

## 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

Dry-running compressors are used for generating a vacuum (VT4.3 or VT4.6) or overpressure (DT4.3 or DT4.6). Their characteristics apply up to a height of 800 m above sea level. Inlet air must be standard dry atmospheric air.



The pumps are dry-running. The inlet air should not include any oil mist. An ambient temperature of 45°C must not be exceeded.

## Transport and storage

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

## Connection and installation

Ensure correct dimensions (see Table) and clean pipelines. Keep connections free from oil, grease, water and any other contamination. Minimum pipeline diameters should be suitable for threaded connections. Use next higher diameter for pipe lengths of 2 m and above.

It is recommended to install the pump with ample access for maintenance.

Install pump with a minimum clearance of 10 cm to adjacent walls for full cooling air ventilation. For installation under acoustic canopies revert to Gebrüder Becker. Ensure clear inlet to the motor fan and clear exit of cooling air to avoid internal temperatures exceeding 45°C.

## Commissioning

Remove caps at DA and SA. Do not connect to pipeline system.

Have motor connected by a qualified electrician based on the circuit diagram (in connecting box): Check for correct voltage and frequency.



Start motor briefly to check rotation (arrow on enclosure). Reverse phases in case of incorrect rotation.

For single-phase a.c. motors including a temperature monitor check automatic restart after cooling in case of overtemperature.

Connect pressure line at DA and inlet line at SA.

Set vacuum control valve VR or pressure control valve DR to operating values. Do not exceed maximum values stated on 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 side cover SD. Clean depending on dust accumulation. Blow out filter from inside to outside (do not rinse).

o Replace blocked, oily or greasy cartridges.



Blow out dirt in cooling air channel 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 side cover SD for this.



On replacement blow out enclosure by dry compressed air.

Roller bearings are prelubricated and will not require maintenance. Replace by original roller bearings only.



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.  
Höcker Feld 29-31  
42279 Wuppertal**

erklärt hiermit, daß die Pumpe

**DT / VT 4.4-4.8**

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/EWG


\* 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

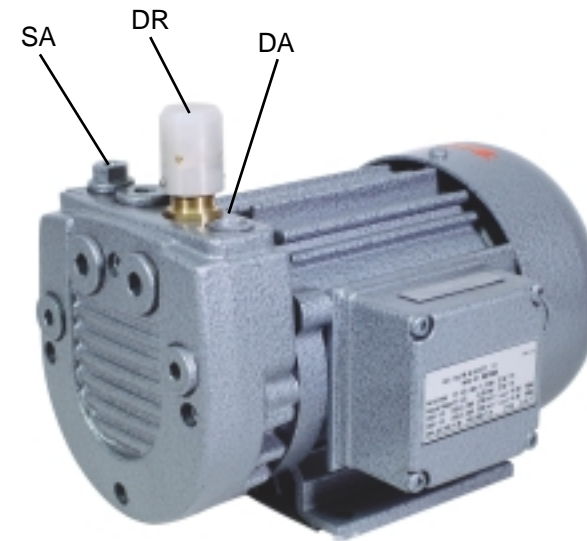
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Handelsregister Wuppertal HRB-Nr. 15288    Preis, Maß, Gew. WZD Becker Vakuumpumpen- und Kompressoren-Drift, Wuppertal  
 Handelsregister Wuppertal HRB-Nr. 4349    Geschäftsführer: Dr.-Ing. Gerd Reinhardt, Dr.-Ing. Hans-Herbert Henning, Hans-Heinrich Martin, Martin Becker MA, MBA  
 USt-Id-Nr. DE 12 120 1248

## Tabelle-Table-Tableau-Tabella-Tabla

	DT/VT	4.3	4.6
Anschlußleitung bis 2m / 2m bis 10m 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 Tubería hasta 2 m / 2m hasta 10m		1/4" / 1/2"3/8" / 3/4"	
Schieber-Mindestbreite [mm] Width of vanes, min. [mm] Largeur palettes, min. [mm] Larghezza palette min. [mm] Ancho mínimo de distribuidor [mm]		11	12,5
Volumenstrom bei 50 Hz [m3/h] Air flow at 50 Hz [m3/h] Débit d'air à 50 Hz [m3/h] Capacità aria a 50 Hz [m3/h] Corriente de aire con 50 Hz [m3/h]		4	8
Länge / Breite / Höhe [mm] Length / Width / Height [mm] Longeur / Largeur / Hauteur [mm] Lunghezza / Larghezza / Altezza [mm] Longitud / Anchura / Altura [mm]		222-142-125231-142-131	
Gewicht mit Motor [kg] Weight incl. motor [kg] Poids avec moteur [kg] Peso con motore [kg] Peso con motor [kg]		7	11,5
Schalldruckpegel [db(A)] Acoustic pressure level [db(A)] Niveau de pression acoustique [db(A)] Livello di pressione acustica [db(A)] Nivel de presión acústica [db(A)]		60	60

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



**DT 4.4**

