

Ebara

Screw chiller RHSCW series



Ebara Refrigeration Equipment & System (China) Co.,Ltd.

DISTRIBUTOR IN VIET NAM: BACH KHOA
EQUIPMENT INTERNATIONAL JSC. -
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4 Topics will be discussed in this presentation

Brief intro | **Features** | **Special Designs** || **Scope of supply**

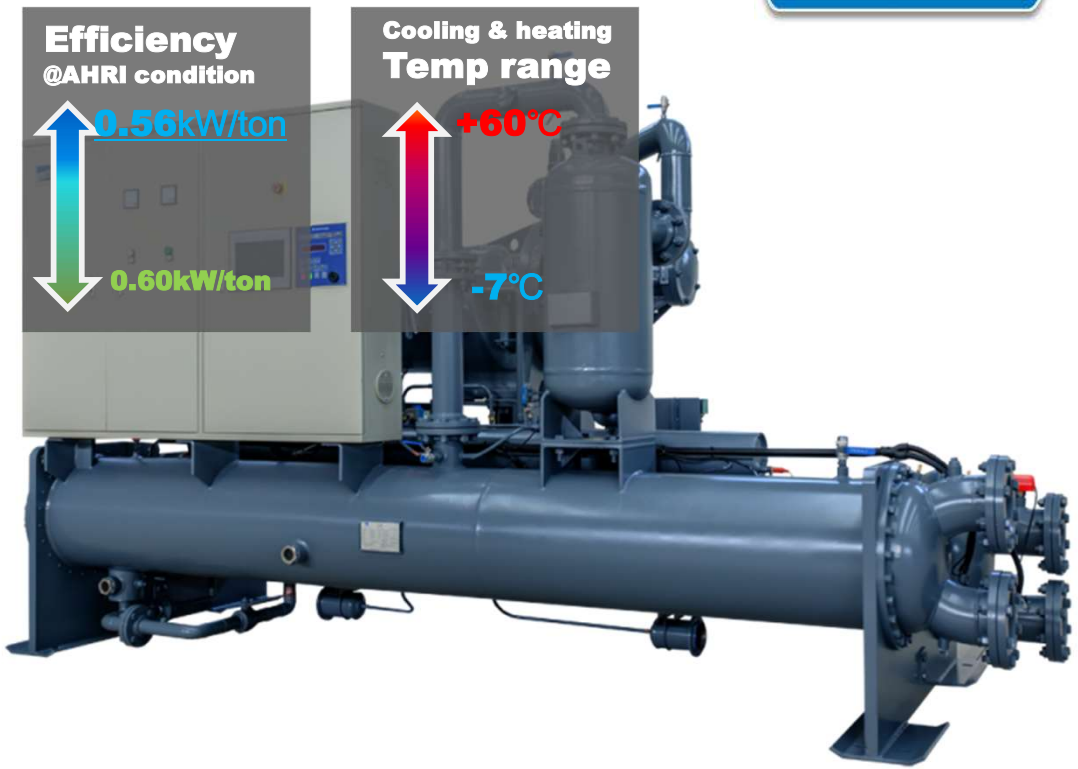


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Brief intro

Model series: **RHSCW**

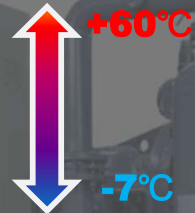
Refrigerant: **HFC-134a** 



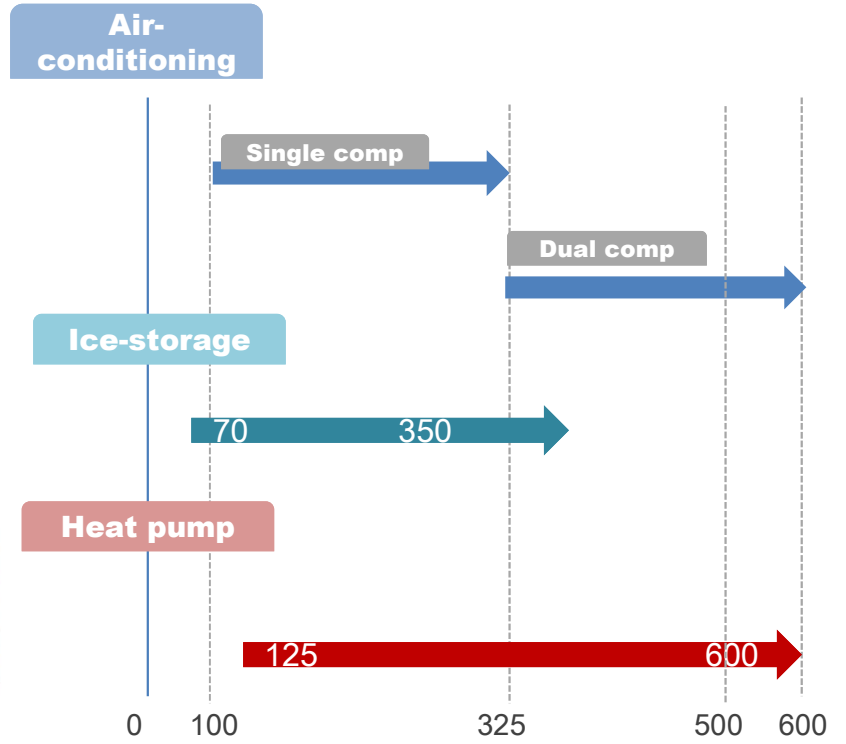
Efficiency
@AHRI condition



Cooling & heating
Temp range



Capacity range(RT)



