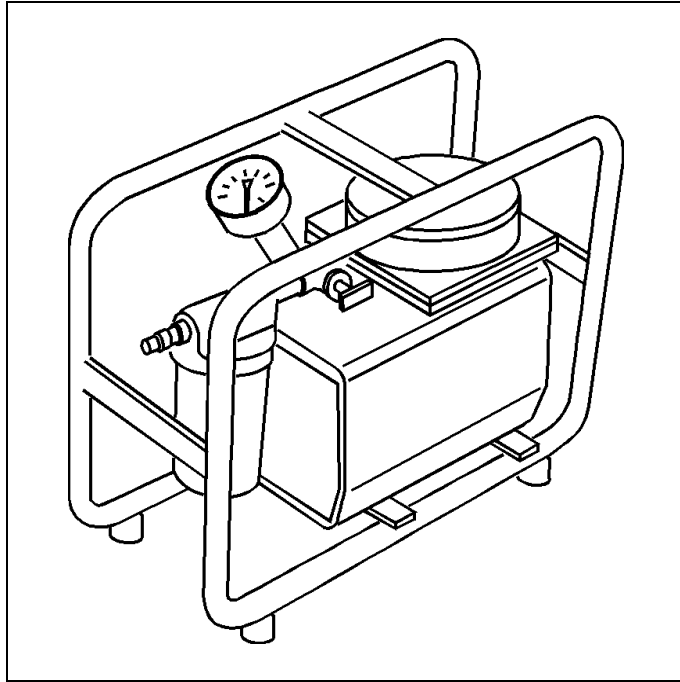


HYDROSTRESS[®]



***Vacuum pump CV
for drill rigs***

***Operating instructions
Spare parts list***

0.1 Introduction

The exclusive use of genuine HYDROSTRESS spare parts ensures quality and interchangeability. In the case of neglected or inappropriate maintenance, we refuse to accept any warranty commitment as specified in our terms of delivery. Any repair work must be carried out by trained personnel only. Should you need further information to keep your HYDROSTRESS system in perfect condition, please contact our after-sales service.

We are sure that you will have many years of trouble-free service from your HYDROSTRESS system and would be pleased to hear from you that it is working without any difficulties.

HYDROSTRESS AG
The Management

Copyright © HYDROSTRESS AG, 1994

HYDROSTRESS AG Switzerland
Witzbergstrasse 18 Telefon ++41 1 950 10 74
CH-8330 Pfäffikon Telefax ++41 1 950 10 18

0.2 Validity of this manual

This manual is only valid for the following system:

Vacuum pump CV No. DOA

0.3 Delimitation of system

Only the vacuum pump is described in this manual.

Instructions for the operation of drill rigs are mentioned in this manual for the safety of the operating personnel. The appropriate manual must be referred to in order to operate any equipment safely and the operating instructions in the manual are those which must be followed.

0.4 Table of contents

1	Safety instructions	3
2	Description of the system	3
2.1	Range of application	3
2.2	Technical data	4
2.3	Dimensions	4
2.4	Design	4
3	Operating	5
3.1	Switching on	5
3.2	Trouble shooting	5
4	Maintenance	5
4.1	Transport, placing out of service, storing, disposal	5
5	Spare parts list	5
5.1	Ordering	5

1 Safety instructions

1.0.1 Qualification of operating personnel

Operating personnel must be trained by experienced experts. HYDROSTRESS will be glad to assist you in your training efforts. Maintenance and repairs must only be performed by specially trained personnel.

1.0.2 Read the manual and inform your fellow workers!

This manual contains important information required to operate the machine safely and efficiently.

The owner of the machine must ensure that the instructions in this manual are followed by **any person having anything to do with the machine**, its equipment or its auxiliary material. The manual must be **accessible on the job site** at all times.

1.0.3 Electrical hazards

Stop working with the machine immediately if the cable, the mains plug, the electric motor or the ON/OFF switch are in any way defective.

Only use earthed (grounded) sockets.

Compare the supply voltage with the indications on the type plate.

1.0.4 Vacuum fixing of drill rigs



Follow these instructions to avoid loosening of the drill rig during machining and endangering yourself or others.

- The holding load depends strongly on the surface of the structure. Holding load can be **insufficient with coarse surfaces**.
- Do not start drilling before the vacuum gauge indicates at least **0.6 bar** (8,7 PSI).
- Check for sufficient stability by jerking the drill rig.

