



## CENTRIFUGAL PUMPS PRODUCT OVERVIEW

PROVEN TECHNOLOGY

**DESMI**

# DESMI Centrifugal Pumps

DESMI is co-operating with the customers to develop innovations in pump technology. Whether it is solving individual application problems or developing new ideas, we are always looking for ways of doing things better.

DESMI's range of centrifugal pumps represents the latest developments, based on more than 150 years of experience in the pump industry.

The pumps are characterised by high-level efficiency and low NPSH values.

DESMI vertical pumps require minimal space and provide easy access for maintenance of the pump's rotating parts.

# DESMI Centrifugal Pumps



DESMI ESL



DESMI ESLH



DESMI DSL



DESMI DSL Horizontal

## Single-stage, End-suction

| ESL/ESLH<br>In-line and end-suction single-stage centrifugal pump           |  |
|---|--|
| Nominal diameter (DN)   | 25 to 100                                |
| Flow rate   | Up to 200 m <sup>3</sup> /h (880 US gpm) |
| Head  | Up to 65 m (210 ft)                      |
| Pressure  | Up to 30 bar (435 psi)                   |
| Temperature   | Up to 150°C (302°F)                      |
| Motor   | Standard and EX motors                   |
| VFD   | Direct or wall-mounted                   |
| Applications: Water, water with additives, seawater and oils up to 500 cSt. |  |

## Double Suction, In-line

| DSL<br>Vertical and horizontal inline double suction centrifugal pump |   |
|---|---|
| Nominal diameter (DN)   | 150 to 500                                  |
| Flow rate   | Up to 5400 m <sup>3</sup> /h (23800 US gpm) |
| Head  | Up to 90 m (295 ft.)                        |
| Pressure  | Up to 25 bar (363 psi)                      |
| Temperature   | Up to 150°C (302°F)                         |
| Motor   | Standard and EX motors                      |
| VFD   | Wall-mounted                                |
| ATEX approved.  |   |
| Applications: Water with additives and seawater.                      |   |



DESMI NSL Horizontal



DESMI NSL



DESMI NSLH



DESMI NSLV

## In-line, Vertical & Horizontal

| NSL<br>Vertical and horizontal in-line centrifugal pump                     |  |
|---|--|
| Nominal diameter (DN)   | 65 to 400                                  |
| Flow rate   | Up to 1800 m <sup>3</sup> /h (7900 US gpm) |
| Head  | Up to 220 m (720 ft)                       |
| Pressure  | Up to 25 bar (363 psi)                     |
| Temperature   | Up to 150°C (302°F)                        |
| Motor   | Standard and EX motors                     |
| VFD   | Direct or wall-mounted                     |
| ATEX approved.  |  |
| Applications: Water, water with additives, seawater and oils up to 500 cSt. |  |

## End-suction

| NSLH/V<br>Vertical and horizontal end-suction centrifugal pump              |  |
|---|--|
| Nominal diameter (DN)   | 80 to 400                                  |
| Flow rate   | Up to 1800 m <sup>3</sup> /h (7900 US gpm) |
| Head  | Up to 220 m (720 ft)                       |
| Pressure  | Up to 25 bar (363 psi)                     |
| Temperature   | Up to 150°C (302°F)                        |
| Motor   | Standard and EX motors                     |
| VFD   | Direct or wall-mounted                     |
| ATEX approved.  |  |
| Applications: Water, water with additives, seawater and oils up to 500 cSt. |  |

# DESMI Centrifugal Pumps



DESMI Modular S



DESMI Modular S Monobloc



DESMI SA

## Self-priming

| Self-priming centrifugal pump<br>Modular S                                  |   |
|---|---|
| Nominal diameter (DN)   | 32 to 125                                 |
| Flow rate   | Up to 400 m <sup>3</sup> /h (1760 US gpm) |
| Head  | Up to 150 m (490 ft)                      |
| Temperature   | Up to 120° C (248° F)                     |
| Motor   | Standard and EX motors                    |
| VFD   | Direct or wall-mounted                    |
| ATEX approved.  |   |
| Applications: Water, water with additives, seawater and oils up to 500 cSt. |   |

## Self-priming

| Horizontal self-priming centrifugal pump<br>SA / SAEN                       |   |
|---|---|
| Nominal diameter (DN)   | 20 to 200                                 |
| Flow rate   | Up to 650 m <sup>3</sup> /h (2900 US gpm) |
| Head  | Up to 110 m (360 ft)                      |
| Temperature   | Up to 120° C (248° F)                     |
| Motor   | Standard and EX motors                    |
| VFD   | Direct or wall-mounted                    |
| Applications: Water, water with additives, seawater and oils up to 500 cSt. |   |

# Submerged Lubrication Oil Pump



## Deep Well Pump

| Submerged deep well pump |  |
|--------------------------|--|
| Nominal diameter (DN)    | 32 to 125                                  |
| Flow rate                | Up to 1440 m <sup>3</sup> /h (6300 US gpm) |
| Head                     | Up to 250 m (800 ft)                       |
| Motor                    | Standard and EX motors                     |
| VFD                      | Direct or wall-mounted                     |

# DESMI Vertical Centrifugal Multi-stage Pumps

## Multi-stage

| Vertical DPV   |                                      |
|--|--------------------------------------|
| 2-pole   | 2, 4, 6, 10, 15, 25, 40, 60, 85, 125 |
| 4-pole   | 15, 25, 40, 60, 85, 125              |
| Capacity range (m <sup>3</sup> /h)/(gpm)                                     | 0.5-193/2-849                        |
| Maximum pump pressure (m)/(ft)   | 5/16 to 400/1312                     |
| Temperature range medium   | -20 - +140° C / -4 - 284° F          |
| Applications: Water, sprinkler, industry, cleaning systems and boiler feeds. |                                      |



DESMI DPV Pumps

# DESMI Electric Borehole Pumps

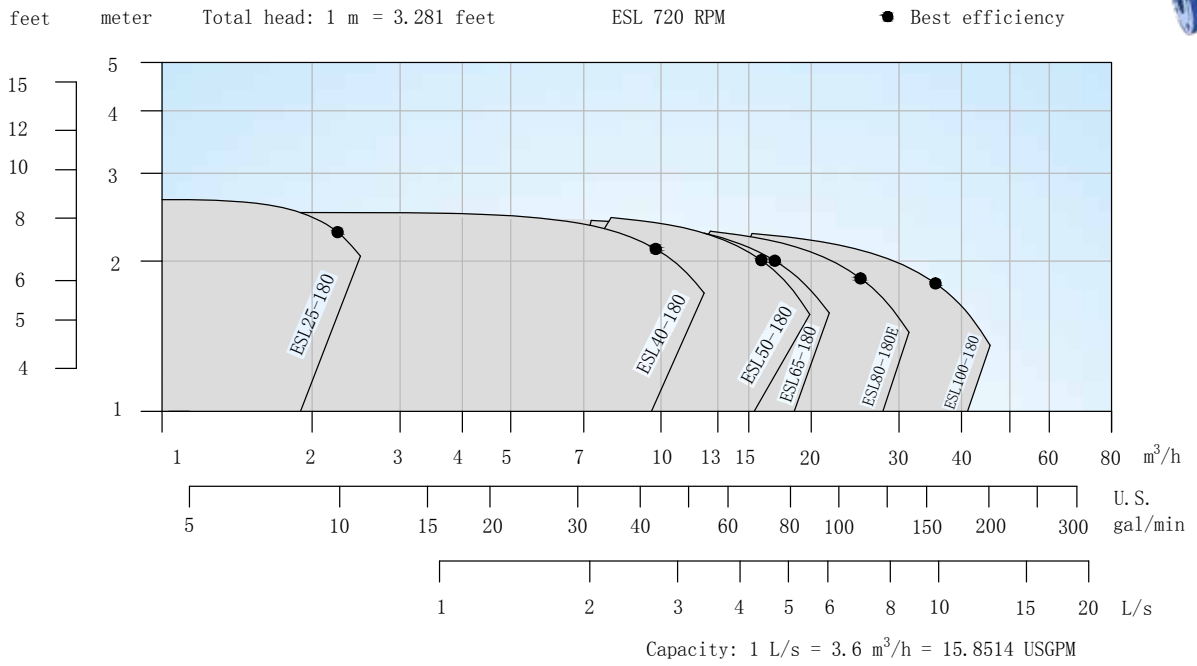
## Multi-stage

| Submersible, high-efficiency multi-stage borehole pumps<br>More than 9,000 combinations |   |
|---|---|
| Nominal diameter (DN)   | 4" to 10"                                 |
| Flow rate   | Up to 180 m <sup>3</sup> /h (1160 US gpm) |
| Head  | Up to 850 m (2800 ft)                     |
| Motor   | 2 and 4 pole, 2900 / 1450 rpm             |
| Applications: Drinking water, DM174, WRAS, ACS, KTW-W270.                               |   |

