

HPEOK REFRIGERATION

—since 1999

HPEOK®

Refrigeration&Air-Conditioning Components



Top class manufacturer of pressure vessels and valves



Company profile

HPEOK Refrigeration - Quality & Innovation

HPEOK Refrigeration, since 1999, is the top class manufacturer and service provider in the field of HVAC/R system's components in China. We have two manufacturing plants which both located in East China. One in Xinchang, Zhejiang Province, One in Nantong, Jiangsu Province, both close to Ningbo and Shanghai.

Our components including vessels, valves and CO₂ products:

Vessels: oil separator, oil receiver, oil level regulator, liquid level sensor, filter drier, filter drier shell, filter drier core, suction accumulator, heat exchanger, liquid receiver, muffler;

Valves: ball valve, check valve, solenoid valve, rotalock valve, expansion valve, shut off valve, receiver valve, vibration absorber;

CO₂ products: ball valve, service valve, Y filter, check valve, suction accumulator and Oil separator;

Special requirements & OEM is available;





Glory

History - Stand together regardless of situation

1. Main national standard drafter for oil separator, check valve & ball valve in China.
2. Totally got 106 patents for national invention, utility model and industrial design, including oil separator, oil receiver, oil level regulator, filter drier, filter drier shell, suction accumulator, heat exchanger, liquid receiver, muffler, ball valve and check valve.
3. Approved CE(97/23/EC) for all vessels and UL(listed 207, C22.2 No. 140.3-15)for all valves;
4. China HVACR polar bear award:Famous brand in 2012;
5. China HVACR polar bear award:Industry innovation award in 2014;
6. China HVACR polar bear award:Innovative product award in 2015;
7. China HVACR polar bear award:Industry innovation award in 2016;

HPEOK Refrigeration keeps moving after gaining these honors and achievements, continually to improve, research and promote marketable products, with the strong industrial packing.

Meanwhile, HPEOK Refrigeration pays much attention to the construction and management of sales team, takes multi-channel market lines and offers suitable benefits associated with being a distributor. Total quality control, rational planning for marketing strategy and a professional after sales team support HPEOK Refrigeration marches from victory to victory, from victory to resplendence, by a flexible and steady posture!

R&D Ability, Competitive advantage

R&D center



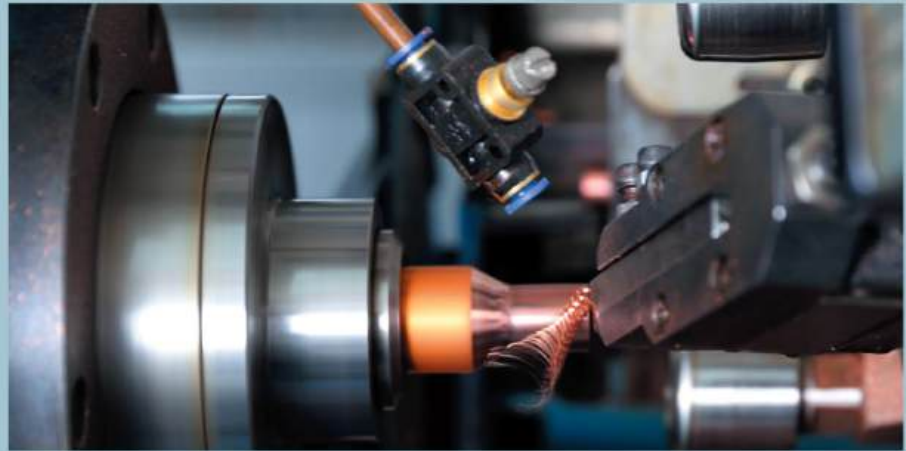
HPEOK Refrigeration holds significant regards on the research and development because HPEOK believes in Quality (in terms of Product & Service both), and adheres to spirit of the craftsman to create national brand.

HPEOK owns a refrigeration technology R&D center and a CO₂ refrigeration engineering technology R&D center, they are testing different kinds of research and development procedure to adjust to design the perfect products. Besides CAD, HPEOK also introduces solidwork and UG dynamic software to calculate 3D state of the products accurately, so that we can forecast the discrepancy between the theoretical design and practical machining easily.

With continually technology innovation, HPEOK become China strong brand and we will adhere to the technology innovation.

Casting perfect products

Manufactory - professional manufacture



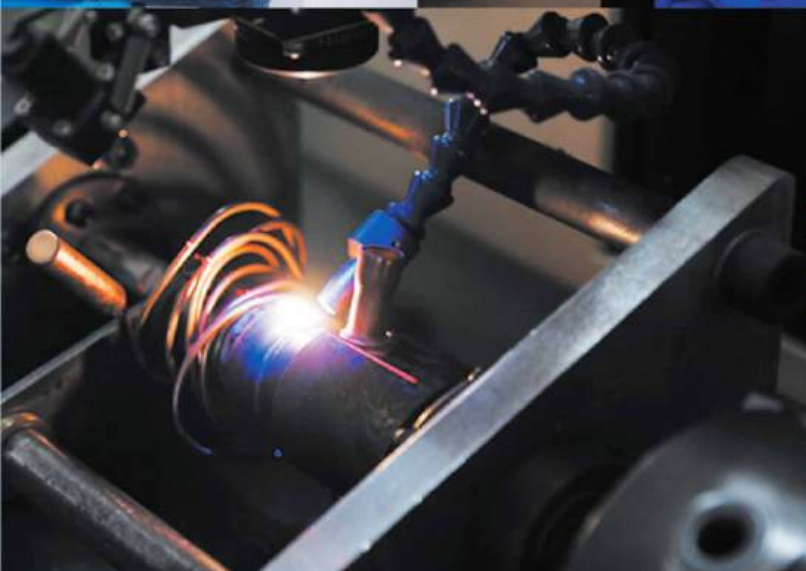
HPEOK Refrigeration components approved & follow:

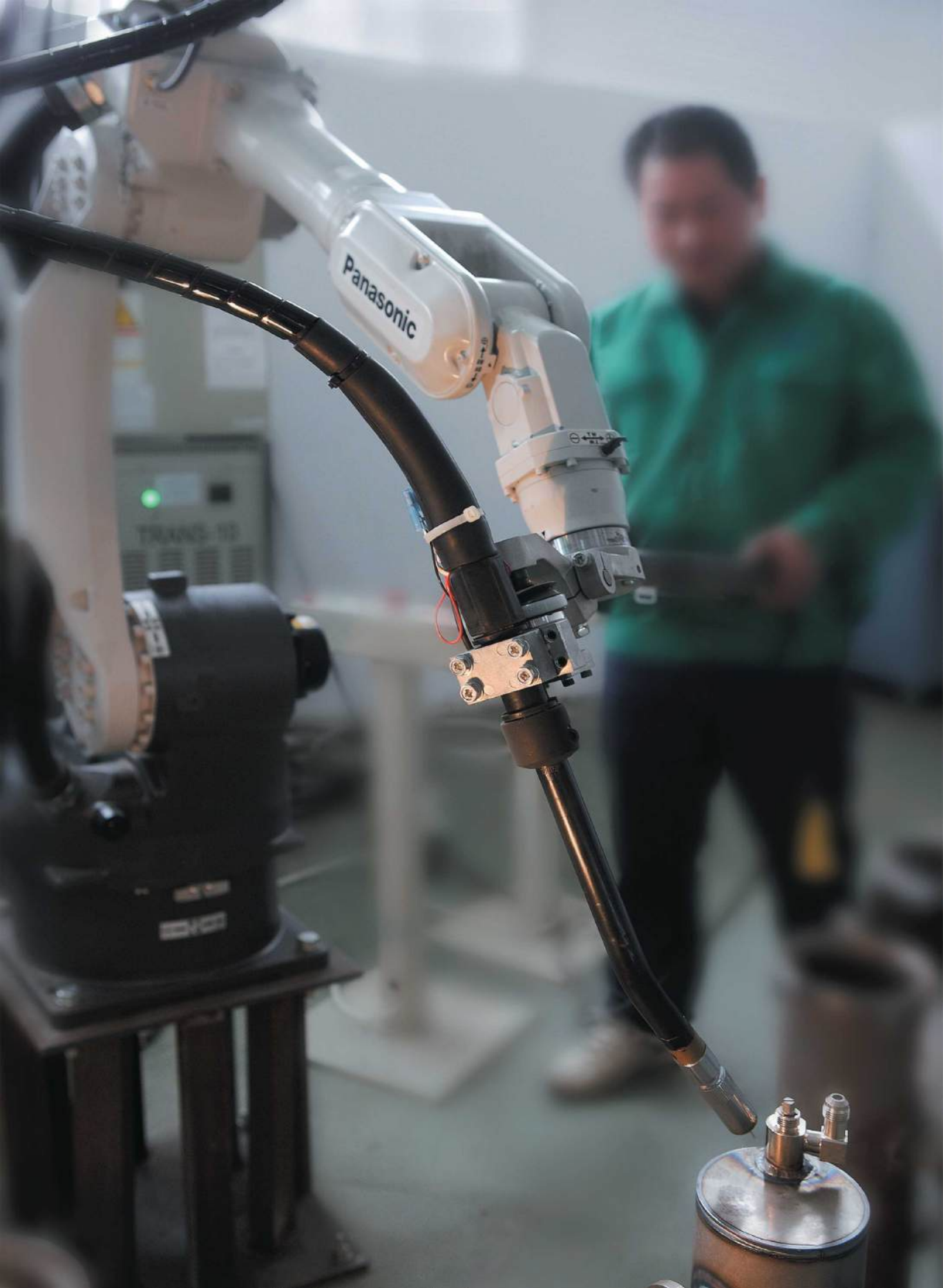
1. CE in accordance with the European Pressure Equipment Directive – 97/23/EC;
2. UL US listed 207 and C22.2 No. 140.3–15;
3. Ball valves approved RoHS Directive 2011/65/EU;

HPEOK Refrigeration adopts high quality raw materials only, uses high advanced machines and perfect inspection equipments for production, implements 7S in production areas, and produces all products according to ISO9001:2008 quality management system.

Now HPEOK Refrigeration is the top class manufacturer in the field of HVAC/R system's components in China. With continually technology innovation, HPEOK gained many national patents, and is the main national standard drafter for oil separator, check valve & ball valve in China.







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Oil management system

High Performance Helical Oil Separator Type PKW, CE



Helical High performance oil separators

The centrifugal flow path of the helical oil separator achieves approximately 99% gas and oil separation efficiency by low pressure drop.

The test by an independent laboratory found that only 0.006% oil (by volume) discharged to the system after passing the helical oil separator.

The helical oil separator can help to reduce the vibration and noise caused by compressor.

While the parallel system in unloading or changing energy, it can still keep high separation efficiency because of the unique design of helical guide plate, which increases the contact area.

Technical data

- Design Working pressure: 4.7 MPa
- Working temperature: $-10^{\circ}\text{C} \sim 120^{\circ}\text{C}$
- For use with HFC, HCFC refrigerants and their associated oils, optional for R410A and R744 (CO_2)
- CE listed

Specification

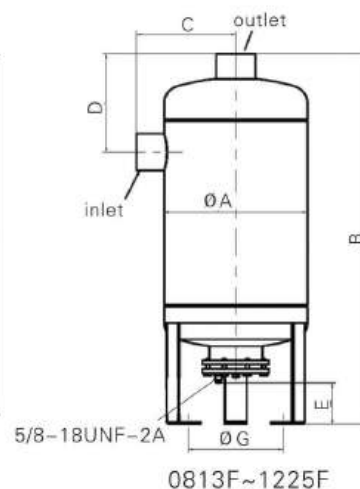
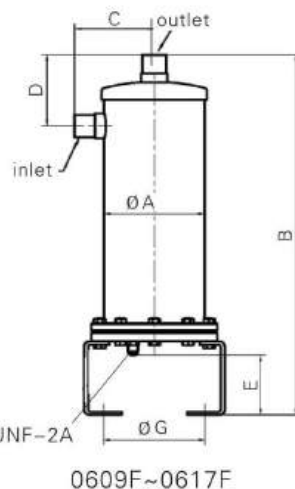
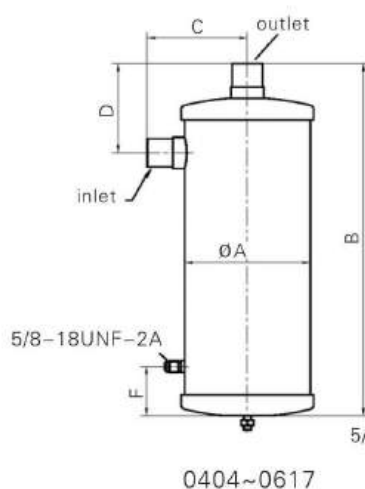
Part NO.	Refrigerating flow capacity (Kw)							
	R404A/R507		R22/R407C		R134a		R410A	
	-40°C	5°C	-40°C	5°C	-40°C	5°C	-40°C	5°C
PKW-0404	5.2	7.0	5.3	7.0	3.5	4.9	8.2	9.2
PKW-0405	14.1	19.4	15.8	19.4	10.3	13.6	24.0	27.0
PKW-0407	23.0	30.0	24.6	28.2	16.0	19.2	38.0	43.5
PKW-0409	29.8	38.7	31.7	37.0	20.6	25.8	49.0	55.0
PKW-0611	42.2	52.8	44.8	49.3	29.0	34.5	68.0	76.0
PKW-0613	52.5	66.0	56.0	62.0	35.0	43.3	85.0	95.0
PKW-0617	84.3	108.0	87.0	105.0	56.4	73.4	132.0	148.0
PKW-0609F	42.2	52.8	44.8	49.3	29.0	34.5	68.0	76.0
PKW-0611F	42.2	52.8	44.8	49.3	29.0	34.5	68.0	76.0
PKW-0613F	52.5	66.0	56.0	62.0	35.0	43.3	85.0	95.0
PKW-0617F	84.3	108.0	87.0	105.0	56.4	73.4	N/A	N/A
PKW-0813F	84.4	109.0	88.0	106.0	57.0	74.0	N/A	N/A
PKW-0817F	109.0	144.0	123.0	137.0	80.0	165.0	N/A	N/A
PKW-0821F	157.0	192.0	230.0	253.0	80.0	165.0	N/A	N/A
PKW-1017F	201.0	224.0	190.0	212.0	117.0	150.0	N/A	N/A
PKW-1021F	225.0	292.0	250.0	281.0	162.0	197.0	N/A	N/A
PKW-1025F	294.0	369.0	334.0	383.0	198.0	235.0	N/A	N/A
PKW-1221F	352.0	461.0	394.0	447.0	256.0	313.0	N/A	N/A
PKW-1225F	352.0	461.0	394.0	447.0	256.0	313.0	N/A	N/A

High Performance Helical Oil Separator Type PKW, CE



Specification

Part NO.	Connection (in)	Dimensions(mm)							Volume (L)	Pre-charge (L)
		ΦA (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	ΦG (mm)		
PKW-0404	1/2" ODF	102	359	83	83	N/A	60	N/A	2.4	0.4
PKW-0405	5/8" ODF	102	377	83	84	N/A	60	N/A	2.5	0.4
PKW-0407	7/8" ODF	102	434	91	98	N/A	60	N/A	2.8	0.4
PKW-0409	1-1/8" ODF	102	481	91	98	N/A	60	N/A	3.2	0.4
PKW-0611	1-3/8" ODF	159	476	127	121	N/A	66	N/A	7.8	1.1
PKW-0613	1-5/8" ODF	159	476	127	121	N/A	66	N/A	7.8	1.1
PKW-0617	2-1/8" ODF	159	482	134	137	N/A	66	N/A	7.8	1.1
PKW-0609F	1-1/8" ODF	159	611	127	121	124	N/A	143	7.5	0.7
PKW-0611F	1-3/8" ODF	159	611	127	121	124	N/A	143	7.5	0.7
PKW-0613F	1-5/8" ODF	159	611	127	121	124	N/A	143	7.5	0.7
PKW-0617F	2-1/8" ODF	159	617	134	137	124	N/A	143	7.5	0.7
PKW-0813F	1-5/8" ODF	219	671	157	178	100	N/A	144	15.2	0.7
PKW-0817F	2-1/8" ODF	219	678	157	185	100	N/A	144	15.2	0.7
PKW-0821F	2-5/8" ODF	219	678	157	185	100	N/A	144	15.2	0.7
PKW-1017F	2-1/8" ODF	273	678	200	214	100	N/A	191	32.5	0.7
PKW-1021F	2-5/8" ODF	273	858	200	214	100	N/A	191	32.5	0.7
PKW-1025F	3-1/8" ODF	273	858	200	214	100	N/A	191	32.5	0.7
PKW-1221F	2-5/8" ODF	325	902	226	241	100	N/A	203	47.8	0.7
PKW-1225F	3-1/8" ODF	325	902	226	241	100	N/A	203	47.8	0.7



High Performance Helical Oil Separator Type PKW, CE

Installation

An initial charge of oil should be added to the oil separator before install it. The initial charge refers to general characteristics of oil separators or to instruction sheet for the proper amount of oil. Oil pre-charge is very important; failure to pre-charge separator sump may result in damage to the oil return float mechanism.

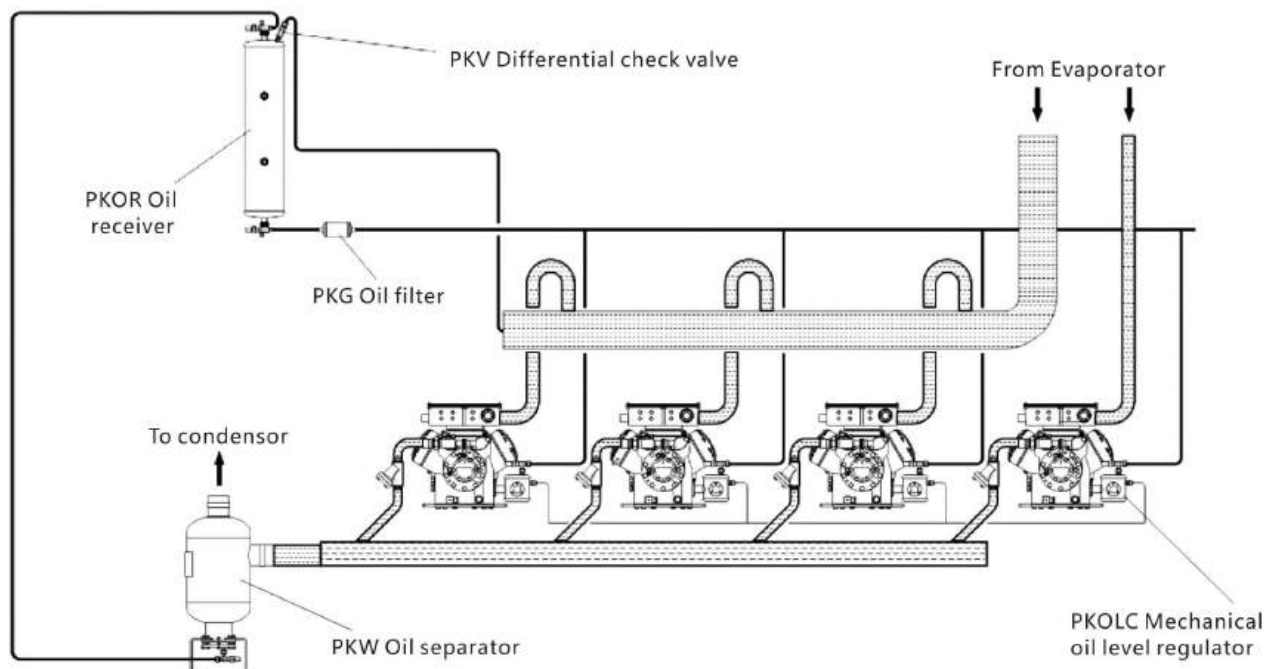
In order to prevent the refrigerant return from condenser, during the off cycle of the system, recommend to install a check valve between the condenser and oil separator inlet connection.

Oil separator performs best when operating at or near the compressor discharge temperature. When installing the oil separator, to choose a position to avoid, as far as possible, chilling of the shell, which may lead to condensing of liquid within the separator.

If it's not possible, it is advisable to supply the separator with some better solutions to prevent the refrigerant in the system from condensing in the shell, such as insulation, strap heater, or others.



Different evaporate temperature system



Traditional oil return by pressure higher slightly than suction line

Oil Filter Type PKW, CE



Application

HPEOK Refrigeration's Oil Filter can be used in both Low and High Pressure Oil Management Systems, they can filtrate 99% of 3 μ m particle but keep enough flow rate to maintain low pressure drop. The unique drying features of the PKG model are particularly suited for systems using POE oil. This type of oil is more hydroscopic than mineral oil. This means that POE oil absorbs moisture at a much higher rate. Moisture in a refrigeration system can produce problems and/or harmful conditions.

One PKG-08 or PKG-120A model can be fitted in the oil return line between the Oil Separator and Oil Receiver, instead of fitting one Oil Strainer per Oil Level Regulator. These models will also remove more debris than traditional oil strainers.

Main Feature

- High flow capacity with low pressure drop
- Particle retention down to 3 microns
- High flow capacity with low pressure drop
- Suitable replacement for individual Oil Strainers on oil return line

Technical Specifications

Maximum working pressure = 507 PSI (35 Bar)
Allowable operating temperature = $-10^{\circ}\text{C} \sim +100^{\circ}\text{C}$
For use with HFC and HCFC refrigerants and their associated oils, as well as other industrial fluids non-corrosive to steel and copper.

Materials of Construction

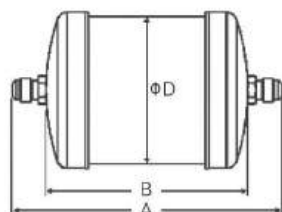
All pressure bearing components including shell, caps, and connection fittings are made of carbon steel. The internal spring is made of steel.

Installation – Notes

- The Oil Filters must be installed in accordance with the flow direction arrow.
- Units should be replaced after a 15 PSI (1 Bar) pressure drop has been detected. Recommend to install valves on either side of the filter to ease replacement.
- For low pressure oil Management systems, oil filters should be located between oil separator and oil receiver not between the oil receiver and the oil level regulator.

Specification

Part No	Connection (in)		refrigerating capacity(Kw)				Dimension(mm)		
	Solder	Flare	R404A/507	R22/R407C	R134a	R410A	A	B	Φ D
PKG-083		3/8	15.7	23.7	21.8	36.0	155	98	63.5
PKG-083S	3/8		19.8	29.8	27.4	45.2	146		
PKG-084		1/2	15.7	23.7	21.8	36.0	163		
PKG-084S	1/2		19.8	29.8	27.4	45.2	148		
PKG-085		5/8	19.8	29.8	27.4	45.2	146		



PKG-120

Oil Separator Type PKW, CE



Application

The Oil separators designed for installation on commercial refrigerating systems and on civil and industrial conditioning plants can protect systems. When the compressor is running, the outlet of compressor always has lots of refrigerant oil. If too much oil moves to the system, it will affect the flow control components and the performance of evaporator and condenser.

The oil separator installed on the discharge line of the compressor intercepts the oil mixed with compressed gas and returns it to the oil receiver or directly to the compressor crankcase thus assuring an efficient lubrication of its moving parts. Furthermore, the oil separator maintains a high coefficient of condenser and evaporator performance by almost completely removing oil deposits from their exchange surfaces. Moreover, the oil separator, damping the valves pulsations, reduces system noise with an open or semi-hermetic compressor.

The use of an oil separator leads to:

- A longer service life of the compressor.
- A better performance of the whole system with consequent energy saving.
- A much quieter operation by reducing pulsations.

Technical data

- Design Working pressure: 4.8 MPa (48 bar)
- Working temperature: $-10^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- For use with HFC & HCFC Refrigerants (R134a, R404A, R507, R407A, R407C, R22 etc). To cover the demand for components with an increased working pressure for R410a and as well for subcritical for CO₂ applications, HPEOK provides customized oil separators on request.
- CE listed

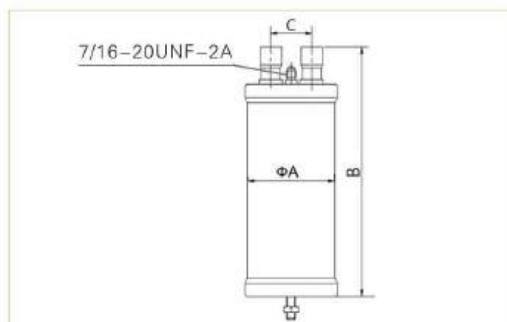
Construction

HPEOK manufactures two types of oil separators: Closed type and Demountable type.

- Separators series 55/53 are closed type and they cannot be dismantled from the system, except cutting the piping.
- Separators series 56/63 are demountable type.

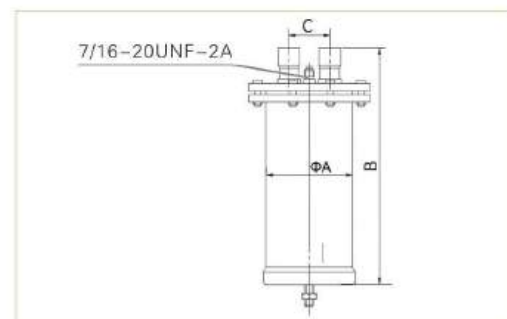
The internal device is simple in order to assure a trouble-free long operation. Appropriate metallic screens, placed on the inlet and outlet, rapidly reduce gas speed, and create the conditions required for the separation of the oil from the refrigerant. A float operated needle valve, set on the bottom of the vessel, returns the oil to the crankcase of compressor.

Oil Separator Type PKW, CE



Specification

Part NO.	Connection (in)	A(mm)	B(mm)	C(mm)	Volume (L)	Pre-charge (L)
PKW-55833	3/8	102	279	48	1.8	0.6
PKW-55824	1/2	102	279	48	1.8	0.6
PKW-55855A	5/8	102	338	48	2.2	0.6
PKW-55855	5/8	102	378	48	2.5	0.6
PKW-55866	3/4	102	378	48	2.5	0.6
PKW-55877A	7/8	102	384	48	2.6	0.6
PKW-55877	7/8	102	460	48	3.1	0.6
PKW-55888	1	102	494	48	3.4	0.6
PKW-55889A	1-1/8	102	414	48	2.8	0.6
PKW-55889	1-1/8	102	494	48	3.4	0.6
PKW-559011	1-3/8	102	524	48	3.5	0.6
PKW-569009	1-1/8	159	394	75	6.4	0.8
PKW-569011	1-3/8	159	394	75	6.4	0.8
PKW-569213	1-5/8	159	480	75	7.8	0.8
PKW-569417	2-1/8	159	485	75	7.8	0.8



Specification

Part NO.	Connection (in)	A(mm)	B(mm)	C(mm)	Volume (L)	Pre-charge (L)
PKW-5301	1/2	102	275	48	1.7	0.6
PKW-5302	5/8	102	370	48	2.3	0.6
PKW-5303	7/8	102	455	48	3.0	0.6
PKW-5304	1-1/8	102	490	48	3.2	0.6
PKW-5305	1-3/8	102	520	48	3.4	0.6
PKW-5306	1-5/8	102	525	48	3.4	0.6
PKW-6302	1-1/8	159	404	75	5.9	0.8
PKW-6303	1-3/8	159	404	75	5.9	0.8
PKW-6304	1-5/8	159	490	75	7.4	0.8
PKW-6305	2-1/8	159	495	75	7.4	0.8

Refrigerating flow capacity (KW)

Specification												
Part NO.	Refrigerating flow capacity (Kw)											
	R404A/507			R22/R407C			R134a			R410a		
	-40℃	-20℃	5℃	-40℃	-20℃	5℃	-40℃	4.8	5℃	-40℃	-20℃	5℃
PKW-55833	5.1	6.0	6.8	5.0	6.0	6.8	3.1	4.2	6.0	7.8	9.3	10.3
PKW-55824	5.3	6.2	7.0	5.3	6.2	7.0	3.2	4.5	6.2	8.1	9.4	10.6
PKW-55855A	14.4	16.4	19.3	15.8	17.5	19.3	11.4	13.4	15.8	24.0	26.6	29.3
PKW-55855	14.4	16.4	19.3	15.8	17.5	19.3	11.4	13.4	15.8	24.0	26.6	29.3
PKW-55866	14.6	16.6	19.5	16.0	17.8	19.6	11.6	13.7	15.9	24.2	26.8	29.3
PKW-55877A	22.8	25.2	28.8	24.6	26.2	28.1	16.7	19.3	22.4	37.4	39.8	42.7
PKW-55877	22.8	25.2	28.8	24.6	26.2	28.1	16.7	19.3	22.4	37.4	39.8	42.7
PKW-55888	23.3	25.7	29.3	25.1	26.7	28.6	17.2	19.8	22.9	37.9	40.3	43.2
PKW-55889A	29.0	33.2	27.0	31.6	34.2	36.8	21.3	26.0	29.8	48.0	52.0	56.1
PKW-55899	30.0	33.4	37.4	31.7	34.3	37.0	22.4	26.3	29.9	48.2	52.1	56.2
PKW-559011	36.7	43.3	49.0	40.4	43.6	47.5	28.1	33.6	40.4	61.4	66.3	72.2
PKW-569009	41.0	45.2	50.8	45.2	47.4	49.2	33.4	40.4	48.4	68.7	72.0	74.8
PKW-59011	41.0	45.2	50.8	45.2	47.4	49.2	33.4	40.4	48.4	68.7	72.0	74.8
PKW-569213	51.0	53.7	65.1	56.3	48.9	63.3	41.3	48.4	56.3	85.6	89.5	96.2
PKW-569214	88.5	98.4	108.6	91.4	102.3	105.5	63.3	7.0	88.9	N/A	N/A	N/A

Specification												
Part NO.	Refrigerating flow capacity (Kw)											
	R404A/507			R22/R407C			R134a			R410a		
	-40℃	-20℃	5℃	-40℃	-20℃	5℃	-40℃	4.8	5℃	-40℃	-20℃	5℃
PKW-5301	5.3	6.2	7.0	5.3	6.2	7.0	3.2	4.5	6.2	8.1	9.4	10.6
PKW-5302	14.4	16.4	19.3	15.8	17.5	19.3	11.4	13.4	15.8	24.0	26.6	29.3
PKW-5303	22.8	25.2	28.8	24.6	26.2	28.1	16.7	19.3	22.4	37.4	39.8	42.7
PKW-5304	30.0	33.4	37.4	31.7	34.3	37.0	22.4	26.3	29.9	48.2	52.1	56.2
PKW-5305	36.7	43.3	49.0	40.4	43.6	47.5	28.1	33.6	40.4	61.4	66.3	72.2
PKW-6302	41.0	45.2	50.8	45.2	47.4	49.2	33.4	40.4	48.4	68.7	72.2	74.8
PKW-6303	41.0	45.2	50.8	45.2	47.4	49.2	33.4	40.4	48.4	68.7	72.2	74.8
PKW-6304	51.0	53.7	65.1	56.3	58.9	63.3	41.3	48.4	56.3	85.6	89.5	96.2
PKW-6305	88.5	98.4	108.6	91.4	102.3	105.5	63.3	7.0	88.9	N/A	N/A	N/A

Installation

The oil separators should be installed in the discharge line between the compressor and condenser, and mounted in a vertical position securely and close to the compressor reasonably.

In order to prevent the refrigerant return from condenser, during the off cycle of the system, recommend to install a check valve between the condenser and oil separator outlet connection. Oil separator performs best when operating at or near the compressor discharge temperature.

When installing the oil separator, choose a position to avoid, as far as possible, chilling of the shell, which may lead to condensing of liquid within the separator.



Oil Separator Type PKW, CE

If it is not possible, it's advisable to supply the separator with some better solutions to prevent the refrigerant in the system from condensing in the shell, such as insulation, strap heater, or others.

An initial charge of oil should be added to the oil separator before install it. The initial charge refers to general characteristics of oil separators or to instruction sheet for the proper amount of oil.

Oil pre-charge is very important; failure to pre-charge separator sump may result in damage to the oil return float mechanism.

Use the same type of oil that is in the compressor crankcase.

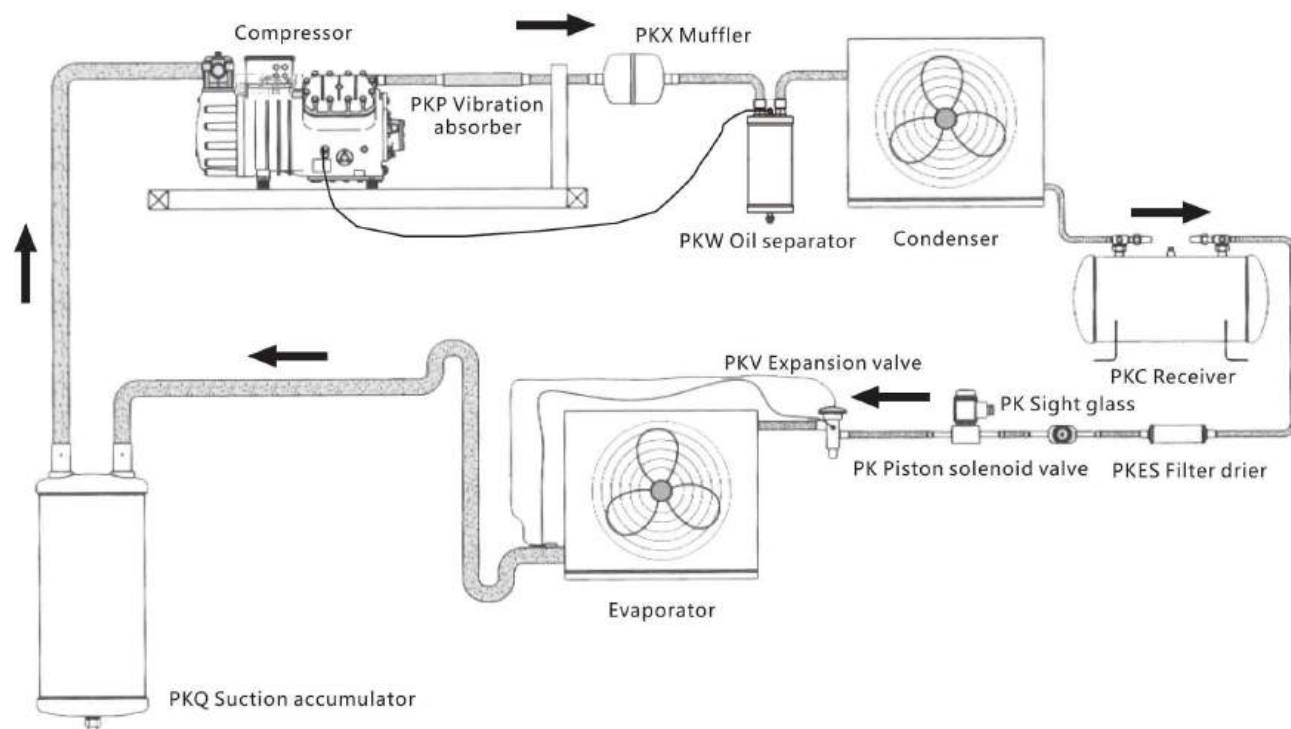
Pre-charge oil mass:

- 55833→559011 & 5301→5306: 600ML
- 569011→569417 & 6303→6305: 800ML

Due to the refrigerating system, the return line may be run from the oil fitting to:

- The compressor crankcase
- The suction line upstream the compressor or upstream the receiver, if present
- The oil receiver if oil control system is being used.

A sight glass can be installed in the oil line where the oil is flowing through the tube, to check the correct working of the oil separator.



Refrigeration system flow diagram

Oil Separator Receiver Type PKW, CE



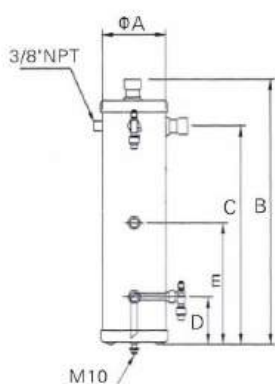
Applications

This oil separator receivers are designed to be installed in high pressure oil management systems; it features a centrifugal flow path to achieve perfect oil separation with lowest pressure drop.

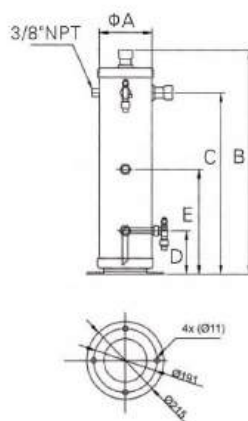
In contrast to conventional oil separators they do not possess an internal float valve. For the design of high pressure oil management systems, suitable electronic oil level regulators type OLCE is available.

Technical data

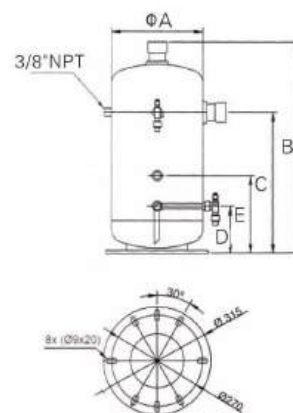
- For use with HFC & HCFC Refrigerants
- Design Working pressure: 3.0 MPa (30 bar)
- Working temperature: $-10^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- CE listed



PKW-40BX



PKW-62BX



PKW-86/107BX

Specification

Part No.	Connection (in)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Volume (L)	Oil outlet	Oil receiver (L)
PKW-4004BX	1/2	102	495	402	100	260	3	3/8"	1.9
PKW-4005BX	5/8	102	495	402	100	260	3	3/8"	1.9
PKW-4007BX	7/8	102	580	460	100	260	4	3/8"	1.9
PKW-4009BX	1-1/8	102	700	580	135	330	5	3/8"	2.5
PKW-6211BX	1-3/8	159	640	520	155	270	10	3/8"	4.3
PKW-6213BX	1-5/8	159	740	610	155	370	11.5	3/8"	6.1
PKW-6217BX	2-1/8	159	840	700	155	460	13.5	3/8"	7.8
PKW-8613BX	1-5/8	219	700	510	160	275	20	3/8"	8.6
PKW-8617BX	2-1/8	219	700	510	160	275	20	3/8"	8.6
PKW-8621BX	2-5/8	219	700	495	160	275	20	3/8"	8.6
PKW-10717BX	2-1/8	273	890	620	150	280	41	3/8"	13.3
PKW-10721BX	2-5/8	273	890	620	150	280	41	3/8"	13.3
PKW-10725BX	3-1/8	273	890	620	150	280	41	3/8"	13.3

Oil Separator Receiver Type PKW, CE



Feature

- Low space consumption, mounting effort and high efficient oil separator ability.
- A high level oil sight glass & low level oil sight glass equipped in receiver, the standard oil level should be between these two sight glasses.
- A inside demister which woven by stainless steel wire makes the mist oil get good separation.
- The helical guide plate allows the centrifugal flow path achieving high efficiency oil and gas separation effect by low pressure drop.

