

#### **HEBEI RUNFENG**

### **FACTORY FACILITIES**



Hebei Runfeng Cryogenic Equipment co., ltd was founded in October 2012, located in Raoyang, Hebei. it is a key member of Hebei Runfeng Enterprise Group. It is a emerging enterprises engaged in

cryogenic pressure vessel design, manufacturing, research and development and corresponding technical services. We have a long term cooperation with Low Temperature Speciality Zhejiang University, it's one of best national famous institution in China. Our factory have more than 200 workers, including

20 high-tech talent and engineers, also we hire famous professors in this field to insure the advantages and developed technology. Now we become supplier of cryogenic deep cold solution in China.

Our focus is cryogenic pressure vessels, Dewar, LNG station equipment, industry gas equipment system products, it is versatile in the field of industry gas. LNG, steel, air separation industry,head industry, CNG and oil industry etc.

Our product dewar for CO2 had become practical and new type patent products in China. That's improved more about our quality. Our tagline is become your lifelong trustworthy and honest supplier.







### **CRYOGENIC CYLINDERS APPLICATION**

### Welding and Cutting



Live Fish Carrier



Biological storage and research



Mining Blasting



# Advantages:

Lower storage pressure, multistage safty device, easy operation.

- 1. Large storage capacity, 6 cube dewar is equal with 30 steel gas bottles. Save more transportation and storage cost.
- 2. The output gas purity can get oxygen  $\geq$ 99.2%,nitrogen  $\geq$ 99.999%,argon $\geq$ 99.995%, CO2 $\geq$ 99.9%
- 3. Automatic pressure boosting system, internal installed vaporizer.
- 4. It can be work without any power.

## **Vertical Liquid Cylinder**



Vertical liquid cylinder–Dewar is muti-layer heat insulating removable cryogenic liquid vessel, to store, transport the liquid oxygen(LO2),liquid argon(LAr), liquid nitrogen(LN2),liquid carbon dioxide(LCO2) and liquid natural gas(LNG). It can be applied to the plant of gas supply, smaller pipeline concentrates gas supply.

#### MP series (Low Pressure)

- DPL450-175-1.37
- DPL450-195-1.37
- DPL450-210-1.37

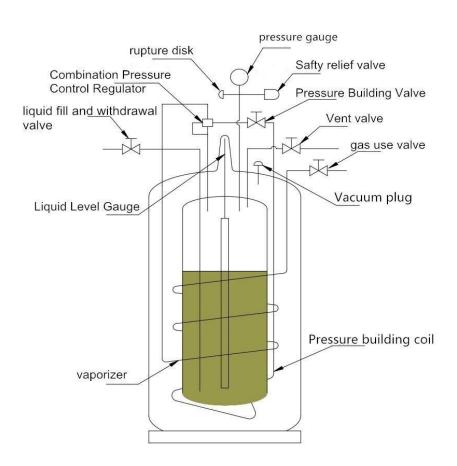
#### **HP series (Middle Pressure)**

- DPL450-175-2.3
- DPL450-195-2.3
- DPL450-210-2.3

#### **VP series (High Pressure)**

- DPL450-175-2.88
- DPL450-195-2.88
- DPL450-210-2.88

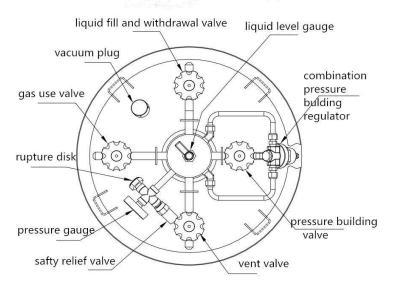
### **Cylinder Body**



## **Valves**

### Vertical Cryogenic cylinder&Apparatus





### **SPECIFICATIONS**

Welded insulated cylinder (Vertical)													
ITEM		MP Series											
Model		DPL4	50- <b>175-</b>	-1.37	DF	DPL450- <b>195-1.37</b>				DPL450- <b>210-1.37</b>			
Dimension(O.D. ×H) mm	φ 505×1551					φ 505×1676				φ 505×1761			
Nominal Volume L			175		195					2	210		
Effective Volume L			160		180				195				
Service Pressure Mpa	1.37				1.37				1.37				
Empty Weight (Kg)	116				125			142					
-													
Filling Medium	$LO_2$	LN <sub>2</sub>	LAr	LNG	LO <sub>2</sub>	LN <sub>2</sub>	LAr	LNG	$LO_2$	LN <sub>2</sub>	LAr	LNG	
Max. Filling Weight kg	170	120	208	70	190	134	232	78	205	145	250	84	
Standard Volume Nm <sup>3</sup>	119	96	116	97	133	107	130	109	143	116	140	117	
Evaporation Rate %/d	LN <sub>2</sub> ≤2.1				LN <sub>2</sub> ≤2.02				LN <sub>2</sub> ≤1.99				
Liquid Level Gauge	Float				Float				Float				
Surface Treatment			Polish		Polish				Polish				