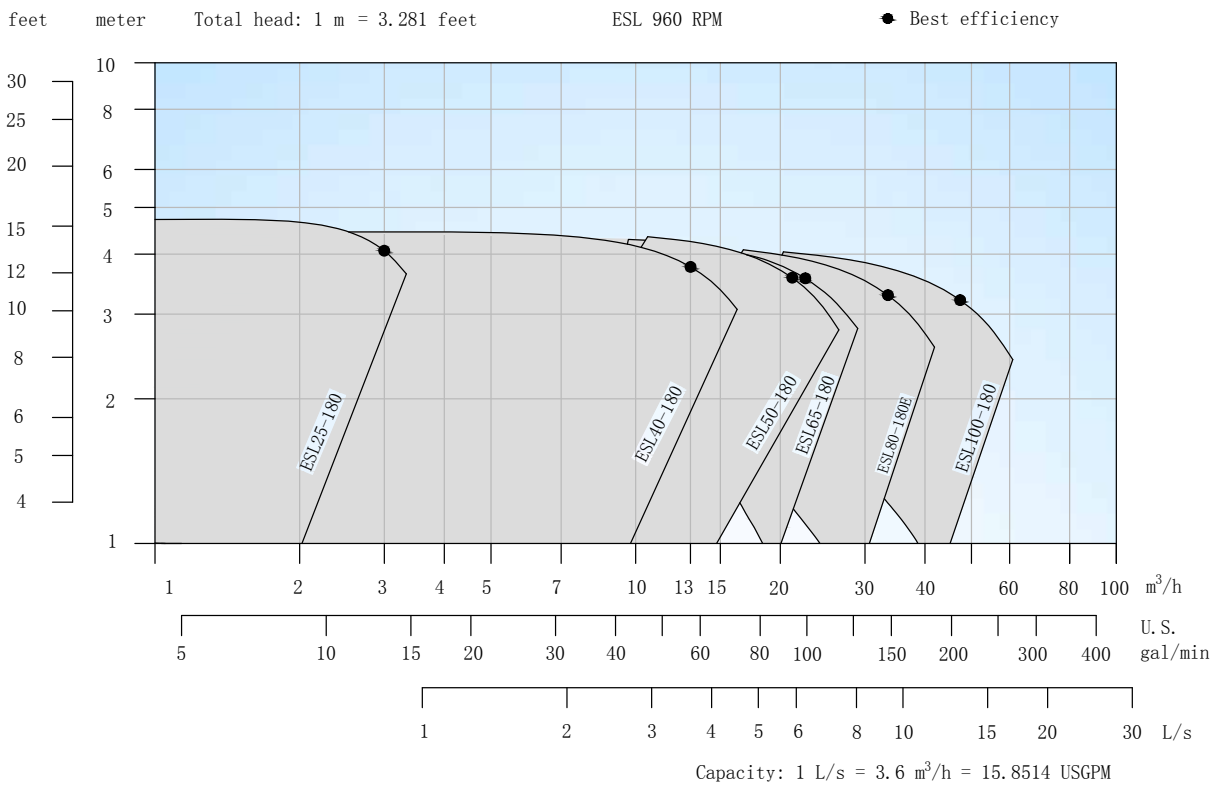




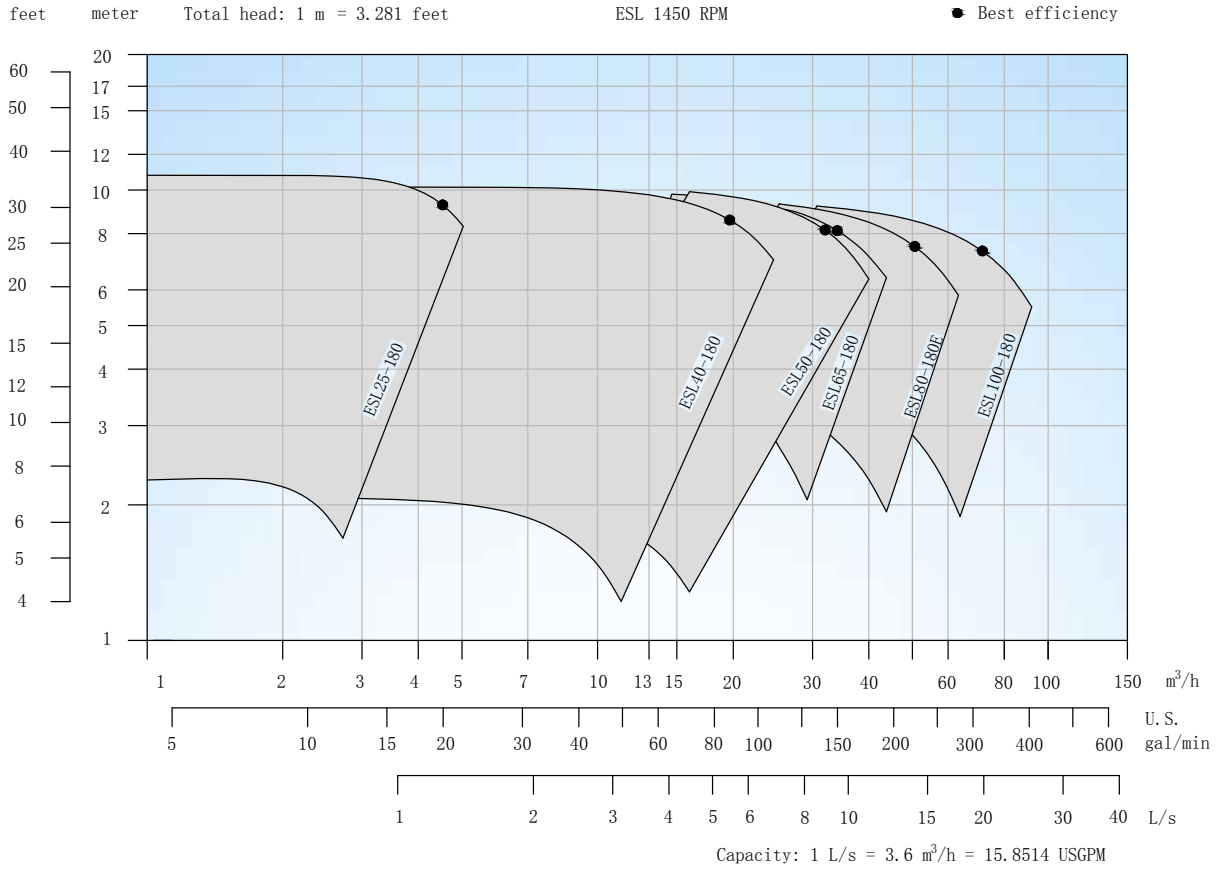
## ESL Centrifugal Pump, 720 rpm, 50 HZ



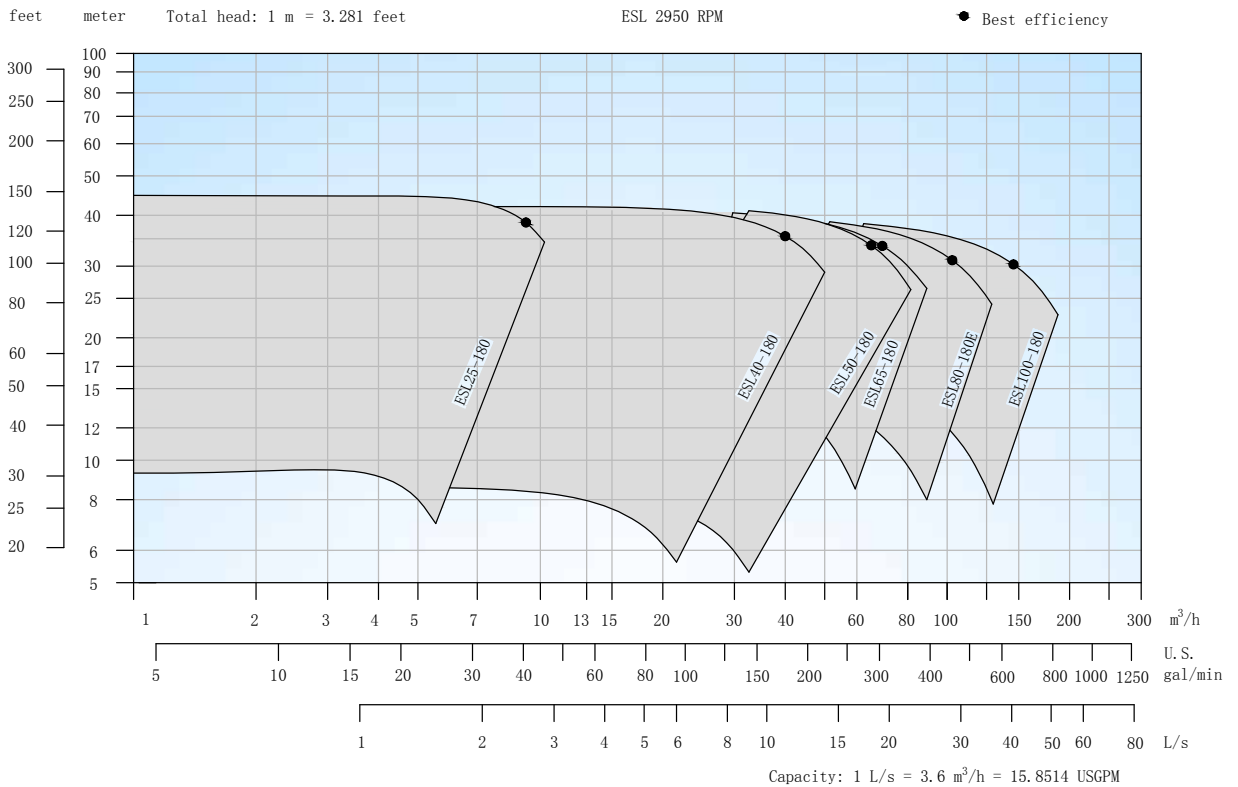
## ESL Centrifugal Pump, 960 rpm, 50 HZ



## ESL Centrifugal Pump, 1450 rpm, 50 HZ

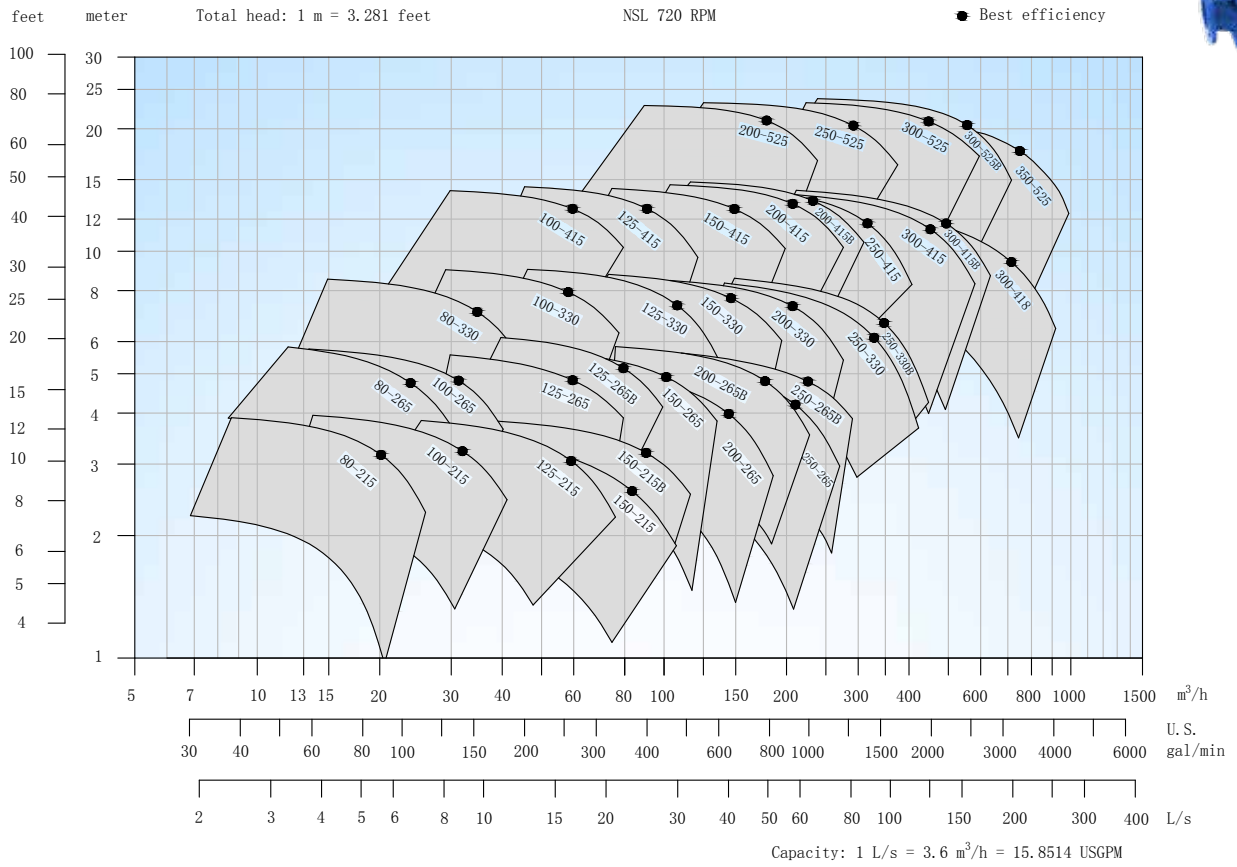


