

Features

- Multiple suction hole design.
- No need to install sealing rope.
- Each suction hole works independently.
- Workpiece allow to be milled through.
- Rapid clamping of workpiece.
- Suction holes are less likely to be blocked.
- Aluminum alloy 6061 T651 body material.



Multi-hole Vacuum Table

Product Description

The multi-hole vacuum table, Used in CNC machining centers and engraving machines, There is an independent valve in each suction hole. When the surface of the suction hole is not covered by the workpiece, the internal valve of the suction hole automatically closes. When the surface of the suction hole is covered by the workpiece, the internal valve of the suction hole opens, forming an air pressure difference on the upper and lower sides of the workpiece, and the workpiece is firmly sucked on the surface of the vacuum table.

The workpiece can be sucked for the Irregular shape workpiece. Allows workpiece to be milled through. As soon as the workpiece above the suction hole is milled through, the suction hole closes without affecting the normal functioning of the suction holes in other areas. The non-spring valve design is used inside of the suction hole to ensure that the machining of ceramics, glass, glass fiber, graphite and other workpiece will not cause suction hole blockage.

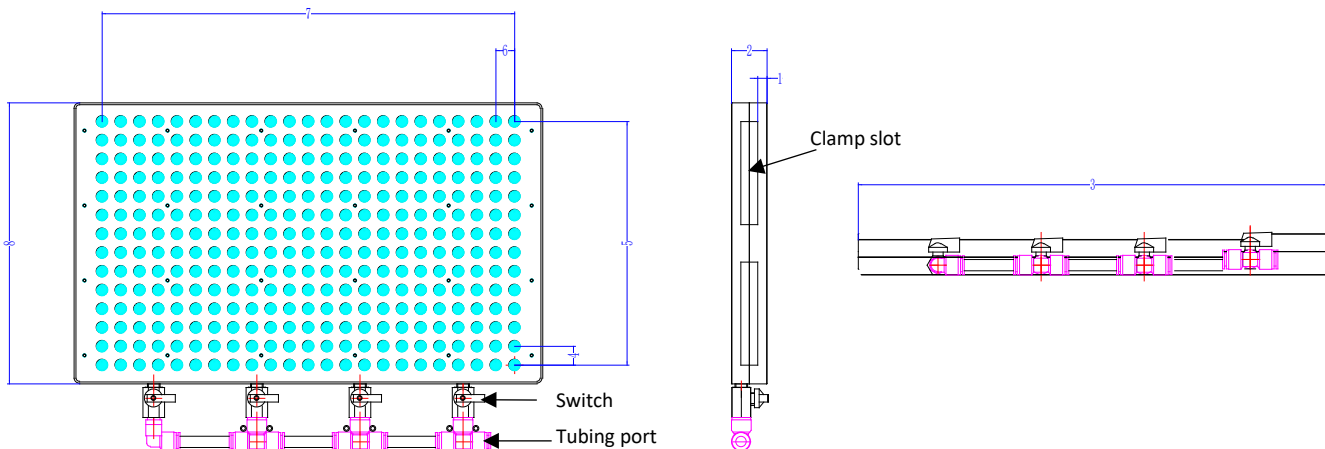
Advantage

- Easy operation.
- Maintenance-free.
- Automatic drainage.
- Suction holes are not easily blocked.
- Negative pressure self-cleaning.

Applications

- Metal material: aluminum alloy, copper, stainless steel, titanium alloy.
- Non-metal materials: ceramic, quartz, glass, graphite.
- Polymer materials: POM, PVC, acrylic, PTFE.
- Irregular shaped thin plate workpiece. (Recommended thickness:0.4mm ~ 40mm)
- Perforated sheet workpiece.
- Ultra-thin parts that do not withstand large clamping forces.
- Workpiece that cannot be held by magnet chucks.

