

Application

These operating instructions apply to:
-Vacuum pumps VT 4.10-4.16-4.25-4.40
-Compressors DT 4.10-4.16



Safety Regulations

Please comply with Accident Prevention Regulations VBG 16, Compressors, in particular Section IIIc "Installation" and IV "Operation" plus VBG 4 "Electrical equipment and tools". Pumps may only be converted or modified after approval by the manufacturer.



Application

The pumps can be used to generate a vacuum (VT) or overpressure (DT).

Inlet air must be standard dry atmospheric air. The pumps are dry-running. Avoid intake of oil mist.

The specification is valid up to a height of 800 m above sea level.

Transport and storage

Store pump in a dry area. Prevent condensation caused by vapour.

Lift and transport only by using the ring screws.

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Rotary vane vacuum pumps/compressors, dry-running, air-cooled

Installation

It is recommended to install the pumps with easy access for maintenance. Clearance between compressors and adjacent walls should be no less than 10 cm of free space in order to ensure sufficient air flow for cooling. Contact Gebrüder Becker prior to installation under noise insulation canopies. Ambient temperatures must not exceed 45°C.

Connection and installation

Ensure correct dimensions (see Table) and clean pipelines (no weld spatter, chips or similar contamination). With pipelines exceeding 5 m in length we recommend the installation of non-return valves. Keep connections free from oil, grease, water and other contaminants. Remove end caps at DA and SA. Do not connect to pipeline yet.

Motor connection

Connect the pump to the electricity supply observing all applicable safety regulations. Comply with EN 60204 T1. Connect motor based on connecting diagram (in terminal box) or ready-made plugs. This work should be carried out by an experienced electrician only. Check for connecting voltage and frequency. Install motor circuit-breaker and set to nominal motor current. (For data see motor rating plate). Avoid switching of more than 10 times per hour.



Briefly start motor and check rotation (arrow on casing). Exchange phases if rotation is incorrect.

Operating Instructions

Commissioning

Connect pressure line at DA and inlet line at SA. Set vacuum control valve VR or pressure control valve DR to operating values (for values see table)

Do not operate the compressor without safety equipment against excessive pressure (for maximum values see rating plate).

Maintenance

Maintain pump regularly to achieve the best operating results. Maintenance intervals will depend on the pump's use and ambient conditions.



Before commencing maintenance, remove mains plug from socket to avoid unintentional restarting.



The filter cartridges are inserted behind the enclosure cover GD. Clean depending on dust accumulation. Blow out filter from inside to outside.

Replace blocked, oily or greasy cartridges. Additional filters are available for operation in very dusty environments.




Blow out dirt in cooling air channels KK by compressed air.

The vanes are subject to wear due to abrasion from the walls of the enclosure.



Check vane width every 3000 operating hours or annually (for minimum widths see Table). Remove housing cover GD and side cover SD for this. On replacement blow out enclosure by dry compressed air.

The roller bearings are prelubricated for life and will thus not require maintenance. Replace by original roller bearings only.



BECKER
Vakuumpumpen - Verdichter
Vacuum pumps - Compressors

Gebr. Becker GmbH & Co. • Postfach 250220 • D-42238 Wuppertal

Konformitätserklärung

im Sinne der EG-Maschinenrichtlinie 89/392/EWG, Anhang II A

Der Hersteller **Gebr. Becker GmbH & Co.
Hölkler Feld 29-31
42279 Wuppertal**

erklärt hiermit, daß die Pumpe

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in der von uns gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:

- EG-Richtlinie Maschinen 89/392/EWG
- EG-Richtlinie elektrische Betriebsmittel 73/23/EWG
- EG-Richtlinie elektromagnetische Verträglichkeit 89/336/EEG


* jeweils in der aktuellen Fassung


Angewendete harmonisierte Normen, insbesondere:

EN 1012 T1, EN 1012 T2, EMV EN 50081-82

Angewendete nationale technische Normen, insbesondere: **VBG 16**

Gebr. Becker GmbH & Co.
Wuppertal, den 17.05.1996


Dr. Henning
Geschäftsleitung


K. Trinler
Geschäftsleitung

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 (Abkömmlinge) Drahter Bank AG 021 330 800 300 5 233 000 Barmen/Berlin 021 501 501 501 18 646 8-01

