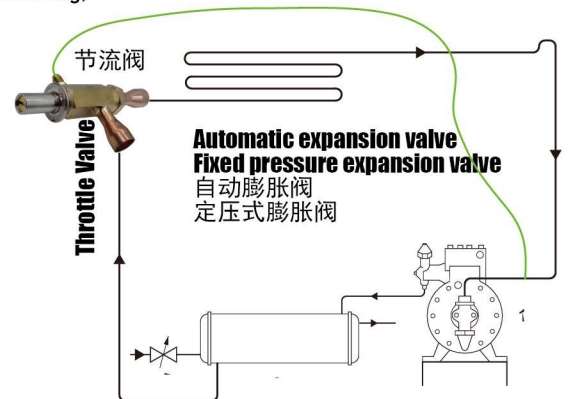
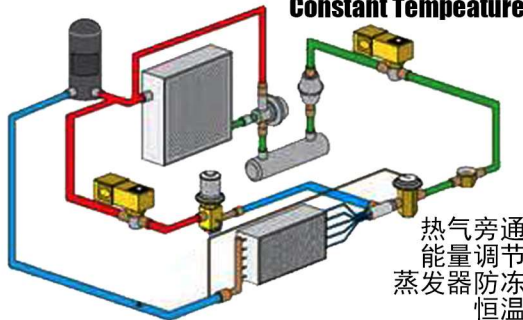
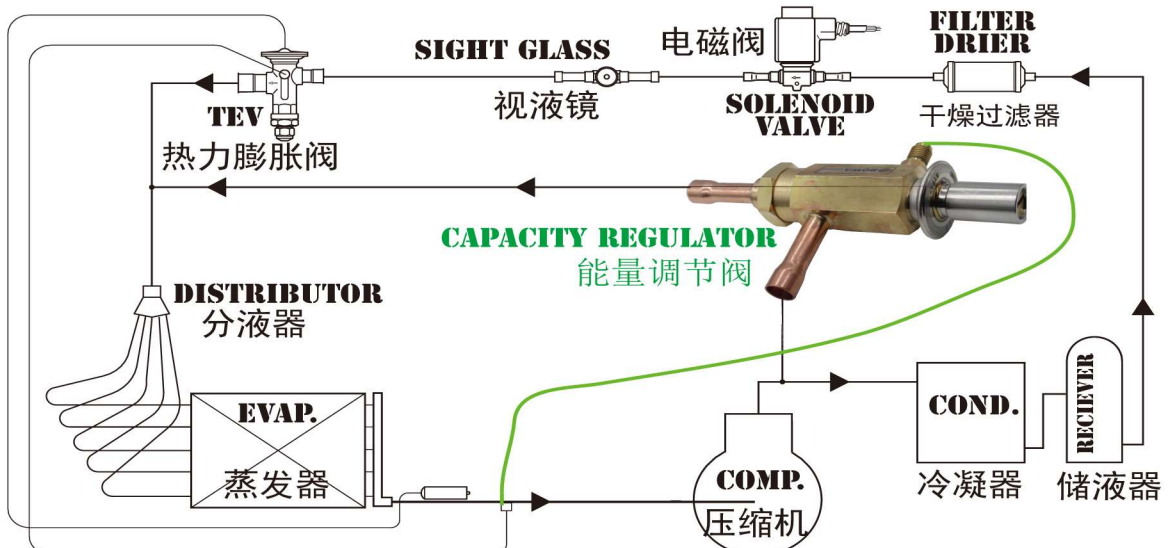
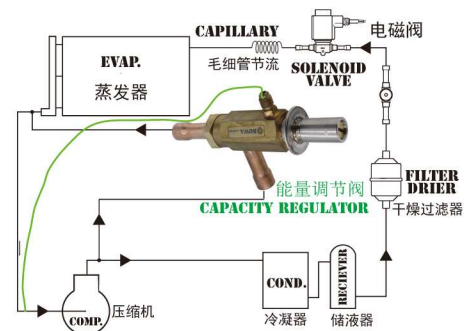
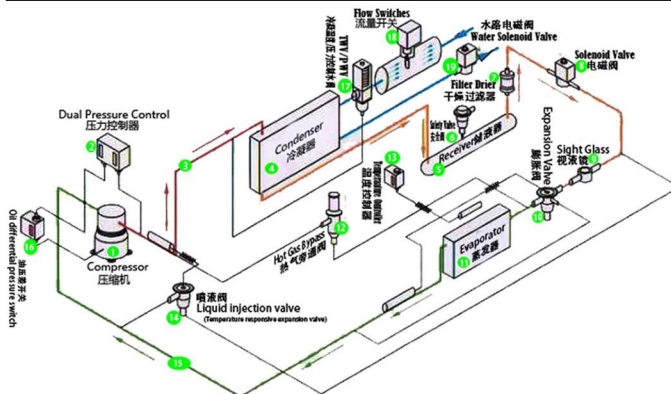


