MAXIMATOR®

HIGH PRESSURE TECHNOLOGY
HYDRAULICS
PNEUMATICS
TESTING EQUIPMENT

50 bar (725 psi)
500 bar (7,250 psi)
1,500 bar (21,750 psi)

Gas Boosters

MAXIMATOR GmbH
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**Booster station**
- VP/70/700/35 700 bar (10,150 psi) 28
- VP/120/500/300 500 bar (7,250 psi) 29
- Compressor station VH/400/500 500 bar (7,250 psi) 30

**Technical features of the MAXIMATOR Gas booster line** 31
MAXIMATOR is one of the worldwide leading manufacturers of air driven liquid pumps, air amplifiers, gas boosters, high pressure valves, fittings and tubing as well as associated products like pressure switches and further components for applications in high pressure technology.

All our systems and units comply with the applicable UVV [accident prevention] regulations, the European Machine, Pressure Equipment and ATEX Directives and, upon request, also conform to NACE specifications.

Our strict quality guidelines are certified to ISO 9001.

To ensure the continuation of future developments we are working in close cooperation with our customers, material and component suppliers, universities as well as with public and private organisations.

We employ more than 220 qualified and highly-motivated staff members in our production centres in Zorge and Nordhausen.

We aim to offer the best customer service from our four technical offices in Germany, our qualified partner companies and representations located all over the world.
Components and systems

- Pressure intensification of liquids and gases

Packaged pump systems for oil, water and other liquids for the following applications:
- Tool hydraulics
- Clamping hydraulics
- Water hydraulics

Air driven liquid pumps
Operating pressures to 5,500 bar (79,750 psi)

Air amplifiers
- Operating pressures to 40 bar (580 psi)
- Selective amplification of shop air

Valves, fittings, tubing for high pressure technology
- Stainless steel design in high manufacturing quality
- Temperature range from –250°C (-418°F) to +650°C (1,202°F) for liquids and gases
- Operating pressures to max. 10,500 bar (152,250 psi)

Test benches and pressure generating systems
- Static pressure, burst pressure and pulse testing
- Leak and functional testing
- Autofrettage
Compressors, testing and regulating systems
- Centralised supply for gas assist systems
- Testing and regulating systems for shop air and gases
- Complete systems to fill air bag gas cartridges

Gas pressure method
This special method is used in plastics injections moulding and provides the following advantages
- Material savings of up to 50%
- Reduction of locking pressures
- Avoidance of sink marks

We are in a position to test your product for you in the following fields:
...Design
- Constructional design recommendations
- Scientific development
...Serial production
- Production supporting tests
- Capacity extension at short notice

Diesel injection technology

Test benches for static pressure tests, burst tests and pulse tests:
- Hoses of all types
- Valves, fittings, gland assemblies
- Pressure gauges, pressure switches
- Pressure transducers, accumulators
- Coolers and air conditioning systems
- Diesel injection systems
On- and Offshore Solutions

Specifically for the Oil and Gas industry we have developed a range of standard units which are suitable for these applications.

Features
The units are protected against mechanical and environmental damage by using a stainless steel frame which also helps with transportation of the unit. The control and operation elements are ergonomically mounted into a control panel.

Available options
- Stroke counter
- Chart recorder
- Pressure switch
- Safety valve

Please ask for our brochure „On and Offshore Solutions“.

Complete solutions for high pressure technology

Design and development,
manufacturing, commissioning,
servicing, repair, training

In-house testing service
on most modern machines:
- Static pressure testing
- Burst tests
- Fatigue tests

Process consult for
- Testing procedure
- Gas assisted process
- Mould design

Service

MAXIMATOR Mobile Service – Testing at your location with our test equipment

The MAXIMATOR Mobile Service is available to perform testing at your site and provides the following service:
- Maintenance of compressor stations and control modules
- Pressure generation with mobile systems
- Inspection and calibration of measuring instruments
- Installation of tube lines and ring circuits
The MAXIMATOR high pressure boosters are suitable for the oil free compression of gases and air. Industrial gases like Argon, Helium, Hydrogen and Nitrogen can be compressed to operating pressures of 1,500 bar (21,750 psi), Oxygen to 350 bar (5,075 psi).

Air driven boosters are an efficient alternative instead of electrically driven products and can be used in explosion-proof areas.

As a result of the wide range of models it is possible to select the optimum booster for each application. Single stage, double acting or two stage boosters or a combination of these models can be used to achieve different operating pressures and flow capacities.

- Pressure test with gas
- Gas transfer
- Gas recovery
- Charging of nitrogen accumulators
- Supply for isolating gas systems
- Gas assisted injection moulding
- CO₂ foaming
- Transfer of oxygen cylinders
- Charging of breathing air bottles
- Leak test
Application examples

Cleaning of burner systems

Blowing out contaminations through pressure blasting at 16 bar (232 psi)

Airbag systems

Charging of airbag systems with Helium to 800 bar (11,600 psi)

Cylinder charging

Use remaining pressure for recharging

Pressure test

Leak test with high gas pressure
Application examples

Life-guard service

![Life-guard service image]

Transfer of oxygen in small cylinders

Colour changing systems

![Colour changing systems image]

The colour will be returned into the tank through a piggeable ball which is charged with pressure

Plastic industry

![Plastic industry image]

Compression of gas and regulation for the gas assisted injection moulding

Forming

![Forming image]

Precharging of hydraulic accumulators by nitrogen
Model overview

Boosters with one air drive head

Single acting, single stage (e.g. DLE15-1)

Double acting, single stage (e.g. DLE15)

Double acting, two stages (e.g. DLE15-75)

Boosters with two air drive heads

Single acting, single stage (e.g. DLE15-1-2)

Double acting, single stage (e.g. DLE15-2)

Double acting, two stages (e.g. DLE15-75-2)

Type coding

DLE XX - XX - X XX - X

- Special design
  - C = CO₂ service
  - S = Oxygen service

- Connections: Gas inlet / Gas outlet
  - G = BSP
  - U = High pressure (9/16-18UNF)
  - N = NPT

- Without = 1 Air drive head
  - 2 = 2 Air drive heads

- Model
The MAXIMATOR boosters’ operating principle is similar to a pressure intensifier. A large air piston is charged with low pressure (air piston (3)) and works on a small area with high pressure (hp piston (2)). The continuous operation is achieved by a pilot operated 4/2 way valve (spool (4)). The spool leads the drive air alternately on the upper and bottom surface of the air piston. The spool is piloted through two 2/2 way valves (pilot valves (7)) which are mechanically actuated through the air piston in its end positions. The pilot valves charge and discharge the spool chamber. The hp piston supported by the check valves (inlet check valve and outlet check valve (1)) delivers the flow. The outlet pressure is directly related to the set air drive pressure. According to the formulas indicated in the table with technical features of the boosters, the static end pressure can be calculated. At this pressure a force balance between drive section and gas section is achieved. The booster stalls when this end pressure is reached, and does not consume any further air.

