CATALOG
SUCTION UNITS

GREGGERSEN MEDICAL VACUUM REGULATORS

QUALITY AND DESIGN
Our benchmark for our products is perfection. That is why we rely on specialists in our departments who always give their best. Our latest innovation – the Pirol and Skua medical vacuum regulators – have been distinguished with the following design awards:

- iF product design award winner 2013
- reddot design award winner 2013
- German Design Award Special Mention 2014
- Good Design Award 2013

Sustained research and development, coordinated with the special needs of our customers in the healthcare market for the past four generations, combined with optimal manufacturing conditions and continuous quality control, ensure the quality and design standard we set for our products: Perfection.

A NEW GENERATOR OF VACUUM REGULATORS
Besides the multiple award-winning design, the Greggersen vacuum regulators also fulfil extremely exacting demands in terms of intuitive operation and innovative equipment. The features of the new Greggersen vacuum regulator product families – Skua, Pirol and Thoraflow – are described as follows.

MADE IN GERMANY
The development, design and production of all Greggersen products is exclusively in Hamburg – Made in Germany. The use of high quality materials means that all products are designed for longevity.

INDIVIDUAL SOLUTIONS
Upon customer request, we offer high flexibility for even the most unconventional solutions.

MAXIMUM SAFETY ALSO WITH THE SKUA
COMPRESSED AIR VERSION
The silicone ball falls from the device if an overpressure is set on the device. This can happen e.g. due to oversuction and subsequent blockage of the nozzle outlet. The ball always reacts to the development of overpressure towards the patient. The ball dropping out prevents the transfer of overpressure to the patient.

GAS TYPE SPECIFIC COLOUR CODING ACCORDING TO ISO 32
It is therefore immediately apparent whether the device is operated with vacuum or compressed air.

360° ROTATABLE MANOMETER
This allows you to read the manometer from any perspective required.

LARGE ERGONOMIC HAND WHEEL
For continuously variable regulation of aspiration throughput and OFF marking for simple, complete shutdown of the device.

SPRING-LOADED RAIL CLAMP
For convenient mounting and demounting in a standard rail in one-handed operation.

EASY TO CLEAN MATT METALLIC SURFACE
Large areas, few transitions and edges ensure a high quality impression and easy cleaning of the device.

EXCEPTIONALLY USER-FRIENDLY VALVE OPERATION
Quick-closing valve and control valve have been consolidated into a single unit. So you can switch off the device ("OFF" position) with one handgrip and also deliver full throughput with less than one turn.

MULTIPLE AWARD-WINNING DESIGN

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GAS TYPE SPECIFIC COLOUR CODING ACCORDING TO ISO 32
It is therefore immediately apparent whether the device is operated with vacuum or compressed air.
**Pirol vacuum regulator – plug-in unit**

**APPLICATIONS**
Medical vacuum regulator for dosing vacuum; with 360° rotatable manometer; large, ergonomic setting hand wheel; plug-in unit for direct coupling to a DIN tapping point.

The setting mechanism allows continuous, accurate and intuitive vacuum regulation. The rotatable manometer allows the user to read the set value from the ideal viewing angle. The Pirol vacuum regulator is equipped with an overpressure protection device. The Pirol regulators meet EN ISO 10079-3 specifications.

**TECHNICAL DATA**
- **Gas type:** Vacuum / VAC
- **Primary pressure:** -40 ... -99 kPa
- **Inlet:** Plug connector in accordance with DIN 13260 Part 2:2013*
- **Design:** spring-loaded membrane regulator
- **Material:** Housing: aluminium, anodised; Hand wheel: PA plastic; Membrane: silicone; Plug connector: stainless steel
- **Regulation range / throughput:** depends on the version – see table below
- **Outlet:** 9/16"-18 UNF with barbed vacuum connector
- **Label:** CE 0482
- **Weight:** 490 g
- **Dimensions (HxDxW):** 150x140x50mm (incl. barbed connector)

*other country-specific connections on request (e.g. British Standard BS 5682:1998 or Scandinavian Standard SS 87 524 30:2004, etc.)

