

**Thermal Oil and Hot Water  
Centrifugal Pumps**

**ALLHEAT®**

AUTHORIZED DEALER



FOR SALES & SERVICE

1-800-287-1538 · [tdmgo.com](http://tdmgo.com)

# ALLHEAT® Series Centrifugal Pumps

Your pumping requirements demand safe, reliable transfer of high temperature materials including heat transfer fluids and hot water without the need for costly auxiliary cooling or expensive shaft sealing systems.

The ALLHEAT® series centrifugal pump was designed specifically for safe pumping of hot fluid medias. This versatile and universally applied pump series offers the best technical solution at an excellent price for pumping mineral and synthetic thermal oils at temperatures up to 660°F or hot water up to 400°F. The main features this product brings to the marketplace include:

- Low Viscosity Capability (0.2 centistokes min.)
- Safety Packing Rings to isolate contaminants
- Excellent Price/Performance Ratio
- Robust mechanical design with stiffening ribs
- Patented large oil reservoir for the mechanical seal including a patented seal chamber gas venting system
- No additional cooling required for the seal chamber or bearings
- Interchangeable internal parts for foot mounted, block and in-line designs
- High efficiency impeller/casing combination
- Available with balanced or unbalanced mechanical seals
- Insert kits available to upgrade older NTT, CTT series thermal oil pump designs
- Long life and low maintenance sleeve in-board journal bearings
- Long life, permanently greased, sealed outboard roller bearing
- Double cardanic couplings for high temperature misalignment protection and ease of insert removal

Block Design  
(Integrated pump and motor-  
Series NBWH & CBWH)

Foot Mount  
(Series NTWH  
& CTWH)

Inline Design  
(Integrated vertical  
or horizontal pump  
and motor-Series  
NIWH & CIWH)

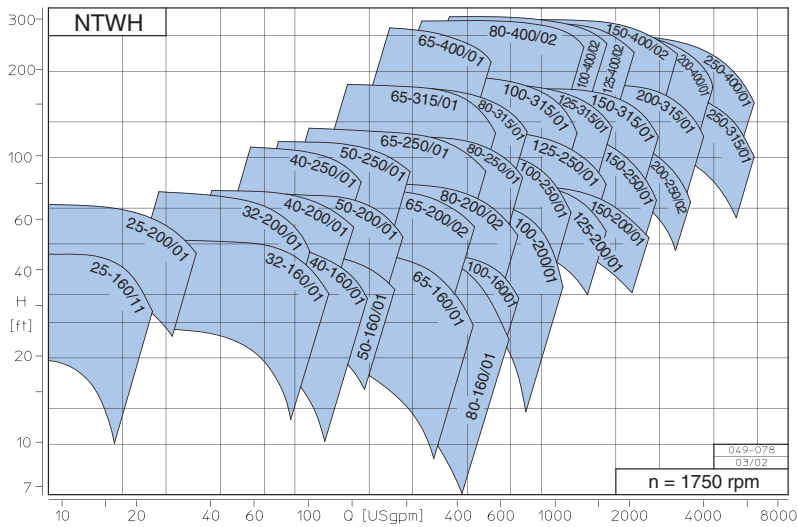
The ALLHEAT® concept is also available in a space saving block and in-line design. The drive motor is flange mounted directly to the pump. The ALLHEAT® in-line pump can also be simply installed into the piping system without any need for a separate support.

- Available in foot mount pump-to-motor (NTWH or CTWH) or integrated pump to motor designs (NIWH or CIWH). (NBWH or CBWH) as shown above.
- Integrated pump-motor design (NIWH or CIWH). (NBWH or CBWH), includes an integrated seal chamber, cooling fan, and integrated motor shaft coupling
- All pumps are available in two different shaft and journal bearing arrangements:
- Carbon journal bearing on a steel shaft with a non-balanced mechanical seal for thermal oil viscosities as low as 0.2 centistokes and temperatures up to 660°F or for hot water up to 360°F
- Sintered Silicon Carbide (SSiC) journal bearings and balanced mechanical seal for hot water applications exceeding 360°F to as high as 400°F or for highly contaminated thermal oil applications