## ESL Centrifugal Pump, 2950 rpm, 50 HZ

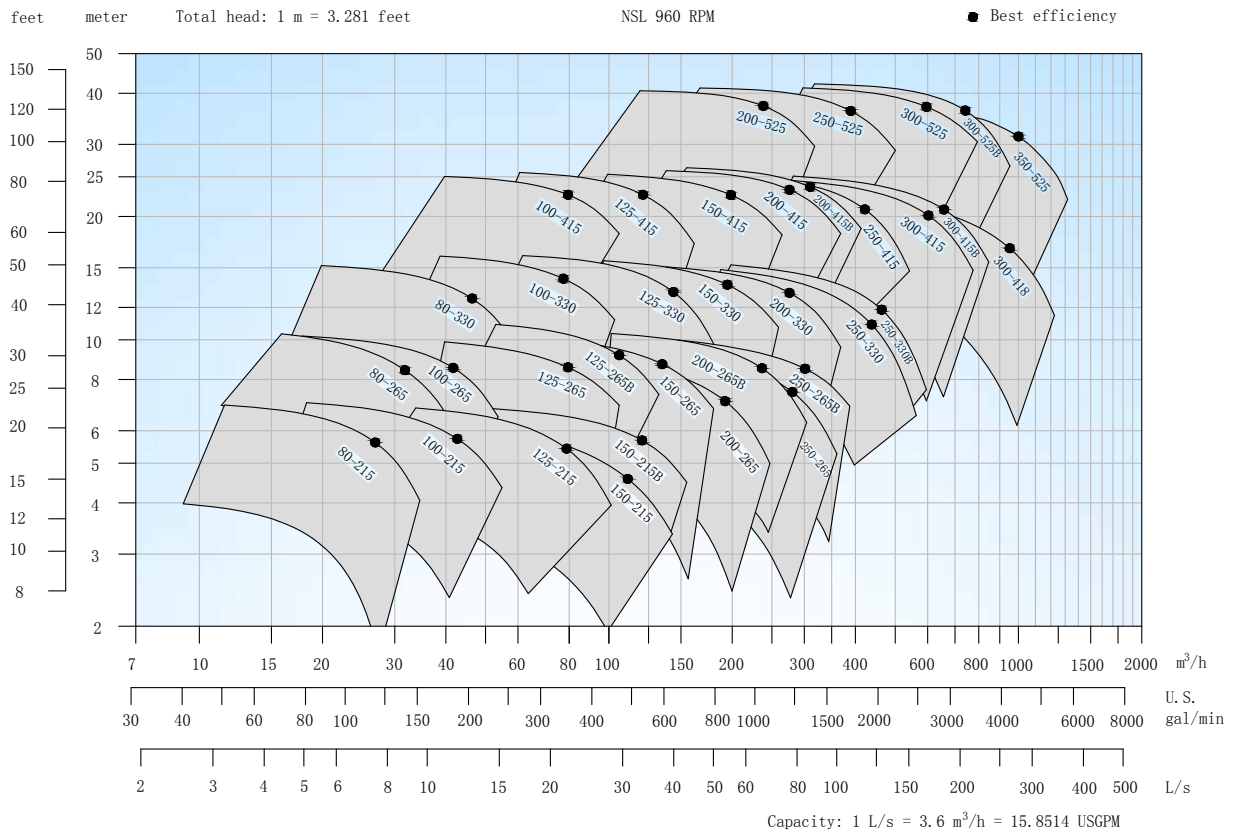




NSL Centrifugal Pump, 720 rpm, **50 HZ**

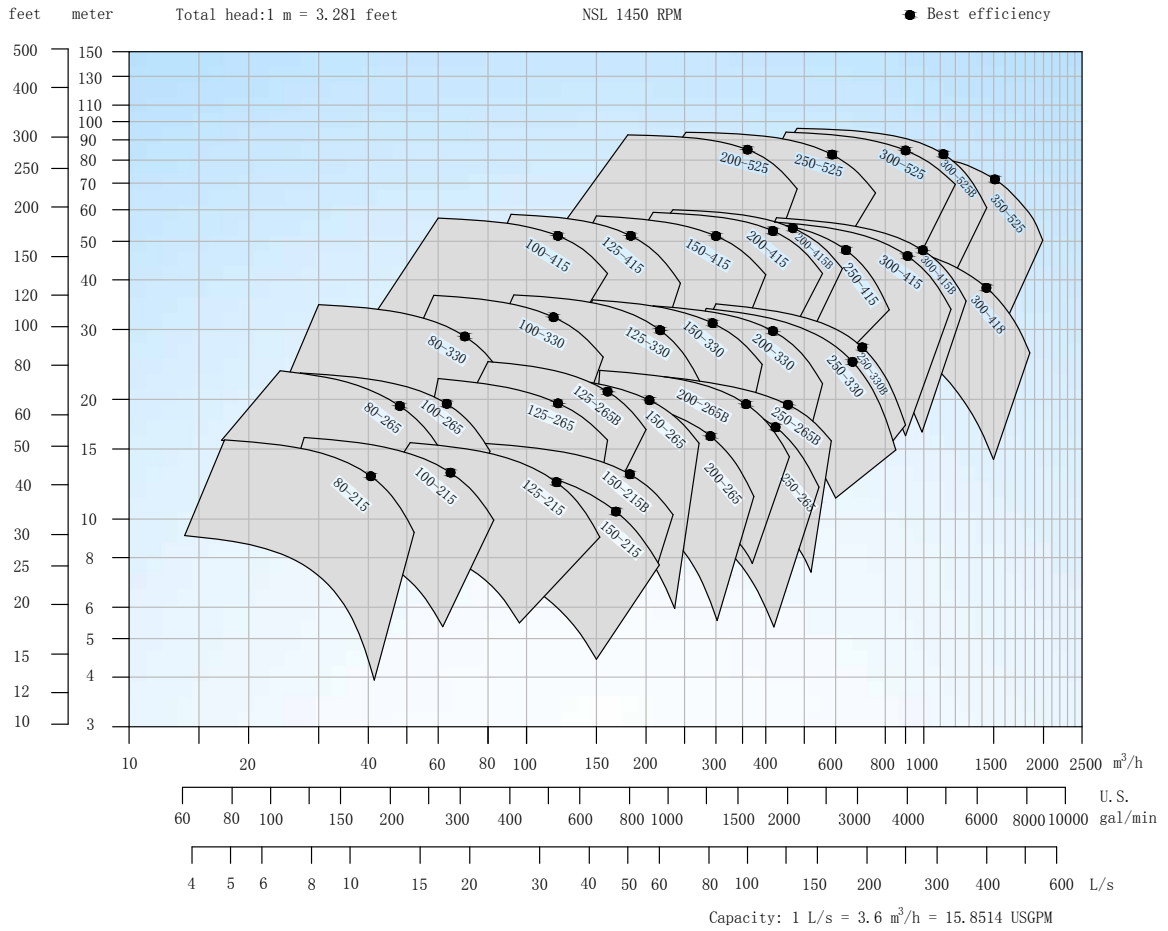


NSL Centrifugal Pump, 960 rpm, **50 HZ**

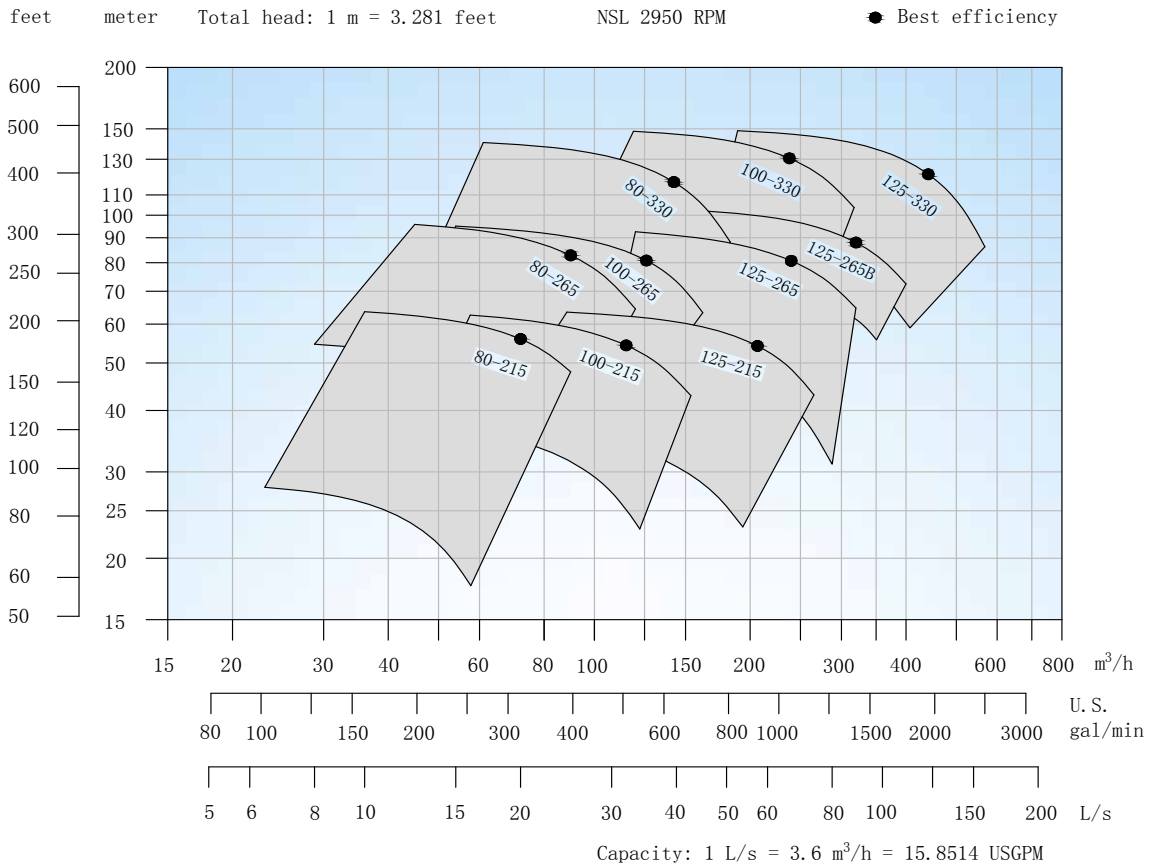




