

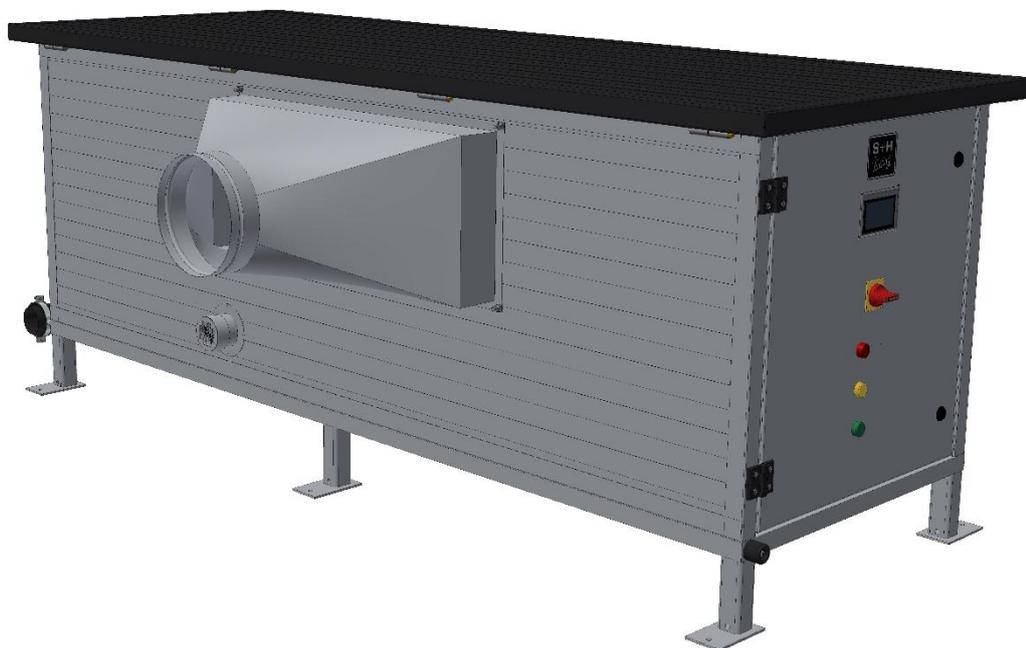
TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



BLOWER FOR PRESSURE CONTROL

for air supply
of transparent
foil cushions
in the area of roof and facades



<http://www.gustav-nolting-gmbh.de/en/downloads>

TEMPERATUR NACH MASS

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Short Description

Series: DG – 100 T

DG-100 T with fans controlled by frequency converter and SAS (Smart Air System)

The display is a fundamental component of the Smart Air System (SAS). Practically all settings and parameters needed for operation can be made via the touchscreen.

The touchscreen is operated using a finger or suitable input pen. All settings made are automatically saved and are still present even after a power outage or a long period of non-operation. All Smart Air System settings are stored in a permanent memory and are, therefore, not connected to a battery as buffered systems. The display switches off after a long period of non-use (approx. 10 hours) to protect it. A pending message, a remote access or simply tapping the touchscreen switch the display on again. Moreover, the Smart Air System has a multilingual display.

Series: DG – 65 T

DG-65 T with fans controlled by frequency converter and SAS (Smart Air System)

The display is a fundamental component of the Smart Air System (SAS). Practically all settings and parameters needed for operation can be made via the touchscreen.

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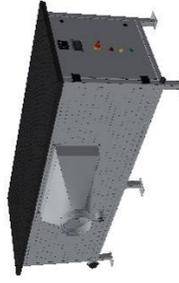
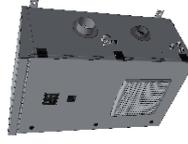
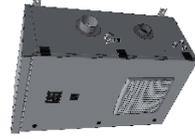
DG – 65 T Recirculation - with frequency converter

with fans controlled by frequency converter and SAS (Smart Air System)

DATA OVERVIEW PRESSURE CONTROL SYSTEMS

Pressure control systems as air-circulation devices are designed project related!

Specification	DG - 400	DG - 500 TR	DG - 500 TRS	DG - 65 T-FU with SAS	DG - 100 T-FU with SAS
Height (mm)	465	1,100	1,100	825	1000
Width (mm)	400	600	600	700	900
Length (mm)	400	400	400	1,750	2,450
Weight (kilos)	20	120	120	150	350
Housing material	aluminium	galvanized steel plate	galvanized steel plate	galvanized steel plate	Hoesch insulation wall
Varnish	RAL-7035	RAL-7035	RAL-7035	RAL-7035	RAL-7035
Air filter	F 3	F 3	F 3	F 5/7	G 3 + F 5/7
Voltage	230	230	230	230	400
Frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Air duct dryer (m³/h)	-----	190	190	190	310
Air output blower (m³/h)	1,000	600	500	645	2,000
Ext. pressure (Pa.)	500	500	1,000	2,000	3,000
Connection (mm)	50	100	100	160	250
Sound (dB/A)	53	50	50	50	50



Gustav Nolting GmbH - Innovative Luftheiztechnik

Orbker Str. 38, D-32758 Detmold

Phone: +49 (0) 5231-6001-0; Fax: +49 (0) 5231-6001-51

Mail: info@gustav-nolting-gmbh.de

Internet: www.gustav-nolting-gmbh.de

Please use these data for preplannings only.

In case of order the installations have to be designed project related.

Please send us your inquiry with detailed records.

Valid from 02-2026

Page 1 of 1

Data overview pressure control systems

DG-T

Pressure Control Blower

Galvanized Steel Plate

Pressure control systems for foil cushion roofs

Roof areas up to 5,000 m²

Pressure range up to 3,000 pa



Reliable in use - worldwide.

