

Kirloskar TURBOLEV™ series of chillers uses the principle of magnetic levitation on application of an electric field, adapted to suit the chiller application.



**Centrifugal Chiller with
Magnetic Bearing Compressor**

TURBOLEV

Magnetic Bearing Chiller is a maintenance free technology that doesn't use lubricant anymore but purely controlled by electrical system thus reduces repair cost in the process.

Magnetic Levitation, already a proven technology in aerospace, oil and gas exploration and transportation applications, is combined with variable-speed centrifugal compression and supported by digital electronics to run the compressor without any contact between the rotating dynamic and static parts and allows the compressor to operate in a frictionless environment so as achieve the highest efficiencies. Centrifugal compression offers substantially higher isentropic efficiency compared with other compressor designs. Used most effectively in a centrifugal compressor, a variable-speed drive further enhances part load efficiency. The combination of this technology with magnetic levitation results in a machine with an unparalleled bouquet of benefits – extremely quiet operation very high efficiency without the need of lubrication which is so essential in conventional compressors.

Distributor:



Thai-Phill Services Co., Ltd.

67/1 Ramkhamhaeng 24, Yaek 24,
Ramkhamhaeng Road, Huamark,
Bangkapi, Bangkok 10240
Office Tel: 66-2-318-4505; Fax: 66-2-318-4504
E-mail : sales@thai-phill.com; Web Site : www.thai-phill.com



TURBOTEK™ Centrifugal Chiller KSC Series: Single Compressor Chiller

Enriching Lives

Features & Benefits

Kirloskar TURBOTEK™ single compressor centrifugal chillers are certified in accordance with AHRI Standard 550 / 590 - 2009. The kW/TR for KSC series TURBOTEK™ chillers is as high as 0.55 (COP > 6.3) at standard AHRI rating conditions. Each TURBOTEK™ centrifugal chiller is equipped with:

- A self-supporting steel frame with corrosion-resistant Polyurethane paint.
- Single stage, gear-driven centrifugal compressor with high strength aluminum alloy impeller. The compressor is provided with loading / unloading mechanism using inlet guide vanes (for seamless capacity modulation from 10 to 100%), gear drive & semi-hermetic, liquid refrigerant cooled, squirrel cage 2-pole induction motor.
- Shell & tube condenser with enhanced-surface copper tubes & removable water heads.
- Flooded shell & tube evaporator with enhanced surface copper tubes & removable water heads.
- Lubrication system with submersible oil pump. The oil pump supplies pressurized lubricating oil to hydro-dynamic bearings of the compressor as well as to the hydraulic mechanism of the inlet guide vanes.
- Intelligent & user friendly 'K-Smart' controller, with 13" LED touch screen graphic display, temperature & pressure sensors. The 'K-Smart' controller is equipped to communicate with the building management systems over Modbus, BACnet or LON Works protocols.

Distributor:

Thai-Phill Services Co., Ltd.

67/1 Ramkhamhaeng 24, Yaek 24,
Ramkhamhaeng Road, Huamark,
Bangkapi, Bangkok 10240
Office Tel: 66-2-318-4505; Fax: 66-2-318-4504
E-mail : sales@thai-phill.com; Web Site : www.thai-phill.com





Enriching Lives



TURBOTEK Centrifugal Chiller

Features & Benefits

Kirloskar TURBOTEK™ dual compressor centrifugal chillers offer all the advantages that a single compressor centrifugal chiller offers & also has some additional benefits as listed below. These chillers are also AHRI certified in accordance with AHRI standard 550 / 590 – 2009.

- The kW/TR for KDC series TURBOTEK™ chillers is as high as 0.55 (COP > 6.3) at standard AHRI rating conditions.
- In the KDC series centrifugal chillers, two compressors along with two oil pumps are mounted on a single set of heat exchangers. This provides built in redundancy, as any compressor can be isolated for any service requirements.
- Being dual compressor configuration, seamless capacity modulation is achieved from 5 to 100%. Further, excellent part load efficiencies are possible, especially if the chillers are operating below 60% load. In fact, IPLV figures for dual compressor chillers are comparable with variable speed chillers.
- A dual compressor chiller will have smaller footprint compared to two identical chillers of equal capacity. This also reduces piping costs & thus is economical when compared with two independent chillers

Distributor:

Thai-Phill Services Co., Ltd.

67/1 Ramkhamhaeng 24, Yaek 24,
Ramkhamhaeng Road, Huamark,
Bangkapi, Bangkok 10240
Office Tel: 66-2-318-4505; Fax: 66-2-318-4504
E-mail : sales@thai-phill.com; Web Site : www.thai-phill.com





Enriching Lives



PRODIGY™ Water Cooled Screw Chillers **KWS Series: DX Evaporator Screw Chillers**

Heat Recovery

These chillers can be offered with desuperheaters for partial heat recovery or 100% heat recovery in condensers, with maximum hot water outlet temperature of 50°C.

Features & Benefits

Kirloskar PRODIGY™ KWS series water cooled, DX evaporator screw compressor chillers are equipped with one or two high efficiency Kirloskar screw compressors. These chillers have efficiency in the range of 0.67 ~ 0.73 kW/TR (COP of 5.3 ~ 4.8) at standard AHRI rating conditions.

Each PRODIGY™ KWS series water cooled screw chiller is equipped with:

- A self-supporting steel frame protected with polyurethane paint.
- One or two Kirloskar twin screw compressors. Kirloskar screw compressors are equipped with semi-hermetic, refrigerant cooled, squirrel cage two pole induction motor. The motor is suitable for voltages between 380 ~ 460V. These high efficiency compressors have step-less capacity control from 25 ~ 100% load.
- The compressor is also equipped with a well-designed built-in oil separator for efficient & reliable oil management. The entire compressor including the oil separator is designed to achieve high oil separation efficiency with very quiet operation.
- Shell & tube type condenser with enhanced surface copper tubes & removable water heads.
- DX type shell & tube type evaporator with internally enhanced copper tubes. The evaporators are designed for individual tube replacement, in case of tube failure.
- Electrical panel housing star delta starters & intelligent 'K-Smart' control system.
- Anti-vibration rubber pads for field installation.

Distributor:

Thai-Phill Services Co., Ltd.

67/1 Ramkhamhaeng 24, Yaek 24,
Ramkhamhaeng Road, Huamark,
Bangkapi, Bangkok 10240
Office Tel: 66-2-318-4505; Fax: 66-2-318-4504
E-mail : sales@thai-phill.com; Web Site : www.thai-phill.com