A pressure drop at the high pressure side or a pressure increase at the drive side starts the booster automatically until the force balance is achieved again. Additionally the MAXIMATOR boosters can be switched on and off automatically through MAXIMATOR air pilot switches, contact gauges or external control devices.
Model: DLE2-1
Flow: 150 l/min (5.3 SCFM)
at inlet pressure of 3 bar (43 psi), outlet pressure of 6 bar (87 psi) and air drive pressure of 6 bar (87 psi)

Model: DLE2
Flow: 190 l/min (6.7 SCFM)
at an inlet pressure of 3 bar (43 psi), outlet pressure of 10 bar (145 psi) and air drive pressure of 6 bar (87 psi)

Technical features DLE 2-1
Pressure ratio | 1:2
Max. compression ratio | 1:10
Stage ratio | –
Min. gas inlet pressure pA in bar (psi) | 0
Max. gas inlet pressure pA in bar (psi) | 20 (290)
Max. permitted outlet pressure pB in bar (psi) | 20 (290)
Formula to calculate gas outlet pressure pB | 2 X pL
Displacement volume in cm³ (in³) | 922 (56.26)
Air drive pA in bar (psi) | 1-10
Air consumption in l/min (SCFM) | 400-1,980 (14.1–69.9)
Connection: Gas inlet | 1/2 BSP
Connection: Gas outlet | 1/2 BSP
Connection: Drive air | 3/4 BSP
Net weight (kg) | 15
Material of gas section | Stainless steel/aluminium

Technical features DLE 2
Pressure ratio | 1:2
Max. compression ratio | 1:10
Stage ratio | –
Min. gas inlet pressure pA in bar (psi) | 0
Max. gas inlet pressure pA in bar (psi) | 40 (580)
Max. permitted outlet pressure pB in bar (psi) | 40 (580)
Formula to calculate gas outlet pressure pB | 2 X pL + pA
Displacement volume in cm³ (in³) | 1,844 (112.52)
Air drive pA in bar (psi) | 1-10
Air consumption in l/min (SCFM) | 400-1,980 (14.1–69.9)
Connection: Gas inlet | 1/2 BSP
Connection: Gas outlet | 1/2 BSP
Connection: Drive air | 3/4 BSP
Net weight (kg) | 20
Material of gas section | Stainless steel/aluminium

- small dimension
- price attractive solution
- large displacement volume
- less pulsation
Boosters to 40 bar (580 psi)

Model: DLE 2-1-2
Flow: 160 l/min (5.65 SCFM)
at inlet pressure of 3 bar (43 psi) outlet pressure of 10 bar (145 psi) and air drive pressure of 6 bar (87 psi)

Model: DLE 2-2
Flow: 190 l/min (6.7 SCFM)
at an inlet pressure of 3 bar (43 psi), outlet pressure of 16 bar (232 psi) and air drive pressure of 6 bar (87 psi)

Technical features

Model: DLE 2-1-2
Pressure ratio: 1:4
Max. compression ratio: 1:10
Stage ratio: –
Min. gas inlet pressure pA in bar (psi): 0
Max. gas inlet pressure pA in bar (psi): 40 (580)
Max. permitted outlet pressure pB in bar (psi): 40 (580)
Formula to calculate gas outlet pressure pB: 4 x pL
Displacement volume in cm³ (in³): 922 (56.26)
Air drive pA in bar (psi): 1-10 (14.5-145)
Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
Connection: Gas inlet 1/2 BSP
Connection: Gas outlet 1/2 BSP
Connection: Drive air 3/4 BSP
Net weight (kg): 22
Material of gas section: Stainless steel/aluminium

Model: DLE 2-2
Pressure ratio: 1:4
Max. compression ratio: 1:10
Stage ratio: –
Min. gas inlet pressure pA in bar (psi): 0
Max. gas inlet pressure pA in bar (psi): 40 (580)
Max. permitted outlet pressure pB in bar (psi): 40 (580)
Formula to calculate gas outlet pressure pB: 4 x pL + pA
Displacement volume in cm³ (in³): 1,844 (112.53)
Air drive pA in bar (psi): 1-10 (14.5-145)
Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
Connection: Gas inlet 1/2 BSP
Connection: Gas outlet 1/2 BSP
Connection: Drive air 3/4 BSP
Net weight (kg): 25
Material of gas section: Stainless steel/aluminium
Model: DLE 5-1
Flow: 145 l/min (5.12 SCFM)
at inlet pressure of 8 bar (116 psi) outlet pressure of 15 bar (217 psi) and air drive pressure of 6 bar (87 psi)

Model: DLE 5
Flow: 280 l/min (9.89 SCFM) at an inlet pressure of 8 bar (116 psi), bar and an outlet pressure of 20 bar (290 psi) and air drive pressure of 6 bar (87 psi)

**Technical features DLE 5-1**
- Pressure ratio 1:5
- Max. compression ratio 1:15
- Stage ratio –
- Min. gas inlet pressure pA in bar (psi) 2 (29)
- Max. gas inlet pressure pA in bar (psi) 50 (725)
- Max. permitted outlet pressure pB in bar (psi) 50 (725)
- Formula to calculate gas outlet pressure pB = 5 X pL
- Displacement volume in cm³ (in³) 373 (22.76)
- Air drive pA in bar (psi) 1-10 (14.5-145)
- Air consumption in L/min (SCFM) 400-1,980 (14.13-69.92)
- Connection: Gas inlet 1/2 BSP
- Connection: Gas outlet 1/2 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg) 15
- Material of gas section Stainless steel/aluminium

**Technical features DLE 5**
- Pressure ratio 1:5
- Max. compression ratio 1:15
- Stage ratio –
- Min. gas inlet pressure pA in bar (psi) 2 (29)
- Max. gas inlet pressure pA in bar (psi) 100 (1,450)
- Max. permitted outlet pressure pB in bar (psi) 100 (1,450)
- Formula to calculate gas outlet pressure pB = 5 X pL + pA
- Displacement volume in cm³ (in³) 746 (45.52)
- Air drive pA in bar (psi) 1-10 (14.5-145)
- Air consumption in L/min (SCFM) 400-1,980 (14.13-69.92)
- Connection: Gas inlet 1/2 BSP
- Connection: Gas outlet 1/2 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg) 20
- Material of gas section Stainless steel/aluminium

**Boosters to 100 bar (1,450 psi)**

- compact design
- price attractive solution

- high flow rate
- less pulsation
Boosters to 100 bar (1,450 psi)

