#### Freeze Dryers & Cooling Traps

# **HyperCOOL**<sup>™</sup>

## 3055 / 3110 / 8080

- · Effective for fast freeze drying of any samples
- HyperVAC-MAX empowered by HyperCOOL guarantees capacity and performance at higher level.
- HyperCOOL by itself, when equipped with manifolds or chambers, becomes a versatile freeze dryer.
- Extended applications for concentrating wider range or larger volume of solvents.
- The compatible vacuum rotary vane pump generates vacuum down inside the chamber.
- Up to 8 external bottles can be accommodated by the manifolds of HyperCOOL.
- · Automatic De-Vac and De-Ice functions installed

#### **Applications**

- Study and QC of dried foods like dried fruits, meats, etc.
- Stock of bacteria, virus, fungi, etc.
- Seed preservation of plants or mushrooms
- · Improved preservation of flowers and dry display study
- Pharmaceutical study and production
- Research and production of vaccine and antidote
- Tissue or cell preparation for EM analysis
- Medical research
- Archaeological finds like books, textiles, leather
- · Restoration of wet documents

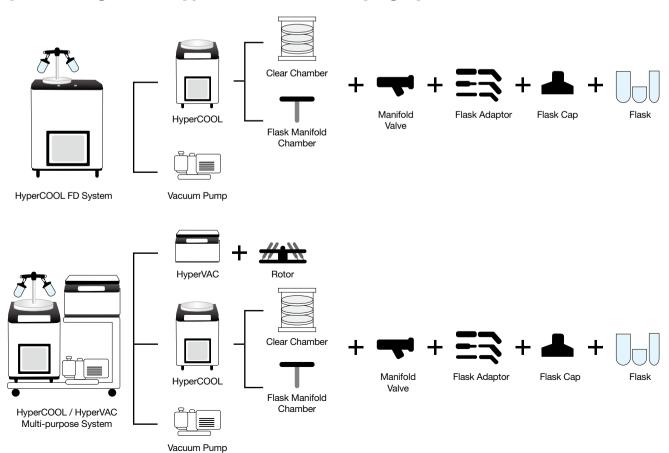




#### **Technical Specifications of HyperCOOL Cooling Traps**

	HC3055	HC3110	HC8080
Ultimate Chamber Temp (at RT) (°C)	-55	-110	-80
Chamber Volume (L)	4		8
Trap (Chamber) Size (Ø x L)	165 x 202		310 x 250
ICE Condensing Capacity (kg)	3		8
ICE Condensing Performance (kg/day)	2	.5	3
Compressor	1/2 HP	1/3 HP x 2	1 HP x 2
Refrigerant	R507 R507/R1150		R23/R507
Digital Readout	Time, Temperature		Time, Program, Temperature, Vacuum Pressure
Function	KEYLOCK, DEFROST, VACUUM, TIME		COOLING, VACUUM
Power consumption (Resting, VA)	642	819	1500
Power supply(V/Hz)	220 V/50~60 Hz (110 V optional)		
Dimension (W x D x H, mm)	400 x 660 x 570		710 x 610 x 960
Weight (kg)	58	72	195
Cat. No.	HHC-3055 (HHC-3055-110)	HHC-3110 (HHC-3110-110)	HHC-8080 (HHC-8080-110)

#### System Diagram of HyperCOOL Freeze Drying System



## **HyperCOOL Package Information (1)**

Cat. No.		Description	
HHC3055-M4B HHC3110-M4B		Manifold Type Freeze Drying System -55°C / -110°C with 4 Valves Basic incl. a Rotary Vane Pump, Oil Mist Trap & Connections HHC-3055/HHC-3110 + HHC-CPB + HHC-MFB-4V + HHC-VH + HVP-W2V20 + HVP-WOF150	
HHC3110-CHR		Chamber Type Freeze Drying System -110°C with 3 Shelves Rack incl. a Rotary Vane Pump, Oil Mist Trap & Connections HHC-3110 + HHC-CPB + HHC-CH30P + HHC-CR25 + HHC-VH + HVP-W2V20 + HVP-WOF150	
HHC3110-CH4VR		Multi-Type Freeze Drying System -110°C with 3 Shelves Rack & 4 Valves Chamber incl. a Rotary Vane Pump, Oil Mist Trap & Connections HHC-3110 + HHC-CPB + HHC-CH30-4V + HHC-CR25 + HHC-VH + HVP-W2V20 + HVP-W0F150	
HHC3110-CH8VR		Multi-Type Freeze Drying System -110°C with 3 Shelves Rack & 8 Valves Chamber incl. a Rotary Vane Pump, Oil Mist Trap & Connections HHC-3110 + HHC-CPB + HHC-CH30-8V + HHC-CR25 + HHC-VH + HVP-W2V20 + HVP-W0F150	
HMHC3110-M4EC		Multi-Purpose, Vacuum Concentration and Freeze Drying System -110°C with 8 Valves Manifold incl. a Rotary Vane Pump, Oil Mist Trap, Connections & a Table B  HVC-2200 + HVCT-MB + HHC-3110 + HHC-CPB + HHC-MFB-4V + HHC-MFE-4V + two HHC-VH + HVP-W2V20 + HVP-WOF150	
HMHC3110-CH8VRC		Multi-Purpose, Vacuum Concentration and Freeze Drying System -110°C with 3 Shelves Rack & 8 Valves Chamber incl. a Rotary Vane Pump, Oil Mist Trap, Connections & a Table B  HVC-2200 + HVCT-MB + HHC-3110 + HHC-CPB + HHC-CH30-8V + HHC-CR25 + two HHC-VH + HVP-W2V20 + HVP-WOF150	