**PERFORMANCE**
(The maximum throughput depends on the mains system pressure! Accuracy of the specifications: ± 10%)

<table>
<thead>
<tr>
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</tr>
<tr>
<td>Pirol -30</td>
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<td>45 (at -36 kPa)</td>
</tr>
<tr>
<td>Pirol -15</td>
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<td>43 (at -15 kPa)</td>
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**Pirol vacuum regulator – rail-mounted unit**

**APPLICATIONS**
Medical vacuum regulator for dosing vacuum; the vacuum is generated by means of medical air according to the Venturi principle. With 360° rotatable manometer; large, ergonomic setting hand wheel; rail-mounted unit incl. spring-loaded rail clamp for attaching to a standard 25x10mm rail. The gas inlet is integrated into the rail clamp (NIST). The setting mechanism allows continuous, accurate and intuitive vacuum regulation. The rotatable manometer allows the user to read the set value from the ideal viewing angle. The Pirol regulators meet EN ISO 10079-3 specifications.

**TECHNICAL DATA**
- **Gas type:** Vacuum / VAC
- **Primary pressure:** -40 ... -99 kPa
- **Inlet:** NIST housing according to DIN EN ISO 5359:2012
- **Design:** spring-loaded membrane regulator
- **Material:** Housing: aluminium, anodised; Hand wheel: PA plastic; Membrane: silicone; spring-loaded rail clamp: aluminium, anodised
- **Regulation range / throughput:** depends on the version – see table below
- **Outlet:** 9/16"-18 UNF with barbed vacuum connector
- **Label:** CE 0482
- **Weight:** 630 g
- **Dimensions (HxDxW):** 150x140x50mm (incl. barbed connector)

**PERFORMANCE**
(The maximum throughput depends on the mains system pressure! Accuracy of the specifications: ± 10%)

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### APPLICATIONS
Medical vacuum regulator for dosing vacuum; the vacuum is generated by means of medical air according to the Venturi principle. With a 360° rotatable manometer; large, ergonomic setting hand wheel; plug-in unit for direct coupling to a DIN tapping point. The setting mechanism allows continuous, accurate and intuitive vacuum regulation. The rotatable manometer allows the user to read the set value from the ideal viewing angle. The Skua vacuum regulator is equipped with an overpressure protection device. The Skua regulators meet EN ISO 10079-3 specifications.

### TECHNICAL DATA
- **Gas type:** med. compressed air / AIR
- **Primary pressure:** 450 kPa ± 50 kPa
- **Inlet:** Plug connector in accordance with DIN 13260 Part 2:2013*
- **Design:** Vacuum generation according to the Venturi principle
- **Material:** Housing: aluminium, anodised; Hand wheel: PA plastic; Plug connector: stainless steel
- **Regulation range / throughput / consumption:** depends on the version – see table below.
- **Outlet:** 9/16”-18 UNF with barbed vacuum connector
- **Label:** CE 0482
- **Weight / Dimensions (HxDxW):** 550 g / 150x160x50 mm (incl. barbed connector)

### PERFORMANCE
(The maximum throughput depends on the mains system pressure! Accuracy of the specifications: ± 10%)

| Skua -90 | Reg.: 0 to -85 | Dis.: 0 to -100 | Aspiration throughput: 22 (at -85 kPa) | Compressed air: 30 (at -85 kPa) |
| Skua -30 | Reg.: 0 to -30  | Dis.: 0 to -40  | Aspiration throughput: 28 (at -30 kPa) | Compressed air: 25 (at -30 kPa) |
| Skua -15 | Reg.: 0 to -15  | Dis.: 0 to -25  | Aspiration throughput: 20 (at -15 kPa) | Compressed air: 22 (at -15 kPa) |

### SKUA VACUUM REGULATOR, AIR, PLUG-IN UNIT DIN
- Skua -90 vacuum regulator, AIR, plug-in unit DIN 904.540
- Skua -90 vacuum regulator, AIR/O2 combined, plug-in unit DIN 904.542
- Skua -30 vacuum regulator, AIR, plug-in unit DIN 904.550
- Skua -15 vacuum regulator, AIR, plug-in unit DIN 904.560