ITEM						H	IP se	ries						
Model	DPL450- <b>175-2.3</b>					D	PL45	50- <b>19</b> 5	5-2.3	DPL450- <b>210-2.3</b>				
Dimension(O.D. ×H) mm	φ 505×1551						φ 50	5×16	76	φ 505×1761				
Nominal Volume L	175							195		210				
Effective Volume L	160					180				195				
Service Pressure Mpa	2.3					2.3				2.3				
Empty Weight (Kg)			133					145			0			
Setting Pressure of Safety Device Mpa		Filling LNG, 1 class safety valve setting pressure :2.41, 2 class valve pressure:3.45 Filling LO2/LN2/LAr,,safety valve setting pressure :2.41, Burst pressure of bursting disc:3.62												
Filling Medium	$LO_2$	$LN_2$	LAr	LNG	LCO <sub>2</sub>	$LO_2$	$LN_2$	LNG	LCO <sub>2</sub>	$LO_2$	$LN_2$	LAr	LNG	

Max. Filling Weight kg	170	120	208	70	164	190	134	78	183	205	145	250	84
Standard Volume Nm <sup>3</sup>	119	96	116	97	83	133	107	109	93	143	116	140	117
Normal Evaporation Rate %/d	LN <sub>2</sub> ≤2.1				LN <sub>2</sub> ≤2.02				LN <sub>2</sub> ≤1.99				
Liquid Level Gauge	Float				Float				Float				
Surface Treatment	Polish				Polish			Polish					

ITEM		VP series											
Model		D	PL450- <b>17</b>	5-2.88	DI	DPL450- <b>195-2.88</b>				DPL450- <b>210-2.88</b>			
Dimension(O.D. ×H) mm			φ 505×1:	551	φ 505×1676				φ 505×1761				
Nominal Volume L			175				195		210				
Effective Volume L	160					180			195				
Service Pressure Mpa	2.88					2.88			2.88				
Empty Vessel W (kg)	158					169			169				
Setting Pressure of		Safety valve setting pressure :3.45											
Safety Device Mpa				Burst pre	ssure	of bu	rsting	disc: 5.	17				
Filling Medium	$LO_2$	$LN_2$	LAr	LCO2	$LO_2$	$LN_2$	LAr	LCO2	$LO_2$	$LN_2$	LAr	LCO2	
Max. Filling W (kg)	170	120	208	164	190	134	232	183	205	145	250	197	
Standard Volume Nm <sup>3</sup>	119	96	116	83	133	107	130	93	143	116	140	100	
Normal Evaporation Rate %/d	LN <sub>2</sub> ≤2.1					LN <sub>2</sub> ≤2.02			LN <sub>2</sub> ≤1.99				
Liquid Level Gauge	Float					Float				Float			
Surface Treatment	Polish				Polish				Polish				

# **Horizontal Liquid Cylinder**



The production of horizontal type cryogenic cylinder a dopt advanced technologies and processes, complianc e to the Quality Assurance System strictly. The cylinde r contains stain steel inner vessel,outer vessel,high vac uum insulation,inner vaporizer and the valves pipes s ystem. It wildly used in **electronics,chemical, weldin g industries.** 