Nolting pressure control systems combine drying of the ambient air and increase in pressure with redundant fans, adsorption dryers (T) and memory-programmable control (wind, snow, pressure sensors). Various system sizes are available as base configuration - can be combined and modified for very large roof areas and cushion volumes. By integrating an additional system component all pressure control blowers can be used for shading as well (movable middle layer in cushion). The unit types DG-65 T/DG-100 T are equipped with frequency converter and SAS.

Can also be supplied in stainless steel.



The blowers can be supplied in any RAL colour.

Worldwide references

www.gustav-nolting-gmbh.de

(->the company -> references

-> pressure control blower)

GUSTAV NOLTING GmbH

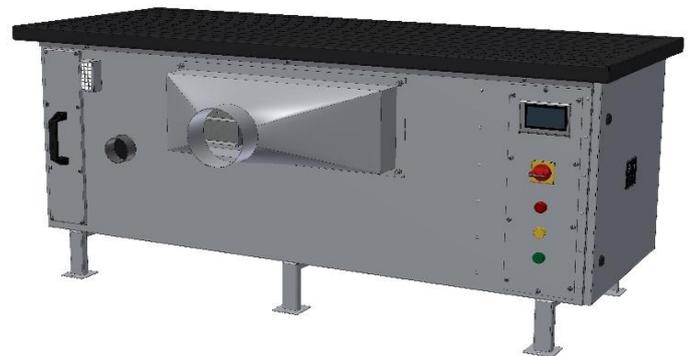
Orbker Straße 38 | D-32758 Detmold

Phone +49 (0) 52 31 . 60 01-0

Fax +49 (0) 52 31 . 60 01-51

info@gustav-nolting-gmbh.de

www.gustav-nolting-gmbh.de



DG-65 T-FU with SAS

Technical Data

Typ	DG-	400	500 TR	500 TRS	65 T-FU with SAS	100 T-FU with SAS
					FU = with frequency converter	
Height	mm	465	1,100	1,100	825	1,000
Width	mm	400	600	600	700	900
Length	mm	400	400	400	1,750	2,450
Weight	kilos	20	120	120	150	350
Housing material		Aluminum	Galvanised sheet plate	Galvanised sheet plate	Galvanised sheet plate	Hoesch-Isowall
Paint finish		RAL-7035	RAL-7035	RAL-7035	RAL-7035	RAL-7035
Air filter		F 3	F 3	F 3	F 5/7	G3 + F5/7
Volt		230	230	230	230	400
Frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60	50
Air output dryer	cbm/h	----	190	190	190	310
Air output blower	cbm/h	1,000	600	500	645	2,000
External pressure	Pa	500	500	1,000	2,000	3,000
Connection piece	mm	50	100	100	160	250
Sound	dB/A	53	50	50	50	50

Subject to changes of dimensions and technical data (Version: 2026-02)

