



ABP 35 G12 # 28 265 ABP 35 G24 # 28 266





#### Please observe:

This operation .manual contains all necessary information. Please read carefully to avoid damages and faults. All rapid pieces of equipment are checked carefully before delivery for their perfect composition and function. In case of improper use all rights to claim under guarantee are void.



# **OPERATION MANUAL**

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## 1. Safety instructios



**Please observe:** This operation manual contains all necessary information. Please read carefully to avoid damages and faults. All Rapid pieces of equipment are checked carefully before delivery for their perfect composition and function. In case of improper use all rights to claim under guarantee are void.



Make sure that only skilled staff is working with this device in order to prevent damages and accidents caused by improper use.



Environmental conditions i.e. humidity, low temperatures, sunlight and contamination may damage device.



Before using the device make sure that it is not contaminated to prevent any injury. Avoid any contamination of device as well as of environment. In case of any contamination during operation of device take care that it is immediately and professionally removed.



Always wear safety cloths respecting the applicable regulations for accident prevention



Only use this device conforming to its purpose and function. Improper use can cause severe injuries.



Caution – moving parts, sharp edges, hot machine parts or exhausting steam can cause severe injuries.



Before use always check the device for damages and leaks. In case of any damage or leak make sure that it is repaired professionally before use. Operation of defect device may cause severe injuries.



In case of any sign of damage or malfunction during operation of device stop device immediately to prevent injuries. Before next use make sure that the device professionally repaired.



Take care that in case of an accident all emergency measures are on hand



#### 2. General advice



#### ATTENTION!

The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction.



#### ATTENTION!

Functioning under by-pass conditions is only allowed for brief periods of time (2-3 minutes maximum).

Given the limited weight and size of the pump (see overall dimensions), moving the pumps does not require the use of lifting devices.

The pumps were carefully packed before shippment. Check the packing material on delivery and store in the dry place.

#### 3. Technical data

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Model	# 28 265 ABP 35 G12	# 28 265 ABP 35 G24			
Operating voltage	12V	24V			
Protection class	IP 55				
Working temperature min. / max.	-10°C (14°F) / +60°C (140°F)				
Air humidity max.	90%				
Dimensions	ca. 296x182x174 mm (LxBxH)				
Suction hose	1,5 m				
Delivering hose	6 m				
Nozzle	manual				
Meter	-				
Noiselevel (1m distance)	80db				

## 4. Description

The ABP 35 G12 and ABP 35 G24 are electrical Pumps suitable for urea, weak acid and weak alkaline fluid etc. or water.

Pump: Self-priming, volumetric, diaphragm pump, equipped with by-pass valve.

Motor: Asynchronous motor, single-ohase, 2 pole, closed type (Protectionclass IP 55 in conformance with EN

60034-5-86 regulations) self ventilated

### 5. Assembling / Installation

#### 5.1 Disposing of the packing material

The packing material does not require special precautions, not being in any way dangerous or polluting. Refer to local regulations for ist disposal.

#### 5.2 Electrical power suply

- 5.2.1 During installation and maintenance, make shure that the electric supply lines are not live
- 5.2.2 Always turn off the switch before supplying electrical power.
- 5.2.3 Check the connect rotation direction of the DC pump. If it is inverted, check the polarity of the connection cable.
  - a) RED cable: positive pole (+)
  - b) BLACK cable: negative pole (-)



#### ATTENTION!

Power from lines with values outside the indicated limits can damage the electrical components.

### 5.3 Preliminary inspection:

- Check that the machine has not suffered any damage during transport or storage.
- Clean the inlet and outlet openings, removing any dust or residual packing material.
- Make sure that the motor shaft turns freely
- Check that the electrical specifications correspond to those shown on the identification



### plate.



### ATTENTION!

The motors are not of an anti-explosive type ! Do not install them where inflamable vapours can be present !

## 5.4 Connecting

- Before connection, make shure that the tubing and the suction tank are free of dirt and thread residue that could damage the pump and ist accessories.
- Only use suitable tubings, flow meter and nozzles and also adequate clamps (not included in delivery!).
- Do not use conical threaded joints that could damage the threaded pump openings if excessively tightened.

### Step 1: Suction hose:

- Connect the suction hose to the hose tail (3) at the inlet of the pump (1).

Step 2: Delivery hose:

- Connect the delivery hose to the hose tail (3) outlet of the pump (1) or the flow meter. Step 3: Flow meter (optional):
- Connect the flow meter by the elbow to the outlet of the pump.
- Step 4: Nozzle (optional):
- Connect the dispensing nozzle by the clamp to the delivery hose.

### 5.5. Dispensing

After installation the completed pump system as picture indicated, connect the power supply and start dispensing.

