

MEDICAL DEVICES BY GREGGERSEN



CATALOG ACCESSORIES

there is no substitute



Angle plug connector with hose and NIST fitting

NEUTRAL COLOUR

APPLICATIONS

Low-pressure hose system for medical gases.
For coupling into an outlet.
Colour coding: neutral.

TECHNICAL DATA

Inlet: Angle plug connector - gas-specific in accordance with DIN 13260-2
Outlet: NIST screw fitting - gas-specific in accordance with DIN EN 15908
Hose: Neutral – black
Gas type labelling in white
Date of manufacture stamped into the press-in sleeve
Specification: In accordance with DIN EN ISO 5359
Pressure drop: < 500 mbar at 3.2 bar and 200 l/min
Length: 1.5 m - 3 m - 5 m



ANGLE PLUG CONNECTOR, DIN, HOSE COLOUR NEUTRAL, NIST SCREW FITTING HOSE LENGTH: 1.5 m

Angle plug connector, DIN, O ₂ , 1.5 m hose, NIST	900.038
Angle plug connector, DIN, AIR, 1.5 m hose, NIST	900.040
Angle plug connector, DIN, AIR/O ₂ combined unit, 1.5 m hose, NIST	902.420
Angle plug connector, DIN, VAC, 1.5 m hose, NIST	900.039
Angle plug connector, DIN, N ₂ O, 1.5 m hose, NIST	900.042
Angle plug connector, DIN, AIR-800, 1.5 m hose, NIST	900.046
Angle plug connector, DIN, CO ₂ , 1.5 m hose, NIST	900.045

HOSE LENGTH: 3 m

Angle plug connector, DIN, O ₂ , 3 m hose, NIST	900.360
Angle plug connector, DIN, AIR, 3 m hose, NIST	900.362
Angle plug connector, DIN, AIR/O ₂ combined unit, 3 m hose, NIST	902.421
Angle plug connector, DIN, VAC, 3 m hose, NIST	900.361
Angle plug connector, DIN, N ₂ O, 3 m hose, NIST	900.364
Angle plug connector, DIN, AIR-800, 3 m hose, NIST	900.366
Angle plug connector, DIN, CO ₂ , 3 m hose, NIST	900.365

HOSE LENGTH: 5 m

Angle plug connector, DIN, O ₂ , 5 m hose, NIST	900.370
Angle plug connector, DIN, AIR, 5 m hose, NIST	900.470
Angle plug connector, DIN, AIR/O ₂ combined unit, 5 m hose, NIST	900.472
Angle plug connector, DIN, VAC, 5 m hose, NIST	900.473
Angle plug connector, DIN, N ₂ O, 5 m hose, NIST	900.471
Angle plug connector, DIN, AIR-800, 5 m hose, NIST	900.376
Angle plug connector, DIN, CO ₂ , 5 m hose, NIST	900.375

Angle plug connector with hose and NIST fitting

COLOUR CODING IN ACCORDANCE WITH ISO 32

APPLICATIONS

Low-pressure hose system for medical gases.
For coupling into a outlet.
Colour coding: gas-specific in accordance with ISO 32.

TECHNICAL DATA

Inlet: Angle plug connector - gas-specific in accordance with DIN 13260-2
 Outlet: NIST screw fitting - gas-specific in accordance with DIN EN 15908
 Hose: Colour coding in accordance with ISO 32
 Gas type labelling
 Date of manufacture stamped into the press-in sleeve
 Specification: In accordance with DIN EN ISO 5359
 Pressure drop: < 500 mbar at 3.2 bar and 200 l/min
 Length: 1.5 m - 3 m - 5 m



ANGLE PLUG CONNECTORS, DIN, ISO 32 HOSE, NIST SCREW FITTING HOSE LENGTH: 1.5 m

Angle plug connector, DIN, O ₂ , 1.5 m ISO 32 hose (white), NIST	902.410
Angle plug connector, DIN, AIR, 1.5 m ISO 32 hose (black/white), NIST	902.414
Angle plug connector, DIN, AIR/O ₂ combined unit, 1.5 m ISO 32 hose (white/black), NIST	902.418
Angle plug connector, DIN, VAC, 1.5 m ISO 32 hose (yellow), NIST	902.416
Angle plug connector, DIN, N ₂ O, 1.5 m ISO 32 hose (blue), NIST	902.412

HOSE LENGTH: 3 m

Angle plug connector, DIN, O ₂ , 3 m ISO 32 hose (white), NIST	902.411
Angle plug connector, DIN, AIR, 3 m ISO 32 hose (black/white), NIST	902.415
Angle plug connector, DIN, AIR/O ₂ combined unit, 3 m ISO 32 hose (white/black), NIST	902.419
Angle plug connector, DIN, VAC, 3 m ISO 32 hose (yellow), NIST	902.417
Angle plug connector, DIN, N ₂ O, 3 m ISO 32 hose (blue), NIST	902.413

HOSE LENGTH: 5 m

Angle plug connector, DIN, O ₂ , 5 m ISO 32 hose (white), NIST	900.474
Angle plug connector, DIN, AIR, 5 m ISO 32 hose (black/white), NIST	900.475
Angle plug connector, DIN, AIR/O ₂ combined unit, 5 m ISO 32 hose (white/black), NIST	900.477
Angle plug connector, DIN, VAC, 5 m ISO 32 hose (yellow), NIST	900.478
Angle plug connector, DIN, N ₂ O, 5 m ISO 32 hose (blue), NIST	900.476

Angle plug



ANGLE PLUG

For individual connection of medical devices to an outlet.

TECHNICAL DATA

Design: Matt chrome-plated all-metal brass housing
 Inlet: Stainless steel front section in accordance with DIN 13260-2
 For compressed gases with non-return valve
 Outlet: 6.7 mm fir tree nozzle



ANGLE PLUG FOR AGSS

TECHNICAL DATA

AGSS-plug for anaesthetic gasscavenging system
 in line with DIN EN ISO 9170-2

Design: NGA: Brass, chrome-plated
 AGFS: Stainless steel

Hose connector: ø22 mm



AIR MOTOR ANGLE PLUG

TECHNICAL DATA

Angle plug connectors with hose connector for pneumatic tools,
 Black anodised all-metal housing connection nozzles for feed and return systems.

Design: Brass, chrome-plated
 Hose connector: Inner 6.7 mm fir tree nozzle
 Outer diameter 22 mm

ANGLE PLUG DIN WITH 6.7 MM HOSE CONNECTING NOZZLE

Angle plug, DIN 13260, O2, with 6.7 mm hose connecting nozzle	900.611
Angle plug, DIN 13260, AIR, with 6.7 mm hose connecting nozzle	900.613
Angle plug, DIN 13260, AIR/O2 combined unit, with 6.7 mm hose connecting nozzle	900.416
Angle plug, DIN 13260, VAC, with 6.7 mm hose connecting nozzle	900.612
Angle plug, DIN 13260, N2O, with 6.7 mm hose connecting nozzle	900.615
Angle plug, DIN 13260, CO2, with 6.7 mm hose connecting nozzle	900.608
Angle plug, DIN 13260, special gases, with 6.7 mm hose connecting nozzle	900.729

Press-in sleeve, Stainless steel, neutral, for 6.7 mm hoses	102.284
---	---------

SPECIAL ANGLE PLUG CONNECTORS

NGA plug, straight, 23 mm nozzle, DIN	901.058
NGA plug, angled, 23 mm nozzle, DIN	901.059
AGSS plug, straight, 23 mm nozzle, DIN EN 737-2/4	902.071
Air motor plug, straight, 23 mm nozzle, DIN	901.057

NIST screw connector & connecting hose

NIST SCREW CONNECTORS

Description:
gas-specific non-interchangeable screw-threaded connector for a 6.7 mm hose



CONNECTING HOSE

Description:
In 100 metre rolls. Available in neutral colour (black) or colour-coded in accordance with ISO 32.
Ca. 6.7 mm inner diameter
Ca. 12 mm outer diameter



neutral



In acc. with ISO 32

NIST NIPPLE / CONNECTOR WITH 6.7 mm HOSE CONNECTION

O2 NIST nipple / connector with hose connection 6.7 mm	900.650
AIR NIST nipple / connector with hose connection 6.7 mm	900.651
VAC NIST nipple / connector with hose connection 6.7 mm	900.653
N2O NIST nipple / connector with hose connection 6.7 mm	900.652
AIR/O2 NIST nipple / connector with hose connection 6.7 mm	900.656
CO2 NIST nipple / connector with hose connection 6.7 mm	900.655
AIR-800 NIST nipple / connector with hose connection 6.7 mm	900.654