DG-T

Pressure control blower

Pressure control blowers for foil cushion roofs

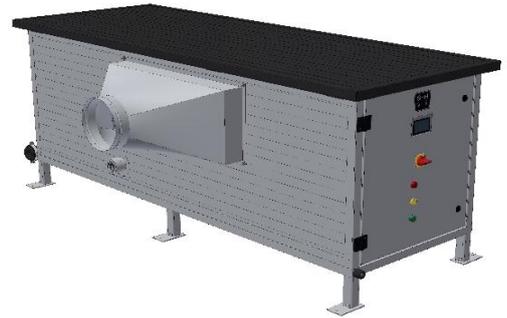
Roof areas up to 5,000 m²

Galvanized steel plate

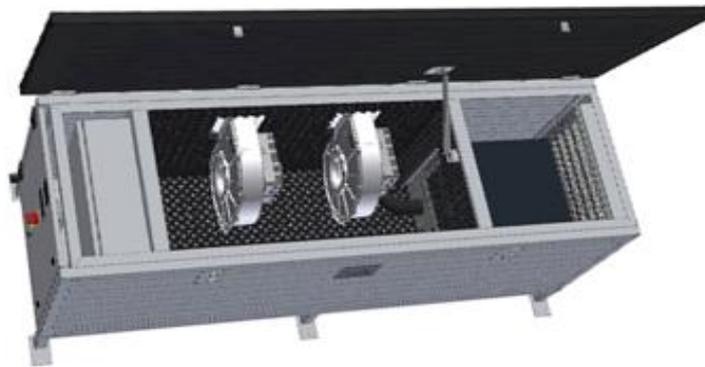
Pressure range up to 3,000 pa



DG-100 T-FU with SAS

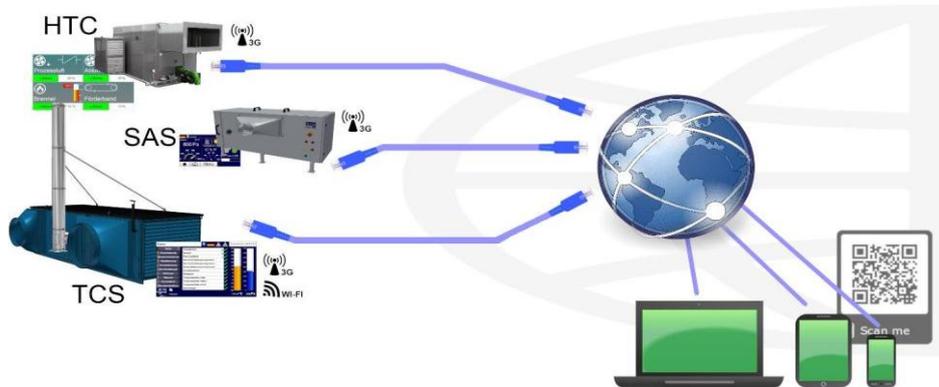


DG-100 T-FU with SAS



DG-100 T-FU with SAS

Easy access for Nolting control systems TCS, SAS, HTC



DG-500 TR / TRS



DG-500 TR / TRS

GUSTAV NOLTING GmbH

Orbker Straße 38 | D-32758 Detmold

Phone +49 (0) 52 31 . 60 01-0

Fax +49 (0) 52 31 . 60 01-51

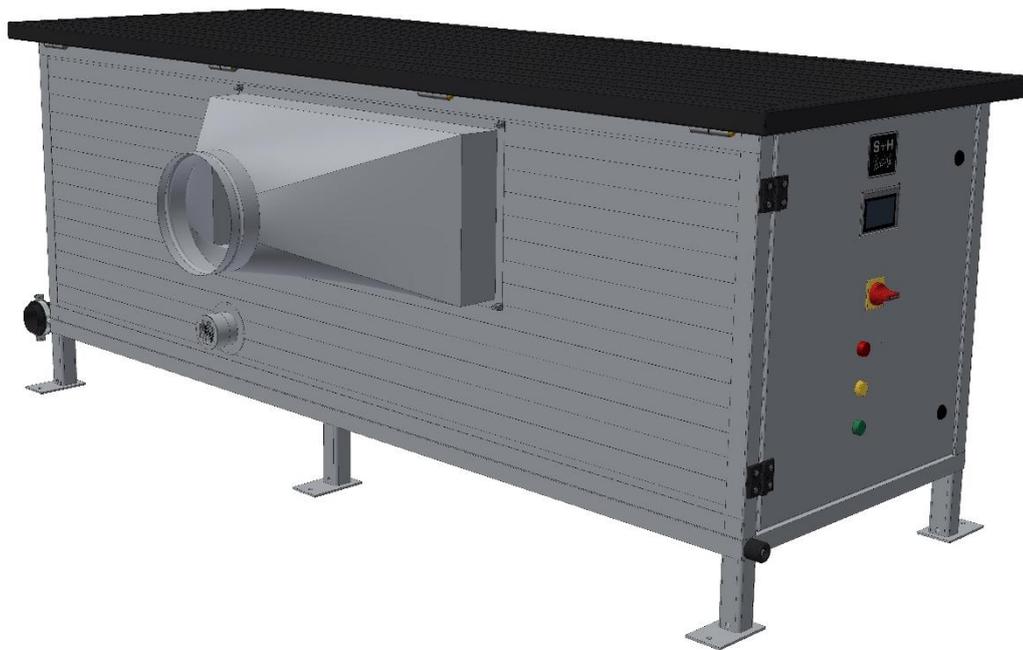
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Baureihe: DG - 100 T-FU mit SAS

Series: DG – 100 T with frequency converter with SAS

Witterungsbeständige Ausführung	Weatherproof casing
Haupt- und Reservegebläse	Main blower and stand-by engine
Lufttrockner	Dehumidifier
Frischlufansaugung über WSG	Fresh air intake via weather protective grid
Steuer-Regleinheit im Gerät	Control-regulation unit inside device
Ausblasstutzen DN 250	Blow-out connection piece ND 250
Schallgedämmte Innenauskleidung	Silencing interior lining
Von oben leicht zugänglich	Easily accessible from above
Große Filterfläche	Large filter surface

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In verschiedenen Ansichten und Ausführungen

Different views and designs

Baureihe: DG – 100 T-FU mit SAS

Series: DG – 100 T with frequency converter with SAS

Bedienseite
Operating side



Seitenansicht mit Ausblasstutzen
Lateral view with blow-out connection piece



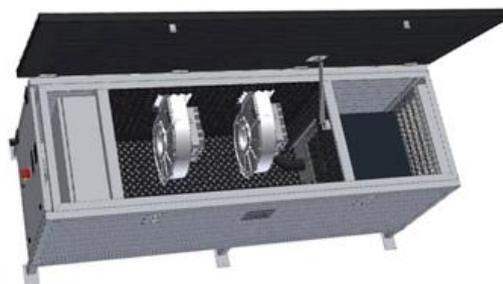
Seitenansicht mit Frischluftgitter (WSG)
Lateral view with weather protective grid



Seitenansicht mit Frischluftstutzen
Lateral view with fresh air intake



Innenansicht
Internal view



TEMPERATUR NACH MASS

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General Description

DG-100 T with frequency converter and SAS

S + H / NOLTING – PRESSURE CONTROL SYSTEM

TYPE: **DG-100 T with frequency converter and SAS**

consisting of a blowing unit with two fans and one dryer. Control and regulation inside device.

HOUSING

- made of galvanized steel plate, primed and lacquered
- **including weatherproof housing made of HOESCH insulating walls**
- silencing interior lining with waffle insulating material
- varnish RAL 7035
- weatherproof roof of unit: black
- **pre-filter G3** with changing frame to prevent dirt from getting in
- **fine filter F5** with changing frame in unit
- maintenance-friendly: support legs at unit roof for opening

AT HOUSING:

- touchscreen 4,3"
- on/off switch
- control lights:
 - failure = red
 - warning = yellow
 - operation = green

BLOWING UNIT

- for permanent operation with mounted on electric motor

AIR DRYER

- to pre-dry the outer air

SWITCH CABINET

to control the pressure keeping blowing unit with the following functions

- Smart Air System (SAS)
- blower controlled by frequency converter
- Soft start
- pressure setting at SAS
- pressure metering in one cushion as representative metering
- pressure display via digital pointer instrument, display and remote query
- MIN pressure control - switch on stand-by engine
- MAX pressure control - switch off of blowing units
- indication of latest operating states (SAS)
- overvoltage protection (fine protection)

TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 – 1.163 kW | Luftleistung 200 – 72.500 m³/h



Following data can be read at unit / switch cabinet:

- latest air pressure in system
- description of active blowers
- failure of individual blower
- failure due to undercut of MIN air pressure

Potential free change over contacts for

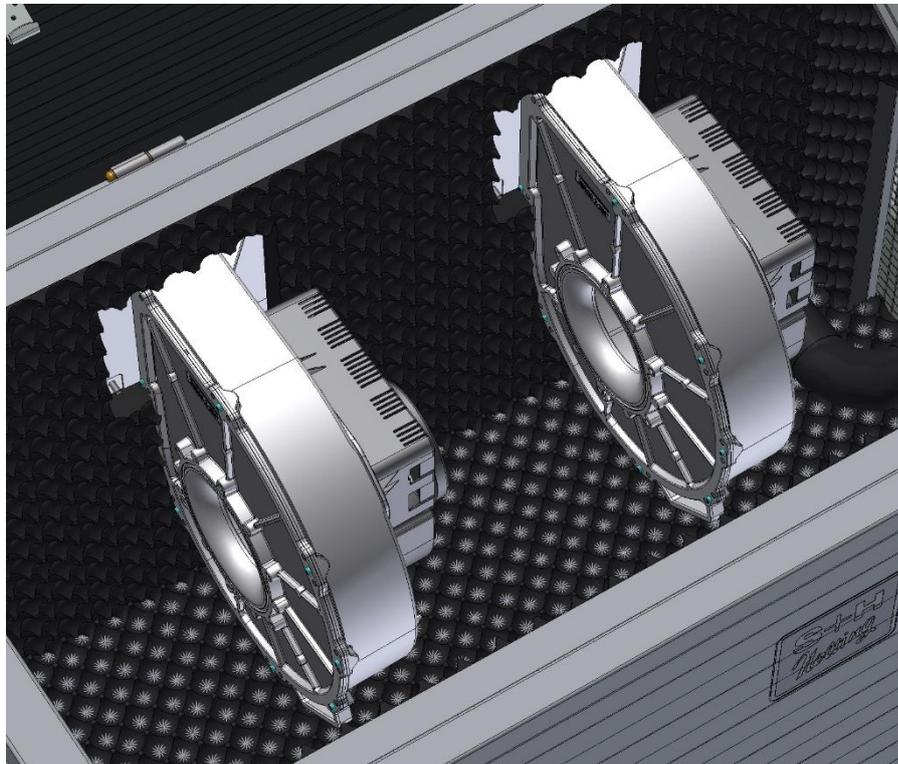
- Operation
- Warning
- Failure / Power failure:

SAS

- message display and filing system
- network based remote monitoring / control
- access protection by user management
- automatic switch over (summer / winter)
- RJ 45 connection for integration into an existing network
- weekly change from main blower to stand-by engine
- language switching (DE / EN)

TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



Baureihe: DG - 65 T-FU mit SAS

Series: DG – 65 T with frequency converter with SAS

**Drehzahlregelbare Ventilatoren
mit Frequenzumrichter**

Haupt- und Reservegebläse

Leicht zugänglich von oben

Schallgedämmte Innenauskleidung

Abnehmbares Gerätedach

**Fans can be regulated via rotational speed
with frequency-controlled fans**

Main blower and stand-by engine

Easily accessible from above

Silencing interior lining

Roof of unit can be removed

TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



**Druckhaltegebläse für Folienkissendächer
in verschiedenen Ansichten und Ausführungen**

Baureihe: DG – 65 T-FU mit SAS

**Pressure control blowers for foil cushion roofs
different views and designs**

Series: DG – 65 T with frequency converter with SAS

Seitenansicht mit wetterfestem Dach und Ausblasstutzen
Lateral view with weatherproof roof and blow out connection piece



Seitenansicht ohne wetterfestes Dach
Lateral view without weatherproof roof



TEMPERATUR NACH MASS

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General Description

DG-65 T with frequency converter and SAS

S + H / NOLTING – PRESSURE CONTROL SYSTEM
TYPE: **DG-65 T with frequency converter and SAS**
consisting of a blowing unit with two fans and one dryer.
Control and regulation inside device.

HOUSING

- made of galvanized steel plate, primed and lacquered
- silencing interior lining with waffle insulating material
- varnish RAL 7035 light grey (standard), other RAL colours at request
- **pre-filter F7** with changing frame to prevent dirt from getting in

AT HOUSING:

- touchscreen 4,3"
- on/off switch
- control lights:
 - failure = red
 - warning = yellow
 - operation = green

BLOWING UNIT

- for permanent operation with mounted on electric motor

AIR DRYER

- to pre-dry the outer air

SWITCH CABINET

- to control the pressure keeping blowing unit with the following functions
- Smart Air System (SAS)
 - blower controlled by frequency converter
 - Soft start
 - pressure setting at SAS
 - pressure metering in one cushion as representative metering
 - pressure display via digital pointer instrument, display and remote query
 - MIN pressure control - switch on stand-by engine
 - MAX pressure control - switch off of blowing units
 - indication of latest operating states (SAS)
 - overvoltage protection (fine protection)

TEMPERATUR NACH MASS

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Following data can be read at unit / switch cabinet:

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- failure due to undercut of MIN air pressure

