SURA CHEMICALS

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MDG

MATERIAL PRESSURE TANK

for the contunious dispensing of viscous liquids

Product and application information

SurA Chemicals GmbH
Passion for chemistry

MDG

Material pressure tank

with a capacity of up to 5 kg

Our company

Welcome to SurA Chemicals GmbH. The company has a long experience and an extensive know-how in the fields of protective and decorative coatings, adhesives, special chemicals such as hydrophobic agents and adhesion promoters, systems and equipment for surface pretreatment, as well as contract manufacturing for the development and production of customer-specific products.

The focus of our technologies and innovative products is on the sectors of chemical industry, automotive, micro/-electronics, electrical engineering, healthcare, optics, glass & metal industry, plastics processing, printing and graphics industry, as also solar technology.

The company is TÜV certified according to DIN EN ISO 9001: 2015. Our products comply with the RoHS directive and are registered according to the REACH regulation. The devices manufactured in our house are CE-marked.

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Ideal

for the continuous dispensing of viscous liquids

This product and application information is intended to ensure the correct use of the Material pressure tang MDG and to prevent eventual mistaces that can lead to quality insufficiencies or adverse effects.

1. Introduction

The Material pressure tanks MDG 4 and MDG 12 enable a continuous dispensing of viscous liquids and thus significantly reduce the occupational time during application.

By using the Material Pressure Tanks MDG, the dispensing process can be carried out continuously over a long period of time. In addition, by increasing / decreasing the pressure, the flow rate can be increased or decreased respectively.

The dispensing process is controlled directly at the Material Pressure Tank by means of compressed air as also with the corresponding dispensing technology. This enables a comfortable handling during dispensing, without permanent refilling of cartridges.

2. Material pressure tank MDG 4

The Material Pressure Tank MDG 4 with a capacity of up to 2 liters, is equipped with a pressure regulator with manometer as well as a safety valve. The Material Pressure Tank enables the dispensing of our SurACer® doming resins or other viscous liquids over a long period of time, resulting in a continuous application and thus significantly reducing the occupational time for the production of doming products. In addition, by increasing / decreasing the pressure the flow rate can be increased or decreased respectively.

2.1 Connection of components

1. Insert the air-hose 1 (6/4 mm) into the blue ringed fitting of the compressor and its opposite end in the blue ringed fitting of the material pressure tank (fig. 1).

2. Connect the material-hose 2 (6/4 mm) to the silver fitting on the steel cover of the Material Pressure Tank (fig. 2). Unscrew the lock nut, put it over the hose, strap the end of the hose over the connector pin and fix it with the lock nut.

Insert the opposite end of the material-hose 2 (6/4 mm) into the luer/lock-connector of the dispensing-valve (fig. 3).

3. In case of using a digital / pneumatic dispenser, insert the quick-fit coupling plug of the air-hose 3 into the connector of the Material Pressure Tank (fig. 4) and its opposite end into the air-in connector of the digital dispenser.

4. Connect the desired needle tip on the opposite end of the dispensing valve (fig. 5).

2.2 Material pressure tank MDG 4 - use instructions

1. Fill the weighing and mixing cup with the doming resin (1x 1000 ml weighing and mixing cup included).

2. Open the Material Pressure Tank by unscrewing the star knob screws of the MDG-cover in crossover manner (fig. 6).

3. Put the resin-filled weighing and mixing cup into the Material Pressure Tank (fig. 7). Optional, a 2000 ml weighing and mixing cup can be used.

4. Fit the MDG-cover so that the screws are aligned exactly to the threats of the body; please have a look onto the sealing-O-ring, it has to fit exactly into the groove of the body (fig. 8).

5. Close the Material Pressure Tank by tightening the star knob screws of the MDG-cover in crossover manner. Please Note: only hand-tight the screws, do not use force!

6. Turn on the compressor and adjust the pressure on approx. 4 bar.

7. Open the air-inlet of the Material Pressure Tank (fig. 9).

8. Open the air-inlet into the Material Pressure Tank by adjusting the pressure regulator: unlock the valve by pulling the handle, turn clockwise to increase the pressure; turn counter-clockwise to reduce the pressure; a material pressure of approx. 2 bar is recommended.

9. The material flow can be regulated by increasing / reducing the pressure. Attention! The Material Pressure Tank is designed for max. 6 bar. In case of exceeding the maximum pressure the build-in safety relief valve will open and a further increase of the pressure will be prohibited (fig. 11).

10. Dispense the doming resin onto the favored surface using the dispensing valve.

11. Refill the doming resin by closing the air inlet valve at the Material Pressure Tank.

12. Blow of the overpressure completely by carefully and slowly opening of the outlet valve of the Material Pressure Tank (fig. 12).

13. Open the Material Pressure Tank (fig. 6)

14. Remove the cover of the Material Pressure Tank and take out the weighing and mixing cup.

15. Refill the weighing and mixing cup with doming resin and go on as described from poin 3 onwards.


Figure 1


Figure 2


Figure 3


Figure 4


Figure 5


Figure 6


Figure 7

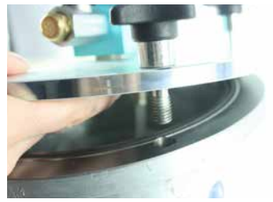
Figure 8


Figure 9


Figure 10


Figure 11


Figure 12

3. Material pressure tank MDG 12

Der Materialdruckbehälter MDG 12 ist mit einem Druckregler mit Manometer und einem Sicherheitsventil ausgestattet und hat ein Fassungsvermögen von bis zu 5 Litern. Der Materialdruckbehälter ermöglicht die Dosierung der Dominharze SurACer® (oder anderer viskosen Flüssigkeiten) über längere Zeit in einem kontinuierlich verlaufenden Arbeitsgang und verringert damit deutlich die Arbeitszeit für die Anfertigung von Domingartikeln. Zusätzlich kann die Fließgeschwindigkeit des Domingharzes durch eine Druckerhöhung/- senkung gesteigert bzw. verringert werden.

Der Anschluss der Geräteteile sowie die Bedienung des Materialdruckbehälters MDG 12 sind identisch mit dem Materialdruckbehälter MDG 4. Der Unterschied besteht darin, dass der Materialschlauch die Dimensionen 8/6 hat.

4. Technical Data

Technichal Data of the material pressure tanks MDG

Properties	MDG 4	MDG 12
Body Material	steel-zinc plated	steel-zinc plated
Volume	max 2 Liters	max 5 Liters
Max. working pressure	6 bar	6 bar
Inner diameter	162 mm	244 mm
diameter of opening	222 mm	320 mm
Height without cover	225 mm	358 mm
Weight	10 kg	21 kg
Standards	CE	CE

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