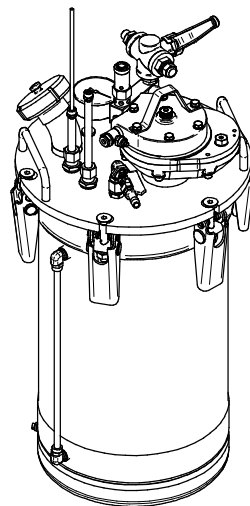


Operating instructions

Pressure container, 10 litre/20 litre capacity, for operating pressures of 2.5 and 6 bar

Doc-316-GB Rev. 0

Order-No.: 200-0281, 200-0282



CE

Krautzberger 

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1 Use for intended purpose

Krautzberger material pressure containers are containers with detachable covers in which compressed air can be used to pressurise liquid and low-viscosity materials. The pressurised material can then be routed via suitable hoses and pipes to extraction points (e.g. spray guns or similar). Pressure containers are primarily used in the painting and coating sector.

The temperature of the coating medium may not be below -10°C or above +50°C. Corrosive or highly abrasive materials may only be used following consultation with Krautzberger.

Krautzberger pressure containers are equipped as standard with a material outlet with shutoff device, compressed air connection fitting with overpressure valve, and a pressure gauge for pressure indication.

Pressure containers may be fitted with stirrers, level gauges, filling devices and other accessories.


Krautzberger 10-litre and 20-litre pressure containers are designed for 10,000 stress reversals (1 stress reversal (or load cycle) is equivalent to a pressure fluctuation range > 3bar).

i **When using hazardous substances:**


When using hazardous substances, note that the substance is released into the atmosphere if the safety valve is activated.


It is illegal to release certain hazardous substances directly into the atmosphere, and some substances may not be present at the workplace in inadmissibly high concentrations. This means that the safety valve must be of a design that permits connection to a pipeline, via which the hazardous substances can be routed to a treatment system if necessary. Krautzberger pressure containers can therefore be equipped with a safety valve with connection option.


2 General safety notes

 **Material pressure containers may not be transported in pressurised state!**

 **The construction of pressure containers may not be altered!**

 **Pressure containers may only be operated within the operating parameters (pressure, temperature etc.) specified on the rating plate!**

 **The housing of the pressure containers is made of stainless steel and may have galvanised or enameled surfaces. The operator must check the compatibility of the materials with the coating substances used. Please also refer to the instructions of the manufacturer of the coating substance.**


 **Before opening a pressure container, the compressed air feed must always be shut off and the container rendered pressureless via the venting valve!**

Stirring mechanisms must be switched off and secured against accidental switch-on!

 **Please always read and observe the safety and treatment instructions of the material manufacturer – in particular instructions relating to:**


- the wearing of protective equipment during the use of hazardous substances
- the avoidance of harmful or explosive environments

Electrostatic charges during operation of the pressure container can lead to electric shocks and spark formation.


 **The pressure container must therefore be earthed!**

Air lines, material pipes and containers, equipment and electrically conductive surfaces in the working zones must also be earthed.


Components connected by the operator (hoses and pipes, fittings, extraction devices etc.) must be reliably able to withstand the loads to be expected during operation of the pressure container (pressure, temperature, chemical and mechanical influences).


 **Before each operating step, check hoses and pipes for possible damage and ensure that they are firmly connected. Loose, pressurised hoses may cause accidents due to whiplash-like movement and the uncontrolled discharge of fluids.**


Rooms in which hazardous substances are stored or processed must have adequate ventilation. It may be necessary to install a ventilation system.

 **If the ventilation system fails, work must be stopped immediately and the stirrer switched off.**


Always comply with the relevant national and regional regulations.

 **Do not store any flammable substances, empty coating substance containers or other materials that have been in contact with the coating substance (paper, cloths etc.) in the container or in the working zone.**

 **Do not use halogenated detergents. Chemical reactions may cause explosive and caustic compounds!**

 **In the working zone, avoid open flames and red-hot components as well as equipment, tools and parts that can create ignitable sparks.**

 **Hang up “No Smoking” signs in a 5-metre radius of the container. Make fire extinguishers available if these are not already in place!**

 **Comply with all national and regional water protection regulations!**

Comply with all national and regional waste disposal regulations!