#### **MP** series

- DPL650-410-1.59
- DPL650-499-1.59

#### **HP** series

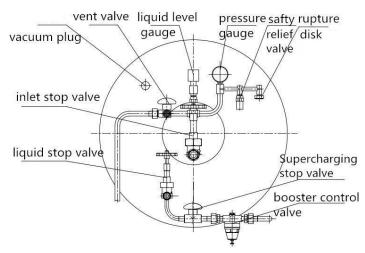
• DPL650-499-2.5

#### **VP** series

• DPL650-499-3.45



#### Horizontal cryogenic cylinder&Apparatus

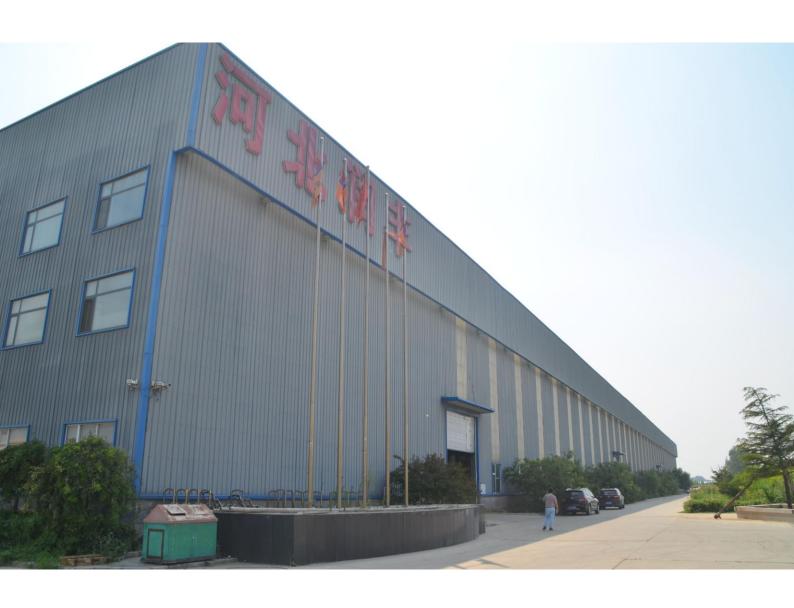


## **SPECIFICATIONS**

	Welded Insulated Cylinder	(Ho	rizontal)								
ITEM	N	MP Series									
Model	DPW650- <b>410-1.59</b> DPW650- <b>499-1.59</b>										
Dimension(O.D. ×H)mm	2120×762×1070										
Nominal Volume L	410 499										
Effective Volume L	377	377 459									
Empty Vessel W kg	346 365										
Service Pressure Mpa	1.59										
Setting Pressure of Safety Device Mpa	Filling LNG, 1 class safety valve setting pressure :1.9, 2 class valve pressure:2.41 Filling LO2/LN2/LAr,,safety valve setting pressure :1.9, Burst pressure of bursting disc:2.4										
Filling Medium	LNG		LNG	LO2	LN2	Lar					
Max. Filling W kg	160		196	478	334	585					
Standard Volume Nm3	225		276	335	266	323					
Normal Evaporation Rate %/d	LN2≤1.82	'			LN2≤1.	7					
Liquid Level Gauge	C	Capac	citive								
Surface Treatment		Pol	ish								
Application	medical, fishing truck using,gas replacement protection for stainless steel thin sheet meta	Polish  Jised for the glass industry, oxygen enriched combustion, metal cutting and welding, hospital nedical, fishing truck using,gas replacement for vessels and pipelines, medical refrigerants, gas rotection for stainless steel thin sheet metal cutting, gas protection for metal welding and rocessing, also used for city public facilities and civilian domestic gas and coal to gas boiler combustion.									

	Welded Insulated Cylinder (Horizontal)						
ITEM	MP Series						
Model	DPW650- <b>499-2.5</b>						
Dimension(O.D. ×H)mm	2120×762×1070						
Nominal Volume L	499						
Effective Volume L	459						
Empty Vessel W (Kg)	430						
Service Pressure Mpa	2.5						
Setting Pressure of Safety Device Mpa	Filling LNG, 1 class safety valve setting pressure :2.86, 2 class valve pressure:4.15 Filling LO2/LN2/LAr,,safety valve setting pressure :2.86, Burst pressure of bursting disc:3.6						
Filling Medium	LNG、LO2 、 LN2 、 LAr、 LCO2						
Max. Filling W (kg)	196 478 334 585 460						
Standard Volume Nm <sup>3</sup>	276 335 266 323 250						
Normal Evaporation Rate %/d	LN2≤1.7						
Liquid Level Gauge	Capacitive						
Surface Treatment	Polish						
Application	Used for metal welding and cutting,gas replacement for vessels and pipelines,medical refrigerants,gas protection for midium-thickness stainless steel sheet metal cutting,gas protection for metal welding and processing,also used for city public facilities and civilian domestic gas ,coal to gas boiler combustion,refrigerant business and mine cracking equipment						

	Welded Insulated Cylinde	r (Horizontal)									
ITEM	MP series										
Model	DPW650- <b>410-3.45</b> DPW650- <b>499-3.45</b>										
Dimension(O.D. ×H)mm	2120×762×1070										
Nominal Volume L	410	410 499									
Effective Volume L	377			459							
Empty Vessel W (Kg)		485									
Service Pressure Mpa	3.45										
Setting Pressure of Safety Device Mpa	Filling LNG, 1 class safety valve setting pressure :4.15, 2 class valve pressure:4.5 Filling LO2/LN2/Lar/LCO2,,safety valve setting pressure :4.15, Burst pressure of bursting lisc:5.17										
Filling Medium	LNG	LNG	LO2	LN2	Lar						
Max. Filling W kg	160	196	478	334	585						
Standard Volume Nm <sup>3</sup>	225	276	335	266	323						
Normal Evaporation Rate %/d	LN2≤1.82			LN2≤1.	7						
Liquid Level Gauge	Capacitive		(	Capaciti	ve						
Surface Treatment	Polish			Polish							
Used for metal welding and cutting,gas replacement for vessels and pipelines,medical refrigerants,gas protection for midium-thickness stainless steel sheet metal cutting,gas protection for metal welding and processing,also used for city public facilities and civilian domestic gas ,coal to gas boiler combustion,refrigerant business and mine cracking equipment											



For more information you can visit our website: www.runfengdiwen.com or contact with our people. Your precious advice is our power to go far away!

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