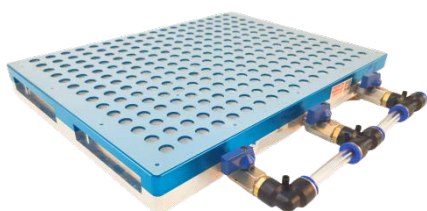
Primary Vacuum Table Parameters



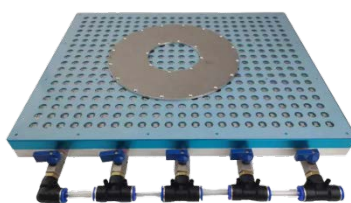
[Unit:mm]

Model	Dimension		Height	Workface Dimension		Suction Hole Pitch		Switch Number	Suction Hole Diameter	Suction Hole Number	Mass	Work Vacuum Range	Consumed Flow Rate	Buffer Tank volume	Minimum parts Size
	8	3		5	7	4	6								
PRI-3040	300	400	38mm	260	340	20	20	3	12mm	252	13kg	- 70Kpa~ - 98Kpa(- 0.7Bar~- 0.98Bar)	220L/min	30L	10cm× 10cm
PRI-3050	300	500		260	440			4		322	16.3kg		220L/min	30L	
PRI-4050	400	500		340	440			5		414	21.6kg		220L/min	30L	
PRI-4060	400	600		340	540			6		504	26kg		220L/min	30L	
PRI-5080	500	800		440	700			7		828	41kg		300L/min	40L	

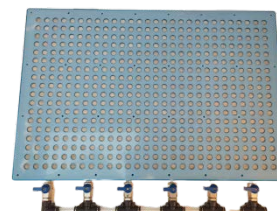
Primary Vacuum Table Photos



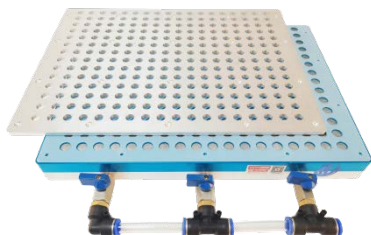
PRI-3040



PRI-4050



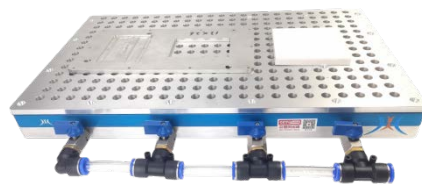
PRI-4060



PRI-3040

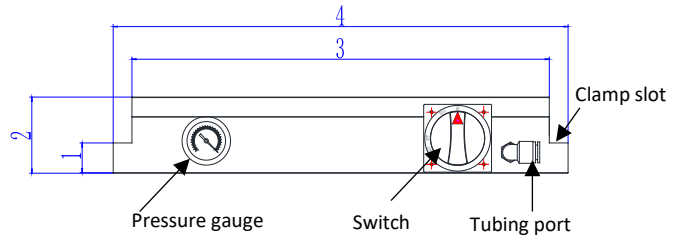
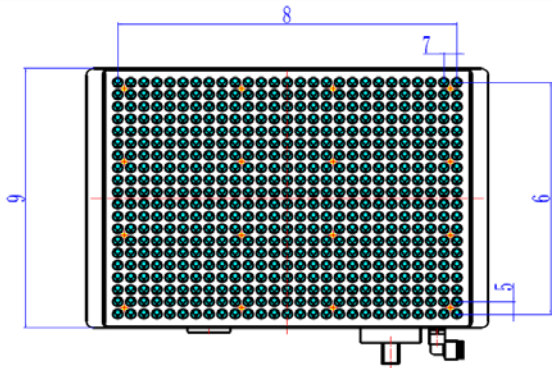


PRI-3040



PRI-3050

Professional and Premium Vacuum Table Parameters



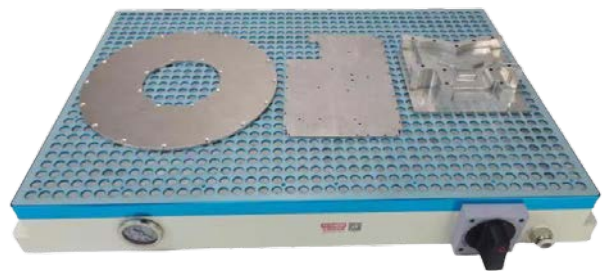
[Unit:mm]

