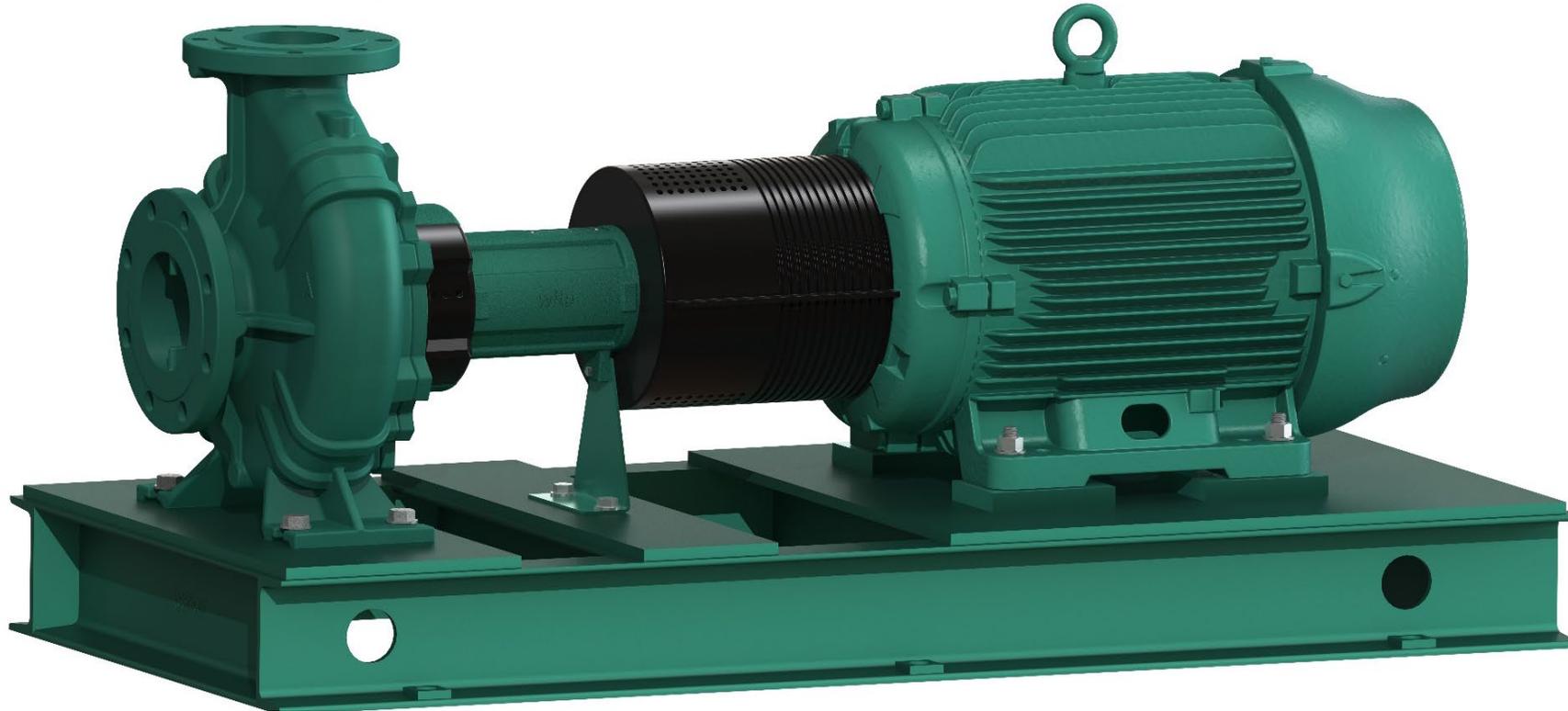


# Wilo NL-HE

The end suction pump for universal applications and a long service life.

*wilo*



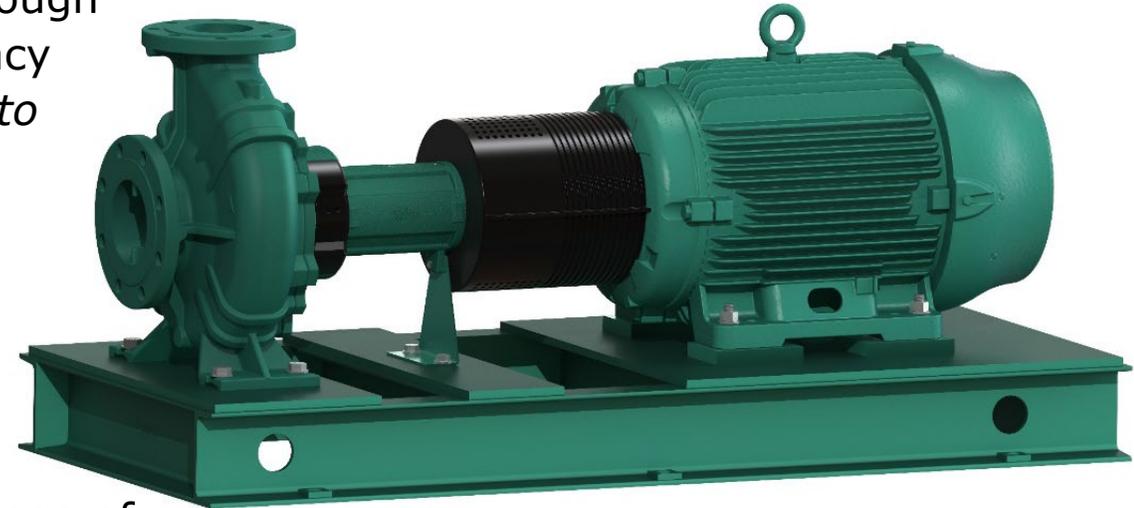
## Market Launch

**Introduction Wilo NL-HE – 02/2021**

*Don Kahn, Senior Product Manager, Product Management*

*Cornel Alexa, Product Engineer, Product Management*

- **Energy-saving** thanks to an increased overall efficiency through improved hydraulics and the use of NEMA Premium Efficiency motors (*9% increased efficiency across the line compared to the current NL*)
- Cathaphoretic coating of all cast components for **high corrosion resistance and a long service life**
- **Universally usable** thanks to standardized dimensions, a range of motor options and impellers made of different materials such as Stainless Steel, Bronze and Cast Iron
- Able to be controlled with a VFD
- C channel welded base