To ensure safe operation of the pressure container, please comply with the accident prevention regulations issued by the relevant trade associations – in particular (in Germany):

- *BGV A1 (general regulations and in-company work protection principles)*
- *BGV B1 (handling hazardous substances)*
- *BGV D 15 (working with liquid spraying equipment)*
- *BGV D 25 (processing of coating substances)*
- *TRB 500 (process and inspection guidelines for pressure containers)*
- *TRB 600 (mounting of pressure containers)*
- *TRB 700 (operation of pressure containers)*
- *CHV 12 (regulations on pressure containers)*

The relevant regulations and rules for Germany (written in German) can be ordered from the publishing company:

*Carl Heymanns Verlag KG
Luxemburger Str. 449
50939 Cologne*

3 Inspection by qualified experts in accordance with the european directive 89/391/EWG

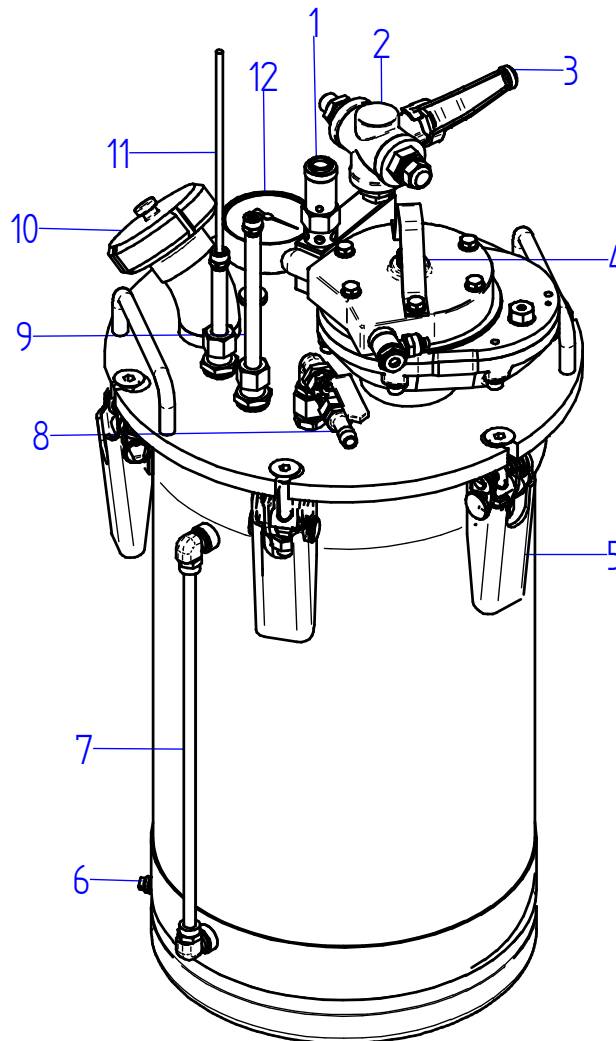
Pressure containers must be checked on a regular basis by qualified experts. The inspection intervals depend on operational experience, the substances used, and the outcome of previous inspections.

However, the following periods may not be exceeded:

- Internal inspection: every 5 years
- Pressure testing: every 10 years
- External inspection: every 2 years

Internal and external inspection must be performed after 5,000 stress reversals. Record each startup and rundown of the container with a pressure fluctuation range > 3bar (equivalent to one stress reversal).

4 Basic design




1	safety valve
2	compressed air connection
3	ball valve
4	stirrer (optional)
5	clamp fastener
6	earthing connection
7	level gauge (optional)
8	extraction point
9	level probe minimum (optional)
10	filler (optional)
11	level probe maximum (optional)

The material extraction point (8) can be located the bottom or routed through the container cover via a riser pipe. The material extraction point may have more than one port for the connection of more than one consumer. The air fitting can be equipped with connection options for additional compressed air consumers – such as stirrers, handheld spray guns etc.

5 Installation, mounting of the container

Pressure containers must be installed in such a way that:

Krautzberger 	Dokumentation DOK-316-GB.doc	Description	MDM
		Type	10-20I
		Order-No.	200-0266, -0281, -0282

- neither employees nor third parties are at risk
- they are accessible for regular inspection
- the rating plate is easily visible
- the pressure container can be operated from a safe and stable position
- they are protected against external mechanical influences
- they are protected against unauthorised access

5.1 Connections

- Connect the material pressure hose leading to your extraction point to the material outlet (4)

i *The material outlet can be located the bottom or routed through the container cover via a riser pipe. The material outlet may have more than one port for the connection of more than one consumer.*

- Connect the compressed air feed to the air connection (6)

i *The compressed air supply must be dry and oil-free. Make the necessary provision for a suitable shutoff device (ball cock).*
The compressed air fitting can be equipped with more than one (if necessary adjustable) outlet for the connection of additional consumers (spray gun, stirrer etc.).