Press-fit sleeve, stainless steel, neutral, for 6.7 mm hoses	102.284
--	---------

CONNECTING HOSE 6.7 mm – NEUTRAL-COLOURED – ROLL OF 100 METER

connecting hose 6.7 mm, O2, neutral-coloured black	900.343
connecting hose 6.7 mm, AIR, neutral-coloured black	900.346
connecting hose 6.7 mm, VAC, neutral-coloured black	900.347
connecting hose 6.7 mm, N2O, neutral-coloured black	900.348
connecting hose 6.7 mm, combination AIR/O2, neutral-coloured black	102.259
connecting hose 6.7 mm, gas-neutral, neutral-coloured black	900.345

CONNECTING HOSE 6.7 mm – ISO 32 – ROLL OF 100 METER

connecting hose 6.7 mm, O2, ISO 32 – white	900.339
connecting hose 6.7 mm, AIR, ISO 32 – black/white	900.342
connecting hose 6.7 mm, VAC, ISO 32 – yellow	900.337
connecting hose 6.7 mm, N2O, ISO 32 – blue	900.336
a_05 connecting hose 6.7 mm, combination AIR/O2, ISO 32 – white/black	900.349

Adapter

DIN TO NIST

APPLICATIONS

For adapting the inlets of medical equipment from DIN 13252 to NIST.

Adapter incl. 1 x copper gasket.

The adapter is secured to the DIN inlet with an Allen key.

Inlet: NIST screw fitting - gas-specific in accordance with DIN EN 15908

Outlet: DIN screw connection in accordance with DIN 13252



CONNECTORS, MEDAP-C TO DIN QUICK COUPLING

APPLICATIONS

This adapter makes it possible to connect a DIN unit without conversion to a Medap C outlet.

Consisting of:

Medap C plug-in front section plus a DIN plug-in coupling



GERÄTE-ADAPTER DIN AUF NIST

Adapter DIN to NIST, O2	904.020
Adapter DIN to NIST, AIR	904.021
Adapter DIN to NIST, N2O	904.022
Adapter DIN to NIST, VAC	904.023
Adapter DIN to NIST, AIR/O2	904.026
Adapter DIN to NIST, CO2	904.025

MEDAP C PLUG-IN CONNECTOR TO DIN QUICK COUPLING ADAPTERS

O2 adapter: Medap C connector to DIN quick coupling	902.020
AIR adapter: Medap C connector to DIN quick coupling	902.021
VAC adapter: Medap C connector to DIN quick coupling	902.022
N2O adapter: Medap C connector to DIN quick coupling	902.023

Forano block of outlets

APPLICATIONS

Block with 2 or 3 gas outlets in accordance with DIN 13260-2.
For securing to a standard wall-mounted rail by means of a rail clamp with a knurled nut.

Scope of delivery: unit without connecting hose. NIST gas inlet.

TECHNICAL DATA

Design:	All-metal design, anodised
Inlet:	NIST – gas-specific in accordance with DIN EN 15908
Outlet:	2 or 3 outlets in accordance with DIN 13260-2
Flowrate:	As a function of the feed from the central gas supply system max. 60 l/min
Dimensions/weight: (WxHxD)	Double unit: 125 x 55 x 55 mm / 1.6 kg Triple unit: 175 x 55 x 55 mm / 2.4 kg



FORANO 2-FOLD BLOCK OF OUTLETS, RAIL-MOUNTED UNIT(*), NEUTRAL COLOUR

Forano 2-fold block of outlets, O2, DIN, rail-mounted unit, NIST (*)	903.420
Forano 2-fold block of outlets, AIR, DIN, rail-mounted unit, NIST (*)	903.421
Forano 2-fold block of outlets, VAC, DIN, rail-mounted unit, NIST (*)	903.422
Forano 2-fold block of outlets, N2O, DIN, rail-mounted unit, NIST (*)	903.423
Forano 2-fold block of outlets, CO2, DIN, rail-mounted unit, NIST (*)	903.424

FORANO 2-FOLD BLOCK OF OUTLETS, RAIL-MOUNTED UNIT(*), ISO 32

Forano 2-fold block of outlets, O2, DIN, rail-mounted unit, NIST (*)	903.410
Forano 2-fold block of outlets, AIR, DIN, rail-mounted unit, NIST (*)	903.411
Forano 2-fold block of outlets, VAC, DIN, rail-mounted unit, NIST (*)	903.412
Forano 2-fold block of outlets, N2O, DIN, rail-mounted unit, NIST (*)	903.413
Forano 2-fold block of outlets, CO2, DIN, rail-mounted unit, NIST (*)	903.414

FORANO 3-FOLD BLOCK OF OUTLETS, RAIL-MOUNTED UNIT(*), NEUTRAL COLOUR

Forano 3-fold block of outlets, O2, DIN, rail-mounted unit, NIST (*)	903.425
Forano 3-fold block of outlets, AIR, DIN, rail-mounted unit, NIST (*)	903.426
Forano 3-fold block of outlets, N2O, DIN, rail-mounted unit, NIST (*)	903.428
Forano 3-fold block of outlets, CO2, DIN, rail-mounted unit, NIST (*)	903.429

FORANO 3-FOLD BLOCK OF OUTLETS, RAIL-MOUNTED UNIT(*), ISO 32

Forano 3-fold block of outlets, O2, DIN, rail-mounted unit, NIST (*)	903.415
Forano 3-fold block of outlets, AIR, DIN, rail-mounted unit, NIST (*)	903.416
Forano 3-fold block of outlets, N2O, DIN, rail-mounted unit, NIST (*)	903.418
Forano 3-fold block of outlets, CO2, DIN, rail-mounted unit, NIST (*)	903.419

* See pp. 2 and 3 for compatible connecting hoses

Quick coupling

APPLICATIONS

Quick coupling for compressed gases or vacuum.
 This accessory allows a hose connector to be attached to the inlet. This provides an option of using the coupling as a hose coupling (flying coupling).

TECHNICAL DATA

Inlet: G 1/4"
 Outlet: Outlet in accordance with DIN 13260-2



QUICK COUPLINGS

Quick coupling, 1/4", O2, DIN	901.026
Quick coupling, 1/4", AIR, DIN	901.028
Quick coupling, 1/4", VAC, DIN	901.029
Quick coupling, 1/4", N2O, DIN	901.027
Quick coupling, 1/4", CO2, DIN	901.025
Quick coupling, 1/4", special gases, DIN	901.047
1/4" fitting for 4/6 mm quick coupling	900.609

Double quick coupling (Y-junction)

APPLICATIONS

Connector for coupling into an outlet.
 For compressed gases or vacuum.
 The flow is divided by means of the Y-junction to 2 quick couplings.
 Each quick coupling is designed to comply with DIN 13260-2.

TECHNICAL DATA

Design: All-metal design, chrome-plated
 Inlet: Plug-in connector
 gas-specific in accordance with DIN 13260-2
 Outlet: 2 x plug-in coupling in accordance with DIN 13260-2
 Flowrate: Depending on the feed from the central gas supply system,
 but not less than 20 l/min per coupling
 Dimensions/weight: 125 x 32 x 115 mm (WxHxD) / ca. 0.5 Kg



DOUBLE QUICK COUPLINGS (Y-JUNCTION)

Double Quick coupling (Y-junction), O2, DIN	901.120
Double Quick coupling (Y-junction), AIR, DIN	901.130
Double Quick coupling (Y-junction), VAC, DIN	901.140
Double Quick coupling (Y-junction), N2O, DIN	901.150
Double Quick coupling (Y-junction), CO2, DIN	901.119
Double Quick coupling (Y-junction), special gases, DIN	901.160

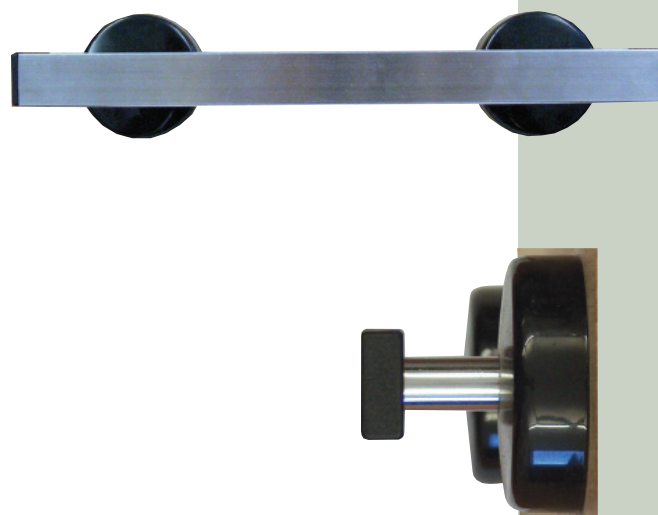
Standard wall-mounted rail, 25x10 mm

APPLICATIONS

Standard wall-mounted rail for accommodating medical equipment in accordance with DIN EN ISO 19054.