Specification

Part No.	Refrigerating capacity (Kw)								
	R404A/507			R22/R407C			R134a		
	-40°C	-20°C	5°C	-40°C	-20°C	5°C	-40°C	-20°C	5°C
PKW-4004BX	17.1	18.2	19.7	20.1	23.2	24.1	15.3	16.7	17.9
PKW-4005BX	17.1	18.2	19.7	20.1	23.2	24.1	15.3	16.7	17.9
PKW-4007BX	20.2	21.3	22.1	23.8	25.1	26.0	17.8	18.8	19.5
PKW-4009BX	33.9	36.2	37.8	39.9	42.0	44.5	29.9	31.5	33.4
PKW-6211BX	48.8	51.4	54.8	57.4	60.5	64.5	43.1	45.4	48.4
PKW-6213BX	68.0	74.5	76.3	80.0	87.7	89.8	60.0	65.5	67.4
PKW-6217BX	104.6	113.4	115.7	123.0	133.4	136.1	92.3	100.1	102.2
PKW-8613BX	98.0	104.5	106.3	110.0	117.7	119.8	90.0	95.5	97.4
PKW-8617BX	144.6	151.6	161.5	170.1	178.3	190.0	127.5	133.7	142.5
PKW-8621BX	280.6	312.6	326.0	330.2	367.8	383.5	247.6	275.6	287.6
PKW-17017BX	236.0	295.7	300.2	280.7	303.5	352.7	210.8	227.6	259.1
PKW-10721BX	306.0	325.7	350.3	360.0	383.5	412.2	270.0	287.6	309.1
PKW-10725BX	374.0	393.3	407.8	440.0	462.7	479.8	330.0	347.1	359.9

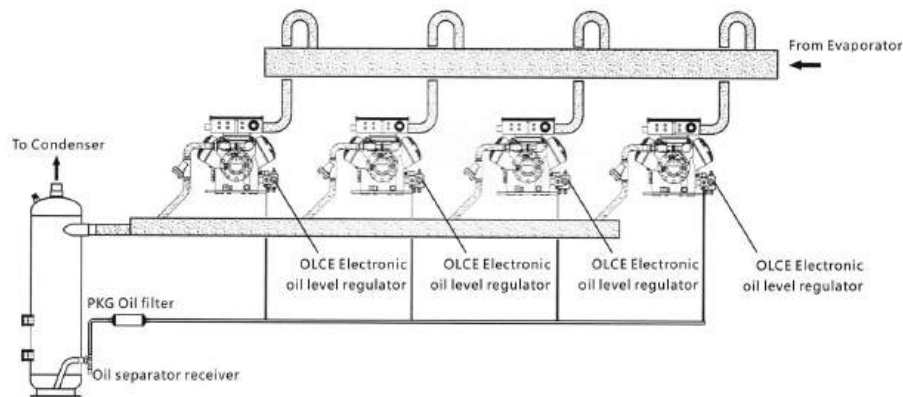
The listed above are on the basis of 40°C condensing temperature.

Part No.	Middle/high temperature	Low temperature
PKW-8613BX	130	180
PKW-8617BX	150	220
PKW-8621BX	180	260
PKW-17017BX	220	300
PKW-17021BX	390	520
PKW-17025BX	490	660

The allowed max. theoretical displacement VH(m³/h) listed above are on the basis of 40°C condensing temperature.

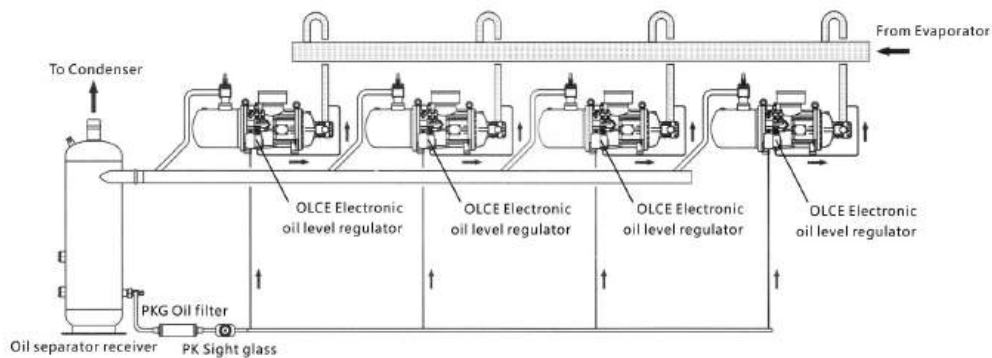
Oil Separator Receiver Type PKW, CE

Piston parallel unit

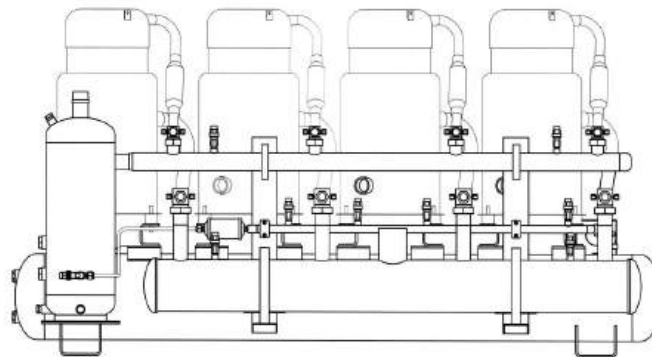


Oil return by discharge pressure for this new design with oil separator receiver

Screw parallel unit



Turbine parallel unit



Installation and start up

Precharge the separator with compressor refrigeration oil.

The separators should be installed in the discharge line between the compressor and condenser mounted in a vertical position and reasonably close to compressor. Choose a position to avoid, as far as possible, chilling of the shell, which may result in liquid condensing within oil separator. If it's not possible, better to use insulation, strap heater or others to prevent the refrigerant from condensing in the shell.



Oil flow switch Type PKYL, CE



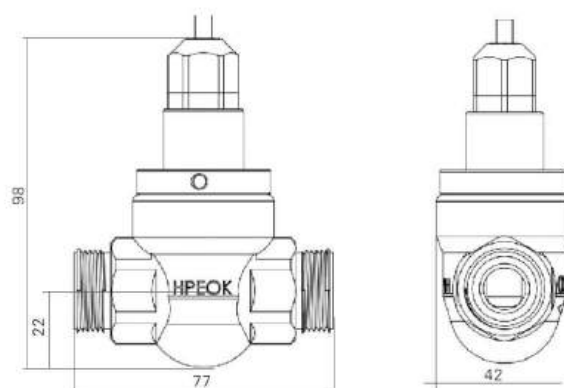
Applications

PKYL Oil flow switch is used to monitor oil flow of screw compressors.

The switch will be automatically cut off when the oil is lower than the minimum value. It can prevent the bearing and screw influenced from lack of lubricant, thus decreases maintenance cost.

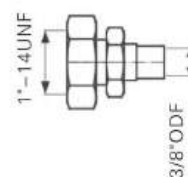
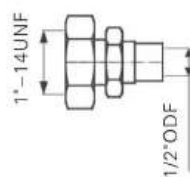
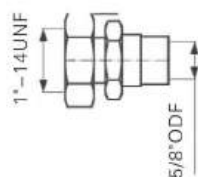
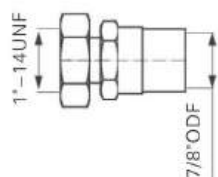
Feature

- High efficiency flow passageway, it guarantees minimum pressure drop.
- Inlet & Outlet: 1"-14 UNF male screw, connect to 7/8" ODF, 5/8" ODF, 1/2" ODF, 3/8" ODF straight joint conveniently



Technical data

- Max. Working pressure: 31 Bar (3.1 Mpa)
- Max. Operation temperature: 120°C
- Voltage supply: 220V/50Hz
- For use with, mineral refrigeration oil(MO), benzene synthetic refrigeration oil(AB), polyol-ester refrigeration oil(POE)



Specification

Part No.	Min. Flow when switch on	Connection
PKYL-04L	4L/min	1"-14UNF
PKYL-06L	6L/min	1"-14UNF
PKYL-08L	8L/min	1"-14UNF
PKYL-10L	10L/min	1"-14UNF

Electronic Oil Level Regulator Type OLCE



HPEOK Patent

Patent No.ZL 201520473220.6

Main Features

- Patented photoelectric sensor technology
- Low level alarm circuit
- Replacement parts available
- Adapters available for most popular compressor models
- Universal flange compressor connection
- Comparing to mechanical level regulator, OLEC has a compacted structure, more precise in level detect and high reliability capability, by which it can protect or avoid compressor burned or shorten service live due to lack of lubricant oil

OLCE regulator is an electronic oil level controller in refrigeration system; it offers accurate oil detection and oil level control in commercial refrigeration compressors.

Applications

The OLCE Electronic Oil Regulator can be used with Low and High Pressure Oil Management Systems on a single compressor or on multi-compressor racks.

It is bolt directly to the sight glass housing on the compressor crankcase. The regulator comes ready to mount to several popular compressors.

These Regulators are more stable than those electromagnetic regulators.

Specification

Max.working Pressure	43Bar	Refrigerant	HFC and HCFC, as well as other non-corrosive refrigerants
Supply voltage (fuse melting point: 5A)	24V AC, 50/60HZ; +10~-15% voltage fluctuating allowed	Medium temp.	-20 °C ~+80 °C
Alarm contact rating	3A,240V AC	Ambient temp.	-20 °C ~+50 °C
Coil Voltage	220-230V AC Frequency:50/60HZ	Solenoid valve Max.differential pressure	21Bar
Operating current	0.7A	Storage & transport term.	-20 °C ~+50 °C
Oil return	1/4" flare	Protection class (DIN43650)	Ip65

Electronic Oil Level Regulator Type OLCE

How it works

The regulator uses photoelectric sensor technique to detect oil level, the sensor detects the oil level, and transfers the optical signal to electrical signal and sends it to solenoid coil to open or close the solenoid valve, when solenoid valve open, the oil get into the compressor.

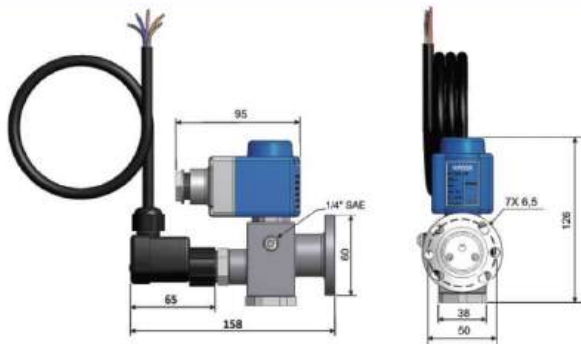
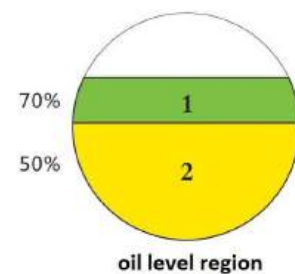
The sight glass is divided to two oil level zones, green (oil level at 70%–50%) and yellow (oil level at 50%–0%) as below table. When the oil level at the yellow zone, the photoelectric sensor detects the signal and sent it to solenoid valve, the solenoid valve will open till the oil level get to the green zone.

The green led in top of the sensor can indicate the oil level status. When light off, the oil level is normal state, when the light on, the oil level is lower than the set data and system is sending the oil to the compressor.



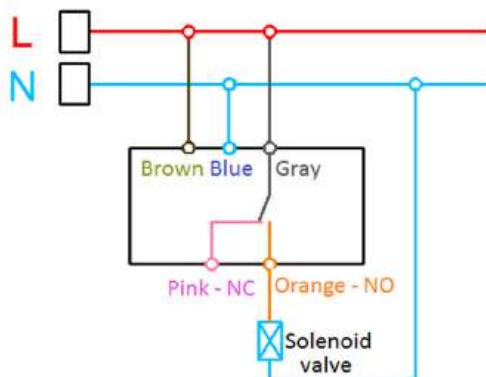
Technical data

LED	oil level status
ON	Green (oil level at 70%–50%) oil level status 1
OFF	Yellow (oil level at 50%–0%) oil level status 2

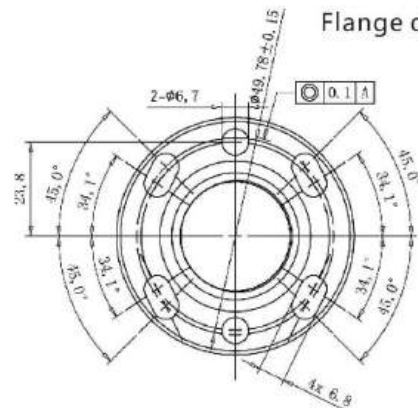


Adapters are optional for regulator installation

AC 50/60HZ 220V ±10%



Flange dimension

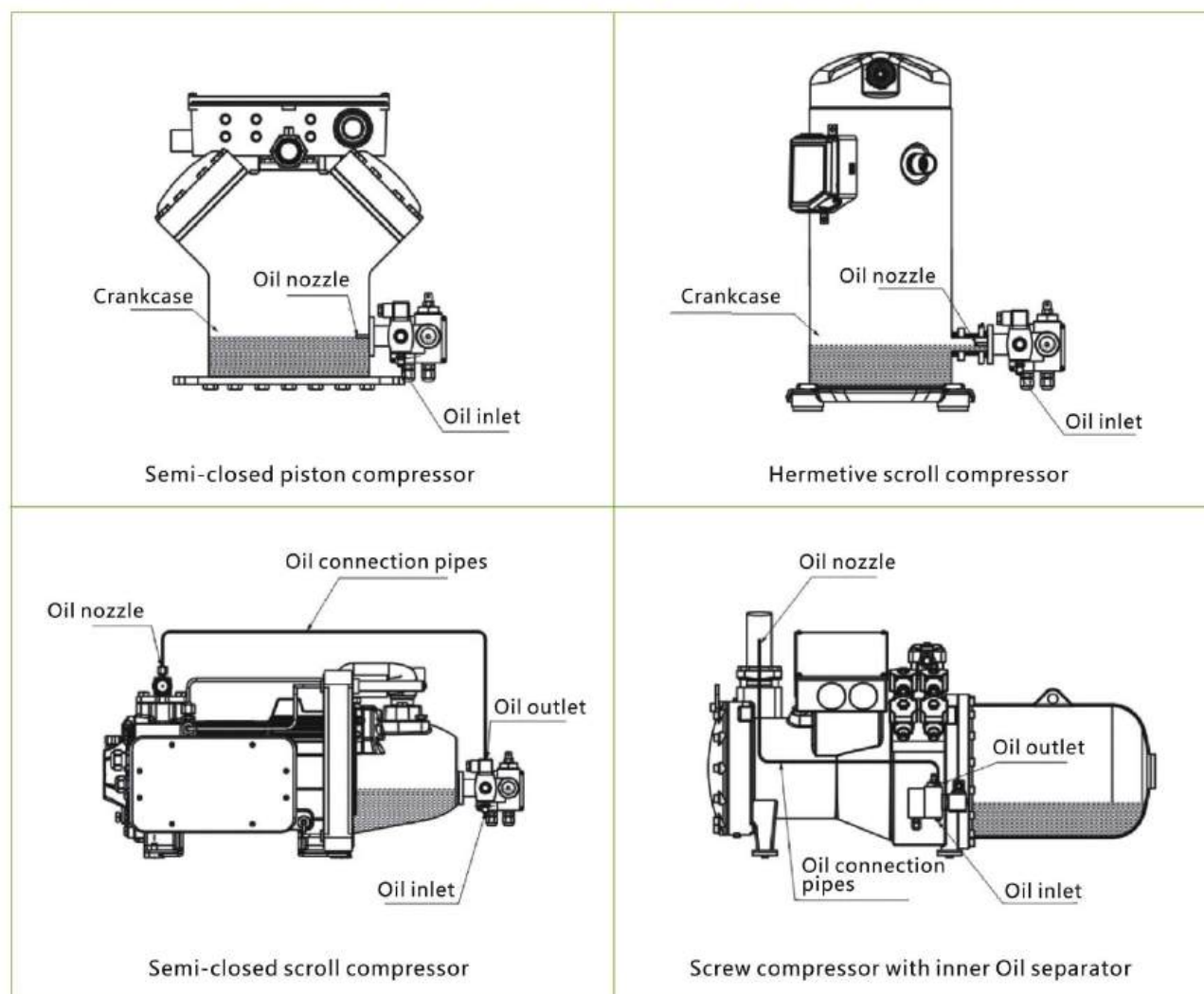


Electronic Oil Level Regulator Type OLCE

Installation – Notes

1. To protect the Oil Level Regulator from system debris, an Oil Strainer, Oil Filter or Oil Filter Drier is recommended.
2. The operating differential oil pressure should be within the range of the Regulator's specification.
3. Power to the unit should be maintained during compressor running, standby and shutdown modes.
4. Full instructions are given in the Product Instruction Sheet included with each Regulator.
5. Keep clean of the sight glass housing, housing tighten torque 35N.m.
6. Vertically insert the sensor into glass housing with 10N.m tighten torque, the wire outlet should downward.
7. Ensure the body is in a horizontal position when install to the compressor.
8. The sensor starts 5 seconds after connecting the supply voltage.
9. The sensor disconnected after 5 seconds in case of low oil level or sensor fault happens, and connected after 5 seconds when oil level normal and fault gone. This delay prevents high switching rate at not clear conditions e.g. formation of foam, bubbles in liquid.

Installation of electronic oil level regulator in compressors



Mechanical Oil Level Regulator Type OLC, CE

Applications

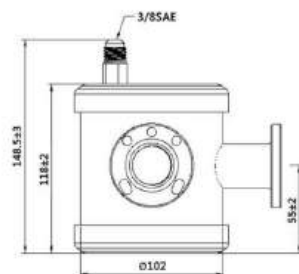
Oil Level Regulators are typically used as part of a Low Pressure Oil Management System on parallel compressor racks, designed to bolt directly to the sight glass housing on the compressor crankcase. HPEOK Refrigeration offers fixed level and adjustable level Oil Level Regulators, as well as a wide variety of Adapters to allow use on most popular compressor models.

Main Features

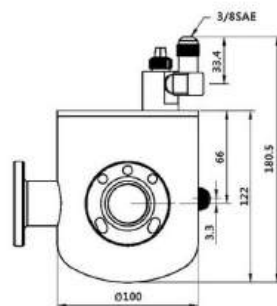
1. Universal flange compressor connections.
2. SAE flare oil and equalization connections.
3. Adjustable oil level on select models.
4. Pressure equalization ports for adjustable level Oil Level Regulators.
5. Adapters available for most popular compress models.

Technical Specifications

Maximum working pressure = 464 PSI (32 Bar).
Allowable operating temperature = -10°C to +120°C.
HPEOK Mechanical Oil Level Regulators are CE Listed.



Specification					
Part No.	Oil level in sight glass	Suitable with R717 &HP	Equalization connection	Pressure Differential	Connection
PKOLC-2	1/2	NO	NO	0.35-2.0Bar	5bolts



Specification					
Part No.	Oil level in sight glass	Suitable with R717 &HP	Equalization connection	Pressure Differential	Connection
PKOLC-2-5	1/4 to 5/8 Adjustable	NO	NO	0.35-6.2Bar	7bolts
PKOLC-2-5E	1/4 to 5/8 Adjustable	YES	YES	0.35-6.2Bar	7bolts

Installation – Notes

1. To protect the Oil Level Regulator from system debris, an Oil Strainer, Oil Filter or Oil Filter Drier is recommended.
2. The Oil Level Regulator should not be subjected to excessive vibration. The operating differential oil pressure should be within the range of the Regulator's specification.
3. Full instructions are given in the Product Instruction Sheet included with each Regulator.
4. Ensure the body is in a horizontal position when install to the compressor.

Oil Receiver Type PKOR, CE

Applications

HPEOK Oil receivers are used in "Low and High pressure oil control systems". Due to system design, loading and defrosting cycle, the changing oil mass can be sent back by oil separator, thus, a safety oil reserve is required for the operation of oil control system. In the oil receiver, any refrigerant trapped within the oil is boiled-off and the oil is cooled and kept available. HPEOK oil receivers are normally equipped with sight glasses with float ball level indicators, for upper and lower level indication, and with two shut off valves, the top valve receives valve from oil separator, and the bottom valve sends oil to the oil regulator.

Construction

HPEOK oil receivers are supplied with:

- Two/Three sight glasses with level indicator balls
- check the oil level in the receiver.
- Two rotalock valves to easy connect oil fill and oil drain.

These valves are not mounted on the receiver; they are in the package with the proper gaskets.

- A 3/8" SAE Flare connection on top of the receiver can allow to assemble a pressure differential check valve.

Note: The Pressure differential check valve is not supplied with receiver; if it's necessary to use a positive differential pressure between the receiver and the compressor crankcase, we recommend HPEOK Pressure differential check valve:

- PKV-20 (with differential pressure of 1.38 bar)

When Screwing the differential valve onto the 3/8"SAE connection, remember to use a PTFE gasket between the receiver and valve.



Optional device



sight glass



Differential check valve

Oil Receiver Type PKOR, CE

Installation

Oil should be added to the oil receiver to the upper (or middle) sight glass on new system start-up. During the first two working days of the refrigerating system, oil should be added to maintain a level between the two sight glasses. This procedure may require several oil charges because the oil is adsorbed in the refrigerant. When the refrigerating system is balanced, the oil level in the receiver must be controlled during each maintenance inspection and the oil should be added again if the level decreases the lower sight glass.

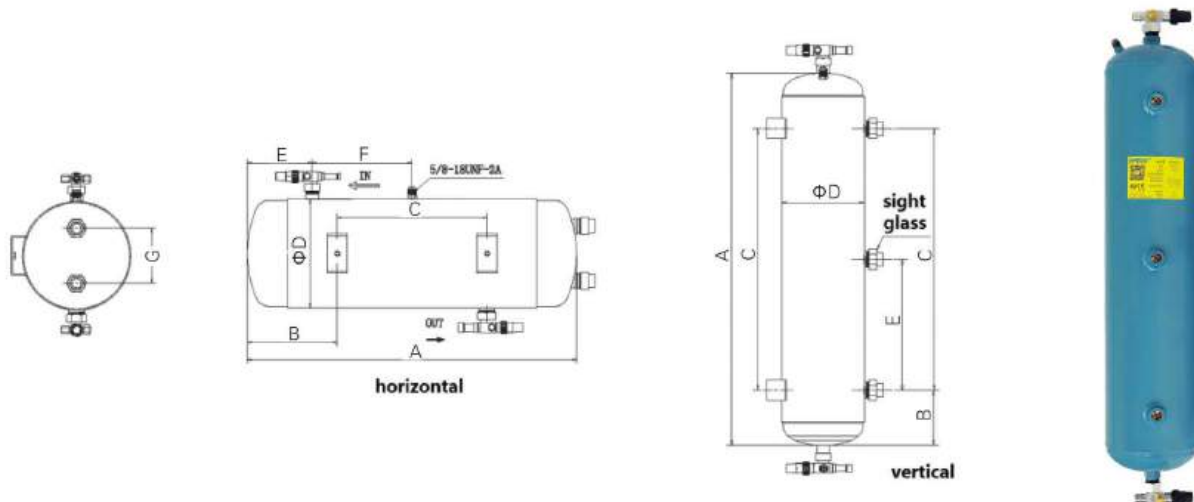
When adding or replacing an oil receiver to an existing system, the oil should be filled to the top of the lower sight glass only. Because the system is placed into operation, the oil level is needed to be observed during the first two days.

Add adequate oil to the receiver if the level decreases below the lower sight glass; Drain adequate oil from the receiver if the level rises above the upper sight glass.

Technical specification

Max. Allowable operating pressure: 3.0Mpa

Refrigerant: Suitable with HFC & HCFC Refrigerants and associated oil (R134a, R404A, R507, R407A, R407C, R22 etc).



Specification

Part No.	Inlet & Outlet	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	Sight Glasses Qty	Oil storage volume (L)
PKOR-6	3/8	338	94	150	165	—	—	2	6
PKOR-8	3/8	438	109	220	165	—	—	2	8
PKOR-10	3/8	548	131	285	165	—	—	2	10
PKOR-12	3/8	638	139	360	165	—	—	2	12
PKOR-14	1/2	738	110	518	165	259	—	3	14
PKOR-19	1/2	580	140	300	219	—	—	2	19
PKOR-23	5/8	700	140	420	219	210	—	3	23
PKOR-10CL	3/8, 1/2	548	144	260	165	90	208	2	10
PKOR-20CL	3/8, 5/8	660	180	300	219	130	200	2	20

HPEOK can customize oil receivers that can be approved for all hazardous fluids on request.

Oil separator receiver for screw compressor

Type PKEO, CE



Application

This externally oil separator is designed for the screw compressor which doesn't have an oil separator, especially for parallel screw compressor units. It can ensure enough lubricating oil supplied to each compressor to make compressor safe operation.

This oil separator features a centrifugal flow path to achieve perfect oil separation with lowest pressure drop. Due to its good design, it greatly improves the heat exchange efficiency of the system.

The oil heater of the separator should start to work when compressor stop working, and shut off when compressor is running. The oil temperature controller sets the lowest temperature on +50°C, do heat preservation processing for oil separator if working on low temperature environment.

Feature

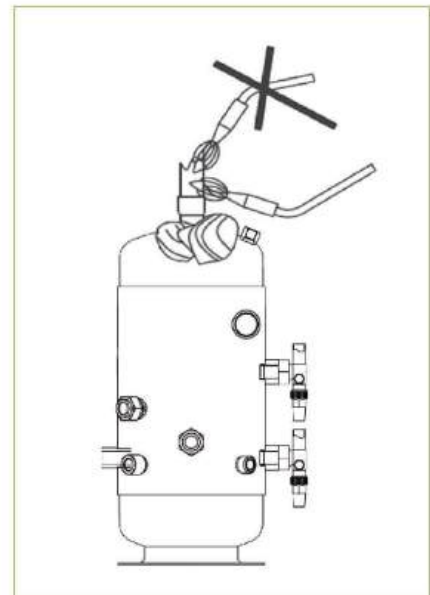
- The lower part of the oil separator is oil receiver, there is a standard oil level sight glass and ultralimit oil level sight glass on the receiver
- Suitable for 10P to 160P screw compressor
- The type of gas in and out is "side in up out", it combines the centrifugal effect and strainer effectively to achieve better oil separation
- The whole series equipped with high sensitive optoelectronic switch and highest standard of rotalock valve (tube with copper bush inside)
- Optional for flange assembly

Technical data

- For use with R134a, R404A, R507A, R407C, R223
- Design Working pressure: 3.0 MPa (30 bar)
- CE listed

Installation

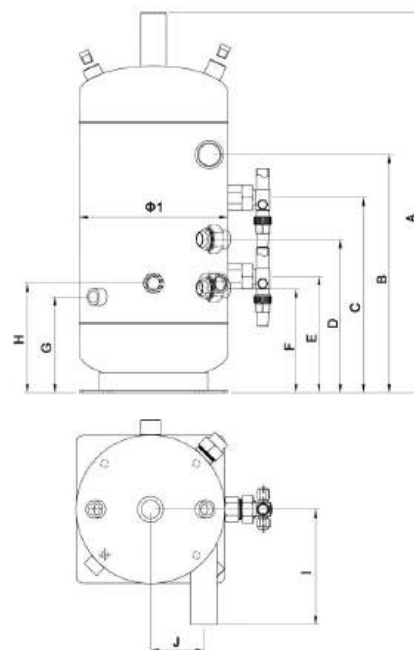
Before the oil separator is installed, an initial charge of oil should be added to it. Use the same type of oil that is in the compressor crankcase. The oil separators should be installed in the discharge line between the compressor and the condenser mounted securely in a vertical position and reasonably close to the compressor. To prevent the return of refrigerant from condenser, during the off cycle of the system, it's advisable to install a check valve between the condenser and oil separator's outlet. Oil separator performs best when operating at or near compressor discharge temperature.



Oil Separator Receiver for Screw Compressor Type PKEO

PKEO型 螺杆机外置油分离器

Oil management
system 油路系列

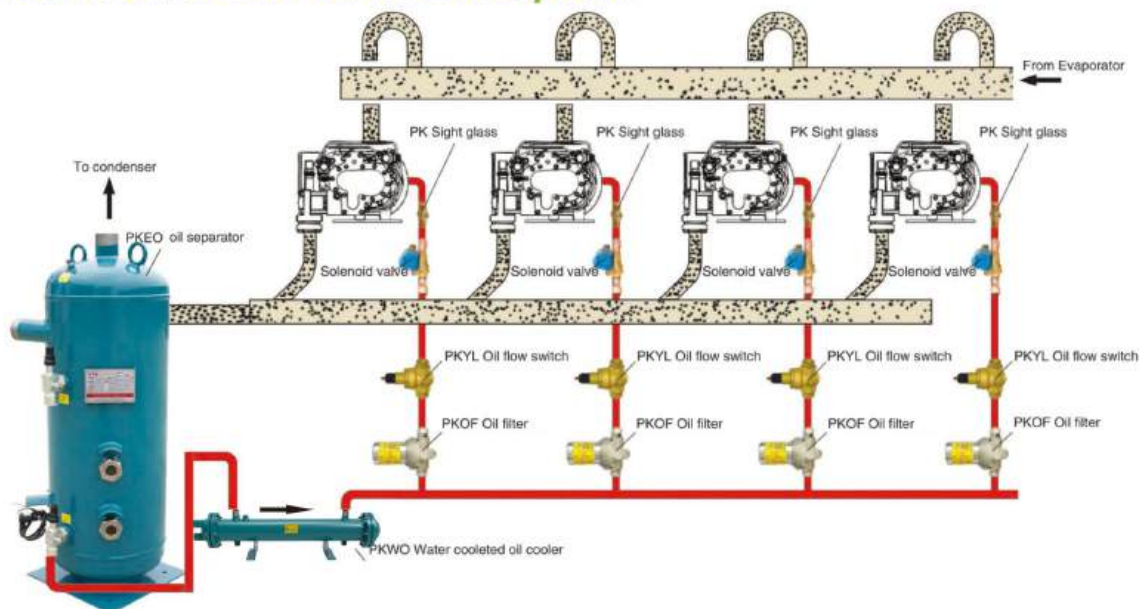


Part NO.	VH (m ³ /h)		
	High/Middle temperature range		Low temperature range
	R134a, R22	R404A, R507A	R134a, R22, R404A, R507A
PKEO-15L	100	80	130
PKEO-20L	130	110	180
PKEO-40L	250	220	300
PKEO-60L	350	320	420
PKEO-90L	450	340	520
PKEO-120L	580	440	660

The allowed max. theoretical displacement VH listed above are on the basis of 40°C condensing temperature.

Part NO.	Conn. (mm)		Dimension (mm)											Oil outlet	Oil heating	Input of oil heating	Volume (L)	Max.Oil charging (L)
	ID	OD	A	B	C	D	E	F	G	H	I	J	Φ1					
PKEO-15L	Φ35	Φ42	560	350	287	226	171	154	141	161	170	82	219	Φ16	140Wx1	1~/230V /50Hz	15	9
PKEO-20L	Φ42	Φ48	586	360	329	239	168	178	139	162	195	102	273	Φ16	140Wx1		20	11
PKEO-40L	Φ54	Φ64	752	555	412	325	196	216	162	179	230	120	325	Φ22	300Wx1		40	19
PKEO-60L	Φ54	Φ64	955	746	583	480	178	223	175	185	230	120	325	Φ28	300Wx2		60	30
PKEO-90L	/	Φ76	1000	731	598	458	236	286	188	198	262	135	377	Φ28	300Wx2		90	40
PKEO-120L	/	Φ76	1106	869	720	463	220	270	193	203	270	155	410	Φ28	300Wx2		120	50
PKEO-220L	/	Φ89	1340	1027	869	560	360	311	167	210	330	200	510	Φ35	300Wx3		220	85
PKEO-400L	/	Φ108	1455	1030	900	643	315	293	190	278	400	270	662	Φ35	300Wx3		400	180

Screw Parallel Unit Oil Return System



Differential Check Valve Type PKV, CE



Applications

The differential check valves are designed for use in “Low pressure oil control systems” and are installed on commercial refrigerating systems and on civil and industrial conditioning plants.

Installation

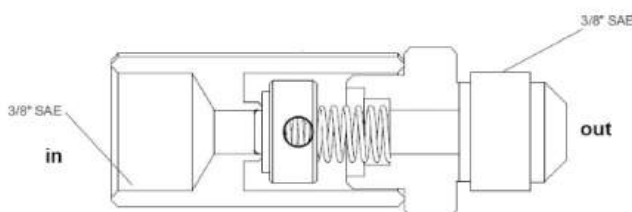
In order to return oil from the receiver back to the compressors at a sufficient flow rate, there must be a differential between receiver pressure and crankcase pressure. The valve is installed between the oil receiver and the suction line. The differential check valve is directly mounted on the 3/8" SAE Flare connection of the receiver and is piped to the suction line.

For CO₂ units with significant pressure fluctuations we provide valves on request, it is able to ensure the pressure equalization between the suction line and the receiver if the excess pressure in the suction line is above 0.1bar. As a result the oil receiver pressure will never be significant lower the suction line pressure.

Refrigerant

HPEOK differential check valves is suitable with HFC & HCFC Refrigerants and their associated oils (R134a, R404A, R507, R407A, R407C, R22 etc).

Moreover, HPEOK provide valves for different refrigerants on request.



Specification

Part NO.	Pressure differentia initialization
PKV-20	20psi (1.3bar)

Water cooled oil cooler Type PKWO, CE



Specification

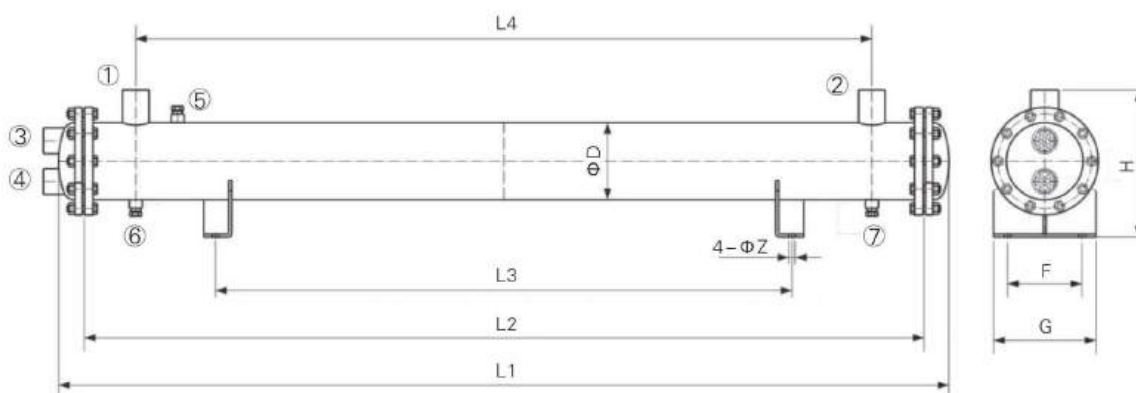
Dimension	Part No.	PKWO-1038	PKWO-1538	PKWO-2045	PKWO-2545	PKWO-4057
ΦD		114	140	140	140	165
L1		1000	1040	1340	1740	1900
L2		856	936	1236	1536	1796
L3		450	550	840	1240	1240
L4		608	608	1048	1430	1500
F		120	120	120	120	315
G		168	180	180	180	220
H		237	260	260	260	160
ΦZ		12	12	12	12	12

Technical data

Heat exchange capacity on water temperature 35°C	Kw	4.6 ~ 8.2	10.3 ~ 17.6	18.6 ~ 27.2	29.8 ~ 45.5	42.5 ~ 70.0
Water flow	m ³ /h	2.0 ~ 4.5	3.0 ~ 6.0	3.0 ~ 6.5	3.0 ~ 7.5	3.4 ~ 10.0
Pressure drop	Bar	0.22	0.23	0.24	0.25	0.35
Oil flow	m ³ /h	0.5 ~ 0.7	0.7 ~ 1.4	1.4 ~ 2.2	2.1 ~ 3.8	2.9 ~ 5.5
Internal capacity in oil side	L	4.7	10.3	11.6	15.5	23.8
Max. Working pressure in oil side	Bar	28	28	28	28	28
Max. Working pressure in water side	Bar	10	10	10	10	10

Connection

① Oil inlet	$\Phi 38$	$\Phi 38$	$\Phi 45$	$\Phi 45$	$\Phi 57$
② Oil outlet	$\Phi 38$	$\Phi 38$	$\Phi 45$	$\Phi 45$	$\Phi 57$
③ Water inlet	G1"	G1"	G1-1/4"	G1-1/4"	G1-1/2"
④ Water outlet	G1"	G1"	G1-1/4"	G1-1/4"	G1-1/2"
⑤ Service valve connection	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT
⑥ Drain	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT
⑦ Oil discharge outlet	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT	1/2"-14NPT



Oil Filter for screw compressor Type PKOF, CE



Technical data

- Max. Working pressure: 31 Bar(3.1 Mpa)
- Max. Operation temperature: 120°C
- Filter accuracy: 25 μ m
- For use with R134a, R22, R404A, R507A, R407C, mineral oil(MO), benzene synthetic oil(AB), polyol-ester refrigeration oil(POE)

Specification

Part No.	Connection (in)		Sketch
	A(ODF)	B	
PKOF-03L	3/8"	1 1/4"-12UNF	
PKOF-04L	1/2"	1 1/4"-12UNF	
PKOF-05L	5/8"	1 1/4"-12UNF	
PKOF-07L	7/8"	1 1/4"-12UNF	

PKOF-OOW Oil filter

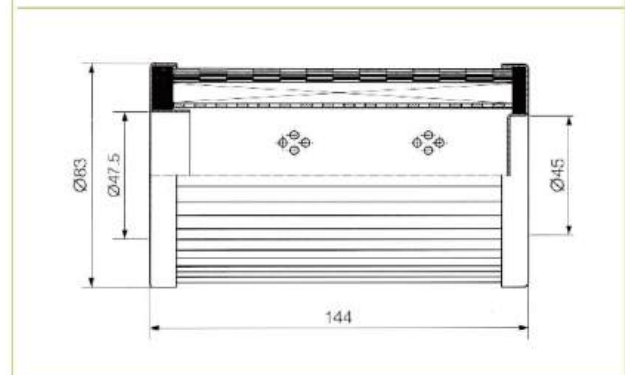
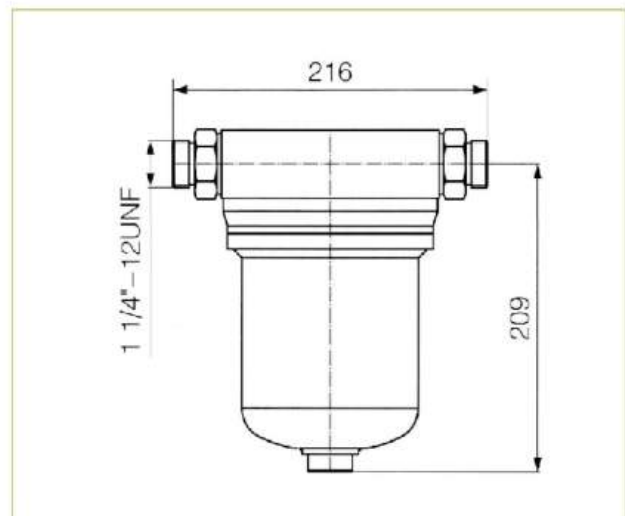
PKOF-OOW Oil filter coreThe core is balayeuse type, with filter area and minimum pressure drop, and it can be used to Bitzer HS.53, HS.64, HS.74, HS.85 series oil filter for screw compressor(O ring is standard configuration)

Application

PKOF Oil filter is designed for the external oil line system for screw compressor, it has super filter capacity, can ensure the mineral oil(MO), benzene synthetic oil(AB), polyol-ester refrigeration oil (POE) return to compressor.