### SKUA VACUUM REGULATORS, AIR, RAIL-MOUNTED UNIT NIST, WITHOUT CONNECTING HOSE
Connecting hose, see product group accessories
- Skua -90 vacuum regulator, AIR, rail-mounted unit NIST 904.541
- Skua -90 vacuum regulator, AIR/O2 combined, rail-mounted unit NIST 904.543
- Skua -30 vacuum regulator, AIR, rail-mounted unit NIST 904.551
- Skua -15 vacuum regulator, AIR, rail-mounted unit NIST 904.561
Thoraflow vacuum regulator

Thoraflow is a special development for use in thorax drainage. The regulator combines precise and intuitive regulation with very high aspiration throughput. Based on the regulation range 0 to -50 cm H2O, Thoraflow allows aspiration throughputs up to 25 l/min. The regulator thus compensates leakages and fistulations without a drop in pressure. The 360° rotatable manometer allows the user to read the set value from the ideal viewing angle.

TECHNICAL DATA
- Gas type: Vacuum / VAC
- Primary pressure: 0 to -99 kPa
- Inlet: Plug-in unit: In accordance with DIN 13260 Part 2: 2013
  Rail-mounted unit: NIST housing in accordance with
  DIN EN ISO 5339:2012
- Design: Spring-loaded membrane regulator
- Material: Housing: aluminium, anodised
  Hand wheel: PA plastic; Membrane: silicone;
  Plug connector: stainless steel
- Regulation range: 0 to -50 hPa
- Outlet: 9/16"-18 UNF with barbed vacuum connector
- Dimensions (WxHxD) / Weight: 154 x 64 x 182 mm / 634 g (plug-in unit)
  155 x 64 x 182 mm / 762 g (rail-mounted unit)

Swan water vacuum regulator

APPLICATIONS
Used in continuous drainage for fine adjustment of the vacuum by means of the water column's height. With an integrated control valve. Available as a plug-in unit for direct connection to a vacuum tapping point or as a rail-mounted unit, NIST housing inlet. The vacuum is enabled via the integrated control valve and the suction needed for aspiration is generated. As soon as air bubbles become visible at the lower end of the immersion tube, the low pressure set via the immersion tube has been reached. If no vacuum is available, it can be generated via an ejector from medical air.

TECHNICAL DATA
- Gas type: Vacuum / VAC
- Primary pressure: -40 to -99 kPa (vacuum operation)
- Inlet: Plug-in unit: In accordance with DIN 13 260 Part 2: 2013
  Rail-mounted unit: NIST housing in accordance with
  DIN EN ISO 5339:2012
- Design: Water vacuum gauge with immersion tube
  Regulator unit and caps: brass, chrome-plated
  Dipstick: stainless steel
- Regulation range: continuously controllable between 0 and -30/-50 cm H2O*
- Outlet: 9/16-18 UNF with barbed vacuum connector

PERFORMANCE
(The maximum throughput depends on the mains system pressure! Accuracy of the specifications: ± 10%)

<table>
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<th>Regulation range</th>
<th>Display range</th>
<th>Aspiration throughput [approx. litres free flow / min]</th>
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<tbody>
<tr>
<td>Thoraflow</td>
<td>0 to 50 hPa</td>
<td>25 l/min [-50 hPa]</td>
</tr>
<tr>
<td>Swan 30</td>
<td>0 to 35 cm H2O</td>
<td>10 l/min [-30 cm H2O]</td>
</tr>
<tr>
<td>Swan 50</td>
<td>0 to 50 cm H2O</td>
<td>10 l/min [-50 cm H2O]</td>
</tr>
</tbody>
</table>