## NSL Centrifugal Pump, 1450 rpm, 50 HZ

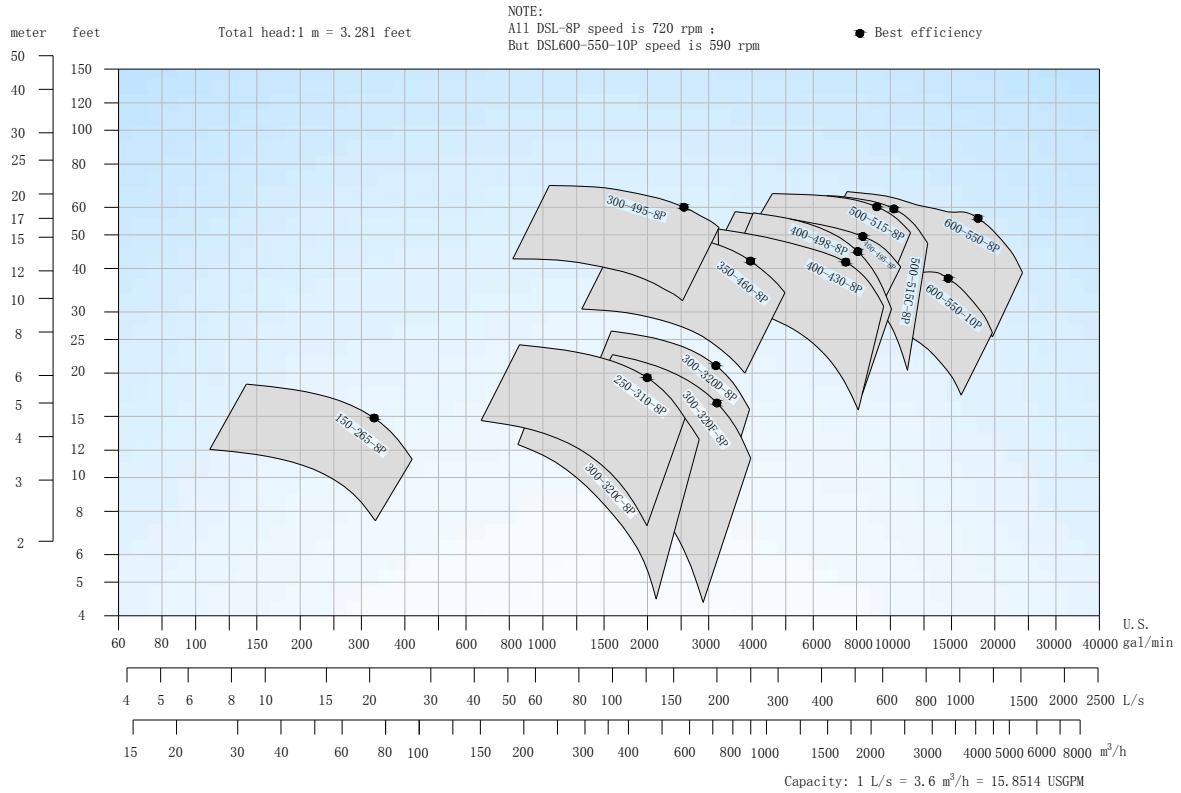


## NSL Centrifugal Pump, 2950 rpm, 50 HZ

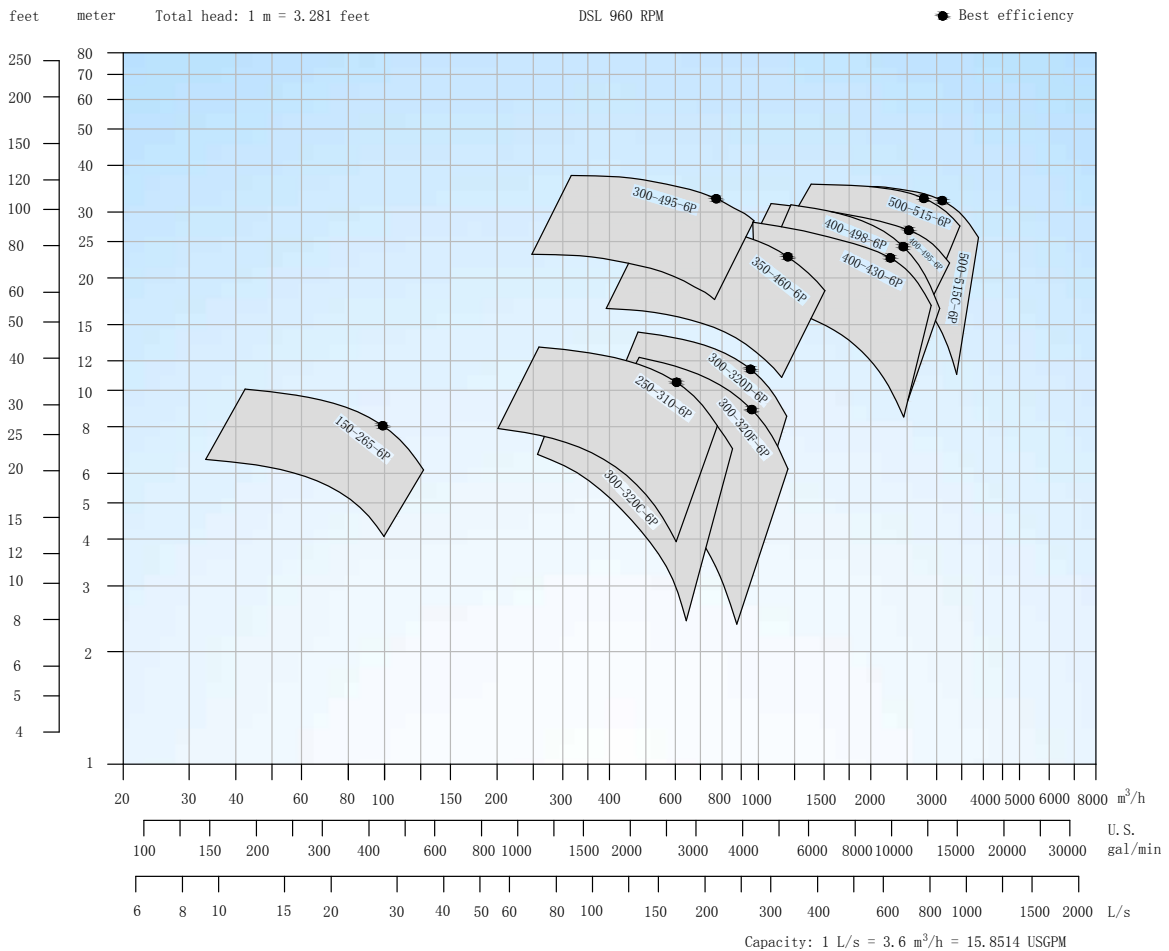




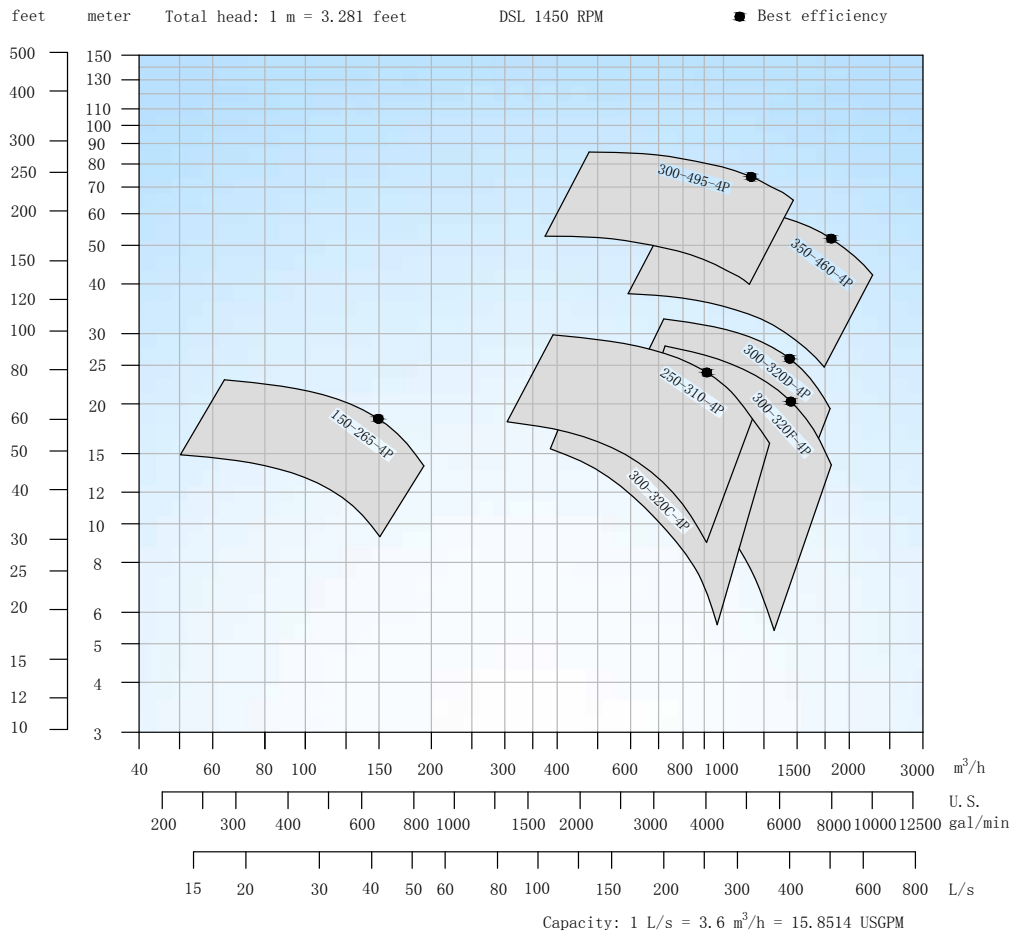
DSL Centrifugal Pump, 720 rpm, **50 HZ**



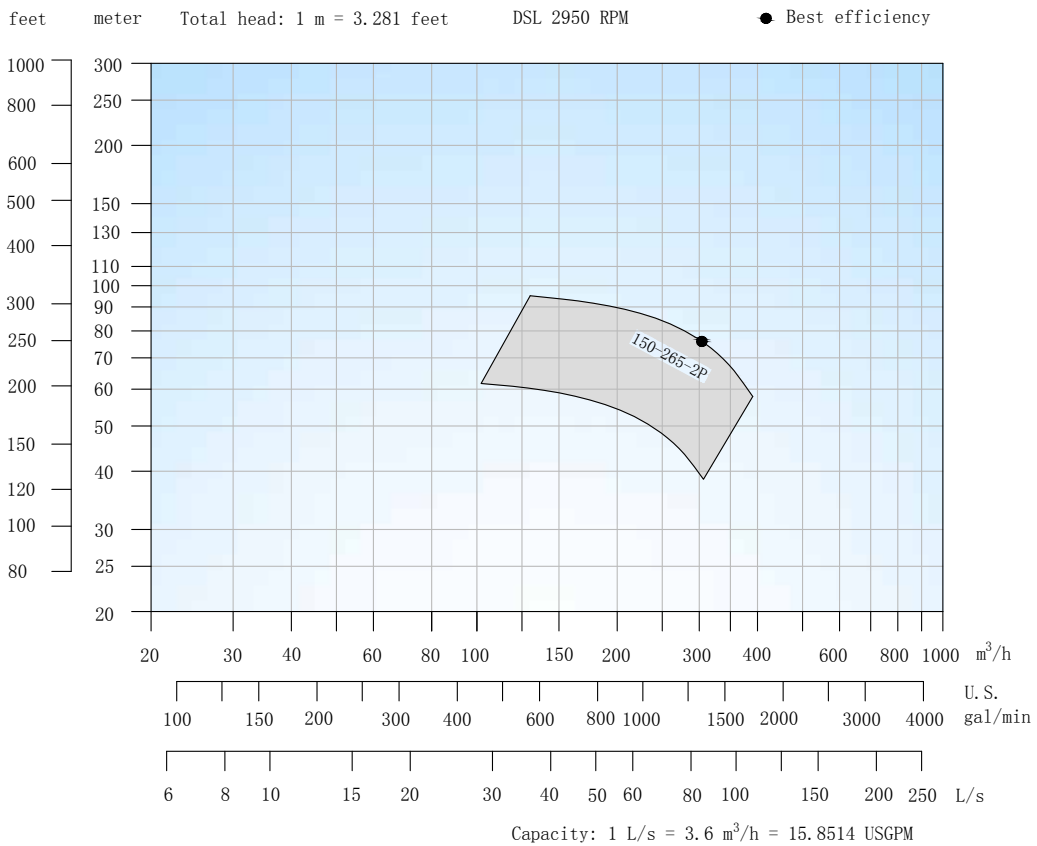
DSL Centrifugal Pump, 960 rpm, **50 HZ**