Feature

- Aluminium shell: lightweight, anticorrosion
- High precision filter core provides maximal filter area, minimum pressure drop
- The filter core is assembled with "T" shape to the inlet and outlet, no need to disassemble the connection lines when replacing core.
- Having a quadrangle platform in the bottom for spanner operation, easy to replace core
- Inlet and Outlet: 1 1/4"-12UNF male screw, conveniently connect to 7/8" ODF, 5/8" ODF, 1/2" ODF, 3/8" ODF straight joint



Coarse Oil Filter Type PKAO

Applications

The coarse oil filter is installed to the outlet of HPKEO oil separator receiver.

It can filter the particles that larger than $50\mu\text{m}$, thus ensures the regular operation of the outer oil pipelines of oil separator receiver.

Features

- Rustproof Aluminum flange
- Min. pressure drop when fully open
- Corrosion resistant epoxy powder paint finish, can be used in all environment.
- Sturdy steel shells for long life, solid copper or carbon steel connections.
- 1/4 NPT access hole.

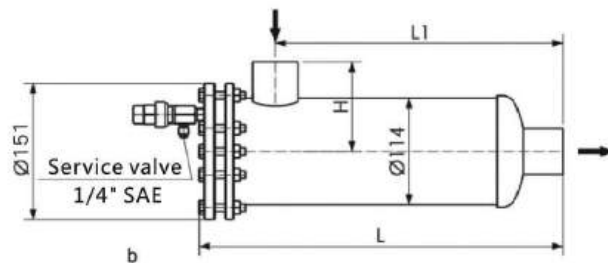
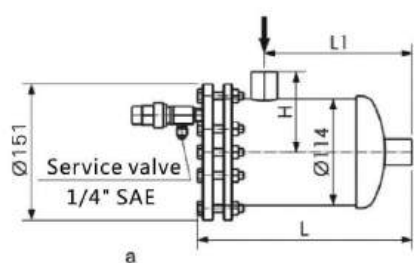
Specification

- Designed pressure: 29Bar
- Filter accuracy: $50\mu\text{m}$
- For use with R134a, R22, R407C, R404A, R507A, mineral refrigeration oil(MO), benzene synthetic refrigeration oil(AB), polyolester refrigeration oil(POE)



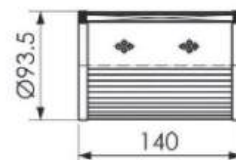
Specification

Part No	Connection (mm)	L (mm)	L1 (mm)	H(mm)	Filter area (m ²)	Sketch
PKAO-05	16	233	152	78	0.12	a
PKAO-07	22	238	157	82	0.12	a
PKAO-09	28	240	159	84	0.12	a
PKAO-11	35	388	306	87	0.24	b
PKAO-13	42	390	308	88	0.24	b
PKAO-17	54	396	314	92	0.24	b
PKAO-25	76	408	310	116	0.24	b



PKAO Filter core

The core is balayouse design, it has large filter area and minimum pressure drop



Automatic oil separator Type PKW-4808, CE

Application

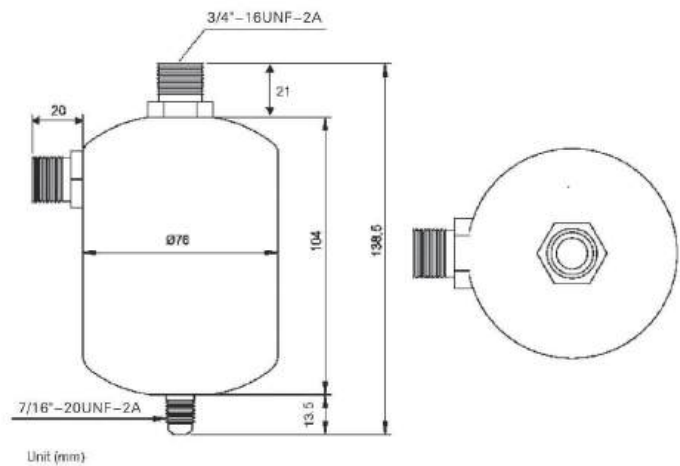
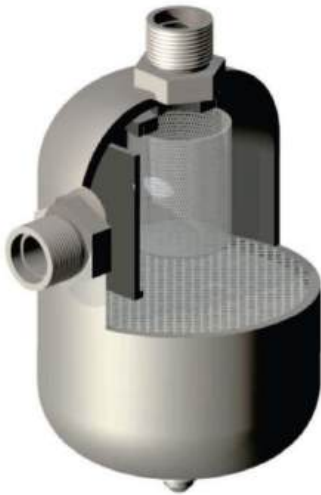
Automotive oil separator designed for installation on automotive refrigerating systems. When the compressor is running, the outlet of compressor always has lots of refrigerant oil. If too much oil moves to the system, it will affect the the performance of evaporator and condenser.

The use of an oil separator leads to:

- A longer life of the compressor;
- A better performance of the whole system with consequent energy saving;
- A quieter operation by reducing pulsations.



Oil management
system



Technical specification

- Max. working pressure: 450 psi (31 Bar).
- Allow. Operating temperature: $-10^{\circ}\text{C} \sim 120^{\circ}\text{C}$.
- Volume: 0,4L.





Filter drier series

Bi-flow Filter Drier Type PKK, CE



Application

PKK Bi-flow filter drier is a solid core, bi-flow, liquid line filter drier for heat pump applications optimized for use with R-410A.

The filter drier has built-in check valves, which can ensure liquid refrigerant always flows through filter driers from the filter core's outer side towards to the center. Thus all dirt particles are retained in either flow directions. And the filter driers can ensure quick and well adsorption of moisture, organic and inorganic acids.



Main Features

- Available with flare and solder connections
- Can be installed in any position
- High moisture and acid removal capacity
- Internal check valves allow flow & filtration in either direction
- Corrosion resistant epoxy powder coated finish suitable for all environments
- High moisture and acid removal capacity

Materials of Construction

The shell is constructed from carbon steel and powder coated for corrosion resistance. Solder connections are made from solid copper and SAE flare connections are made from bar steel. The spring is made from steel. The perforated plate is made from galvanized steel. The core is made from 100% molecular sieve. The filter pad is made from non-woven polyester. The filter mesh is made from stainless steel, filter pad and mesh to remove solid particles.

Core

The standard core for PKK Bi-flow Filter drier is composition of 100% Molecular Sieve, while 80% Molecular Sieve with 20% activated alumina on request.

Core type: 100% Molecular Sieve desiccant: designed for applications requiring the highest moisture capacity.

- High drying capacity minimizing the risk of acid formation (hydrolysis).
- Recommended for use with CFC, HFC and HCFC refrigerants, including R410a, optional for CO₂.
- Will not deplete oil additives.

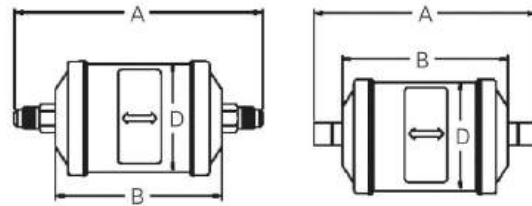
Core type: 80% Molecular Sieve & 20% Activated Alumina: designed for applications requiring high moisture capacity and acid adsorption capacity:

- Perfect core blend for systems that operate at high condensing temperatures and require high drying capacity.
- Not suitable for oils containing additives.
- Recommended for use with CFC, HFC and HCFC refrigerants, including R410a, optional for CO₂.

Bi-flow Filter Drier Type PKK, CE

Specification

- Standard core of 100% Molecular Sieve Desiccant optimized for high water capacity.
- Maximum working pressure = 609 PSI (42 Bar).
- CE listed– 97/23/EC.



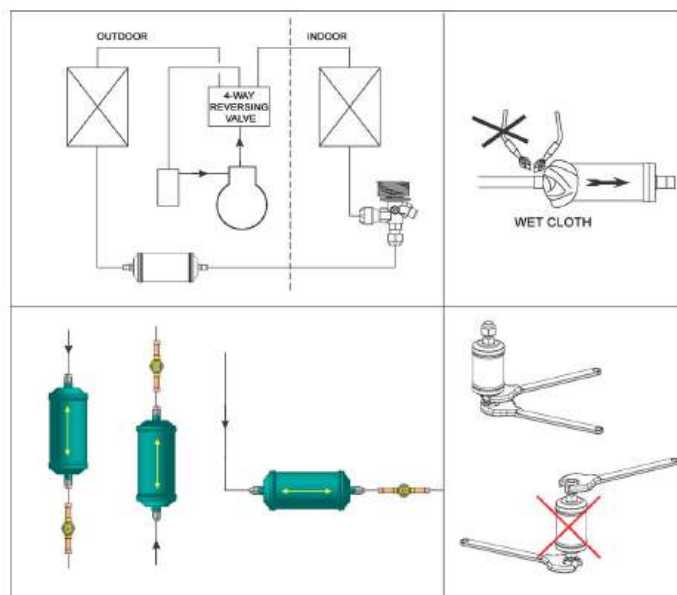
Filter drier
series

Specification

Part No.	Connection (in)		Refrigerating capacity (Kw)			Dimension (mm)		
	Solder	Flare	R22	R410A	R407C	A	B	D
PKK-082		1/4	7.0	7.0	7.0	145	98	63.5
PKK-082S	1/4		7.0	7.0	7.0	142		
PKK-083		3/8	15.8	15.8	15.5	155		
PKK-083S	3/8		17.9	17.9	17.6	146		
PKK-084		1/2	22.5	22.5	23.1	163		
PKK-084S	1/2		23.5	23.5	23.2	148		
PKK-085S	5/8		7.0	7.0	7.0	146	112	76
PKK-162		1/4	7.0	7.0	7.0	159		
PKK-162S	1/4		28.5	28.5	27.8	156		
PKK-163		3/8	16.2	16.2	15.8	169		
PKK-163S	3/8		18.3	18.3	17.9	160		
PKK-164		1/2	27.0	27.0	26.7	177		
PKK-164S	1/2		28.5	28.5	27.8	162		
PKK-165		5/8	29.2	29.2	28.5	185		
PKK-165S	5/8		30.6	30.6	29.9	160		
PKK-166		3/4	42	42	42	191		
PKK-166S	3/4		42	42	42	166		
PKK-167S	7/8		42.2	42.2	39.8	172		
PKK-307S	7/8		58	58	58	245	192	

Installation-Note

1. The filter drier must be installed ahead of the component needed to be protected; it is normally installed in the liquid line.
2. HPEOK recommends installing a moisture indicator in conjunction with each filter drier to monitor drying effect.
3. The filter drier can be installed in any direction, but follow below notes:
 - Vertical mounting with downward flow means evacuate or empty refrigeration system rapidly
 - Vertical mounting with upward flow means to evacuate or empty the system slowly as refrigerant must be evaporated out of the filter drier.



Solid Core Filter Drier Type PKEK, CE



Applications

HPEOK Refrigeration's Liquid Line Filter Driers provide a top level protection for refrigeration and air conditioning systems. They are designed to capture and retain solid particles and moisture from circulating throughout the system, which can create acid that may damage to compressor and other components.

If the filter drier's drying capacity is insufficient, the compressor may be damaged—which may in turn lead to a complete system breakdown. And damage caused by water in the refrigerant can be costly. A new compressor is so expensive and on top of the cost of production standstill.

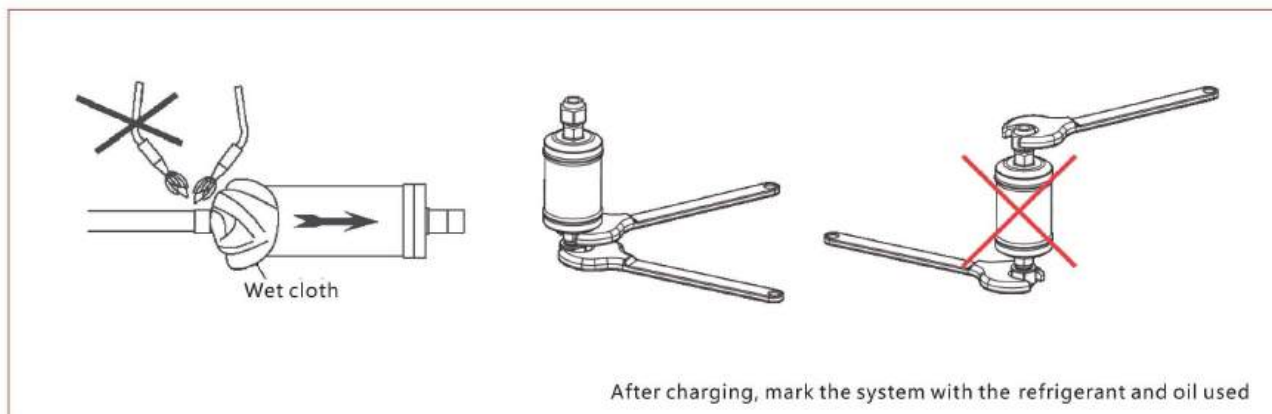
HPEOK Refrigeration filter driers are suitable for HCFC, HFC, and their associated oils, including R410A, optional for CO₂ refrigerants.

Core

The standard core for PKEK is composition of 100% molecular sieve, while 80% molecular sieve with 20% activated alumina on request. The user should select the appropriate core based on refrigerant and oil types. The model should then be selected based on the required drying and liquid capacities.

Installation–Note

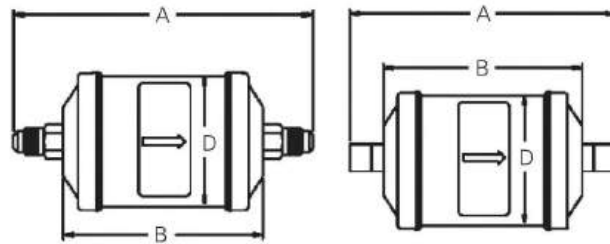
1. The filter drier must be installed ahead of the component needed to be protected, it is normally installed in the liquid line.
2. HPEOK recommends installing a moisture indicator in conjunction with each filter drier to monitor drying effect.
3. Install the filter drier with flow of the arrow on the filter drier label.
4. The filter drier can be installed in any direction, but follow below notes:
 - Vertical mounting with downward flow means evacuate or empty refrigeration system rapidly
 - Vertical mounting with upward flow means to evacuate or empty system slowly as refrigerant must be evaporated out of the filter drier.



Solid Core Filter Drier Type PKEK, CE

Main Features

- Available with solid copper solder connection or steel flare connection.
- Solid particle filtration down to 40 microns with minimal pressure drop.
- Corrosion resistant epoxy powder coated finish suitable for UV rays and harsh environments, including marine applications.
- Maximum working pressure = 47 Bar.
- CE listed



Filter drier
series

Specification

Part No.	Connection(in)		Refrigerating capacity (Kw)					Dimension (mm)		
	Solder	Flare	R134a	R22/R410A	R407C	R404A/R507	R502	A	B	D
PKEK-032		1/4	6.7	7.4	7.2	4.9	4.6	113	66	43
PKEK-032S	1/4		8.1	8.7	8.5	6.0	5.6	110		
PKEK-033		3/8	9.5	10.2	10.2	7.0	6.7	123		
PKEK-033S	3/8		10.5	11.6	11.6	7.7	7.4	114		
PKEK-052		1/4	61.2	49.8	61.8	41.3	40.3	119	72	
PKEK-052S	1/4		9.7	10.4	10.2	7.9	7.6	116		
PKEK-053		3/8	11.5	12.3	12.1	9.7	9.4	129		
PKEK-053S	3/8		47	52	51	32	31	120		
PKEK-082		1/4	50	55	54	35	34	145	98	
PKEK-082S	1/4		70.5	76.7	76.7	50.9	49.8	142		
PKEK-083		3/8	12.7	12.5	12.1	10	9.8	155		
PKEK-083S	3/8		14.5	15.9	15	9.7	9.4	146		
PKEK-084		1/2	36	31	42	42	27	163		63.5
PKEK-084S	1/2		50.6	55	54	35.4	34	148		
PKEK-085S	5/8		55.6	60.1	59.1	40.4	39	146		
PKEK-162		1/4	87.6	95	93.2	63.3	61.6	159		
PKEK-162S	1/4		16.5	17.9	17.6	11.9	11.6	156	112	
PKEK-163		3/8	42.8	37	48	48	33	169		
PKEK-163S	3/8		34.4	37.3	36.6	24.9	24.2	160		
PKEK-164		1/2	37.6	40.8	40.1	27.4	26.4	177		
PKEK-164S	1/2		60	60	59	40	39	162		
PKEK-165		5/8	67	75	74	54	53	185		
PKEK-165S	5/8		111.6	121.4	121	80.5	78.8	160		
PKEK-166		3/4	7.3	7.9	7.9	5.3	5.2	191		
PKEK-166S	3/4		12.8	13.9	13.9	9.2	9.0	166		
PKEK-167S	7/8		16.2	17.6	17.6	11.7	11.4	172		
PKEK-302		1/4	23.5	25.5	25.5	16.9	16.6	232		
PKEK-303		3/8	7.3	7.9	7.9	5.3	5.2	242		
PKEK-303S	3/8		12.8	13.9	13.9	9.2	9.0	233		
PKEK-304		1/2	19.2	20.9	20.3	13.9	13.6	250		
PKEK-304S	1/2		26.1	28.4	27.9	18.9	18.5	235		
PKEK-305		5/8	32.3	35.3	34.3	23.4	22.9	258		
PKEK-305S	5/8		36.5	39.5	39.5	26.2	25.7	233	185	76
PKEK-306		3/4	21.4	23.3	23.0	15.4	15.1	264		
PKEK-306S	3/4		29.0	31.6	31.6	21.0	20.5	239		
PKEK-307S	7/8		42.8	46.5	46.5	30.9	30.2	245		
PKEK-309S	1-1/8		51.3	55.8	55.8	37	36.2	245		
PKEK-413		3/8	64.2	69.8	69.8	46.3	45.3	249		
PKEK-413S	3/8		64.2	69.8	69.8	46.3	45.3	240		
PKEK-414		1/2	49.6	54	54	35.8	35	257		
PKEK-414S	1/2		54.3	59.1	59.1	39.2	8.4	242		
PKEK-415		5/8	67.6	73.5	73.5	48.8	47.8	265		
PKEK-415S	5/8		72.7	79.1	79.1	52.5	51.4	240		
PKEK-416		3/4	98.4	107	106.2	71.1	69.6	271		
PKEK-416S	3/4		81.3	88.5	88.5	58.7	57.5	246	192	89
PKEK-417S	7/8		81.3	88.5	88.5	58.7	57.5	252		
PKEK-419S	1-1/8		100.5	109.4	109.4	72.5	71	252		

Solid Core Filter Drier Type PKEM/PKEC, CE



Applications

HPEOK Refrigeration's Liquid Line Filter Driers provide a top level protection for refrigeration and air conditioning systems. They are designed to capture and retain solid particles and moisture from circulating throughout the system, which can create acid that may damage to compressor and other components.

If the filter drier's drying capacity is insufficient, the compressor may be damaged—which may in turn lead to a complete system breakdown. And damage caused by water in the refrigerant can be costly. A new compressor is so expensive and on top of the cost of production standstill.

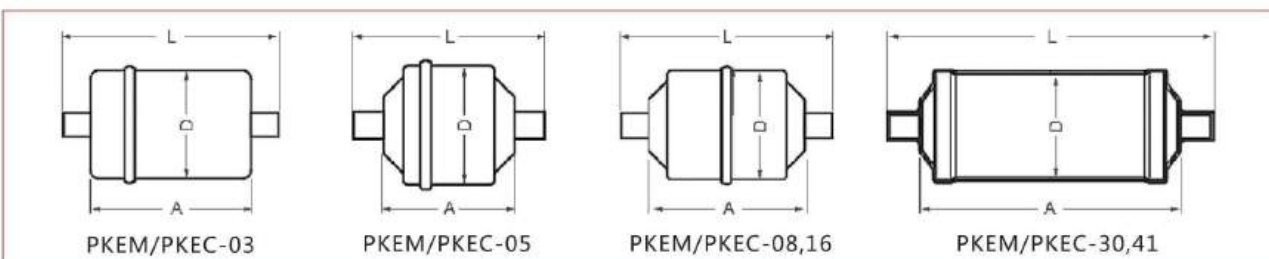
HPEOK Refrigeration filter driers are suitable for HCFC, HFC, and their associated oils, including R410A, optional for CO₂ refrigerants.

Main Features

- Available with solid copper solder connections or steel flare connections
- Solid particle filtration down to 25 microns with minimal pressure drop
- Corrosion resistant epoxy powder coated finish suitable for UV rays and harsh environments, including marine applications
- Maximum working pressure = 47 Bar.
- CE listed



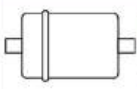
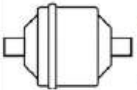
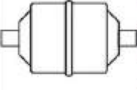
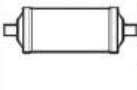
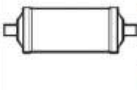
Installation



Solid Core Filter Drier Type PKEM/PKEC, CE

Core

Type PKEM have a core composition of 100% Molecular Sieve, while type PKEC is 80% Molecular Sieve with 20% activated alumina..

Specification										
Drawing	Part No.	Connection(in)		Refrigerant refrigerating capacity (Kw)			Dimension(mm)			Size (volume)
		Solder	Flare	R134a	R404A/R507	R22/R407C/R410A	A	B	D	
	PKEM/PKEC-032		1/4	7	5	7	113	66	43	3in3
	PKEM/PKEC-032S	1/4		7	5	7	110			
	PKEM/PKEC-033		3/8	17	13	19	123			
	PKEM/PKEC-033S	3/8		17	13	19	114			
	PKEM/PKEC-052		1/4	7	5	8	122	75		5in3
	PKEM/PKEC-052S	1/4		7	5	8	119			
	PKEM/PKEC-053		3/8	18	14	19	132			
	PKEM/PKEC-053S	3/8		18	14	19	123			
	PKEM/PKEC-082		1/4	7	5	8	148	101	54	8in3
	PKEM/PKEC-082S	1/4		7	5	8	145			
	PKEM/PKEC-083		3/8	19	14	21	158			
	PKEM/PKEC-083S	3/8		19	14	21	149			
	PKEM/PKEC-084		1/2	26	20	29	166			
	PKEM/PKEC-084S	1/2		26	20	29	151			
	PKEM/PKEC-085		5/8	42	31	46	174			
	PKEM/PKEC-085S	5/8		42	31	46	149			
	PKEM/PKEC-162		1/4	7	5	8	157			
	PKEM/PKEC-162S	1/4		7	5	8	154			
	PKEM/PKEC-163		3/8	22	16	24	167			
	PKEM/PKEC-163S	3/8		22	16	24	158			
	PKEM/PKEC-164		1/2	30	22	33	175	110	76	16in3
	PKEM/PKEC-164S	1/2		30	22	33	160			
	PKEM/PKEC-165		5/8	43	30	47	183			
	PKEM/PKEC-165S	5/8		43	30	47	158			
	PKEM/PKEC-166		3/4	44	31	48	189			
	PKEM/PKEC-166S	3/4		44	31	48	164			
	PKEM/PKEC-167S	7/8		44	31	48	170			
	PKEM/PKEC-303		3/8	21	15	23	243			
	PKEM/PKEC-303S	3/8		21	15	23	234			
	PKEM/PKEC-304		1/2	31	22	34	251			
	PKEM/PKEC-304S	1/2		31	22	34	236			
	PKEM/PKEC-305		5/8	45	33	49	259			
	PKEM/PKEC-305S	5/8		45	33	49	234			
	PKEM/PKEC-306		3/4	62	45	68	265			
	PKEM/PKEC-306S	3/4		62	45	68	240			
	PKEM/PKEC-307S	7/8		62	45	68	246			
	PKEM/PKEC-309S	1-1/8		62	45	68	246			
	PKEM/PKEC-413		3/8	25	18	17	244			
	PKEM/PKEC-414		1/2	32	23	35	252	187	89	41in3
	PKEM/PKEC-414S	1/2		32	23	35	237			
	PKEM/PKEC-415		5/8	53	37	58	260			
	PKEM/PKEC-415S	5/8		53	37	58	235			
	PKEM/PKEC-417S	7/8		91	65	99	247			
	PKEM/PKEC-419S	1-1/8		91	65	99	247			

Remark: Operation condition Refrigerating capacity: evaporating temperature: -15°C, liquid temperature: 30°C, pressure drop: $\Delta P=0.07\text{Bar}$

Molecular Sieve Filter Drier Type PKES, CE



Applications

The refrigerant should be clean and dry before enter the expansion valve in the refrigerating cycle system, or the impurities will block the expansion valve, and moisture (if present) will cause ice block. Therefore a filter drier is required to capture and retain moisture and solid particles from circulating throughout the system.

The PKES filter drier is a premium compacted bead filter drier with a 20 micron outlet pad for maximum filtration.

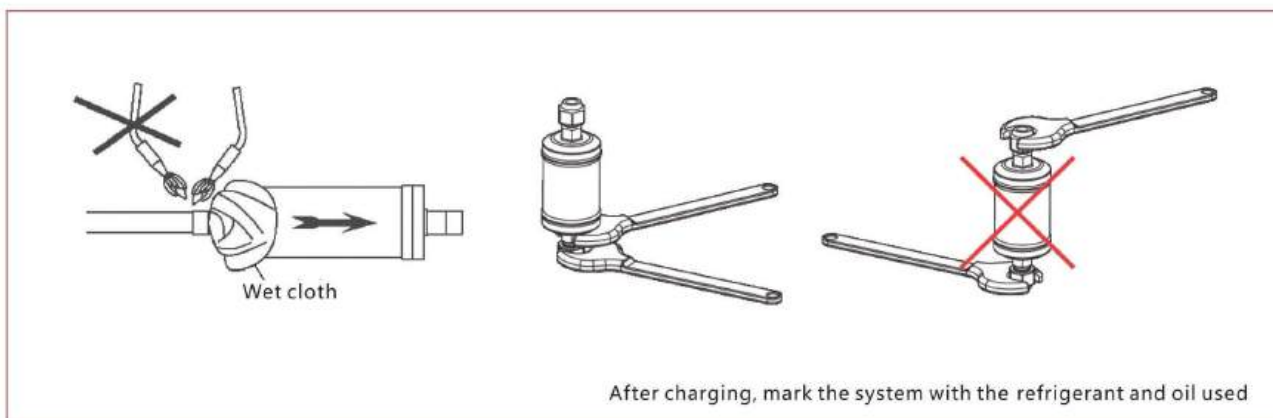
The PKES is a premium universal replacement liquid line filter drier for CFC, HCFC and HFC refrigerants, including R410A and their associated oils

Specifications

- Desiccant blend – optimized for high water capacity and acid capacity
- Filtration: 25 microns
- Maximum working pressure = 47 Bar.
- CE Listed

Installation–Note

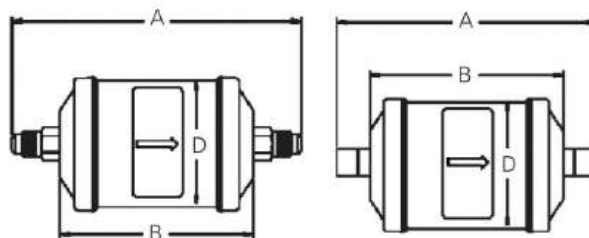
1. The filter drier must be installed ahead of the component needed to be protected, it is normally installed in the liquid line.
2. HPEOK recommends installing a moisture indicator in conjunction with each filter drier to monitor drying effect.
3. Install the filter drier with flow of the arrow on the filter drier label.
4. The filter drier can be installed in any direction, but follow below notes:
 - Vertical mounting with downward flow means evacuate or empty refrigeration system rapidly
 - Vertical mounting with upward flow means to evacuate or empty system slowly as refrigerant must be evaporated out of the filter drier.



Molecular Sieve Filter Drier Type PKES, CE

Features

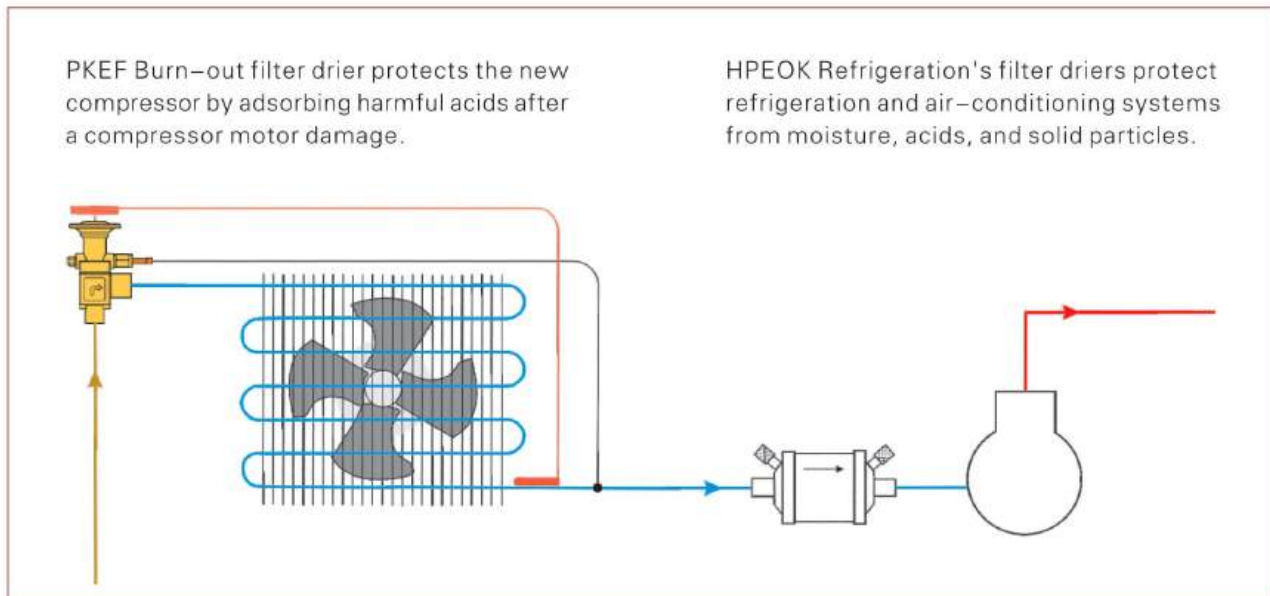
- High moisture and acid removal capacity
- High dirty retention with minimal pressure drop
- Filtration first for more effective use of surface area of desiccant
- Shock resistant steel shell construction, solid copper or flare connections
- Corrosion resistant epoxy powder coated finish suitable for all environments.



Specification

Part NO.	Connection (in)		Refrigerating capacity (Kw)					Dimension (mm)						
	Solder	Flare	R134a	R22/R410A	R407C	R404A/R507	R502	A	B	D				
PKES-052		1/4	9.0	9.8	7.7	6.5	6.3	119	72	63.5				
PKES-052S	1/4		13.3	14.4	12.3	9.6	9.4	116						
PKES-053		3/8	21.4	23.3	13.4	15.4	15.1	129						
PKES-053S	3/8		26.5	28.9	16.9	19.1	18.7	120						
PKES-054S	1/2		34	36	23	24	23.5	122						
PKES-082		1/4	8.6	9.3	8.4	6.2	6.0	145	98		63.5			
PKES-082S	1/4		13.7	14.6	12.0	9.9	9.7	142						
PKES-083		3/8	21.8	23.7	15.1	15.7	15.4	155						
PKES-083S	3/8		27.4	29.8	17.2	19.8	19.3	146						
PKES-084		1/2	36.4	39.6	25.0	26.2	25.7	163						
PKES-084S	1/2		38.9	42.4	26.4	28.1	27.5	148						
PKES-085S	5/8		60	67	35	42	41	146						
PKES-162		1/4	11	12	12.1	8	7	168.5	121.5			63.5		
PKES-162S	1/4		15	14	14	10	9	165.5						
PKES-163		3/8	22.2	24.2	14.4	16.1	15.7	178.5						
PKES-163S	3/8		31.7	34.3	16.5	22.9	22.4	169.5						
PKES-164		1/2	38.5	41.9	27.0	27.8	27.2	186.5						
PKES-164S	1/2		49.6	54.0	31.6	35.8	35.1	171.5						
PKES-165		5/8	50.5	54.9	36.2	36.4	35.7	194.5						
PKES-165S	5/8		67.2	73.1	37.6	48.5	47.5	169.5						
PKES-166		3/4	60	62	42	42	40	200.5						
PKES-167S	7/8		70.6	76.8	58.0	51.0	49.5	181.5	185				63.5	
PKES-302		1/4	13	15	15	11	10	232						
PKES-303		3/8	23	26	16	18	17	242						
PKES-303S	3/8		33	37	19	25	25	233						
PKES-304		1/2	43.6	47.5	30.2	31.5	30.8	250						
PKES-304S	1/2		54.3	59.1	38.0	39.2	38.4	235						
PKES-305		5/8	55.6	60.5	39.7	40.1	39.3	258						
PKES-305S	5/8		74.0	80.5	46.8	53.4	52.3	233						
PKES-306		3/4	65	67	47	47	45	264						
PKES-306S	3/4		79	85	51	58	57	239						
PKES-307S	7/8		83.4	90.8	62.9	60.2	59.0	245						
PKES-309S	1-1/8		109.1	118.7	73.1	78.7	77.1	245	192					63.5
PKES-413		3/8	38	42	24	30	30	249						
PKES-414		1/2	48	52	35	36	35	257						
PKES-414S	1/2		50	54	38	38	39	242						
PKES-415		5/8	68.5	74.5	45.0	49.4	48.4	265						
PKES-415S	5/8		78.3	85.2	63.6	56.5	55.3	240						
PKES-416		3/4	72	74	54	54	52	271						
PKES-416S	3/4		93	101	78	71	60	246						
PKES-417S	7/8		106.5	115.9	75.9	76.9	75.3	252						
PKES-419S	1-1/8		113.8	123.8	103.3	82.1	80.4	252						

Suction Line Filter Drier Type PKFE/PKF, CE



Filter drier
series

The function of a Suction Line Filter Drier is to capture and retain system contaminants, moisture and harmful acids in order to protect system components.

Applications

HPEOK suction line filter-driers incorporate offer a high level of protection for refrigeration and air-conditioning systems. They are specifically designed to capture and retain moisture and solid particles from circulating throughout the system, which can create acid that causes damage to the compressor and other components piped within the circuit. Compressor manufacturers recommend the installation of suction line filter-driers to protect their equipment from contaminants left in the system after a burnout. These suction line filter-driers include protection from moisture and organic or inorganic acids, resulting from burnouts, or chemical changes in the system refrigerant or oil. They are specially suited for system clean-up after a burnout, or when major work has been performed on the system.

Selection Guidelines

The user should select the appropriate core based on refrigerant and oil types. The model should then be selected based on the required drying and liquid capacities.

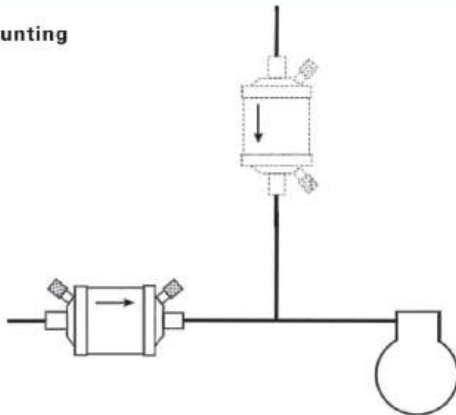
Safety and Installation Instructions

1. Before install the filter drier, read the instructions thoroughly.
Failure to follow instructions may lead to drier failure, system damage, or personal injury.
2. Ensure to pump down the system and depressurize line before attempting to install.
Failure to do so may result in personal injury.
3. Note: Take care about handling contaminated refrigerant extremely to prevent personal injury.
Failure to do so can result in personal injury.
4. Do not remove the seal caps before attempting to install.
If SAE connections, unscrew the plastic caps; if ODF connections, pull out with long nose pliers.
5. Note: Do not install access valve cores until complete all brazing. Installation prior to brazing may cause damage to valve core.

Suction Line Filter Drier Type PKFE/PKF, CE

6. The filter drier can be installed in any position. For best performance, locate the filter drier as close as possible to the compressor inlet, install upstream of vibration absorbers is suggested.
When the piping arrangement results in excessive stress on refrigerant line, it's better to support the filter drier by a suitable bracket.
7. Warning: Install the filter drier with arrow pointing in direction of flow (toward compressor).
Reverse flow may result in internal damage.
8. Clean and deburr piping ends can provide a good brazing surface.
9. Use an inert gas, for example nitrogen, to pass thru the lines while brazing to prevent formation of copper oxides.
10. If using high temperature brazing alloys, directing the flame away from the filter drier shell.
Use chill blocks, wet rags, or other proper heat protection for the filter drier.
11. After the filter drier shell has cooled, install valve cores and replace seal caps.
Do not charge system until valve cores are installed.
12. Use a back-up wrench on the flats on SAE connections to prevent twisting the refrigerant line.
13. Make leak test thoroughly after installation. Failure to do so could result in refrigerant loss.
14. The suction line filter driers should not be used for liquid line or hot gas applications.

Mounting

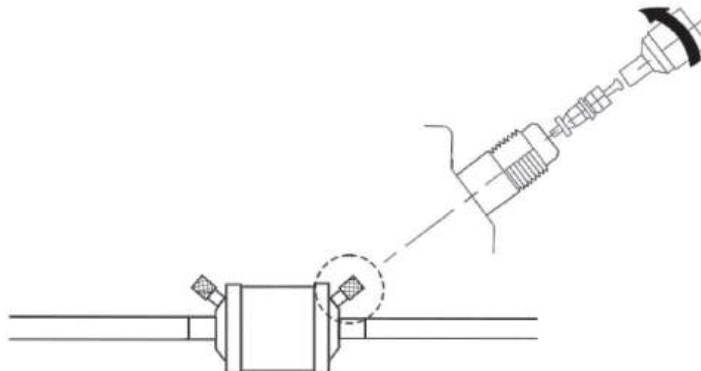


Install burnout drier as close as possible to the compressor.