NTF柔性恒压阀主要功能是当阀的出口压力发生变化时，阀门会自动调节、关闭和开启，保持出口压力恒定在设定值上，且不受进口压力（一定范围内）的影响。广泛用于定速压缩机且无能量调节机构的制冷、空调和热泵系统能量调节，蒸发器防冻、恒温设备或压缩机曲轴压力限定防止压缩机电机过载等。
NTF flexible constant valve can automatically regulate, open/close to get the constant outlet pressure on regardless of the change of inlet pressure (within a certain range). It is used to regulate capacity of constant compressor refrigeration, air conditioner & heat pump which is without capacity regulator, also as crankshaft power limit and evaporator anti-freezing,

Hot gas bypass (Capacity regulator, anti-freezing Constant Temperature)



制冷剂 Refrigerant	压力可调节范围 Adjustable Range	设定压力 Setting Pressure
HCFC, HFC, HC, CFC	0-8 bar	0.4bar
Max. working pressure: 36bar	Medium Temp.: -50~140°C	Working Temp.: -40~55°C



冷水机及恒温控制系统

In Water Chiller or constant temperature control

冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m ³ /hour	kgs/hour	kw
R22	9.67	5.44	359.99	21.15
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	0.00	40.00	4.00	0.68

乙二醇载冷系统及恒温恒湿设备

In Glycol cooling or constant temp. air chamber & dehumidifier

冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m ³ /hour	kgs/hour	kw
R22	7.85	5.60	283.92	17.45
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	-10.00	30.00	4.00	0.53

冷库速冻设备除霜曲轴压力限制

As cranckshaft power limit in hot gas defrost solution

冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m ³ /hour	kgs/hour	kw
R22	10.02	22.15	1465.80	87.09
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	-30.00	40.00	32.00	3.67

冷水机及恒温控制系统

In Water Chiller or constant temperature control

冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m³/hour	kgs/hour	kw
R407C	9.67	5.25	372.93	23.85
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	0.00	40.00	4.00	0.68
冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m³/hour	kgs/hour	kw
R134a	6.79	5.24	262.40	15.60
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	0.00	40.00	4.00	0.45

乙二醇载冷系统及恒温恒湿设备

In Glycol cooling or constant temp. air chamber & dehumidifier

冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m³/hour	kgs/hour	kw
R407C	8.04	5.60	290.75	19.26
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	-10.00	30.00	4.00	0.52
冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m³/hour	kgs/hour	kw
R134a	5.36	3.58	134.57	8.33
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	-10.00	30.00	4.00	0.34

冷水机及恒温控制系统

In Water Chiller or constant temperature control

冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m ³ /hour	kgs/hour	kw
R404a	4.95	3.66	273.71	13.08
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	0.00	30.00	4.00	0.80