**Model: DLE 2-5**

Flow: 80 l/min (2.82 SCFM)

at inlet pressure of 2 bar (29 psi) outlet pressure of 25 bar (362 psi) and air drive pressure of 6 bar (87 psi)

**Technical features DLE 2-5**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<td>Pressure ratio</td>
<td>1:5 / 1:5</td>
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<tr>
<td>Max. compression ratio</td>
<td>1:25</td>
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<tr>
<td>Stage ratio</td>
<td>1:2.5</td>
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<tr>
<td>Min. gas inlet pressure pA in bar (psi)</td>
<td>0</td>
</tr>
<tr>
<td>Max. gas inlet pressure pA in bar (psi)</td>
<td>0.8 X pL</td>
</tr>
<tr>
<td>Max. permitted outlet pressure pB in bar (psi)</td>
<td>100 (1,450)</td>
</tr>
<tr>
<td>Formula to calculate gas outlet pressure pB</td>
<td>5 X pL + 2.5 X pA</td>
</tr>
<tr>
<td>Displacement volume in cm³ (in³)</td>
<td>922 (0.03)</td>
</tr>
<tr>
<td>Air drive pA in bar (psi)</td>
<td>1-10 (14.5-145)</td>
</tr>
<tr>
<td>Air consumption in l/min (SCFM)</td>
<td>400-1,980 (14.13-69.92)</td>
</tr>
<tr>
<td>Connection: Gas inlet</td>
<td>1/2 BSP</td>
</tr>
<tr>
<td>Connection: Gas outlet</td>
<td>1/2 BSP</td>
</tr>
<tr>
<td>Connection: Drive air</td>
<td>3/4 BSP</td>
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<tr>
<td>Net weight (kg)</td>
<td>20</td>
</tr>
<tr>
<td>Material of gas section</td>
<td>Stainless steel/aluminium</td>
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</table>

- high flow rate
- low inlet pressure

**Model: DLE 5-1-2**

Flow: 145 l/min (5.12 SCFM)

at an inlet pressure of 8 bar (116 psi), outlet pressure of 30 bar (435 psi) and air drive pressure of 6 bar (87 psi)

**Technical features DLE 5-1-2**

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<tr>
<td>Max. compression ratio</td>
<td>1:15</td>
</tr>
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<td>Stage ratio</td>
<td>–</td>
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<td>Min. gas inlet pressure pA in bar (psi)</td>
<td>4 (58)</td>
</tr>
<tr>
<td>Max. gas inlet pressure pA in bar (psi)</td>
<td>100 (1,450)</td>
</tr>
<tr>
<td>Max. permitted outlet pressure pB in bar (psi)</td>
<td>100 (1,450)</td>
</tr>
<tr>
<td>Formula to calculate gas outlet pressure pB</td>
<td>10 X pL</td>
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<tr>
<td>Displacement volume in cm³ (in³)</td>
<td>373 (0.01)</td>
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<tr>
<td>Air drive pA in bar (psi)</td>
<td>1-10 (14.5-145)</td>
</tr>
<tr>
<td>Air consumption in l/min (SCFM)</td>
<td>400-1,980 (14.13-69.92)</td>
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<tr>
<td>Connection: Gas inlet</td>
<td>1/2 BSP</td>
</tr>
<tr>
<td>Connection: Gas outlet</td>
<td>1/2 BSP</td>
</tr>
<tr>
<td>Connection: Drive air</td>
<td>3/4 BSP</td>
</tr>
<tr>
<td>Net weight (kg)</td>
<td>22</td>
</tr>
<tr>
<td>Material of gas section</td>
<td>Stainless steel/aluminium</td>
</tr>
</tbody>
</table>

- high inlet pressure
- high outlet pressure
Model: DLE 5-2
Flow: 210 l/min (7.41 SCFM)
at inlet pressure of 8 bar (116 psi) outlet pressure of 40 bar (580 psi) and air drive pressure of 6 bar (87 psi)

Technical features DLE 5-2
Pressure ratio 1:10
Max. compression ratio 1:15
Stage ratio –
Min. gas inlet pressure pA in bar (psi) 4 (58)
Max. gas inlet pressure pA in bar (psi) 100 (1,450)
Max. permitted outlet pressure pB in bar (psi) 100 (1,450)
Formula to calculate gas outlet pressure pB 10 X pL + pA
Displacement volume in cm³ (in³) 746 (45.52)
Air drive pA in bar (psi) 1-10 (14.5-145)
Air consumption in l/min (SCFM) 600-2,400 (21.2-84.8)
Connection: Gas inlet 1/2 BSP
Connection: Gas outlet 1/2 BSP
Connection: Drive air 3/4 BSP
Net weight (kg) 25
Material of gas section Stainless steel/aluminium

Model: DLE 2-5-2
Flow: 104 l/min (3.67 SCFM)
at an inlet pressure of 4 bar (58 psi), outlet pressure of 40 bar (580 psi) and air drive pressure of 6 bar (87 psi)

Technical features DLE 2-5-2
Pressure ratio 1:4 / 1:10
Max. compression ratio 1:25
Stage ratio 1:2.5
Min. gas inlet pressure pA in bar (psi) 0
Max. gas inlet pressure pA in bar (psi) 1.6 X pL
Max. permitted outlet pressure pB in bar (psi) 100 (1,450)
Formula to calculate gas outlet pressure pB 10 X pL + 2.5 pA
Displacement volume in cm³ (in³) 922 (56.26)
Air drive pA in bar (psi) 1-10 (14.5-145)
Air consumption in l/min (SCFM) 600-2,400 (21.2-84.8)
Connection: Gas inlet 1/2 BSP
Connection: Gas outlet 1/2 BSP
Connection: Drive air 3/4 BSP
Net weight (kg) 25
Material of gas section Stainless steel/aluminium
Model: DLE 15-1
Flow: 95 l/min (3.35 SCFM)
at inlet pressure of 15 bar (217 psi) and outlet pressure of 50 bar (725 psi), air drive pressure of 6 bar (87 psi)

Model: DLE 15
Flow: 160 l/min (5.65 SCFM)
at an inlet pressure of 15 bar (217 psi) and outlet pressure of 60 bar (870 psi), air drive pressure of 6 bar (87 psi)

### Technical features DLE 15-1
- Pressure ratio: 1:15
- Max. compression ratio: 1:20
- Stage ratio: –
- Min. gas inlet pressure \(p_A\) in bar (psi): 7 (101)
- Max. gas inlet pressure \(p_A\) in bar (psi): 150 (2,175)
- Max. permitted outlet pressure \(p_B\) in bar (psi): 150 (2,175)
- Formula to calculate gas outlet pressure \(p_B\): \(15 \times p_L\)
- Displacement volume in cm³ (in³): 122 (7.44)
- Air drive \(p_A\) in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 400-1,980 (14.13-69.92)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 13
- Material of gas section: Stainless steel