Equipment/ Performance	Wilo NL-HE
Permissible Fluid Temperature	-4 °F to +284 °F
Max. Operating Pressure	232 PSI
Nominal Discharge Diameter	1.25" – 6" ANSI 125#
Electrical Connection	3~[208-230/460V, 460V, 575V] @ 60 Hz
PEI range	0.83 – 0.98
Insulation Class (CI.)	F
Permissible Fluids	Heating Water Cooling/Cold Water Water-Glycol mixture up to 40% by volume.
<i>Max Head</i>	<b>475 feet</b>
<i>Max Flow</i>	<b>3,000 gpm</b>

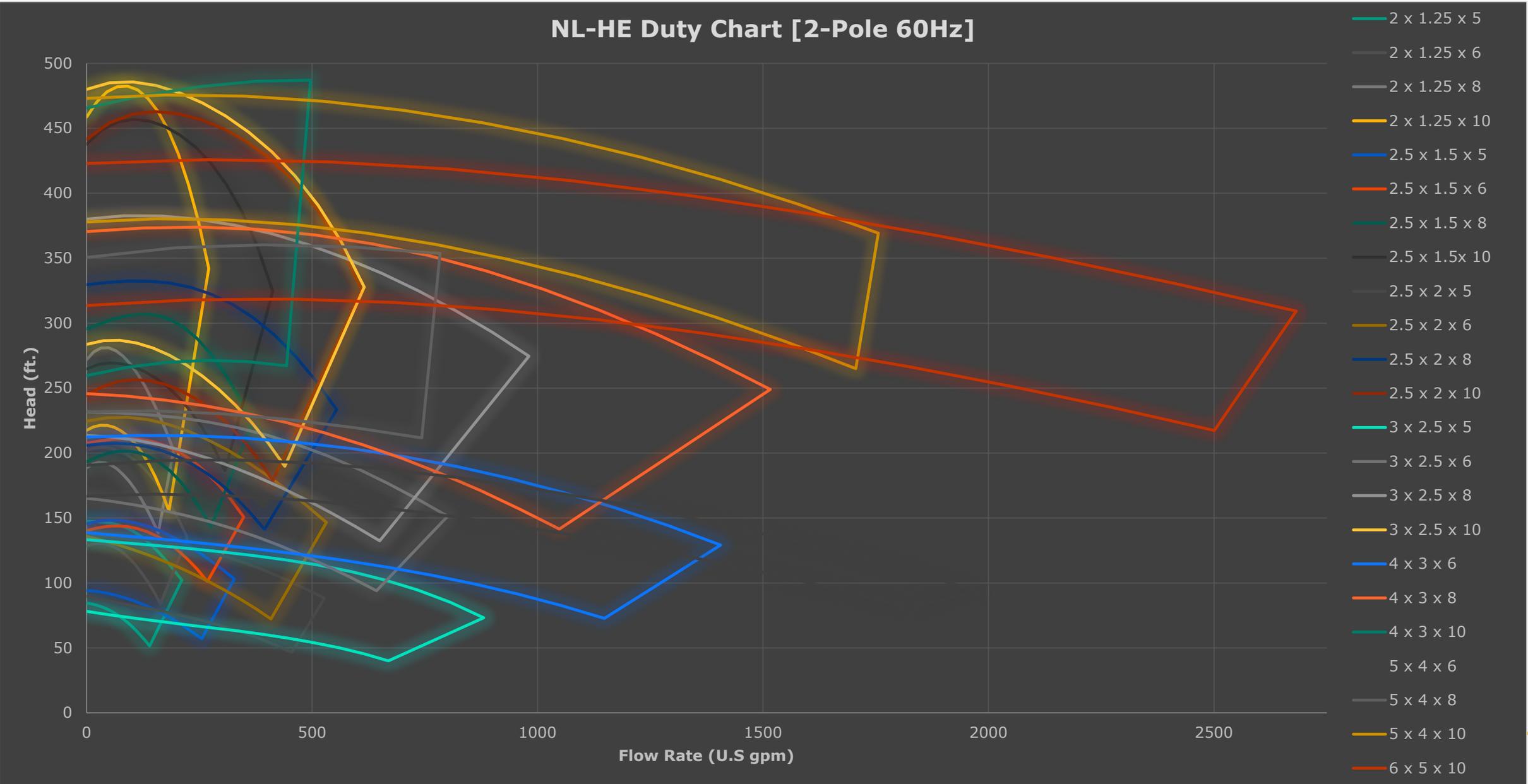


## NL-HE 2x1.25x5-5-182/4T-460-2-TEFC

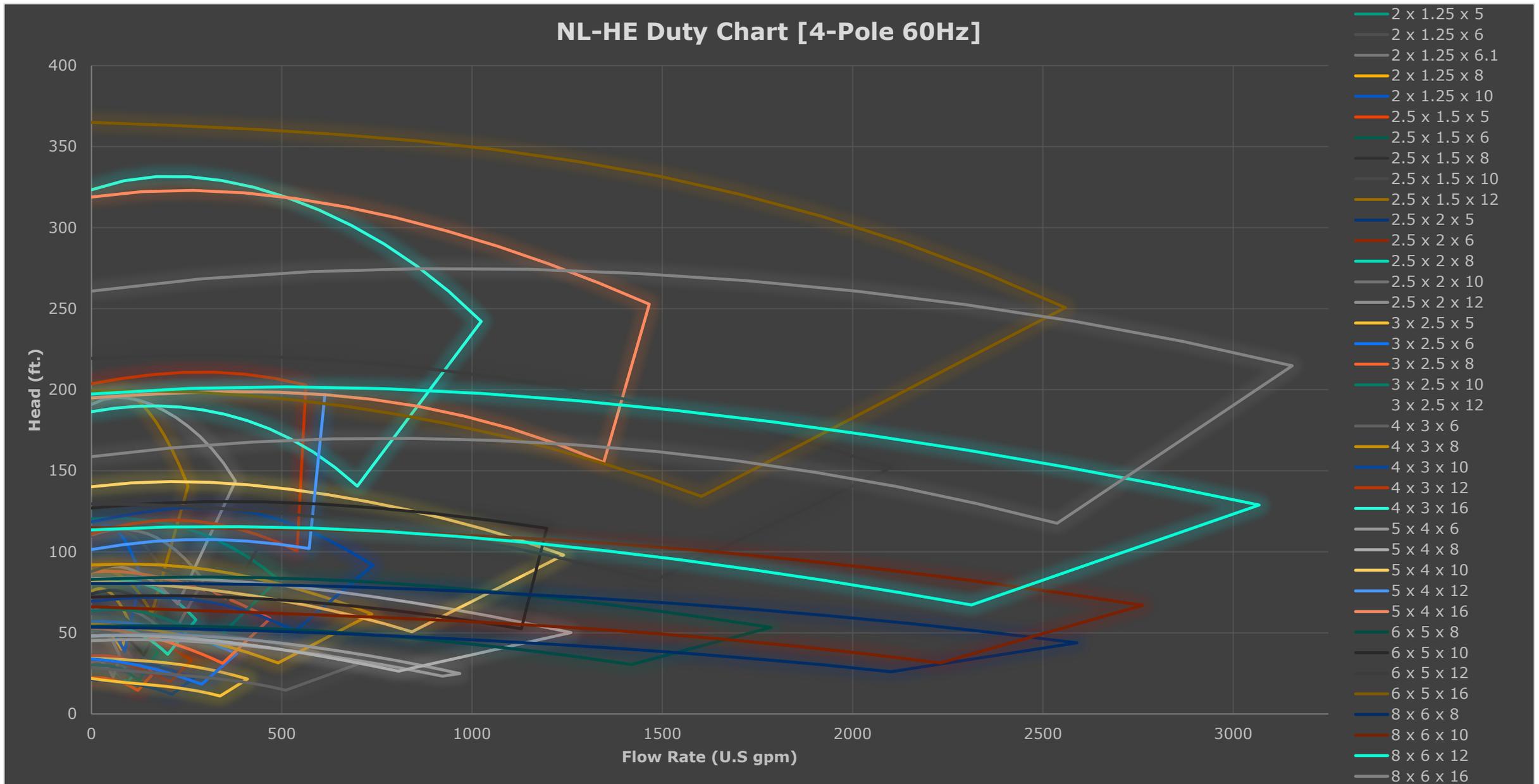
<b>NL-HE</b>	NL-HE Product Line
<b>2</b>	Inlet/Suction Nominal Size (in); [2, 2.5, 3, 4, 5, 6, 8]
<b>1.25</b>	Outlet/Discharge Nominal Size (in); [1.25, 1.5, 2, 2.5, 3, 4, 5, 6]
<b>5</b>	Full Diameter Impeller (in); [5, 6, 8, 10, 12, 16]
<b>5</b>	Rated Motor Power (hp); [0.75 hp – 250 hp]
<b>182/4T</b>	Motor Frame Size; [56 – 447/9TS]
<b>460</b>	Motor Voltage (V); [3~208-230/460V, 460V, 575V]
<b>2</b>	Motor Pole; [2 Pole, 4 Pole]
<b>TEFC</b>	Motor Enclosure; [ODP, TEFC]

A Total of **928** different  
Pump/Motor  
combinations are  
available.