乙二醇载冷系统及恒温恒湿设备

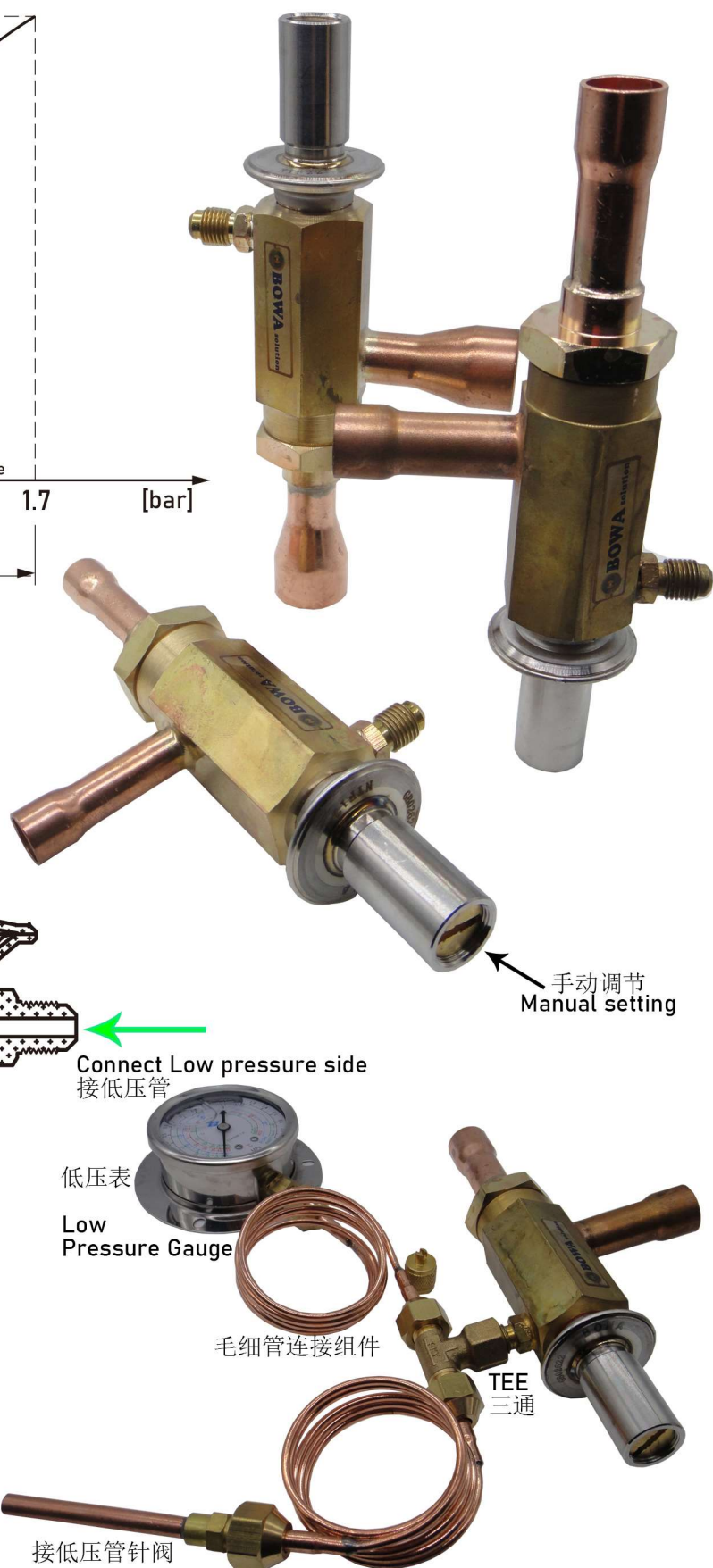
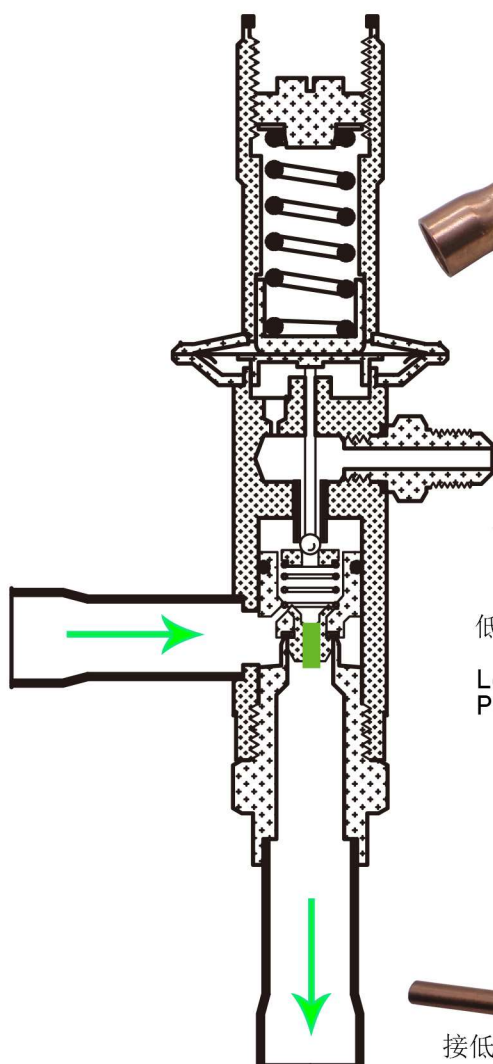
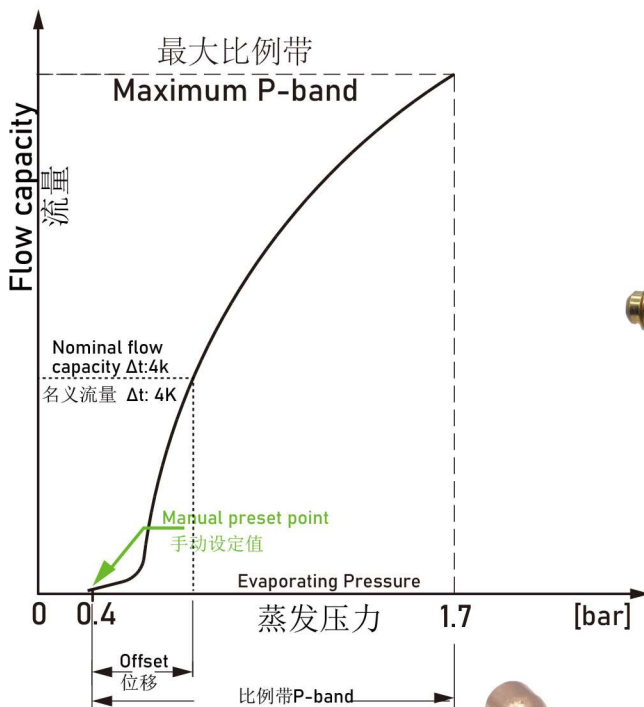
In Glycol cooling or constant temp. air chamber & dehumidifier