Consisting of:

Hollow rail made of Cr-Ni steel, material no. 1.4301, smooth, polished surface. Concealed terminal unit for potential equalisation incl. clamping connector. Wall mounting at ca. 40 mm distance incl. covering plate, spacing between rail-mounting clamps max. 400 mm.



TECHNICAL DATA

Profile dimensions: 25 x 10 mm (H x W)
 Capacity: 50 kg / running metre
 Material: V2A, polished

NUMBER OF RAIL-MOUNTING CLAMPS

Length of rail in mm	Number of rail-mounting clamps	Length of rail in mm	Number of rail-mounting clamps
240 - 850	2	3260-3650	9
860-1250	3	3660-4050	10
1260-1650	4	4060-4450	11
1660-2050	5	4460-4850	12
2060-2450	6	4860-5250	13
2460-2850	7	5260-5650	14
2860-3250	8	5660-6050	15



Rail-mounting clamp 904.101

STANDARD WALL-MOUNTED RAILS

Equipment rail (price per metre)	904.000
Rail-mounting clamp with potential connector, white	904.100
Rail-mounting clamp with potential connector, black	904.101
Rail-mounting clamp (110 mm) with potential connector, white	904.151
Rail-mounting clamp (110 mm) with potential connector, black	904.152
Connecting plate for equipment rail	904.200
End-pieces for equipment rail (2 of), white	904.310
End-pieces for equipment rail (2 of), black	904.300

Lamps/articulated arm

HALUX TWO 35/35 PX EXAMINATION LAMP

Ca. 30 000 lux / 0.5 m: 10° spot; ca. 5000 lux / 0.5 m: 38° flood
The unit can be switched freely between examination lamp (10°) and reading lamp (38°). Risk-free positioning of the light. Lighting head remains only hand-warm even after extended use. Impressive cost and energy savings due to low power consumption and long bulb service life. Robust, attractive design – long service life guaranteed. Easy to maintain. Simple and easy to clean, thanks to the enclosed design (enclosed cable guide).



HALUX TWO 35/35 PX



MEDICOOL
14 PS 3

MEDICOOL 14 PS 3

Non-glare reading light

Light intensity suitable for minor examinations and nursing. Spring-balanced articulation system or flexible arm. An orientation light on the lighting head facilitates locating and operating the lamp in the dark.

Safety ensured by: - Low heat emission
- Cover glass (prevents direct contact with the bulb)
- 14 W compact fluorescent lamp

HALOGEN LAMP, 12 V/20 W

Bedside reading lamp

With filter glass, isolating transformer, spring-loaded design, chrome-plated
Includes rail attachment and 1 x 20 W halogen bulb

Reach: ca. 750 mm
Arm: 2 Joints

HALOGEN LAMP, 12 V/ 20 OR 50 W

Examination and bedside reading lamp

Intensity adjustable continuously (0 to 50 W), with isolating transformer and cooled housing. Spring-balanced, white-coated design
Includes rail attachment and 1 x halogen bulb

Reach: ca. 750 mm
Arm: 2 joints

ARTICULATED ARM WITH 2 OR 3 JOINTS

Articulated arm for accommodating / attaching insufflation, inhalation or ventilation hoses. Plastic joints, chrome-plated. Rail clamp for attaching to equipment rail.

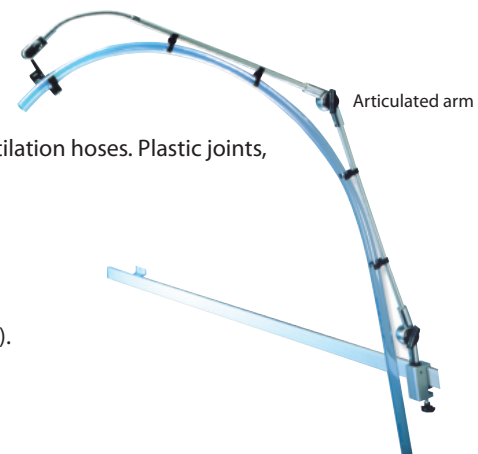
Tube length: 350 mm or 250 mm incl. flexible end-piece

ARTICULATED ARM FOR ECG CABLES

Articulated arm for accommodating / attaching ECG cables.

3 joints, chrome-plated. Rail clamp for attaching to equipment rail (25x10 mm).

Tube length: 2 x 480 mm



Articulated arm

LAMPS

Halogen lamp with rail clamp: Halux R 35 / 2 FX	904.405
Halogen lamp with rail clamp: Medicoool E 13 W	904.407
Halogen lamp 12 V/ 20 W	110.024
Halogen lamp 12 V/ 20 or 50 W, switchable	110.025

ARTICULATED ARMS

Articulated arm, 2 joints	110.000
Articulated arm, 3 joints	110.001
ECG articulated arm	110.002

Baskets/trays

X-RAY FILM BASKET

For handy storage of patients' x-rays.
Wire frame, spot-welded. 14 x 14 x 1.2 mm, complete with 2 hooks for hanging on a standard wall-mounted rail.
Dimensions (WxHxD): 532 x 100 x 340 mm



Catheter basket

CATHETER BASKET

For 600 mm catheters. Stainless steel wire mesh.
8 x 8 x 1.0 mm, complete with 2 hooks for hanging on a standard wall-mounted rail.
Dimensions (WxHxD): Gr. I: 150 x 100 x 480 mm
Gr. II: 150 x 100 x 280 mm

FILE HOLDER

Suitable for x-rays, medical files or magazines. Stainless steel, suitable for hanging on a standard wall-mounted rail.
Dimensions (WxH): 250 x 260 mm

STORAGE BASKET

Stainless steel wire mesh, 8 x 8 x 1 mm
Complete with 2 hooks for hanging on a standard wall-mounted rail.
Dimensions (WxHxD): Gr. I: 120 x 120 x 120 mm
Gr. II: 250 x 250 x 250 mm



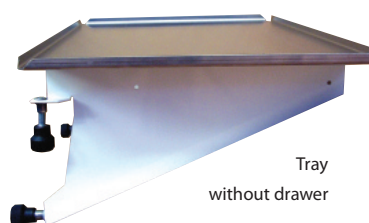
Storage basket

SMALL TRAY

For attaching to a standard wall-mounted rail.
Sheet steel, powder-coated, white
Dimensions: 300 x 250 mm

TRAY/MONITOR CARRIER WITHOUT DRAWER

Stainless steel unit for rail systems. Fixation with 2 x rail clamps
Capacity: ca. 35 kg
Weight: ca. 5 kg
Dimensions (WxHxD): 500 x 250 x 350 mm



Tray without drawer

TRAY/MONITOR CARRIER WITH DRAWER

Stainless steel unit for rail systems. Drawer located underneath
Fixation with 2 x rail clamps
Capacity: ca. 25 kg
Weight: ca. 5.8 kg
Dimensions (WxHxD): Plate: 500 x 250 x 350 mm
Drawer: 360 x 100 x 280 mm



Tray with drawer

BASKETS

X-ray film basket (532 x 100 x 340 mm)	110.033
Catheter basket (150 x 100 x 480 mm) size I	110.022
Catheter basket (150 x 100 x 280 mm) size II	110.034
Storage basket (120 x 120 x 120 mm) size I	110.031
Storage basket (250 x 250 x 250 mm) size II	110.032
File holder	110.028

TRAYS

Small tray (300 x 250 mm)	110.023
Tray / monitor carrier without drawer	904.403
Tray / monitor carrier with drawer	904.404

greggersen gasetechnik gmbh | bodestrasse 27-29 | 21031 hamburg | germany
fon: +49 (0)40 - 73 93 57 - 0 | fax: +49 (0)40 - 73 93 57 - 39 | info@greggersen.com | www.greggersen.com



there is no substitute

CEGA FORANO
BY GREGGERSEN



PRODUCT CATALOG
FORANO

Forano Terminal Unit

ACCORDING TO DIN EN ISO 9170-1

GENERAL

According to national and international standards, terminal units are the points that connect medical appliances to the gas supply system. The prize-winning FORANO terminal units can be flexibly integrated into every conceivable installation. Ease of handling guarantees smooth running in routine hospital practice.