Filter installation



Access valve installation



Burn-out Filter Drier Type PKFE, CE



Applications

HPEOK Refrigeration burn-out filter driers are used in the suction line to protect equipment from contaminants left in the system after a compressor burn-out.

They are especially suitable for system clean-up after a burn-out.

The solid core, is composed of 70% activated alumina and 30% Molecular Sieve, it can absorb harmful acids as well as moisture.

Specifications

- Recommended for use with HC, HFC and HCFC refrigerants.
- The filter drier must be installed with flow in the direction of the arrow on the filter drier label.
- Maximum working pressure = 47 Bar.
- CE Listed

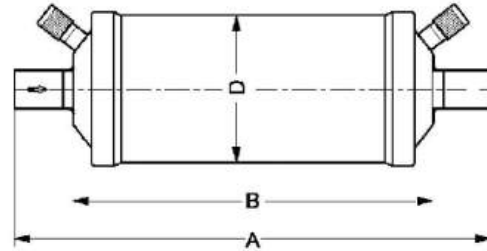


The large diameter of the burn-out filter drier means that the flow velocity is suitably low and the pressure drop minimal.

Burn-out Filter Drier Type PKFE, CE

Features

- 2 access valves (1/4") to measure pressure drop across the drier
- High moisture and acid removal capacity
- Available with flare and solder connections
- 40 μ m wire mesh provides solid particle retention with minimal pressure drop



Specification

Part NO.	Connection(in)		Refrigerating capacity (Kw)			Diemension(mm)				
	Solder	Flare	R407C/R22	R134A	R404C	A	B	D		
PKFE-052		1/4	5	3.3	3.3	119	72	63.5		
PKFE-052S	1/4		5	3.3	3.3	116				
PKFE-053		3/8	5	3.3	3.3	129				
PKFE-053S	3/8		5	3.3	3.3	120				
PKFE-082		1/4	6	3.5	4	145	98		63.5	
PKFE-082S	1/4		6	3.5	4	142				
PKFE-083		3/8	6	3.5	4.5	155				
PKFE-083S	3/8		6	3.5	4.5	146				
PKFE-084		1/2	10	5.5	8	163				
PKFE-084S	1/2		10	5.5	8	148				
PKFE-085S	5/8		15	7	10	146	112			76
PKFE-162		1/4	10.5	5	7.5	159				
PKFE-162S	1/4		10.5	5	7.5	156				
PKFE-163		3/8	13	5.5	8	169				
PKFE-163S	3/8		13	5.5	8	160				
PKFE-164		1/2	15	6	8.5	177				
PKFE-164S	1/2		15	6	8.5	162				
PKFE-165		5/8	20	9.5	13	185				
PKFE-165S	5/8		20	9.5	13	160				
PKFE-166		3/4	17	10	12	191				
PKFE-166S	3/4		22	12	15	166				
PKFE-167S	7/8		24	13	17	172				
PKFE-302		1/4	14.5	7	9	232	185	76		
PKFE-303		3/8	14.5	7	9	242				
PKFE-303S	3/8		16	8.5	11	233				
PKFE-304		1/2	17	10	15	250				
PKFE-304S	1/2		17	10	15	235				
PKFE-305		5/8	18	12.5	15	258				
PKFE-305S	5/8		18	12.5	15	233				
PKFE-306		3/4	22	14	19	264				
PKFE-306S	3/4		22	14	19	239				
PKFE-307S	7/8		26	16	22	245				
PKFE-309S	1-1/8		31	20	27	245				
PKFE-413		3/8	19	14	17	249			192	
PKFE-413S	3/8		19	14	17	240				
PKFE-414		1/2	25	14.5	23	257				
PKFE-414S	1/2		25	14.5	23	242				
PKFE-415		5/8	26.5	16	24.5	265				
PKFE-415S	5/8		26.5	16	24.5	240				
PKFE-416		3/4	29.5	17.5	25	271				
PKFE-416S	3/4		29.5	17.5	25	246				
PKFE-417S	7/8		30	18	25	252				
PKFE-419S	1-1/8		32	21	27	252				

Suction Line Filter Drier Type PKF, CE



Applications

The function of a Suction Line Filter Drier is to capture and retain system contaminants, moisture and harmful acids in order to protect system components.

The by-pass valve starts to work when refrigerant is flowing in the direction of the arrow on the filter drier label. If excessive pressure drop produced when refrigerant flow through the filter drier, the by-pass valve will open slightly to keep enough airflow and make the hermetic compressor motor get proper cooling. The by-pass valve will be ineffective if the suction line filter drier is installed to reverse flow, thus an access valve is required to measure the pressure drop from core to compressor's suction valve.

Features

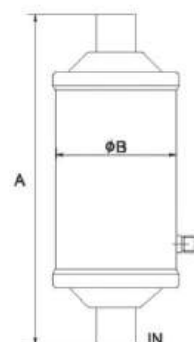
- Solid copper ODS connections
- 1/4" access valves to measure pressure drop across the drier
- High moisture absorption with added acid absorption over 100%
- Corrosion resistant epoxy powder coated finish suitable for harsh environments, including marine applications

Specifications

- Filtration: 40 μ m
- For use with HCFC & HFC including R-410A
- Installed with flow in the direction of the arrow on the filter drier label
- Maximum working pressure = 47 Bar.
- CE Listed

Specification

Part No.	Connection (in)	Filter area (in ²)	Dimension (mm)	
			A (mm)	Φ B(mm)
PKF-285-T	5/8ODF	28	210	76
PKF-286-T	3/4ODF		224	
PKF-287-T	7/8ODF		230	
PKF-289-T	1-1/8ODF		244	
PKF-489-T	1-1/8ODF	48	314	
PKF-4811-T	1-3/8ODF		333	
PKF-4813-T	1-5/8ODF		341	



Specification

Part No.	Refrigerating capacity on below evaporating temperature (RT)																
	R12	R134a	R22	R407C	R12	R134a	R22	R404A	R12	R134a	R22	R404A	R12	R22	R404A	R22	R404A
PKF-285-T	3.5	4.0	6.4	6.2	2.5	2.7	4.0	3.9	1.6	1.7	2.9	2.7	0.9	1.8	1.7	1.0	0.9
PKF-286-T	4.3	5.1	8.6	8.1	3.1	3.4	5.0	5.1	2.0	2.1	3.6	3.4	1.1	2.2	2.1	1.2	1.1
PKF-287-T	6.3	7.0	11.1	11.6	4.4	4.6	7.2	7.0	2.7	2.8	5.1	4.6	1.4	3.1	2.9	1.5	1.5
PKF-289-T	8.2	9.2	14.8	14.6	5.7	6.0	9.4	9.2	3.5	3.7	6.6	6.1	1.8	4.0	3.8	2.1	2.0
PKF-489-T	8.7	9.9	16.0	15.7	6.1	6.5	10.0	9.8	3.7	3.9	7.0	6.5	1.9	4.3	4.1	2.2	2.1
PKF-4811-T	9.9	11.2	18.4	18.0	6.8	7.3	11.4	11.2	4.2	4.4	7.9	7.4	2.2	4.8	4.6	2.5	2.4
PKF-4813-T	11.7	13.3	21.6	21.3	8.1	8.7	13.5	13.3	4.9	5.2	9.4	8.7	2.6	5.6	5.4	2.9	2.8

Filter drier core

For liquid line/suction line, CE

Application

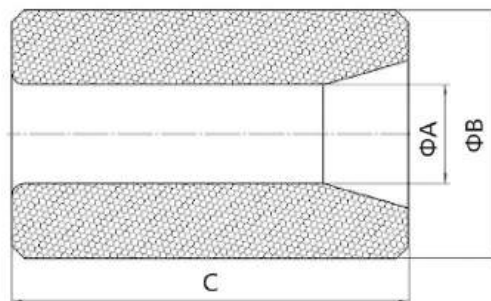
HPEOK Refrigeration's filter drier core and shells are common and replaceable, and provides high mechanical strength, micron filtration, high moisture absorption and acid removal where applicable. Each core is fully activated and placed in a hermetically sealed container.



Feature

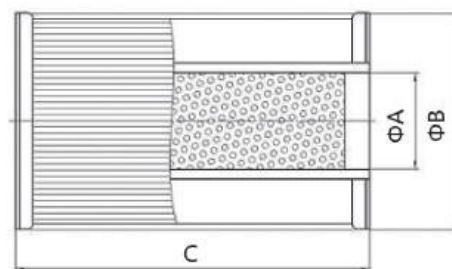
HPEOK provides both D/H type for liquid line and X type for suction line

Provides high protection and clean to the compressor.



Technical data

Part No.	Filter function	A (mm)	B (mm)	C (mm)
D-48	high moisture adsorption, 100% molecular sieve	45	95	140
H-48	High acid and water removal, 80% molecular sieve and 20% activated alumina	45	95	140
D-100	high moisture adsorption, 100% molecular sieve	52	123	165
H-100	High acid and water removal, 80% molecular sieve and 20% activated alumina	52	123	165



Part No.	Core material	A (mm)	B (mm)	C (mm)
X-48	Balayeuse core	45	95	140
F-48	S/S mesh	45	95	140
X-100	Balayeuse core	52	123	165
F-100	S/S mesh	52	123	165

Filter drier shell Type PKA, CE



Features

- Matched well with all brands of 48 & 100 series filter drier cores and suction line cores.
- Rust proof Aluminum flange cover for easy mounting.
- Unique internal core holder.
- Full flow fittings for low pressure drop.
- Corrosion resistant epoxy powder paint finish, can be used in all environment.
- Sturdy steel shells for long life, solid copper or carbon steel connections.
- 100 mesh outlet screen.
- High filtering capability, high moisture absorption and acid removal.
- 1/4 NPT access hole.

Applications

The most important matter for the refrigeration system is to run at peak efficiency.

HPEOK Refrigeration's filter drier shells provide longer lasting protection from moisture and contaminants.

The filter drier shells are for use in liquid and/or suction lines in large commercial air conditioning and refrigeration systems.

Specification

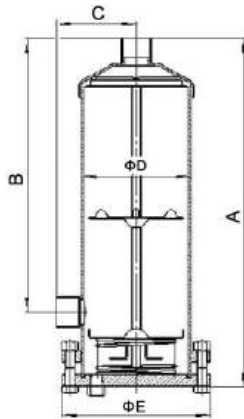
- Max. working pressure: 4.2Mpa, optional for R410A & CO₂
- D-48/H-48 for Liquid line
- F-48/X-48 for Suction line
- PKA Models are shipped without filter drier cores. See filter drier cores for availability. Uses 48 or 100 cubic inch cores.
- CE listed

Installation-Notes

1. Do not unpack blocks from the can until just prior to installations.
Early removal could result in desiccant contamination from ambient atmosphere.
2. Check the arrow on the label to insure correct flow direction.
Reverse flow may cause internal damage.
3. Install the filter drier shell upstream of the liquid line will give the maximum protection.
Install a moisture indicator to measure drying effectiveness.
4. Recommend installing with the inlet connector upwards or horizontal, which could avoid collected contaminant running out to the tubing when replacing the core.
Keep sufficient space for core replacement when installing a new filter drier shell.



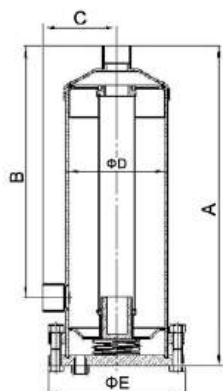
Filter drier shell Type PKA, CE



Specification

Part No.	Inlet & Outlet Size	Core Qty	Filtering surface (cm ²)	Dimensions (mm)				
				A	B	C	D	E
PKA-485	5/8	1	600	233	152	78	114	151
PKA-487	7/8			238	157	82		
PKA-489	1-1/8			240	159	84		
PKA-4811	1-3/8			243	162	87		
PKA-4813	1-5/8			245	164	88		
PKA-4817	2-1/8			251	170	92		
PKA-4821	2-5/8			268	170	116		
PKA-4824	3			266	168	116		
PKA-4825	3-1/8			263	165	116		
PKA-967	7/8	2	1200	383	301	82		
PKA-969	1-1/8			385	303	84		
PKA-9611	1-3/8			388	306	87		
PKA-9613	1-5/8			390	308	88		
PKA-9617	2-1/8			396	314	92		
PKA-9621	2-5/8			413	315	116		
PKA-9624	3			411	313	116		
PKA-9625	3-1/8			408	310	116		
PKA-1449	1-1/8	3	1800	521	438	84		
PKA-14411	1-3/8			524	441	87		
PKA-14413	1-5/8			526	443	88		
PKA-14417	2-1/8			532	449	92		
PKA-14421	2-5/8			550	452	116		
PKA-14424	3			548	450	116		
PKA-14425	3-1/8			545	447	116		
PKA-19211	1-3/8	4	2400	675	595	87		
PKA-19213	1-5/8			677	597	88		
PKA-19217	2-1/8			683	603	92		
PKA-19221	2-5/8			700	602	116		
PKA-19224	3			698	600	116		
PKA-19225	3-1/8			695	594	116		

Filter drier shell Type PKA, CE



Specification

Part No.	Inlet & Outlet Size	Core Qty	Filtering surface (cm ²)	Dimensions (mm)				
				A	B	C	D	E
PKA-10013	1-5/8	1	1040	288	180	106	152	200
PKA-10017	2-1/8			295	187	111		
PKA-10021	2-5/8			303	195	136		
PKA-10024	3			301	188	136		
PKA-10025	3-1/8			300	187	136		
PKA-20013	1-5/8	2	2080	453	345	106		
PKA-20017	2-1/8			460	352	111		
PKA-20021	2-5/8			468	360	136		
PKA-20024	3			466	363	136		
PKA-20025	3-1/8			465	352	136		
PKA-20028	3-1/2			464	341	136		
PKA-20029	3-5/8			463	340	136		
PKA-20034	4-1/4			467	344	136		
PKA-30013	1-5/8	3	3120	612	504	106		
PKA-30017	2-1/8			618	504	111		
PKA-30021	2-5/8			627	519	136		
PKA-30024	3			625	512	136		
PKA-30025	3-1/8			624	511	136		
PKA-30028	3-1/2			623	500	136		
PKA-30029	3-5/8			622	499	136		
PKA-30034	4-1/4			626	503	136		
PKA-30042	5-1/4			615	467	136		
PKA-40013	1-5/8	4	4160	786	678	106		
PKA-40017	2-1/8			792	684	111		
PKA-40021	2-5/8			801	693	136		
PKA-40024	3			799	686	136		
PKA-40025	3-1/8			798	685	136		
PKA-40028	3-1/2			797	674	136		
PKA-40029	3-5/8			796	673	136		
PKA-40034	4-1/4			800	677	136		
PKA-40042	5-1/4			789	641	136		

Filter drier shell Type PKA, CE



Filter drier
series

Specification

Part No.	Rated ARI value at standard status															Recommended value (Kw)				
	Water capacity-drop										Refrigerant flow capacity					Refrigeration		Air-conditioning		
	Refrigerant 12		Refrigerant 134a		Refrigerant 22		Refrigerant 404a/507		Refrigerant 502		On the basis of Pressure differential=0.014Mpa					Commercial Refrigeration and low-temperature unit		System of replace or Assemble on spot		
	25°C	50°C	25°C	50°C	25°C	50°C	25°C	50°C	25°C	50°C	R12	R134a	R22	R404A/507	R502	R12/R134a	R22	R404A/507&507	R12/R134a	R22
PKA-485	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	53.5	64.7	70.3	52.8	45.0	26.4	35.2	26.4	26.4	35.2
PKA-487	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	89.7	108	116	87.9	75.3	42.2	52.8	35.2	42.2	52.8
PKA-489	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	162	195	211	158	136	42.2	52.8	35.2	52.8	70.3
PKA-4811	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	183	234	250	230	197	42.2	52.8	35.2	52.8	70.3
PKA-4813	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	192	274	299	197	180	47.8	58.2	42.2	56.3	74.6
PKA-4817	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	205	310	338	236	217	49.3	64.9	47.1	60.2	78.5
PKA-4821	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	237	336	347	269	239	52.7	67.3	49.7	63.3	80.2
PKA-4824	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	257	361	378	293	262	55.4	70.2	56.9	66.1	83.4
PKA-4825	25.6	27.2	22.0	18.4	17.4	14.4	20.4	15.5	18.2	14.1	273	392	398	321	280	58.2	73.4	62.2	69.5	89.7
PKA-967	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	147	177	190	144	123	70.3	87.9	52.8	70.3	87.9
PKA-969	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	183	220	236	176	153	87.9	128	87.9	87.9	123
PKA-9611	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	221	255	276	195	187	111.5	152	111.1	111.1	155
PKA-9613	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	263	297	311	232	213	132.1	194	134.5	134.5	190
PKA-9617	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	293	332	329	367	303	135.1	203	157	156	208
PKA-9621	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	326	352	347	393	314	157	220	191	173	232
PKA-9624	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	356	378	369	432	349	181	240	210	193	257
PKA-9625	51.2	44.3	44.0	36.8	34.7	28.8	40.8	30.9	36.3	28.2	382	396	405	457	378	206	263	231	225	270
PKA-1449	76.8	66.5	66.0	55.2	52.1	43.2	61.2	46.4	54.5	28.2	220	265	285	215	184	106	141	106	106	141
PKA-14411	76.8	66.5	66.0	55.2	52.1	43.2	61.2	46.4	54.5	42.3	254	305	327	246	212	141	176	123	141	176
PKA-14413	76.8	66.5	66.0	55.2	52.1	43.2	61.2	46.4	54.5	42.3	282	374	358	270	245	183	205	134	173	206
PKA-14417	76.8	66.5	66.0	55.2	52.1	43.2	61.2	46.4	54.5	42.3	310	431	392	301	279	224	236	156	205	247
PKA-14421	76.8	66.5	66.0	55.2	52.1	43.2	61.2	46.4	54.5	42.3	441	469	432	486	416	243	257	182	216	264
PKA-14424	76.8	66.5	66.0	55.2	52.1	43.2	61.2	46.4	54.5	42.3	473	495	479	502	448	257	269	193	231	286
PKA-14425	76.8	66.5	66.0	55.2	52.1	43.2	61.2	46.4	54.5	42.3	505	518	525	537	486	263	279	214	243	291
PKA-19211	102	88.6	88.0	73.6	69.4	57.6	81.6	61.8	72.6	56.4	322	387	415	313	269	176	246	176	176	246
PKA-19213	102	88.6	88.0	73.6	69.4	57.6	81.6	61.8	72.6	56.4	373	447	478	362	312	211	281	193	211	287
PKA-19217	102	88.6	88.0	73.6	69.4	57.6	81.6	61.8	72.6	56.4	390	471	503	380	327	229	299	211	229	299
PKA-19221	102	88.6	88.0	73.6	69.4	57.6	81.6	61.8	72.6	56.4	423	495	528	498	342	243	243	232	241	325
PKA-19224	102	88.6	88.0	73.6	69.4	57.6	81.6	61.8	72.6	56.4	459	526	543	529	391	257	257	248	267	347
PKA-19225	102	88.6	88.0	73.6	69.4	57.6	81.6	61.8	72.6	56.4	472	548	567	572	425	263	263	269	283	351

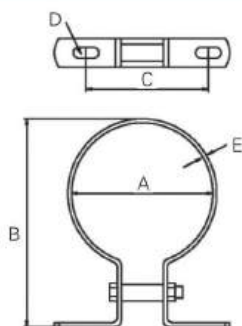
Filter drier shell Type PKA, CE

Filter drier
series

Specification

Part No.	Rated ARI value at standard status															Recommended value (Kw)				
	Water capacity-drop										Refrigerant flow capacity					Refrigeration		Air-conditioning		
	Refrigerant 12		Refrigerant 134a		Refrigerant 22		Refrigerant 404a/507		Refrigerant 502		On the basis of Pressure differential=0.014Mpa					Commercial Refrigeration and low-temperature unit		System of replace or Assemble on spot		
	25℃	50℃	25℃	50℃	25℃	50℃	25℃	50℃	25℃	50℃	R12	R134a	R22	R404A/507	R502	R12/R134a	R22	R404A/507&507	R12/R134a	R22
PKA-10013	25	36	76	58	44	31	43	33	43	30	191	190	280	240	156	67	98	59	63	106
PKA-10017	25	36	76	58	44	31	43	33	43	30	205	206	294	260	172	74	121	65	69	121
PKA-10021	25	36	76	58	44	31	43	33	43	30	221	225	302	287	191	82	145	72	75	139
PKA-10024	25	36	76	58	44	31	43	33	43	30	237	238	325	316	204	95	164	84	88	156
PKA-10025	25	36	76	58	44	31	43	33	43	30	242	249	342	339	230	102	173	91	98	170
PKA-20013	75	72	152	116	88	62	86	67	86	60	251	260	360	374	256	113	195	103	114	191
PKA-20017	75	72	152	116	88	62	86	67	86	60	265	273	382	390	280	128	209	112	132	207
PKA-20021	75	72	152	116	88	62	86	67	86	60	282	297	408	308	312	145	236	138	147	230
PKA-20024	75	72	152	116	88	62	86	67	86	60	305	319	431	321	340	162	251	153	165	243
PKA-20025	75	72	152	116	88	62	86	67	86	60	331	327	453	336	367	179	266	171	180	264
PKA-20028	75	72	152	116	88	62	86	67	86	60	353	341	476	359	381	193	282	186	193	280
PKA-20029	75	72	152	116	88	62	86	67	86	60	371	364	498	378	305	219	308	205	205	301
PKA-20034	75	72	152	116	88	62	86	67	86	60	398	382	521	391	323	242	329	221	221	323
PKA-30013	225	107	225	173	134	93.9	132	99.6	131	88.5	422	510	545	411	355	264	352	246	264	352
PKA-30017	225	107	225	173	134	93.9	132	99.6	131	88.5	447	534	579	433	370	285	367	267	279	374
PKA-30021	225	107	225	173	134	93.9	132	99.6	131	88.5	473	556	602	457	389	302	385	285	285	391
PKA-30024	225	107	225	173	134	93.9	132	99.6	131	88.5	482	572	617	462	396	315	399	292	296	404
PKA-30025	225	107	225	173	134	93.9	132	99.6	131	88.5	492	589	635	480	405	329	413	299	307	417
PKA-30028	225	107	225	173	134	93.9	132	99.6	131	88.5	501	600	654	486	407	336	422	305	317	423
PKA-30029	225	107	225	173	134	93.9	132	99.6	131	88.5	510	610	672	492	410	343	431	310	324	429
PKA-30034	225	107	225	173	134	93.9	132	99.6	131	88.5	523	632	694	511	427	369	457	324	335	441
PKA-30042	225	107	225	173	134	93.9	132	99.6	131	88.5	543	657	718	535	456	391	481	359	362	476
PKA-40013	300	143	301	231	178	125	175	133	174	118	515	632	681	493	421	351	426	321	352	424
PKA-40017	300	143	301	231	178	125	175	133	174	118	545	654	703	528	457	387	457	352	387	457
PKA-40021	300	143	301	231	178	125	175	133	174	118	573	694	729	549	478	401	480	370	401	492
PKA-40024	300	143	301	231	178	125	175	133	174	118	608	734	754	570	499	415	503	388	415	527
PKA-40025	300	143	301	231	178	125	175	133	174	118	631	754	776	591	520	438	526	409	436	558
PKA-40028	300	143	301	231	178	125	175	133	174	118	659	776	795	623	547	461	559	433	462	579
PKA-40029	300	143	301	231	178	125	175	133	174	118	673	792	816	649	574	485	573	457	491	593
PKA-40034	300	143	301	231	178	125	175	133	174	118	698	803	832	673	598	507	591	482	512	617
PKA-40042	300	143	301	231	178	125	175	133	174	118	720	831	857	699	627	529	615	504	536	633

Mounting Bracket



Specification

Part No.	PKGJ-114	PKGJ-152
A (mm)	126	152
B (mm)	165	189
C (mm)	95	102
D (mm)	10.5X20 (mounting hole)	
E (mm)	3	



Suction line accumulator

Heat exchanger suction accumulator

Type PKR, CE



Applications

The function of Suction accumulator with heat exchanger is to put the pipes for high pressure high temperature refrigerant and low pressure low temperature refrigerant to one vessel to exchange high and low temperature, to cool or warming refrigerant. After the heat exchange, a better performance of the whole system and cooling effect achieved.

In air conditioning refrigeration, the refrigerant pipelines have high pressure and low pressure lines, the high pressure refrigerant with high temperature needs cooled, and the low pressure from evaporator needed to be separated to liquid and gas refrigerant, the liquid refrigerant need some time and temperature to be evaporated to gas and then enter to compressor. It avoids liquid slugging to protect compressor.

Features

- Corrosion resistant epoxy powder paint finish, can be used in all environment
- Sturdy steel shells for long life, solid copper connections
- If the evaporating temperature lower than -15°C in a refrigeration equipment, recommend to install a PKR Suction line accumulator.
- Allowable operating temperature: -40°C to $+120^{\circ}\text{C}$
- Max. working pressure: 4.2Mpa, Optional for R410a and CO₂ Refrigerant
- CE listed

Installation-Notes

The right selection and installation of a Suction Accumulator in the line is to install as close as possible to the compressor, which can assure adequate oil and liquid refrigerant return to the compressor and prevent the compressor from damage. By returning the liquid refrigerant and oil back to compressor, the accumulator also helps maintain system efficiency and proper crankcase oil levels.

Suction Accumulators can also prevent liquid refrigerant floodback, one of the most common causes of compressor failure.

WARNING:

Directing the flame away from the shell according to normal precautions. Using chill blocks, wet rags, or other suitable heat protection for the accumulator.

- Be sure the incoming refrigerant line connected to the connection marked "inlet" or "in" .
- Always install the accumulator upright vertically.
- Change the accumulator when a compressor is replaced.

The old accumulator may contain contaminants from the problem that caused compressor failure. There may also be considerable oil remaining from first compressor if a gradual loss of refrigerant caused the failure. This amount coupled with the oil in the rep compressor may lead to an oil over-charge condition.

Heat exchanger suction accumulator

Type PKR, CE

Specification

选型参数

Part No.	Low Temp. Side Conn.	Low Temp. Side Conn.	Dimension (mm)				Volume (L)	Diagram
			A	B	C	ΦD		
PKR-2404	1/2	3/8	254	52	52	102	1.5	Fig.5
PKR-2405	5/8	3/8	294	52	52	102	1.8	
PKR-2406	3/4	1/2	316	75	75	140	3.8	
PKR-2407	7/8	1/2	356	75	75	140	4.3	
PKR-2411	1-1/8	5/8	450	85	85	159	7.3	
PKR-2413	1-3/8	3/4	574	85	85	159	9.6	
PKR-2415	1-5/8	7/8	624	85	85	159	10.4	
PKR-2417	2-1/8	7/8	629	85	85	159	10.4	Fig.6
PKQ-208N04	1-1/8	1/2	450	85	42.5	159	7.4	
PKQ-208N05	1-1/8	5/8	450	85	42.5	159	7.4	
PKQ-209N05	1-3/8	5/8	574	85	42.5	159	9.8	
PKQ-209N06	1-3/8	3/4	574	85	42.5	159	9.8	
PKQ-210N06	1-5/8	3/4	624	85	42.5	159	9.8	
PKQ-210N07	1-5/8	7/8	624	85	42.5	159	9.8	
PKQ-1517N07	2-1/8	7/8	518	120	60	219	16	
PKQ-1517N09	2-1/8	1-1/8	518	120	60	219	16	
PKQ-221N09	2-1/8	1-1/8	576	120	60	273	28.5	

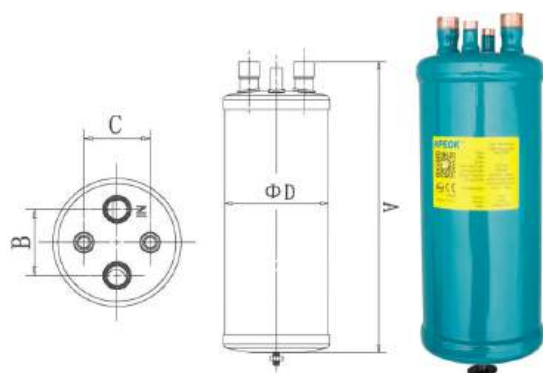


Fig.5

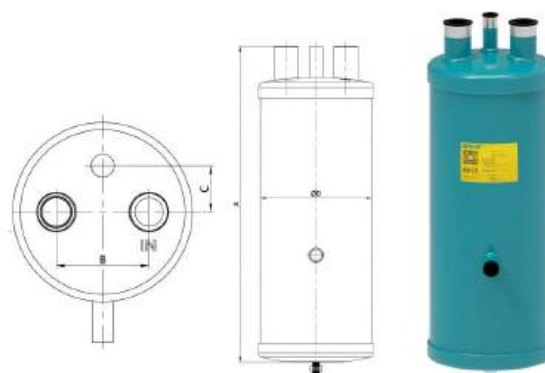


Fig.6

Specification

Part NO.	Refrigerating capacity on basis of below evaporate temperature (Kw)						Refrigerant capacity (kg)	
	R22		R134a		R404A		R22/R134a	R404A
	-18°C	5°C	-18°C	5°C	-18°C	5°C	5°C	
PKR-2404	3.2	7.0	2.17	4.3	2.8	4.6	1.73	1.60
PKR-2405	4.9	10.5	2.8	6.0	4.2	7.0	2.03	1.88
PKR-2406	6.3	14.1	3.2	8.1	5.3	9.2	4.02	3.72
PKR-2407	11.6	25.7	6.3	14.0	9.5	16.2	4.78	4.43
PKR-2411	18.9	41.5	10.9	25.3	15.5	26.7	8.60	8.00
PKR-2413	29.9	66.1	16.2	37.6	25.3	42.9	11.23	10.40
PKR-2415	41.0	79.2	24.1	50.8	32.6	53.0	12.36	11.45
PKR-2417	49.6	92.4	35.4	71.7	42.8	75.3	17	15

The Heat exchanger suction line accumulators are suitable with CFC, HFC & HCFC Refrigerants and associated oils. To cover the demand for components with an increased working pressure for R410a and as well for CO₂ applications, HPEOK provides customized Accumulator on request.

3 in1 – Heat exchanger, Receiver, Accumulator Type PKH, CE

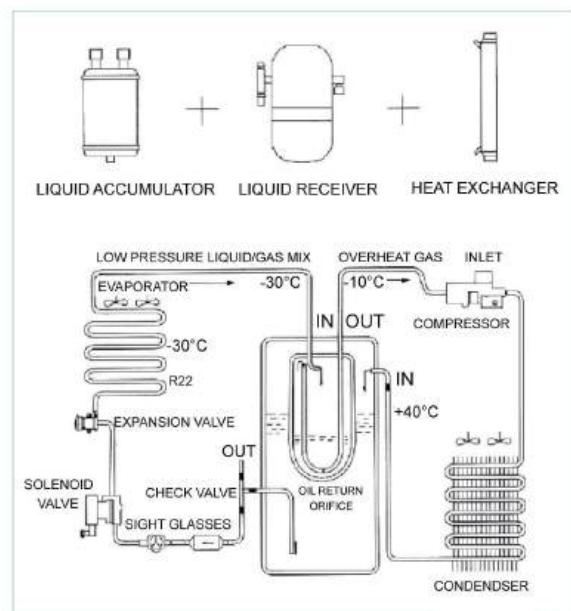


Applications

PKH type combines heat exchanger, liquid receiver and suction line accumulator to one vessel, it can control liquid flow rate better, get better performance for refrigerating capacity and ensure compressor operation best.

Features

- Energy saving: Recycling the wasting undercooling and electric power caused by water dropping of the low-pressure side of accumulator to high-pressure liquid receiver, thus subcooling increased and electric power saved.
- Better refrigeration effect: Over refrigerating and proper over heating increased by heat exchanging between the low pressure accumulator and high pressure receiver, thus circulating enthalpy value increased before entering expansion valve and gets best refrigerating capacity when evaporating.
- Liquid compression avoided: Ensure no liquid returns to compressor and cause liquid compression.
- No water dropping and thermal insulation not required
- Labor, materials and installation space saving.
- Aesthetic improved, no mustiness, and non-pollution.



Technical

- Corrosion resistant epoxy powder paint finish, can be used in all environment.
- Sturdy steel shells for long life, solid copper connections.
- 500 hours of salt spray tested.
- Internal vessel: Maximum working pressure: 3.0Mpa = 435 psig.
- external vessel: Maximum working pressure: 3.4Mpa = 493 psig.
- CE listed

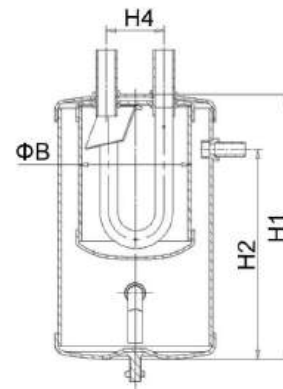
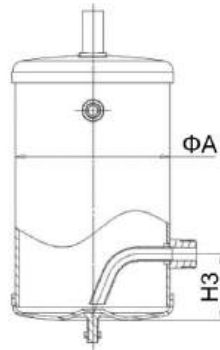
3 in1 – Heat exchanger, Receiver, Accumulator Type OLCE

Specification

Part No.	Compressor horsepower (HP)	Evaporating Temp.	High Pressure Receiver Volume	High Pressure Receiver Volume
PKH-304	1	+5	0.9	0.5
	3/4	-10	0.9	0.5
	1/2	-30	0.9	0.5
PKH-305	2	+5	1.9	0.9
	1.5	-10	1.9	0.9
	1	-30	1.9	0.9
PKH-307	5	+5	3.1	2.4
	3	-10	3.1	2.4
	2	-30	3.1	2.4

Specification

Part No.	Compressor horsepower (HP)	Evaporating Temp.	High Pressure Receiver Volume	High Pressure Receiver Volume
PKH-411	10	+5	4.5	4.2
	7.5	-10	4.5	4.2
	5	-30	4.5	4.2
PKH-513	15	+5	5.8	5.2
	10	-10	5.8	5.2
	7.5	-30	5.8	5.2
PKH-515	20	+5	8	6.3
	15	-10	8	6.3
	10	-30	8	6.3
PKH-721	40	+5	12	10
	30	-10	12	10
	20	-30	12	10



Specification

Part No.	High pressure Conn.		Low Pressure Conn.		H1		H2		H3		H4		Φ A		ΦB	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
PKH-304	3/8	9.7	1/2	12.9	9.6	245	7.3	185	2.3	60	2.0	52	4.0	102	3.0	76
PKH-305	3/8	9.7	5/8	16.0	9.4	240	7.5	190	2.3	60	2.0	52	5.5	140	4.0	102
PKH-307	3/8	9.7	7/8	22.7	13.3	340	10.6	270	3.14	80	2.8	70	6.2	159	5.0	127
PKH-411	1/2	12.9	1-1/8	28.8	13.6	346	9.8	248	3.0	76	3.1	80	8.6	219	6.5	165
PKH-513	5/8	16.0	1-3/8	35.0	16.0	406	12.1	308	3.0	76	3.1	80	8.6	219	6.5	165
PKH-515	5/8	16.0	1-5/8	42.0	17.5	445	14.8	375	3.0	76	3.1	80	8.6	219	6.5	165
PKH-721	7/8	22.4	2-1/8	54.0	19.3	490	14.5	370	4.3	120	4.1	105	10.7	273	8.6	219

Refrigerant

The 3 in 1 suction line accumulators are suitable with CFC, HFC & HCFC Refrigerants and associated oils. To cover the demand for components with an increased working pressure for R410a and as well for subcritical for CO₂ applications, HPEOK provides customized Accumulator on request.

Suction line accumulator

Type PKQ, CE



Applications

Compressors are extremely susceptible to damage from liquid refrigerant. Excessive liquid refrigerant return may cause not only oil dilution but complete loss of the compressor oil charge which results in equipment damage due to lack of proper lubrication. The primary function of a Suction Line Accumulator is to prevent a sudden surge of liquid refrigerant, or oil, from returning down the suction line and into a compressor. The suction line accumulator is a temporary reservoir for liquid refrigerant and oil.

To avoid liquid slugging, the refrigerant must be converted to gas before returning to compressor, thus the refrigerant must be separated to liquid and gas before entering compressor, only gas allowed to enter to compressor. The liquid refrigerant evaporates slowly in the accumulator and enters to compressor after converting to gas. In order to return remaining oil to compressor, there is an oil return orifice in the bottom of U tube of the accumulator. The remaining oil in system will flow to accumulator and return to compressor with gas refrigerant.

Suction line
accumulator

Suction Line Accumulators:

1. Prevent compressor failure due to liquid slugging.
2. Assure adequate oil return and refrigerant vapor before return compressor.
3. Assure min. pressure drop while maintaining the maximum refrigerant flow.

Structure

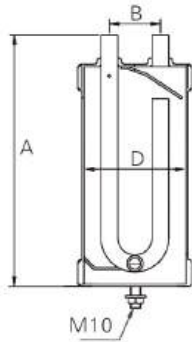
The accumulator must return refrigerant and oil to the compressor at a sufficient rate to maintain both system operating efficiency and proper crankcase oil level. To make sure these tasks are accomplished, system designers must consider the following items:

- A typical accumulator with an inlet deflector, the inlet to the U-tube is located behind the deflector to prevent liquid entering into compressor and damaging it.
- The accumulator must have sufficient internal volume.
- The selected U-tube design to minimize pressure drop at high flow rates yet provide adequate oil return at low flow rates. A properly sized and protected oil return orifice is required to ensure positive oil (and refrigerant) return to the compressor.
- A properly sized and protected oil return orifice matched with system capacity assures optimum liquid refrigerant and oil that flow back to compressor.
- Other features include a mesh screen to protect the oil return orifice, an anti-siphon hole located near the outlet of the U-tube prevents liquid from siphoning into the outlet tube and compressor during an off-cycle.
- Heat exchanger and Heat pump options.