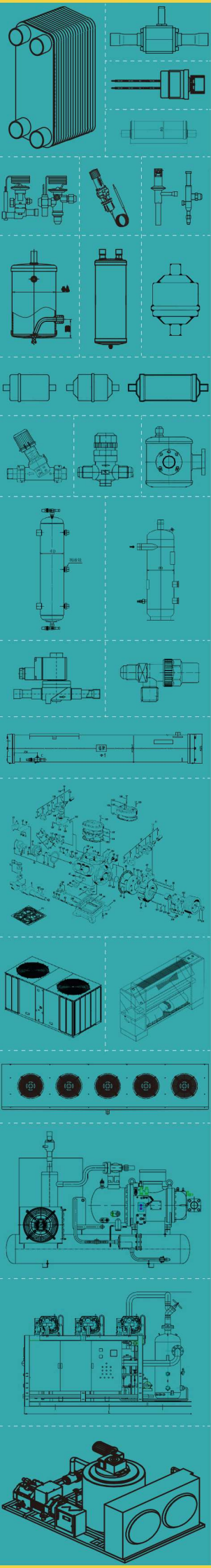
冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m ³ /hour	kgs/hour	kw
R404a	9.21	5.00	373.35	19.34
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	-10.00	30.00	4.00	0.63

冷库速冻设备除霜曲轴压力限制

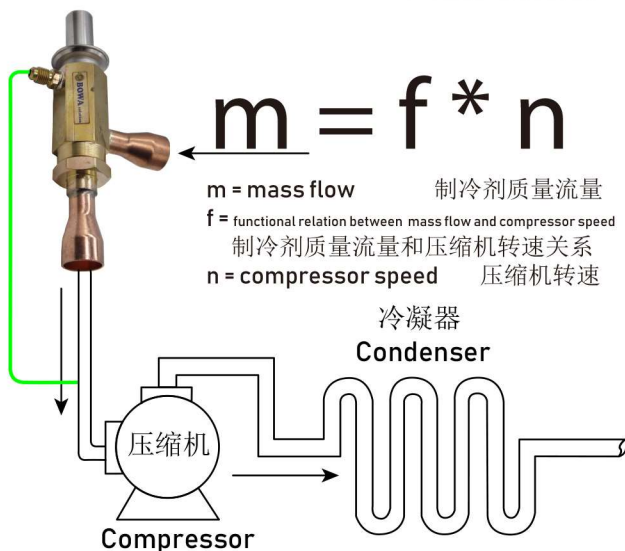
As cranckshaft power limit in hot gas defrost solution

