



Short Path Distillation Kit

/ LAB1ST Scientific Instruments



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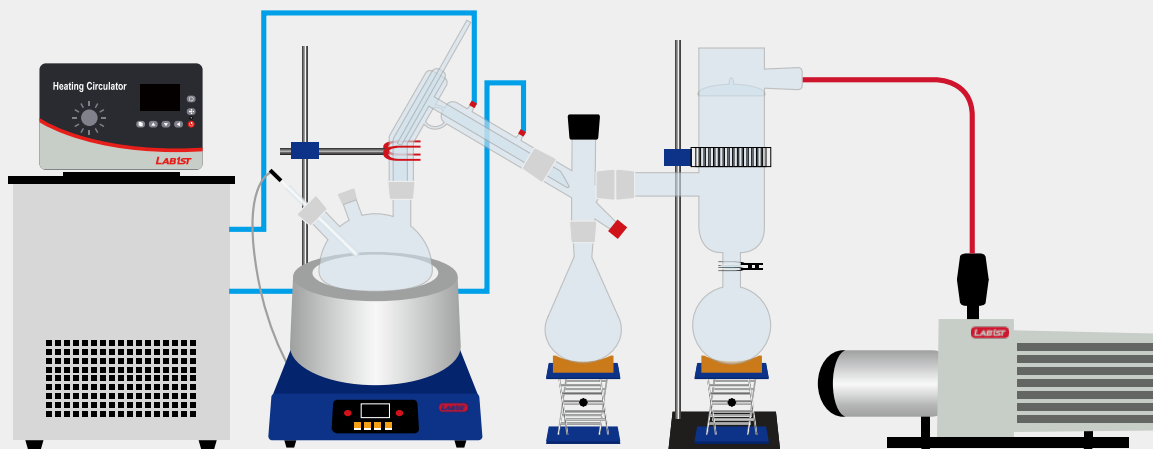
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SHORT PATH DISTILLATION KIT

Short-path distillation is a technique that involves a heat reaction that moves vapor short distances, usually only a few centimeters, in a vacuum environment. This technique is often used for compounds which are unstable at high temperatures or to purify small amounts of a compound. For example, in cannabis industry, people usually use it to distillate CBD.

Lab1st short path distillation kits are popular due to their high quality and competitive pricing. Due to its popularity and price, our short path is the set up of choice for many producers first distillation machine. The entire kit includes a magnetic stirring heating mantle, glassware kit for short path distillation, cold trap, heater/chiller for precise cooling of condenser and necessary accessories (tubes, lab jack, etc.).

Flow chart



Options



Vacuum gauge



Diffusion pump



Cold Trap with cooling coil

FEATURES

*A variety of size options between **2L, 5L, 10L & 20L***

Distillation Head

- Newly re-designed distillation head with larger vacuum jacket for less heat loss during distillation, increased internal diameter for more efficient evaporation.



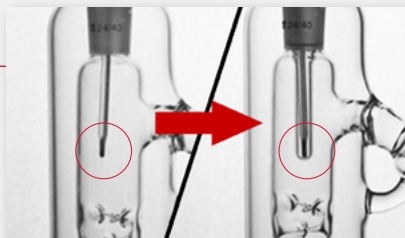
Receiving Flask

- Using receiving flask with valves instead of 1-to-1 or 1-to-3 flask, which guarantees the vacuum environment and realizes continuous discharge.



Thermowell

- Using thermowell instead of screw adapter, ensuring no gas leakage.



Stainless Steel Bellow and Clamps

- Using KF25 flange and flexible stainless steel vacuum bellow instead of barb adapter and silicone hose, for better vacuum environment.
- All clamps are made of stainless steel.