- Connect the waste air line to the safety valve
- Connect the earthing device and earth all conductive components in the working zone
- **Check firmness of all connections!**

5.2 Filling



Each time before you fill the container:

- Shut off the compressed air feed
- Vent the container via the ball cock until the container is pressureless
- Switch off stirrer – if present



Do not open the container cover until the container has been fully vented!

There is increased risk of fire when you open the cover! In the working zone, avoid open flames and red-hot components as well as equipment, tools and parts that can create ignitable sparks!

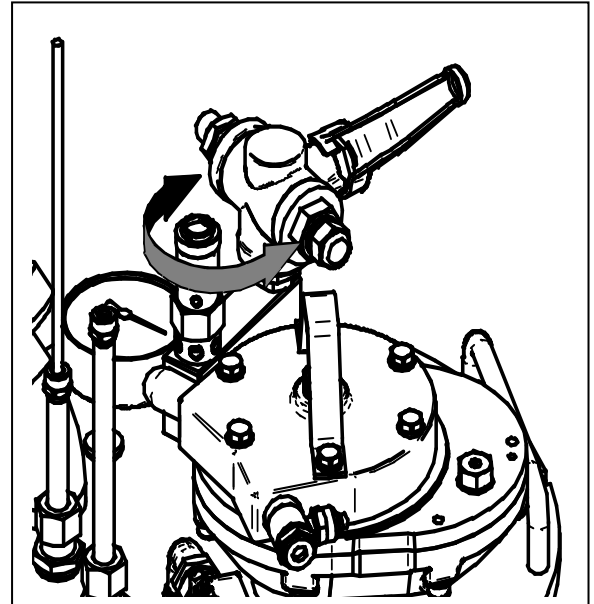
When removing the cover, make sure that the stirrer blades do not knock against the container wall, thus creating ignitable sparks.

- Loosen star-grip screws/clamp fasteners
- Remove cover
- Clean pressure container using a suitable detergent when necessary
- Fill pressure container. Do not exceed the maximum filling level (see Technical data)!

- Close cover, tighten star-grip screws/clamp fasteners
- Open compressed air feed

6 Regular checks, maintenance

- Check the proper functioning of the safety valve every time before you begin operating the system! To test the valve function, turn the knurled screw of the safety valve to the left. If the valve does not blow off, the pressure container must not be operated until a new safety component has been fitted!
- Check the air and material lines and their connections for seal-tightness and firm seat every time before you begin operating the system.
- Before opening the pressure container, check the cover gasket for soiling, wear and damage.



Before opening a pressure container for all maintenance., servicing and cleaning work on the open container, the air feed must always be shut off and the container rendered pressureless!

Stirring mechanisms must be switched off and secured against accidental switch-on!

7 Cleaning, disposal

Clean the pressure container after use thoroughly using a suitable detergent. Ensure that the sealing surfaces between container and container cover are clean.

Dispose of materials accumulating during cleaning (cloths etc.) through the appropriate channels. Comply with the regulations of the local waste disposal authorities.



Comply with the safety instructions of the detergent manufacturer. Detergents may be harmful to your health and be easily flammable!

Ensure that the detergent is compatible with the container materials!

8 Wearing parts, spare parts

Gaskets are subject to material fatigue and natural wear. Defective gaskets are noticeable from the leakage of air or coating substance on fittings or connections. Gaskets may be made of EPDM , FKM or PE.

When changing gaskets, check compatibility with the coating substance used.

Cover gasket for 10-litre and 20-litre container

Material	Article number
EPDM	5707-010-0685
Viton	5707-010-0734
PE	5707-010-0760
PTFE	5707-010-0764

9 Troubleshooting

Problem	Cause	Remedy
Leakage between container flange and cover	Container flange, cover gasket soiled or porous	Clean or replace
Leakage at compressed air fitting	Gaskets defective	Replace gaskets
Leakage at stirrer mounting	Gasket defective	Replace gaskets
Leakage at material outlet	Gasket defective	Replace gaskets
Material pressure cannot be adjusted	Material pressure regulator defective	Replace

10 Technical data

	10-litre type	20-litre type
Compressed air feed	dry, oil-free, filtered 2.5-6bar	dry, oil-free, filtered 2.5-6bar
Max. filling volume	12 litres	22,5 litres
Ambient temperature	-10 to +50°C	-10 to +50°C
Temperature – coating material	-10 to +50°C	-10 to +50°C
Test pressure/Date	3.6bar/8.6bar	3.6bar/8.6bar
Setting pressure of over-pressure valve	customer-specific	customer-specific
Weight (empty)	15-18kg	17-25kg
Dimensions	max. 1025x495mm	max. 1300x625mm
Mains voltage – electric stirrer	230V/50Hz	230V/50Hz

Regular inspections by qualified experts

Data on rating plate:

Manufac-
turer/Supplier:.....