冷媒 Refrigerant	进出阀压降 Pressure drop across valve	工况体积流量 Working Volume flow	工况质量流量 Working Mass Flow	对冲冷量 Hedged Cooling Capacity
	Bar	m ³ /hour	kgs/hour	kw
R404a	5.36	15.24	1139.27	55.45
	测试工况 Test Conditions			
	蒸发温度 Evap. Temp.	冷凝温度 Cond. Temp.	蒸发器回升温差 Evap. Temp. rise difference	蒸发器回升压差 Evap. Pressure rise difference
	°C	°C	Δt K	Δp Bar
	-30.00	30.00	32.00	4.37





Crankcase Pressure Limiting 曲轴压力限制



压缩机单位理论耗功 **kJ/kg (kcal/kg)**
 Unit theoretic power consumption

$$A_i = i_{\text{压出}} - i_{\text{压进}}$$

The constant pressure valves can be used to limit the max. operating suction pressure to the compressor. The valve is adjusted to open at a predetermined outlet pressure while re-restricting flow at higher system inlet pressures in order to protect the compressor.

恒压阀用于限制压缩机最大吸气压力，防止过载。该阀在预设出口压力下开启，限定较高压力的冷媒质量流量，以保护压缩机。

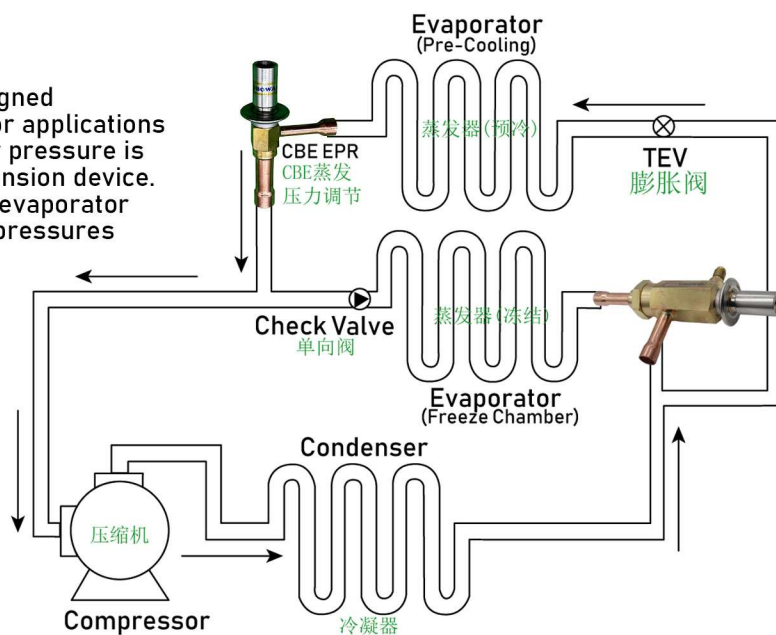
Ice maker 制冰机

The CBE valves are specifically designed for fractional horsepower evaporator applications where precise control of evaporator pressure is required when using a primary expansion device. A typical application is in a multiple evaporator system where different evaporator pressures and temperatures are desired.

The CBE valves may be used to control at a higher evaporator pressure than is present at the compressor suction.

CBE蒸发压力调节阀专为小型蒸发器应用而设计，在使用主膨胀机构时需要精确控制蒸发器压力。典型的应用是在多个蒸发器系统中，需要不同的蒸发器压力和温度。

CBE蒸发压力调节阀可用于在比压缩机吸力时更高的蒸发压力下下进行控制。



Model Nos.	KV	Connection Tube	
	m ³ /h	ODF x ODF	
NTF12	0~1.8	1/2" X 1/2"	12 X 12mm
NTF15	0~2.1	5/8" x 5/8"	16 X 16mm
NTF22	0~2.5	7/8" X 7/8"	22 X 22mm

- Kv值为阀通过 $\rho=1000\text{kg/m}^3$ ，前后1bar的压降时的水流量
- The Kv value is the water flow in m³/h at a pressure drop across valve of 1 bar, $\rho=1000\text{kg/m}^3$