Potential free change over contacts for

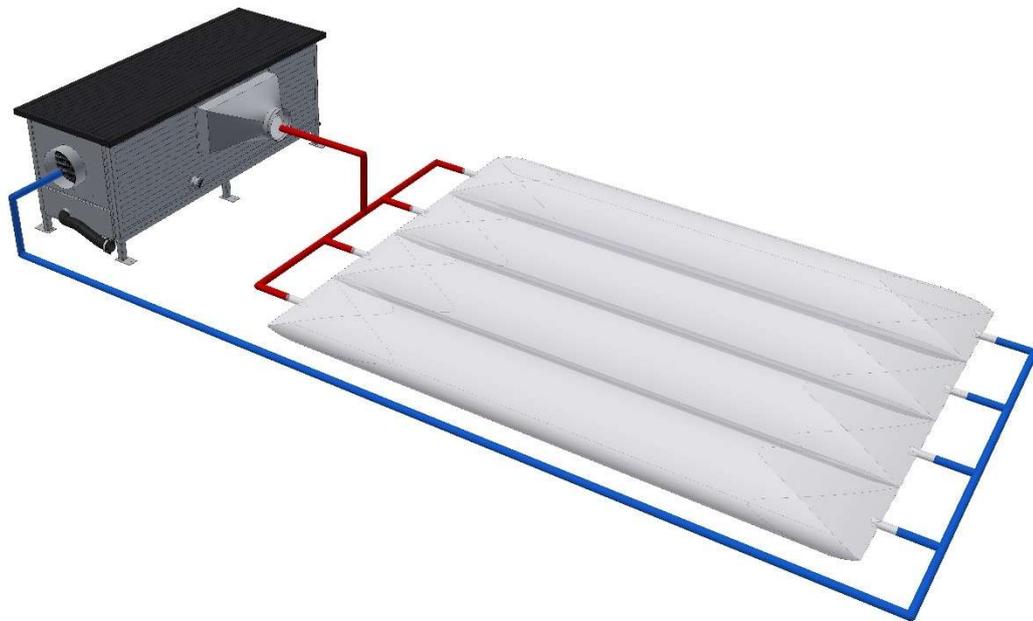
- Operation
- Warning
- Failure / Power failure:

SAS

- message display and filing system
- network based remote monitoring / control
- access protection by user management
- automatic switch over (summer / winter)
- RJ 45 connection for integration into an existing network
- weekly change from main blower to stand-by engine
- language switching (DE / EN)

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Systemskizze / system diagram

DG - 65 T / Umluft / FU

DG – 65 T / Recirculation / with frequency converter

Umluftgebläse

Ventilatoren mit Frequenzumrichter

Lufttrockner

Zuluftstutzen

Umluftstutzen

Recirculating air blower

Frequency-controlled fans

Dehumidifier

Connection piece for air intake

Connection piece for recirculation

TEMPERATUR NACH MASS

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GENERAL DESCRIPTION

DG - 65 T / Recirculation / with frequency converter

S + H / NOLTING PRESSURE CONTROL SYSTEM

Type DG - 65 T / recirculation / with frequency converter consisting of one blowing unit with frequency-controlled fans for generating pressure and one fan for recirculation as well as a dryer. Control and regulation inside device.

HOUSING

- made of galvanized steel plate, primed and lacquered
- silencing interior lining with waffle insulating material
- varnish RAL 7035 light grey (standard), other RAL colors at request-
- pre-filter F7 with changing frame to prevent dirt from getting in

BLOWING UNIT

- for permanent operation with mounted on electric motor

DEHUMIDIFIER

- to pre-dry the outer air

SWITCH CABINET

to control the pressure control system with following functions:

- programmable control (SPS)
- frequency-controlled fans
- pressure setting at SPS
- pressure metering in one cushion as representative metering
- weekly change from main fan to stand-by fan via timer
- pressure indication by pointer instrument
- MIN pressure monitoring - activation of stand-by fan
- MAX pressure monitoring – switch off of fans
- **regulation of air humidity, measuring of humidity in foil cushion**
- **switching off of dehumidifier when there's no formation of condensate**
- display of current operating status (SPS)
- fine protection

Following data can be read at the unit / switch cabinet:

- latest air pressure in system
- description of active fans
- failure of individual fan
- failure due to undercut of MIN air pressure

Floating contacts for

- failure fan 1
- failure fan 2
- failure fan 3
- MIN pressure
- Power failure

TEMPERATUR NACH MASS

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Zusatzsteuerung / Ausstattung

Additional control / equipment

Filtertechnik / Filter Technique



Verschmutzung aus der Luft kann Einbauteile der Luftversorgungssysteme beschädigen und zu Trübung und Verunreinigung in den Kissen führen. Standardmäßig sind unsere Geräte mit Filtern ausgestattet. In bestimmten Ländern reicht der Filter nicht aus, dort kommen komplette Filteranlagen zum Einsatz, diese Filteranlagen bestehen aus verschiedenen Filterstufen und sind auf die Einsatzbedingungen des jeweiligen Landes abgestimmt.