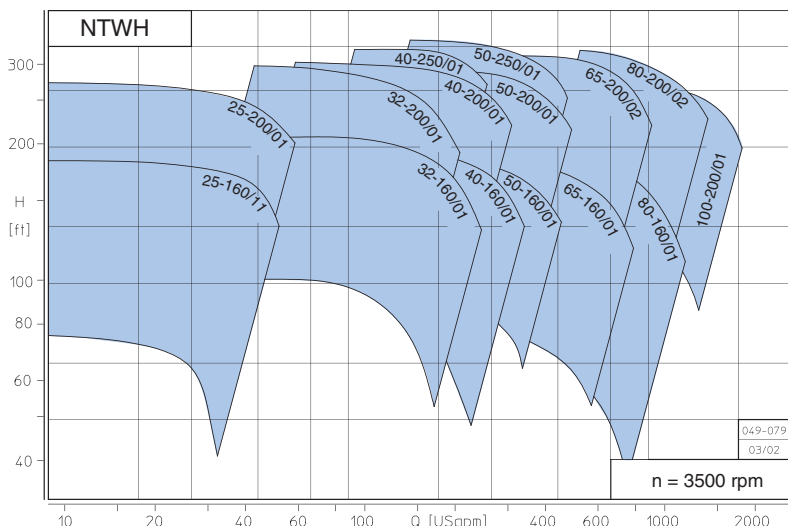


*ALLHEAT® pumps have been rigorously tested during continuous factory tests carried out on ALLWEILER's thermal oil and hot water test stand and during practical tests carried out in selected customer's plants since 2000 and 2001 respectively.*

## 1750 rpm Performance Curves

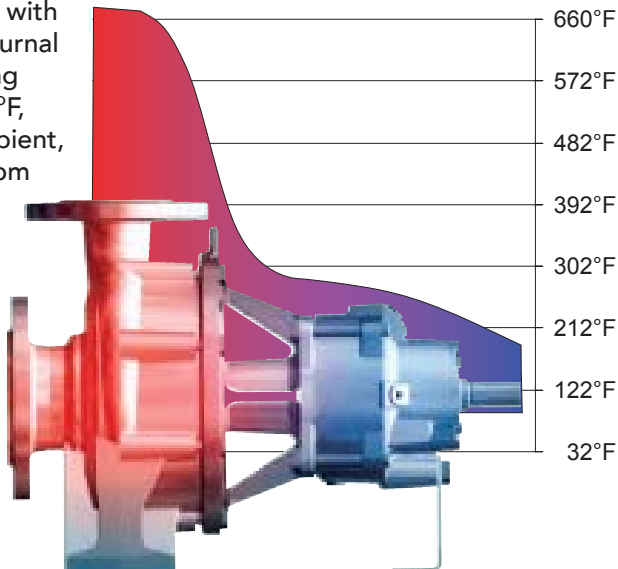


## 3500 rpm Performance Curves



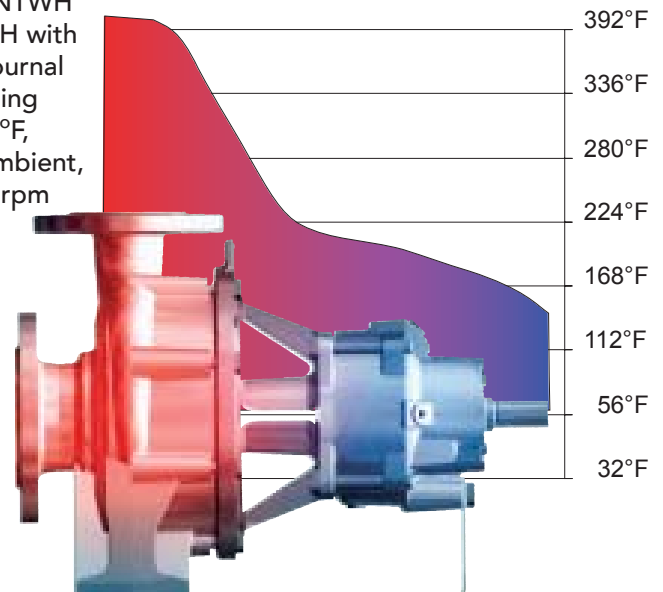
## Thermal Oil Temperature Capability Curve

Series NTWH or CTWH with carbon journal bearing at 600°F, 100°F ambient, 3500 rpm



## Hot Water Temperature Capability Curve

Series NTWH or CTWH with SSiC journal bearing 400°F, 100°F ambient, 3500 rpm





# ALLHEAT® Foot Mounted Design NTWH, CTWH

## NTWH OR CTWH

The ALLHEAT® series was particularly designed for the safe pumping of hot media.

This pump offers the best technical solution at an excellent price for pumping thermal oil at temperatures up to 660°F or hot water up to 400°F.