Our Anaesthetic Gas Scavenging System controls the safe use of anaesthetic gases. Our Air-Motor system supplies the energy to drive your compressed air-operated tools.

USAGE

The unit is used to withdraw compressed gases and vacuum from a central medical gas supply system in line with DIN EN ISO 7396-1; Anaesthetic Gas Scavenging System in line with DIN EN ISO 7396-2; integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2.

STRUCTURE AND FUNCTIONS

The terminal unit comprises a gas-specific basic block (rear part) and a connector mounting (front part) which are joined together. The front part can be adjusted (rotated). All movable parts are made of metal materials. The terminal unit thus in general has a very low-wear construction.



All three O-ring seals are combined in a maintenance-friendly way in an assembly – the cartridge – which can easily be replaced by removing the front part. The cartridge is marked with a LOT number so that the age of the sealing elements can be immediately identified. The plug in the connector mounting is kept either in the parking or the operating position.



Labelling: Type of gas written out in German and English plus chemical symbol (laser-inscribed in a wipe-resistant and tamper-proof way).

Colour coding: neutral or in line with DIN EN ISO 5359.

TECHNICAL DATA

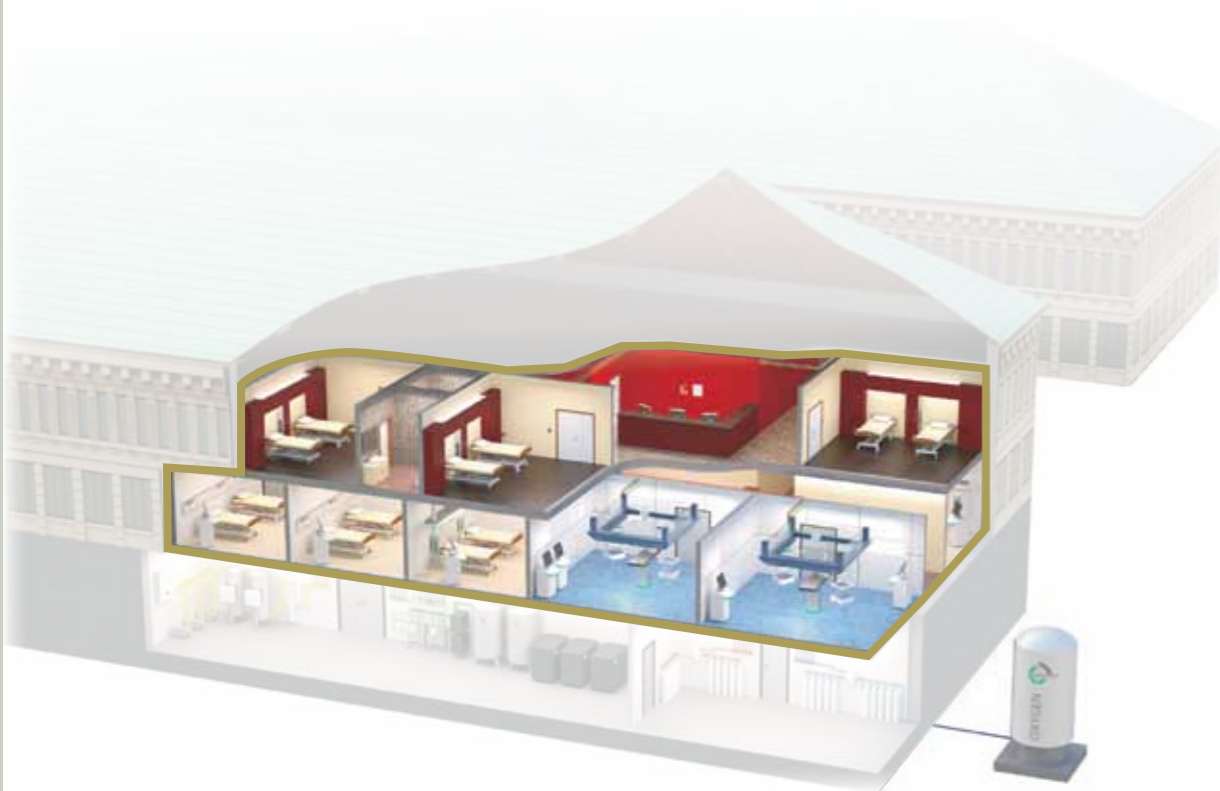
Design: pearl gloss, chrome-plated all-metal construction with parking and operating position; unlocking by means of the actuator; single-handed operation when connecting/disconnecting; manually lockable servicing valve.

Types of installation: concealed and hollow wall installation, surface mounting, installation into bed-head units or into ceiling-mounted supply units.

Operating pressure:

400 kPa to 500 kPa (overpressure) – compressed gases
700 kPa to 1000 kPa (overpressure) – Airmotor
<60 kPa (absolute pressure) – vacuum

The terminal unit FORANO has won three of the world's most prestigious design awards and has been nominated for the 2010 Design Prize of the Federal Republic of Germany.



Terminal Unit Forano

INTELLIGENT CLOSING SYSTEM

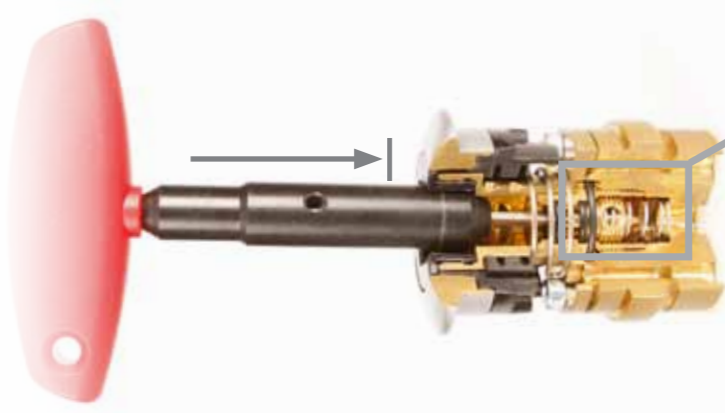
INTELLIGENT, SIMPLE, SECURE

The Forano terminal unit is the only medical gas outlet on the market with an intelligent closing system offering three closing functions:

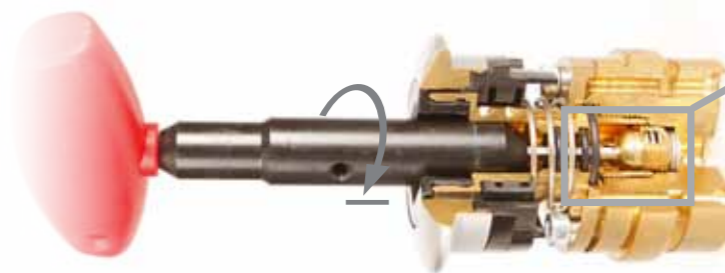
1. It seals the terminal unit when the plug connector is disconnected.
2. The front part of the terminal unit can be dismantled without interrupting the gas supply and the wear parts can be replaced.

3. The terminal unit can be shut off using a special key without dismantling the front part. The front part is then sealed with a warning sticker (art. no. 903.309) (see p. 5).

Thus each terminal unit can be shut off individually, eliminating the need to shut off individual areas or entire wards of the hospital if servicing or repairs need to be performed.



Forano terminal unit in non-shut-off mode. The special tool with a centering aid to shut off the terminal unit is already inserted.