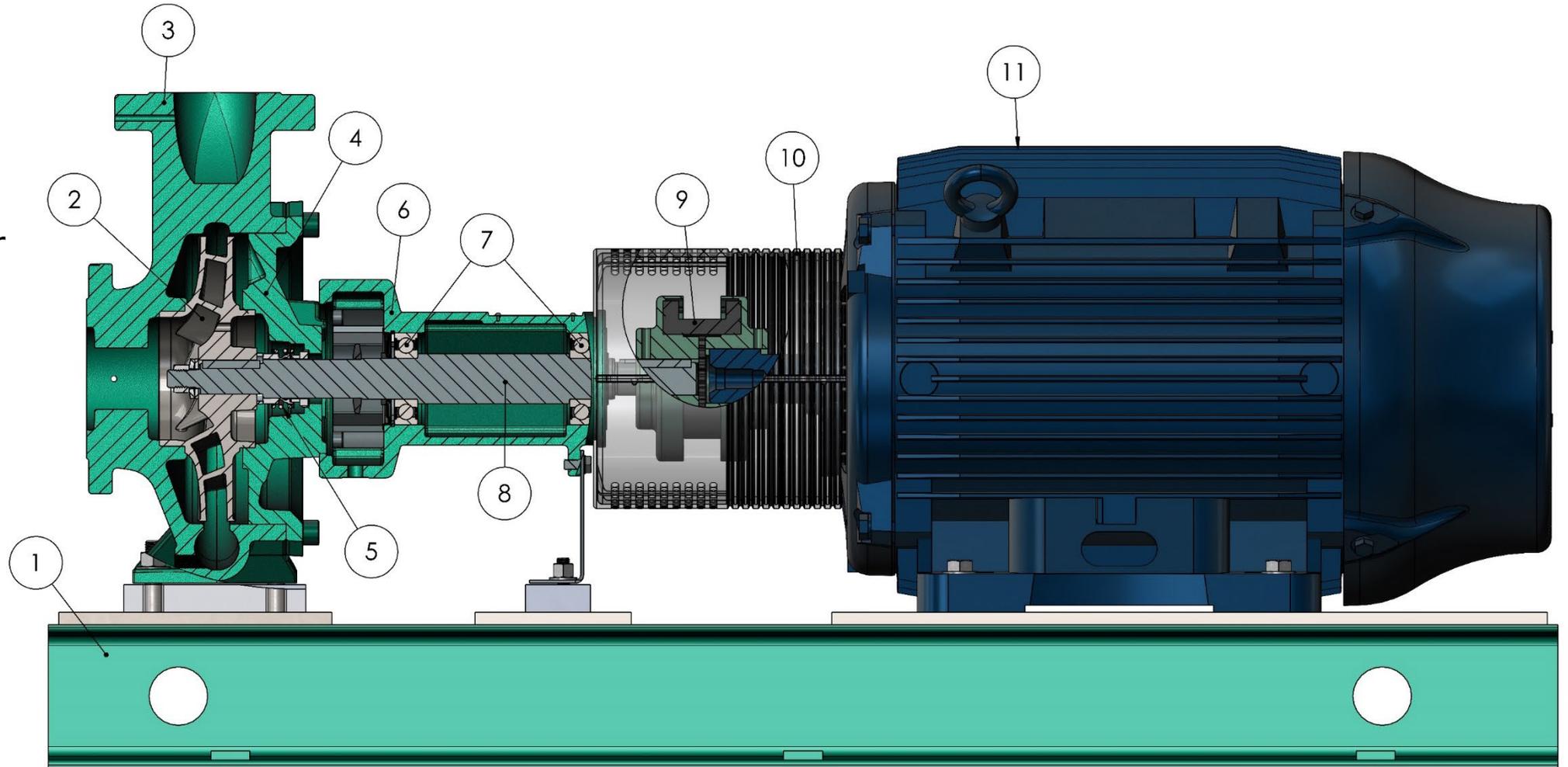
# Duty Chart Matrix 2-pole / 60Hz



# Duty Chart Matrix 4-pole / 60Hz

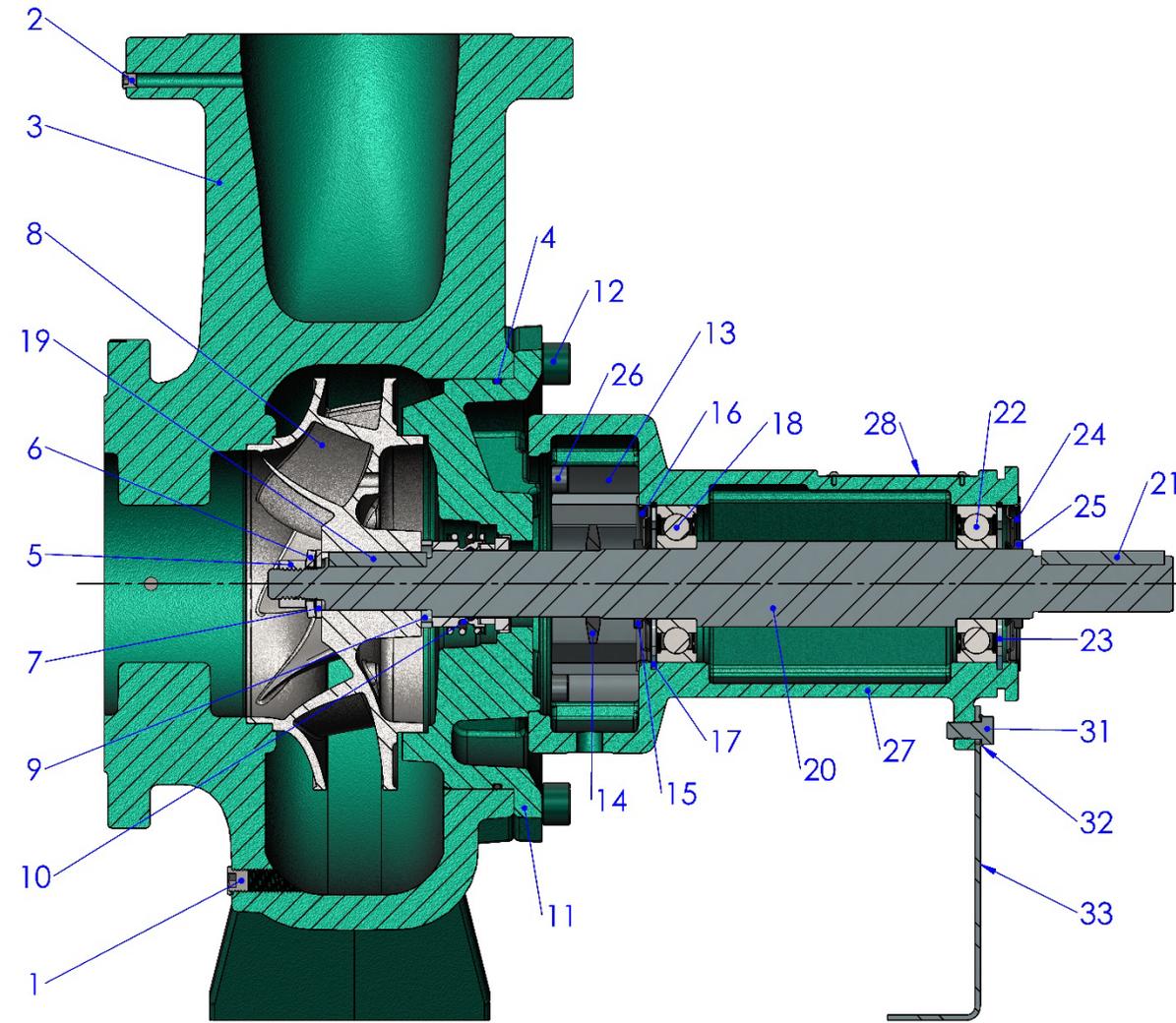
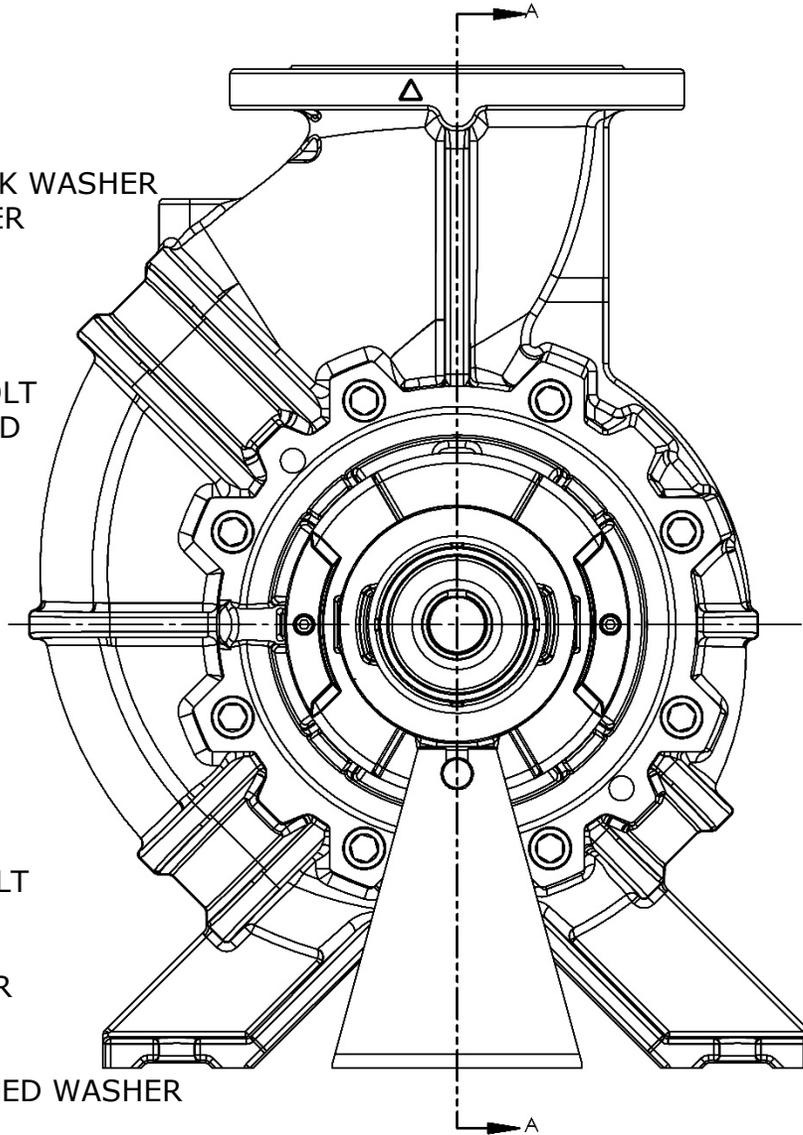


- 1 Baseplate
- 2 Impeller
- 3 Pump Housing
- 4 Discharge Cover
- 5 Mechanical Seal
- 6 Bearing Bracket
- 7 Roller Bearing
- 8 Shaft
- 9 Coupling
- 10 Coupling Guard
- 11 Motor



# Pump End Cutaway view

- 01 BSPP DRAIN PLUG
- 02 BSPP GAUGE PLUG
- 03 PUMP HOUSING
- 04 GASKET
- 05 IMPELLER HEX NUT
- 06 IMPELLER SPRING LOCK WASHER
- 07 IMPELLER FLAT WASHER
- 08 IMPELLER
- 09 SPACER
- 10 MECHANICAL SEAL
- 11 DISCHARGE COVER
- 12 DISCHARGE COVER BOLT
- 13 SHAFT/BEARING GUARD
- 14 THROWER
- 15 V-SEAL
- 16 BEARING COVER
- 17 CIRCLIP
- 18 ROLLER BEARING
- 19 IMPELLER KEY
- 20 SHAFT
- 21 COUPLING KEY
- 22 ROLLER BEARING
- 23 CIRCLIP
- 24 BEARING COVER
- 25 V-SEAL
- 26 BEARING BRACKET BOLT
- 27 BEARING BRACKET
- 28 NAMEPLATE
- 29 SHAFT GUARD WASHER
- 30 SHAFT GUARD BOLT
- 31 SUPPORT FOOT BOLT
- 32 SUPPORT FOOT TOOTHED WASHER
- 33 SUPPORT FOOT