**Pressure resistant**  
housing parts made from cast iron.

NTWH 150# raised face flanges dimensionally compatible with ANSI B 16.2.

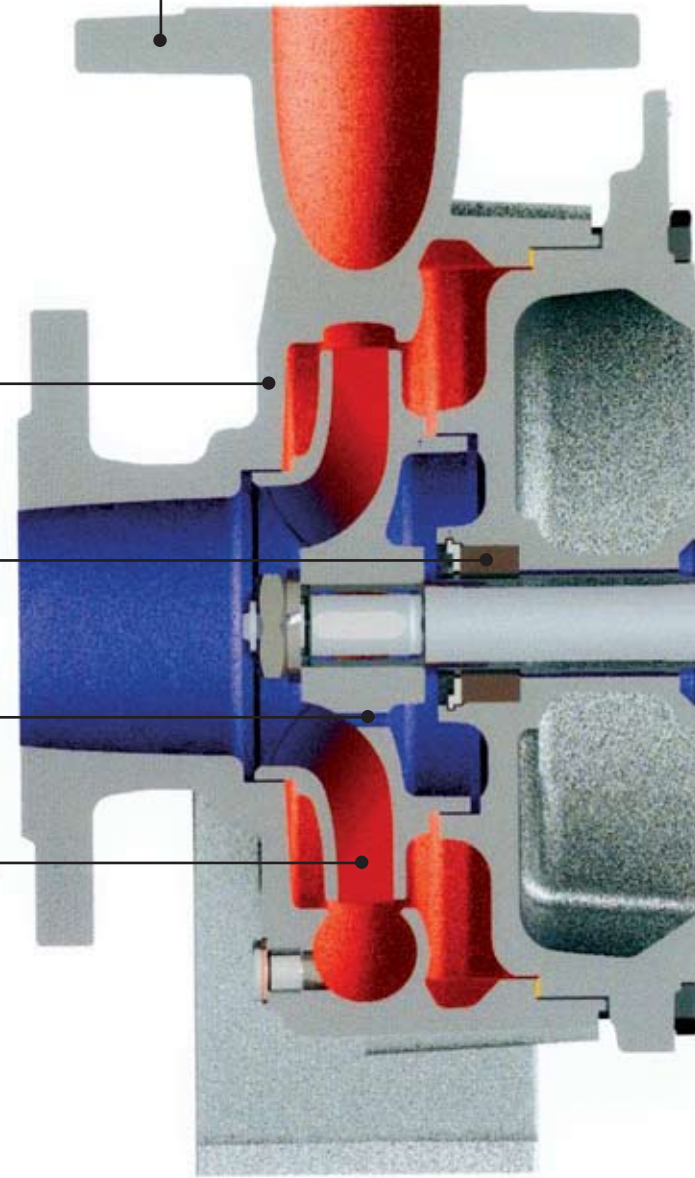
CTWH 300# raised face flange also compatible with ANSI B 16.2.