## DSL Centrifugal Pump, 1450 rpm, 50 HZ



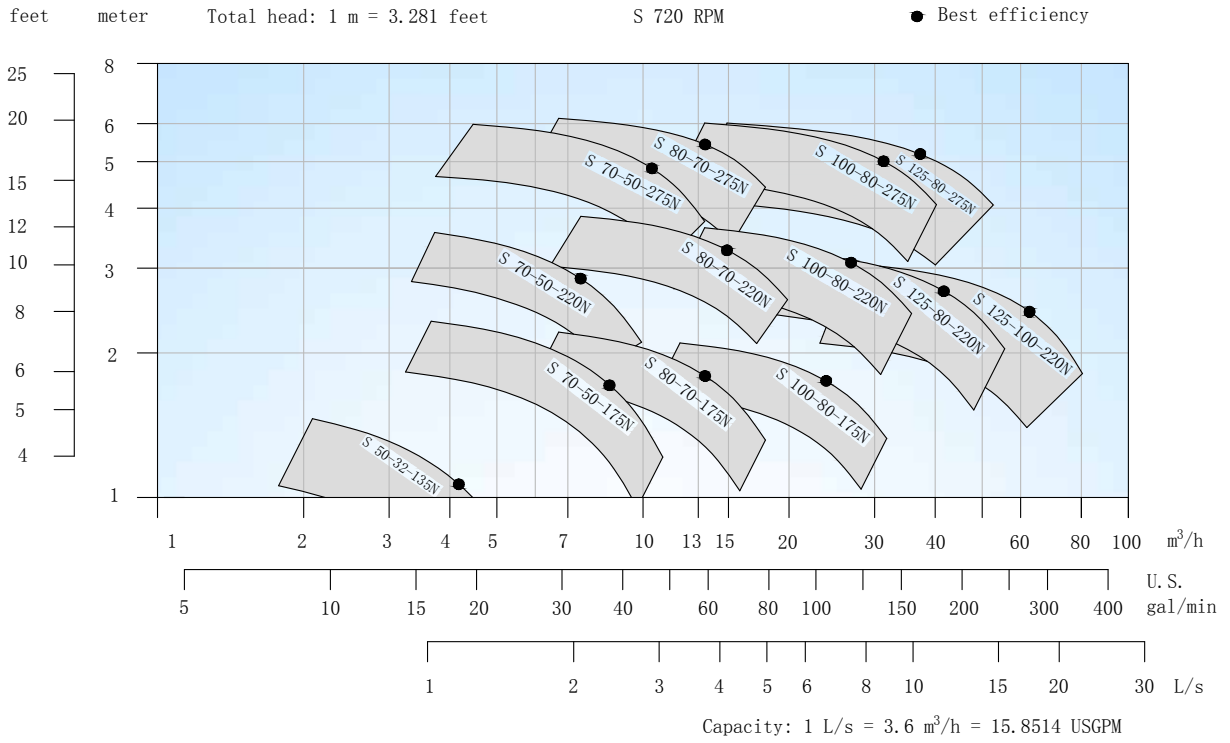
## DSL Centrifugal Pump, 2950 rpm, 50 HZ