### Technical features DLE 15
- Pressure ratio: 1:15
- Max. compression ratio: 1:20
- Stage ratio: –
- Min. gas inlet pressure \(p_A\) in bar (psi): 7 (101)
- Max. gas inlet pressure \(p_A\) in bar (psi): 300 (4,350)
- Max. permitted outlet pressure \(p_B\) in bar (psi): 300 (4,350)
- Formula to calculate gas outlet pressure \(p_B\): \(15 \times p_L + p_A\)
- Displacement volume in cm³ (in³): 244 (14.88)
- Air drive \(p_A\) in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 400-1,980 (14.13-69.92)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 18
- Material of gas section: Stainless steel

- compact design
- price attractive solution

- large displacement volume
- less pulsation
Model: DLE 5-15
Flow: 75 l/min (2.64 SCFM)
at inlet pressure of 4 bar (58 psi) and outlet pressure of 60 bar (870 psi), air drive pressure of 6 bar (87 psi)

Model: DLE 15-1-2
Flow: 90 l/min (3.17 SCFM)
at an inlet pressure of 15 bar (217 psi) and outlet pressure of 80 bar (1,160 psi), air drive pressure of 6 bar (87 psi)

- high flow rate
- low inlet pressure

Technical features

<table>
<thead>
<tr>
<th>Feature</th>
<th>DLE 5-15</th>
<th>DLE 15-1-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure ratio</td>
<td>1:5 / 1.15</td>
<td>1:30</td>
</tr>
<tr>
<td>Max. compression ratio</td>
<td>1:45</td>
<td>1:20</td>
</tr>
<tr>
<td>Stage ratio</td>
<td>1:3</td>
<td>–</td>
</tr>
<tr>
<td>Min. gas inlet pressure pA</td>
<td>2 (29)</td>
<td>10 (145)</td>
</tr>
<tr>
<td>Max. gas inlet pressure pA</td>
<td>1.6 X pL</td>
<td>300 (4,350)</td>
</tr>
<tr>
<td>Max. permitted outlet pressure pB</td>
<td>300 (4,350)</td>
<td>300 (4,350)</td>
</tr>
<tr>
<td>Formula to calculate gas outlet pressure pB</td>
<td>15 X pL + 3 X pA</td>
<td>30 X pL</td>
</tr>
<tr>
<td>Displacement volume in cm³ (in³)</td>
<td>373 (22.76)</td>
<td>122 (7.44)</td>
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<tr>
<td>Air drive pA in bar (psi)</td>
<td>1-10 (14.5-145)</td>
<td>1-10 (14.5-145)</td>
</tr>
<tr>
<td>Air consumption in l/min (SCFM)</td>
<td>400-1,980 (14.13-69.92)</td>
<td>400-1,980 (14.13-69.92)</td>
</tr>
<tr>
<td>Connection: Gas inlet</td>
<td>1/2 BSP</td>
<td>1/4 BSP</td>
</tr>
<tr>
<td>Connection: Gas outlet</td>
<td>1/4 BSP</td>
<td>1/4 BSP</td>
</tr>
<tr>
<td>Connection: Drive air</td>
<td>3/4 BSP</td>
<td>3/4 BSP</td>
</tr>
<tr>
<td>Net weight (kg)</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Material of gas section</td>
<td>Stainless steel/aluminium</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>
Boosters to 300 bar (4,350 psi)

**Model: DLE 15-2**

Flow: 130 l/min (4.59 SCFM)

at inlet pressure of 15 bar (217 psi), outlet pressure of 100 bar (1,450 psi) and air drive pressure of 6 bar (87 psi)

---

**Model: DLE 5-15-2**

Flow: 102 l/min (3.6 SCFM)

at an inlet pressure of 10 bar (145 psi), outlet pressure of 120 bar (1,740 psi) and air drive pressure of 6 bar (87 psi)

---

### Technical features - DLE 15-2

- Large pressure ratio
- Less pulsation

### Pressure ratio

- Max. compression ratio: 1:20
- Min. gas inlet pressure $p_A$ in bar (psi): 10 (145)
- Max. gas inlet pressure $p_A$ in bar (psi): 300 (4,350)
- Max. permitted outlet pressure $p_B$ in bar (psi): 300 (4,350)
- Formula to calculate gas outlet pressure $p_B$: $30 \times p_L + p_A$
- Displacement volume in cm³ (in³): 244 (14.88)
- Air drive $p_A$ in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet: 1/4 BSP
- Connection: Gas outlet: 1/4 BSP
- Connection: Drive air: 3/4 BSP
- Net weight (kg): 23
- Material of gas section: Stainless steel

### Technical data - DLE 5-15-2

- Pressure ratio: 1:10 / 1:30
- Max. compression ratio: 1:45
- Stage ratio: 1:3
- Min. gas inlet pressure $p_A$ in bar (psi): 2 (29)
- Max. gas inlet pressure $p_A$ in bar (psi): 3,2 $\times$ $p_L$
- Max. permitted outlet pressure $p_B$ in bar (psi): 300 (4,350)
- Formula to calculate gas outlet pressure $p_B$: $30 \times p_L + 3 \times p_A$
- Displacement volume in cm³ (in³): 373 (22.76)
- Air drive $p_A$ in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet: 1/2 BSP
- Connection: Gas outlet: 1/4 BSP
- Connection: Drive air: 3/4 BSP
- Net weight (kg): 24
- Material of gas section: Stainless steel/aluminium
Model: DLE 30-1
Flow: 82 l/min (2.89 SCFM)
at inlet pressure of 25 bar (362 psi), outlet pressure of 82 bar (1,189 psi) and air drive pressure of 6 bar (87 psi)

Model: DLE 30
Flow: 125 l/min (4.41 SCFM)
at an inlet pressure of 25 bar (362 psi), outlet pressure of 120 bar (1,740 psi) and air drive pressure of 6 bar (87 psi)

Technical features DLE 30-1
- Pressure ratio 1:30
- Max. compression ratio 1:20
- Stage ratio –
- Min. gas inlet pressure pA in bar (psi) 15 (217)
- Max. gas inlet pressure pA in bar (psi) 300 (4,350)
- Max. permitted outlet pressure pB in bar (psi) 300 (4,350)
- Formula to calculate gas outlet pressure pB 30 X pL
- Displacement volume in cm³ (in³) 60 (3.66)
- Air drive pA in bar (psi) 1-10 (14.5-145)
- Air consumption in L/min (SCFM) 400-1,980 (14.13-69.92)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg) 13
- Material of gas section Stainless steel