**Safety Gland**  
prevents contamination from entering the sleeve bearing and the mechanical seal.

**Maintenance friendly**  
Easy to dismantle. Pump housing can remain in pipeline.

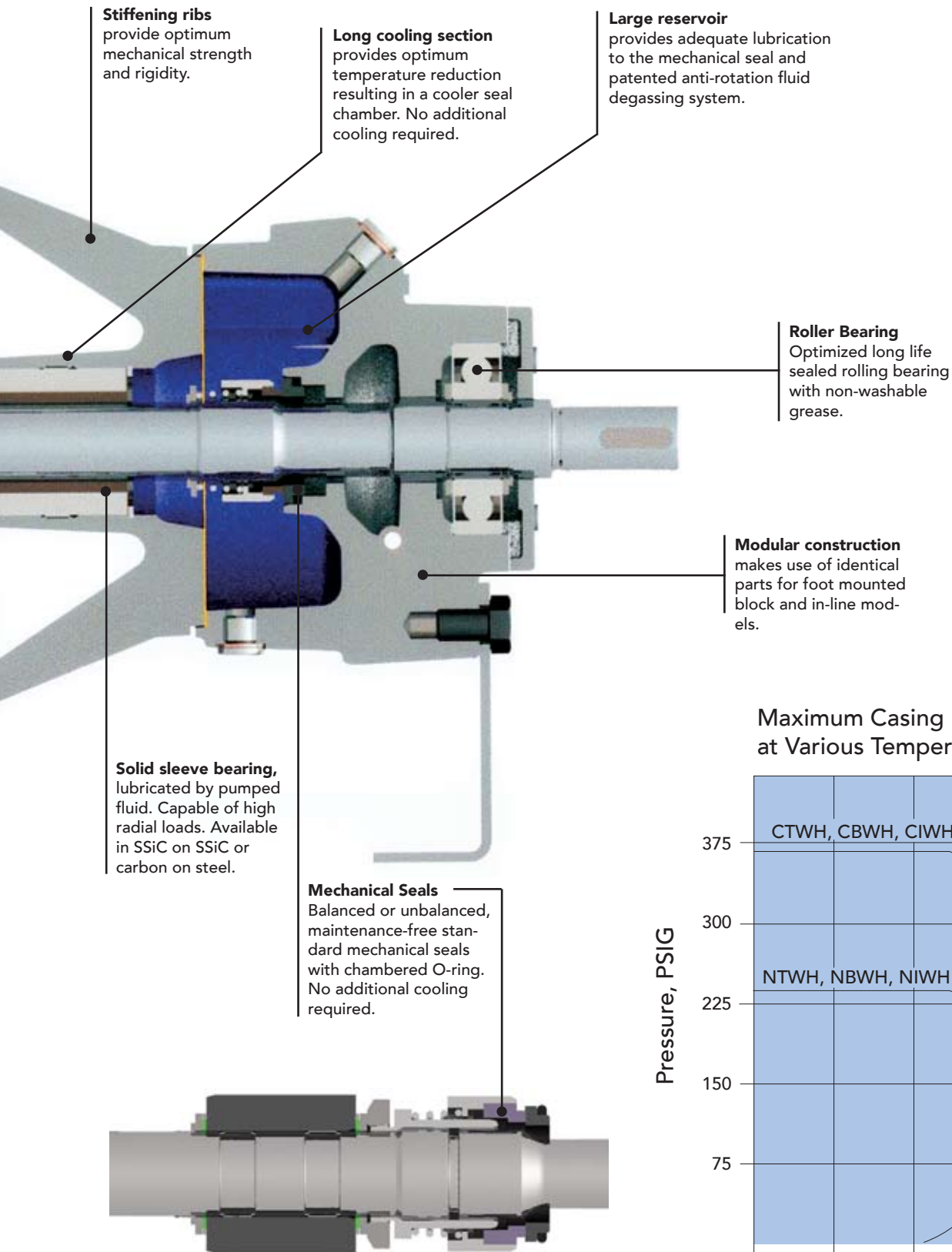
**Hydraulically balanced**  
impellers minimize axial thrust.

**Optimized hydraulics**  
Highly efficient impellers

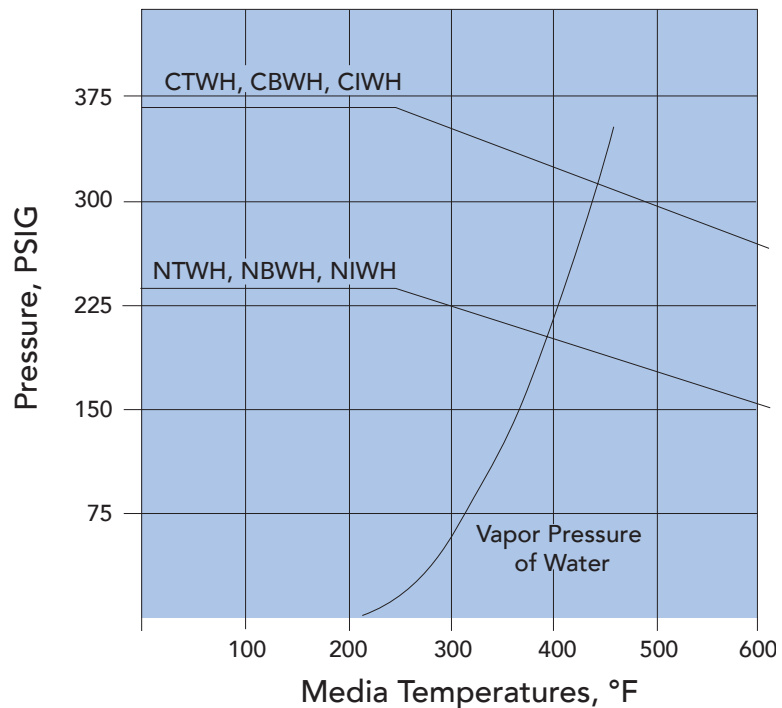


Performance Data		
Series	NTWH	CTWH
Output of up to	5500 gpm	5500 gpm
Max. differential head	330 ft.	330 ft.
Temperatures of pumped media		
Thermal oil up to	660°F	660°F
Hot water up to	360°F	360/400°F
Casing pressure	230 psi	230/360 psi
Material	Cast Iron	Cast Iron