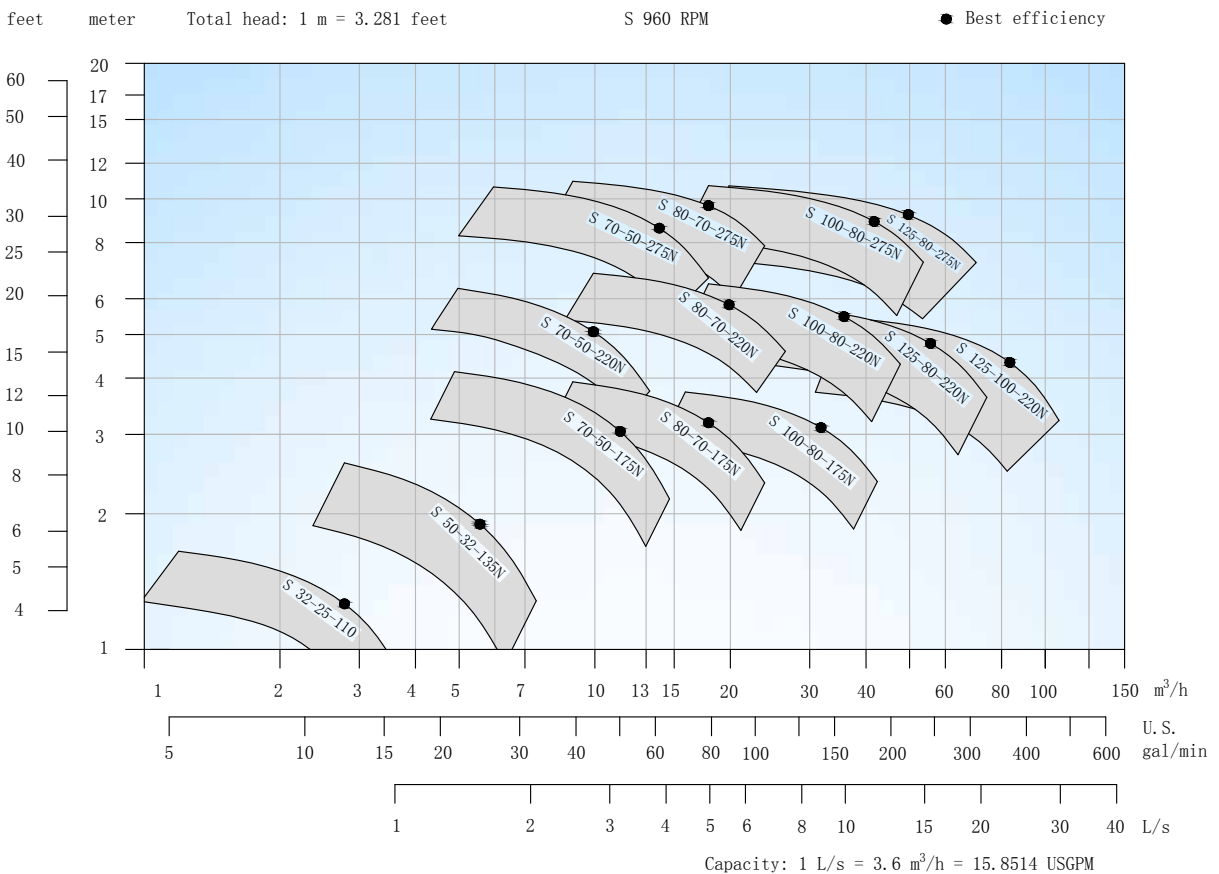
# DESMI Centrifugal Pumps - Modular S



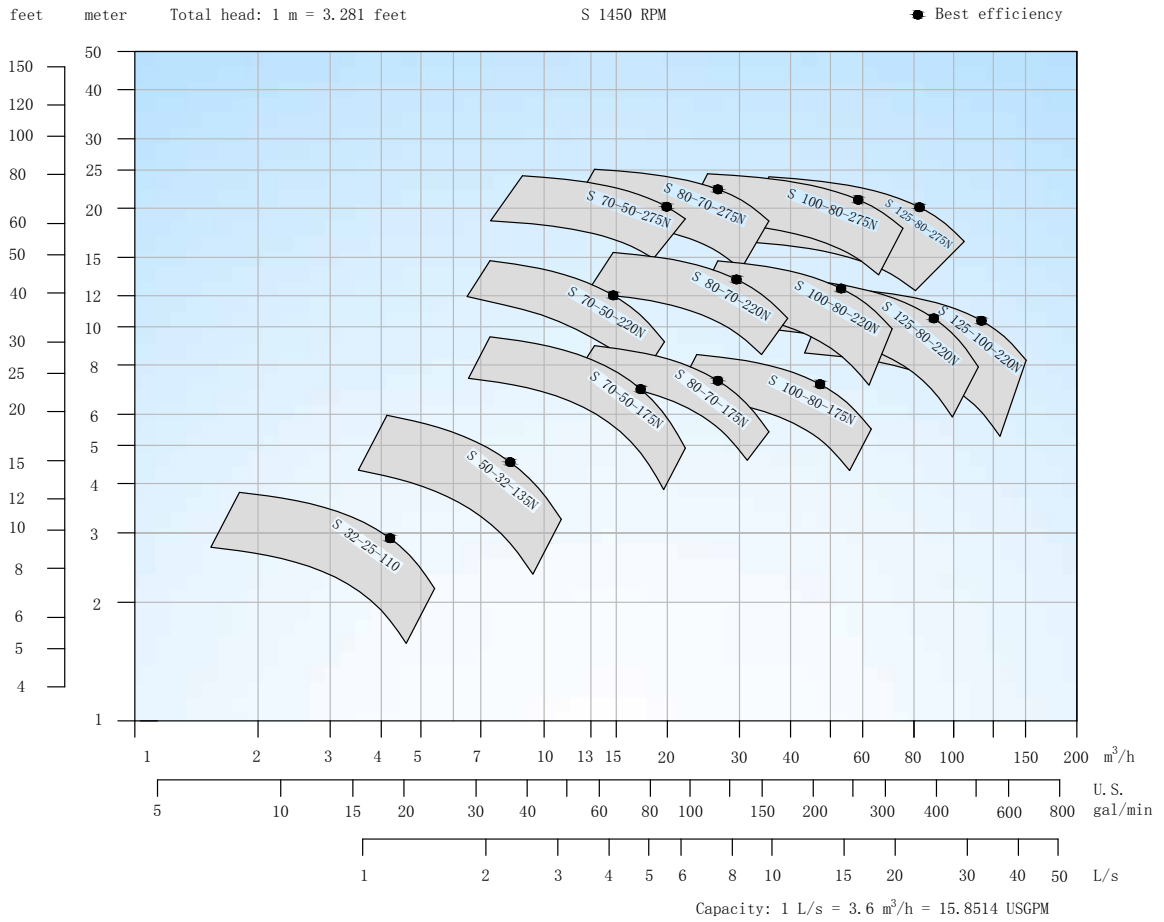
S Centrifugal Pump, 720 rpm, **50 HZ**



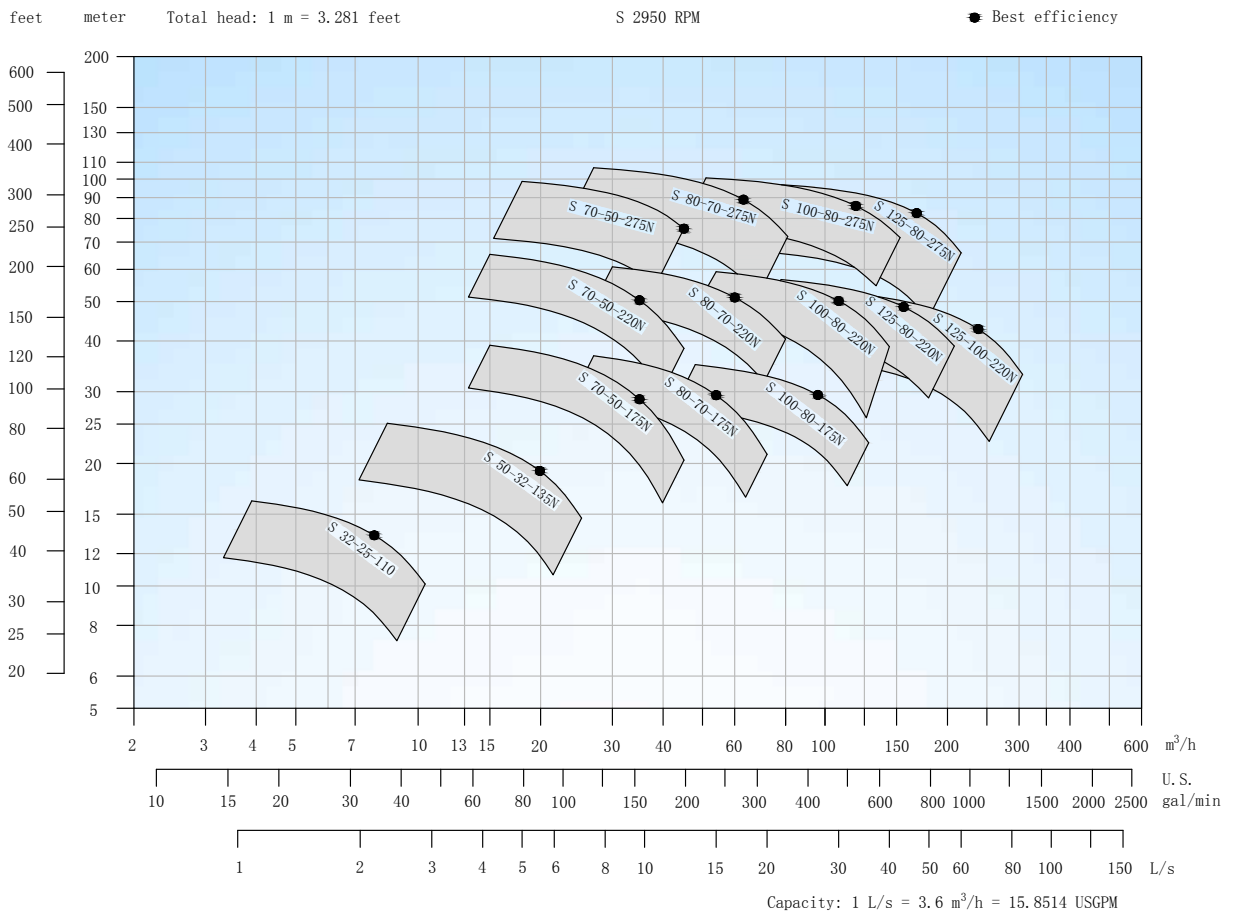
S Centrifugal Pump, 960 rpm, **50 HZ**



## S Centrifugal Pump, 1450 rpm, 50 Hz

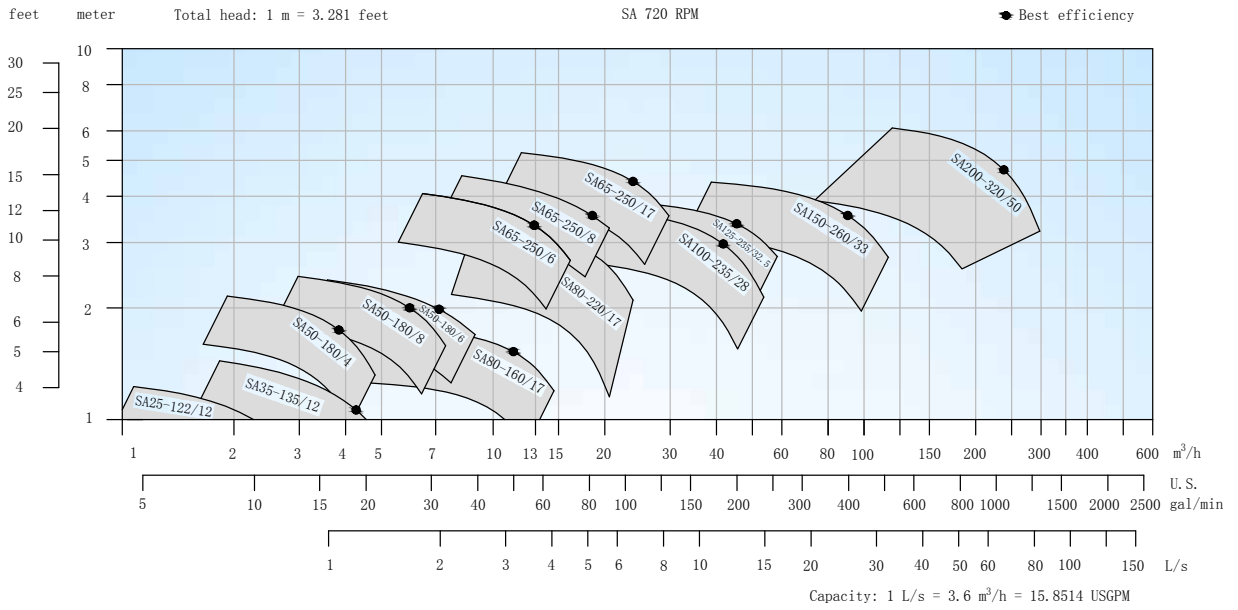