*1 hPa ≈ 1 cm H2O ≈ 0.1 kPa

ACCESSORIES NECESSARY FOR OPERATION WITH COMPRESSED AIR EJECTOR

Thoraflow vacuum regulator, plug-in unit DIN 904.570
Swan 30 water vacuum regulator, plug-in unit DIN 904.908
Swan 30 vacuum regulator, rail-mounted unit NIST 902.694
Swan 50 water vacuum regulator, plug-in unit DIN 904.909
Swan 50 vacuum regulator, rail-mounted unit NIST 904.905

WATER VACUUM REGULATOR SWAN, VAC
Connecting hose, see product group accessories
Swan 30 water vacuum regulator, plug-in unit DIN 904.908
Swan 30 vacuum regulator, rail-mounted unit NIST 902.694
Swan 50 vacuum regulator, plug-in unit DIN 904.909
Swan 50 vacuum regulator, rail-mounted unit NIST 904.905

ACCESORIES NECESSARY FOR OPERATION WITH COMPRESSED AIR EJECTOR
Vacuum connecting hose, complete with screw connector, L: 0.5m 900.359
CATALOG
SUCTION UNITS

MED SUCTION UNITS

Varioprt aspiration unit

APPLICATIONS
Medical, portable vacuum aspiration unit for 2 drainage containers.
Universal fittings for all container types. Commercially available containers between 0.5 and 3.0 litres from various manufacturers can be accommodated (e.g. Serres, Abbott, Medela, Ardo, Cardinal and many other makes).

The carrying frame has a stable handgrip and a fitting for 25x10 mm and 30x10 mm standard wall-mounted rails. The vacuum regulator is located at the front, which affords the user rapid and direct access. The NIST gas inlet is located at the back of the unit, such that the supply hose is outside the working area.

All Pirol and Skua regulators meet DIN EN ISO 10079-3 specifications.

SCOPE OF DELIVERY
- Pirol or Skua vacuum regulators
- Manometer 360° rotatable
- Carrying frame, coated
- 2 x highly flexible holding cuffs

TECHNICAL DATA
Gas type: Vacuum / VAC
- medical air / AIR
Inlet: NIST housing according to DIN EN ISO 5359: 2012
Outlet: 9/16”-18 UNF with barbed vacuum connector
Weight: approx. 3 kg (without container)

Please find the technical data for the respective regulator on page 05 or 07.

Wheeled aspiration unit

APPLICATIONS
Medical, wheeled surgical aspiration unit for vacuum (Pirol -90) or compressed air operation (Skua -90), including regulator for suction dosing, wheeled frame to accommodate 2 x 5 litre bottles (drainage bottles with integrated overflow protection). A rail clamp is integrated into the drainage bottle’s top, making it possible to attach it to a standard wall-mounted rail. The manometer is 360° rotatable. The complete unit is mounted on a wheeled frame.

All Pirol and Skua regulators meet DIN EN ISO 10079-3 specifications.

TECHNICAL DATA
Design: Wheeled frame (4 rollers, 2 with brakes)
- stainless steel, regulator brass, anodised
Drainage bottle: 2 x 5 l volume
Material: PVC sterilisable up to 134 °C
Outlet: barbed hose connector for silicone hose ND 6
Dimensions (WxHxD) / weight: 500 x 850 x 400 mm / 7kg
Empty container 1.2 kg

Please find the technical data for the respective regulator on page 05 or 07.

ASPIRATION UNIT, WHEELED WITHOUT CONNECTING HOSE
Connecting hose, see product group accessories

Hose connector for vacuum unit with 9/16” union nut
Pirol/Skua VAC manometer, d=50mm, 0 to -100 kPa
Pirol/Skua VAC manometer, d=50mm, 0 to -40 kPa
Pirol/Skua VAC manometer, d=50mm, 0 to -25 kPa
Thoraflow VAC manometer, d=63mm, 0 to -60 hPa
Viewing plate f. Skua and Pirol manometers, all versions, sales unit = 10 pcs.
Viewing plate f. Thoraflow manometer, sales unit = 10 pcs.

DRAINAGE OVERFLOW BOTTLE
Drainage overflow bottle (250 ml) to protect the vacuum regulator against oversuction with secretion or body fluids.

M ED SUCTION UNITS

S UCTION UNITS

there is no substitute