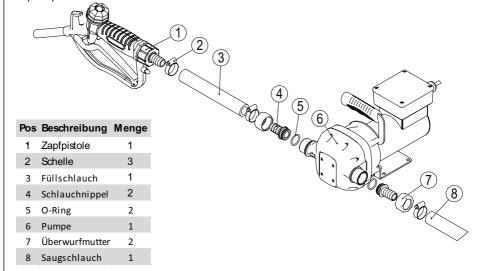


### ATTENTION!

It is the installer's repsonsibility to use tubing with adequate characteristics. Loosening of the Connections (thereded connections, flanging, gasket seals) can cause serious ecological and safety problem.

Check all the connections after the initial installation and on a daily basis after that. Tighten the connections, if necessary.







## 7. Operation

- 3.3 Working cycle
- 3.3.1 Extreme operating conditions with working cycles longer than 30 minutes can cause the motor temperature to rise, thus damaging the motor itself.
- 3.3.2 Each 30-minute working cycle should always be followed by a 30-minute power-off cooling phase.
- 3.3.3 MAXIMUM BY-PASSING TIME: 3 MINUTES!
- 3.3.4 DO NOT RUN DRY OVER 30 SECONDS!



#### ATTENTION!

Functioning under by-pass conditions is only allowed for brief periods of time (2-3 minutes maximum).

- 6. Daily use
- 6.1 If using flexible tubing, attach the ends of the tubing to the tanks. In the absence of an appropriate slot, solidly grasp the delivery tube before beginning dispensing.
- 6.2 Before starting the pump, make shure that the delivery valve is closed (dispensing nozzle or line valve).
- 6.3 Turn the ON/OFF Switch ON. The by-pass valve allows functioning with the delivery closed online for brief periods
- 6.4 Open the delivery valve, solidly grasping the end of the tubing.
- 6.5 Close the delivery valve to stop dispensing.
- 6.6 When dispensing is finished, turn off the pump.



#### ATTENTION!

Function with the delivery closed is only allowed for brief periods (2.3 minutes maximum)! After using, make shure the pump is turned off!

#### 8. Maintanence and trouble shooting

The pump is designed and constructed to require a minimum of maintenance. In any case always bear in mind the following basic recommendations for a good functioning of the pump:

- On a weekly basis, check that the tubing joints have not lossened, to avoid any leakage.
- On a monthly basis, check the pump body and keep it clean of any impurities.
- On a weekly basis, check and keep clean the suction filter.
- On a monthly basis, check that the electrical power supply cables are in good condition.

Problem	Possible cause	Corrective action
The motor is not turning	Lack of electrical power	Check the electrical connecting
	Motor problems	Contact the service department
The motor turns slowly when starting	Low voltage in the electric power line	Bring the voltage back within the anticipated limits
Low or no ow rate	Low level in the suction tank	Rell the tank
	Filter clogged	Clean the Ite
	Excessive suction pressure	Lower the pump with respect to the level of the tank or increase the cross-section of the tubing
	High loss of head in the delivery circuit (working with the by-pass open)	Use shorter tubing or of greater diameter
	By-pass valve blocked	Dismantle the valve, clean and/or replace it
	Air entering the pump or the suction tubing	Check the seals of the connections
	A narrow in the suction tubing	Use tubing suitable for working under Suction pressure
	Low rotation speed	Check the voltage at the pump, Adjust the voltage and/or use cables of greater cross-section



Problem	Possible cause	Corrective action
Low or no ow rate	The suction tubing is restung on the bottom of the tank	Raise the tubing
Increase pumpe noise	Cavitation occuring	Reduce suction pressure
	Irregular functioning ov the by-pass	Dispense fluid until air is purged from the by pass system
Leakage from the pump body	Diaphragm damaged	Check and replace the diaphragm

## 9. Disposal

- 9.1 Completely empty all parts of the equipment ( hoses, pumps, tanks, etc.) and given case blown out with air.
- 9.2 Dangerous parts of the appliance must be made unusable f.e. perforate pressure vessel, deform hose reels, etc.
- 9.3 Rubber, metals, glass ect. must be separated.

  Dispose material fractions according to the local laws and regulations.



#### YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

The pertinent regulations for the registration, setting up and operation of equipment for dealing with materials hazardous to water must always be complied with by the user.

#### 10. Warranty

- 10.1 In case of insufficient maintenance, faults on operation, use of not adequate spare parts or attachments all liabilities and rights of claim under guarantee are void.
- 10.2 The manufacturer is not liable for improper use of the container or ignoring the safety instructions.
- 10.3 Technical modifications are subject to change without announcement.



