



Penascop



NEW CONCEPT AIR VACUUM CLEANER

SHIPBUILDING, REFINERY, AIRCRAFT AND INDUSTRIAL EQUIPMENT MANUFACTURING PLANTS



Electricity
NO



Motor
NO



Trouble
NO



Penascop Seatech Co.,Ltd

INNOVATIVE TECHNOLOGY FOR CLEANING

Air vacuum cleaners operate without electricity and have no moving parts providing a spark-free environment. PENASCOP AIR VACUUM CLEANERS powerfully collect the unnecessary objects that come out at the various work spots such as shipbuilding, the factory and the gas station etc. It can be used for water, oil, cutting chips, pellets, dust and sludge etc. regardless dry or wet. And, since there is no rotation part inside, there is no fear of troubles that are caused by wear etc.

MODEL AND SPECIFICATION

	PT-V700	PT-V400
Power (Air consumption)	Compressed air 1-7bar (0.9m ³ /min)	Compressed air 1-7bar (0.6m ³ /min)
Vacuum degree	3,000 H ₂ O/mm	2,500 H ₂ O/mm
Container capacity	70L	40L
Container material	Stainless	Stainless
Application	Dry/Wet	Dry/Wet
Weight	21kg	10.6kg
Dimension	520x600x1060 (mm)	400x400x710 (mm)





APPLICATIONS

Suitable for using at shipyards, oil refinery, aircraft plants and industrial manufacturing plants.

- Oil Exchange of various machines and Collection of Sludge.
- Collection of Cutting Chips etc. at machining factories.
- Collection of Sand and Cutting Chips at foundries.
- Collection of Pellets at injection forming works.
- Collection of Oil and Sewage staying in the manhole and the drain.
- Collection of Punching Chips and Exchange of Hydraulic Oil of press machines.
- Collection of Sludge in car washing machine and Cleaning of car inside at gas stations.
- Collection of Sand and Steel Balls of shot blasting machines.
- Collection of Unnecessary Objects that come out at various work spots.

PT-V200

Compressed air 1-7bar (0.6m³/min)

2,500 H₂O/mm

20L

Stainless

Dry/Wet

7.2kg

400x400x560 (mm)

PT-V50

Compressed air 1-7bar (0.9m³/min)

2,500 H₂O/mm

6L

Stainless

Dry/Wet

4.4kg

275x275x445 (mm)



COMPONENTS



PROMOTIONAL VIDEO



PRODUCT ADVANTAGE

What are the advantages of compressed air-powered vacuums over electrical powered vacuums?

Compressed air-powered vacuums offer a number of significant advantages. First, they have no electric motor, or any moving parts for that matter. Therefore, they shine in heavy duty-cycle (on-off-on-off) applications conducive to burning out electric vacs. Second, because there is no electric motor, sparking at the brushes is eliminated, and no electric fields are present. Third, they require no dangerous, high voltage electrical cords, an important feature for wet and/or hazardous environments. Fourth, they provide significantly more vacuum lift than electric vacs. Finally, compressed air is often more readily available than electric power in some mobile, and in many in-plant locations.

	ELECTRIC VACUUM CLEANER	AIR VACUUM CLEANER
Durability	Easy to overload or malfunction due to the sensitive electrical motors installed (Product life span 6 months to 1 year)	No malfunction
Safety	Risk of electrical shock, fire hazard and potential accidents	Air type, no risk of electric shock or fire
Environmental constraints	Easily affected by environment such as weather	Can be used in any place, indoor or outdoor regardless of weather
Versatility	Restriction in wet use as it is an electrical product	<ul style="list-style-type: none"> • Suitable for picking up dry, wet and mixed debris • Can pick up various types of oil • Can be utilized at diverse industrial sites
Weight	Heavy due to electrical motors and parts weight	Lightweight, without electric motors and parts

ATEX CERTIFICATION

Regular vacuums can inadvertently create static electricity that can be dangerous in locations with dangerous vapors or combustible dust. **PENASCOP AIR VACUUM CLEANERS** eliminate the threat from static electricity by pneumatic vacuum technology. With no moving parts, no motors to spark or burn-out, no electric cords or cables, **PENASCOP AIR VACUUM CLEANERS** offer safe, effective, and efficient performance.