Technical features DLE 30
- Pressure ratio 1:30
- Max. compression ratio 1:20
- Stage ratio –
- Min. gas inlet pressure pA in bar (psi) 15 (217)
- Max. gas inlet pressure pA in bar (psi) 600 (8,700)
- Max. permitted outlet pressure pB in bar (psi) 600 (8,700)
- Formula to calculate gas outlet pressure pB 30 X pL + pA
- Displacement volume in cm³ (in³) 110
- Air drive pA in bar (psi) 1-10 (14.5-145)
- Air consumption in L/min (SCFM) 400-1,980 (14.13-69.92)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg) 18
- Material of gas section Stainless steel

- compact design
- price attractive solution

- high flow rate
- less pulsation
Boosters to 600 bar (8,700 psi)

Model: DLE 5-30
Flow: 63 l/min (2.22 SCFM)
at inlet pressure of 3 bar (43 psi), outlet pressure of 100 bar (1,450 psi) and air drive pressure of 6 bar (87 psi)

Model: DLE 15-30
Flow: 98 l/min (3.46 SCFM)
at an inlet pressure of 15 bar (217 psi), outlet pressure of 100 bar (1,450 psi) and air drive pressure of 6 bar (87 psi)

Technical features DLE 5-30
Pressure ratio 1:5 / 1:30
Max. compression ratio 1:90
Stage ratio 1:6
Min. gas inlet pressure pA in bar (psi) 2 (29)
Max. gas inlet pressure pA in bar (psi) 0.5 X pL
Max. permitted outlet pressure pB in bar (psi) 600 (8,700)
Formula to calculate gas outlet pressure pB 30 X pL + 6 X pA
Displacement volume in cm³ (in³) 373 (22.76)
Air drive pA in bar (psi) 1-10 (14.5-145)
Air consumption in L/min (SCFM) 400-1,980 (14.5-145)
Connection: Gas inlet 1/2 BSP
Connection: Gas outlet 1/4 BSP
Connection: Drive air 3/4 BSP
Net weight (kg) 19
Material of gas section Stainless steel/aluminium

Technical features DLE 15-30
Pressure ratio 1:5 / 1:30
Max. compression ratio 1:40
Stage ratio 1:2
Min. gas inlet pressure pA in bar (psi) 7 (101)
Max. gas inlet pressure pA in bar (psi) 7.5 X pL
Max. permitted outlet pressure pB in bar (psi) 600 (8,700)
Formula to calculate gas outlet pressure pB 30 X pL + 2 X pA
Displacement volume in cm³ (in³) 122 (7.44)
Air drive pA in bar (psi) 1-10 (14.5-145)
Air consumption in L/min (SCFM) 400-1,980 (14.5-145)
Connection: Gas inlet 1/4 BSP
Connection: Gas outlet 1/4 BSP
Connection: Drive air 3/4 BSP
Net weight (kg) 19
Material of gas section Stainless steel
Model: DLE 30-1-2
Flow: 82 l/min (2.89 SCFM)
at inlet pressure of 25 bar (362 psi) and outlet pressure of 150 bar (2,175 psi), air drive pressure of 6 bar (87 psi)

Technical features
- Pressure ratio: 1:60
- Max. compression ratio: 1:20
- Stage ratio: –
- Min. gas inlet pressure pA in bar (psi): 20 (290)
- Max. gas inlet pressure pA in bar (psi): 600 (8,700)
- Max. permitted outlet pressure pB in bar (psi): 600 (8,700)
- Formula to calculate gas outlet pressure pB: 60 X pL
- Displacement volume in cm³ (in³): 60 (3.66)
- Air drive pA in bar (psi): 1-10 (14.5-145)
- Air consumption in L/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 20
- Material of gas section: Stainless steel

Model: DLE 30-2
Flow: 125 l/min (4.41 SCFM)
at an inlet pressure of 25 bar (362 psi) and outlet pressure of 150 bar (2,175 psi), air drive pressure of 6 bar (87 psi)

Technical features
- Pressure ratio: 1:60
- Max. compression ratio: 1:20
- Stage ratio: –
- Min. gas inlet pressure pA in bar (psi): 20 (290)
- Max. gas inlet pressure pA in bar (psi): 600 (8,700)
- Max. permitted outlet pressure pB in bar (psi): 600 (8,700)
- Formula to calculate gas outlet pressure pB: 60 X pL + pA
- Displacement volume in cm³ (in³): 120 (7.32)
- Air drive pA in bar (psi): 1-10 (14.5-145)
- Air consumption in L/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 23
- Material of gas section: Stainless steel
Boosters to 600 bar (8,700 psi)

**Model: DLE 5-30-2**

Flow: 52 l/min (1.83 SCFM)
at inlet pressure of 4 bar (58 psi) and outlet pressure of 150 bar (2,175 psi), air drive pressure of 6 bar (87 psi)

**Model: DLE 15-30-2**

Flow: 105 l/min (3.7 SCFM)
at an inlet pressure of 30 bar (435 psi) and outlet pressure of 200 bar (2,900 psi), air drive pressure of 6 bar (87 psi)

### Technical features DLE 5-30-2
- Pressure ratio: 1:10 / 1:60
- Max. compression ratio: 1:90
- Stage ratio: 1:6
- Min. gas inlet pressure $p_A$ in bar (psi): 2 (29)
- Max. gas inlet pressure $p_A$ in bar (psi): $1 \times p_L$
- Max. permitted outlet pressure $p_B$ in bar (psi): 600 (8,700)
- Formula to calculate gas outlet pressure $p_B$: $60 \times p_L + 6 \times p_A$
- Displacement volume in cm³ (in³): 373 (22.76)
- Air drive $p_A$ in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet 1/2 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 24
- Material of gas section: Stainless steel/aluminium

### Technical features DLE 15-30-2
- Pressure ratio: 1:30 / 1:60
- Max. compression ratio: 1:40
- Stage ratio: 1:2
- Min. gas inlet pressure $p_A$ in bar (psi): 7 (101)
- Max. gas inlet pressure $p_A$ in bar (psi): $15 \times p_L$
- Max. permitted outlet pressure $p_B$ in bar (psi): 600 (8,700)
- Formula to calculate gas outlet pressure $p_B$: $60 \times p_L + 2 \times p_A$
- Displacement volume in cm³ (in³): 122 (7.44)
- Air drive $p_A$ in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 24
- Material of gas section: Stainless steel
**Model: DLE 75-1**

Flow: 85 l/min (2.29 SCFM)

at inlet pressure of 70 bar (1,015 psi) and outlet pressure of 240 bar (3,480 psi), air drive pressure of 6 bar (87 psi)