TECHNICAL DATA

Model		SPD-02N	SPD-05N	SPD-10N	SPD-20N
Material		Borosilicate Glass 3.3			
Heating Temperature		Ambient to 300°C			
Working Pressure		Around 5 Pa			
Distillation Vessel	Volume (L)	2	5	10	20
Receiving Vessel	Volume (mL)	2 x 500mL	2 x 1000mL	2 x 2000mL	4 x 2000mL
	Interface specification	24/40 joint			
Cold Trap	Dry Ice Volume	1L	1L	1L	2 x 1L
Heating Mantle	Heating Power (w)	650	1100	2100	3000
	Rotating Speed (r/min)	50-1800			
	Motor Power (w)	40			
	Dimension (WxHxD mm)	400x190x280	460x270x340	440x440x340	515x515x340
	Inner sleeve Diameter (mm)	170	235	300	375
	Inner sleeve Depth (mm)	105	140	185	215
Vacuum Pump	Model	EV Series Vacuum Pump			
	Pumping Rate (CFM)	5	5	10	2x10
	Ultimate Vacuum	Better than 5 Pa			
Cooling Circular or thermally conductive liquid	Model	DC-05-06L	DC-05-06L	DC-05-15L	DC-05-15L
	Cooling Temperature	-5°C ~ 85°C			
General	Voltage	110V 60Hz or 220V 50/60Hz, 1-Phase			

Turnkey Solution

1 Chiller

2 Main Part

3 Vacuum Pump



TURNKEY SOLUTION (SPD-02N)








Ancillaries

	Description	QTY
	2L magnetic stirring heating mantle	1
	Desktop precise heater/chiller, 6L reservoir, -5 to 95C	1
	Rotary vane oil pump, 5 CFM (2L/s), 2-stage	1











2L Short Path Distillation Glassware Kit

	Description	QTY
	2L 2-neck Boiling Flask, 24/40 Joints	1
	2L Vacuum Jacketed Short Path Distillation Head, 24/40 Joint	1
	Glass Thermowell for 2L Boiling Flask, 24/40 Joint	1
	Glass Thermowell for 2L/5L Distillation Heads, 14/20 Joint	1
	Distillation Cow Receiver with PTFE Valve & Viton Gasket, 24/40 Joint	1

Turnkey Solution (SPD-02N)













	500mL 1-neck Receiving Flask, 24/40 Joint	2
	Glass Funnel with 4" opening, 24/40 Joint	1
	Stainless Steel Keck Clamp, 24/40 Joint	5
	KF25 to 24/40 Adapter with O-ring, PTFE	1
	Cork Ring Stand	1

Glass Cold Trap with 500mL Receiving Flask

	Description	QTY
	Dewar Style Glass Cold Trap with 24/40 Joints, 35/20 Joint	1
	Glass Lid for Dewar Cold Trap	1
	500mL Receiving Flask, 35/20 Joint	1
	Stainless Steel Lab Clamp, 35/20 Joint	1
	Stainless Steel Keck Clamp, 24/40 Joint	2
	Cork Ring Stand	1
	Lab Stand Boss Head Clamp	1
	Chain Clamp	1
	Lab Support Stand	1
	KF25 to 24/40 Adapter with O-ring, PTFE	2
	Anodized Aluminum Lab Jack, 15x15cm	1

Turnkey Solution (SPD-02N)

Accessories

	Description	QTY
	Silicone Tubing, 8mm I.D & 14mm O.D, Meter	5
	Anodized Aluminum Lab Jack, 10x10cm	1
	Glass Thermometer, 0-300C	1
	Stainless Steel 3-Way T Connector, KF25*2 & KF16*1	1
	Vacuum Grease	1
	KF25 Quick Clamp	4
	KF16 Quick Clamp	1
	KF25 Centering Ring	4
	KF16 Centering Ring	1
	1/2" Fiberglass Heat Insulating Rope, Meter	4
	Stainless Steel Vacuum Bellow, KF25, 1.5 Meters	1
	Stainless Steel High Vacuum Ball Valve, KF25	1
	3-prong Clamp	1

TURNKEY SOLUTION (SPD-05N)








Ancillaries

	Description	QTY
	5L Magnetic Stirring Heating Mantle	1
	Desktop precise heater/chiller, 6L reservoir, -5 to 95C	1
	Rotary vane oil pump, 5 CFM (2L/s), 2-stage	1