Compressor design

- Twin screw
- Semi-hermetic motor
- Motor cool down by refrigerant



1. 5:6 type asymmetrical gear
2. Meshing smooth, no wearing parts



Motor drive the male rotor directly, no transmission loss, very few movable components, high stability

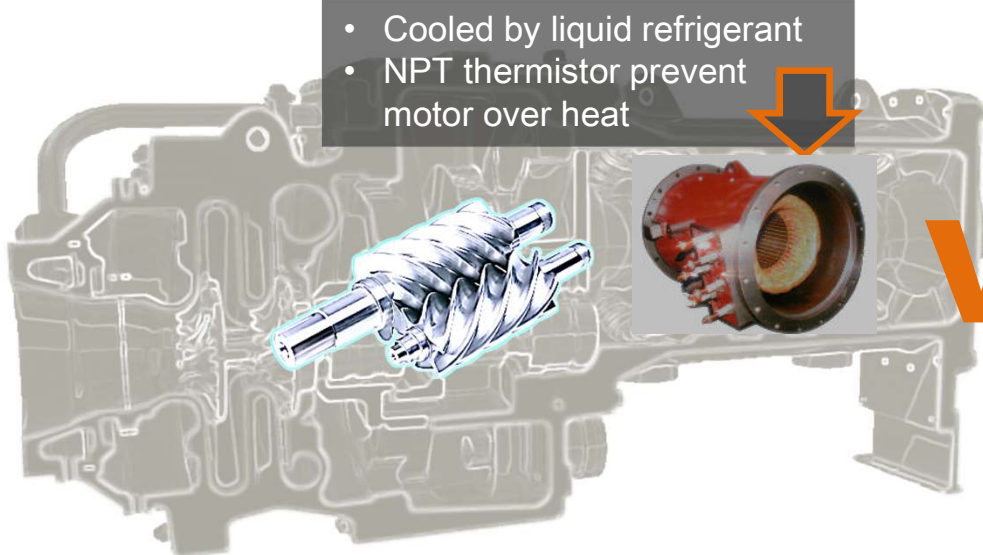
NSK



Rolling bearings from NSK Japan
Less friction loss than sliding bearing

Compressor design

- Twin screw
- Semi-hermetic motor
- Motor cool down by refrigerant

- Cooled by liquid refrigerant
 - NPT thermistor prevent motor over heat
- 

V.S



Oil\refrigerant loss



Motor heat rejection



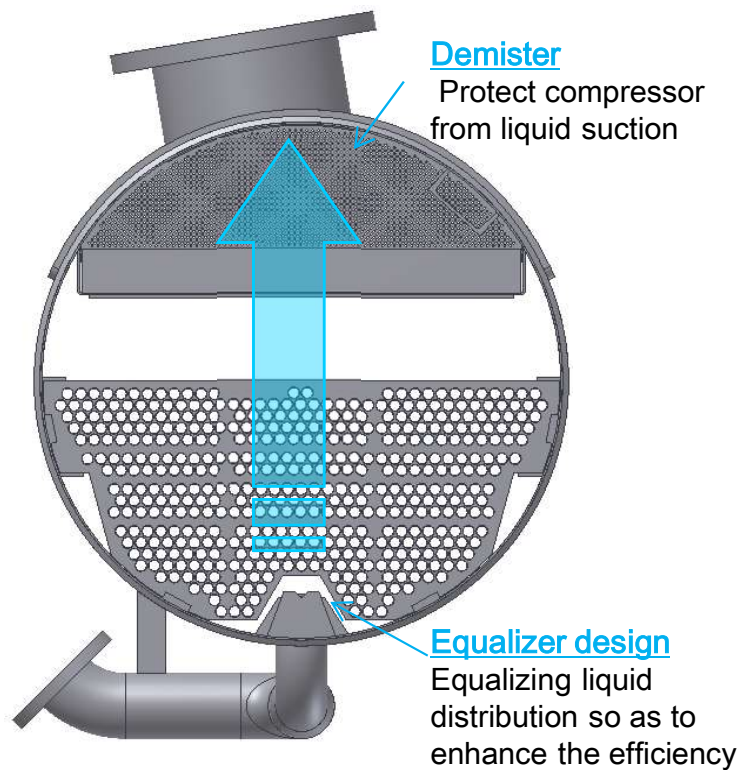
Coupling maintenance

Compared with OPEN type

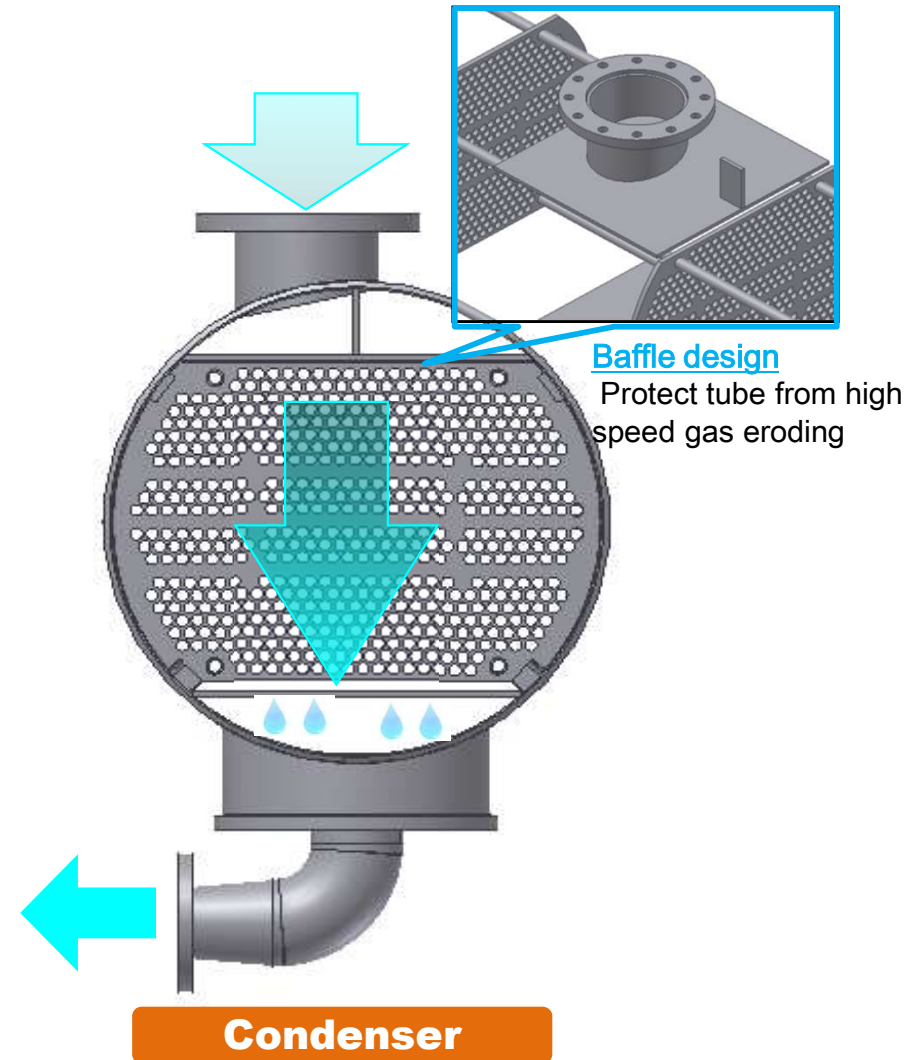
- ✓ **No heat rejection to plant room**
- ✓ **No coupling to be adjusted**
- ✓ **No oil\refrigerant leakage**
- ✓ **No motor burning risk**

Heat exchanger

- Flooded type EVAP with special demister and equalizer design to prevent liquid suction and enhance efficiency;
- Baffle is applied in condenser for tube protection