Model	Dimension		Overall Length	Height		Workface Dimension		Suction Hole Pitch		Suction Hole Diameter	Suction Hole Number	Mass	Work Vacuum Range	Consumed Flow Rate	Buffer Tank volume	Minimum Parts Size
	9	3		4	1	2	6	8	5							
PRO-3040	300	400	436	29	73	256	352	16	16	12mm	391	18kg	- 70Kpa~ - 98Kpa(- 0.7Bar~- 0.98Bar)	220L/min	30L	9cm× 9cm
PRO-4050	400	500	536	29	78	352	448	16	16		667			220L/min	30L	
PRO-4060	400	600	636	29	83	368	560	16	16		864	35kg		220L/min	30L	
PRO-5080	500	800	836	29	83	446	746	16.5	16.2		1316			300L/min	40L	
PRE-1824	180	240	276	27	73	161	221	13.42	13	10mm	234	8kg		220L/min	30L	8cm× 8cm
PRE-3040	300	400	436	29	73	268	368	14.11	14.15		540	18kg		220L/min	30L	
PRE-4060	400	600	636	29	83	368	568	14.15	13.85		1134	35kg	220L/min	40L		

Professional and Premium Vacuum Table Photos



PRE-1824



PRE-4060



PRE-3040

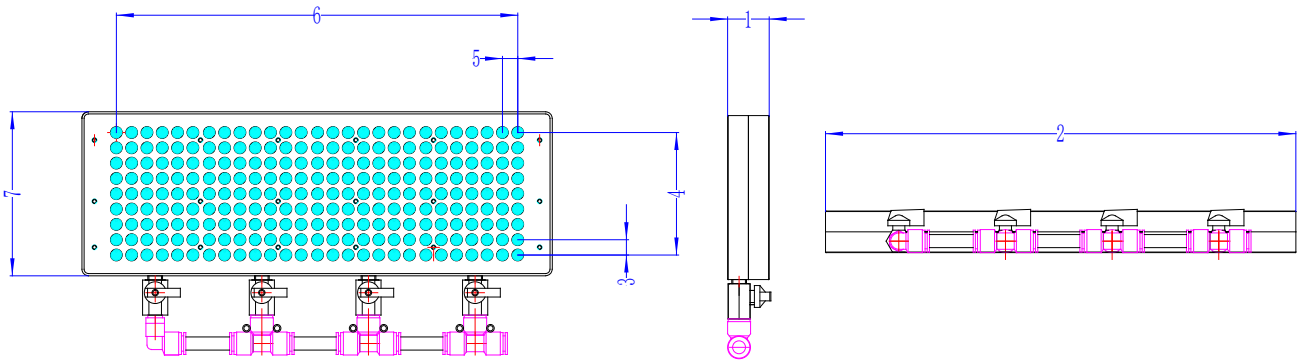


PRE-3040



PRE-3040

Parameters of Vacuum Table for Surface Grinder



[Unit:mm]

Model	Dimension		Height	Workface Dimension		Suction Hole Pitch		Suction hole Diameter	Suction Hole Number	Mass	Work Vacuum Range	Minimum parts size	Consumed Flow Rate	Buffer Tank Volume
	7	2		4	6	3	5							
GM-1543	150	430	38mm	112	367	14	14	10mm	243	7kg	- 70Kpa~ - 95Kpa	8cm×8cm	220L/min	30L