- compact design
- less pulsation

**Technical features**

<table>
<thead>
<tr>
<th></th>
<th>DLE 75-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure ratio</td>
<td>1:75</td>
</tr>
<tr>
<td>Max. compression ratio</td>
<td>1:20</td>
</tr>
<tr>
<td>Stage ratio</td>
<td>–</td>
</tr>
<tr>
<td>Min. gas inlet pressure $p_A$ in bar (psi)</td>
<td>35 (507)</td>
</tr>
<tr>
<td>Max. gas inlet pressure $p_A$ in bar (psi)</td>
<td>750 (10,875)</td>
</tr>
<tr>
<td>Max. permitted outlet pressure $p_B$ in bar (psi)</td>
<td>750 (10,875)</td>
</tr>
<tr>
<td>Formula to calculate gas outlet pressure $p_B$</td>
<td>$75 \times p_L$</td>
</tr>
<tr>
<td>Displacement volume in cm³ (in³)</td>
<td>25 (1.52)</td>
</tr>
<tr>
<td>Air drive $p_A$ in bar (psi)</td>
<td>1-10 (14.5-145)</td>
</tr>
<tr>
<td>Air consumption in L/min (SCFM)</td>
<td>400-1,980 (14.13-69.92)</td>
</tr>
<tr>
<td>Connection: Gas inlet</td>
<td>1/4 BSP</td>
</tr>
<tr>
<td>Connection: Gas outlet</td>
<td>1/4 BSP</td>
</tr>
<tr>
<td>Connection: Drive air</td>
<td>3/4 BSP</td>
</tr>
<tr>
<td>Net weight (kg)</td>
<td>13</td>
</tr>
<tr>
<td>Material of gas section</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>

**Model: DLE 75**

Flow: 150 l/min (5.29) at an inlet pressure of 70 bar (1,015 psi) and outlet pressure of 300 bar (4,350 psi), air drive pressure of 6 bar (87 psi)

- large displacement volume
- price attractive solution

**Technical features**

<table>
<thead>
<tr>
<th></th>
<th>DLE 75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure ratio</td>
<td>1:75</td>
</tr>
<tr>
<td>Max. compression ratio</td>
<td>1:20</td>
</tr>
<tr>
<td>Stage ratio</td>
<td>–</td>
</tr>
<tr>
<td>Min. gas inlet pressure $p_A$ in bar (psi)</td>
<td>35 (507)</td>
</tr>
<tr>
<td>Max. gas inlet pressure $p_A$ in bar (psi)</td>
<td>1,500 (21,750)</td>
</tr>
<tr>
<td>Max. permitted outlet pressure $p_B$ in bar (psi)</td>
<td>1,500 (21,750)</td>
</tr>
<tr>
<td>Formula to calculate gas outlet pressure $p_B$</td>
<td>$75 \times p_L + p_A$</td>
</tr>
<tr>
<td>Displacement volume in cm³ (in³)</td>
<td>50 (3.05)</td>
</tr>
<tr>
<td>Air drive $p_A$ in bar (psi)</td>
<td>1-10 (14.5-145)</td>
</tr>
<tr>
<td>Air consumption in L/min (SCFM)</td>
<td>400-1,980 (14.13-69.92)</td>
</tr>
<tr>
<td>Connection: Gas inlet</td>
<td>1/4 BSP</td>
</tr>
<tr>
<td>Connection: Gas outlet</td>
<td>1/4 BSP</td>
</tr>
<tr>
<td>Connection: Drive air</td>
<td>3/4 BSP</td>
</tr>
<tr>
<td>Net weight (kg)</td>
<td>18</td>
</tr>
<tr>
<td>Material of gas section</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>
Boosters to 1,500 bar (21,750 psi)

Model: DLE 15-75
Flow: 75 l/min (2.64 SCFM)
at inlet pressure of 11 bar (159 psi) and outlet pressure of 200 bar (2,900 psi), air drive pressure of 6 bar (87 psi)

Technical features DLE 15-75
- Pressure ratio 1:15 / 1:75
- Max. compression ratio 1:100
- Stage ratio 1:5
- Min. gas inlet pressure pA in bar (psi) 7 (101)
- Max. gas inlet pressure pA in bar (psi) 2.5 X pL
- Max. permitted outlet pressure pB in bar (psi) 1,500 (21,750)
- Formula to calculate gas outlet pressure pB 75 X pL + 5 X pA
- Displacement volume in cm³ (in³) 122 (7.44)
- Air drive pA in bar (psi) 1-10 (14.5-145)
- Air consumption in L/min (SCFM) 400-1,980 (14.5-145)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg) 19
- Material of gas section Stainless steel

Model: DLE 30-75
Flow: 95 l/min (3.35 SCFM)
at an inlet pressure of 30 bar (435 psi) and outlet pressure of 250 bar (3,625 psi), air drive pressure of 6 bar (87 psi)

Technical features DLE 30-75
- Pressure ratio 1:30 / 1:75
- Max. compression ratio 1:50
- Stage ratio 1:2.5
- Min. gas inlet pressure pA in bar (psi) 15 (217)
- Max. gas inlet pressure pA in bar (psi) 12 X pL
- Max. permitted outlet pressure pB in bar (psi) 1,500 (21,750)
- Formula to calculate gas outlet pressure pB 75 X pL + 2.5 X pA
- Displacement volume in cm³ (in³) 60 (3.66)
- Air drive pA in bar (psi) 1-10 (14.5-145)
- Air consumption in L/min (SCFM) 400-1,980 (14.5-145)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg) 19
- Material of gas section Stainless steel
Model: DLE 75-1-2
Flow: 90 l/min (3.17 SCFM)
at inlet pressure of 70 bar (1,015 psi) and outlet pressure of 400 bar (5,800 psi), air drive pressure of 6 bar (87 psi)

Technical features DLE 75-1-2
Pressure ratio 1:150
Max. compression ratio 1:20
Stage ratio –
Min. gas inlet pressure pA in bar (psi) 45 (652)
Max. gas inlet pressure pA in bar (psi) 1,500 (21,750)
Max. permitted outlet pressure pB in bar (psi) 1,500 (21,750)
Formula to calculate gas outlet pressure pB 150 X pL
Displacement volume in cm³ (in³) 5 (1.52)
Air drive pA in bar (psi) 1-10 (14.5-145)
Air consumption in L/min (SCFM) 600-2,400 (21.2-84.8)
Connection: Gas inlet 1/4 BSP
Connection: Gas outlet 1/4 BSP
Connection: Drive air 3/4 BSP
Net weight (kg) 20
Material of gas section Stainless steel

Model: DLE 75-2
Flow: 130 l/min (4.59 SCFM) at an inlet pressure of 70 bar (1,015 psi) and outlet pressure of 400 bar (5,800 psi), air drive pressure of 6 bar (87 psi)