Features

- Corrosion resistant epoxy powder paint finish, can be used in all environment.
- 500 hours of salt spray tested.
- Allowable operating temperature: $-40^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Maximum working pressure: 3.0Mpa, Optional for R410a and CO₂ Refrigerant
- CE listed

Suction line accumulator Type PKQ, CE

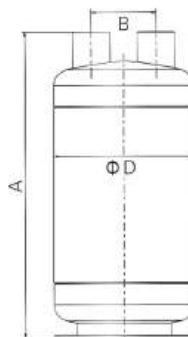
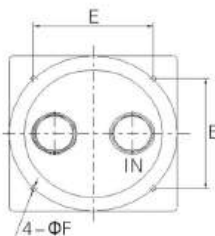


Suction line
accumulator

Specification

Part No.	Inlet & Outlet (in)	Dimension(mm)			Volume (L)
		A	B	ΦD	
PKQ-204	1/2	254	52	102	1.6
PKQ-205	5/8	294	52	102	1.9
PKQ-206	3/4	316	75	140	3.9
PKQ-207	7/8	356	75	140	4.4
PKQ-208	1-1/8	450	85	159	7.4
PKQ-209	1-3/8	574	85	159	9.8
PKQ-210	1-5/8	624	85	159	10.5
PKQ-595	5/8	257	70	127	2.5
PKQ-596	3/4	257	70	127	2.5
PKQ-597	7/8	262	70	127	2.5
PKQ-5126	3/4	332	70	127	3.4
PKQ-5127	7/8	337	70	127	3.4
PKQ-5137	7/8	358	70	127	3.7
PKQ-5139	1-1/8	363	70	127	3.7
PKQ-5179	1-1/8	465	70	127	4.8
PKQ-51711	1-3/8	465	70	127	4.8
PKQ-61411	1-3/8	390	85	159	6.2
PKQ-62013	1-5/8	548	85	159	9.2

Base Sketch



Specification

Part No.	Inlet & Outlet (in)	Dimension(mm)					Volume
		A	B	ΦD	E	F	
PKQ-1817	2-1/8	540	100	219	200	10.8	18
PKQ-2117	2-1/8	495	120	273	-	10.8	21
PKQ-221	2-1/8	586	120	273	194	10.8	26
PKQ-225	2-5/8	763	127	273	194	10.8	34
PKQ-231	3-1/8	767	150	325	230	10.8	48
PKQ-7034	4-1/4	630	200	450	390	12.5	70

Suction line accumulator

Type PKQ, CE

Specification

Part NO.	Refrigerating capacity on basis of below evaporate temperature (Kw)							
	R22		R134a		R404A		R410A	
	-18°C	5°C	-18°C	5°C	-18°C	5°C	-18°C	5°C
PKQ-204	3.2	7.0	2.2	4.3	2.8	4.6	4.9	10.6
PKQ-205	4.9	10.5	2.8	6.0	4.2	7.0	7.4	16.0
PKQ-206	6.3	14.1	3.2	8.1	5.3	9.2	9.6	21.4
PKQ-207	11.6	25.7	6.3	14.0	9.5	16.2	17.6	39.1
PKQ-208	18.9	41.5	10.9	25.3	15.5	26.7	28.7	63.1
PKQ-209	29.9	66.1	16.2	37.6	25.3	42.9	45.4	100.5
PKQ-210	45.0	101.3	25.7	59.8	37.6	64.0	68.4	154.0
PKQ-595	5.1	11.8	2.7	7.1	4.5	7.2	7.8	17.9
PKQ-596	6.3	14.1	3.2	8.1	5.3	9.2	9.6	21.4
PKQ-597	11.6	25.7	6.3	14.0	9.5	16.2	17.6	39.1
PKQ-5126	6.3	14.1	3.2	8.1	5.3	9.2	9.6	21.4
PKQ-5127	11.6	25.7	6.3	14.0	9.5	16.2	17.6	39.1
PKQ-5137	11.6	25.7	6.3	14.0	9.5	16.2	17.6	39.1
PKQ-5139	18.9	41.5	10.9	25.3	15.5	26.7	28.7	63.1
PKQ-5179	18.9	41.5	10.9	25.3	15.5	26.7	28.7	63.1
PKQ-51711	29.9	66.1	16.2	37.6	25.3	42.9	45.4	100.5
PKQ-61411	29.9	66.1	16.2	37.6	25.3	42.9	45.4	100.5
PKQ-62013	45.0	101.3	25.7	59.8	37.6	64.0	68.4	153.5



Installation-Notes

The right selection and installation of a Suction Accumulator in the line is to install as close as possible to the compressor, which can assure adequate oil and liquid refrigerant return to the compressor and prevent the compressor from damage. By returning the liquid refrigerant and oil back to the compressor, the accumulator also helps maintain system efficiency and proper crankcase oil levels.

Suction Accumulators can also prevent liquid refrigerant floodback, one of the most common causes of compressor failure.

– WARNING:

Directing the flame away from the shell according to normal precautions. Using chill blocks, wet rags, or other suitable heat protection for the accumulator.

- Be sure the incoming refrigerant line connected to the connection marked “inlet” or “in”.
- Always install the accumulator upright vertically.
- Change the accumulator when a compressor is replaced.

The old accumulator may contain contaminants from the problem that caused the compressor failure. There may also be considerable oil remaining from the first compressor if a gradual loss of refrigerant caused the failure. This amount coupled with the oil in the replacement compressor may lead to an oil overcharge condition.



Liquid receiver

Vertical liquid receiver

Type PKC, CE

Applications

The liquid receiver acts as a stock of liquid refrigerant for the evaporators, located after the condenser in a refrigeration system.

The selection of receiver size should be based on refrigerant charge in the system, and it also should be sized to hold the full system charge during service work, the capacity of each liquid receiver listed on Technical data sheet below.

Feature

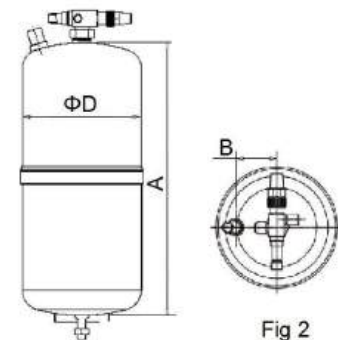
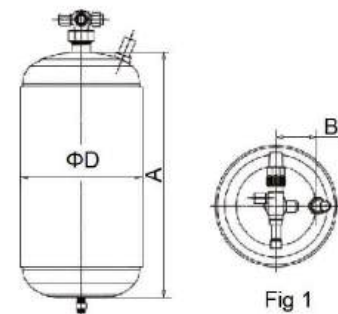
- Designed for storing liquid refrigerant in system operation or service
- Allow adjust system to suitable to different condition and load
- Inlet of standard products is ODF welding connection and outlet is rotalock valve connection, PTFE seal gasket for valves
- Standard products do not contain safety valve and sight glass port. It is made upon request
- Diameter of standard products may not be changed, desired volume, length and features are available to be customized
- Color on request

Technical

- Corrosion resistant epoxy powder paint finish, can be used in all environment
- Maximum working pressure: Part No. with "P": 3.4MPa, Part No. without "P": 4.7MPa
- CE listed



Specification						
Part No.	Connection (in)	A(mm)	B(mm)	D(mm)	Volume (L)	Sketch
PKC-133	3/8	170	35	102	1.1	Fig 1
PKC-166	3/8	192	40	114	1.6	
PKC-233	3/8	185	42	127	2.0	
PKC-333	3/8	293	42	127	3.0	
PKC-433	3/8	238	55	165	4.0	
PKC-644	1/2	332	55	165	6.0	
PKC-844	1/2	432	55	165	8.0	
PKC-855	5/8	432	55	165	8.0	
PKC-1055	5/8	322	75	219	10.0	
PKC-1255	5/8	380	75	219	12.0	
PKC-1455	5/8	435	75	219	14.0	
PKC-1466	3/4	435	75	219	14.0	
PKC-1677	7/8	492	75	219	16.0	
PKC-1877	7/8	549	75	219	18.0	
PKC-2077	7/8	606	75	219	20.0	Fig 2
PKC-3P33	3/8	307	42	130	3.0	
PKC-5P44	1/2	367	42	152	5.0	
PKC-8P44	1/2	257	55	219	8.0	
PKC-10P55	5/8	312	75	219	10.0	
PKC-12P55	5/8	372	75	219	12.0	
PKC-14P55	5/8	432	75	219	14.0	
PKC-16P66	3/4	492	75	219	16.0	



Liquid receiver Type PKVC/PKHC



Application

The receiver acts as a stock of liquid refrigerant for the evaporators.

The high pressure refrigerant changes to liquid and gas after the condenser radiate heat, however, the refrigerant should turn to liquid before entering evaporator, so the receiver should be located after the condenser to store high pressure refrigerant.

Technical

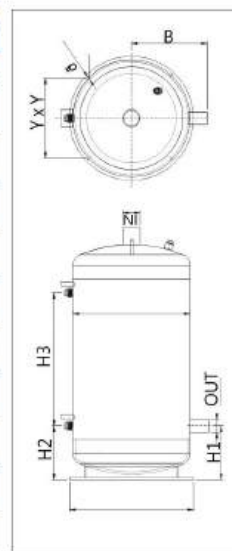
- Maximum working pressure: 30 Bar = 435 psig
- For use with CFC, HCFC, HFC and associated oil, optional for R410a & CO₂
- CE listed

Feature

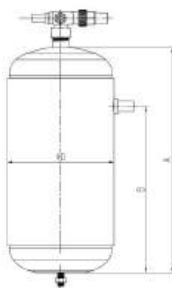
- Allow adjust system to suitable to different condition and load.
- Optional for liquid receiver and horizontal receiver:
 - Vertical type: 3 sight glasses: top, middle & bottom
 - Horizontal type: 2 sight glasses: top & bottom
- Corrosion resistant epoxy powder coated finish suitable for harsh environments.

Specification

Part NO.	Dimension (mm)											Volume (L)
	ΦD	Inlet	Outlet	H	H1	H2	H3	ΦA	B	ΦC	Y×Y	
PKCL-50L	Φ325	Φ38	Φ28	789	196	171	335	Φ13	198	Φ350	230×230	50
PKCL-100L	Φ377	Φ57	Φ32	1156	218	193	622	Φ14	260	Φ440	290×290	100
PKCL-150L	Φ457	Φ76	Φ57	1153	234	216	610	Φ14	306	Φ490	327×327	150
PKCL-200L	Φ508	Φ76	Φ57	1231	240	222	610	Φ18	330	Φ540	360×360	200
PKCL-250L	Φ508	Φ76	Φ57	1481	240	222	860	Φ18	330	Φ540	360×360	250
PKCL-300L	Φ560	Φ89	Φ76	1477	261	233	850	Φ18	356	Φ590	390×390	300
PKCL-400L	Φ610	Φ89	Φ76	1650	278	250	960	Φ18	387	Φ640	425×425	400
PKCL-500L	Φ712	Φ89	Φ76	1510	299	282	804	Φ18	446	Φ750	497×497	500
PKCL-600L	Φ712	Φ89	Φ76	1816	299	272	1118	Φ18	446	Φ750	497×497	600



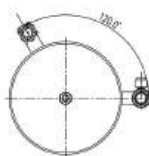
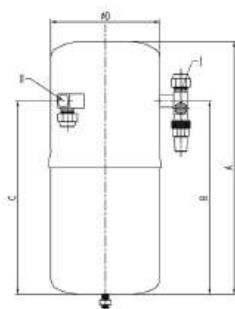
Liquid Receiver Type PKC, CE



Working pressure: 4.2MPa
Working Temp: -40°C~+130°C

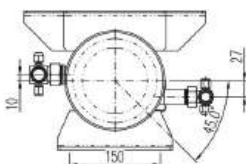
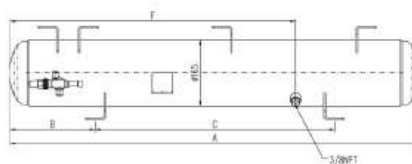
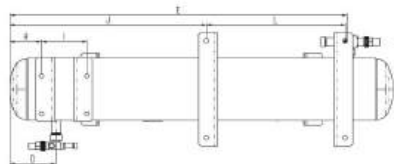
Specification

Part No.	Inlet & outlet (in)	Dimension (mm)			Volume (L)
		A	B	D	
PKC-101J	3/8	200	132	89	1.0
PKC-102J	3/8	258	181	127	2.9
PKC-103J	3/8	290	203	127	3.2
PKC-104J	1/2	348	257	165	6.2
PKC-105J	5/8	414	320	165	7.5
PKC-106J	3/4	600	495	165	11.2
PKC-107J	7/8	700	585	165	13.2



Working pressure: 3.5MPa
Working Temp: -40°C~+130°C

Part No.	Inlet & outlet (in)		Dimension (mm)				Volume (L)
			A	B	C	D	
PKC-101	1/4	3/8	218	136	136	89	1.1
PKC-102	3/8	3/8	245	160	160	130	2.9
PKC-103	3/8	3/8	298	208	208	130	3.5
PKC-104	1/2	1/2	360	275	275	152	6.0
PKC-105	5/8	5/8	412	275	322	180	9.6



Working pressure: 4.2MPa
Working Temp: -40°C~+130°C

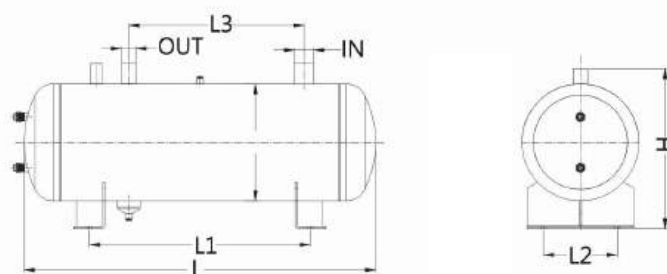
Part NO.	Inlet (in)	Outlet (in)	Dimension (mm)											Volume (L)
			A	B	C	D	E	F	G	H	I	J	L	
PKC-14CL	5/8	1/2	740	170	400	140	600	415	0	-	-	250	293	14.0
PKC-19CL	7/8	1/2	1014	207	600	122	892	707	10	84	120	520	367	19.3
PKC-24CLA	7/8	5/8	1250	200	850	165	1085	925	10	188	120	653	367	24.0
PKC-24CLB	7/8	5/8	1250	200	850	165	1085	925	10	165	120	677	381	24.0

Horizontal Liquid Receiver Type PKCW



Specification

Part No.	Dimension (mm)						Mounting size (L1×L2) (mm)	Volume (L)
	ΦD	Inlet	Outlet	L3	H	L		
PKCW-100L	Φ377	Φ57	Φ45	505	517	1068	670×210	100
PKCW-150L	Φ406	Φ76	Φ57	660	640	1272	820×260	150
PKCW-200L	Φ457	Φ76	Φ57	690	630	1382	870×290	200
PKCW-250L	Φ457	Φ76	Φ57	995	630	1662	1185×290	250
PKCW-300L	Φ508	Φ89	Φ76	890	742	1622	1100×330	300
PKCW-400L	Φ560	Φ89	Φ76	935	772	1786	1190×360	400
PKCW-500L	Φ610	Φ89	Φ76	1015	840	1882	1260×400	500



Safety Features

Pressure relief valves are provided to protect the receiver against any excessive hydraulic pressure being built up on selected models and the same can be provided on all models on request. The purpose of this device is to prevent the receiver steel from rupturing in case of excessive pressure.

The safety device may be in the form of a fusible plug or a spring loaded relief valve. The safety device is generally located in the place of the receiver that is most likely to rupture. The fusible plug is designed to a predetermined pressure and temperature so that the refrigerant is allowed to escape before the tank ruptures thus providing a controlled release.

Horizontal liquid receiver

Type PKC, CE



Feature

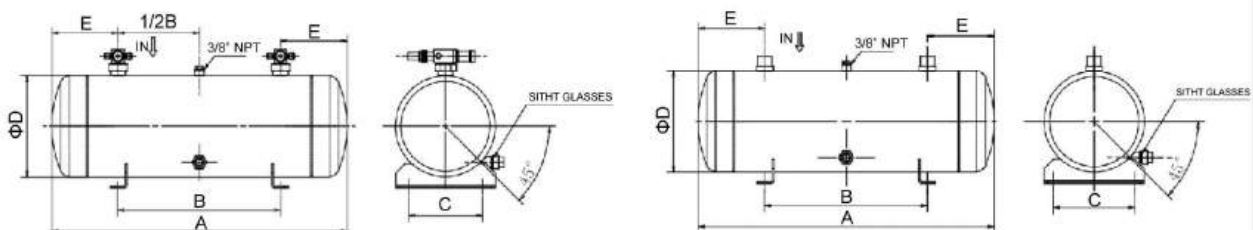
- Designed for storing liquid refrigerant in system operation or service
- Allow adjust system to suitable to different condition and load
- Fixed with an over-pressure safety valve
- Teflon seal gasket for rotalock valves
- A port for sight glasses, sight glasses may be decreased and increased on request
- Standard capacity from 30L to 60L, desired volume, length and features are available to be customized

Technical

- Corrosion resistant epoxy powder paint finish, can be used in all environment
- Maximum working pressure: 4.2Mpa = 609 psig
- CE listed

Specification

Part No.	Inlet and outlet	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	Evolume
PKC30L-V7	7/8	900	600	190	219	150	30L
PKC30L-V9	1-1/8	900	600	190	219	150	30L
PKC30L	1-1/8	900	600	190	219	150	30L
PKC35L-V9	1-1/8	1000	700	190	219	150	35L
PKC35L	1-1/8	1000	700	190	219	150	35L
PKC40L-V9	1-1/8	800	440	220	273	180	40L
PKC40L-V11	1-3/8	800	440	220	273	180	40L
PKC40L	1-3/8	800	440	220	273	180	40L
PKC45L-V11	1-3/8	900	540	220	273	180	45L
PKC45L	1-3/8	900	540	220	273	180	45L
PKC50L-V11	1-3/8	1000	640	220	273	180	50L
PKC50L-V13	1-5/8	1000	640	220	273	180	50L
PKC50L	1-5/8	1000	640	220	273	180	50L
PKC55L-V13	1-5/8	1100	740	220	273	180	55L
PKC55L	1-5/8	1100	740	220	273	180	55L
PKC60L-V11	1-3/8	1200	840	220	273	180	60L
PKC60L-V13	1-5/8	1200	840	220	273	180	60L
PKC60L-V17	2-1/8	1200	840	220	273	180	60L
PKC60L	2-1/8	1200	840	220	273	180	60L



Horizontal liquid receiver

Type PKC, CE

Accessories

HPEOK offers a wide range of accessories such as rotolock stop valves, sight glasses, receiver valve, bracket sets, welded mounting bracket as per customer drawing and requirement. Bottom mounting studs are projection welded (not arc welded or hand brazed) thus avoiding chances of leakage and this also insures a strong joint with neat look.

HPEOK also designs and manufacture special receiver according to the specific need of end user and OEM's.



Warning

The metal used in the fusible plug must never be replaced with regular soft solder because the melting temperature may be too high and allow the tank to rupture or it may be too low and allow the refrigerants to escape without reason. The spring loaded device must never be adjusted to a pressure different than set by the manufacturer. Never subject the receiver tank to temperature above 125° f/ 52°C.

Horizontal liquid receiver

Type PKC, CE

Installation–Note

The receiver should be always lower than condenser so that the refrigerant has an incentive to flow into it naturally. The outlet connected to liquid line by rotalock valve, it has a dip tube immersed almost to the bottom of the receiver to ensure liquid refrigerant only enter to liquid line when the receiver is not full (otherwise gaseous refrigerant will enter the liquid line and cause poor operating conditions).

Manufacturing Process

HPEOK manufactures a wide range of custom made horizontal and vertical liquid refrigerant receiver in sizes ranging from 3.5" to 6" in diameter, using high quality, proper thickness steel tubes with domed dish–ends to keep working pressure and the operation temperature.

HPEOK has taken utmost care and follows stringent quality control at various stages of construction of liquid receiver with regard to selection of raw material, cleanliness, brazing, welding, pressure testing, dehydration, powder painting and packing.

All materials meant to be used for pressure parts are inspected before fabrication to insure that they are in compliance with CE–PED 97/23/EC. A stage wise inspection is conducted during fabrication so that the receiver is free of dents, bulges, holes, cracks, rust, bits, creases or any other structural weakness.

All the components will be cleaned internally as well as externally with eco–friendly chemicals and dried before welding. The same are also baked after welding and leak testing to remove moisture if any and connection sealed for final corrosion resistant oven baked epoxy powder coating.

HPEOK receivers are compatible with CFC, HCFC, and HFC refrigerants and associated oils.

The receivers are designed for use of non hazardous refrigerants.

Safety Features

Pressure relief valves are provided to protect the receiver against any excessive hydraulic pressure being built up on selected models and the same can be provided on all models on request. The purpose of this device is to prevent the receiver steel from rupturing in case of excessive pressure.

The safety device may be in the form of a fusible plug or a spring loaded relief valve. The safety device is generally located in the place of the receiver that is most likely to rupture. The fusible plug is designed to a predetermined pressure and temperature so that the refrigerant is allowed to escape before the tank ruptures thus providing a controlled release.



Refrigeration valves

Thermostatic expansion valve

Type PV/PVE



Applications

The expansion valves perceive the superheat of gas refrigerant in the evaporator's outlet via sensing bulb, thus auto regulate the refrigerant flow that enters the evaporator.

Therefore the valves are especially suitable for liquid injection in "dry" evaporators, where the superheat at the evaporator outlet is proportional to evaporator load.

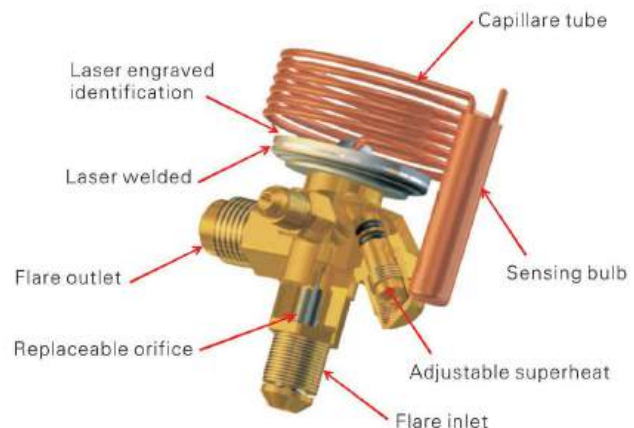
These thermostatic valves control the superheat of refrigerant vapor at the outlet of the evaporator, act as a throttle between the high pressure and the low pressure sides of refrigeration systems and ensure the refrigerant flow rate into the evaporator exactly matches evaporation's rate of liquid refrigerant in the evaporator.

Therefore, the evaporator is fully utilized and no liquid refrigerant will be inhaled to the compressor.

The valve's body includes a laser – welded, non – replaceable steel power – head which significantly reduces power – head failures and preserves the diaphragm's integrity, the primary cause of a failure. All identification information is laser engraved on the power – head for durable identification – no paper labels to fall off the valve.

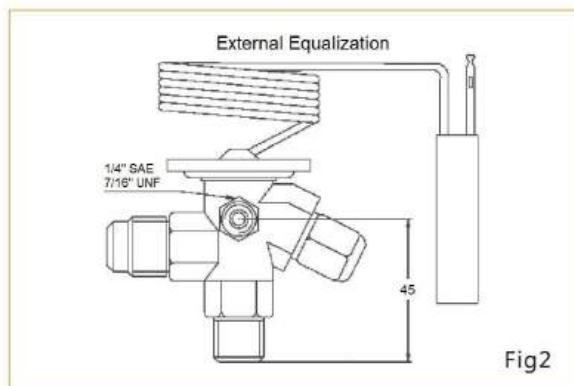
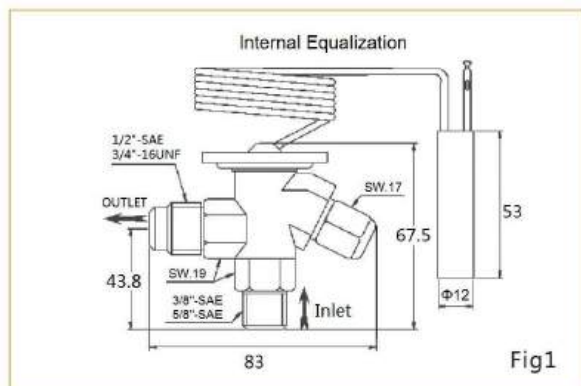
Feature

- The hybrid injection technology is applied to sensing bulb, with the characteristic of equal superheat during the whole temperature range, ensures the utilizing ratio of evaporator's thermal conduction area not be reduced in low temperature status, and makes the temperature of the position of valve body and sensing bulb not limited.
- Laser welded diaphragm with large diameter eliminates disturbances to the valve and provides smoother valve control
- Internal or external equalizer, the external pressure equalizer eliminates the influence resulted from the loss of evaporator pressure.
- Constant superheat across wide application ranges.
- Interchangeable orifice assembly with dirt protection strainer.
- Sensing bulb.
- Easy installation
- Good thermal conduction between pipes and sensing bulb.
- Max testing pressure: 36bar = 522 psig.
Allowable working pressure: 28bar = 406 psig.



Thermostatic expansion valve

Type PV/PVE, UL



Specification

Part No.	Pressure equalization	Temperature	Refrigerant	Connection			Capillary tube length	Sketch
				Inlet	Outlet	External equalizer		
PV	Internal equalizer	-40°C~10°C	R134a	3/8" SAE (10mm)	1/2" SAE (12mm)	-	1m	Fig 1
			R22					
			R404A					
PVE	External equalizer	-40°C~10°C	R134a	3/8" SAE (10mm)	1/2" SAE (12mm)	1/4" SAE (6mm)	1m	Fig 2
			R22					
			R404A					

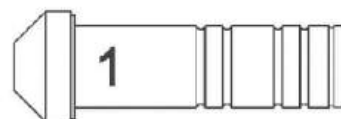
Intrchangeable orifice assembly VS refrigeration capacity(Ton):

Specification

Orifice	R134a	R22	R404A/R507
0	0.25	0.3	0.28
1	0.5	0.7	0.51
2	0.8	1	0.75
3	1.3	1.5	1
4	2.2	2.5	2.1
5	3	4	3
6	4	5	4.17

Note: Condensing temperature: +38°C; Evaporating temperature: +5°C
R134a: $\Delta P=0.41\text{Mpa}$; R22: $\Delta P=0.72\text{Mpa}$;
R404a: $\Delta P=0.72\text{Mpa}$; R407c: $\Delta P=0.72\text{Mpa}$;
 $\Delta R410a$: $\Delta P=0.108\text{Mpa}$;

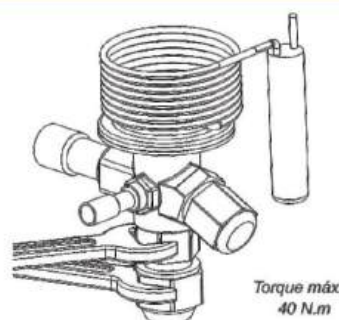
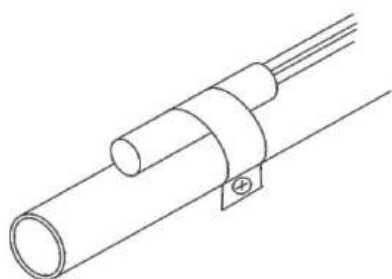
Exchangeable orifices



Code Marked to orifice body

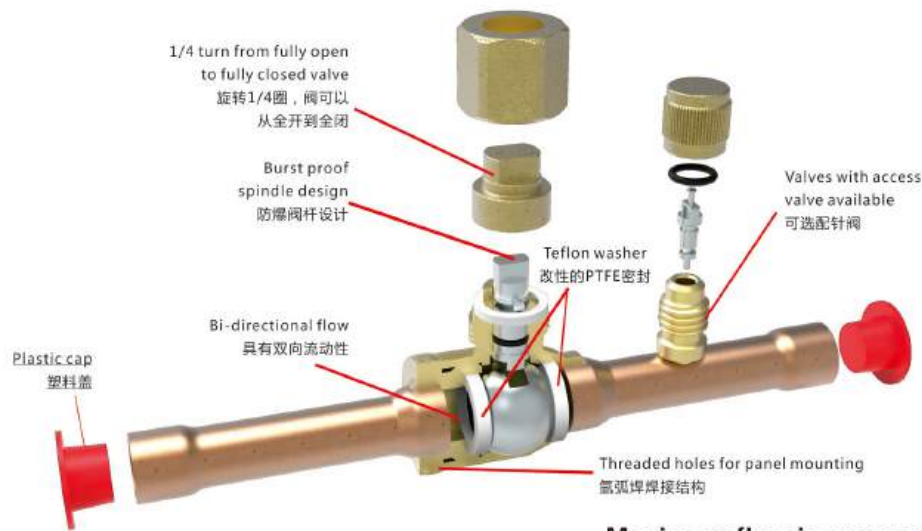
Interchangeable orifice assembly

- Easy stocking
- Easy capacity matching
- Better service



Torque máx.
40 N.m

Ball valve Type PKB, UL



**Maximum flow in open position
-maximum tightness in closed position**

Applications

PKB Ball valve applications include liquid, suction, and hot gas lines in refrigeration and air-conditioning systems. It is a manually regulated shut-off valve, valve seat well sealed; it can be delivered with or without an external access port.

Features

- Fully open to fully closed with a 1/4 turn.
- Dual Teflon seals surround the polished ball to prevent leakage.
- All PKB ball valves are bi-directional and can be installed in any position.
- Full size ports for unrestricted flow on most sizes 1/4" (6 mm) through 3-5/8" (92mm).
- Argon arc welded. Factory tested to ensure positive, leak-free performance. Forged brass body construction with extended copper fittings and optional access fittings.
- Full refrigeration service temperature range: -40 ° F to +325 ° F (-40°C to +150°C); The customized valve can reach to -80°C.
- UL US listed

Structure

- Burst-proof stem – the stem installed from inside to outside, it avoids stem ejecting out of the valve when overpressure produced.
- Double O rings on stem, it ensures a reliable seal performance on stem.
- Teflon Seal ring between valve body and cap – the cap, seal ring and valve body will lock together to form a good sealing performance after tightening the cap. This design is to lock the refrigerant in the system by tightening the cap in case there is leak in the O ring.
- Anti-extrusion seal washer, it can prevent deformation and get reliable seal performance when open and close valve.
- The locking function of Stem avoids the valve.
- auto close due to system vibration.



Ball valve Type PKB, UL

New design of lock nut & cap

- No need to remove the cap when open and close the valve in case of O ring leaked; it ends the cap lost when repairing or checking the valve.
- Having an indicator to indicate the valve is open or closed, the users no need to open the cap to check the status, especially for the valve installed in high position.
- To fix the valve stem position through cap and tighten nut, this can prevent the valve closed or dislocated in particular cases.



HPEOK Patent

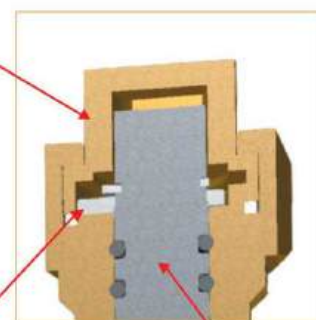
Patent No.ZL 201520473220.6



Lock nut



PTFE Seal ring

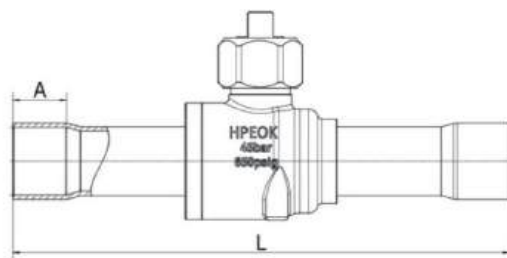


Spindle

Technical parameter

Applicable Refrigerant	CFC, HCFC, HFC, HC and associated oil; optional R410a and CO2
Temperature range	-40°F to +350°F (-40°C to +150°C)
Max working pressure	652psig(45 bar)
Max testing pressure	940psig(65 bar)
Allowable max leakage of refrigerant	R22 ≤ 2g/a

Ball valve Type PKB, UL



Specification

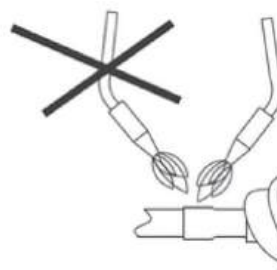
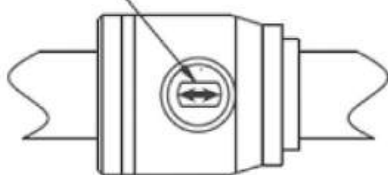
Part No.	Connection (in)	L(mm)	A(mm)	Rated Refrigerant capacity (Kw)				Kv value (m³/h)
				R22	R134a	R502	R410A	
PKB-04(S)	1/4	138	8	11.0	10.1	7.3	17	0.8
PKB-06(S)	3/8	138	8	22.0	20.2	14.6	33	3.8
PKB-08(S)	1/2	160	10	105	96	70	160	5.6
PKB-10(S)	5/8	160	14	143	132	95	217	10.1
PKB-12(S)	3/4	185	16	241	221	160	366	20.42
PKB-14(S)	7/8	185	17	358	329	238	544	28.17
PKB-18(S)	1-1/8	208	20	633	582	421	962	51.95
PKB-22(S)	1-3/8	251	25	756	696	503	1149	80.89
PKB-26(S)	1-5/8	281.5	30	1293	1190	860	1965	196
PKB-34(S)	2-1/8	305	34	1348	1240	1156	2234	248
PKB-42(S)X	2-5/8	305	37	1348	1240	1156	N/A	248
PKB-42(S)	2-5/8	305	37	1470	1320	1235	N/A	305
PKB-48(S)	3	380	40	1882	1690	1580	N/A	406
PKB-50(S)X	3-1/8	380	40	1882	1690	1580	N/A	410
PKB-50(S)	3-1/8	410	40	2446	2197	2054	N/A	670
PKB-56(S)	3-1/2	410	40	2514	2227	2082	N/A	680
PKB-58(S)	3-5/8	410	40	2584	2289	2140	N/A	690

Note: Part No. with S=with access valve, without S= without access valve

For example: PKB-04S with access valve, PKB-04 without access valve

Installation-Note

The valve should be in open position while soldering



Wet cloth must cover the valve body!
Take out access valve if present.

NOTICE:
DO NOT DISASSEMBLE VALVE FOR ANY REASON!



Features

- Double layer sealed ensures zero leakage
- Knurled valve cap provides convenient assemble
- Different refrigerant, assemble suitable valve core
- Stop ring in the end of copper tube, it provides convenient and reliable welding
- Assemble tool in the top of valve cap, it provides easy assemble of valve core
- Special requirements, please contact HPEOK Refrigeration

Applications

The check valves are used in household air conditioner, central air conditioning, refrigerator and other refrigerant systems, wide range of application, including charging, maintaining, and components connection. For use with all fluorine refrigerants—CFC, HFC and HCFC refrigerants, including R410a. For specific applications with refrigerant fluids not listed above, please contact HPEOK Refrigeration.

Charging valve flare to copper tail

Part No.	Screw Type(in)	Copper tube Llength (mm)
PK-S4-45	1/4 SAE	45
PK-S4-60	1/4 SAE	60
PK-S4-90	1/4 SAE	90
PK-S5-60	5/16 SAE	60



Charging valve components

Part No.	Part	Description
PK-V1	Valve Core	Core for R410A
PK-V2		Core for normal refrigerant
PK-C1	Cap	Cap with O ring
PK-C2		Cap with O ring for R410A
PK-C3		Cap with tool



- Note: 1) Two copper tube types for standard products:
 $\Phi 6.35\text{mm}$ & $\Phi 6\text{mm}$;
 2) A stop ring in the end for cooper tube;
 3) Special requirements, pls contact HPEOK Refrigeration;

Features

- Max. Operation pressure: 4.5 Mpa
- Medium Temperature: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$

Magnetic check valve

Type PKV, UL



Applications

PKV check valves can be used in liquid, suction and hot gas lines in refrigeration and air conditioning plants with fluorinated refrigerants.

They are used in liquid lines to prevent reverse flow or to prevent backup into the low pressure liquid line during a defrost period of a recirculating system.

Features

- Ensures the refrigerant only flow in one direction.
- Oversize connections provide flexibility in use.
- Prevents back-condensation from warm to cold system part.
- Low temperature welding adopted to prevent burning out of internal components $-160^{\circ}\text{C} \sim +200^{\circ}\text{C}$.
- For use with CFC, HFC and HCFC refrigerants, including R410a, optional for CO₂.
- Temperature of the medium: $-40^{\circ}\text{C} \sim +130^{\circ}\text{C}$.
- CE Listed
- UL US listed.

Unibody design

Hermetic Spun Copper Design;
Two ends shrink to connection,
nearly zero internal leak rate;
Easy forming process and welding;

Alnico Permanent magnetic

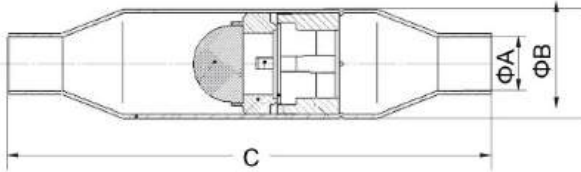
The diaphragm traction adopts high strength permanent magnet—alnico, rust-proof and can be installed in any orientation;

Composite material diaphragm

Compatible with all CFC, HCFC, HFC and associated oils, including this diaphragm has better sealing performance and stronger containment with impurities.

Magnetic check valve

Type PKV, UL



Part No.	Max. Working pressure (Mpa)	Pressure resistance (Mpa)	Open pressure (Mpa)	Leakage sml/min	Working temp. (°C)
PKV-04	4.5	21.5	0.02	150	-30 ~ +120
PKV-06	4.5	21.5	0.02	150	
PKV-08	4.5	21.5	0.02	150	
PKV-10	4.5	21.5	0.02	150	
PKV-12	3.9	19.5	0.05	330	
PKV-14	3.9	19.5	0.05	330	
PKV-18	2.8	14.0	0.065	540	
PKV-22	3.05	15.5	0.1	780	
PKV-26	3.05	14.6	0.12	1220	
PKV-34	2.8	14.0	0.21	1730	
PKV-42	2.65	13.5	0.26	2300	
PKV-50	2.65	13.5	0.26	2300	

Specification

Part No.	Connection ODF(in)	OD (mm)	Total Length (mm)	Mesh	R404A Liquid refrigerating (Kw)
PKV-04	1/4	22	102	40	6.8
PKV-06	3/8	22	102	40	14.2
PKV-08	1/2	29	127	40	38.2
PKV-10	5/8	29	127	40	42.6
PKV-12	3/4	41	178	40	79.7
PKV-14	7/8	41	178	40	108.5
PKV-18	1-1/8	54	213	40	188.5
PKV-22	1-3/8	67	238	40	232.8
PKV-26	1-5/8	80	267	40	397.7
PKV-34	2-1/8	92	305	40	691.1
PKV-42	2-5/8	105	330	40	927.3
PKV-50	3-1/8	105	330	40	1262.5

Note; connection larger than 2-1/8, HPEOK Refrigeration recommend to use PKV-3122/3142 Piston check valve.

