

Transpumpserv Global Pvt. Ltd.

ThermoCool (TACPX) – Air-Cooled Centrifugal Pumps

Description

ThermoCool (TACPX) is a specially engineered air-cooled centrifugal pump designed for the reliable handling of hot water, thermal oils, and heat transfer fluids. Unlike conventional pumps, it eliminates the need for external cooling, thanks to its air-cooled bearing housing and shaft sealing arrangement, making it the ideal choice for thermal systems and hot circulation loops.

Its rugged design ensures high temperature capability, safe operation, and long service life with reduced maintenance requirements.

Key Design Features

- Air-cooled bearing bracket – no external cooling water required
- Designed to ISO 2858 / DIN 24256 dimensional standards
- Suitable for heat transfer fluids and hot oils up to 350°C
- Closed impeller with back vanes for axial load balancing
- Replaceable wear rings to extend pump life
- Back-Pull-Out construction for easy servicing
- Optimized shaft stiffness (low L/D ratio) for minimal deflection
- Available with thermal insulation jacket (optional)

Seal and Shaft Technology

- Single and double mechanical seals for high-temperature service
- API 682 compliant seal arrangements available
- Air-cooled seal chamber design to extend seal life
- Shaft sleeves for added wear protection
- Quench and flush options for hazardous thermal fluids

Bearings and Certifications

- Grease or oil bath lubrication systems
- High-temperature bearing designs for >350°C service
- ATEX certified versions for explosive atmospheres
- API 610 compliant versions available (on request)

Suitable Applications

- Heat Transfer Systems – thermal oil circulation, hot water loops
- Chemical & Petrochemical Plants – high-temperature chemical transfer
- Power & Energy – hot fluid circulation in boilers, turbines
- Food & Beverage – heating oil for process applications
- General Industry – hot water circulation, jacket heating systems

Technical Specifications

Casing Materials	Cast Steel, Stainless Steel 316, Ductile Iron
Impeller Materials	Stainless Steel, Alloy Steels
Max. Capacity	Up to 1,200 m³/h
Max. Head	Up to 150 m
Max. Temperature	Up to 350°C (air-cooled design)
Max. Operating Pressure	Up to 16 bar
Max. Speed	Up to 3,600 rpm

Downloads & Resources

- Technical Data Sheet
- Installation & Operation Manual
- High-Temperature Pumping Guidelines
- 3D Pump Drawings (on request)