seconds
- Fast couplings on hoses.

Power supply: 12Vdc (vehicle battery)
Fuse: 10A
Motor: 12 Vdc / 6000 rpm
Pump: magnet drive gear pump - stainless steel
Maximum supply rate: from 2 to 3 liters/min
Maximum pressure: over 10bar
Filter: filtered return line
Content of the tank for cleaning liquid: about 3 litres
Description

1) Screw cap Tank
2) Pressure Gauge
3) Connection OUTPUT
4) Pressure regulator
5) RETURN Connection
6) TIME Display
7) START Button
8) ↑ Button
9) ↓ Button
10) STOP Button
11) Sliding drawer
USE

- Start engine.
  Stop engine when oil temperature is at 70°C or normal working temperature.

- Disconnect pressure and return fuel lines from fuel system.

- Connect universal hoses to fuel system.

- Connect battery clamps of INJECTION SYSTEM CLEANING to battery.

- Pour 1 litre of SPECIFIC CLEANING LIQUID into the INJECTION SYSTEM CLEANING tank.

- Turn pressure regulator completely counter-clockwise.
• Program operating time: see table:

<table>
<thead>
<tr>
<th>Standard:</th>
<th>30 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks / stationary / marine:</td>
<td>45 – 50 min</td>
</tr>
<tr>
<td>Common rail / pump injectors:</td>
<td>30 – 40 min</td>
</tr>
<tr>
<td>Very dirty systems:</td>
<td>50 min</td>
</tr>
</tbody>
</table>

• Start machine.

• Regulate pressure: see pressure table below:

<table>
<thead>
<tr>
<th>Petrol</th>
<th>Diesel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multipoint: 2,8 – 3 bar</td>
<td>Common Rail: Start 3- 3,5 bar</td>
</tr>
<tr>
<td>Monopoint 1 –1,5 bar</td>
<td>normal 2,5 bar</td>
</tr>
<tr>
<td>K-Jetronic 4 –5 bar</td>
<td>Pump injector: start 3 bar , normal 2,5 bar</td>
</tr>
<tr>
<td>KE – Jetronic: 5,5 bar</td>
<td>In-line pump: 1 – 2 bar</td>
</tr>
<tr>
<td>D – Jetronic: 2 –3 bar</td>
<td>Rotary pump: 1 bar</td>
</tr>
<tr>
<td>Carburettor: 0 – 0,5 bar</td>
<td>Rotary pump with electronic control; 1,5 – 2 bar</td>
</tr>
</tbody>
</table>

• Start engine and check for correct operation.
• Wait until the system automatically stops at the end of the treatment time or for liquid level too low.

• Stop engine.
- Disconnect universal hoses and reconnect original fuel lines.

- Remove clamps from battery.

- Start engine, check reconnected fuel lines.

- Let engine run at increased rpm.

- Treatment is finished.