## S Centrifugal Pump, 2950 rpm, 50 Hz

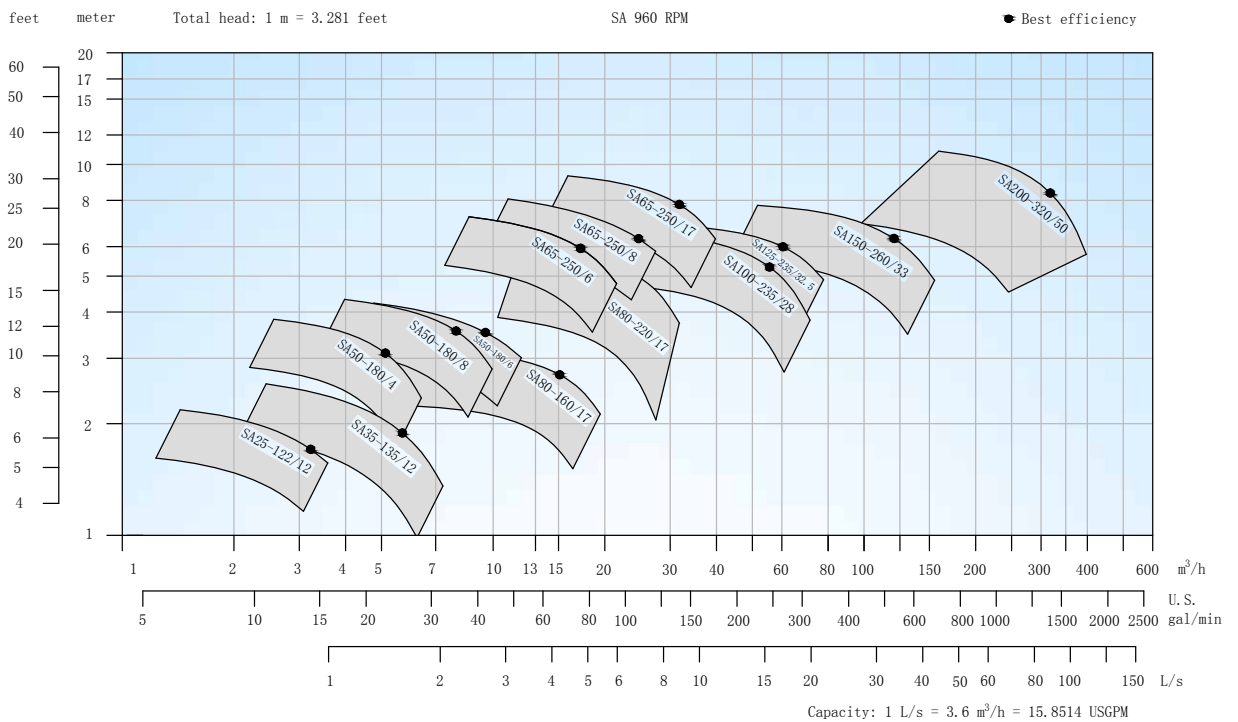




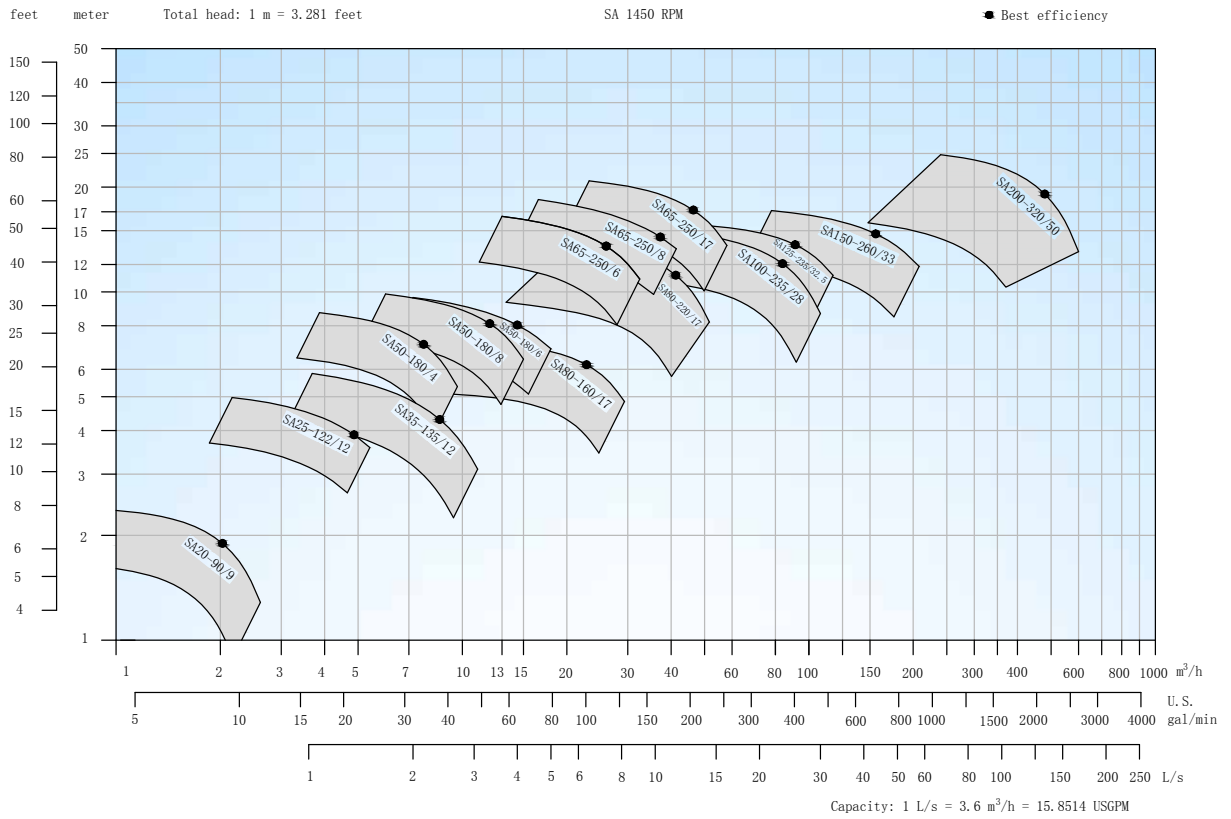
## SA Centrifugal Pump, 720 rpm, 50 HZ



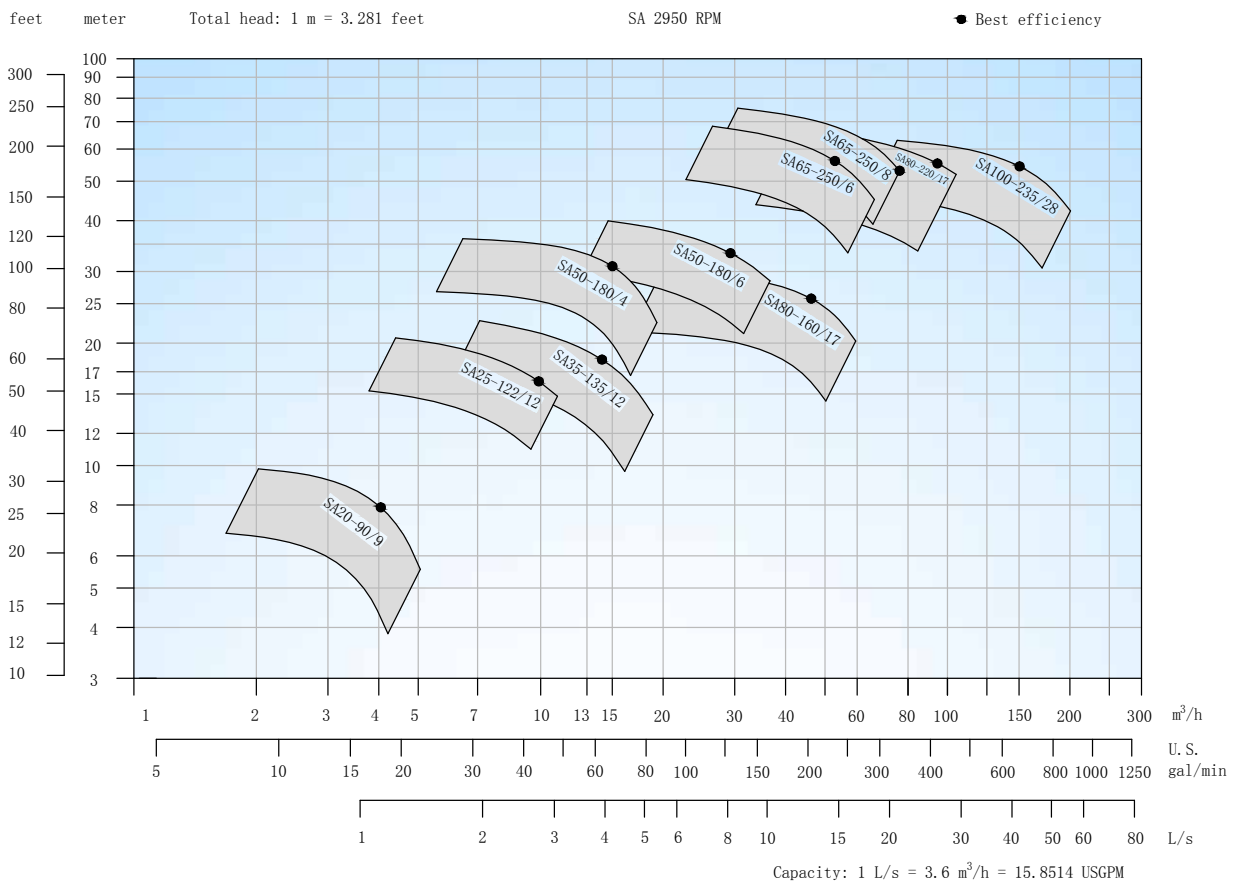
## SA Centrifugal Pump, 960 rpm, 50 HZ



## SA Centrifugal Pump, 1450 rpm, 50 Hz

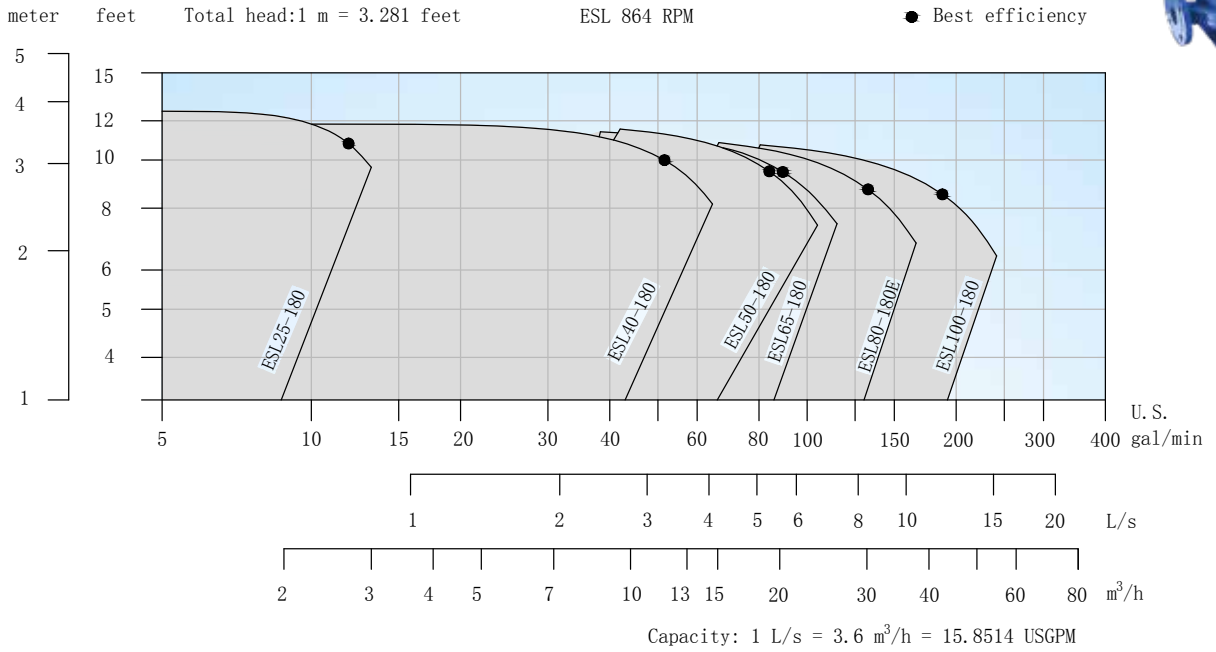


## SA Centrifugal Pump, 2950 rpm, 50 Hz

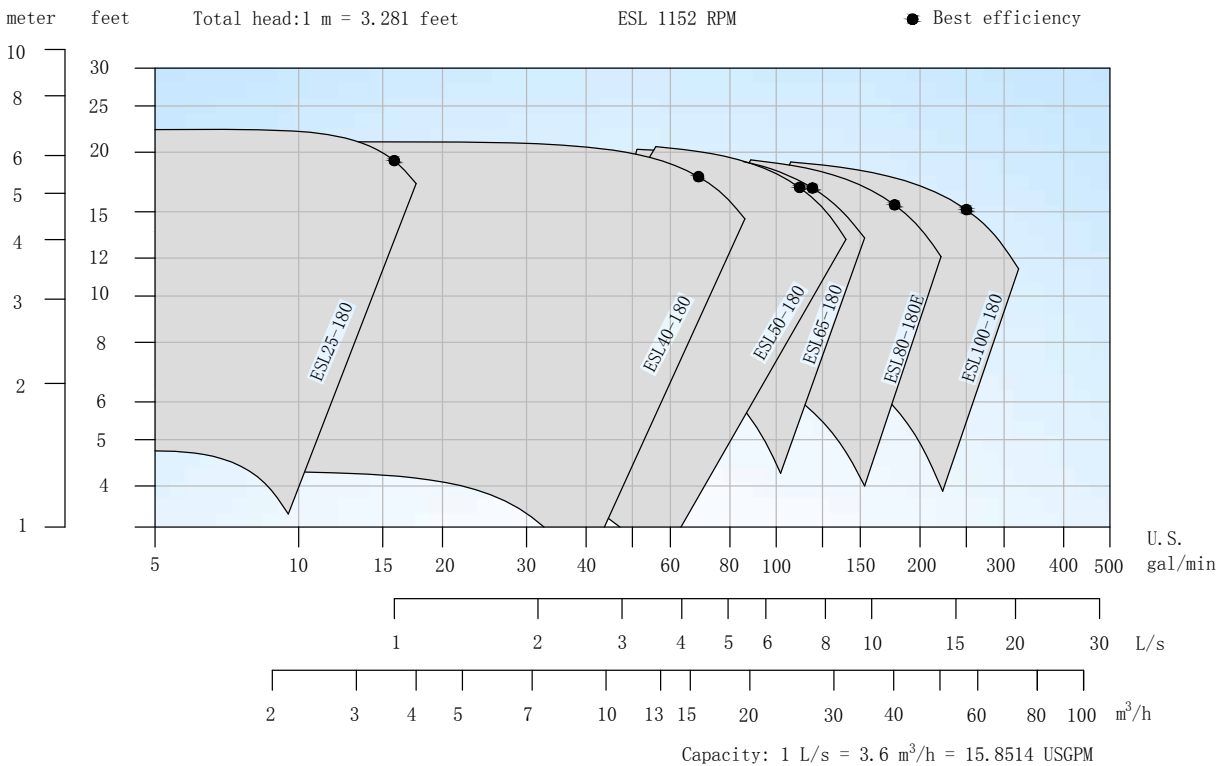