For safe use in hazardous locations, **PENASCOP AIR VACUUM CLEANERS** are ATEX certified having the following rating :

ATEX  Ex h IIC T6 Gb, Ex h IIIC T85°C Db

(for zones GAS 1 – 2 and Dust 21 – 22)

INSTRUCTION MANUAL OF AIR VACUUM CLEANER

HOW DO OUR COMPRESSED AIR-POWERED VACUUMS WORK?

Compressed air-powered vacuums (also known as pneumatic vacuums) work on the venturi principle. Compressed air, via the air supply hose, enters the venturi box and travels through the injector. As the air continues through the surrounding venturi, it accelerates, thereby creating low pressure inside the venturi box. This low pressure induces vacuum flow inside the adjacent canister, and in turn through the attached vacuum hose.

BEFORE OPERATION

The container's rim must be free from damage.

An adequate supply of compressed air is essential for the proper performance of AIR VACUUM CLEANER.

Recommended compressed air is 4 ~ 6 kg/cm². The higher the operation pressure, the higher the degree of vacuum. When a compressor is used, the capacity of 5Hp or more is recommended.

Be used the hose of 13mm (1/2") diameter or larger. On AIR VACUUM CLEANER, use of a smaller diameter air hose or smaller size air fittings will seriously restrict performance. Use the recommended hose and fittings.

OPERATION PROCEDURE

The Cleaner Head, which mounts on top of the Container, seals to the Container via the lid clamps. If the rim of the container is deformed to be oval or uneven, the rubber packing dose not fit it surely and the suction capacity is lowered.

Connect the suction hose to the suction hose inlet by slipping the hose end onto the connector. This is an intentionally tight fit.

Turn off the compressed air supply valve at the compressor.

Connect the compressed air supply hose to the Cleaner Head via the 13mm industrial interchange male connector. Turn on the compressed air supply. Open the shut-off valve to operate. Then, this unit will start working. The air is exhausted from ejector nozzle and objects are sucked into the suction nozzle.

! Before picking up liquids, remove the internal Filter. The float ball works to stop suction when the Container is filled up.





WARNING

- In case of suction of the explosive materials, be sure to earth this unit.
- This unit is not suitable for suction of the solvent, chemicals or like.

CAUTION

- The temperature of the object to be sucked should be lower than 60 °C
- When the powder is picked up, use the filter.
 - Filters should be inspected regularly. Shake out and clean, or replace, clogged filters. It should be completely dried before re-using if it is washed with water. Immediately replace ripped or torn filters.
- When the liquids is picked up, remove the filter.

FOR YOUR SAFETY

Turn off all compressed air connections with the compressed air source at the nearest valve.

Disconnect compressed air connections only after the compressed air supply has been turned off and the air supply hose vented by opening the valve on the cleaner body.

NAVER disconnect a pressurized compressed air hose.



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Why doesn't my vacuum seem to have any suction?

By far the most common problem is undersized air supply lines, or restrictions due to undersized fittings and/or connectors. Some combination of these two issues will result in inadequate air being supplied to the vacuum. In addition, other things to look for include low plant air pressure (less than 5 kg / cm²), a dirty filter, a clogged vacuum hose, or a faulty vacuum Cleaner head gasket.

Is the diameter of the connected air hose small?

Used the hose of 13mm (1/2") diameter or larger. The hose of smaller diameter causes the pressure down and lowers the suction capacity.

Is the supply pressure low?

The adequate supply air pressure is 5 to 6 kg / cm²

Isn't the capacity of the compressor small?

A compressor capacity of 5 horsepower or more is recommended.

Is the hose, nozzle, or inside of the main unit clogged?

If it is clogged, clear it.