INSTALLATION – Note

- Note:** The system must be pumped down and lines must be depressurized before install.
Failure to do it could cause serious bodily injury.
- Assure the flow arrow in the direction of desired flow.
- Clean and prepare joints and flux if necessary.
- Wrapped with a wet cloth to the valve body to prevent overheating of internal components.
- Direct the flame away from the valve body to prevent overheating.
- Allow connection to cool naturally, do not quench.
- Mark the refrigerant type and oil type after charging.



Angle check valve Type PKV



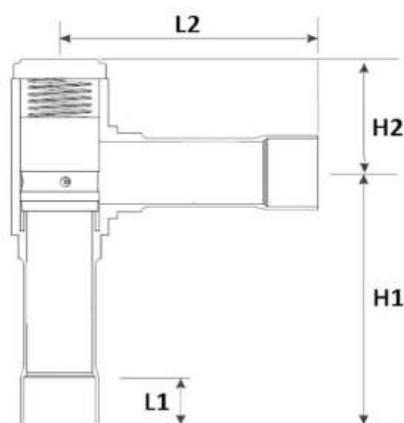
Applications

PKV Angle check valves can be used in liquid, suction and hot gas lines in the refrigeration and air conditioning plants with fluorinated refrigerants. A built-in damping piston makes the valves suited to install in lines where pulsation may occur, for example, in the discharge line from the compressor.

In refrigeration plants with parallel compressors, it is advantageous to use angle check valve because the spring is stronger.

Features

- Ensures the refrigerant only flow in one direction
- Oversize connections provide flexibility in use
- Prevents back-condensation from warm to cold system part.
- For use with CFC, HFC and HCFC refrigerants including R410a, optional for CO₂
- Max. working pressure PS/MWP = 46 bar
- Temperature of the medium: -40°C~+130°C
- CE Listed



Specification

Part No.	Connection (in)	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	Across pressure drop ΔP_1 (Bar)	Kv Value (m ³ /h)
PKV-14(H)L	7/8	107	47	17	102	0.4	8.5
PKV-18(H)L	1-1/8	113	48	20	109		19.0
PKV-22(H)L	1-3/8	130	70	25	133		29.0
PKV-26(H)L	1-5/8	146	68	30	147		32.0

Δp = the minimum pressure at which the valve is completely open.

KV value= The kv value is the flow of water in m³/h at a pressure drop across valve of 1 bar, $\rho = 1000 \text{ kg/m}^3$.

Special spring needed, please contact HPEOK Refrigeration.

Angle check valve Type PKV/PKVH

The liquid capacity at the pressure of ΔP MPa (Kw)

Part No.	0.005	0.007	0.014	0.03 ^H	0.005	0.007	0.014	0.03 ^H	0.005	0.007	0.014	0.03 ^H	0.005	0.007	0.014	0.03 ^H
	R22				R134a				R404A/R507				R407C			
PKV-14(H)L	98.8	117.0	165.0	242.0	91.1	108.0	152.0	223.0	69.0	81.6	115.0	169.0	92.9	110.0	155.0	228.0
PKV-18(H)L	221.0	261.0	370.0	541.0	204.0	241.0	341.0	499.0	154.0	182.0	258.0	378.0	208.0	245.0	348.0	509.0
PKV-22(H)L/26(H)L	334.0	399.0	546.0	826.0	311.0	368.0	520.0	761.0	236.0	278.0	394.0	577.0	314.0	375.0	530.0	776.0

The liquid capacity is based on liquid temperature $t_1=25^\circ\text{C}$, evaporating temperature $t_e=-10^\circ\text{C}$

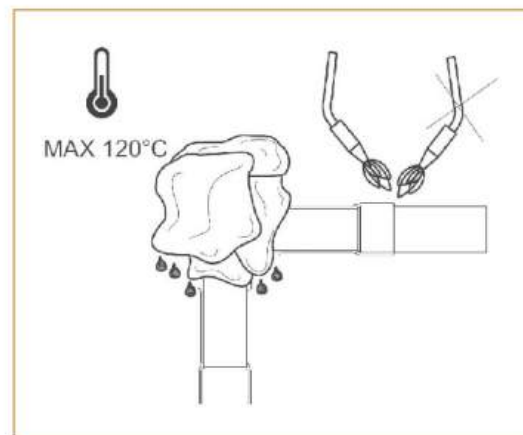
The hot gas capacity at the pressure of ΔP MPa (Kw)

Part No.	0.005	0.007	0.014	0.03 ^H	0.005	0.007	0.014	0.03 ^H	0.005	0.007	0.014	0.03 ^H	0.005	0.007	0.014	0.03 ^H
	R22				R134a				R404A/R507				R407C			
PKV-14(H)L	17.3	20.6	29.2	43.1	13.7	16.2	23.1	34.3	15.3	18.1	25.5	37.7	18.5	22.0	31.2	46.1
PKV-18(H)L	38.8	46.0	65.4	96.3	30.6	36.5	51.7	76.6	34.2	40.5	57.0	84.2	41.5	49.2	70.0	103.0
PKV-22(H)L/26(H)L	59.2	70.2	99.8	147.0	46.7	55.4	78.9	117.0	52.2	61.8	87.0	129.0	63.3	75.1	107.0	157.0

The hot gas capacity is based on liquid temperature $t_1=25^\circ\text{C}$, evaporating temperature $t_e=-10^\circ\text{C}$

INSTALLATION – Note

- Note:** The system must be pumped down and lines must be depressurized before install.
Failure to do it could cause serious bodily injury.
- Assure the flow arrow in the direction of desired flow.
- Clean and prepare joints and flux if necessary.
- Wrapped with a wet cloth to the valve body to prevent overheating of internal components.
- Direct the flame away from the valve body to prevent overheating.
- Allow connection to cool naturally, do not quench.
- Mark the refrigerant type and oil type after charging.



Piston Check valve Type PKV



Features

- Ensures the refrigerant only flow in one direction.
- Oversize connections provide flexibility in use.
- Prevent back – condensation from a warm part of the system to the cold evaporator.
- A built – in damping piston makes the valves suitable for installation in lines where pulsation can occur, e. g. in the discharge line from the compressor.
- Easy disassembly.
- CE listed.

Applications

The Piston Check Valve can be used in commercial refrigeration systems, civil and industrial air conditioning systems. It is designed for maximum flow and minimal pressure drop. The valve body is made from cast brass and designed with piston close and seal, the piston is made from brass.

Material

Part Name	Material	Standard
Valve Body	Brass:HPb59-1	GB/T 5231-2012
Piston	Brass:HPb59-1	GB/T 5231-2012
Copper Tube	Copper:TP2Y2(T2Y2)	GB/T 1527-2017
Gasket	Teflon	JB/T 8873-2011
Spring	65Mn	GB/T 1239.2-2009

Technical data

Refrigerant	CFC, HCFC, HFC
Medium Temperature	-60°C ~ +160°C
Ambient Temperature	-50°C ~ +80°C
Max. Working Pressure	3.0Mpa

Specification

Part No.		Refrigerant refrigerating capacity (Kw)															Kv value (m³/h)
Normal	Extended	Liquid				Vapour					Hot Gas						
		R134a	R22	R407C	R404A	R410A	R134a	R22	R407C	R404A	R410A	R134a	R22	R407C	R404A	R410A	
PKV-3122/7	PKV-3142/7	111.2	118.8	78.5	123.7	125.7	14.3	17.8	14.9	17.7	23.8	56.1	77.2	66	76.7	85.8	6.6
PKV-3122/9	PKV-3142/9	148.3	158.4	104.7	164.9	167.5	19	23.8	19.9	23.6	31.7	74.8	103	88	102.3	114.4	8.8
PKV-3122/11	PKV-3142/11	256.1	273.6	180.9	284.8	289.4	32.8	41	34.4	40.7	54.7	129.2	177.8	152	176.5	197.6	15.2
PKV-3122/13	PKV-3142/13	421.3	450	297.5	468.5	476	54	67.5	56.5	67	90.6	212.5	292.5	250	290.5	325	25
PKV-3122/17	PKV-3142/17	674	720	476	749.6	761.5	86.4	108	90.4	107	144	468	468	400	464.8	520	40

Note: The Kv value is the flow of water in m³/h at a pressure drop across valve of 1 bar/14.5 psig.
 $\rho = 1000 \text{ kg/m}^3 - 2205 \text{ lbs/G.}^*$

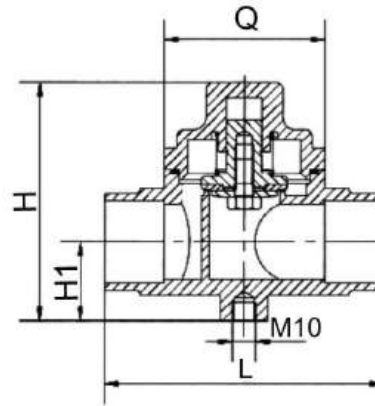
Piston Check valve

Type PKV

The piston check valve including Normal type and Tube extended type, both types provide both metric and inch sizes, and full size s from 1/4" (6mm) to 2-1/8" (54mm). All valves have screw hole, which could be installed to the panel.



3122

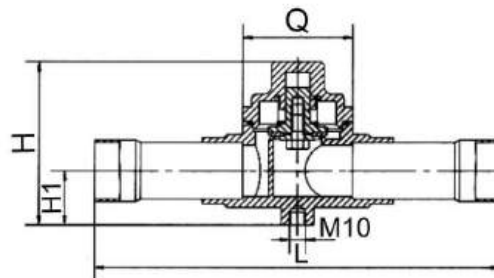


Normal type dimensional data

Part No.	Connection ODF		H		H1		L		Q	
	in	mm	in	mm	in	mm	in	mm	in	mm
PKV-3122/7	7/8	22.4	3.3	84.5	1.1	28.5	3.9	100	2.4	60
PKV-3122/9	1-1/8	28.8	3.3	84.5	1.1	28.5	3.9	100	2.4	60
PKV-3122/11	1-3/8	35	4.0	101.5	1.3	34	4.6	118	2.8	68
PKV-3122/13	1-5/8	42	4.9	125.5	1.5	37	5.6	141	3.5	88
PKV-3122/17	2-1/8	54	5.6	142	1.7	42.5	6.8	173	4.1	104



3142



ODF solder with extended ends type dimensional data

Part No.	Connection ODF		H		H1		L		Q	
	in	mm	in	mm	in	mm	in	mm	in	mm
PKV-3142/7	7/8	22.4	3.3	84.5	1.1	28.5	6.7	170	2.4	60
PKV-3142/9	1-1/8	28.8	3.3	84.5	1.1	28.5	7.9	201	2.4	60
PKV-3142/11	1-3/8	35	4.0	101.5	1.3	34	9.1	232	2.8	68
PKV-3142/13	1-5/8	42	4.9	125.5	1.5	37	10.1	256	3.5	88
PKV-3142/17	2-1/8	54	5.6	142	1.7	42.5	11.2	285	4.1	104

Globe valve

Type PK



Features

- For use with CFC, HFC and HCFC refrigerants, optional for R410a & CO₂.
- Teflon valve plate, to give complete close with minimum torque.
- Special design of valve handle, can be closed without any tools.
- Extended copper tube makes easy installation, and no need to open valve when welding.
- CE Listed

Applications

The Globe valve can be used in commercial refrigeration systems, civil and industrial air conditioning systems. The valve designed to use self – enclosed stem, so that the globe valve can be installed to anywhere of refrigeration systems that the refrigerant flow direction needed to close.

Material

Part Name	Material	Standard
Valve Body	Brass:Hpb69-1	GB/T 5231-2012
Valve stem	Steel	GB/T 700-2006
Gasket	Teflon	JB/T 8873-2011

Technical data

Refrigerant	CFC,HCFC,HFC
Medium Temperature	-60℃~160℃
Ambient Temperature	-50℃~+80℃
Max.Working Pressure	3.0Mpa

Specification

Part No.	Liquid Refrigeration Quantity(Kw)									Kv value (m ³ /h)
	R134a	R22	R404A	R134a	R22	R404A	R134a	R22	R404A	
PK-651(4)2/7	111.3	118.8	78.5	14.3	17.8	14.9	56.1	77.3	66	7.1
PK-651(4)2/9	148.3	158.4	104.7	19.1	23.8	49.9	74.8	103	88	8.4
PK-651(4)2/11	256.1	273.5	180.9	32.8	41	34.5	129.2	177.8	152	15
PK-651(4)2/13	421.3	450	297.5	54	67.5	56.5	212.5	292.5	250	25
PK-651(4)2/17	674	720	476	86.4	108	90.4	340	468	400	40

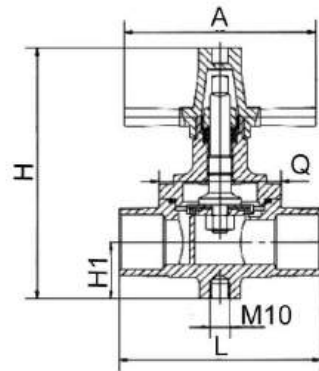
Note: The Kv value is the flow of water in m³/h at a pressure drop across valve of 1 bar/14.5 psig.
 $\rho = 1000 \text{ kg/m}^3 - 2205 \text{ lbs/G.}$

Globe valve Type PK

The globe valve including Normal type and ODF solder with extended ends, both types provide both metric and inch sizes, and full sizes from (6mm) to 2 – 1/8" (54mm). All valves have screw hole, which could be installed to the panel.



6512

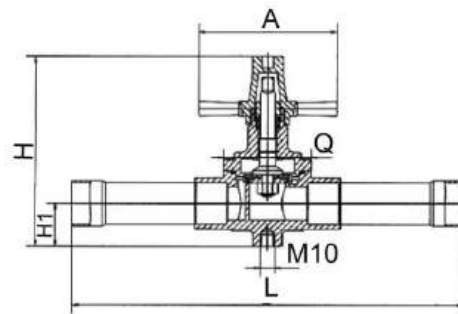


Normal type dimensional data

Part No.	Connection ODF		H		H1		L		Q		A	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
PK-6512/7	7/8	22.4	5.4	136	1.1	28.5	3.9	100	2.4	60	3.7	94
PK-6512/9	1-1/8	28.8	5.4	136	1.1	28.5	3.9	100	2.4	60	3.7	94
PK-6512/11	1-3/8	35	6.5	166	1.3	34	4.6	118	2.8	68	5	126
PK-6512/13	1-5/8	42	7.8	199	1.5	37	5.6	141	3.5	88	5.4	138
PK-6512/17	2-1/8	54	8.5	215	1.7	42.5	6.8	173	4.1	104	5.4	138



6542



ODF solder with extended ends type dimensional data

Part No.	Connection ODF		H		H1		L		Q		A	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
PK-6542/7	7/8	22.4	5.4	136	1.1	28.5	3.9	100	2.4	60	3.7	94
PK-6542/9	1-1/8	28.8	5.4	136	1.1	28.5	3.9	100	2.4	60	3.7	94
PK-6542/11	1-3/8	35	6.5	166	1.3	34	4.6	118	2.8	68	5	126
PK-6542/13	1-5/8	42	7.8	199	1.5	37	5.6	141	3.5	88	5.4	138
PK-6542/17	2-1/8	54	8.5	215	1.7	42.5	6.8	173	4.1	104	5.4	138

Shut off Valve – Capped valve Type PK

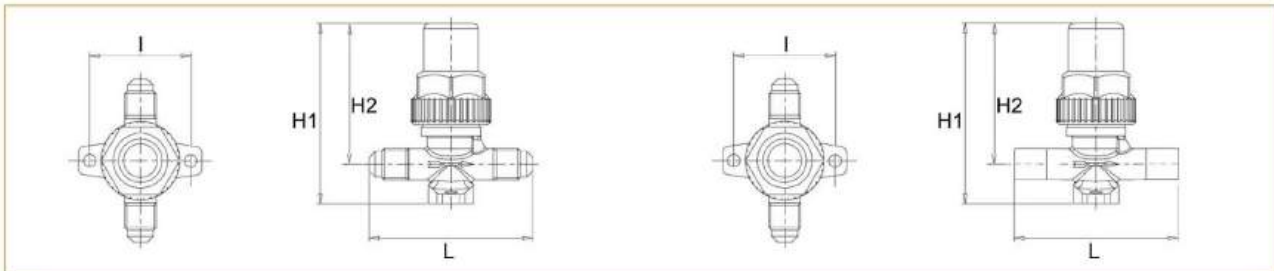


Applications

PK capped valves are manual shut-off valve designed for installation in the liquid, suction and hot gas lines on commercial refrigerating systems and on civil and industrial conditioning plants. The valve designed to use self-enclosed stem, so that the glove valve can be installed to anywhere of refrigeration systems that the refrigerant flow direction needed to close. PK valves can be delivered with flare or ODF solder.

Features

- Brass valve body, well sealed.
- Working temperature: $-60^{\circ}\text{C} \sim +100^{\circ}\text{C}$.
- Max. Working pressure: 4.2Mpa.
- For use with all fluorine refrigerants – CFC, HFC and HCFC refrigerants, including R410A.



Specification

Part No.	Connection(in)		H1		H2		L		I		Kv value (m ³ /h)
	ODF	SAE	in	mm	in	mm	in	mm	in	mm	
PK-6410/2		1/4	3.4	85.5	2.6	67	2.7	68	1.5	38	0.40
PK-6420/2	1/4		3.4	85.5	2.6	67	2.2	57	1.5	38	0.40
PK-6410/3		3/8	3.4	85.5	2.6	67	2.9	74	1.5	38	1.00
PK-6420/3	3/8		3.4	85.5	2.6	67	2.4	61	1.5	38	1.00
PK-6410/4		1/2	3.4	85.5	2.6	67	3.1	78	1.5	38	1.45
PK-6420/4	1/2		3.4	85.5	2.6	67	2.7	70	1.5	38	1.45
PK-6410/5		5/8	3.4	85.5	2.6	67	3.1	78	1.5	38	1.70
PK-6420/5	5/8		3.4	85.5	2.6	67	2.8	71	1.5	38	1.70
PK-6410/6		3/4	4.4	113	3.5	89.5	3.9	98	2.0	50	3.50
PK-6420/6	3/4		4.4	113	3.5	89.5	3.6	92	2.0	50	3.50
PK-6420/7	7/8		4.4	113	3.5	89.5	3.7	94	2.0	50	3.50

Note: The Kv value is the flow of water in m³/h at a pressure drop across valve of 1 bar/14.5 psig.
 $\rho = 1000 \text{ kg/m}^3 - 2205 \text{ lbs/G.}^*$

Shut off valve Type PKF

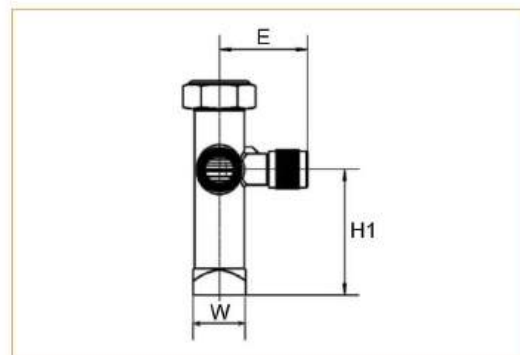
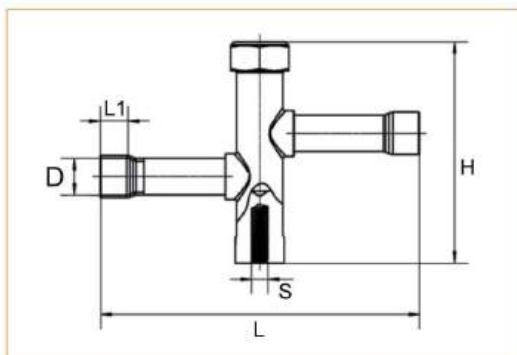


Features

- Asbestos-free
- Full inspection
- Max. Working pressure: 4.2Mpa
- Working temperature: $-40^{\circ}\text{C} \sim +130^{\circ}\text{C}$
- For use with CFC, HFC, HCFC & HC refrigerants and associated oils, including R410A

Applications

PKF shut off valve is a connection component, normally used in split air conditioning units or other refrigeration system. The valve can close or connect to the system pipes by rotate the valve stem manually. When maintaining the system, it can be used for charging refrigerant or vacuum pipe.



Specification

Part No.	Connector Dim.		Dimension					
	D	L1	L	H	H1	E	W	S
	in	mm						
PKF-06	3/8	8	117.5	68	42.5	29	17.5	1/4-20UNF
PKF-08	1/2	10	120.5	77	45	30	18.5	1/4-20UNF
PKF-10	5/8	14	127	95	57	33	25	1/4-20UNF
PKF-12	3/4	15	127	95	57	33	25	1/4-20UNF
PKF-14	7/8	17	130	103	60	35	28.5	1/4-20UNF

Capped line receiver valve Type PKY



Applications

PK capped line valves can be installed to the connection of liquid receiver, oil return connection of oil separator, oil inlet and equalization connection of oil level regulator and oil filter.

When maintaining system, this valve can separate oil circuit fittings of any compressor group in order to make other compressors work normally.

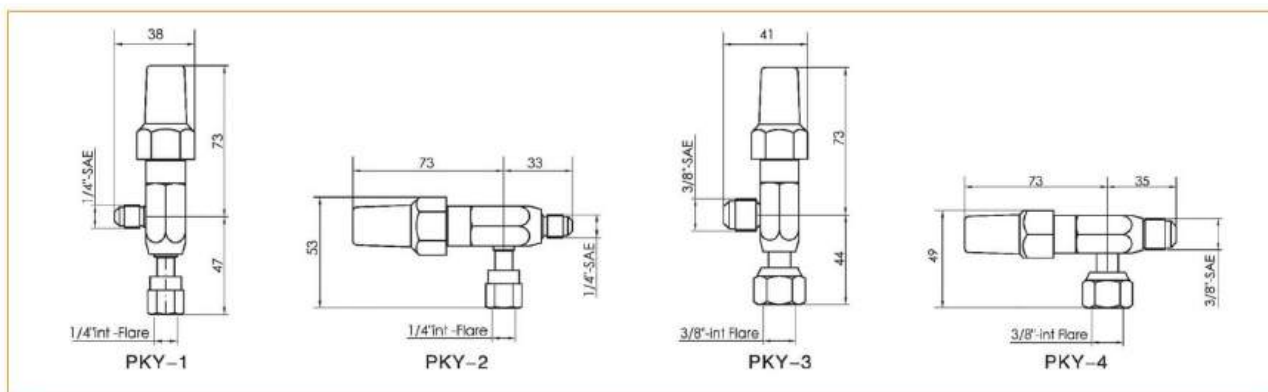
Each valve has a 360° rotated connection, can be assembled to the oil circuit conveniently.

Features

- Brass valve body, well sealed
- Working temperature: $-40^{\circ}\text{C} \sim +130^{\circ}\text{C}$
- Max. Working pressure: 4.8Mpa

Refrigerant

For use with all fluorine refrigerants – CFC, HFC and HCFC refrigerants, including R410a. For specific applications with refrigerant fluids not listed above, please contact HPEOK Refrigeration.



Specification

Part No.	Connection (in)	Connection (in)	Installation method
PKY-1	1/4 SAE male adapter	1/4 SAE Nut	Vertical
PKY-2	1/4 SAE Nut	1/4 SAE male adapter	horizontal
PKY-3	3/8 SAE male adapter	3/8 SAE Nut	vertical
PKY-4	3/8 SAE Nut	3/8 SAE male adapter	horizontal

Receiver valve Type PK



Applications

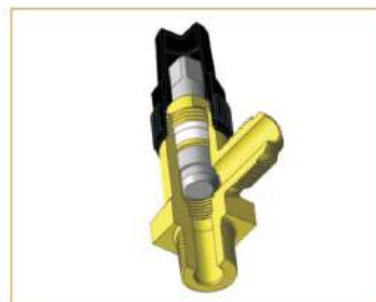
PK receiver valves designed for installation on commercial refrigerating systems and on civil and industrial conditioning plants, for use with all fluorine refrigerants – CFC, HFC and HCFC refrigerants, including R410 A. For specific applications with refrigerant fluids not listed above, please contact HPEOK Refrigeration.

Features

- Brass valve body, well sealed
- Working temperature: $-40^{\circ}\text{C} \sim +130^{\circ}\text{C}$
- Max. Working pressure: 4.8Mpa

Specification

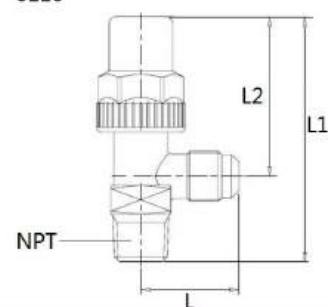
Part No.		Inlet SAE Flare	Connection NPT	Kv Factor (m^3/h)
Vertical type	Horizontal type			
PK-6110/22	PK-6120/22	1/4	1/4	0.44
PK-6110/23	PK-6120/23	1/4	3/8	0.45
PK-6110/32	–	3/8	1/4	1.35
PK-6110/33	PK-6120/33	3/8	3/8	1.35
PK-6110/43	PK-6120/43	1/2	3/8	2.40
PK-6110/44	PK-6120/44	1/2	1/2	3.40
PK-6110/54	PK-6120/54	5/8	1/2	3.30



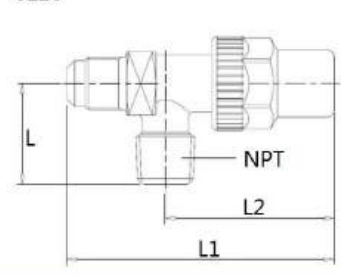
Specification

Part No.	Dimensions(mm)		
	L1	L2	L
PK-6110/21	71	48	27.5
PK-6110/22	72		
PK-6110/23	77	50	29
PK-6110/32			31
PK-6110/33			
PK-6110/43	88	55.5	34.5
PK-6110/44	92		
PK-6110/54			
PK-6110/66	128	88	42.5
PK-6120/22	72	48	27.5
PK-6120/23	77	50	30
PK-6120/33	80		
PK-6120/43	93	55.5	
PK-6120/44			
PK-6120/54	94		

6110



6120



Rotalock valve Type PK

Applications

PK rotalock valves designed for installation on refrigerating systems to adjust flow rate, open & close the flow. When soldering, ensure the spindle is open and temperature is lower than 800°C.

Features

- Asbestos-free
- Full inspection
- Can 360° rotate when installing
- Max. Working pressure: 4.8Mpa
- Working temperature: -40°C ~+130°C
- For use with CFC, HFC, HCFC & HC refrigerants and associated oils, including R410A



Rotalock Welding Valve

Part No.	Connection			
	in	mm	M Thread	S Hex
PK-V01S	3/8	Φ10	1-14UNS	30
PK-V02S	1-1/8	Φ28	1-3/4-12UN	50
PK-V03S	1-3/8	Φ35	1-3/4-12UN	50
PK-V04S	3/4	Φ19	1-1/4-12UNF	36
PK-V05S	7/8	Φ22	1-1/4-12UNF	36
PK-V06S	1/2	Φ12	1-14UNS	30
PK V07S	7/8	Φ22	1-3/4-12UN	50
PK-V09S	5/8	Φ16	1-1/4-12UNF	36

Globe valve for safety valve

HPEOK offers globe valves for safety valves.

The globe valves are installed between the pressure vessel and safety valve to control open and close.

It can offer regular inspection and replacement for the safety valve conveniently.

Changeover valve for safety valve

HPEOK changeover valve works as an auxiliary valve for dual pressure relief valve.

It allows to isolate one safety valve from the system when the other safety valve is operating, so that the users can make regular inspection and replacement in the isolated safety valve while the system and the other safety valve keeps working.

Angle stop valve Type PK

Applications

PK angle stop valves designed for installation on refrigerating systems to adjust flow rate, open & close the flow. When soldering, ensure the spindle is open and temperature is lower than 800°C.

Features

- Asbestos-free
- Full inspection
- Can 360° rotate when installing
- Max. Working pressure: 4.8Mpa
- Working temperature: -40°C ~+130°C
- For use with CFC, HFC, HCFC & HC refrigerants and associated oils, including R410A



Specification

Valve Body (□)	Part No.	Connection	
		(in)	(mm)
□20	PK-001S	3/8	10
	PK-002S	1/2	12
	PK-003S	5/8	16
□30	PK-004S	3/4	19
	PK-005S	7/8	22
	PK-006S	1-1/8	28
□35	PK-007S	1-1/8	28
	PK-008S	1-3/8	35
	PK-009S	1-5/8	42
□45	PK-010S	1-3/8	35
	PK-011S	1-5/8	42
	PK-012S	2-1/8	54



Specification

Valve Body (□)	Part No.	Connection	
		(in)	(mm)
□20	PK-001	3/8	10
	PK-002	1/2	12
	PK-003	5/8	16
□30	PK-004	3/4	19
	PK-005	7/8	22
	PK-006	1-1/8	28
□35	PK-007	1-1/8	28
	PK-008	1-3/8	35
	PK-009	1-5/8	42
□45	PK-010	1-3/8	35
	PK-011	1-5/8	42
	PK-012	2-1/8	54

Direct acting solenoid valve

Type PKR



Applications

PKR direct – acting solenoid valves are compact and light – weight valve, used in liquid, suction and hot gas lines in refrigeration and air conditioning plants.

Different pipe bends available for PKR valve, which can save additional operation costs.

Wide range of application:

- Dehumidifier
- Vending machine
- Ice making machine
- Air conditioning unit

Features

- Max. Operation pressure: 4.2 Mpa
- Medium Temperature: 30°C ~ +120°C
- Ambient Temperature: 30°C ~ +50°C
- Allowed voltage fluctuating range: 85% ~ –110% of the rated voltage
- Relative humidity: 95% or less
- For use with CFC, HCFC & HFC, including R22, R407C, R410A

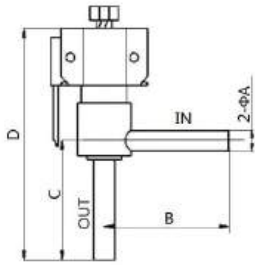
Specification

Part No.	Operated type	Circulation Diameter (mm)	Kv value	Leakage (m1/min)	Action pressure difference Mpa		Connection Size (mm)
			m ³ /h	Δp=2.1MPa	Max	Min	
PKR-2A	direct-acting	1.9	0.08	≤300	3.4	0	6.35
PKR-2.5A		2.5	0.12	≤300	3.4	0.01	6.35
PKR-3A		3	0.16	≤500	3.4	0.01	7.94
PKR-4A		4	0.25	≤500	3.4	0.01	6.35
PKR-6A		5.8	0.54	≤500	3.4	0.01	7.94
PKR-8A		8	0.8	≤500	2.8	0.02	12.7

Note: The Kv value is the flow of water in m³/h at a pressure drop across valve of 1 bar/14.5 psig.

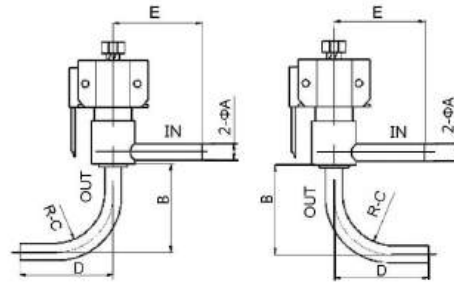
Direct acting solenoid valve

Type PKR



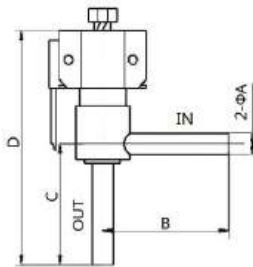
Specification

Part No.	Dimensions			
	A	B	C	D
PKR-2A	6.35	34	32	66.5
PKR-2.5A	6.35	34	32	66.5
PKR-3A	7.94	34	32	80



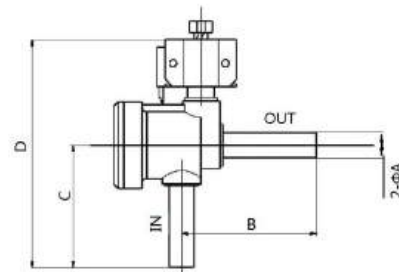
Specification

Part No.	Dimensions				
	A	B	C	D	E
PKR-2A-L	6	20	15	38	34



Specification

Part No.	Dimensions			
	A	B	C	D
PKR-4A	6.35	35.5	34.5	80
PKR-6A	7.94	35.5	34.5	80



Specification

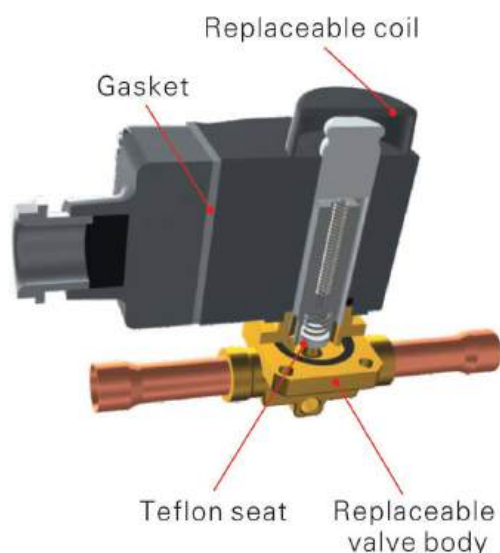
Part No.	Dimensions			
	A	B	C	D
PKR-8A	12.7	61	61	113

Installation- Note

1. Avoid excessive impact or pressure on valve body, or valve body may cracking..
2. Keep flammable materials away from coil, or fire hazard may occur due to the heating coil.
3. Avoid excessive impact or pressure on coil, or the coil or insulation layers may be broken thus cause fire or electric shock, or the lead wire may be broken and lead to bad valve body performance.
4. Do not energize the coil while separate valve or coil, or the coil may be burned out.
5. Use rated voltage only, or the coil may be burned out or valve body be damaged.
6. Do not insulate the coil, or the coil may be burned out due to poor heat dissipation.
7. Do not touch the coil when it is working, and do not install the coil to the dew condensation position.
8. When welding connections:
 - Remove the coil to avoid high temperature damage it;
 - Cool the valve body, ensure the temperature less than 120°C, meanwhile, charge inert gas(N2 or CO2) into valve body to avoid the oxide enter to valve body.
9. Tighten screw with 2.5N.m torque when installing coil, loose screw will make the valve body noisy and vibrate.

Solenoid valve

Type PKR



Technical data

- Normally open or normally closed
- Full sizes from 1/4"(6mm) to 2-1/8"(54mm)
- Can be used for all fluorinated refrigerants (CFC, HCFC and HFC).
- Medium Temperature range: -40°C to +105°C
- Power supply: 12V, 24V, 110V/220V, 50/60Hz
- Allowed voltage fluctuating range: +10 ~ -15%
- Max working pressure: PKR3 to PKR15: 35Bar
PKR20 to PKR40: 32Bar

Applications

PKR series solenoid valves are direct operated or servo operated, mainly used in liquid, suction and hot gas lines of refrigeration, air conditioning, freezing, and heat pump systems.

The solenoid valves are compatible with fluorinated refrigerants, Optional for use with high-pressure refrigerants, e.g. R410A.

The valves can be delivered as normally open and normally closed valves, complete or separated components, such as valve body, coil and flange.