After approx. 3-4 rotations, the rear part of the terminal unit is sealed gas-tight. Maintenance work, for example the replacement of the sealing cartridge or replacement of the entire front part, can be easily performed under operating pressure.



STICKER "OUT OF ORDER!"

When shutting off a terminal unit or entire sections of the mains supply, the corresponding terminal units must be clearly marked. For this purpose, we offer you a sticker especially for the terminal unit Forano to paste over the connector mounting.

Please see page 18 / TOOLS AND ACCESSORIES



TEST KIT FOR TERMINAL UNIT SYSTEM FORANO

in accordance with DIN EN ISO 7396-1/2

Consisting of:

- Test block with flow pipe for compressed gases
- Test block with flow pipe for vacuum/ NGA/AGSS
- Air motor test device
- Leak tightness measurement device
- Particle test device
- Filter box
- Gas-specific plug connector in accordance with DIN 13260:
 - Connector for oxygen (O₂)
 - Connector for compressed air (AIR)
 - Connector for vacuum (VAC)
 - Connector for carbon dioxide (CO₂)
 - Connector for nitrous oxide (N₂O)
- AGSS testing device with panel for 50 L/min



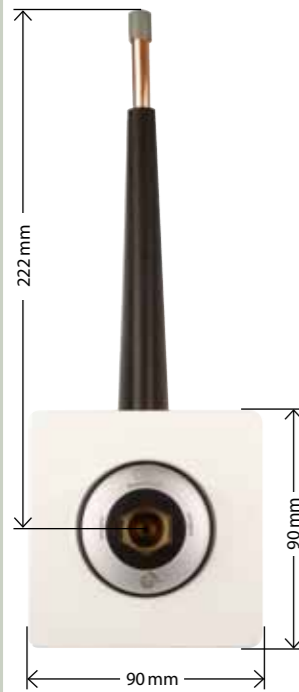
- AGSS testing device with panel for 25 L/min
- AGSS connection test kit according to DIN EN ISO 7396-2
- Testing device kit with insert
- Optional accessories:
 - O₂ meter for testing gas type
 - Pressure gauge for leakage testing of the pipe line

Test kit terminal unit in line with 7396-1/2 DIN

902.114

Terminal Unit Forano DIN

CONCEALED / HOLLOW WALL INSTALLATION



USAGE

The unit is used to withdraw compressed gases and vacuum from a central medical gas supply system in line with DIN EN ISO 7396-1; integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2. The Forano terminal unit complies with the requirements of DIN EN ISO 9170-1.

ADVANTAGES

- Two-part construction: gas-specific basic block and connector mounting
- Sophisticated design: all-metal actuator with laser labelling, front panel with wavy lines and diaphragm ring
- Easy installation and servicing: cartridge with sealing elements, replacement possible without blocking the station
- Unique marking: gas-type labelling – laser labelling: chemical symbol + German + English, colour coding: neutral or in line with DIN EN ISO 5359.

TECHNICAL DATA

Inlet: 8 mm copper pipe
 Operating pressure: 400 kPa to 500 kPa (overpressure) – compressed gases
 < 60 kPa (absolute pressure) – vacuum

FORANO CONCEALED / HOLLOW-WALL – REAR PART (front part has to be ordered separately)

Forano, O2, concealed / hollow wall installation, type DIN / AGA / NF	903.250
Forano, AIR, concealed / hollow wall installation, type DIN / AGA / NF	903.251
Forano, VAC, concealed / hollow wall installation, type DIN / AGA / NF	903.252
Forano, N2O, concealed / hollow wall installation, type DIN / AGA / NF	903.253
Forano, CO2, concealed / hollow wall installation, type DIN / AGA / NF	903.255
Forano, special gas, concealed / hollow wall installation, type DIN / AGA / NF	903.256

ACCESSORIES REQUIRED

Front / wave screen to cover the built-in variant UP/HW	903.258
Front / wave screen to cover the built-in variant UP/HW (sales unit = 6 pcs.) UP/HW (sales unit = 6 pcs.)	903.259

All front parts for terminal unit Forano DIN, neutral or DIN EN ISO 5359 colour coding, can be found on page 11 of this product information.

Terminal Unit Forano DIN

CONCEALED / HOLLOW WALL INSTALLATION

USAGE

The unit is used to withdraw compressed gases and vacuum from a central medical gas supply system in accordance with DIN EN ISO 7396-1; integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2. The Forano terminal unit complies with the requirements of DIN EN ISO 9170-1.

ADVANTAGES

- Two-part construction: gas-specific basic block and connector mounting
- Sophisticated design: all-metal actuator with laser labelling, front panel with wavy lines and diaphragm ring
- Easy installation and servicing: cartridge with sealing elements, replacement possible without blocking the station
- Unique marking: gas-type labelling – laser labelling: chemical symbol + German + English, colour coding: neutral or in line with DIN EN ISO 5359.

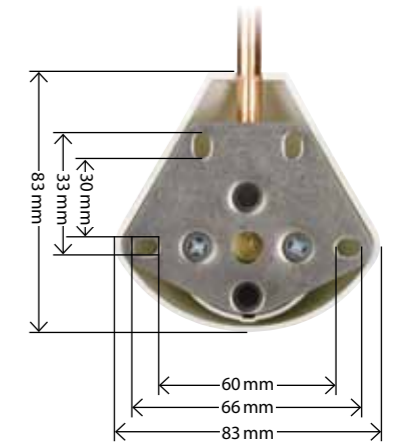
TECHNICAL DATA

Inlet: 8 mm copper pipe
 Operating pressure: 400 kPa to 500 kPa (overpressure) – compressed gases
 < 60 kPa (absolute pressure) – vacuum
 Depth: 72 mm

FORANO SURFACE MOUNTING – REAR PART (front part has to be ordered separately)

Forano, O2, surface mounting, type DIN	903.240
Forano, AIR, surface mounting, type DIN	903.241
Forano, VAC, surface mounting, type DIN	903.242
Forano, N2O, surface mounting, type DIN	903.243
Forano, CO2, surface mounting, type DIN	903.245
Forano, special gas, surface mounting, type DIN	903.246

All front parts for terminal unit Forano DIN, neutral or DIN EN ISO 5359 colour coding, can be found on page 11 of this product information.



Terminal Unit Forano DIN

INSTALLATION INTO BED HEAD UNIT



USAGE

The unit is used to withdraw compressed gases and vacuum from a central medical gas supply system in line with DIN EN ISO 7396-1; integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2. The Forano terminal unit complies with the requirements of DIN EN ISO 9170-1.

ADVANTAGES

- Two-part construction: gas-specific basic block and connector mounting
- Sophisticated design: all-metal actuator with laser labelling, front panel with wavy lines and diaphragm ring
- Easy installation and servicing: cartridge with sealing elements, replacement possible without blocking the station
- Unique marking: gas-type labelling – laser labelling: chemical symbol + German + English, colour coding: neutral or in line with DIN EN ISO 5359.

TECHNICAL DATA

Inlet: 8 mm copper pipe
 Operating pressure: 400 kPa to 500 kPa (overpressure) – compressed gases
 < 60 kPa (absolute pressure) – vacuum

FORANO, PIPE STRAIGHT UP (front part has to be ordered separately)

Forano, O2, bed-head unit pipe straight up, type DIN / AGA / NF	903.200
Forano, AIR, bed-head unit pipe straight up, type DIN / AGA / NF	903.201
Forano, VAC, bed-head unit pipe straight up, type DIN / AGA / NF	903.202
Forano, N2O, bed-head unit pipe straight up, type DIN / AGA / NF	903.203
Forano, CO2, bed-head unit pipe straight up, type DIN / AGA / NF	903.205
Forano, special gas, bed-head unit pipe straight up, type DIN / AGA / NF	903.206

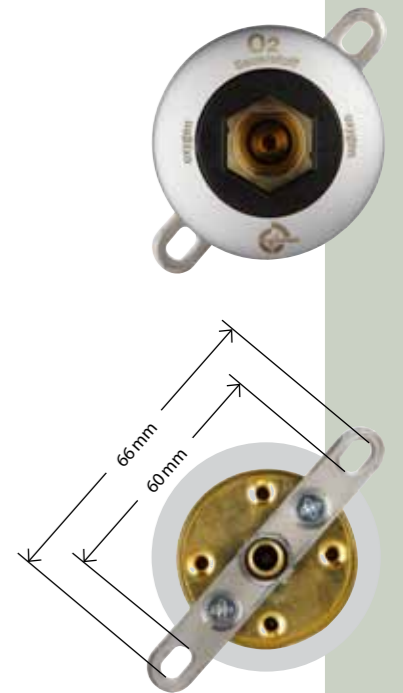
FORANO, PIPE STRAIGHT BACK (front part has to be ordered separately)

Forano, O2, bed-head unit pipe straight up, type DIN / AGA / NF	903.260
Forano, AIR, bed-head unit pipe straight up, type DIN / AGA / NF	903.261
Forano, VAC, bed-head unit pipe straight up, type DIN / AGA / NF	903.262
Forano, N2O, bed-head unit pipe straight up, type DIN / AGA / NF	903.263
Forano, CO2, bed-head unit pipe straight up, type DIN / AGA / NF	903.265
Forano, special gas, bed-head unit pipe straight up, type DIN / AGA / NF	903.266

All front parts for terminal unit Forano DIN, neutral or DIN EN ISO 5359 colour coding, can be found on page 11 of this product information.

