

# Compressor Booster Unit

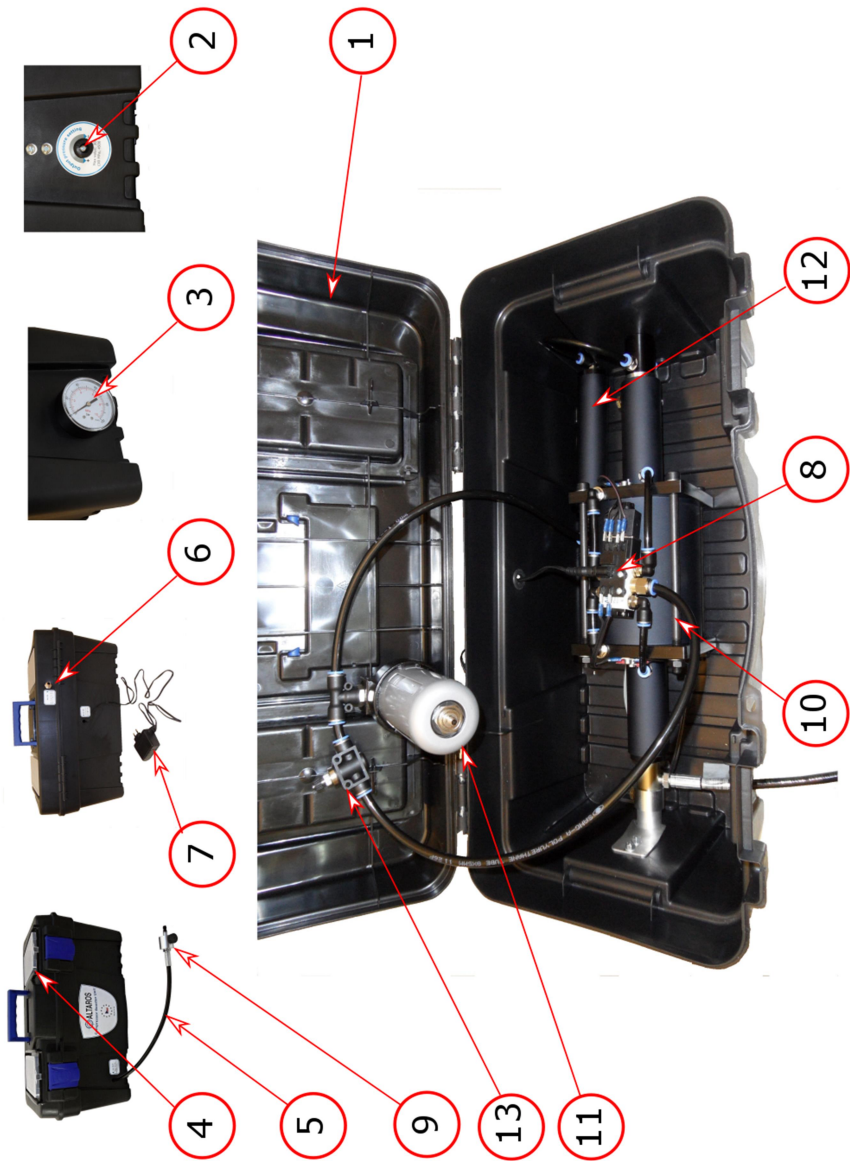


Congratulations for buying an Altaros product,  
We believe you will be satisfied with it!

***Warning: For home use only!***

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## **Description of product parts**

1. Outer casing of the device
2. Setting screw for setting the output pressure
3. Middle pressure manometer
4. Space for storing spare parts
5. Output high pressure hose
6. Input quick release air pin
7. Power supply cable 12V
8. Control unit
9. Pressure safety lock
10. Screws
11. Filter/water separator
12. Final protection from humidity
13. Air flow setting screw

## **Use of the product**

Compressor booster unit Altaros is intended for end consumer use only, it is not intended for commercial use.

## **Safety instructions**

### **Warning!**

You should always observe basic safety instructions when using the product, including the following safety instructions, in order to lower the risk of injury or damage.

1. Study the instructions for use carefully before using the product.
2. Using other fittings or auxiliary appliances and performing other operations than the ones recommended by these instructions for use could cause injury to the device operator.

3. Keep the instructions for use, you might need to consult them in future. You can also find them on our website.

## **How to use the device, other person's safety**

Always be careful when using the compressor booster unit, concentrate on your work and use common sense.

1. Don't work with the device if you are tired, under the influence of alcohol, drugs or medication causing sleepiness.
2. The device is not intended to be used by minors or by persons who are not experienced enough to be using such device without supervision.
3. The device is not intended to be used by persons with limited corporal, sensory or mental capabilities, unless they are supervised, or unless they were instructed how to use the product by a person responsible for their safety.
4. The device must not be used as a toy. High pressure is dangerous. Do not point the outpouring compressed air toward yourself or other persons or animals.
5. Use the device only in dry environment (prevent water from entering the control unit, do not immerse the device in water.)
6. To lower the risk of damage to the plug and the power supply cable, never pull the cable in order to unplug the device.
7. Do not pull the cables or hoses to move the device.