## 1. Volute/Housing

EN-GJL-250 Gray Cast Iron

## 2. Impeller

EN 1.4408 (GX5CrNiMo19-11-2) Cast Stainless Steel

Equivalent: AISI 316

## 3. Mechanical Seal

Seat - Silicon Carbide

Seal face/sliding ring - Antimony-Impregnated Carbon

Metal Parts - AISI 316Ti Stainless Steel

Bellows/O-ring - EPDM

## 4. Discharge Cover

EN-GJL-250 Grey Cast Iron

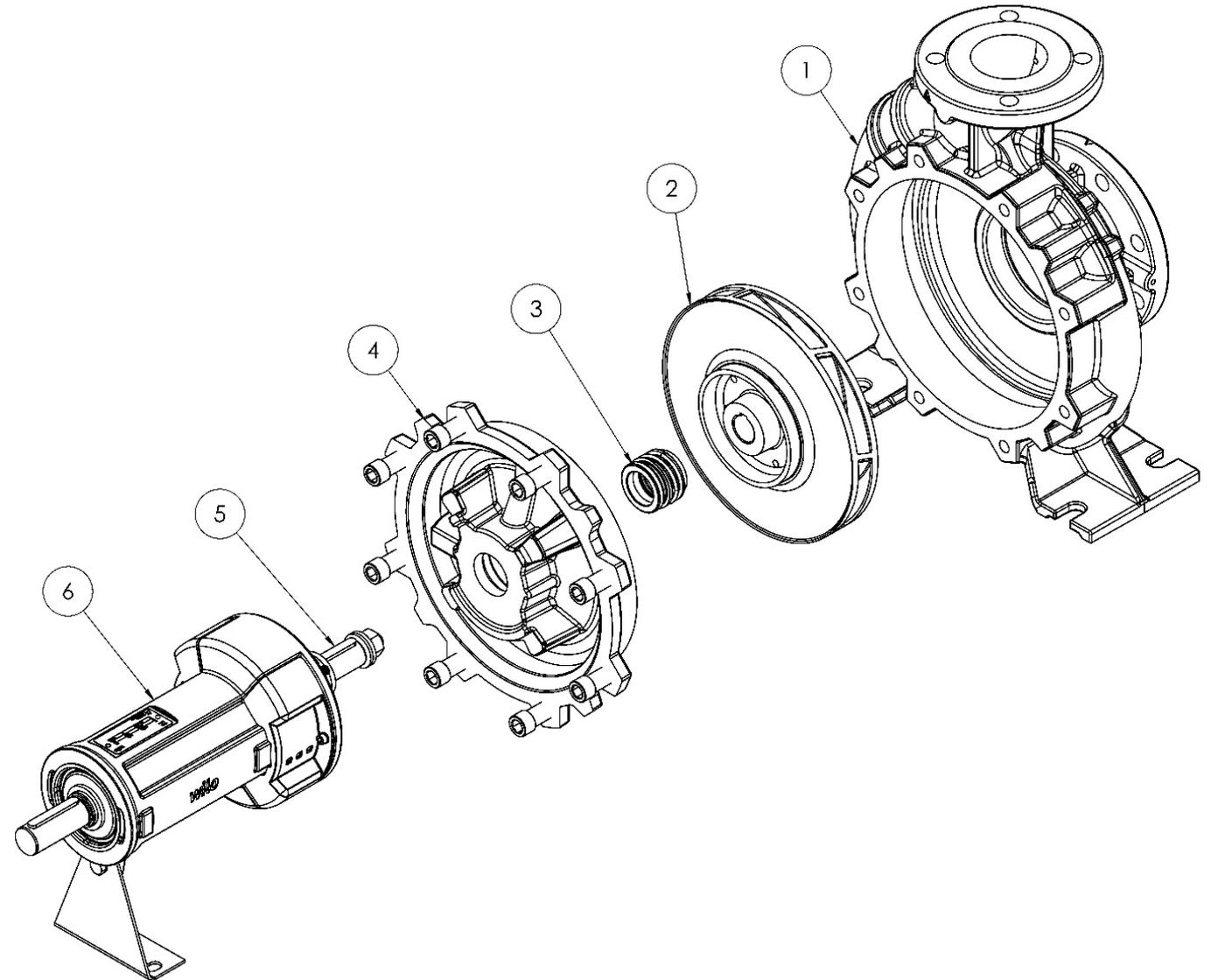
## 5. Shaft

Stainless Steel - 1.4021 + QT700 (EN10088-3)

Equivalent: 420

## 6. Bearing Frame Assembly

EN-GJL-250 Grey Cast Iron



*NL-HE pump ends are factory shipped with the following mechanical seals:*

- **Eagle Burgmann MG12/##-G60 AQ1EGG**
  - ❑ 28mm & 38mm
- **Vulcan Seals 192S60 AQ7EGG**
  - ❑ 48mm
  
- **Pressure Rating:** 232 psi (up to +248°F) or 188 psi (up to +284°F).
- **Water Glycol concentration:** up to 40%
  