Terminal Unit Forano DIN

INSTALLATION IN CEILING PENDANTS



USAGE

The unit is used to withdraw compressed gases and vacuum from a central medical gas supply system in line with DIN EN ISO 7396-1; integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2. The Forano terminal unit complies with the requirements of DIN EN ISO 9170-1.

ADVANTAGES

- Two-part construction: gas-specific basic block and connector mounting
- Sophisticated design: all-metal actuator with laser labelling
- Easy installation and servicing: cartridge with sealing elements, replacement possible without blocking the station
- Unique marking: gas-type labelling – laser labelling: chemical symbol + German + English, colour coding: neutral or in line with DIN EN ISO 5359.

TECHNICAL DATA

Inlet: 6/8 mm barbed hose connector
 Operating pressure: 400 kPa to 500 kPa (overpressure) – compressed gases
 < 60 kPa (absolute pressure) – vacuum

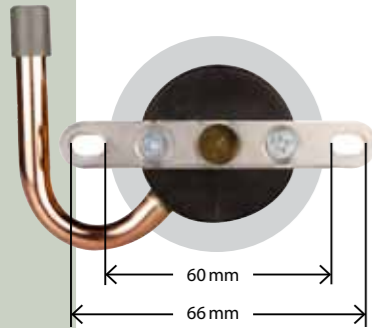
FORANO DIN FOR CEILING PENDANTS DVE (front part has to be ordered separately)

Forano, O2, DVE, type DIN / AGA / NF	903.230
Forano, AIR, DVE, type DIN / AGA / NF	903.231
Forano, VAC, DVE, type DIN / AGA / NF	903.232
Forano, N2O, DVE, type DIN / AGA / NF	903.233
Forano, CO2, DVE, type DIN / AGA / NF	903.235
Forano, special gas, DVE, type DIN	903.236

All front parts for terminal unit Forano DIN, neutral or DIN EN ISO 5359 colour coding, can be found on page 11 of this product information.

Terminal Unit Forano DIN

INSTALLATION INTO BED HEAD UNIT



VS 100 M (B)



VS 100 M (A)

USAGE

The unit is used to withdraw compressed gases and vacuum from a central medical gas supply system in line with DIN EN ISO 7396-1; integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2. The Forano terminal unit complies with the requirements of DIN EN ISO 9170-1.

ADVANTAGES

- Two-part construction: gas-specific basic block and connector mounting
- Sophisticated design: all-metal actuator with laser labelling
- Easy installation and servicing: cartridge with sealing elements, replacement possible without blocking the station
- Unique marking: gas-type labelling – laser labelling: chemical symbol + German + English, colour coding: neutral or in line with DIN EN ISO 5359.

TECHNICAL DATA

Inlet: 8 mm copper pipe
 Operating pressure: 400 kPa to 500 kPa (overpressure) – compressed gases
 < 60 kPa (absolute pressure) – vacuum

FORANO DIN BED-HEAD UNIT CONSTRUCTION TRILUX VS 100M (A) RIGHT (front part has to be ordered separately)

Forano, O2, Trilux VS100M (A) type DIN / AGA / NF	903.210
Forano, AIR, Trilux VS100M (A) type DIN / AGA / NF	903.211
Forano, VAC, Trilux VS100M (A) type DIN / AGA / NF	903.212
Forano, N2O, Trilux VS100M (A) type DIN / AGA / NF	903.213
Forano, CO2, Trilux VS100M (A) type DIN / AGA / NF	903.215
Forano, special gas, Trilux VS100M (A) type DIN	903.216

FORANO, DIN BED-HEAD UNIT CONSTRUCTION TRILUX VS 100M (B) LEFT (front part has to be ordered separately)

Forano, O2, Trilux VS100M (B) type DIN / AGA / NF	903.220
Forano, AIR, Trilux VS100M (B) type DIN / AGA / NF	903.221
Forano, VAC, Trilux VS100M (B) type DIN / AGA / NF	903.222
Forano, N2O, Trilux VS100M (B) type DIN / AGA / NF	903.223
Forano, CO2, Trilux VS100M (B) type DIN / AGA / NF	903.225
Forano, special gas, Trilux VS100M (B) type DIN	903.226

All front parts for terminal unit Forano DIN, neutral or DIN EN ISO 5359 colour coding, can be found on page 11 of this product information.

Front Parts Terminal Unit Forano DIN

FOR ALL INSTALLATION TYPES

FORANO FRONT PART – SCOPE OF DELIVERY

Each gas-specific front part contains the following components:

- Actuator
- Cartridge
- Gas-specific connector mounting
- Warning label (not ready for operation)



FRONT PART FORANO DIN, NEUTRAL COLOUR CODING (front part has to be ordered separately)

Forano, O2, front part, type DIN – German + English	903.150
Forano, AIR, front part, type DIN – German + English	903.151
Forano, VAC, front part, type DIN – German + English	903.152
Forano, NO2, front part, type DIN – German + English	903.153
Forano, CO2, front part, type DIN – German + English	903.155
Forano, special gas, front part, type DIN – German + English	903.156



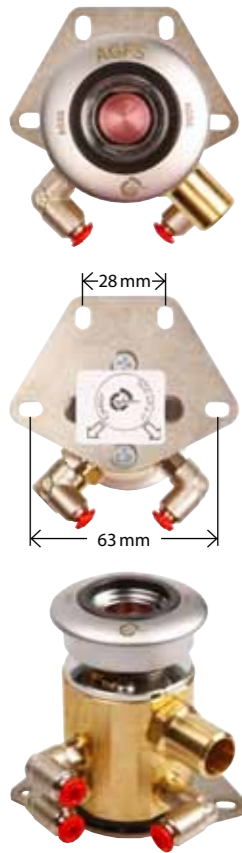
FRONT PART FORANO DIN, ISO32 COLOUR CODING (front part has to be ordered separately)

Forano, O2, front part, type DIN – German + English	903.160
Forano, AIR, front part, type DIN – German + English	903.161
Forano, VAC, front part, type DIN – German + English	903.162
Forano, NO2, front part, type DIN – German + English	903.163
Forano, CO2, front part, type DIN – German + English	903.165



Terminal Unit Forano AGSS

ANAESTHESIA GAS SCAVENGING SYSTEM



USAGE

System for safe disposal of excess anaesthetic gases and anaesthetic vapours from the clinical environment within a central medical gas supply system in line with DIN EN ISO 7396-2.

All-metal construction, symbols for monitoring operation, with external ejector for vacuum generation. Suction adjustable; single-handed operation when connecting and disconnecting, unlocking via the connector receptacle. Fully mounted in a stainless steel casing, with stainless steel front panel (for concealed or hollow wall installation). Design complies with DIN EN ISO 9170-2.