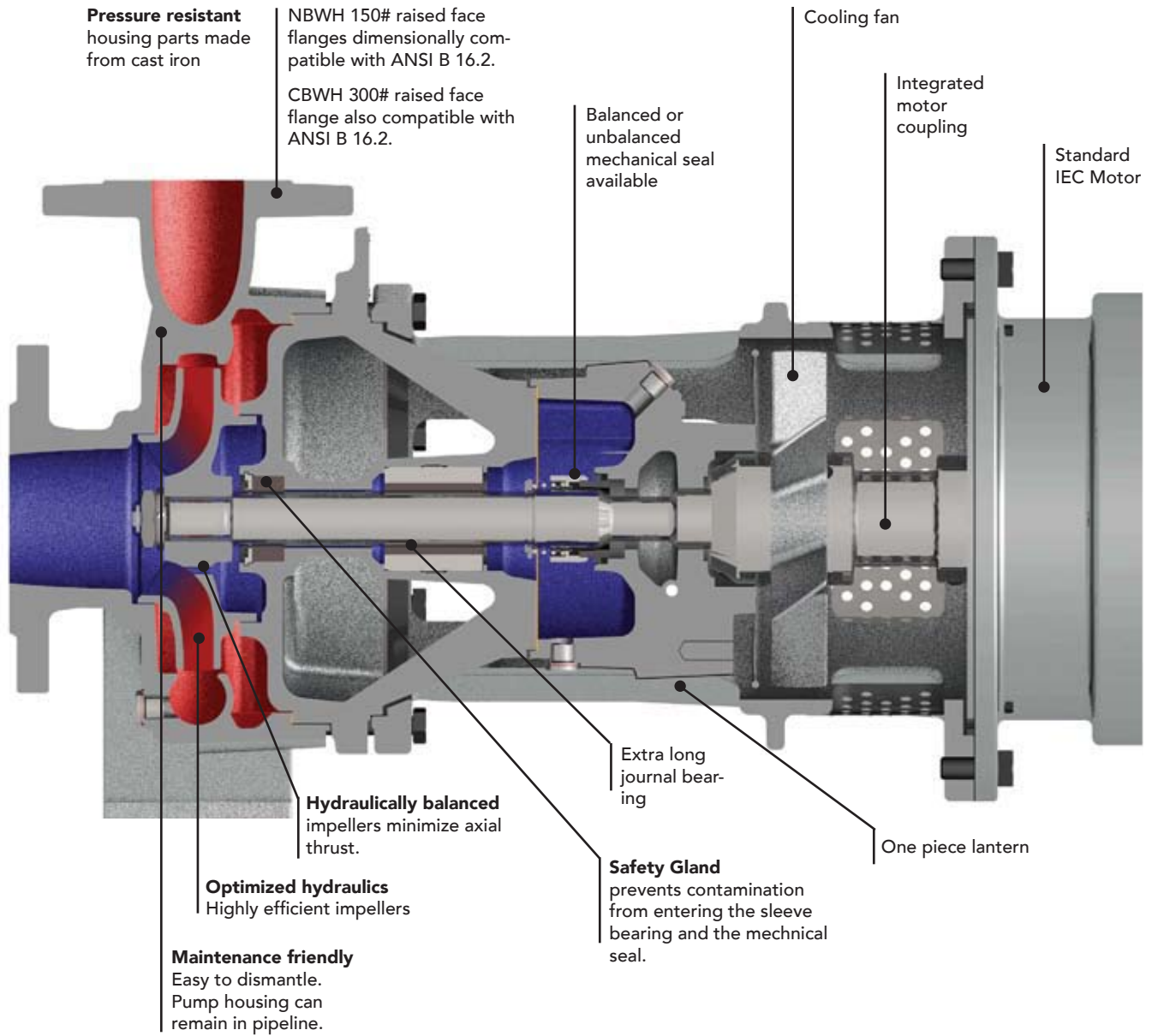
# ALLHEAT® Foot Mounted Design NTWH, CTWH