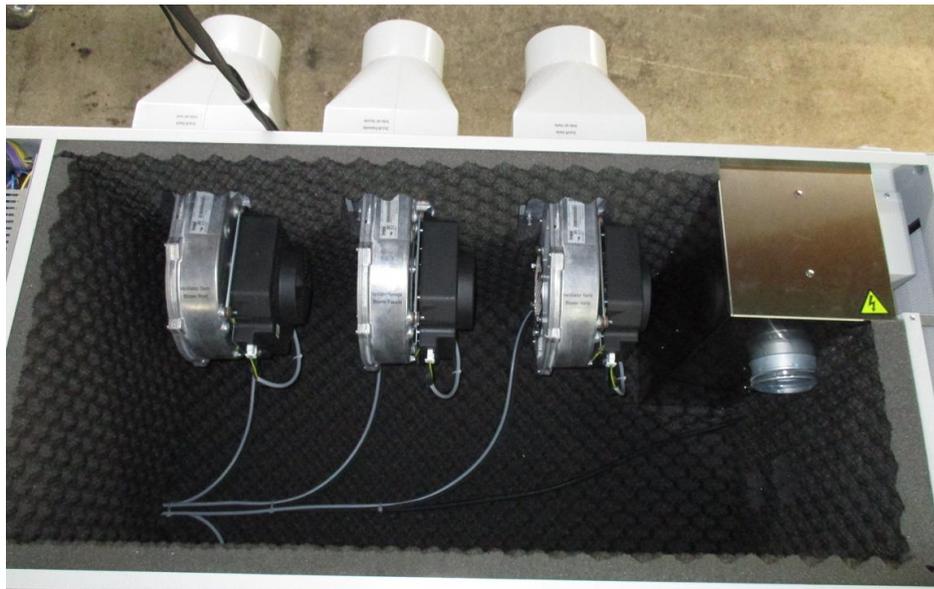
Air pollution may affect built-in components of air supply systems and may cause clouding and pollution in the cushion. As a standard our units are equipped with filters. In certain countries the filter is not sufficient. In these countries complete filter systems are used which consist of different filter stages adapted to the operating conditions of the country in question.

TEMPERATUR NACH MASS

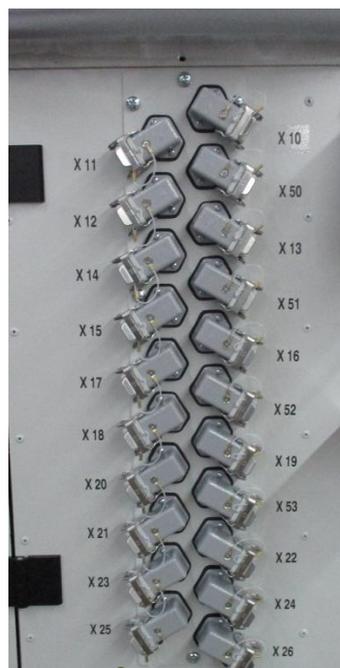
Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



Druckhaltegebläse mit drei Ventilatoren zur Ansteuerung der Mittelkammer
Pressure control blower with three fans for controlling the middle chamber



Anschlüsse (Plug and Play)
Connections (Plug and Play)



TEMPERATUR NACH MASS

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Druckhaltegebläse mit 3. Ventilator und 2. Stutzen zur Ansteuerung der Mittelkammer
Pressure Control Blower with 3. fan and 2nd connection piece for controlling the middle chamber



Wahlschalter zur Schneeaufschaltung
Selection switch for snow control

TEMPERATUR NACH MASS

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Druckhaltegebläse in Edelstahlausführung Pressure control blower in stainless steel version



Schneesensor / Snow sensor

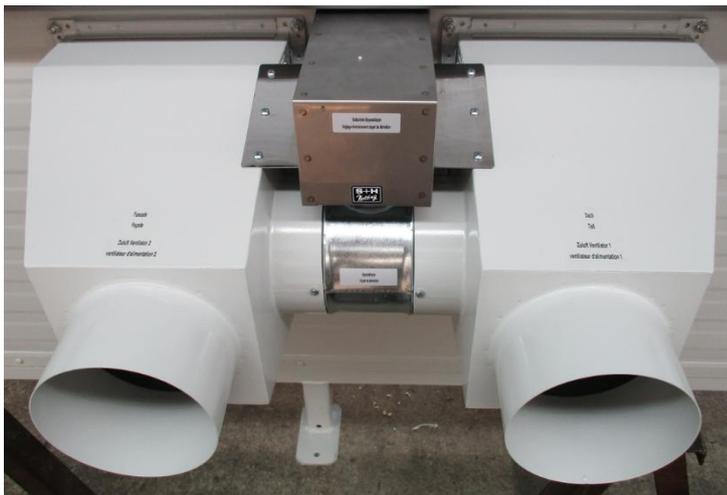


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Bypassklappenregelung Regulation via by-pass flap



Bypassklappenregelung zur automatischen Ventilatorumschaltung, bei Ausfall von einem Ventilator. (V1 = Dachbereich, V2 = Fassadenbereich) Fällt V1 aus, übernimmt V2 die Luftversorgung für V1.

Regulation via bypass flap for automatic fan switch over in case one fan is defective (V1 = roof area, V2 = façade area) In case V1 fails, V2 will take over air supply of V1.

Schneesensorensteuerung am Gerät montiert Snow sensor control installed at unit



Sobald sich Feuchtigkeit auf der Kontaktoberfläche befindet, übermittelt der Schneesensor ein digitales Signal zur angeschlossenen Anlagensteuerung.

Die Anlagensteuerung reguliert den Schneedruck, wenn zusätzlich der integrierte Temperaturfühler einen Wert $< 3^{\circ}\text{C}$ angibt.

As soon as there's humidity on the contact surface the snow sensor will transmit a digital signal to the connected control of unit.

The control regulates snow pressure, when in addition the integrated temperature sensor indicates a value $< 3^{\circ}\text{C}$.