Surface Grinder Vacuum Table Photos



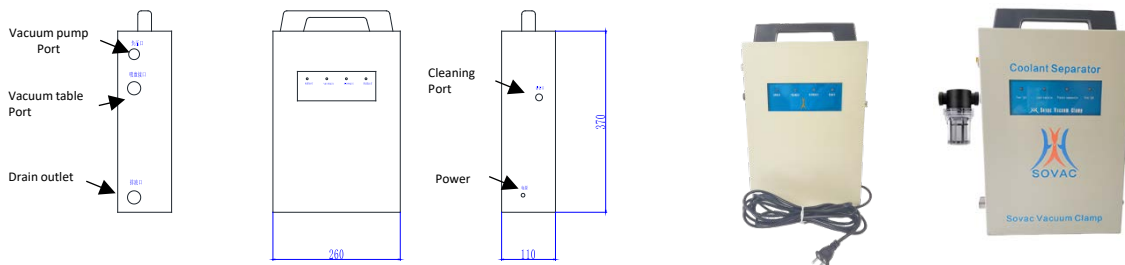
Install the steel plate at the bottom so that it is caught by the magnetic chucks

Difference among Primary, Professional and Premium version

Version	Suction Hole Diameter	Suction Hole Number	Gas Storage Cabin	Switch Number	Suitable for Surface Grinder	Recommended Parts Size	Perforation Ratio
Primary	12mm	Least	No	Multiple	Yes	≥10cm×10cm	Low
Professional	12mm	Middle	Yes	One	No	≥9cm×9cm	Middle
Premium	10mm	Most	Yes	One	No	≥8cm×8cm	High

Noted: When you installed the primary vacuum table on rectangular surface grinder, you have to refer to the usage method of the surface grinder vacuum table or contact the manufacturer, we will provide the location and depth of the screw hole(The screw hole is 10mm away from the edge and the depth is 12mm). Then you can install a steel plate below the primary vacuum table. And place it on your magnetic chuck.

Vacuum Automatic Coolant Separator



All parameters are set at the factory. And the coolant separator can operate continuously for extended periods. Automatically returning the coolant to the CNC machining center tank while maintaining stable pressure. Once the collected coolant volume exceeds the set volume, it will be automatically discharged one time.

Model	Voltage	Power	Dimension	Vacuum Pump Port	Vacuum Table Port	Drain Cycle	Applicable vacuum table	Mass
CS-SM-220	220V	6W	260*415*110	1/2 inch	1/2 inch	Liquid collection 1 liter	All model from SOVAC	22kg

Operating procedure

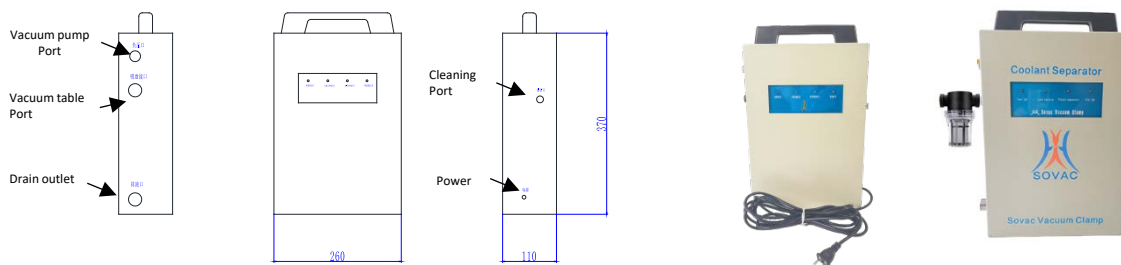
1. According to the recommended device connection method, prepare the vacuum pump (or air compressor + vacuum generator), we recommend that the vacuum pump is preferred.
2. The vacuum table is fixed on the worktable of the CNC machining center and fixed by the plate pinch. If the machining accuracy is relatively high (accuracy is more than 0.02mm), a aluminum alloy replaceable plate can be installed on the soft surface of the vacuum table. And the upper surface of the replaceable plate is firstly milled smooth (Milling parameters: flat-end milling cutter diameter 60mm~80mm, Rotate speed: 3000-4000rpm, Feed rate: 2000~2500mm/min, Cutting depth: 0.1~0.5mm) , The coolant separator is connected between the vacuum pump and the vacuum table.