## **Instruction for filling containers with high pressure air**

1. Filling with high pressure air are very dangerous and can cause serious accidents or the death of the user.

**To prevent injury please pay attention to these rules and take them very seriously!**

2. Don't fill the gas cylinders with **higher pressure** than was specified by manufacturer of containers!
3. During filling of container you should continuously check actual pressure inside
4. Before filling you should check the pressure setting for automatic stop function, because someone could change it independently on you. Max value is 300 bar (4500 PSI) .
5. Every time before filling you determine time of filling and after this time personally check pressure inside gas cylinders.
6. Our booster unit can shortly operate with pressure up to 500 bar (7000 PSI). Never set up automatic stop function to value above 300 bar. Operation with higher pressure than 300 bar can cause damaging of our unit.
7. If you plan filling gas cylinders with working pressure 200 bar (3000 PSI), beware to the high pressure (500 bar) that could tear the container If you don't follow instructions above!
8. If you plan fill mainly 200 bar gas cylinders, we recommend changing of burst disk on multifunctional valve to burst disk with value 4500 PSI because higher pressure could tear the container.

## **Other safety instructions concerning the booster unit**

1. The booster unit is only intended for personal use as a hobby product.
2. The output compressed air is not safe for breathing, so never inhale the air from the compressor or the breathing appliance attached to this unit.
3. Pump up and inflate objects only according to the recommendations of their producer. Exceeding the recommended pressure could cause rupture and possibly serious or deathly injury.
4. Never drill any holes into the device, never perform any welding or modifications of its parts.
5. Use hoses and tools designated for the same (or higher) maximum operation pressure mentioned in the technical parameters in these instructions for use.
6. The producer Altaros Air Solutions Ltd. is not liable for damages or injuries due to not following the rules written in this manual.

## **Device operation**

1. Always unwrap fully the 12 V power supply cable before each use of the device.
2. Attach the device, using the power adaptor, to the electric power supply network.
3. Set the setting screw according to the chapter: Setting screw of the air flow

4. Attach the output high pressure hose to the target device
5. Perform control according to the chapter: Examination, service and maintenance
6. The unit will switch on automatically after the input pressure has been attached, and it will switch off automatically when the desired output pressure has been reached.

### **Air flow setting screw**

**For correct functioning of the booster unit, it is necessary assure that the driving workshop compressor is set up by regulator to supplies the highest possible output pressure or that input hose to our unit is connected to the unregulated outlet of workshop compressor. Workshop compressor should operate according to the general principle for piston compressor operation – which is: the recommended time of running and standby should be in the 60/40 ratio (running/standby).** This ratio can be reached by limiting the flow, so that the driving compressor refills the compressor air storage up till the switch-off pressure and then it stops until the pressure in the compressor air storage drops to the switch-on pressure. The airflow from the driving compressor to the driven compressor booster can be increased or decreased by correct setting of the setting screw. Screwing setting screw in decreases the flow, while unscrewing it increases the flow. If the driving compressor doesn't reach the maximum output pressure given by the producer, you have to decrease the air flow, which will subsequently increase the output pressure in the compressor air storage. In case that the driving compressor can run only permanently, it is advised to set the value of air flow (by the setting screw) in such a way, that the amount of taken and input air is equal and the pressure in the air storage of the driving compressor doesn't drop under 5 bars (in the ideal case, the pressure value should be above 7 bars)



## Examinations, service and maintenance

The compressor booster unit Altaros was designed for long service life and only minimum maintenance and service needs. We would nevertheless ask you to keep the following recommendations

1. Before operating the device, always check whether the device or its parts are not damaged. Check whether the power supply cable, the pressure hose or other parts which could influence the device operation are not damaged.
2. The supplied adapter doesn't need any maintenance.
3. Be aware that the Manometer is only for your information. For it to give exact values it has to be checked and calibrated regularly.
4. Clean the outer casing of the device with moist cloth regularly.
5. Do not use dissolvents or abrasive medium for cleaning.
6. If any part of the device is damaged, do not use it until the damaged part is repaired or replaced.
7. Prior to repairing or replacing a faulty part, switch the device off (plug it out of the power supply and the supply of compressed air).
8. During operation, the water separator (pos. 11) collecting water that after disconnecting the input pressure drops to the bottom of the booster unit, and after that through the drain hole onto the floor. **The presence of water at the bottom of our units is normal state and there is no need to worry!**

## Check and replacement of the air dryer filling

The filling of the air dryer is situated inside the cylinder (see number 12 in the diagram). It is appropriate to check the condition of the filling always after the volume is filled by the equivalent of a 15 litre container to 300 bars pressure. The check is done in the following manner: you have to unscrew the container stopper, but only the stopper situated on the side from which the hose into the medium pressure piston comes out. Never unscrew the second stopper, to which the pressure from water separator is supplied. Unscrew the stopper with a spanner and pads on the hose connecting piece. After unscrewing the stopper, check visually the colour of the filling. The colour of a new filling should be bright orange. In case the filling is dark green, the filling must be replaced for a new one or regenerated. Regeneration of the old filling is done in the following manner: the filling has to be heated on a glass tray to temperature of 100-120 °C. You have to keep this temperature until the colour of the filling turns back to bright orange. **Never perform the filling regeneration in a microwave oven!** Doing so will cause damage to the filling and subsequently also damage the compressor booster. During the filling regeneration, the absorbed humidity evaporates and the filling can function again as a humidity dryer. The regeneration can be done several times. A substance named „Silikagel“ may be used as a new filling. When screwing the stopper on again, screw it in only lightly, so that the wall of the stopper only touches the wall of the container. Use your fingers to screw the stopper. Do not screw the stopper with a spanner!