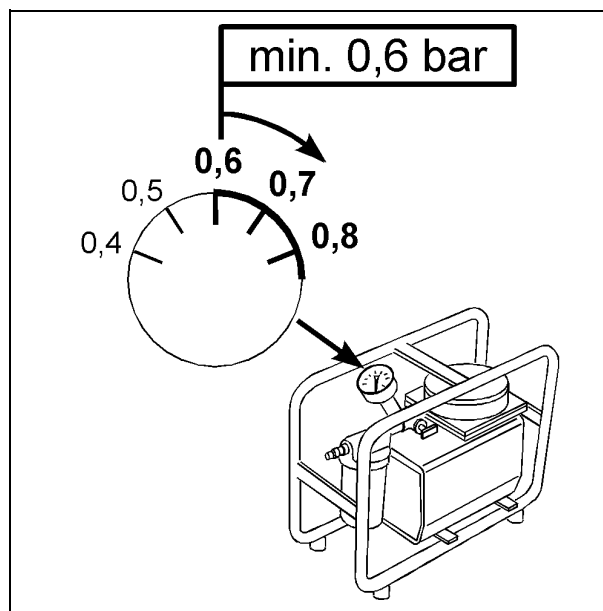


Fig. minmax.tif

- Never fix the drill rig by means of vacuum only when drilling into walls. Always secure the drill rig using another device, for example, a brace.
- Do not drill **overhead**
- High feed pressure can loosen the drill rig. Center and crank extremely carefully with little pressure.

2 Description of the system

2.1 Range of application

2.1.1 Intended use

The vacuum pump is designed for vacuum fixing of concrete drilling rigs. Any other use can cause hazards which are not mentioned in this manual.

2.1.2 Connectable drill rigs

Drill rigs which require not more than 0,6 bar (8,7 PSI) of depression. For example:

HYDROSTRESS HCCB-1, HCCB-3 und HCCB-4

2.2 Technical data

2.2.1 Voltage / Power consumption

220 V / 50 Hz 2,2 A

2.2.2 Output

Depression 0,8 bar (11,6 PSI)
Flow 45 liters/min (11,8 GPM)

2.2.3 Noise level

Noise level at a distance of 1 m: 70 dB(A)

2.3 Dimensions

Weight 10 kg

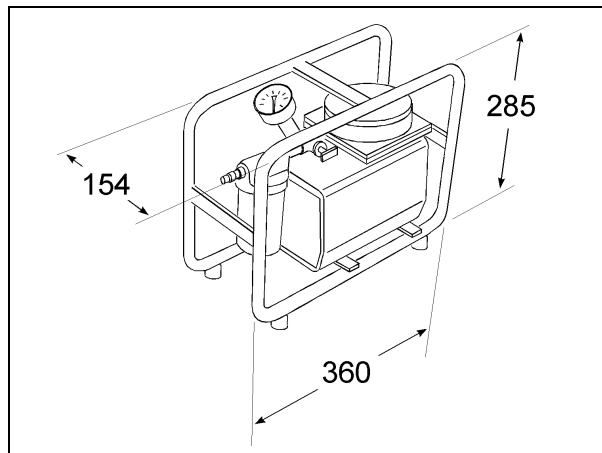


Fig. mass.tif

2.4 Design

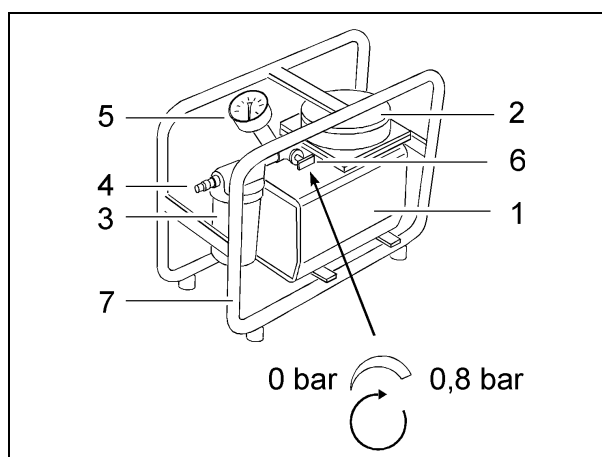


Fig. aufbau.tif

- 1) Vacuum pump
- 2) Valve and filter housing
- 3) Water trap
- 4) Vacuum hose connection
- 5) Pressure gauge
- 6) Air petcock
- 7) Frame

2.4.1 Motor protection

In case of overload the motor is switched off by a thermal protection switch.

3 Operating

3.1 Switching on

- 1) Empty water trap jar
- 2) Connect vacuum hose
- 3) Plug in mains
(The vacuum pump is running now)
- 4) Close air petcock
- 5) Check depression regularly

3.2 Trouble shooting

If 0,6 bar (8,7 PSI) of depression can not be reached the following causes are possible:

- 1) Vacuum sealing of the drill rig is not inserted correctly.
- 2) Air petcock (6) is open.
- 3) Surface is not suitable for vacuum fixing.
- 4) Water trap jar is not tightened sufficiently.
- 5) Water trap jar is full of water.
- 6) Water jar gasket is leaking.