Maximum Casing Pressure Capability at Various Temperatures

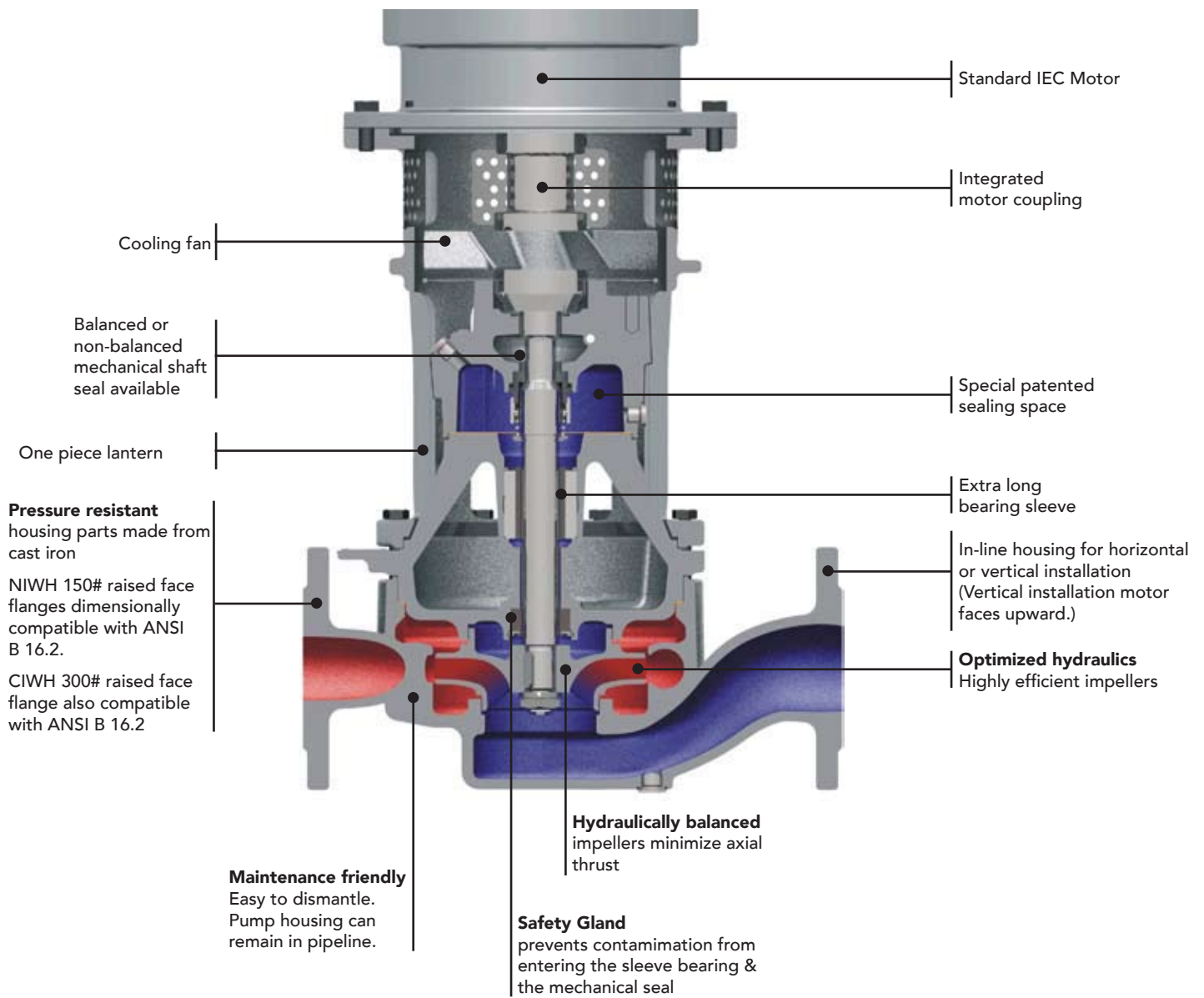


# ALLHEAT® Block Design NBWH, CBWH



Performance Data		
Series	NBWH	CBWH
Output of up to	1200 gpm	1100 gpm
Max. differential head	300 ft.	205 ft.
Temperatures of pumped media		
Thermal oil up to	660°F	660°F
Hot water up to	360°F	360/400°F
Casing pressure	230 psi	230/360 psi
Material	Cast Iron	Cast Iron

# ALLHEAT® In-Line Design NIWH, CIWH



Performance Data		
Series	NIWH	CIWH
Output of up to	970 gpm	460 gpm
Max. differential head	300 ft.	190 ft.
Temperatures of pumped media		
Thermal oil up to	660°F	660°F
Hot water up to	300°F	360/400°F
Casing pressure	230 psi	230/360 psi
Material	Cast Iron	Cast Iron



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