5L Short Path Distillation Glassware Kit

	Description	QTY
	5L 2-neck Boiling Flask, 24/40 & 34/45 Joints	1
	5L Vacuum Jacketed Short Path Distillation Head, 34/45 Joint	1
	Glass Thermowell for 5L Boiling Flask, 24/40 Joint	1
	Glass Thermowell for 2L/5L Distillation Heads, 14/20 Joint	1
	Distillation Cow Receiver with PTFE Valve & Viton Gasket, 24/40 Joint	1
	1000mL 1-neck Receiving Flask, 24/40 Joint	2

Turnkey Solution (SPD-05N)














	Glass Funnel with 4" opening, 24/40 Joint	1
	Stainless Steel Keck Clamp, 24/40 Joint	4
	Stainless Steel Keck Clamp, 34/45 Joint	1
	KF25 to 24/40 Adapter with O-ring, PTFE	1
	Cork Ring Stand	1

GCT-01N Glass Cold Trap with 500mL Receiving Flask

	Description	QTY
	Dewar Style Glass Cold Trap with 24/40 Joints, 35/20 Joint	1
	Glass Lid for Dewar Cold Trap	1
	500mL Receiving Flask, 35/20 Joint	1
	Stainless Steel Lab Clamp, 35/20 Joint	1
	Stainless Steel Keck Clamp, 24/40 Joint	2
	Cork Ring Stand	1
	Lab Stand Boss Head Clamp	1
	Chain Clamp	1
	Lab Support Stand	1
	KF25 to 24/40 Adapter with O-ring, PTFE	2
	Anodized Aluminum Lab Jack, 15x15cm	1

Turnkey Solution (SPD-05N)

Accessories

	Description	QTY
	Silicone Tubing, 8mm I.D & 14mm O.D, Meter	5
	Anodized Aluminum Lab Jack, 15x15cm	1
	Glass Thermometer, 0-300C	1
	Stainless Steel 3-Way T Connector, KF25*2 & KF16*1	1
	Vacuum Grease	1
	KF25 Quick Clamp	4
	KF16 Quick Clamp	1
	KF25 Centering Ring	4
	KF16 Centering Ring	1
	1/2" Fiberglass Heat Insulating Rope, Meter	10
	Stainless Steel Vacuum Bellow, KF25, 1.5 Meters	1
	Stainless Steel High Vacuum Ball Valve, KF25	1
	3-prong Clamp	1








TURNKEY SOLUTION (SPD-10N)








Ancillaries

	Description	QTY
	10L Magnetic Stirring Heating Mantle	1
	Desktop precise heater/chiller, 15L reservoir, -5 to 95C	1
	Rotary vane oil pump, 10 CFM (4L/s), 2-stage	1



10L Short Path Distillation Glassware Kit

	Description	QTY
	10L 3-neck Boiling Flask, 24/40 & Two 34/45 Joints	1
	10L/20L Vacuum Jacketed Short Path Distillation Head, 34/45 Joint	1
	Glass Thermowell for 10L Boiling Flask, 24/40 Joint	1
	Glass Thermowell for 10L/20L Distillation Heads, 24/40 Joint	1
	Distillation Cow Receiver with PTFE Valve & Viton Gasket, 24/40 Joint	1
	2000mL 1-neck Receiving Flask, 24/40 Joint	2
	Glass Funnel with 4" opening, 24/40 Joint	1

Turnkey Solution (SPD-10N)














	Stainless Steel Keck Clamp, 24/40 Joint	4
	Stainless Steel Keck Clamp, 34/45 Joint	2
	KF25 to 24/40 Adapter with O-ring, PTFE	1
	Glass Stopper, 34/45 Joint	1
	Cork Ring Stand	1