TECHNICAL DATA

Dimensions: 145 x 120 x 65 mm (WxHxD)
 Material: Brass; casing and front panel stainless steel
 Throughput: Min. 50 L/min at 500 kPa
 Inlet: Copper pipe 8x1 mm / flexible tube PA 6 mm
 Outlet: Copper pipe 15x1 mm / wave tube 15 mm
 Marking: Colour coding in line with DIN EN ISO 9170-2
 standard magenta

FORANO AGFS

Forano AGSS, concealed/hollow wall	902.073
Forano AGSS, ceiling pendants, with external ejector	902.074
Forano AGSS, bed-head units	902.075
Forano AGSS, surface mounting	902.076



Surface version 130 x 174* x 80 mm (*plus approx. 200 mm Cu pipe)



Concealed version 175 x 175 mm



Concealed version 175 x 175 mm



Surface version 130 x 174* x 80 mm (*plus approx. 200 mm Cu pipe)

Terminal Unit Forano Air-motor

FOR DRIVING COMPRESSED AIR-OPERATED TOOLS IN ENCLOSED SPACES

USAGE

Terminal unit for supplying and disposing of air used to operate surgical tools. A combination of an outlet assembly (for supply) and an inlet assembly (for disposal), which is connected to a supply and disposal system in line with DIN EN ISO 7396-1. A non-return valve in the disposal system prevents return flow of consumed air. Design complies with DIN EN ISO 9170-1. Integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2.

TECHNICAL DATA

Dimensions: 145 x 120 x 65 mm (WxHxD)
 Material: Brass, chrome-plated;
 Housing and front plate: stainless steel
 Throughput: Min. 350 L/min at 800 kPa
 Inlet: Copper pipe 8x1 mm / flexible tube PA 6 mm
 Outlet: Copper pipe 15x1 mm / wave tube 15 mm
 Marking: Colour coding in line with DIN EN ISO 9170-1
 Operating pressure: 700-1000 kPa



FORANO AIR-MOTOR

Forano Air-Motor for concealed / hollow wall installation	902.090
Forano Air-Motor for ceiling pendants	902.091
Forano Air-Motor for bed-head units	902.092
Forano Air-Motor for surface mounting	902.093

Terminal Unit Forano DIN

WALL SUPPLY UNIT

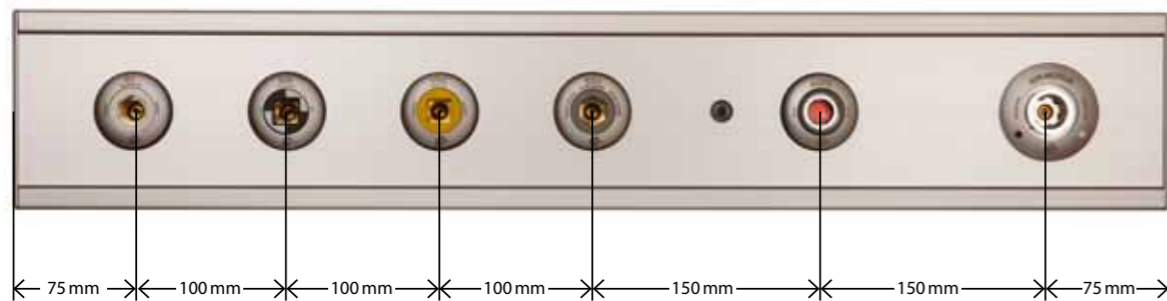
USAGE

Duct for surface mounting, fully fitted with various terminal units in line with DIN EN ISO 9170-1, Air-Motor and/ or Anaesthetic Gas Scavenging System (AGSS in line with DIN EN ISO 9170-2 with integrated ejector, Air-Motor in line with DIN EN ISO 9170-1) in the aluminium duct.

The length of the duct can be customised to suit requirements. The terminal units are already installed with piping laid. The feed pipe can come from the left, right, above, below or behind.

TECHNICAL DATA

Inlet:	8x1 mm (1 terminal unit per gas) 12x1 mm (2-3 terminal units per gas)
Outlet:	Forano terminal unit for integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2.
Colour coding:	Neutral or in line with DIN EN ISO 5359



WALL DUCT (Please indicate gas type for each outlet!)

Wall duct Forano, 2 outlets	903.400
Wall duct Forano, 3 outlets	903.401
Wall duct Forano, 4 outlets	903.402
Wall duct Forano, 5 outlets	903.403
Wall duct Forano, each additional outlet	903.404
Wall duct Forano, add-on 1 x AGSS	903.405
Wall duct Forano, add-on 1 x air-motor	903.406
Wall supply unit, meterage	902.040

TERMINAL UNIT BLOCK

Block of 2 or 3 terminal units in line with DIN EN ISO 9170-1. Integration of plugs and medical appliances with plug-in connections in line with DIN 13260-2. A rail clamp with knurled nut is used to secure the block to a standard equipment rail as per DIN EN ISO 19054 (25 x 10 mm).



The terminal unit blocks can be found in the "Medical Accessories" catalog.

More information can also be found at www.greggersen.com.



Terminal Unit Forano DIN

INTERNATIONAL STANDARDS AND ADDITIONAL VARIANTS



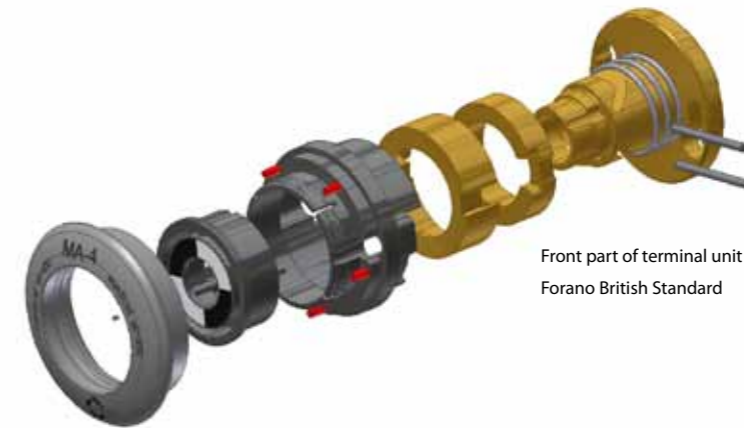
BRITISH STANDARD, SCANDINAVIAN STANDARD (AGA), NORME FRANÇAISE, etc.

The Forano terminal unit system is available in several other international standards beside the DIN variant.

For the British Standard, Norme Francaise and AGA/Scandinavian Standard variants, catalogs are available on our website for download.

For other standards or custom-made designs, please contact us directly about the version you require.

More information can also be found at www.greggersen.com.



Front part of terminal unit
Forano British Standard



Front part of terminal unit
Forano Norme Francaise



Front part of terminal unit
Forano AGA Scandinavian Standard

Terminal Unit Forano DIN

TOOLS AND ACCESSORIES



FORANO HEIGHT ADJUSTMENT

In the variant for concealed / hollow wall installation, the basic block is seated in a ring follower. After installation of the housing, the mounting tool can subsequently be used to adjust the mounting depth of the basic block.

Mounting tool for concealed / hollow wall installation – height adjustment 903.300



FORANO LEAK TEST

For performing the leak test in line with DIN EN ISO 7396-1. The blind flange is screwed to the basic block and closes up the terminal unit. The test pressure can then be used to check the pipe system for leaks.

Blind flange, brass, for Forano pressure test 903.301



FORANO DISMOUNTING TOOL

Special tool used to remove the actuator without damaging the connector mounting.

Forano actuator dismantling tool 903.302



FORANO MOUNTING AID

Mounting aid used to place a maximum of 3 or 4 concealed FORANO units next to each other. The mounting aid can be expanded, as required, by being combined with additional mounting aids. The Forano units can be quickly, easily and accurately aligned with each other using this tool. Spacing from Forano centre to Forano centre: 100 mm and 150 mm

Forano mounting aid 903.303

Forano mounting aid add-on for AGSS + Air-Motor 903.306



"OUT OF ORDER" STICKER FOR FORANO DIN

Sticker to paste over the connector mounting when shutting off the terminal unit or sections of the mains supply.

"Out of order" sticker for Forano DIN 903.309

FORANO CHILD SAFETY LOCK

To secure the FORANO gas terminal units against unauthorised use or for temporary shut-down of a terminal unit, we developed a "child safety lock". This is intended to prevent inadvertent or unauthorized use of the terminal unit.



Forano spanner for child safety lock O2, AIR 903.308

Forano child safety lock VAC, N2O, CO2 903.381

FORANO SPANNER FOR CHILD SAFETY LOCK

The child safety lock can be removed from the terminal unit using the key.