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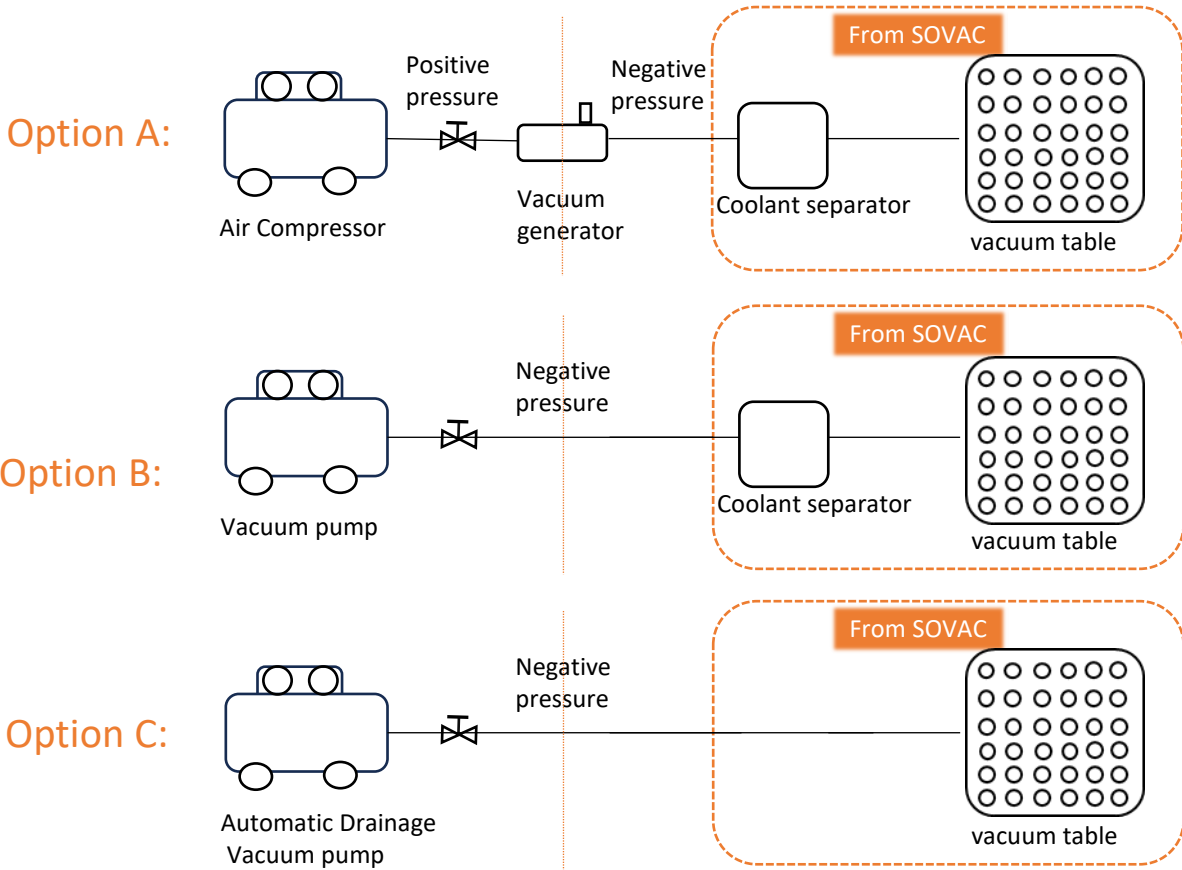
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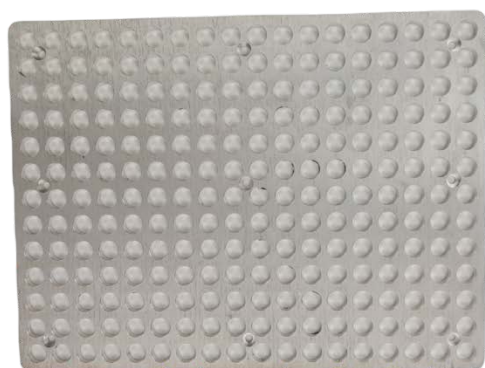
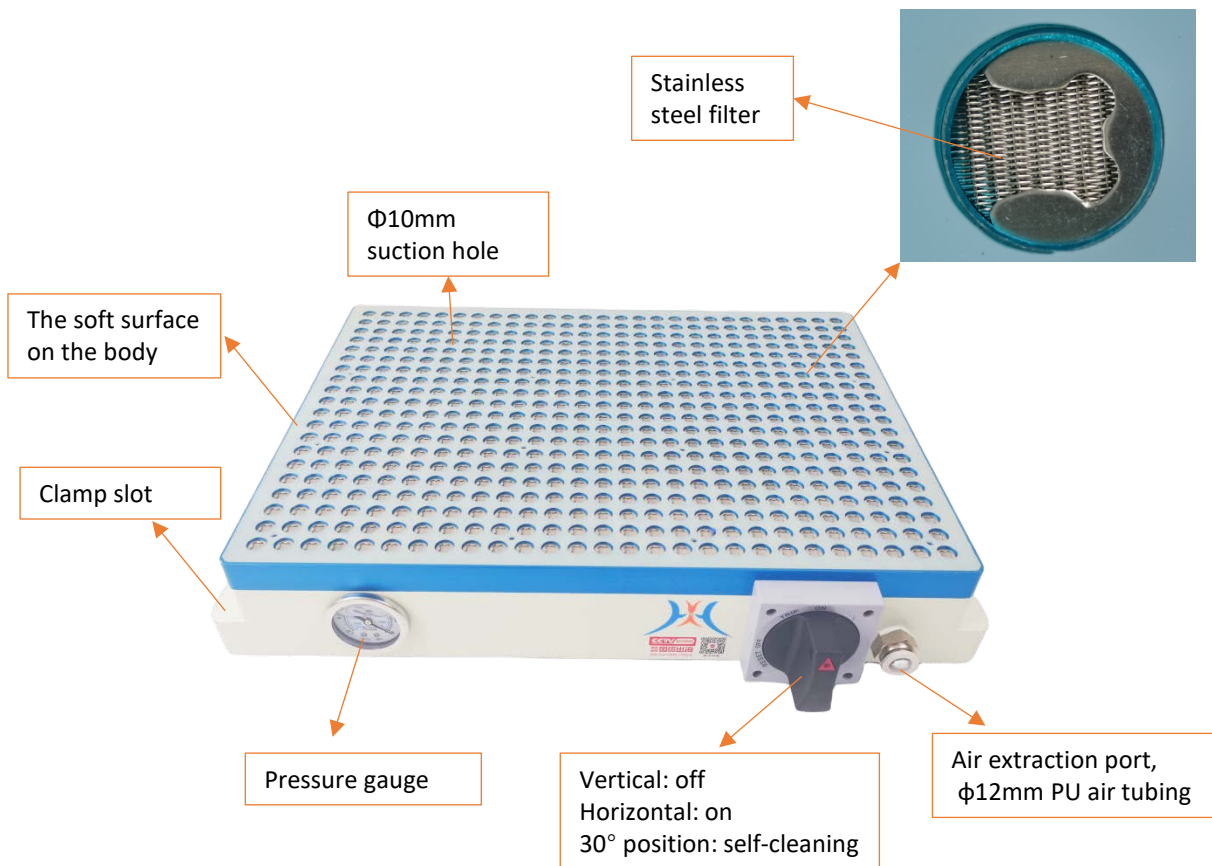
3. Turn on the power of the vacuum pump and coolant separator, turn on the vacuum table switch. And check whether suction is generated.
4. Placed the workpiece on the surface of the vacuum table, turning on the switch, and the workpiece can be fixed firmly.
5. During drilling and milling, pay attention to the depth of the penetration bottom that does not exceed 0.05mm; otherwise, the cutting tools may damage the soft surface of the vacuum table. When you install a replaceable plate, we still recommend the depth of the penetration bottom no more than 0.05mm.
6. After drilling and milling the workpiece, blow the debris on the surface of the workpiece and vacuum table with an gas gun. And then turn off the switch to remove the workpiece.
7. After use every day, turn the switch 30 degrees counterclockwise, you will hear a bared sound. Then pour some clean water on the surface of the vacuum table. The vacuum table will quickly inhale the water into the inside of the vacuum table , The inner cavity of the vacuum table is cleaned vigorously. Cleaning status is recommended for more than 30 seconds.