- **Materials**
  - **Seat** – Silicon Carbide
  - **Seal Face/Sliding Ring** – Antimony-Impregnated Carbon
  - **Metal Parts** – AISI 316Ti Stainless Steel
  - **Rubber corrugated Pipe/Bellows** – EPDM
  - **O-ring** – EPDM



Additional mechanical seals available upon request

## 1. TB WOODs Sure-Flex Plus Elastomeric Coupling

- Usage across entire pump line: **80%**
- Distance Between Shaft Ends: **0.5"**



## 2. KTR Rotex Flexible Jaw Coupling

- Usage across entire pump line: **18%**
- Distance Between Shaft Ends: **0.50" – 1.40"**



## 3. LOVEJOY S-Flex Endurance Elastomeric Coupling

- Usage across entire pump line: **2%**
- Distance Between Shaft Ends: **0.5"**



# MOTORS – (1750 rpm & 3550 rpm)

Standard Motor Manufacturer: **WEG**

## ODP

*W01 Rolled Steel*

0.75 – 25 hp



*W40 Cast Iron*

25 – 250 hp



## TEFC

*W01 Rolled Steel*

0.75 hp



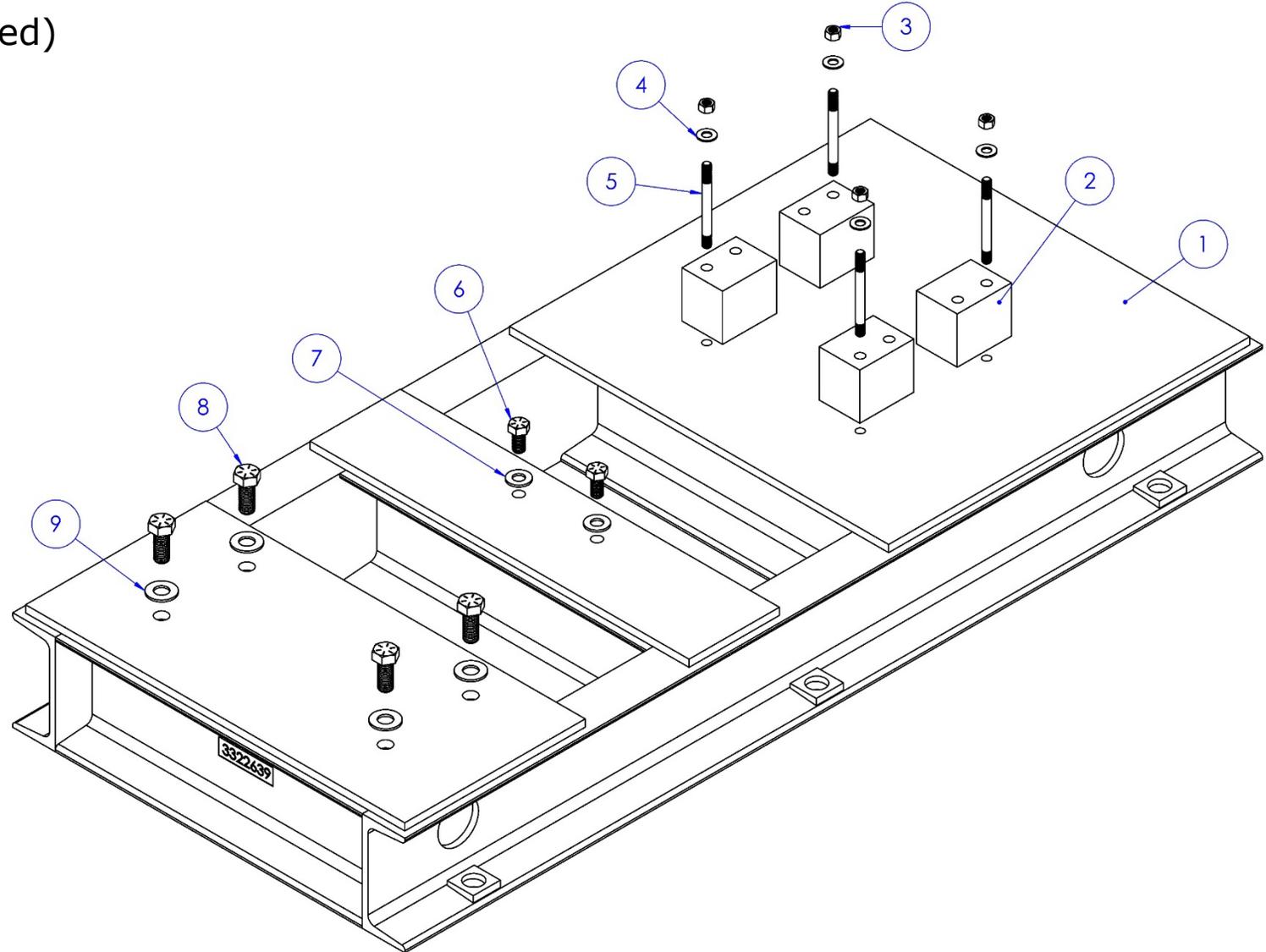
*W22 Cast Iron*

1 – 250 hp



# Base-Kit Assembly

- 1 – Welded Steel Baseplate (painted)
- 2 – 6061 Al Riser Block
- 3 – GRADE 5 Zinc Hex Nut
- 4 – Zinc Steel Flat Washer
- 5 – B7 Zinc Plated Tap-End Threaded Stud
- 6 – GRADE 5, Zinc Plated Hex Bolt
- 7 – Zinc Steel Flat Washer
- 8 – GRADE 5, Zinc Plated Hex Bolt
- 9 – Zinc Steel Flat Washer