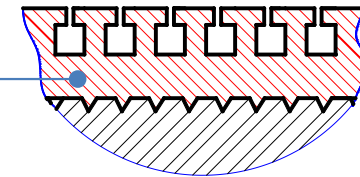
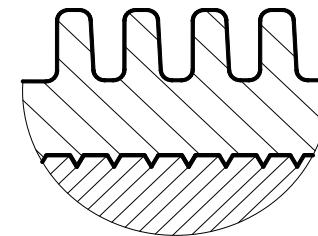
Evaporator



Condenser

Enhanced tube

RHSCW uses enhanced heat transfer tube with external fin & internal micro-groove design in both COND & EVAP.

**Evaporator tube****Condenser tube**

Operator interface

7 inch colorful touch screen



*Produced by Ebara Densan

- ✓ Critical parameters pre-rectify
- ✓ Unique control logic for **Pre-Alarm**
- ✓ Demand limit control
- ✓ Scheduled start/stop control
- ✓ Dual BAS Communication port
- ✓ Temp control accuracy $\pm 0.1^{\circ}\text{C}$
- ✓ Modbus, RS485 port as standard
- ✓ **Siemens PLC**

Scope of supply(Standard)**Base chiller**

- Semi-hermetic compressor with twin screw
 - Condenser(1.0MP,GB code, flange)*
 - Evaporator(1.0MP,GB code, flange)*
 - Control panel(Duplicate,Modbus RS485)
 - Internal pipes,wirings,sensors
 - Siemens PLC
- *19mm dia.enhanced fin Cu tube\water head with hinges

Starter

- 380~415V/50Hz free standing Star-delta type
- Cablings from starter to motor is NOT in Ebara scope



THANKS
FOR YOUR ATTENTION