Air source selection



Noted: If you have a compressor and a vacuum generator, you can choose Option A. If you have a vacuum pump, you can choose Option B (Option B is best choice). SOVAC can supply all the devices above, However, considering the transportation cost, We recommend users to only purchase vacuum tables and coolant separators from SOVAC. And purchase the others in your country.

Structure Description



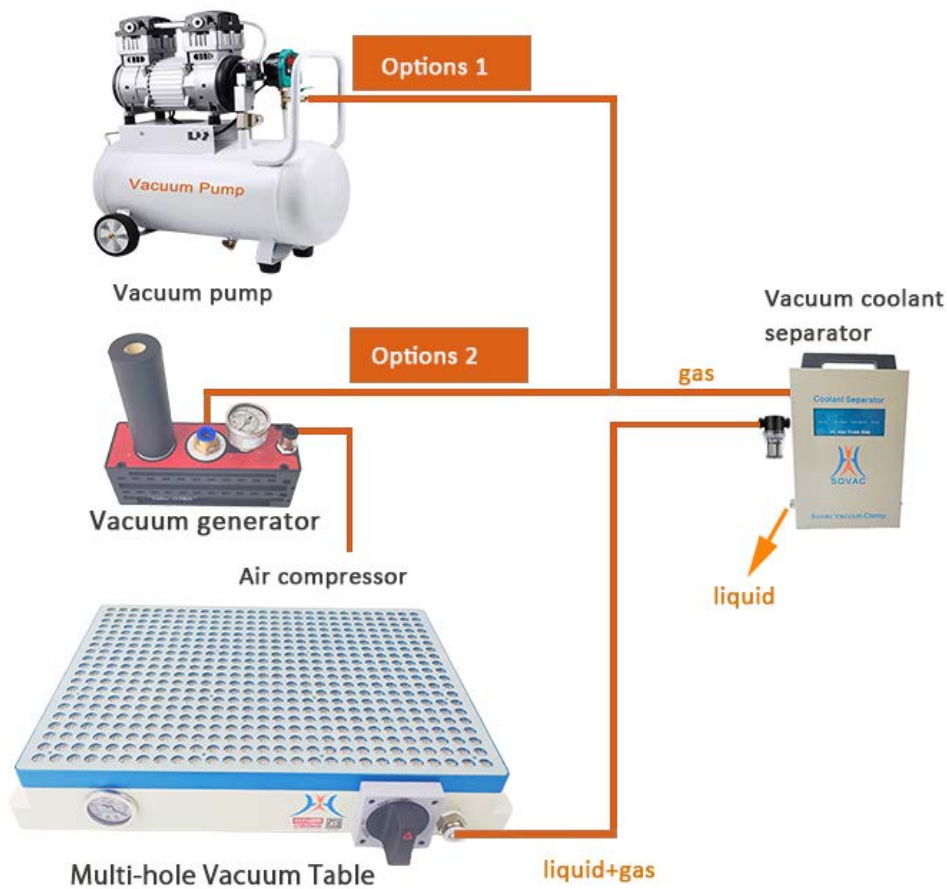
Replaceable plate



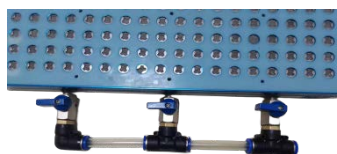
Installed replaceable plate

Noted: The replaceable plate materials can be selected from aluminum alloy, die steel, PTFE. According to the accuracy you require. When it is exhausted after many times surface milling. Download the replaceable plate drawing files from our website: www.sovacuumclamp.com/support

Device connection diagram



Switch Instructions



off



Self-cleaning

Keep it for more than 30 seconds



on



Primary and Surface
Grinder vacuum table

Professional and premium
vacuum table