Other troubles:

Trouble	Cause	Remedy
Motor switches off	Overload motor protection has disengaged	Wait, until the motor starts to run again
Motor does not run	Power supply or cable is defective	check power supply and cable
	Motor is defective	Contact our after-sales service

4 Maintenance

Do not oil motor and filter elements!

- Empty water trap jar **weekly**.

4.1 Transport, placing out of service, storing, disposal

4.1.1 Transport

Protect the vacuum pump against damage during transport:

- Do not place anything on or against the vacuum pump

4.1.2 Placing out of service and storage

If you plan to place the pump out of service for some time, ...

- Clean it and store it in a dry place

4.1.3 Disposal

The system consists of the following materials: Steel, aluminum, copper, rubber, plexiglass, plastic

Consider the local regulations for disposal in your country.

5 Spare parts list

5.1 Ordering

The following information is required when ordering spare parts:

- Type of machine as shown on type plate (for example **CV, Nr. DOA, 1994**)
- Stock number of spare part required according to spare parts list (for example 08W7-75648-02)

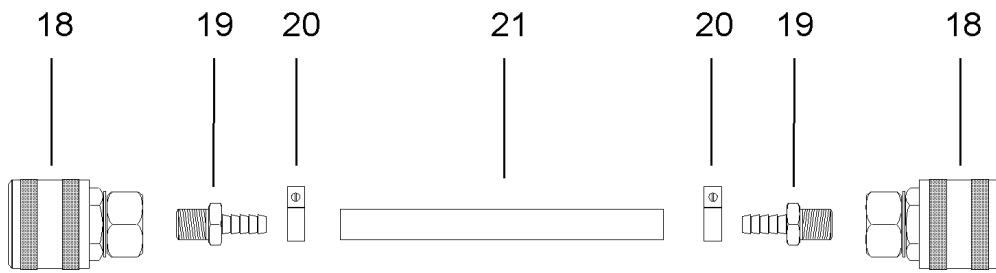
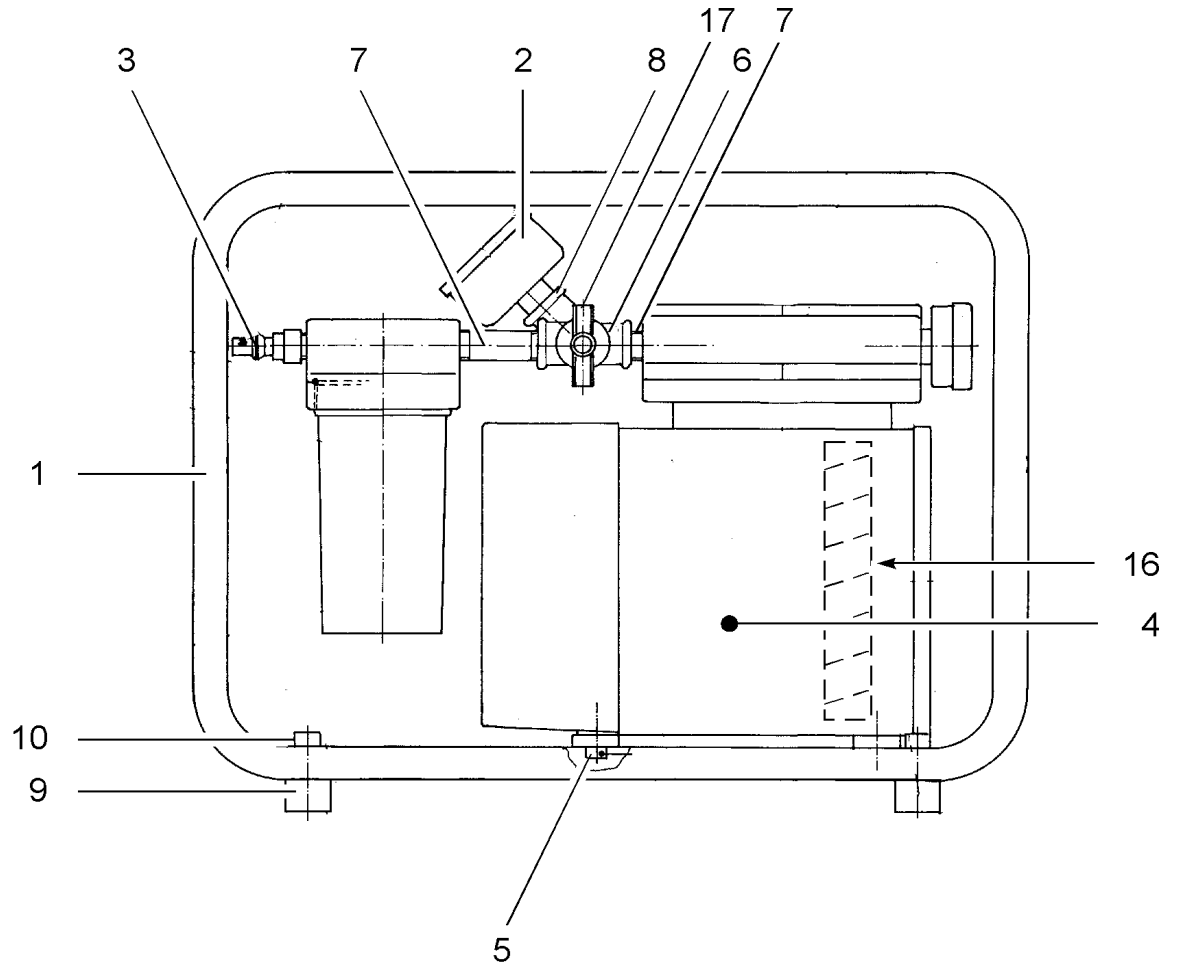
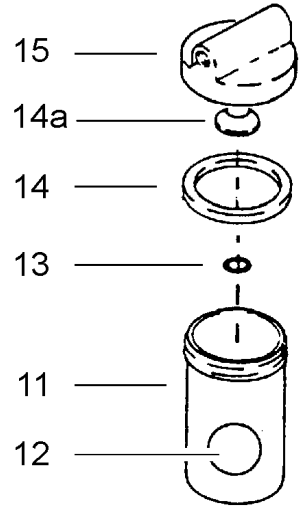