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Drucksensorensteuerung Pressure control by sensors

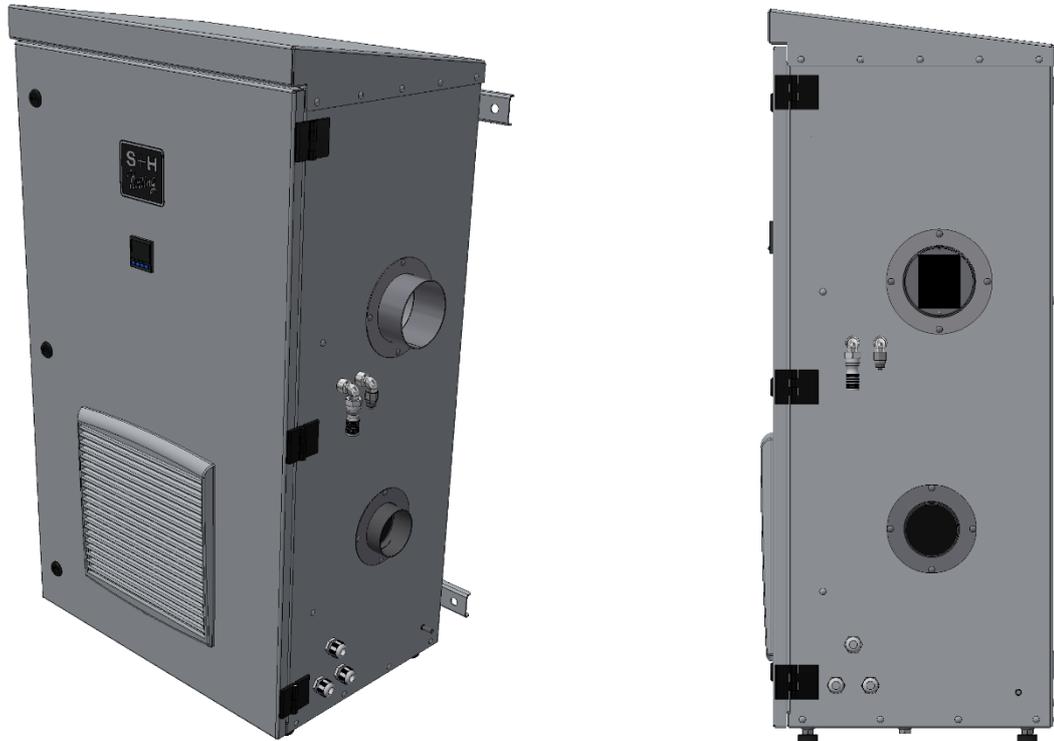


Die Drucksensoren werden elektronisch mit der Stützluftanlage verbunden. Dieses hat den Vorteil von deutlich längeren Leitungslängen. Hierdurch wird die Kondensatbildung gegenüber luftführenden Steuerleitungen minimiert.

The pressure sensors are electronically connected to the pressure control blower. This has the advantage of significantly longer cable lengths which minimize the formation of condensate compared to air-carrying control lines.

TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



Baureihe: DG - 500 TR / TRS

Series: DG - 500 TR /TRS

Schaltschrankgerät

Switch cabinet device

Hauptgebläse

Main fan

Lufttrockner

Dehumidifier

Frischlufansaugung über WSG

Fresh air intake via weather protective grid

TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



Druckhaltegebläse für kleine Folienkissendächer in verschiedenen Ansichten

Baureihe: DG – 500 TR / TRS

Pressure control blowers for small foil cushion roofs - Different views

Series: DG – 500 TR / TRS

Seitenansicht mit Ausblasstutzen
Lateral view with blow-out connection piece



Frontansicht mit Frischluftgitter
Front view with fresh air intake grid



Seitenansichten / Lateral views



TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 – 1.163 kW | Luftleistung 200 – 72.500 m³/h



General Description

DG-500 TR / TRS

S + H / NOLTING – PRESSURE KEEPING BLOWING COMBINATION
TYPE : **DG-500 TR / TRS as switch cabinet device (standing version)**

HOUSING

- made of galvanized steel plate, primed and lacquered
- silencing interior lining with waffle insulating material
- varnish RAL 7035 (standard), other RAL colours at request
- pre-filter F3 with changing frame to prevent dirt from getting in

BLOWER

- for permanent operation with mounted on electric motor

AIR DRYER

- to pre-dry the outer air

CONTROL CABINET

with the following functions:

- pressure control with PID controller
- Main and max. pressure monitoring
- Digital pressure display
- Various signal contacts

DG - 400 adjustable

Pressure Control Blower
made of
Aluminium

For inflating foil cushion roofs



The blowers can be supplied in any RAL colour

Standard RAL colour 7035

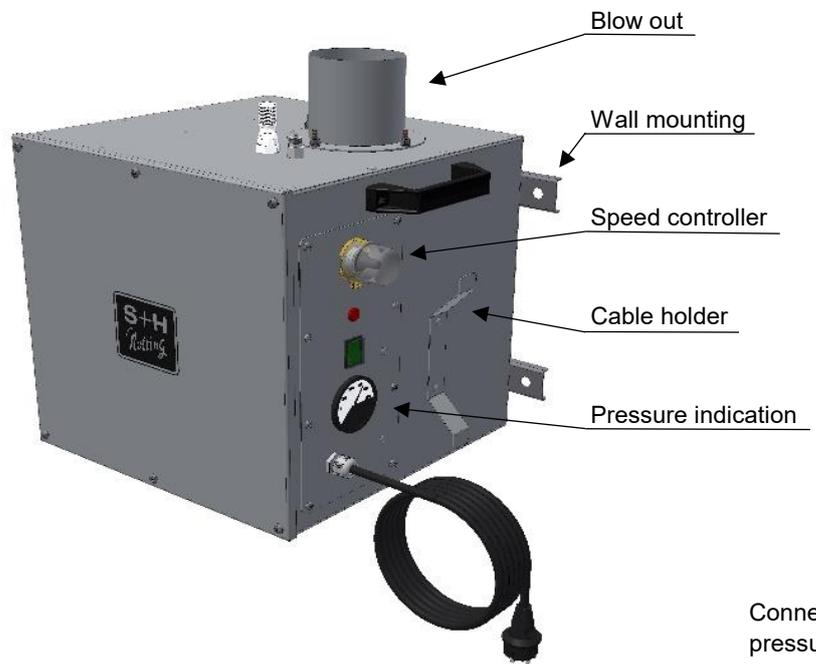
Nolting - pressure control blower made of aluminium for permanent operation