Production no.:.....Production year:..... Manufacturer's sym-
bol:.....

	Inspection 1	Inspection 2	Inspection 3	Inspection 4
Internal inspection	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective
<i>Pressure container walls (depending on condition): sight check, thickness measurement, surface fissure inspection, ultrasound test, radiographic test General condition of pressure container Function testing of safety components</i>				
Pressure test	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective
External inspection	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective	<input type="checkbox"/> OK <input type="checkbox"/> defective
<i>General condition, inspection of equipment components for:</i> <ul style="list-style-type: none"> ▪ presence ▪ adjustment ▪ functioning <i>Function testing of safety components</i>				

Inspection 1	<input type="checkbox"/> Inspection did not show any problems	Date:.....Qual. expert:.....
<input type="checkbox"/> Inspection revealed the following problems:		
Inspection 2	<input type="checkbox"/> Inspection did not show any problems	Date:.....Qual. expert:.....
<input type="checkbox"/> Inspection revealed the following problems:		
Inspection 3	<input type="checkbox"/> Inspection did not show any problems	Date:.....Qual. expert:.....
<input type="checkbox"/> Inspection revealed the following problems:		
Inspection 4	<input type="checkbox"/> Inspection did not show any problems	Date:.....Qual. expert:.....
<input type="checkbox"/> Inspection revealed the following problems:		

EG-Konformitätserklärung

EC-Declaration of conformity
gemäß Anhang VII der EG – Druckgeräte-Richtlinie 97/23/EG
as defined by Pressure Equipment Directive 97/23/EC Annex VII



Krautzberger GmbH
Stockbornstraße 13
65343 Eltville am Rhein

HIERMIT ERKLÄREN WIR, DASS FOLGENDES PRODUKT

HEREWITH WE DECLARE, THAT THE PRESSURE EQUIPMENT

Bezeichnung Materialdruckbehälter MDM mit 10-20l Inhalt;
Type 2,5 - 6bar Betriebsdruck

Artikel-Nummer/Serial-no.

200-0281 200-0282

Artikel-Nummer Sonderbehälter

Serial-no. special version

Funktion/Function

Druckluft betriebener Materialdruckbehälter zur Druckbeaufschlagung von flüssigen und niederviskosen Medien

IN DER GELIEFERTEN AUSFÜHRUNG FOLGENDEN BESTIMMUNGEN ENTSPRICHT:
CORRESPONDS TO FOLLOWING PERTINENT REGULATIONS IN THE DELIVERED IMPLEMENTATION

EG – Druckgeräte-Richtlinie 97/23/EWG, EG-Niederspannungs-Richtlinie 73/23/EWG (nur bei elektrischen Anbauteilen), EG-EMV-Richtlinie 93/68/EWG (nur bei elektrischen Anbauteilen), EG-Maschinenrichtlinie 98/37 EG (bei Elektro- und Druckluftrührwerken)

Folgende harmonisierte EU-Normen wurden angewendet:

APPLIED HARMONIZED STANDARDS, IN PARTICULAR:

- DIN EN 1050 (bei Rührwerken)
- DIN EN 292-1/2 (bei Rührwerken)
- DIN prEN 12757-1 (bei Rührwerken)
- DIN EN 60204-1 (bei Elektrorührwerken)

Folgende nationale Normen wurden angewendet:

APPLIED STANDARDS AND TECHNICAL SPECIFICATIONS, IN PARTICULAR

- AD 2000 Merkblätter

ANGEWANDTES KONFORMITÄTSBEWERTUNGS- Modul A1
VERFAHREN:

Benannte Stelle gem. Artikel 12 Druckgeräte-Richtlinie: TÜV Technische Überwachung Hessen GmbH

ENGAGED NOTIFIED BODIES:

Rüdesheimer Strasse 119
64285 Darmstadt

Datum: _____

i.A.  _____

Angaben zum Unterzeichner: M. Stoffels,
Leiter Konstruktion

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