Features

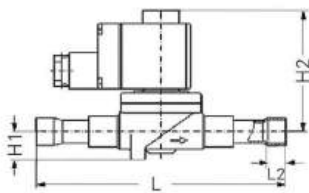
- Complete range of valves and coils for every application
- Wide range of coils for a.c. and d.c
- Wide range of connection types, including flange connection
- Extended ends for soldering makes easy assemble, no necessary to dismantle the core when soldering
- High reliability and durability due to maximum internal and external tightness
- 100% test of functionality, internal/external leakage and electrical characteristics

Specification

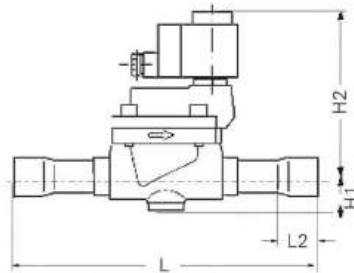
Part No.	Material	Standard
Valve body	Brass:HPb59-1	GB/T 5231-2012
Valve cover	Brass:HPb59-1	GB/T 5231-2012
Copper tube	TP2Y2(T2Y2)	GB/T 1527-2017
Gasket	Teflon	GB/T 8873-2011
Spring	65Mn	GB/T 1239.2-2009
O ring	Rubber:HNBR	QC/T 666-2000

Solenoid valve

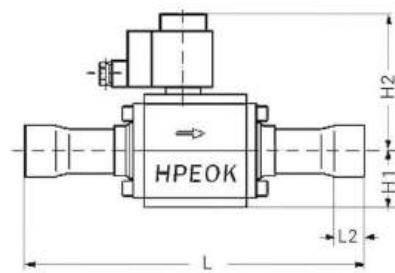
Type PKR



PKR3-22



PKR 25



PKR32-40

Specification

Part No.	Connection		H1		H2		L		L2	
	in	mm	in	mm	in	mm	in	mm	in	mm
PKR3-02	1/4	6	0.5	14	2.8	71	4.0	102	0.3	7
PKR3-03	3/8	10	0.5	14	2.9	73	4.6	117	0.4	10
PKR6-03	3/8	10	0.5	14	3.1	79	4.4	111	0.4	10
PKR6-04	1/2	12.8	0.5	14	3.1	79	5.0	127	0.4	10
PKR10-04	1/2	12.8	0.6	16	3.1	79	5.0	127	0.4	10
PKR10-05	5/8	16	0.6	16	3.1	79	6.3	160	0.5	12
PKR15-05	5/8	16	0.7	19	3.4	86	6.9	176	0.5	12
PKR15-06	3/4	19	0.7	19	3.4	86	6.9	176	0.7	17
PKR15-07	7/8	22	0.7	19	3.4	86	6.9	176	0.7	17
PKR20-07	7/8	22	0.8	20	3.5	90	7.5	191	0.7	17
PKR20-09	1-1/8	28.8	0.8	20	3.5	90	8.4	214	0.8	22
PKR22-11	1-3/8	35.0	0.8	20	3.5	90	11.1	281	1.0	25
PKR25-09	1-1/8	28.8	1.5	38	5.4	138	10.0	256	0.8	22
PKR25-11	1-3/8	35.0	1.5	38	5.4	138	11.0	281	1.0	25
PKR32-11	1-3/8	35.0	1.9	47	4.4	111	11.0	281	1.0	25
PKR32-13	1-5/8	42.0	1.9	47	4.4	111	11.0	281	1.1	29
PKR40-13	1-5/8	42.0	1.9	47	4.4	111	11.0	281	1.1	29
PKR40-17	2-1/8	54.0	1.9	47	4.4	111	11.0	281	1.3	34

Solenoid valve

Type PKR

Specification

Part No.	Opening differential pressure withstandard coil Δp Mpa			Media Tempera-ture (°C)	Max.working pressure (Mpa)	Kv value (m³/h)
	Least	The maximum working pressure difference,MOPD(liquid)				
		10W a.c	12W a.c			
PKR3	0.00	2.1	2.5	−40→+105	3.5	0.3
PKR6	0.004	2.1	2.5	−40→+105	3.5	0.7
PKR10	0.004	2.1	2.5	−40→+105	3.5	1.8
PKR15	0.004	2.1	2.5	−40→+105	3.5	2.5
PKR20	0.004	2.1	2.5	−40→+105	3.2	5.1
PKR22	0.004	2.1	2.5	−40→+105	3.2	6.2
PKR25	0.019	2.1	2.5	−40→+105	3.2	10.2
PKR32	0.019	2.1	2.5	−40→+105	3.2	16.5
PKR40	0.019	2.1	2.5	−40→+105	3.2	25.3

Note: 1. The Kv value is the flow of water in m³/h at a pressure drop across valve of 1 bar/14.5 psig. $\rho = 1000 \text{ kg/m}^3 - 2205 \text{ lbs/G}$.
2. MOPD of gas media medium is about 0.1 Mpa

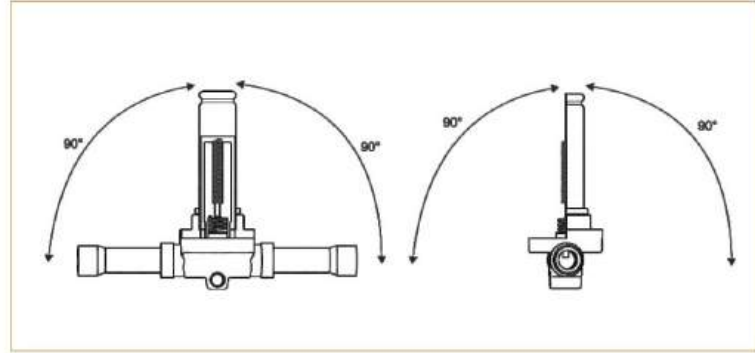
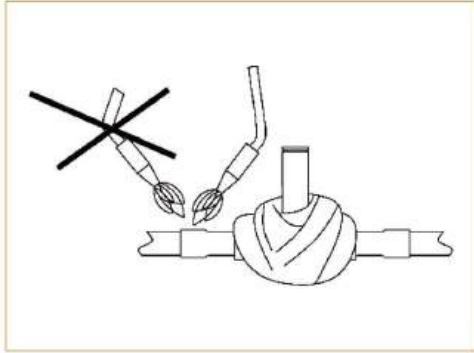
Specification

Part No.	Liquid Refrigeration Quantity (Kw)											
	Liquid				Vapour				Hot Gas			
	R22	R134a	R404A R507	R407C	R22	R134a	R404A R507	R407C	R22	R134a	R404A R507	R407C
PKR3	5.50	5.20	3.70	5.10	—	—	—	—	2.50	2.00	2.00	2.45
PKR6	16.20	14.90	11.00	15.20	1.80	1.30	1.30	1.70	7.50	5.90	6.00	7.20
PKR10	38.20	35.50	26.50	36.00	4.50	3.20	4.00	4.00	17.50	14.00	14.30	17.00
PKR15	52.30	48.20	36.70	50.00	6.00	4.30	5.30	5.50	24.00	19.00	19.50	23.30
PKR20	101.20	93.00	70.20	95.00	11.50	8.00	10.30	10.50	46.30	36.50	37.70	44.80
PKR22	121.00	113.00	84.50	113.80	13.80	9.80	12.10	12.50	55.50	44.00	45.20	53.80
PKR25	201.30	185.00	142.00	189.00	22.90	16.50	20.50	21.00	92.30	73.30	75.50	90.00
PKR32	321.00	298.00	253.00	303.00	36.40	26.00	32.50	33.50	148.00	117.00	120.00	143.00
PKR40	504.00	465.00	352.00	473.00	57.50	41.00	51.00	53.00	232.00	183.00	188.00	224.00

1. Rated liquid and suction vapor capacity is based on evaporating temperature $t_e = -10^\circ\text{C}$, liquid temperature ahead of valve $t_l = +25^\circ\text{C}$, and pressure drop across valve $\Delta p = 0.15 \text{ bar}$.
2. Rated hot gas capacity is based on condensing temperature $t_c = +40^\circ\text{C}$, pressure drop across valve $\Delta p = 0.8 \text{ bar}$, hot gas temperature $t_h = +65^\circ\text{C}$, and subcooling of refrigerant $\Delta t_{\text{sub}} = 4 \text{ K}$.

Solenoid valve

Type PKR



Installation–Note

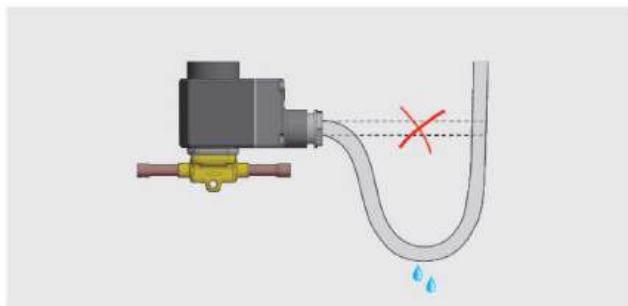
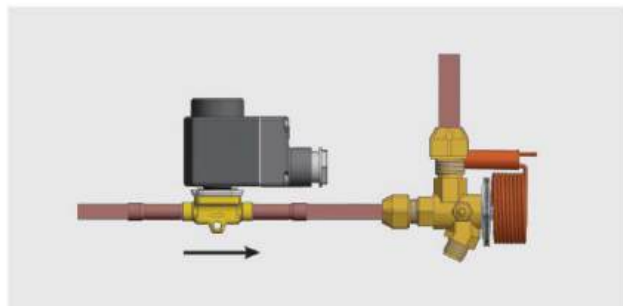
Before fitting the valve to the pipe, it is advisable to make sure the refrigeration system is clean.

1. When installing solenoid valves, must ensure the arrow direction in the valve body is same flow direction. If the solenoid valve installed ahead of a thermostatic expansion valve, normally, install it close to that expansion valve. It can avoid liquid slugging when the solenoid valve opens.
2. Make sure the pipes around the valve are installed correctly.
3. All the valves can be fitted in whatever position except with the coil pointing downwards.
4. If proper heat proof adopted when Brazing/welding, dismantling is not required normally.
Do not spatter the weld bead to the armature tube.
5. Remove the valve body to protect O–rings and gaskets against heat when welding the valve to the pipe.
6. Ensure the solenoid valves in the system are open when testing pressure, either apply voltage to the coils or open the valves manually (a manual operation spindle is present). Must screw the spindle back before starting up, or the valve will not close.
7. Use counter force when tightening the solenoid valve to pipes, i.e. using two spanners on the same side of the valve.

Coil installation

1. Before mounting a valve to the electrical system, ensure the values marked on the coil correspond to the line voltage and frequency.
2. When assembling the coil, simply to press down it over the armature tube until heard a click.
It means the coil has been assembled correctly.
 - Be sure to fit an O–ring between valve body and coil, and ensure the O–ring is smooth without damage and surface clean.
 - Ensure to change the O–ring at service.
3. Insert a screwdriver between valve body and coil can easily remove the coil. And the screwdriver also can be used as a lever to loosen the coil.
4. Notice the cable entries, protect the terminal box away from water, and the cable must be led out via a drip loop.
5. Using round cable always, as it is the only type of cable that can be sealed effectively, and be sure cable entry retains the entire cable circumference.
6. Check the color of leads in the cable, leads of one color are either phase or neutral.
7. Use two screwdrivers or other hand tools when removing a coil.

Solenoid valve Type PKR

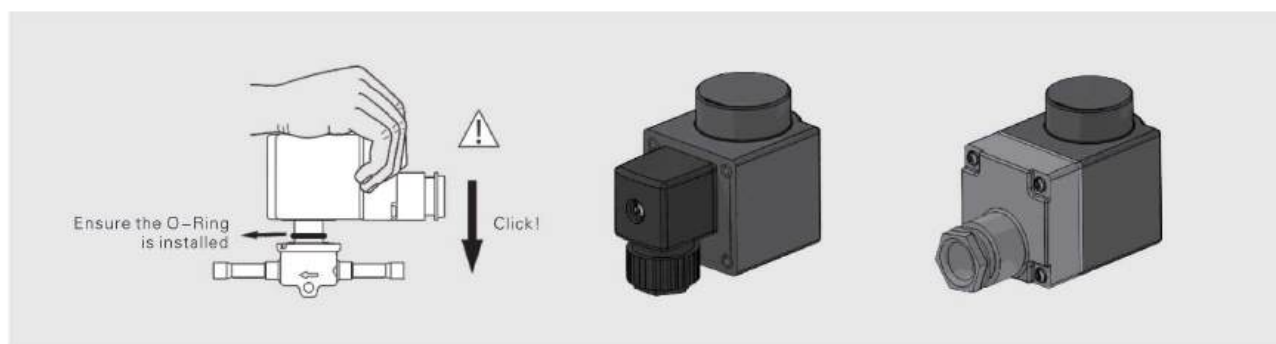


Coil choose

Ensure the valve and coil match each other.

Fitting wrong coil will result in coil burnt out or a lower MOPD.

- NC (normally closed) solenoid valve: Used for the system that the valve must keep closed in the most operating time.
- NO (normally open) solenoid valve: Used for the system that the valve must keep open in the most operating time.
Remember never replace an NO solenoid valve with an NC solenoid valve – or replace an NC solenoid valve with an NO solenoid valve.





Pipeline fittings



Applications

Sight glasses are used in air conditioning and refrigeration systems for both liquid refrigerant and oil applications. They are mainly installed in the liquid line between the filter drier and expansion valve to monitor the refrigerant condition.

PKG/PKGM sight glasses mostly used to indicate refrigerant condition as well as the liquid level in the receiver or the oil level in the compressor. The sight glasses are fixed with sensitive indicators which changes color to show the moisture content within the refrigerant.

HPEOK sight glasses are less affected by temperature and guarantee the best visual indication of moisture during its working.

Features

- High precision color indicator
- Wide range with sizes from 6 to 28 mm
- The Indicator in the glass is anti-pollution

Technical data

- For use with common CFC, HCFC and HFC
- Min./max. ambient temperature: -50°C to $+80^{\circ}\text{C}$
- Max. Working pressure: 4.2 Mpa (42 bar)



Type PK

- Indicate the moisture content within refrigerant.
- Indicate the lack of sub-cooling.
- Indicate the insufficient refrigerant.
- Flare, solder and socket type.



Type PKG/PKGM

- Indicate the lack of sub-cooling.
- Indicate the insufficient refrigerant.
- Indicate liquid level in the receiver.
- Indicate oil level in the compressor.
- Flare, solder and socket type.

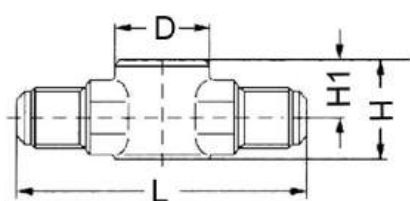
HFC and HCFC Refrigerants

Part No.	Moisture content PPM=parts per million of water					
	Green/dry	Intermed.color	Green/dry	Green/dry	Intermed.color	Green/dry
R22	<30	30-120	>120	<50	50-200	>200
R134a	<30	30-100	>100	<45	45-170	
R404A	<20	20-70	>70	<25	25-100	>100
R407C	<30	30-140	>140	<60	60-255	
R507	<15	15-60	>60	<30	30-110	>110

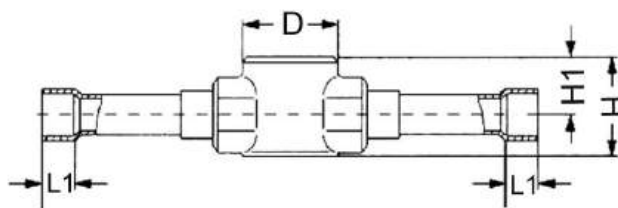
Note: The value above is the liquid temperature at +25°C and +43°C

Specification

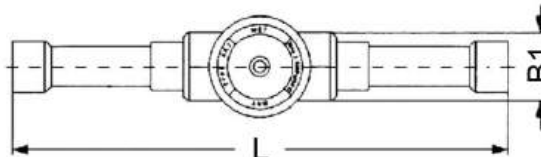
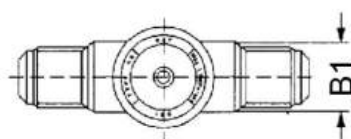
Part No.	Connection	L(mm)	L1(mm)	H(mm)	H1(mm)	B1(mm)	D(mm)
PK-12	1/4 SAE	67	-	24	14	14	27
PK-13	3/8 SAE	82	-	28	16	19	32
PK-14	1/2 SAE	88	-	30	18	22	32
PK-15	5/8 SAE	104	-	37	21	27	37
PK-16	3/4 SAE	110	-	41	22	32	37
PK-12S	1/4 ODF	101	7	24	14	14	27
PK-13S	3/8 ODF	119	9	24	14	14	27
PK-14S	1/2 ODF	146	10	28	16	19	32
PK-15S	5/8 ODF	146	12	30	18	22	32
PK-16S	3/4 ODF	173	14	37	21	27	37
PK-17S	7/8 ODF	173	17	37	21	27	37
PK-19S	1-1/8 ODF	173	17	37	21	27	37



PK-12 ~ 16



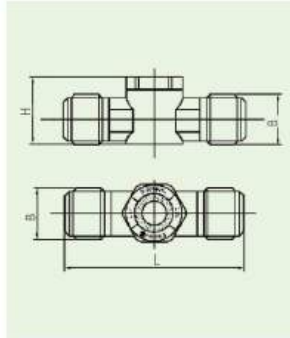
PK-12S ~ 16S



Sight glasses Type PK

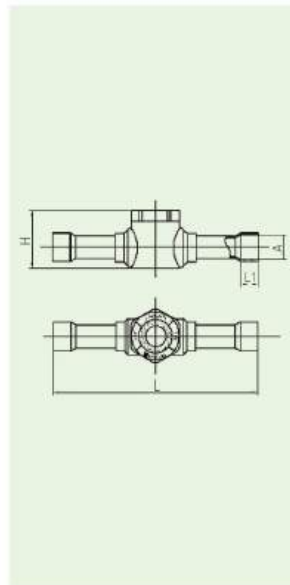
Male SAE to Male SAE

Part No.	Connector Specification		L (mm)	H (mm)	B (in)
PKG-B2	3/8"	SAE	87	24.5	5/8 -18UNF
PKG-B3	1/2"	SAE	91	29.5	3/4 -16UNF
PKG-B4	5/8"	SAE	94	32	7/8 -14UNF
PKG-B5	3/4"	SAE	105	34.5	1-1/16-14UNF



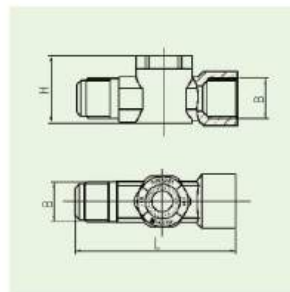
Female ODS to Female ODS

Part No.	Connection		L (mm)	L1 (mm)	H (mm)	A (in)
PKG-C2	3/8"	ODS	120	10	24.5	9.52
PKG-C3	1/2"	ODS	120	12	24.5	12.7
PKG-C4	5/8"	ODS	124	14	29.5	15.88
PKG-C5	3/4"	ODS	145	14	32	19.05
PKG-C6	7/8"	ODS	160	15	34.5	22.22
PKG-C7	1-1/8"	ODS	160	15	41	28.57



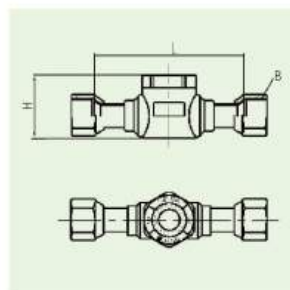
Male SAE to Female SAE

Part No.	Connector Specification		L (mm)	H (mm)	B (in)
PKG-E2	3/8"	MxF	65	24.5	5/8" -18UNF
PKG-E3	1/2"	MxF	68	24.5	3/4" -16UNF
PKG-E4	5/8"	MxF	72	29.5	7/8" -14UNF



Swivel Nut X Swivel Nut

Part No.	Connector Specification		L (mm)	H (mm)	B (in)
PKG-F2	3/8"	FxF	84	24.5	5/8" -18UNF
PKG-F3	1/2"	FxF	84	24.5	3/4" -16UNF
PKG-F4	5/8"	FxF	90	29.5	7/8" -14UNF



Installation – Note

1. Read the instructions thoroughly. Failure to comply will cause valve failure, system damage, or personal injury.

2. When soldering or brazing, direct the flame away from the body, and wet rags must be used to prevent damaging the moisture indicator.

3. The sight glass may be installed anywhere in the liquid line and in any position. It is normally installed downstream from the filter-drier, where the sight glass indication means:

Green: The refrigerant does not have dangerous moisture;

Yellow: The refrigerant ahead of the expansion valve has too high Moisture content.

Bubbles:

- 1) Pressure drop across the filter drier too high.
- 2) No sub-cooling.
- 3) Refrigerant insufficient in the whole system.

4. If the sight glass installed ahead of the filter drier, the indication means:

Green: The refrigerant does not have dangerous moisture;

Yellow: Moisture content too high in the whole refrigeration system.

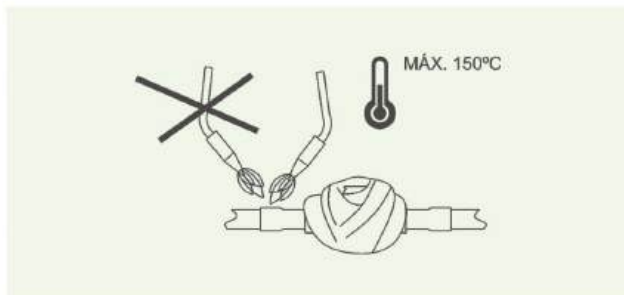
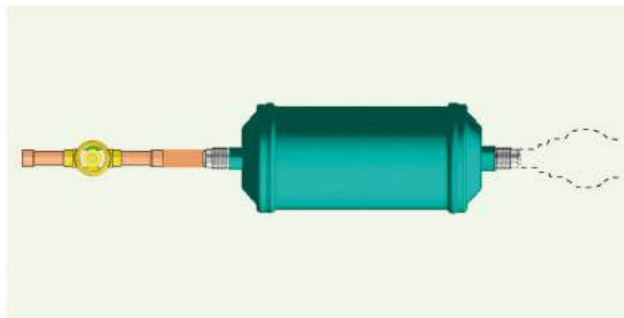
Bubbles:

- 1) No sub-cooling.
- 2) Refrigerant insufficient in the whole system.

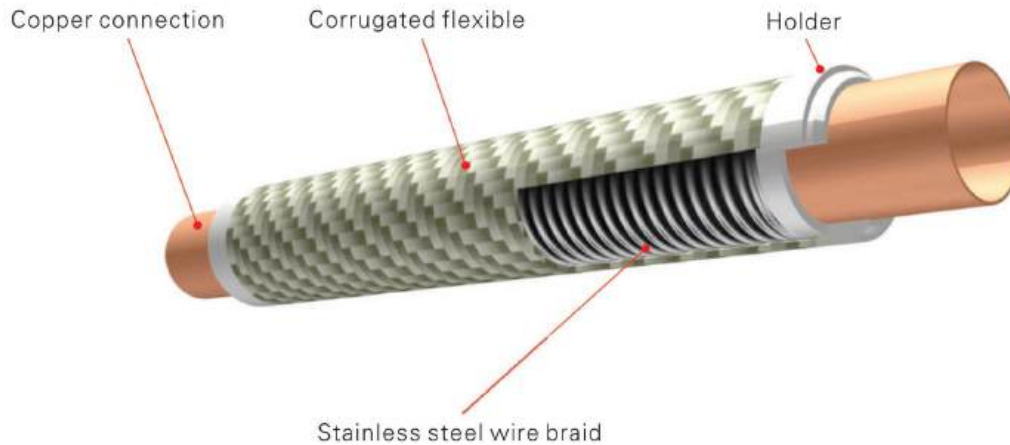
Note: If the bubbles occur in the sight glasses, do not replenish refrigerant, first to find out the cause of the bubbles!

5. If need to indicate both total moisture content in the system and refrigerant condition ahead of expansion valve, then a sight glass must be installed to both sides of the filter drier.

Note: The moisture indicator may be light yellow on installation because of its absorbance of ambient air. When install it to refrigeration system, the indicator changes to green on condition that refrigerant moisture within the permissible range, and this balance time is around 10 hours. If the indicator does not change to green more than 10 hours, the user need to find the root cause or may need to change filter drier.



Vibration absorber Type PKP



Applications

The vibration absorbers are designed to install on commercial refrigerating systems and on civil and industrial air conditioning systems, and can be installed both on suction and discharge lines.

Its function is to avoid the transmission of compressor's vibrations to the refrigerating system pipes, reducing the risk of damage and noise level.

The vibration absorbers are constructed of a deep pitch corrugated hose covered with a stainless steel braid. The hose and braid are reinforced by ferrules at each end and connected to copper tube ends by a high temperature braze alloy.

Main Features

- Full Stainless steel hose and braid
- Stainless steel ferrules for superior strength
- Each to be cleaned and dehydrated before delivery
- ODS Connection, customized length and sizes are acceptable

Technical data

- Temperature range: $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$
- Allowable operating pressure = as per table
- Nitrogen leak tested, 100% test, sealed in plastic film
- For use with CFC, HCFC, HFC along with their associated oils, Optional for Co_2 & R410A



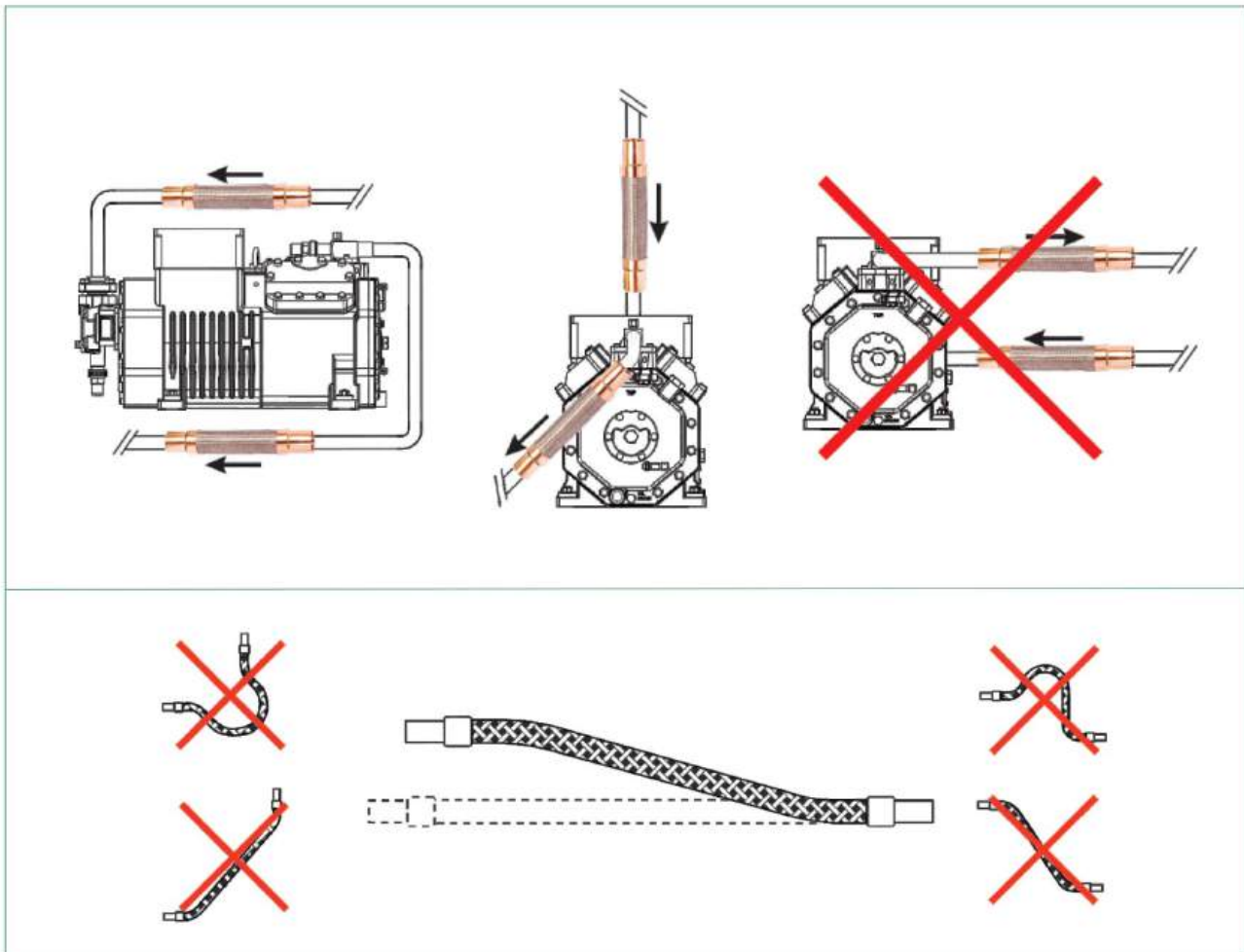
Specification

Part No.	Connectors	Total Length	MWP	Pressure Limited
PKP-3	3/8	210	4.5	22.5
PKP-4	1/2	230	4.5	22.5
PKP-5	5/8	250	4.5	22.5
PKP-6	3/4	260	4.5	22.5
PKP-7	7/8	300	4.5	22.5
PKP-9	1-1/8	330	4.5	22.5
PKP-11	1-3/8	400	4.5	22.5
PKP-13	1-5/8	400	4.5	22.5
PKP-17	2-1/8	520	4.5	22.5
PKP-21	2-5/8	620	3.2	16.0
PKP-25	3-1/8	680	2.5	13.0
PKP-29	3-5/8	820	2.0	10.0

Vibration absorber Type PKP

Installation–Note

1. The vibration absorber should be installed as close as possible to the compressor and must be installed in a straight line.
Note: vibration absorbers are not designed to compensate for pipe work misalignment.
2. **Note:** Leave sufficient space for the vibration absorber to avoid static compression or tension when welding it to the pipes. Vibration absorbers are not designed to absorb axial torsional stress.
3. Fit the vibration absorbers perpendicular to the vibration direction.
Two vibration absorbers should be used when vibration exists in two planes.
4. In order to get optimum vibration absorption, the refrigerant line should be anchored at the end of the vibration absorber furthest from the vibration source.
5. Vibration absorbers should be fitted horizontally when used in suction lines or where working temperatures are below freezing point.
If installed vertically, condensation may form on the outside of the unit and the absorption effect will be reduced. In subsequent freezing may deform and destroy the unit.
If vertical installation is the only option, or condensation is possible indeed with horizontal mounting, therefore the entire flexible section, ferrules and braided hose, must be covered with a watertight synthetic material e.g. a heat shrinkable PVC sleeve.
6. When installing the vibration absorber, the ferrule and start of braid must be wet-ragged for brazing to prevent overheating and subsequent damage.



Distributor Type Hole plate/Vessel/Insert

Applications

PK distributors are designed to distribute liquid refrigerants from the thermostatic expansion valve to individual evaporator sections uniformly.

Fails to distribute uniformly will make some shunt refrigerant too much, thus the evaporator will be frosting and evaporate incomplete; or make shunt refrigerant too less, thus the evaporator's heat transfer area can't be fully utilized.

The general performance is the refrigeration capacity decreased, the liquid may accompanied by suction, which will seriously impact the performance and reliability of the refrigeration system.

Feature

- Forged brass valve body, compact structure
- 3 structure type: Vessel type, insert type (centrifugation type) and hole plate type (pressure drop type)
- The holes and connection sizes can be on customer request



Specification	
Type	Hole plate type
Holes (N)	2-33
Distributing holes (A)	Φ4.76, Φ6.35
Connection (B)	Φ15.88 ~ Φ41.3
Injecting nozzle(C)	1# ~ 31# Nozzle



Specification	
Type	Vessel type
Holes (N)	2-34
Distributing holes (A)	Φ4.76, Φ6.35
Connection (B)	Φ12.7 ~ Φ32



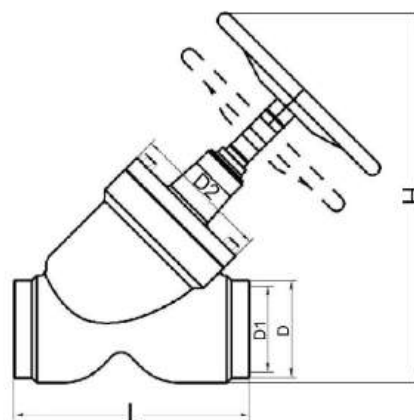
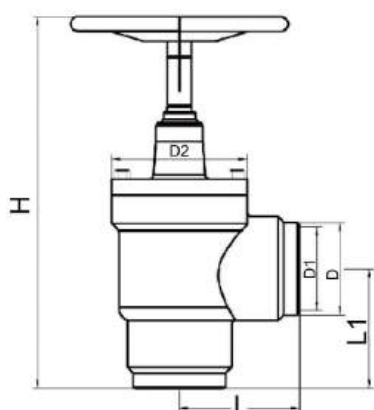
Specification	
Type	Insert type
Holes (N)	2-48
Distributing holes (A)	Φ4.0, Φ4.76, Φ5.0 Φ6.35, Φ7.94
Connection (B)	Φ6.35 ~ Φ42

Cast Steel Shut Up Valve Type PKT



Technical data

- Working pressure: 4.0 Mpa (40 Bar)
- Testing pressure: 6.0 Mpa (60 Bar)
- Working temperature: -50°C to $+150^{\circ}\text{C}$
- Applicable to HCFC, HFC, HCFC Refrigerant and associated oil, including R410a



Application

The valves are fixed in liquid, suction, and hot gas lines, which designed to meet all industrial refrigeration application requirements. It is a manually regulated shut-off valve, designed to use self – enclosed stem, so that the valve can be installed to anywhere of refrigeration systems where the refrigerant flow needed to close.

Features

- High Kv value, low pressure drop
- Optional for angleway and straightway
- Connection: Butt-weld, range: $\Phi 25 \sim \Phi 219\text{mm}$
- Multi – layers seal structure avoids external leakage
- Extended structure, no need to disassemble when welding
- Cast steel valve body, Y type
- Special design of valve handle, can be closed without any tools

Specification

Type	Part No.	Dimension (mm)				
		ΦD	$\Phi D1$	L	$\Phi D2$	H
Angle way	PKT-20A	25	18	117	70	160
	PKT-25A	32	25	130	80	188
	PKT-32A	38	30	140	90	193
	PKT-40A	45	38.6	165	100	204
	PKT-50A	57	46.6	165	105	228
	PKT-65A	76	60.4	516	130	295
	PKT-80A	89	75	240	133	394
	PKT-100A	108	96.5	264	156	418
	PKT-125A	133	121	356	196	497
	PKT-150A	159	145	406	219	582
	PKT-200A	219	199	464	276	691

Specification

Type	Part No.	Dimension (mm)				
		ΦD	$\Phi D1$	L	$\Phi D2$	H
Straight-way	PKT-20S	25	18	117	70	160
	PKT-25S	32	25	130	80	188
	PKT-32S	38	30	140	90	193
	PKT-40S	45	38.6	165	100	204
	PKT-50S	57	46.6	165	105	228
	PKT-65S	76	60.4	516	130	295
	PKT-80S	89	75	240	133	394
	PKT-100S	108	96.5	264	156	418
	PKT-125S	133	121	356	196	497
	PKT-150S	159	145	406	219	582
	PKT-200S	219	199	464	276	691

Flare adapter Type PKZJ



Applications

The Swivel flare adaptor can be used to all line components with SAE connections to screw to refrigeration and air conditioning plants. KPZJ adaptors still can ensure perfect air tightness even after several replacement of components, easy installation.

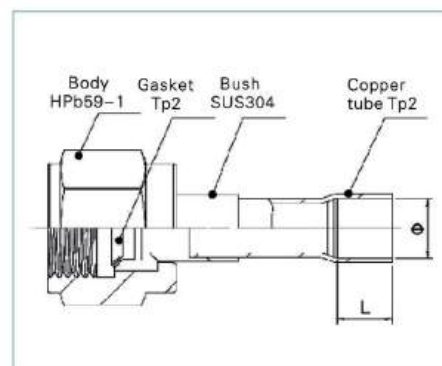
Feature

- Used with CFC, HCFC and HFC refrigerants and associated oil
- Compared to traditional adaptors, KPZJ adaptors have more advantages:
 - 1) Allow numerous mountings and removal of components, without work hardening or rupture of traditional flare connection, which are major sources of refrigerant leakage
 - 2) Facilitate components replacement operations—the copper ring is the only part to replace, more cheaper and easier compared with a traditional adaptors
 - 3) Ensure higher air tightness
 - 4) Increase connection's reliability in time
- The adaptors have connection advantages with below products:
 - 1) Pressure controls
 - 2) Filter driers
 - 3) Sight glasses



Specification

Part No.	Connection(in)	$\phi \text{mm} \begin{smallmatrix} +0.1 \\ 0 \end{smallmatrix}$	L(mm)	International Code
PKZJ-2	1/4"	6.45	6	US5-44
PKZJ-3	3/8"	9.65	9	US5-66
PKZJ-4	1/2"	12.8	10	US5-88
PKZJ-5	5/8"	16	13	US5-1010
PKZJ-6	3/4"	19.2	15	US5-1212
PKZJ-7	7/8"	22.45	17	US5-1414



Oil filled pressure gauge

Type PKLR, CE



Features

1. Oil filled inside can resist high frequency vibration of the units;
2. The damping oil cup prevents gauge pointer quick jumping;
3. The flanged edge is for convenient mounting;
4. Equipped with over-pressure limit stop;
5. Zero error is ensured by strengthening over-pressure measures;
6. Rational oil seal design prevents oil leakage;
7. Extra long service life;
8. Silicone oil use;;

Application

The Oil filled pressure gauge is a vibration proof gauge with oil filled inside for refrigeration only, using full stainless steel housing and extra-wide beryllium bronze spring tube, it is used for freezer, cold store and air-conditioning unit.

Technical data

Refrigerant	HCFC & HFC
Suitable refrigerant temperature	-15°C~+120°C
Connection inch	1/4 SAE
Structure	Axial concentrically-embedded
Casting nominal diameter	2.5 INCH
Accuracy class	Class 1.6

Specification

Part No.	Working pressure (mpa)	connection (in)	Installation dimension (mm)	Refrigerant
PKLR-1.8	-0.1~1.8	1/4 SAE	62	R22,R134a,R407c
PKLR-3.8	-0.1~3.8	1/4 SAE	62	R22,R134a
PKLR-1.5	-0.1~1.5	1/4 SAE	62	R22,R134a
PKLR-3.5	-0.1~3.5	1/4 SAE	62	R22,R134a

Muffler Type PKX, CE



Application

The Muffler is installed to the discharge line of the compressor; its function is to reduce pressure pulsations downstream of the Compressor.

Mufflers have internal baffles which are designed to dampen and gentle low and high frequency compressor gas sound waves. And it reduces noise due to gas pulsations, by allowing the gas to expand inside muffler chambers.

It is a good choice for high noisy unit.

Main Feature

- ODS connections
- Sound reduction
- Bi-directional flow
- Robust design
- Max. Flow with Min. Pressure drop
- CE Listed

Technical Specification

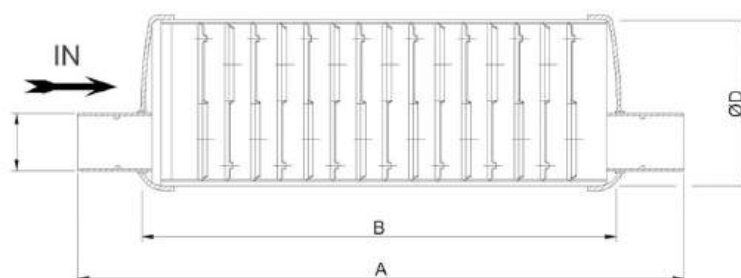
- Maximum working pressure: 34 Bar
- Allowable operating temp.: $-40^{\circ}\text{C} \sim +130^{\circ}\text{C}$
- For use with HCFC and HFC refrigerants, and associated oils, as well as other industrial fluids non-corrosive to steel and copper



Selection Guidelines

Recommend to select muffler with a connection size that matches or exceeds the discharge line size. Larger muffler can remove more pulsations due to the larger internal volume.

Muffler Type PKX, CE

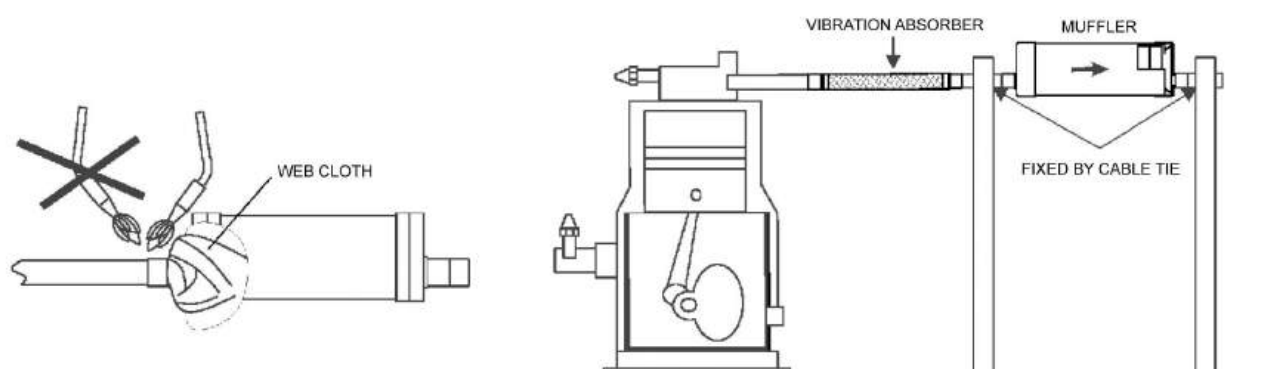


Specification

Part No.	ODF	A(mm)	B(mm)	D(mm)	Mpa
PKX-2506	3/8"	188	139	63.5	4.2
PKX-2508	1/ 2"	193	145		
PKX-2510	5/8"	191	139		
PKX-2512	3/4"	195	145		
PKX-3010	5/8"	262	210	76	3.2
PKX-3014	7/8"	292	210		
PKX-3018	1-1/8"	330	260	102	
PKX-4022	1-3/8"	368	280		
PKX-4026	1-5/8"	380	280	159	
PKX-6234	2-1/8"	570	425		
PKX-6242	2-5/8"	575	425		
PKX-6250	2-7/8"	580	425		

Installation-Notes

1. The Muffler should be installed as close as possible to the compressor and before the oil separator.
2. The muffler fitted in a horizontal or angled position, the side with label must be top center to help prevent oil collection inside the Muffler. The oil inside the muffler will reduce the performance and cause oil loss in the compressor crankcase.
 - The muffler fixed at a slight angle makes the outlet port below the inlet also helps prevent oil collection.
 - Mufflers that fitted vertically will not collect oil.
3. A Vibration absorber should be installed between the compressor and muffler to prevent transmitted vibration.
4. Mufflers will only remove noise due to discharge gas pulsations. If the noise is due to vibration, Vibration absorber should be added to the discharge line and possibly the suction line.
5. A single Muffler may be installed on a common discharge line. However, it is also acceptable to install one Muffler per compressor on parallel racks.