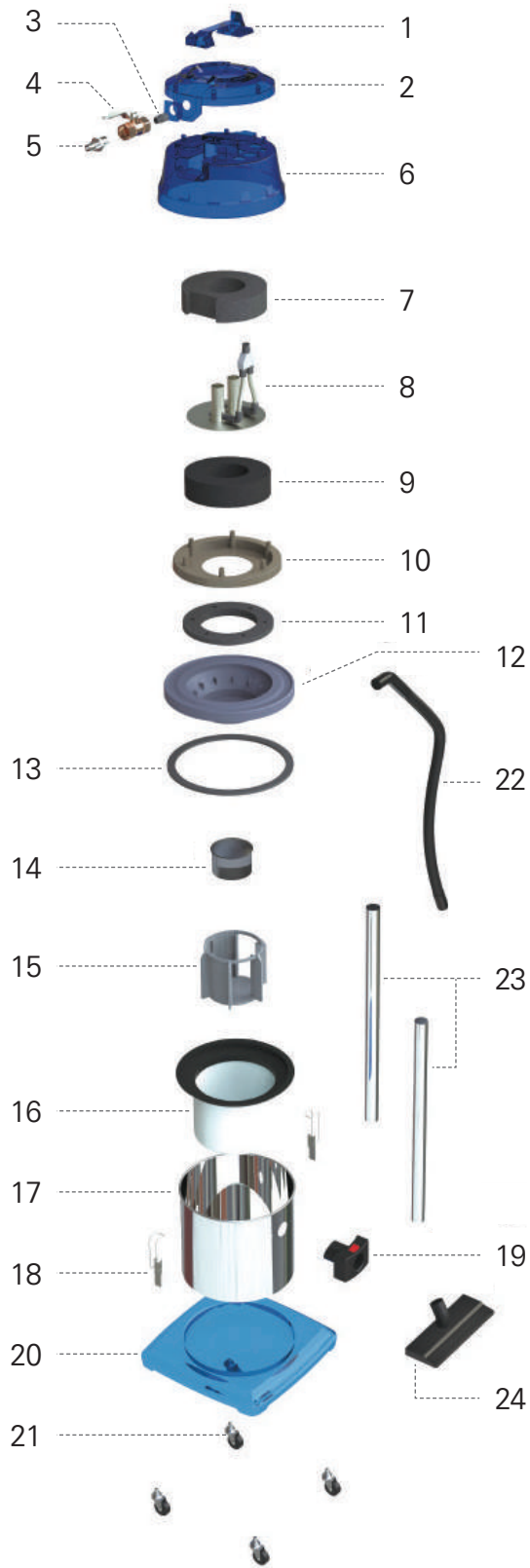
Is the suction distance too long or the suction height high?

Try changing the working environment.

Is the viscosity or specific gravity of the inhaled material high?

The higher the viscosity and specific gravity, the longer the suction time will be.

PARTS LISTS



No.	Description	Q'ty
1	Handle	1
2	Top Cover	1
3	Nipple	1
4	Shut-off Valve	1
5	Quick Coupler	1
6	Ejectors Cover	1
7	Silencer (Upper)	1
8	Ejectors Body	1
9	Silencer (Middle)	1
10	Ejectors Holder	1
11	Silencer (Lower)	1
12	Ejectors Support	1
13	Rubber Packing	1
14	Float Ball	1
15	Float Ball Guide	1
16	Filter	1
17	Container	1
18	Container Clamps	2
19	Hose Inlet	1
20	Container Support	1
21	Castor Wheel	4
22	Flexible Hose	1
23	Extension Tubes	2
24	Suction Nozzle	1

MAJOR CLIENTS

DSC DSME CONSTRUCTION CO., LTD.

SAMSUNG SAMSUNG HEAVY INDUSTRIES



KOREAN AIR

HYUNDAI HEAVY INDUSTRIES

MAERSK SEALAND

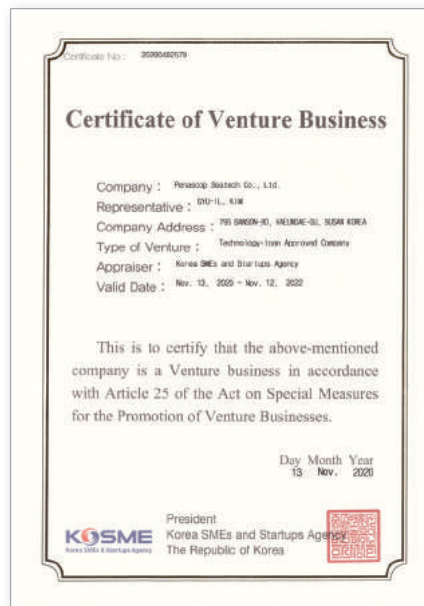


HYUNDAI MIPO DOCKYARD

DOOSAN 두산공작기계 대성판매(주)

HYUNDAI SAMHO HEAVY INDUSTRIES

CERTIFICATION





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* Specifications are subject to change for improvement without prior notice.