- max. air output up to 1,000 m³/h
- efficient fan motor (conformity to ERP)
- variable-speed fan motor
- pressure setting at pressure switch
- pressure metering in one cushion
- pressure reading at unit
- low noise operation
- carrier handle
- low weight



Additional control

- Min. pressure alarm
- Max. pressure alarm
- optical and audible signal
- battery with maintenance charging
- on / off switch for alarm system



GUSTAV NOLTING GmbH

Orbker Straße 38 | D-32758 Detmold
Phone +49 (0) 52 31 . 60 01-0
Fax +49 (0) 52 31 . 60 01-51
info@gustav-nolting-gmbh.de
www.gustav-nolting-gmbh.de



Connection -
pressure
measuring
hose



Fresh air filter

Technical Data		
Type	DG-	400
Air output	m ³ /h	up to 1,000
Intake air	mm	ND 50
External pressure	Pa	up to 500
Electrical connection	V/Hz	230 / 50
Motor capacity	W	170
Length	mm	400
Width	mm	400
Height	mm	465
Weight	kilos	20
Fresh air		with filter
Blow-out		without non-return valve

DG Ex

Pressure Control Blower

Stainless Steel

To inflate
double membrane air cushion roofs,
i.e. for biogas storage
Air output 500 m³/h



Registration
as per Ex II 2G II CT3

Long-running blowers of high performance

Explosion-roof blower in a compact casing made of stainless steel with eyes for wall assembly. Our type DG Ex is technically fully developed and daily proof thousands of times as safe, strong long-running blowers for air cushion roofs.



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Technical Data		
Type	DG-	500 Ex
Air output	cbm/h	500
Supply air connecting piece	mm	ND 108
External pressure	Pa	adjustable up to 300 Pa
Electric connection	V/Hz	230 / 50
Motor capacity	W	120
Length	mm	400
Width	mm	400
Height	mm	450
Weight	kilos	30
Air intake		with filter
Blow-out		without non-return valve

Subject to changes of dimensions and technical data (Version: 2024-03)

Project Questionnaire for Air Cushion Roofs

Update: 26.02.2026
Page: 1 of 1
Audit.-Index: 01



Data of Project: Company:
Street:
Place:
Contact:
Phone:
Fax:
Mail:

Project: _____

Place: _____

Date of Delivery: _____

Number of Cushions: pcs

Roof Area: m²

Cushion Volume: m³

Rate of Leakage: %

Air exchange / purging
air rate within 24 hours,
depending on the humidity
inside the cushions: X

Filling time of Cushions: hrs

Internal Pressure of Cushion: pa

Chamber 1 pa

Chamber 2 pa

Max-Wind Pressure: pa

Max-Snow Pressure: pa

Shading: yes / no

(movable middle layer)
Installation of Unit: inside / outside

Dryer

Temp. + rel. humidity
Intake at dryer: °C %

Adjustment / Control

via pressure monitor: yes / no

via electric pressure control: yes / no

Commissioning: yes / no

Drawings

Cross sections, ground sketch, detail drawings

Date: _____ Signature: _____

TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



References – Pressure Control Blower

San Francisco, de Heredia, Costa Rica

ETFE-Volume: 9,800 m³

Air cushion: 1 piece

Pressure: 400 Pa

2 x DG-100 T - frequency converter with SAS



[▶ more pics](#)

Head Quarter, Fresenius, Bad Homburg

ETFE-Volume: 425 m³

Air cushions: 36 pieces, 4-layers

Pressure: 150-300 Pa

movable cushion layer

1 x DG-65 T - frequency converter with SAS



[▶ more pics](#)

Japi Kredi, Türkei

Banking Academy

ETFE-Volume: 600 m³

Pressure: 250 Pa

1 x DG-65 T with frequency converter



[▶ more pics](#)

Teneriffa, Spanien

ETFE-Volume: 253 / 118 m³

Air cushions: 11 / 9 pieces

Pressure: 200 m³

2 x DG-500 T



[▶ more pics](#)

TEMPERATUR NACH MASS

Innovative Luftheiztechnik | Nennwärme 3 - 1.163 kW | Luftleistung 200 - 72.500 m³/h



San Pietro Infine, Italien

ETFE-Volume: 45 m³
Air cushions: 1 piece
Pressure: 250 - 500 Pa
1 x DG-500 T



[more pics](#)

Center Park Vienne, France

ETFE-Volume: 2,000 m³
Air cushions: 83 pieces
Pressure: up to 600 Pa
2 x DG-100 T with frequency converter



[more pics](#)

Expo Mailand 2015

ETFE-Volume: 618 m³
Air cushions: 60 pieces
Pressure: up to 750 Pa
1 x DG-65 T with frequency converter
1 x DG-500 T (lying)



[more pics](#)

Altur, Türkei

ETFE-Volume: 200 m³
Air cushions: 30 pieces
Pressure: up to 400 Pa
1 x DG-65 T



[more pics](#)

Our extensive product range:

- Warm Air Heaters
- System Construction
- Air Ducts
- Blowers for air-supported domes and other flexible structures
- Construction of Control Systems
- Light-weight Steel Construction
- Special Equipment Construction
- Sheet Metal Treatment

Subject to changes and errors excepted



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