Handelsregister Wuppertal HRB-Nr. 15280 Preis, nach Gas, WDG Becker Vakuumpumpen- und Kompressorenliste 01/97, Rückzahl-
 handelsregister Wuppertal HRB-Nr. 4349 Geschäftsleitung: Dr.-Ing. Hans-Herbert Henning, Hans-Heinrich Martin, Martin Becker MA, MBA
 USt-Id.Nr. DE 112 124 048

Tabelle-Table-Tableau-Tabella-Tabla

DT/ VT4.104.164.254.40

Anschlußleitung bis 2m / 2m bis 10m1/2"/3/4"1/2"/3/4"3/4"/1"3/4"/1"
 Pipework up to 2m / 2m up to 10m
 Tuyauterie jusqu'à 2m / de 2m jusqu'à 10m
 Tubazione fino a 2m / da 2m fino a 10m
 Tubo de conexión hasta 2m / de 2 a 10m

Schieber-Mindestbreite [mm]18222727
 Width of vanes, min. [mm]
 Largeur palettes, min. [mm]
 Larghezza palette min. [mm]
 Ancho mínimo de paletas [mm]

Volumenstrom bei 50/60 Hz [m3/h]10/1216/1925/3040/48
 Air flow at 50/60 Hz [m3/h]
 Débit d'air à 50/60 Hz [m3/h]
 Capacità aria a 50/60 Hz [m3/h]
 Caudal volumétrico de aire con 50/60 Hz [m3/h]

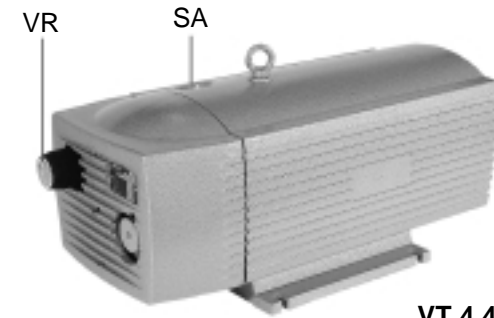
Länge [mm]/Breite [mm]429/206452/231505/260572/280
 Length [mm]/Width [mm]
 Longueur [mm]/Largeur [mm]
 Lunghezza [mm]/Larghezza [mm]
 Longitud [mm]/Ancho [mm]

Höhe [mm] / Gewicht [kg]195/16211/22,4290/26290/38,5
 Height [mm] / Weight [kg]
 Hauteur [mm] / Poids [kg]
 Altezza [mm] / Peso [kg]
 Altura [mm] / Peso [kg]

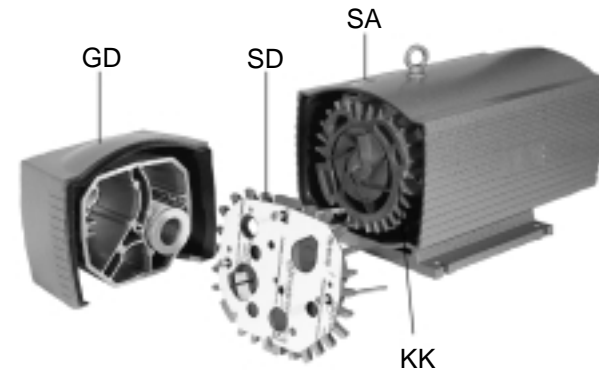
VentilregelbereichVT -0,85 bar / DT +1,0 bar
 Regulation range valves
 Plage de régulation vannes
 Campo di regolazione vavole
 Margen de regulación de válvula

Schalldruckpegel [db(A)]60626368
 Acoustic pressure level [db(A)]
 Niveau de pression acoustique [db(A)]
 Livello di pressione acustica [db(A)]
 Nivel de presión acústica [db(A)]

Technische Änderungen vorbehalten
 Right of modifications reserved
 Sous réserve des modifications
 Sotto riserva di modificazioni
 Salvo modificaciones técnicas



VT 4.40



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