## Website

- [https://wilo.com/us/en\\_us/Product/Browse-All-Products/Building-Services-Products/NL-HE/](https://wilo.com/us/en_us/Product/Browse-All-Products/Building-Services-Products/NL-HE/)

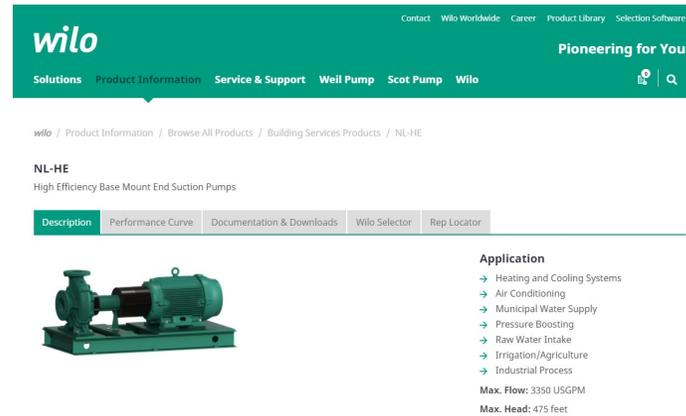
## Sizing/Selection

- Currently available in *Intelliquip*



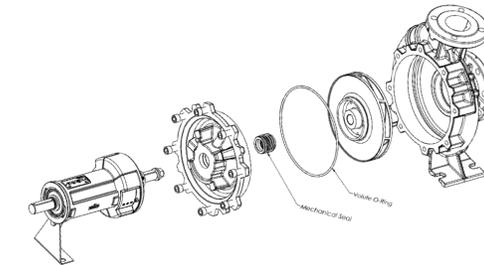
## Available Documents

- Sales Brochure
- 2 & 4 Pole Submittals
- IOM
- Specification
- Price pages



## Replacement Parts

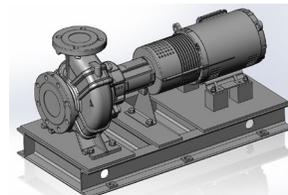
- Seal Kits are available in Price Book
  - *Seal Kits include complete mechanical seal and volute O-ring.*



Wilo-NL-HE Seal Kits - Includes seal face, seat, spring, sliding ring, bellows and pump volute O-ring			
Model	Description	Article Number	List Price (USD)
NL-HE 2x1.25x5	NL-HE SEAL KIT 28mm-192560 5" IMPELLER	3326313	165
NL-HE 2x1.25x6	NL-HE SEAL KIT 28mm-192560 6" IMPELLER	3326314	165
NL-HE 2x1.25x6.1	NL-HE SEAL KIT 28mm-192560 6" IMPELLER	3326314	165
NL-HE 2x1.25x8	NL-HE SLKIT 28mm-192560 2x1.25x1.5x8	3326316	165

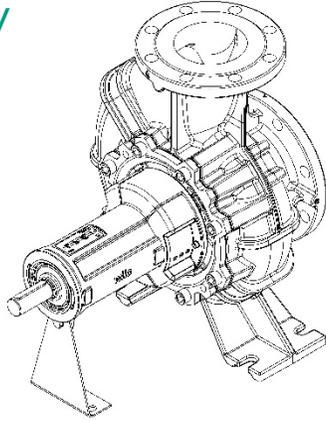
## STEP files & REVIT/BIM files

- Available upon Request



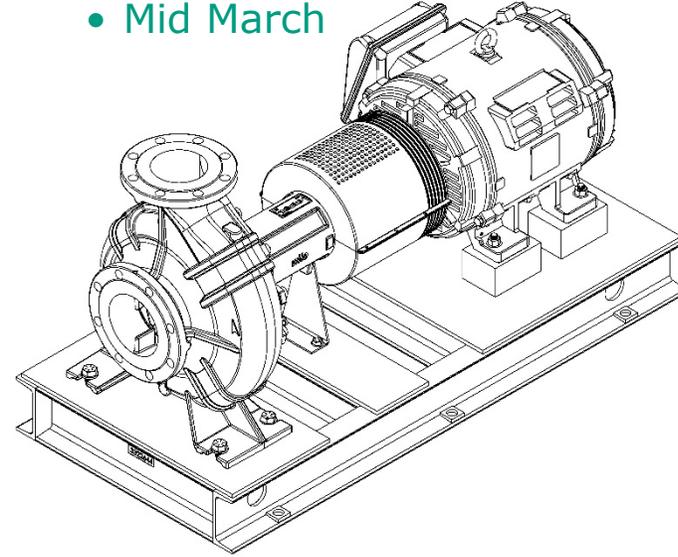
## ❑ Pump End Only

- Today



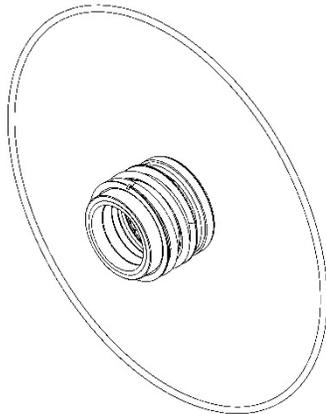
## ❑ Complete Assembled Units

- Mid March



## ❑ Replacement Parts

- Seal Kits (Mid March)



**THANK YOU VERY  
MUCH FOR YOUR  
ATTENTION.**