Glass Cold Trap with 500mL Receiving Flask

	Description	QTY
	Dewar Style Glass Cold Trap with 24/40 Joints, 35/20 Joint	1
	Glass Lid for Dewar Cold Trap	1
	500mL Receiving Flask, 35/20 Joint	1
	Stainless Steel Lab Clamp, 35/20 Joint	1
	Stainless Steel Keck Clamp, 24/40 Joint	2
	Cork Ring Stand	1
	Lab Stand Boss Head Clamp	1
	Chain Clamp	1
	Lab Support Stand	1
	KF25 to 24/40 Adapter with O-ring, PTFE	2
	Anodized Aluminum Lab Jack, 15x15cm	1

Turnkey Solution (SPD-10N)

Accessories

	Description	QTY
	Silicone Tubing, 8mm I.D & 14mm O.D, Meter	5
	Anodized Aluminum Lab Jack, 15x15cm	1
	Glass Thermometer, 0-300C	1
	Stainless Steel 3-Way T Connector, KF25*2 & KF16*1	1
	Vacuum Grease	1
	KF25 Quick Clamp	4
	KF16 Quick Clamp	1
	KF25 Centering Ring	4
	KF16 Centering Ring	1
	1/2" Fiberglass Heat Insulating Rope, Meter	10
	Stainless Steel Vacuum Bellow, KF25, 1.5 Meters	1
	Stainless Steel High Vacuum Ball Valve, KF25	1
	3-prong Clamp	1

TURNKEY SOLUTION (SPD-20N)








Ancillaries

	Description	QTY
	20L Magnetic Stirring Heating Mantle	1
	Desktop precise heater/chiller, 15L reservoir, -5 to 95C	1
	Rotary vane oil pump, 10 CFM (4L/s), 2-stage	2

20L Short Path Distillation Glassware Kit

	Description	QTY
	20L 3-neck Boiling Flask, 24/40 & Two 34/45 Joints	1
	10L/20L Vacuum Jacketed Short Path Distillation Head, 34/45 Joint	2
	Glass Thermowell for 20L Boiling Flask, 24/40 Joint	1
	Glass Thermowell for 10L/20L Distillation Heads, 24/40 Joint	2
	Distillation Cow Receiver with PTFE Valve & Viton Gasket, 24/40 Joint	2
	2000mL 1-neck Receiving Flask, 24/40 Joint	4

Turnkey Solution (SPD-20N)
















	Glass Funnel with 4" opening, 24/40 Joint	1
	Stainless Steel Keck Clamp, 24/40 Joint	7
	Stainless Steel Keck Clamp, 34/45 Joint	2
	KF25 to 24/40 Adapter with O-ring, PTFE	2
	Cork Ring Stand	2

Glass Cold Trap with 500mL Receiving Flask

	Description	QTY
	Dewar Style Glass Cold Trap with 24/40 Joints, 35/20 Joint	2
	Glass Lid for Dewar Cold Trap	2
	500mL Receiving Flask, 35/20 Joint	2
	Stainless Steel Lab Clamp, 35/20 Joint	2
	Stainless Steel Keck Clamp, 24/40 Joint	4
	Cork Ring Stand	2
	Lab Stand Boss Head Clamp	2
	Chain Clamp	2
	Lab Support Stand	2
	KF25 to 24/40 Adapter with O-ring, PTFE	4
	Anodized Aluminum Lab Jack, 15x15cm	2

Turnkey Solution (SPD-20N)

Accessories

	Description	QTY
	Silicone Tubing, 8mm I.D & 14mm O.D, Meter	7
	Anodized Aluminum Lab Jack, 15x15cm	2
	Glass Thermometer, 0-300C	2
	Stainless Steel 3-Way T Connector, KF25*2 & KF16*1	2
	Stainless Steel 3-Way T Connector, KF25*3	1
	Vacuum Grease	1
	KF25 Quick Clamp	10
	KF16 Quick Clamp	2
	KF25 Centering Ring	10
	KF16 Centering Ring	2
	1/2" Fiberglass Heat Insulating Rope, Meter	15
	Stainless Steel Vacuum Bellow, KF25, 1.5 Meters	3
	Stainless Steel High Vacuum Ball Valve, KF25	2
	Stainless Steel Z type KF25 elbow-(2pc)	2
	3-prong Clamp	2