Forano spanner for child safety lock 903.308

FORANO DIAPHRAGM RING

The diaphragm ring made of POM is clicked into a 44 mm hole. It is delivered as standard with the Forano wave screen. However, the diaphragm ring can also be obtained as a separate component (e.g. for installation into media supply units).



Forano diaphragm ring 802.842

FORANO ALLEN KEY

Allen key SW 3 with an additional, removable plastic sleeve. This sleeve guides the key in the front part of the terminal unit, virtually ruling out any "tilting" of the closing cone.



Forano closing cone Allen key 903.305

FORANO SPANNER FOR SEALING CONE RETAINING SCREW



Forano spanner for sealing cone retaining screw 903.304

greggersen gasetechnik gmbh | bodestraße 27-29 | 21031 hamburg | germany
tel: +49 (0)40 – 73 93 57 – 0 | fax: +49 (0)40 – 73 93 57 – 27 | info@greggersen.com | www.greggersen.com



there is no substitute



Valeriu Nastasiu
DataControl, Republic of Moldova

has been trained in June 2012 at company DataControl in Chisinau, Moldova

BASICS CENTRAL GAS SUPPLY UNITS

- **Pneumatic switch cabinets**
- **Ventus valve box**
- **AGSS outlet**
- **Forano outlet**

installation, assembling, function, maintenance
and spare parts

Mr Nastasiu took successfully part in the training of the above mentioned products.

Hamburg, 22.06.2012

GREGGERSEN
GASETECHNIK GmbH
Bodestr. 27-29 · 21031 Hamburg
Tel. 040/73 93 57-0 · Fax 73 93 57-39
email: info@greggersen.de

A handwritten signature in black ink, appearing to read "i. A. O. Koch".

Olaf Koch
- Trainer -



EG-KONFORMITÄTSERKLÄRUNG

entsprechend Anhang II der Richtlinie 93/42/EWG über Medizinprodukte

EC DECLARATION OF CONFORMITY

according to annex II of the Council Directive 93/42/EEC concerning medical devices

Wir erklären in alleiniger Verantwortung, dass die unten bezeichneten Produkte den einschlägigen Bestimmungen der Richtlinie 93/42/EWG über Medizinprodukte entsprechen.

We declare under our sole responsibility that the products mentioned below meet the provisions of the Council Directive 93/42/EEC concerning medical devices.

Entnahmestelle Forano / Levante für medizinische Druckgase und Vakuum
Terminal Unit Forano / Levante for compressed medical gases and vacuum

DIN EN ISO 9170-1:2008

DIN 13260-2:2013

SVENSK STANDARD SS 8752430:2017

BRITISH STANDARD BS 5682:2015

NORME FRANÇAISE NF S 90-116:1988

Carbamed

Klasse/ Class: IIa

Revisionsstand/ revision stand: 2.0

Bei einer nicht bestimmungsgemäßen Verwendung des Produkts oder einer nicht mit uns abgestimmten Änderung verliert diese Erklärung ihre Gültigkeit. Diese Konformitätserklärung ist gültig für oben genannte Produkte, mit Herstellungsdatum bis 18.12.2023 oder bis zur Ausstellung einer revidierten Konformitätserklärung.

In the event of using this product not according with the regulations or modification without our approval this declaration will be rendered invalid. This Declaration of Conformity is valid for above products, with date of manufacture up to 18 December 2023 or a revised declaration is made.

Hamburg 2020-01-23/ T. Greggersen Geschäftsführer/director of company

Ort/Datum/Name
Place/Date/Name

Hersteller:
Manufacturer:

GREGGERSEN Gasetechnik, Germany
Bodestraße 27-29
21031 Hamburg
Germany



Benannte Stelle:
notified body:

MedCert GmbH
Pilatuspool 2
20355 Hamburg
Germany



EC Certificate of Conformity No.: 0874GB410190712

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.:
10000500063-MSC-RvA-DEU

Initial certification date:
22 December 2021

Valid:
22 December 2021 – 21 December 2024

This is to certify that the management system of
Greggersen Gasetechnik GmbH
Bodestraße 27-29, 21031 Hamburg, Germany

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:

Design and development, manufacture, final inspection, distribution, planning, installation and service of central gas supply systems, terminal units, medical gas devices and accessories, autogenous welding and cutting equipment, compressed gas technology

Place and date:
Barendrecht, 22 December 2021

For the issuing office:
DNV - Business Assurance
Zwolsseweg 1, 2994 LB Barendrecht,
Netherlands



Erie Koek
Management Representative

Certificate

The Certification Body

**MEDCERT Zertifizierungs- und Prüfungsgesellschaft für die Medizin GmbH
Pilatuspool 2 – 20355 Hamburg – Germany**

herewith certifies that the company

**Greggersen Gasetechnik GmbH
Bodestraße 27-29
21031 Hamburg
Germany**

has introduced, applies and maintains a quality management system in the area of activities, products/services and locations listed in the appendix.

The conformity of this quality management system to the requirements of the following standard has been verified by an audit:

EN ISO 13485:2016

This certification is subject to surveillance by MEDCERT.

Effective date: 2021-12-19
Expiry date: 2024-12-18

Report No.: 0874FS27F
Procedure No.: QS – 0874
Certificate No.: 0874GB445211208

Hamburg, 2021-12-08



MEDCERT Certification Body
Markus Bianchi

The certificate is only valid when provided entirely with all of its pages.
To verify the validity of this certificate, contact info@medcert.de.

MEDCERT is a management systems certification body
accredited by DAkkS.

Appendix of certificate

Procedure No.: QS – 0874
Certificate No.: 0874GB445211208

Activities and products/services in the scope of certification

Design and development, manufacture, final inspection, distribution, installation, and servicing of

- Central gas supply systems
- Terminal units
- Medical gas devices and accessories

Locations in the scope of certification

Greggersen Gasetechnik GmbH
Bodestraße 27-29
21031 Hamburg
Germany

This appendix is integral part of the above-referenced certificate.
The certificate is only valid when provided entirely with all of its pages.
To verify the validity of this certificate, contact info@medcert.de.

MEDCERT is a management systems certification body
accredited by DAkkS.

EC Certificate of Conformity

The Notified Body

MEDCERT Zertifizierungs- und Prüfungsgesellschaft für die Medizin GmbH
Pilatuspool 2 – 20355 Hamburg – Germany

herewith certifies that the company:

Greggersen Gasetechnik GmbH
Bodestraße 27-29
21031 Hamburg
Germany

has introduced, applies and maintains a quality assurance system for the products / product categories listed in the appendix.

The compliance of this quality assurance system with the below mentioned requirements of the **Council Directive 93/42/EEC** was verified by an audit:

Annex II without section 4

This certification is subject to surveillance by MEDCERT.

Effective date: 2020-06-03

Expiry date: 2023-12-18

Report No.: 0874PS25F
Process No.: QS – 0874
Certificate No.: 0874GB410200603

Hamburg, 2020-06-03

MEDCERT Certification Body
(Markus Bianchi)

The certificate is only valid when provided entirely with all of its pages.
To verify the validity of this certificate, contact info@medcert.de.

MEDCERT Identification Number: 0482

Form F10010005e EN / Rev. 11 / 2019.11.14



Benannt durch/Designated by
Zentralstelle der Länder
für Gesundheitsschutz
bei Arzneimitteln und
Medizinprodukten
www.zlg.de
ZLG-BS-237.10.15

Appendix of EC Certificate of Conformity

Process No.: QS – 0874

Certificate No.: 0874GB410200603

List of products / product categories included in the scope of certificate

- **Central gas supply systems**
- **Terminal units**
- **Pressure reducers**
- **Flowmeters**
- **Compressed gas and vacuum regulators**
- **Low pressure hose assemblies**
- **Suction units**
- **Vaporizer and atomizer units**
- **Insufflation units**

– End of list –

This appendix is integral part of the above-referenced certificate.
The certificate is only valid when provided entirely with all of its pages.
To verify the validity of this certificate, contact info@medcert.de.

MEDCERT Identification Number: 0482

Form F10010005e EN / Rev. 11 / 2019.11.14



Benannt durch/Designated by
Zentralstelle der Länder
für Gesundheitsschutz
bei Arzneimitteln und
Medizinprodukten
www.zlg.de
ZLG-BS-237.10.15