Technical features DLE 75-2
Pressure ratio 1:150
Max. compression ratio 1:20
Stage ratio –
Min. gas inlet pressure pA in bar (psi) 45 (652)
Max. gas inlet pressure pA in bar (psi) 1,500 (21,750)
Max. permitted outlet pressure pB in bar (psi) 1,500 (21,750)
Formula to calculate gas outlet pressure pB 150 X pL + pA
Displacement volume in cm³ (in³) 50 (3.05)
Air drive pA in bar (psi) 1-10 (14.5-145)
Air consumption in L/min (SCFM) 600-2,400 (21.2-84.8)
Connection: Gas inlet 1/4 BSP
Connection: Gas outlet 1/4 BSP
Connection: Drive air 3/4 BSP
Net weight (kg) 23
Material of gas section Stainless steel
Model: DLE 15-75-2
Flow: 50 l/min (1.76 SCFM)
at inlet pressure of 15 bar (217 psi) and outlet pressure of 500 bar (7,250 psi), air drive pressure of 6 bar (87 psi)

Technical features DLE 15-75-2
- Pressure ratio: 1:30 / 1:150
- Max. compression ratio: 1:100
- Stage ratio: 1:5
- Min. gas inlet pressure pA in bar (psi): 7 (101)
- Max. gas inlet pressure pA in bar (psi): 5 X pL
- Max. permitted outlet pressure pB in bar (psi): 1,500 (21,750)
- Formula to calculate gas outlet pressure pB: 150 X pL + 5 X pA
- Displacement volume in cm³ (in³): 122 (7.44)
- Air drive pressure in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 24
- Material of gas section: Stainless steel

Model: DLE 30-75-2
Flow: 60 l/min (2.11 SCFM)
at an inlet pressure of 40 bar (580 psi) and outlet pressure of 600 bar (8,700 psi), air drive pressure of 6 bar (87 psi)

Technical features DLE 30-75-2
- Pressure ratio: 1:60 / 1:150
- Max. compression ratio: 1:50
- Stage ratio: 1:2.5
- Min. gas inlet pressure pA in bar (psi): 15 (217)
- Max. gas inlet pressure pA in bar (psi): 24 X pL
- Max. permitted outlet pressure pB in bar (psi): 1,500 (21,750)
- Formula to calculate gas outlet pressure pB: 150 X pL + 2.5 X pA
- Displacement volume in cm³ (in³): 60 (3.66)
- Air drive pressure in bar (psi): 1-10 (14.5-145)
- Air consumption in l/min (SCFM): 600-2,400 (21.2-84.8)
- Connection: Gas inlet 1/4 BSP
- Connection: Gas outlet 1/4 BSP
- Connection: Drive air 3/4 BSP
- Net weight (kg): 24
- Material of gas section: Stainless steel
Model VP/70/700/35

- Wide range of application
- Compact design
- Portable unit
- Easy to operate
- Oil and lubrication free compression
- Dry running
- No electrical auxiliary energy is needed

This booster station is designed for a wide range of application. I. e. pressure tests can be realized, gas cylinders filled or accumulators recharged.

To operate this system, the gas inlet, the gas outlet and the drive air have to be connected. Other installations are not necessary. Since the components are reduced to a minimum, an easy and reliable operation can be guaranteed.

Technical features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlet pressure</td>
<td>75 – 700 bar (1,087 – 10,150 psi)</td>
</tr>
<tr>
<td>Flow capacity at an inlet pressure of 10 bar (145 psi)</td>
<td>70 l/min (2.47 SCFM) at 200 bar (2,900 psi) outlet pressure</td>
</tr>
<tr>
<td>Flow capacity at an inlet pressure of 15 bar (217 psi)</td>
<td>103 l/min (3.63 SCFM) at 200 bar (2,900 psi) outlet pressure</td>
</tr>
<tr>
<td>Time of operation</td>
<td>50 %</td>
</tr>
<tr>
<td>Gas inlet pressure</td>
<td>7 – 35 bar (101 – 507 psi), but max. 3.5*air drive PL</td>
</tr>
<tr>
<td>Air drive pressure</td>
<td>1 – 10 bar (14.5 – 145 psi)</td>
</tr>
<tr>
<td>Air consumption</td>
<td>400 – 1,980 l/min (14.13 – 69.92 SCFM)</td>
</tr>
<tr>
<td>Connection: Gas inlet</td>
<td>1/2 BSP</td>
</tr>
<tr>
<td>Connection: Gas outlet</td>
<td>1/4 BSP</td>
</tr>
<tr>
<td>Connection: Air drive</td>
<td>1/2 BSP</td>
</tr>
<tr>
<td>Panel</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>850 X 410 X 410 mm</td>
</tr>
<tr>
<td>Net weight</td>
<td>28 kg</td>
</tr>
</tbody>
</table>
Booster station, 120 l/min – 500 bar

Model VP/120/500/300

- Wide range of application
- Compact design
- Mobile system
- Automatic operation
- Oil and lubrication free compression
- Dry running

This booster station is an individually operating, air driven booster station in compact design. The booster delivers continuously into a storage tank and guarantees that the pressure inside of the receiver is always between the set limit values. Due to the design of this system the gas cylinder can be emptied down to 10 bar and the gas volume used in an optimum way. Through the integrated pilot switches, regulator and safety relief elements, an automatic operation without a continuous observation would be possible.

Technical features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlet pressure</td>
<td>20 – 500 bar (290 – 7,250 psi), adjustable through pressure reducer</td>
</tr>
<tr>
<td>Flow capacity at an inlet pressure</td>
<td>120 l/min (4.23 SCFM)</td>
</tr>
<tr>
<td>of 18 bar</td>
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</tr>
<tr>
<td>Flow capacity at an inlet pressure</td>
<td>400 l/min (14.12 SCFM)</td>
</tr>
<tr>
<td>of 300 bar</td>
<td></td>
</tr>
<tr>
<td>Time of operation</td>
<td>50 %</td>
</tr>
<tr>
<td>Nitrogen inlet</td>
<td>M16 X 1.5 (Ermeto 8S)</td>
</tr>
<tr>
<td>Nitrogen outlet pressure</td>
<td>M16 X 1.5 (Ermeto 8S)</td>
</tr>
<tr>
<td>Nitrogen accumulator</td>
<td>5 liter / 550 bar (7,975 psi)</td>
</tr>
<tr>
<td>Nitrogen inlet pressure (from vaporiser)</td>
<td>20 – 36 bar (290 – 522 psi)</td>
</tr>
<tr>
<td>Nitrogen cylinder supply</td>
<td>10 – 300 bar (145 – 4,350 psi)</td>
</tr>
<tr>
<td>Connection: Nitrogen cylinder</td>
<td>W 24.32 X 1/14 200 bar (2,900 psi) / 300 bar (4,350 psi)</td>
</tr>
<tr>
<td>Air drive pressure</td>
<td>4 – 10 bar (58 – 145 psi)</td>
</tr>
<tr>
<td>Connection: Air drive</td>
<td>3/4 BSP</td>
</tr>
<tr>
<td>Air consumption</td>
<td>400 – 1980 l/min (14.13–69.92 SCFM)</td>
</tr>
<tr>
<td>Cabinet</td>
<td>Steel, coloured, on castors</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>720 X 560 X 1,230 mm</td>
</tr>
<tr>
<td>Net weight (packed weight)</td>
<td>211 kg (315 kg)</td>
</tr>
</tbody>
</table>
**Model VH/400/500R**

- High flow rate
- Automatic operation
- Oil and lubrication free compression
- Dry running

This compressor station is an independently working, hydraulic driven system which compresses the gases in three stages, and integrated hydraulic system. The individual compressor stages are operated through proportional valves, in this way a silent operation at a low sound emission can be realized. The compressor delivers a continuous flow into a storage tank and thus ensures that the pressure inside this tank is always within the adjustable limiting values. The required pressures can be freely set in the operating panel.