## **HyperCOOL Package Information (2)**

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Cat. No.	1	Description
HHC8080-M4B		Manifold Type Freeze Drying System -80°C with 4 Valves Basic incl.  HHC8080 + HHC-CPB(8) + HHC-MFB-4V
<b>ННС8080-М6В</b>		Manifold Type Freeze Drying System -80°C with 6 Valves Basic incl.  HHC8080 + HHC-CPB(8) + HHC-MFB-6V
HHC8080-M8B		Manifold Type Freeze Drying System -80°C with 8 Valves Basic incl.  HHC8080 + HHC-CPM(8) + HHC-MFB-8V
HHC8080-CHR		Chamber Type Freeze Drying System -80°C with 3 Shelves Rack incl.  HHC8080 + HHC-CPB(8) + HHC-CH30P + HHC-CR25
HHC8080-CH4VR		Multi-Type Freeze Drying System -80°C with 3 Shelves Rack & 4Valves Chamber incl.  HHC8080 + HHC-CPB(8) + HHC-CH30-4V + HHC-CR25
HHC8080-CH8VR		Multi-Type Freeze Drying System -80°C with 3 Shelves Rack & 8 Valves Chamber incl.  HHC8080 + HHC-CPB(8) + HHC-CH30-8V + HHC-CR25

## **Ordering Information of HyperCOOL Accessories (1)**

Cat. No.		Description	
HyperCOOL Cover Plate			
ННС-СРР		HyperCOOL HC3055, HC3110 Trap Plate for Connection Vacuum Hose to Vacuum Concentrator	
ННС-СРР-А		HyperCOOL HC3055, HC3110 Trap Plate for Connection Vacuum Hose to Vacuum Concentrator with Table A (GVCT-MA)	
ННС-СРВ		HyperCOOL HC3055, HC3110 Acrylic Base for Manifold or Chamber	
ННС-СРМ		HyperCOOL HC3055, HC3110 Acrylic Base for HC-MFB-8V	
HHC-CPP(8)		HyperCOOL HC8080 Trap Plate for Connection Vacuum Hose to Vacuum Concentrator	
HHC-CPB(8)		HyperCOOL HC8080 Acrylic Base for Manifold or Chamber	
HHC-CPM(8)		HyperCOOL HC8080 Acrylic Base for HHC-MFB-8V	
Manifold			
HHC-MFB-4V	7	4-Valve Manifold Basic with four rubber valves on a stainless steel bar, 30 cm	
HHC-MFB-6V	7	6-Valve Manifold Basic with six rubber valves on a stainless steel bar, 30 cm	
HHC-MFE-4V	*	4-Valve Manifold Extension with four rubber valves on a stainless steel bar, 20 cm	
HHC-MFE-6V	লৈ	6-Valve Manifold Extension with six rubber valves on a stainless steel bar, 20 cm	
HHC-MFB-8V		8-Valve Manifold Basic with 8 rubber valves on a stainless steel bar, 30 cm	

### **Ordering Information of HyperCOOL Accessories (2)**

Cat. No.		Description	
Chamber and Rack			
HHC-CH30P	6	Acrylic Chamber Trunk and Plain Top, ø30 cm, height 40 cm	
HHC-CH30-4V		Acrylic Chamber Trunk and Top with 4 Rubber Valves, ø30 cm, height 40 cm	
HHC-CR25		Stainless Steel Rack with 3 Sets of Shelves and Trays, ø25cm (Trays can be inserted up to 5)	
HHC-CR-TS	00	A Set of a Tray and a Shelve	
HHC-CH30-8V	*****	Acrylic Chamber Trunk and Top with 8 Rubber Valves, ø30 cm, height 40 cm	
Freeze Drying Glass Flask			
FD2009		Freeze Drying Glass Flask 40 mL (Ø45 mm)	
FD2010		Freeze Drying Glass Flask 80 mL (Ø 45 mm)	
FD2011		Freeze Drying Glass Flask 120 mL (Ø 45 mm)	
FD2012		Freeze Drying Glass Flask 150 mL (Ø 45 mm)	
FD2013		Freeze Drying Glass Flask 300 mL (Ø 45 mm)	
FD2013-1		Freeze Drying Glass Flask 300 mL (Ø 70 mm)	
FD2014		Freeze Drying Glass Flask 600 mL (Ø 70 mm)	
FD2015		Freeze Drying Glass Flask 900 mL (Ø 70 mm)	
FD2016		Freeze Drying Glass Flask 1,200 mL (Ø 70 mm)	
FD2017 Freeze Drying Glass Flask 2,000 mL (Ø 70 m		Freeze Drying Glass Flask 2,000 mL (Ø 70 mm)	
Others			
FD2006		Stainless steel connector	
FD2007		Rubber lid for 45 mm diameter Flask	
FD2008		Rubber lid for 70 mm diameter Flask	
FD1001		Vacuum Pump W2V20	
FD1002		Oil Mist Trap	
HHC-AA		Acetal Adaptor for the connection Vacuum Hose to Rubber Valve	
HHC-VH Vacuum Hose with 2 clamps, 100 cm			