Fig. etl.tif

	HC99-MKHCB-01	Vakuumpumpe 220V	Pompe à vide 220 V	Vacuum pump	Depressore	1
1	0001-54526-01	Rahmen	Cadre	Frame	Quadro	1
2	07N1-14250-16	Manometer	Manomètre	Pressure gauge	Manometro	1
3	07S5-03204-14	Stecknippel Dm.8 1/4A"	Nipple rapide Dm 8 1/4A"	Nipple	Raccordo	1
4	HCET-BORB3-32	Vakuumpumpe lose	Pompe à vide 220 V	Vacuum Pump w/fittings	Depressore	1
5	0111-05010-00	Inbus-Schraube	Vis à six pans creux	Allen head screw M5x10	Vite ad esagono cavo	4
6	14X1-00180-14	Verteiler GF-180 1/4"	Distributeur	Distributing pipe	Distributore	1
7	14V1-00041-14	Anschlussstück	Raccord	Fitting	Raccordo	2
8	14W2-00092-14	Anschlussstück	Raccord	Fitting	Raccordo	1
9	03A2-02015-06	Gummilager	Silent-bloc	Rubber buffer	Cuscinetto di gomma	4
10	0111-06018-00	Inbus-Schraube	Vis à six pans creux	Allen head screw	Vite ad esagono cavo	4
	HC99-MKHCB-02	Wasserabscheider kpl.	Séparateur d'eau cpl.	Water Trap Jar Assembly	Separatore d'acqua	1
11	HCET-BORB3-22	Behälter Wasserabscheider	Verre du séparateur	Water trap jar	Bicchiera del separatore	1
12	HCET-BORB3-21	Schwimmerkugel	Balle flottante	Float ball	Palla galleggiante	1
13	HCET-BORB3-31	O-Ring Wasserabscheider	O-ring séparateur d' eau	O-ring water separator	Guarnizione OR	1
14	HCET-BORB3-27	Dichtung zu Gehäusedeck.	Garniture du séparateur	Water Jar Gasket	Guarnizione del bicchiere	1
14a	EODP-2700015	Nippel zu Gehäusedeckel	Nippel zu Gehäusedeckel	Nippel zu Gehäusedeckel	Nippel zu Gehäusedeckel	1
15	HCET-BORB3-26	Gehäusedeckel	Couvercle du separateur	Water Trap Top	Coperchio del separatore	1
16	HCET-BORB3-18	Lüftungsrad	Ventilateur	Ventilator	Ventilatore	1
17		Ventil	Soupape	Air petcock	Valvola	1
	HC99-MKHCB-10	Vakuumpumpe Schlauch kpl.	Tuyau pompe à vide cpl.	Vacuum hose complete	Tube di vuoto cpl.	1
18	07S5-00026-14	Steckkupplung 1/4"	Raccord mâle 1/4"	Air plug coupling 1/4"	Raccordo	2
19	12S1-02539-14	Aussengew.-Tülle 1/4NPT"	Nipple	Nipple	Raccordo	2
20	12Z2-31512-12	Schlauchbride ABA 9-12,3	Collier tuyau	Hose clamp	Morsetto del tubo	2
21	HCET-BORB3-13	Vakuumpumpe Schlauch	Tuyau vacuum	Vacuum hose	Tube di vuoto	1