### Technical features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlet pressure</td>
<td>200 – 500 bar (2,900 – 7,250 psi), variable</td>
</tr>
<tr>
<td>Flow at 14 bar (203 psi) inlet pressure</td>
<td>400 l/min (14.12 SCFM)</td>
</tr>
<tr>
<td>Gas inlet</td>
<td>M16 X 1.5 (Ermeto 8S)</td>
</tr>
<tr>
<td>Gas outlet</td>
<td>M16 X 1.5 (Ermeto 8S)</td>
</tr>
<tr>
<td>High pressure accumulator</td>
<td>10 liter / 550 bar (7,975 psi)</td>
</tr>
<tr>
<td>Gas inlet (i.e. from the vaporiser)</td>
<td>8 – 36 bar (116 – 522 psi)</td>
</tr>
<tr>
<td>Cooling water connection</td>
<td>3/4 BSP 0.8 m³/h (28.25 SCFM/h) / T inlet = 14°C (57°C)</td>
</tr>
<tr>
<td>Power supply</td>
<td>max. 22 kW</td>
</tr>
<tr>
<td>Supply from gas cylinders</td>
<td>10 – 300 bar (145 – 4,350 psi)</td>
</tr>
<tr>
<td>Cabinet</td>
<td>Coloured steel</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>2,180 X 1,000 X 1,900 mm</td>
</tr>
<tr>
<td>Net weight</td>
<td>1,600 kg</td>
</tr>
<tr>
<td>Type</td>
<td>Pressure ratio</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------</td>
</tr>
<tr>
<td>DLE 2-1</td>
<td>1 : 2</td>
</tr>
<tr>
<td>DLE 5-1</td>
<td>1 : 5</td>
</tr>
<tr>
<td>DLE 15-1</td>
<td>1 : 15</td>
</tr>
<tr>
<td>DLE 30-1</td>
<td>1 : 30</td>
</tr>
<tr>
<td>DLE 75-1</td>
<td>1 : 75</td>
</tr>
<tr>
<td>DLE 2</td>
<td>1 : 2</td>
</tr>
<tr>
<td>DLE 5</td>
<td>1 : 5</td>
</tr>
<tr>
<td>DLE 15</td>
<td>1 : 15</td>
</tr>
<tr>
<td>DLE 30</td>
<td>1 : 30</td>
</tr>
<tr>
<td>DLE 75</td>
<td>1 : 75</td>
</tr>
<tr>
<td>DLE 2-5</td>
<td>1 : 2 / 1.5</td>
</tr>
<tr>
<td>DLE 5-15</td>
<td>1 : 10 / 1.15</td>
</tr>
<tr>
<td>DLE 5-30</td>
<td>1 : 10 / 1.30</td>
</tr>
<tr>
<td>DLE 15-30</td>
<td>1 : 15 / 1.30</td>
</tr>
<tr>
<td>DLE 15-75</td>
<td>1 : 15 / 1.75</td>
</tr>
<tr>
<td>DLE 30-75</td>
<td>1 : 1.75</td>
</tr>
<tr>
<td>DLE 2-12</td>
<td>1 : 1</td>
</tr>
<tr>
<td>DLE 5-12</td>
<td>1 : 1</td>
</tr>
<tr>
<td>DLE 15-12</td>
<td>1 : 30</td>
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<tr>
<td>DLE 30-12</td>
<td>1 : 60</td>
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<tr>
<td>DLE 75-12</td>
<td>1 : 150</td>
</tr>
<tr>
<td>DLE 2-2</td>
<td>1 : 1</td>
</tr>
<tr>
<td>DLE 5-2</td>
<td>1 : 1</td>
</tr>
<tr>
<td>DLE 15-2</td>
<td>1 : 30</td>
</tr>
<tr>
<td>DLE 30-2</td>
<td>1 : 60</td>
</tr>
<tr>
<td>DLE 75-2</td>
<td>1 : 150</td>
</tr>
<tr>
<td>DLE 2-5</td>
<td>1 : 2</td>
</tr>
<tr>
<td>DLE 5-15</td>
<td>1 : 10 / 1.30</td>
</tr>
<tr>
<td>DLE 5-30</td>
<td>1 : 10 / 1.60</td>
</tr>
<tr>
<td>DLE 15-30</td>
<td>1 : 30</td>
</tr>
<tr>
<td>DLE 15-75</td>
<td>1 : 30 / 1.50</td>
</tr>
<tr>
<td>DLE 30-75</td>
<td>1 : 1.50</td>
</tr>
</tbody>
</table>

*Compression ratio = Outlet pressure / Suction pressure

Abbreviations: pL = Air drive; pA = Suction pressure; pB = Outlet pressure

The maximum permitted outlet pressure is 60 to 100°C. Cooling by water is available as an option. The maximum stroke frequency is at 90 to 100 cycles per minute for 50% duty cycle. Suction pressures lower than the indicated "pA min" are not permitted and can cause damages on the unit.
High-pressure pumps for different liquids (oil, water, emulsion etc.)
- easy to maintain, ex-proof
- low energy consumption
- operating pressures up to max. 5,500 bar

Air Amplifiers
- For increasing air pressure
- Specific air pressure amplification to suit your requirements
- Connection to electrical supply not necessary
- Operating pressure max. 40 bar

Special Test Benches
- Static pressure test
- Bursting pressure test
- Impulse pressure test
- Hoses, pipes, valves, hydraulic components can be tested

Gas Assist Injection Systems
- Compressor stations with pneumatic, electric or hydraulic drive
- Control modules with 2, 4 or 8 valves
- Control modules with integrated booster station
- External core pull control systems

High Pressure Valves, Fittings, Tubing
- Stainless steel design
- Temperatures from -250° C to +650° C for liquids and gases
- Maximum outlet pressures up to 10,500 bar

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