## **Warranty and conditions for warranty claims**

Our company grants warranty for material or production defects for 24 months since the date of sale. Within this warranty period we guarantee repair or replacement of the device for free, under the following conditions:

1. The device has to be transported to our address with the attached copy of the purchase receipt.
2. The device has been used and maintained in accordance with the instructions for use.
3. The device has no signs of damage by overload or wear and tear
4. The device has not been adapted, or else the parts were damaged during their replacement due to failure to keep the instructions for assembly.
5. The warranty doesn't cover consumable such as the seals.
6. The producer is not liable for damages due to unsuitable or unauthorized use of the device, the device operator is exclusively liable for this risk.

### Technical data:

Input voltage	100- 240 V AC
Output current	0,6 A
Input voltage (control unit)	12 V DC
Output current (control unit)	1 A
Input pressure	Min 5 Bar
	Max 10 Bar
Output pressure	Max 300 Bar
Size (Height x width x depth)	30x30x60 cm
Weight	5 kg

The output pressure and the time needed to fill the pressure container depends directly on the intensity of the input pressure and the amount of supplied air (setting the flow on the tightening screw into the booster)

## Problem solving

In the chart below you can find the most common malfunctions and instructions how to resolve them. In case you are not sure what to do, feel free to contact us!

Number	Malfunction	Possible cause	Possible solution
1	Water comes out of the output high pressure hose during depressurization	The air dryer filling was saturated by water	Regenerate or change the dryer filling
2	The driving compressor keeps on running	The setting screw for regulating the flow is too open	Screw in the setting screw for regulating the flow (restrict the flow)
3	When the cylinder is attached to the compressor, there is pressure leak	The bleed screw on the hose is not fastened enough	Screw in the bleed screw on the hose
		The end of the high pressure hose is not screwed sufficiently	Screw in both ends of the high pressure hose
		Damaged or fouled seal on the hose plug	Check the seal on the hose plug
		Damaged or fouled seal on the pressure switch	Check the seal on the pressure switch
		Damaged or fouled seal on the pressure switch piston	Check the seal on the pressure switch piston
		Some other cause	Contact the service department
4	The unit doesn't move periodically	Check if the device is plugged into a power supply	Plug the unit into a power supply
		Check if the device is connected to the pressured air supply	Connect the pressured air supply to the unit
		Check if all the cables are plugged into the control unit	Plug all the cables into the control unit
		The required output pressure has been reached	Set the required output pressure in advance
		The limited switch is stuck	Plug out and then plug in the power supply
		The limited switch doesn't fit tightly	Clean the contact surfaces
		The distribution hoses compressor/distribution piston are disconnected	Connect all the disconnected hoses
		Damaged or fouled seal on the driving piston	Check the seal on the driving piston
		Some other cause	Contact the service department
5	The required output pressure is too low	The output pressure setting value is too low	Set higher output pressure
6	The middle pressure manometer shows a hike increase of pressures, higher then 60bar	Damaged or fouled seal on the high pressure suction valve	Check the seal on the high pressure suction valve
7	The pressure is leaking within the main driving cylinder	Damaged or fouled seal on the unit sideboard	Replace or clean the seal on the unit sideboard

Number	Malfunction	Possible cause	Possible solution
8	The compressor keeps operating, but the output pressure wouldn't increase	Low pressure in the middle pressure part	Check the values of output pressure on the middle pressure manometer
		Leaking middle pressure / high pressure hose	Check the tightness of the middle pressure / high pressure hose connection
		Fouled or damaged seal on the high pressure output valve	Check the seal on the high pressure output valve
		Fouled or damaged seal on the high pressure suction valve	Check the seal on the high pressure suction valve
		Damaged rod seals on the high pressure cylinder	Replace the rod seals of the high pressure cylinder
		Some other cause	Contact the service department
9	Manometer on the middle pressure part shows incorrect values	Leaking middle pressure / high pressure hose	Check the tightness of the middle pressure / high pressure hose connection
		Low input pressure	Set the setting screw to lower flow
		Low input pressure	Connect a source of pressured air with higher pressure
		Damaged or fouled seal on the middle pressure suction valve	Check/clean the seal on the middle pressure suction valve
		Damaged or fouled seal on the output middle pressure valve	Check/clean the seal on the output middle pressure valve
		Some other cause	Contact the service department

**Contact us:**



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