Pressure controls

Type PKRC



Applications

Pressure controls are designed for installation on refrigerating and air conditioning systems, to protect refrigeration systems from excessively high discharge pressures and excessively low suction pressures, to start or stop compressors or to control air-cooled condensers' fans.

Features

- Reliable Interchangeable contact system
- Allowable medium temp.: $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$
- IP Grade: Ip40
- International standard mounting bracket can be installed in any position

Single Pressure Switch

Specification

Part No.	Regulating Range (Bar)	Differential (Bar)	Default set (Bar)		Max. Air Tightness Pressure (Bar)
			Upper Limit	Lower Limit	
PKRC502	0.5~2	0.2~0.7	1	0.5	16.5
PKRC503	0.5~3	0.35~1.5	2	1	16.5
PKRC506	0.5~6	0.6~4	3	2	16.5
PKRC506M	0.5~5.5	≤ 1	Manual	2	16.5
PKRC110	1~10	1~3	6	5	16.5
PKRC516	5~16	2~5	10	8	33
PKRC520	5~20	2~5	16	14	33
PKRC530D	5~30	3~10	20	15	33
PKRC530	8~30	3~4Fix	20	15~17	33
PKRC530M	8~30	≤ 5	20	Manual	33

Dual Pressure Switch

Specification

Part No.	Low Pressure (LP) (Bar)		High Pressure (LP) (Bar)		Low Pressure (LP) (Bar)	High Pressure (LP) (Bar)	Low Pressure (LP) (Bar)		High Pressure (LP) (Bar)	
	Regulating Range (Bar)	Differential (Bar)	Regulating Range (Bar)	Differential (Bar)	Reset Model	Differential (Bar)	Upper Limit	Lower Limit	Upper Limit	Lower Limit
PKRC830	-0.5~6	-0.6~4	8~30	3~4Fix	Auto	Auto	3	3	20	15
PKRC830HM	-0.5~6	-0.6~4	8~30	≤ 5	Auto	Manual	3	3	20	Manual
PKRC830HLM	-0.5~5.5	≤ 1	8~30	≤ 5	Manual	Manual	Manual	3	20	Manual



CO₂ Components

CO₂ Service valve Type PKHJ



Applications

PKJH Service valve is a manual shut-off valve, this valve is especially designed for transcritical CO₂-applications.

PKJH service valves are designed to use self-enclosed spindle, is installed to anywhere the refrigerant flow direction needed to be closed.

Features

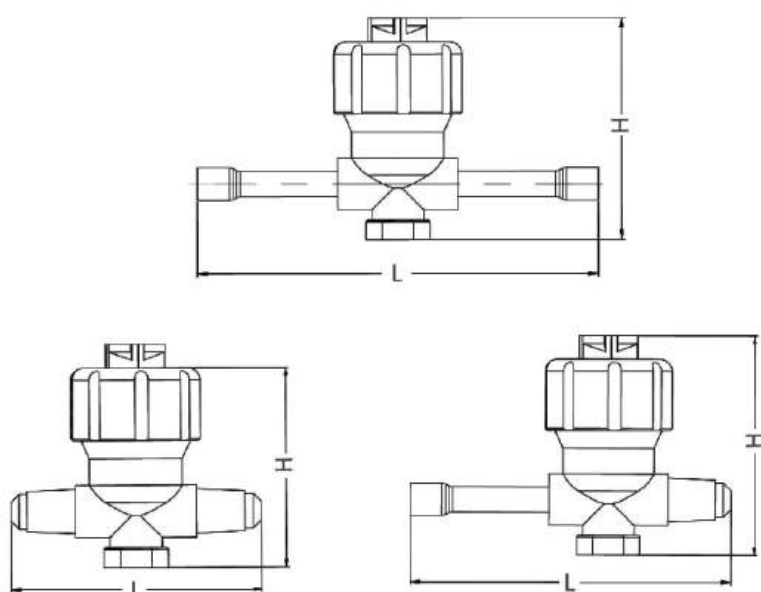
- Forged valve body and cap
- ODF Solder with Extended ends
- Stainless steel spindle

Technical data

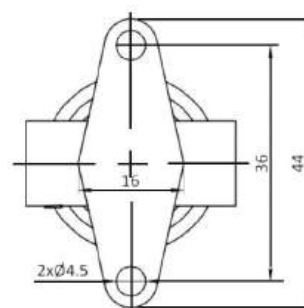
- Applicable refrigerant: CO₂ (R744)
- Max working pressure: 140Bar (14Mpa)
- Medium temperature range:
- 40°C – +150°C(- 40 °F – +300 °F)

Specification

Part No.	Connection Size(in)		Dimensions(mm)		Max working pressure(Mpa)
	SAE	ODF	H	L	
PKHJ-04S/07F	1/4	1/4	56	81	14.0
PKHJ-04S/M12	M12	1/4	56	81	
PKHJ-04S	–	1/4x1/4	56	100	
PKHJ-07F	1/4x1/4	–	56	62	



BASE



CO₂ Y filter Type PKY

Applications

PKY Filter are used to filter undesired particles in refrigeration systems. Built-in spring ensures to avoid strainer damage when the higher pressure drop in the refrigeration system.

PKY Filter: Max. Working pressure 45bar

PKHY Filter: Max. Pressure 140bar

HPEOK suggests installing ball valves or stopping valves to the upstream and downstream of the filter, so that the strainer can be cleaned easily.

Features

- Forged brass valve body and cap
- Built-in stainless steel strainer
- Low pressure drop, maximum through-flow
- Parts inside are easy to dismantle and reassemble

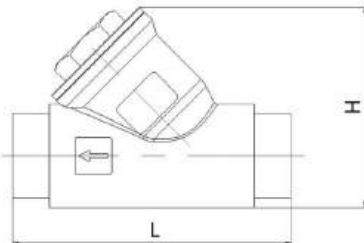
Note: Ensure the flow arrow points in the direction of desired flow

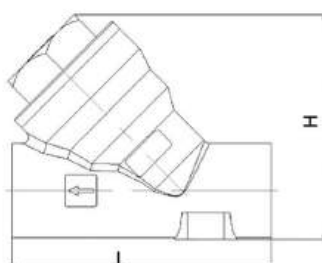
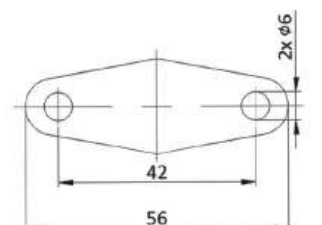


Technical data

- Max working pressure:
45Bar (4.5Mpa)/140Bar (14Mpa)
- Medium temperature range:
- 40°C - +150°C (- 40°F - +300°F)

Specification

	Part No.	Connection(in)	L(mm)	H(mm)	Max working pressure(Mpa)
	PKY-04	1/4	71	51	4.5
	PKY-05	5/16			
	PKY-06	3/8			
	PKY-08	1/2			
	PKY-10	5/8	76	54	
	PKY-12	3/4			
PKY-14	7/8				

 	PKHY-04	1/4	78	70	14.0
	PKHY-05	5/16			
	PKHY-06	3/8			
	PKHY-08	1/2			
	PKHY-10	5/8	83	70	
	PKHY-12	3/4			
	PKHY-14	7/8			

CO₂ Ball valve Type PKHB



PKHB Ball valve is a manual shut-off valve, this valve is especially designed for transcritical CO₂ –applications.

PKHB Ball valve is designed to use ball and spindle to seal, using selected O ring material for CO₂ refrigerant.

Features

- Bi-flow
- Forged brass valve body with stainless steel connections
- Burst-proof spindle – prevents any risk of ejection or explosion of the spindle
- Indicator on top directly shows the valves is open or closed–no need to open cap to check the valve status
- Full flow in open direction
- 1/4 turn from fully open to fully closed
- Selected O ring material for CO₂ refrigerant

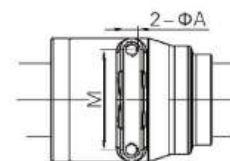
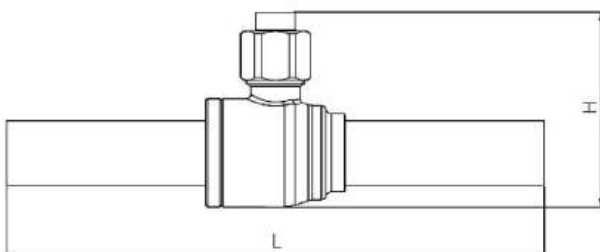
Technical data

- Max working pressure: 140Bar (14Mpa)
- Medium temperature range: – 40°C – +160°C

Specification

Part No.	Connection (mm)	Dimensions(mm)				Ball diameter	kv value (m ³ /h)	Max working pressure(Mpa)
		L	H	M	ΦA			
PKHB-04	6	126	54	22	M4x0.7	13.2	0.8	14.0
PKHB-06	10	132	54	22	M4x0.7	13.2	3.0	
PKHB-08	12	140	54	22	M4x0.7	13.2	5.0	
PKHB-10	16	146	68	30	M4x0.7	13.2	10.0	
PKHB-12	18	146	67	30	M4x0.7	20.0	17.0	
PKHB-14	22	185	67	30	M4x0.7	20.0	28.0	
PKHB-18	28	205	84	32	M4x0.7	25.0	51.0	
PKHB-22	35	208	95	36	M6x1	32.0	80.0	
PKHB-26	42	242	117	55	M6x1	38.0	195.0	
PKHB-34	54	273	137	75	M6x1	50.0	240.0	

The Kv value is the flow of water in m³/h at a pressure drop across valve of 1 bar/14.5 psig.



CO₂ Filter drier Type PKHE



Applications

PKHE Filter drier is made of stainless steel seamless tube, comprises of fine mesh and filter core.

PKHE Filter drier can be applied to absorb water and contaminants in the refrigeration system, and can be installed to the upstream of oil level regulators and electronic expansion valves.

Features

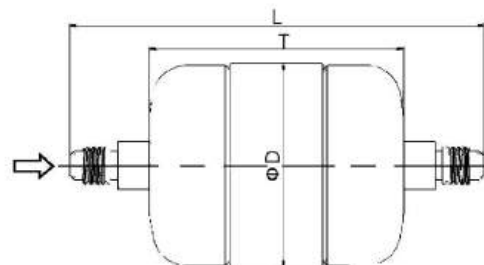
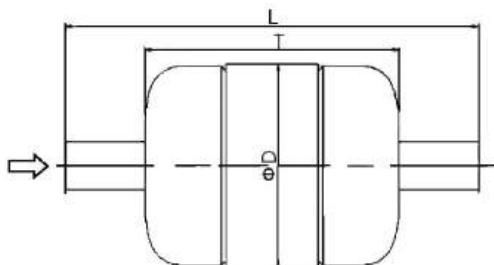
- Low pressure drop when full flow pass
- Corrosion resistant epoxy powder coated finish can be suitable for any environment
- Can filter contaminants larger 40 μm .

Technical data

- Medium temperature range: -40°C – $+100^{\circ}\text{C}$
- Max working pressure:
60Bar (6.0Mpa) / 140Bar (14Mpa)

Specification

Part No.	Connection Size(in)		Volume (L)	Dimensions(mm)			Max working pressure(Mpa)
	ODF	SAE		L	H	ΦD	
PKHE-032-CDM	–	1/4	0.08	117	70	48	6.0
PKHE-032S-CDM	1/4	–	0.08	110	70	48	
PKHE-033-CDM	–	3/8	0.08	127	70	48	
PKHE-033S-CDM	3/8	–	0.08	114	70	48	
PKHE-083-CDM	–	3/8	0.2	158	101	60	
PKHE-083S-CDM	3/8	–	0.2	145	101	60	
PKHE-084-CDM	–	1/2	0.2	166	101	60	
PKHE-084S-CDM	1/2	–	0.2	151	101	60	
PKHE-032S-CDH	1/4	–	0.08	110	70	48	14.0
PKHE-033S-CDH	3/8	–	0.08	114	70	48	
PKHE-083S-CDH	3/8	–	0.2	145	101	60	
PKHE-084S-CDH	1/2	–	0.2	151	101	60	



CO₂ Take-Apart Filter Drier Shell Type PKHA

Applications

PKHA is a replaceable core filter drier. It is specifically designed for CO₂ (R744) systems, and installed in large commercial air conditioning and refrigeration systems to provide longer lasting protection from moisture and contaminants.

Features

- Unique internal core holder and high-precision spring installed flange for easy mounting cores
- Sturdy carbon steel connections is specially designed for 60Bar CO₂ application, and the stainless steel connections for 140Bar
- Corrosion resistant epoxy powder paint finish, can be used in all environment
- High filtering capability
high moisture absorption and acid removal

Note: assure the flow arrow in the direction of desired flow.



PKHA-969-CDH

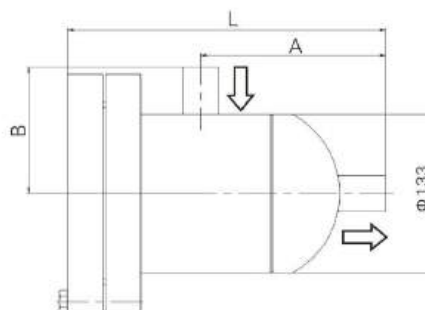
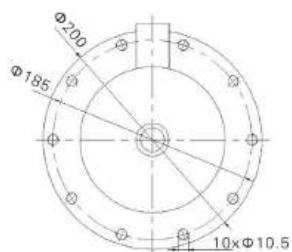
PKHA-487-CDH

Technical data

- Medium temperature range: - 40°C– +100°C
- Max working pressure:
60Bar (6.0Mpa) / 140Bar (14Mpa)

Specification

Part No.	Connection		Volume (L)	Core Qty.	Dimensions(mm)			Max working pressure(Mpa)
	mm	in			L	A	B	
PKHA-485-CDM	16	5/8	1.7	1	238	147	102	6.0
PKHA-487-CDM	22	7/8			247	156	107	
PKHA-489-CDM	28	1-1/8			252	159	112	
PKHA-4811-CDM	35	1-3/8			257	164	117	
PKHA-969-CDM	28	1-1/8	2.9	2	392	300	112	6.0
PKHA-9611-CDM	35	1-3/8			396	304	117	
PKHA-9613-CDM	42	1-5/8			400	310	122	
PKHA-485-CDH	16	5/8	1.7	1	238	147	102	14.0
PKHA-487-CDH	22	7/8			247	156	107	
PKHA-489-CDH	28	1-1/8			262	159	112	
PKHA-4811-CDH	35	1-3/8			267	164	117	
PKHA-969-CDH	28	1-1/8	2.9	2	402	300	112	14.0
PKHA-9611-CDH	35	1-3/8			406	304	117	
PKHA-9613-CDH	42	1-5/8			410	310	122	



CO₂ Suction line accumulator Type PKHQ-CDM / PKHQ-CDH



PKHQ-22-CDM

PKHQ-12-CDH

Technical data

- Medium temperature range: $-40^{\circ}\text{C} - +100^{\circ}\text{C}$
- Max testing pressure: 60Bar (6.0Mpa)
140Bar (14Mpa)

Applications

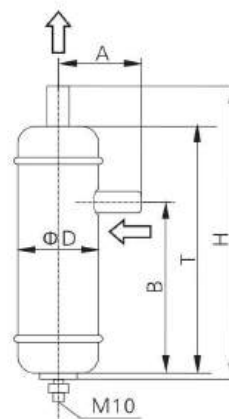
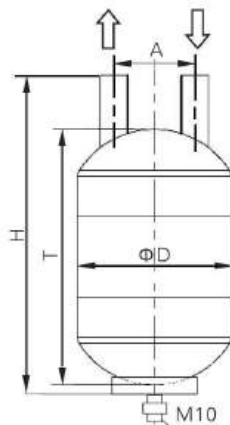
PKHQ-CDM Suction line accumulator is made of stainless steel seamless tube, it can withstand max. Suction pressure 60Bar CO₂ system, while PKHQ-CDH can installed to the suction line of transcritical system, the max. Working pressure can reach to 140Bar.

Features

- An oil return orifice matched well with system capacity assures optimum liquid refrigerant and oil flow back to compressor
- An inlet deflector can separate the liquid and oil from the refrigerant gas trough lower the gas velocity and change direction
- The selected U-tube design can ensure the low pressure refrigerant gas and oil that has super-heat can be inhaled to the compressor
- Corrosion resistant epoxy powder coated finish can be suitable for any environment

Specification

Part No.	Connection		Volume (L)	Dimensions(mm)					Max working pressure(Mpa)
	(mm)	(in)		H	T	A	B	ΦD	
PKHQ-12-CDM	12	1/2	1.0	207	112	60	—	114	6.0
PKHQ-16-CDM	16	5/8	1.3	237	190	60	—	114	
PKHQ-19-CDM	19	3/4	1.6	287	240	60	—	114	
PKHQ-22-CDM	22	7/8	1.8	307	260	60	—	114	
PKHQ-28-CDM	28	1-1/8	2.1	347	300	60	—	114	
PKHQ-12-CDH	12	1/2	0.8	252	205	85	120	89	14.0
PKHQ-16-CDH	16	5/8	2.0	335	288	97	185	114	
PKHQ-19-CDH	19	3/4	2.0	335	288	97	185	114	
PKHQ-22-CDH	22	7/8	2.5	368	350	107	247	114	



CO2 Liquid Receiver Type PKHC

Applications

PKHC liquid receiver acts as a stock of liquid refrigerant for the evaporators, and also store the full liquid refrigerant in the system when service the system.

The selection of the receiver size should be determined by refrigerant charge in the system, and it also should be sized to hold the full system charge during service work, the capacity of each liquid receiver listed on Technical data sheet below.

Features

- Desired volume and length are available to be customized
- Equipped with two rotalock valves which are specially designed for 60Bar CO2 applications, or stainless steel connections for 140Bar CO2 transcritical applications
- Equipped with a G1/2" safety valve connection.
- Corrosion resistant epoxy powder paint finish, can be used in all environment



PKHC-1.2/16-12-CDH

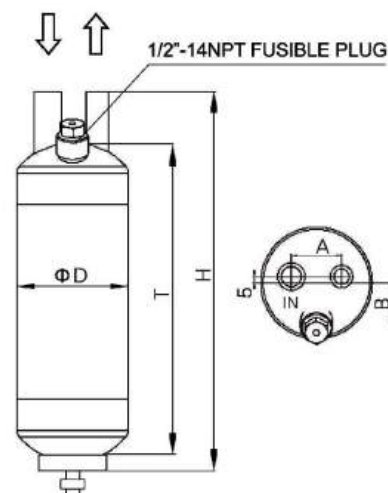
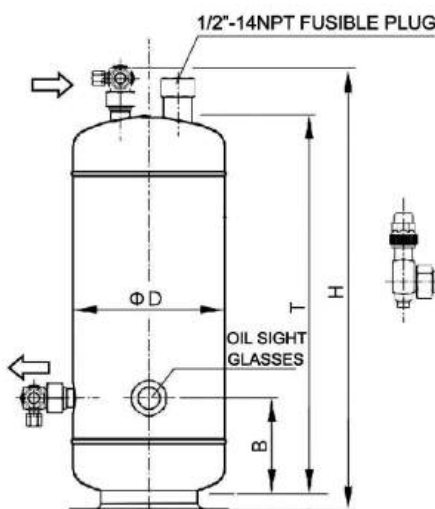
PKHC-2.0/19-16V-CDH

Technical data

- Max working pressure:
60Bar (6.0Mpa) / 140Bar (14Mpa)
- Medium temperature range: - 40°C – +100°C

Specification

Part No.	Connection(in)		Volume (L)	Dimensions(mm)					Max working pressure(Mpa)
	Inlet	Outlet		H	T	A	B	ΦD	
PKHC-10/16V-12V-CDM	5/8	3/4	10.4	387	320	120	130	219	6.0
PKHC-20/22V-16V-CDM	7/8	5/8	20.7	397	630	120	130	219	
PKHC-40/22V-22V-CDM	7/8	7/8	40.7	849	780	120	130	273	
PKHC-1.2/16-12-CDH	5/8	3/4	1.2	297	250	40	30	89	14.0
PKHC-2.0/19-16V-CDH	3/4	5/8	2.0	335	288	50	30	114	
PKHC-3.5/22-19-CDH	7/8	3/4	3.5	313	266	80	50	159	



CO₂ Oil separator Type PKHW



PKHW-6211-CDH PKHW-4509-CDH

Technical data

- Max working pressure: 60Bar (6.0Mpa)
140Bar (14Mpa)
- Medium temperature range: - 40°C – +140°C

Applications

PKHW Oil Separator uses centrifugal force to separate oil from discharge gas, and return the oil back to the compressor's crankcase through oil lever regulator, this oil separator can achieve approximately 99% gas and oil separation efficiency.

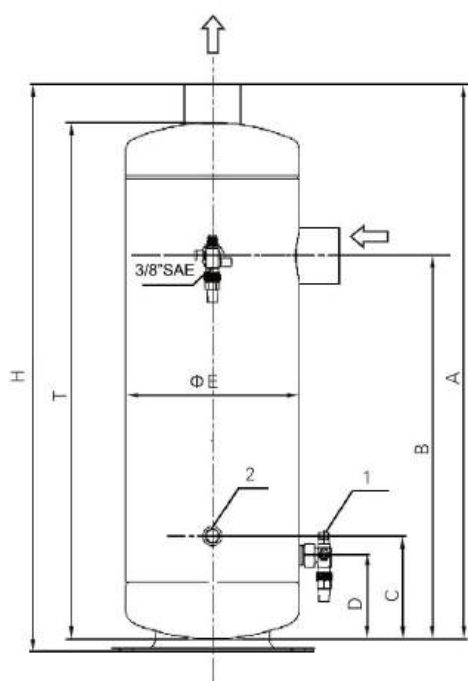
Besides standard connections, other connections are available..

Features

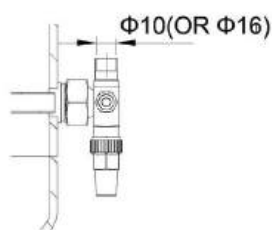
- Built-in helical deflector design, can get max. oil separation efficiency with low pressure drop through centrifugal flow path
- Assemble connection for oil level regulator instead of built-in float ball
- Assemble stop valve for CO₂ refrigerant
- Corrosion resistant epoxy powder coated finish can be suitable for any environment.

Specification

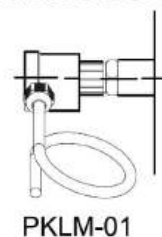
Part No.	Connection		Volume (L)	Oil receiver (L)	Dimensions(mm)							Max working pressure(Mpa)
	mm	in			H	T	A	B	C	D	ΦE	
PKHW-6213-CDM	42	1-5/8	10.4	2.5	740	670	720	590	165	135	159	6.0
PKHW-8617-CDM	54	2-1/8	22.1	5.0	700	630	680	490	165	130	219	
PKHW-10725-CDM	76	3-1/8	40.0	13.3	890	810	870	600	160	130	273	



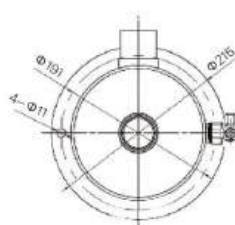
1. OIL RETURN



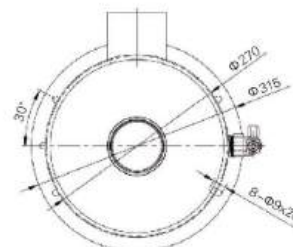
2. OIL LEVEL CONNECTION



PKHW-6213-CDM



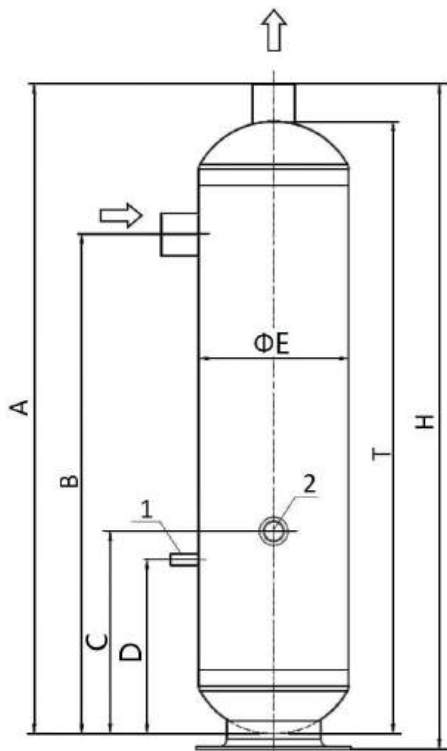
PKHW-8617-CDM
PKHW-10725-CDM



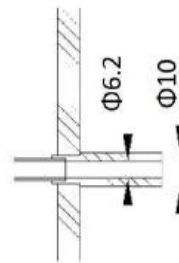
CO₂ Oil separator Type PKHW

Specification

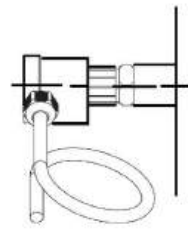
Part No.	Connection		Volume (L)	Oil receiver (L)	Dimensions(mm)							Max working pressure(Mpa)
	mm	in			H	T	A	B	C	D	ΦE	
PKHW-4509-CDH	28	1-1/8	4.1	1.3	620	570	610	450	185	150	114	14.0
PKHW-6211-CDH	35	1-3/8	10.2	3.0	710	650	690	530	215	185	159	
PKHW-8617-CDH	54	2-1/8	26.3	6.3	910	840	890	660	230	200	219	



1. Oil return



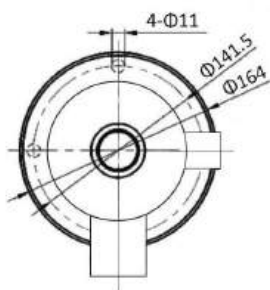
2. Oil level connection



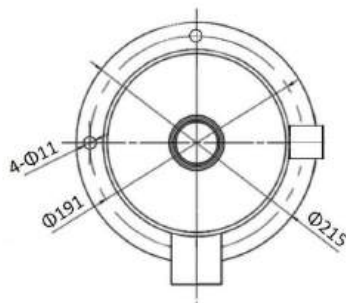
PKLM-01

Base Sketch

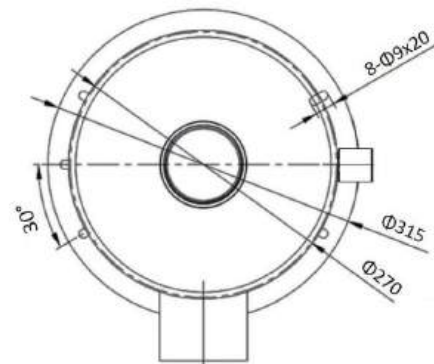
PKHW-4509-CDH



PKHW-6211-CDH



PKHW-8617-CDH



CO₂ Oil reservoirs

Type PKHO



Applications

The selection of Oil Reservoirs is determined by the number of compressors connected and oil charge, system refrigeration charge and operating conditions of the parallel unit.

In the reservoirs, any refrigerant that is blended to oil will be evaporated; meanwhile, the oil can be recycled after cooling.

Features

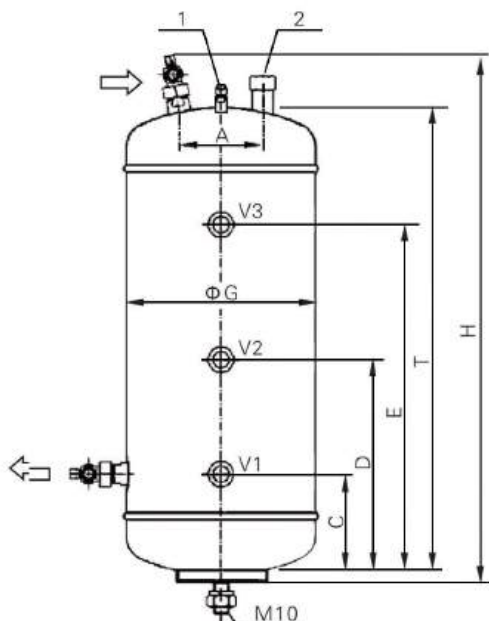
- Two/Three sight glasses
- Two Rotalock valves for CO₂ application.
- A 3/8" SAE Flare conn. allows the assembling of a pressure differential check valve.
- Corrosion resistant epoxy powder coated finish can be suitable for any environment

Technical data

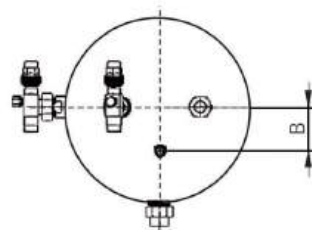
- Max working pressure: 60Bar (6.0Mpa)
140Bar (14Mpa)
- Medium temperature range: - 40°C – +140°C

Specification

Part No.	Connection (in)		Volume (L)	Oil receiver (L)			Dimensions(mm)								Max working pressure(Mpa)
	Inlet	Outlet		V1	V2	V3	H	T	A	B	C	D	E	ΦG	
PKHO-6-CDM	3/8	3/8	6.2	1.5	-	4.7	467	400	60	40	100	-	300	159	6.0
PKHO-8-CDM	3/8	3/8	8.3	1.5	-	6.8	598	530	60	40	100	-	430	159	
PKHO-12-CDM	3/8	3/8	12.1	1.5	6.1	10.6	837	770	60	40	100	385	670	159	
PKHO-20-CDM	5/8	5/8	20.9	7.4	-	13.5	490	420	120	60	150	-	270	273	
PKHO-30-CDM	5/8	5/8	30.2	7.4	15.1	15.1	670	600	120	60	150	300	450	273	



1. 3/8" SAE(5/8"-18UNF)
2. 1/2"-14NPT FUSIBLE PLUG

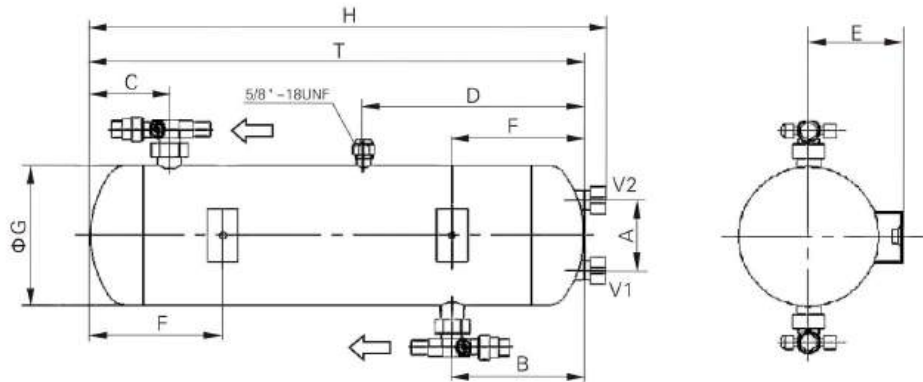


CO₂ Oil reservoirs

Type PKHO

Specification

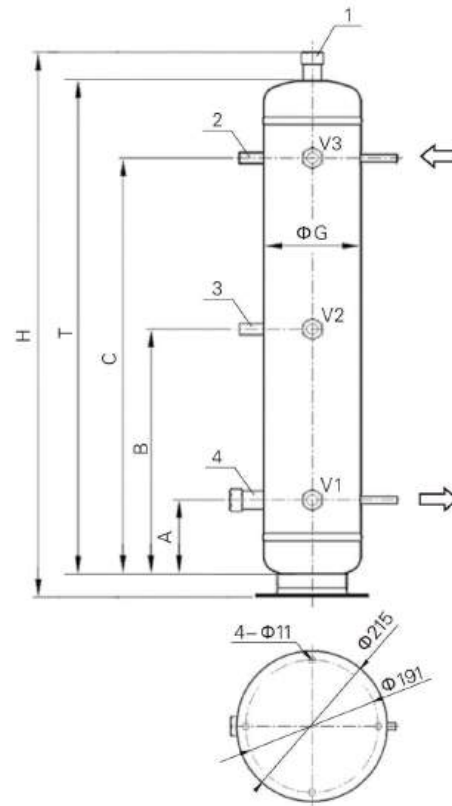
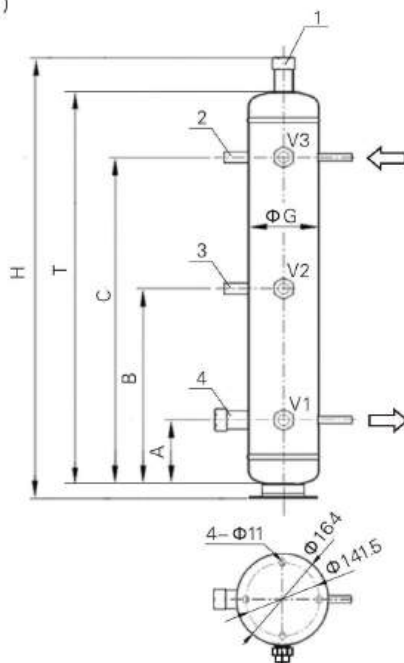
Part No.	Connection (in)		Volume (L)	Oil receiver (L)		Dimensions(mm)									Max working pressure(Mpa)
	Inlet	Outlet		V1	V2	H	T	A	B	C	D	E	F	ΦG	
PKHO-10CL-CDM	3/8	5/8	10.4	2.1	8.3	690	660	80	150	100	330	107	150	159	6.0
PKHO-20CL-CDM	3/8	5/8	20.7	4.5	6.2	400	400	130	130	130	200	159	120	273	
PKHO-40CL-CDM	5/8	7/8	40.6	9.0	31.6	840	800	130	200	150	400	159	200	273	

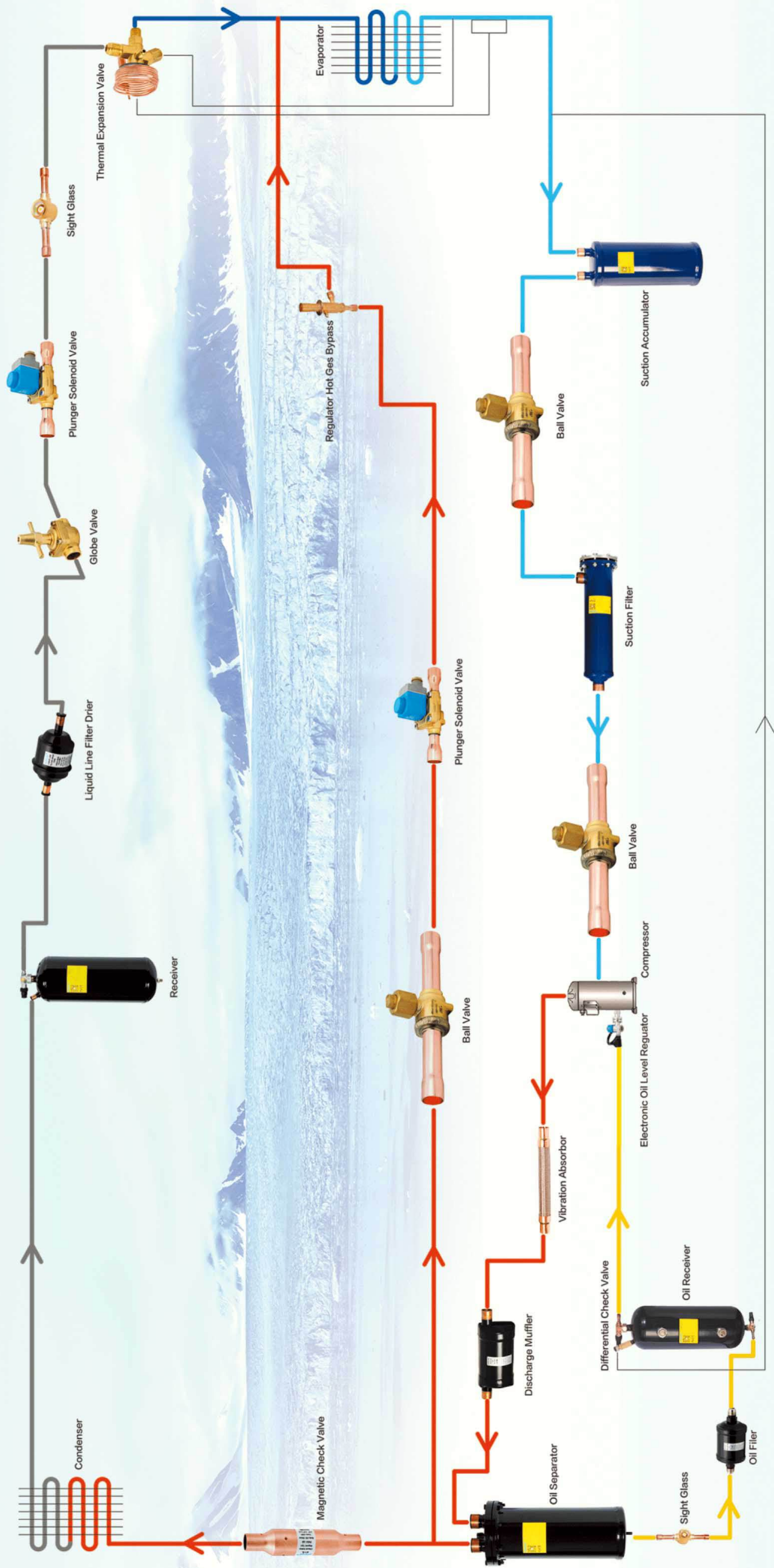


Specification

Part No.	Connection (in)		Volume (L)	Oil receiver (L)			Dimensions(mm)						Max working pressure(Mpa)
	Inlet	Outlet		V1	V2	V3	H	T	A	B	C	Φ G	
PKHO-5-CDH	1/2	1/2	5.0	0.8	2.5	4.2	730	680	120	340	560	114	14.0
PKHO-12-CDH	1/2	1/2	11.8	1.8	5.9	10	800	750	120	375	630	159	

1. 1/2" - 14NPT Fusible plug
2. 1/4" - 18NPT Fusible plug
3. 1/4" - 18NPT Charging Plug
4. Photoelectric oil switch (PKLM-01) connection (M20x1.5)









www.hpeok.com

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