ESL Centrifugal Pump, 864 rpm, **60 HZ**

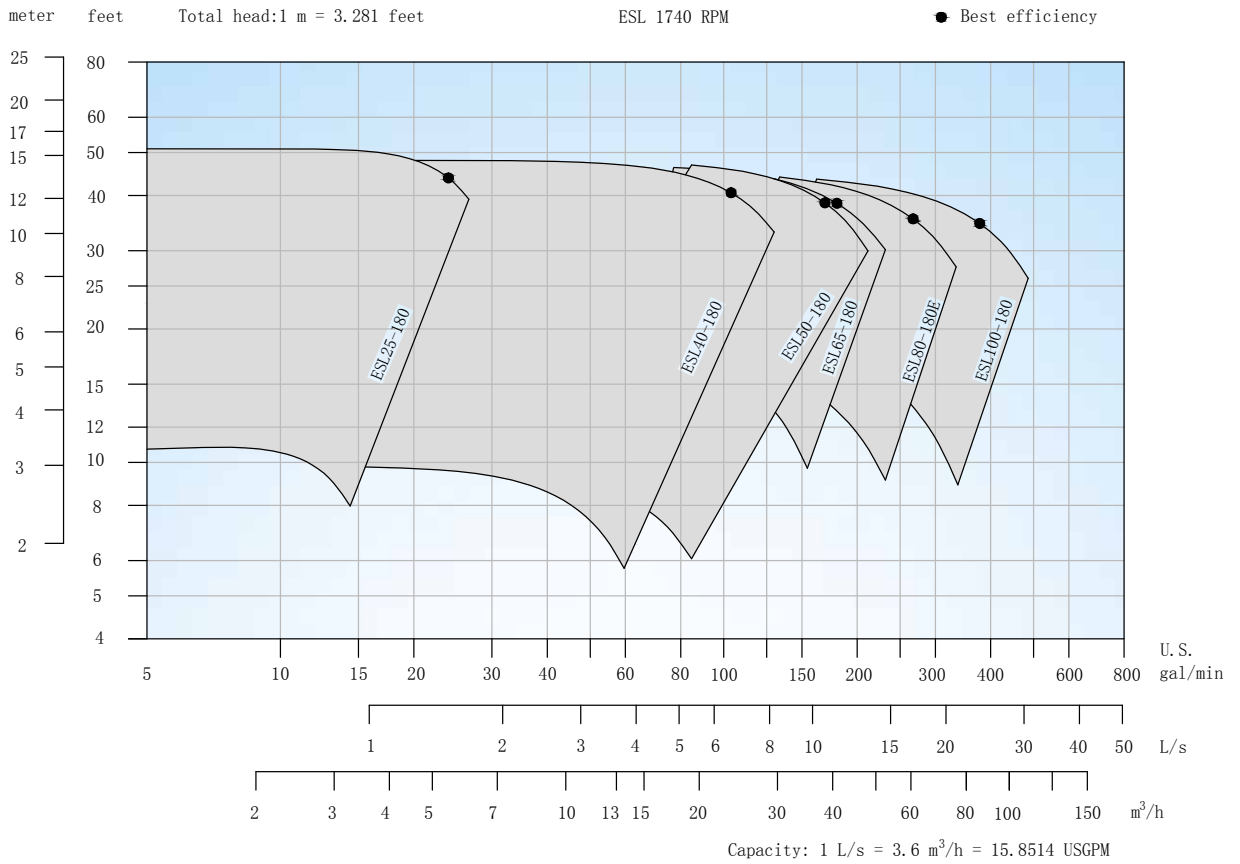


ESL Centrifugal Pump, 1152 rpm, **60 HZ**

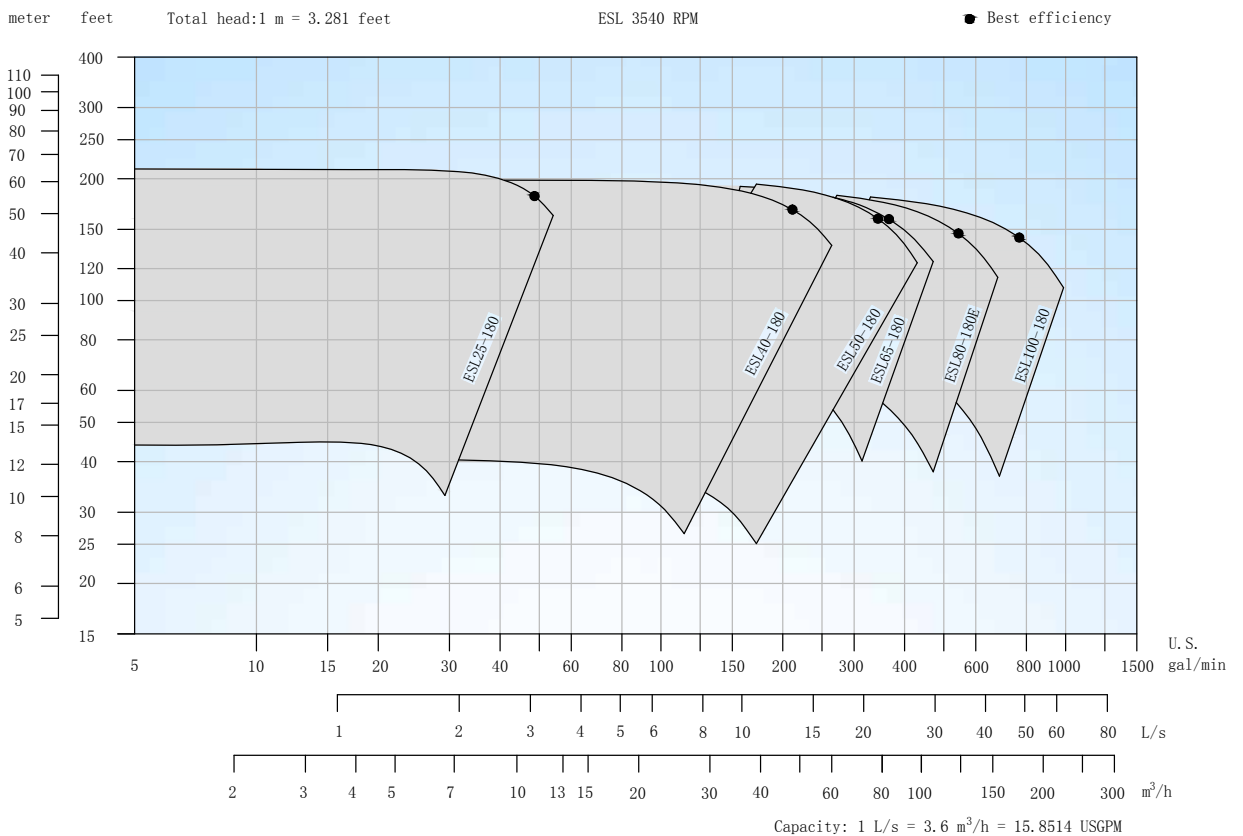




## ESL Centrifugal Pump, 1740 rpm, 60 HZ

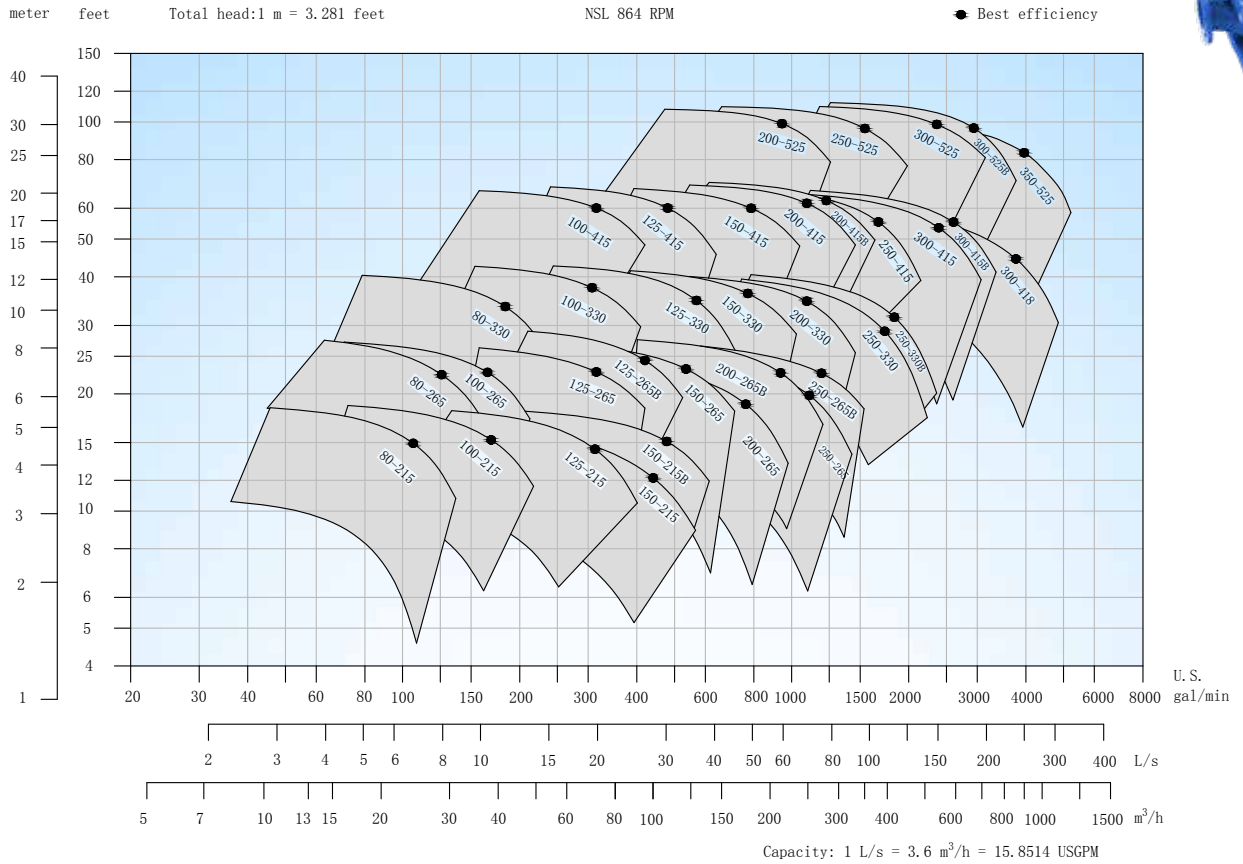


## ESL Centrifugal Pump, 3450 rpm, 60 HZ

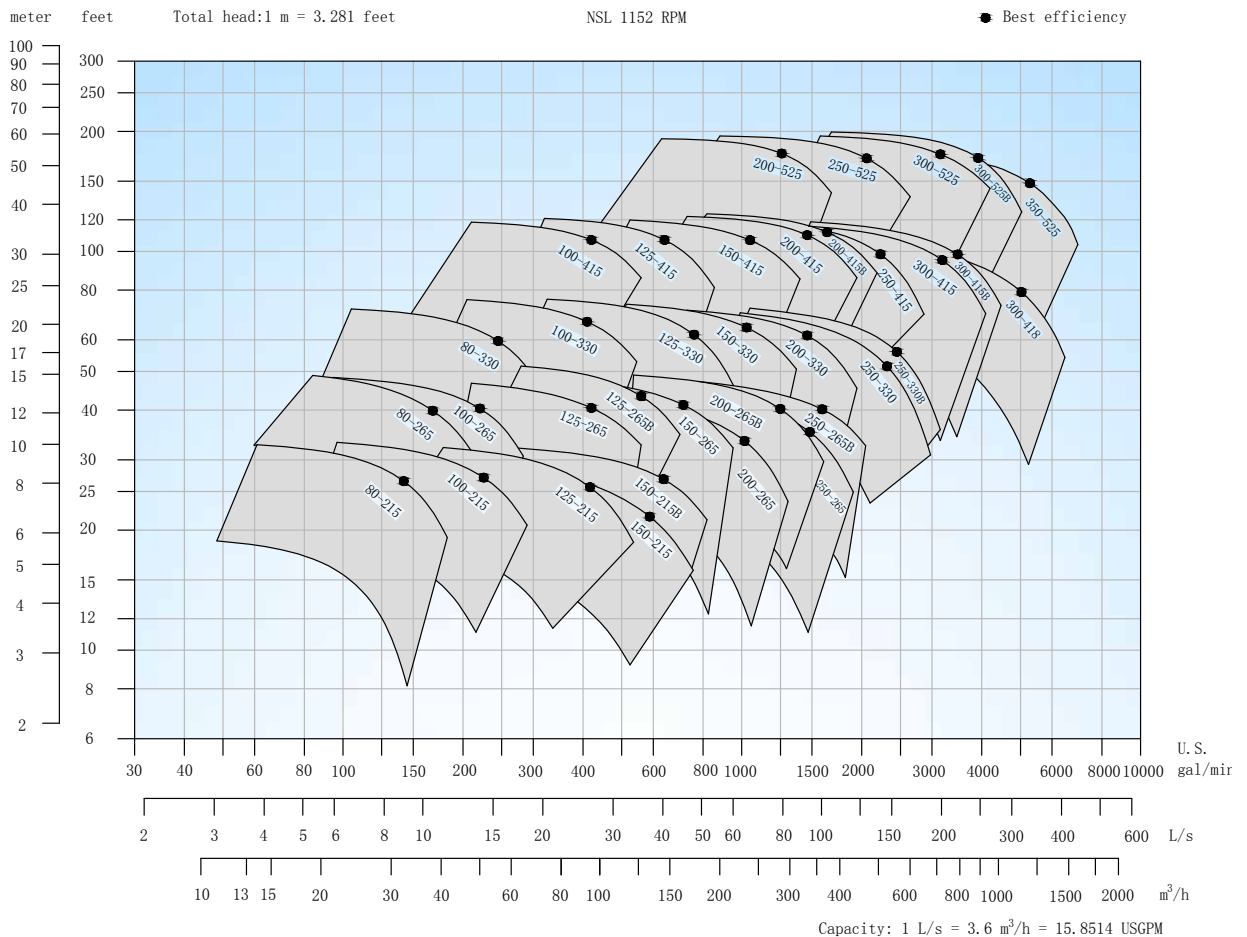




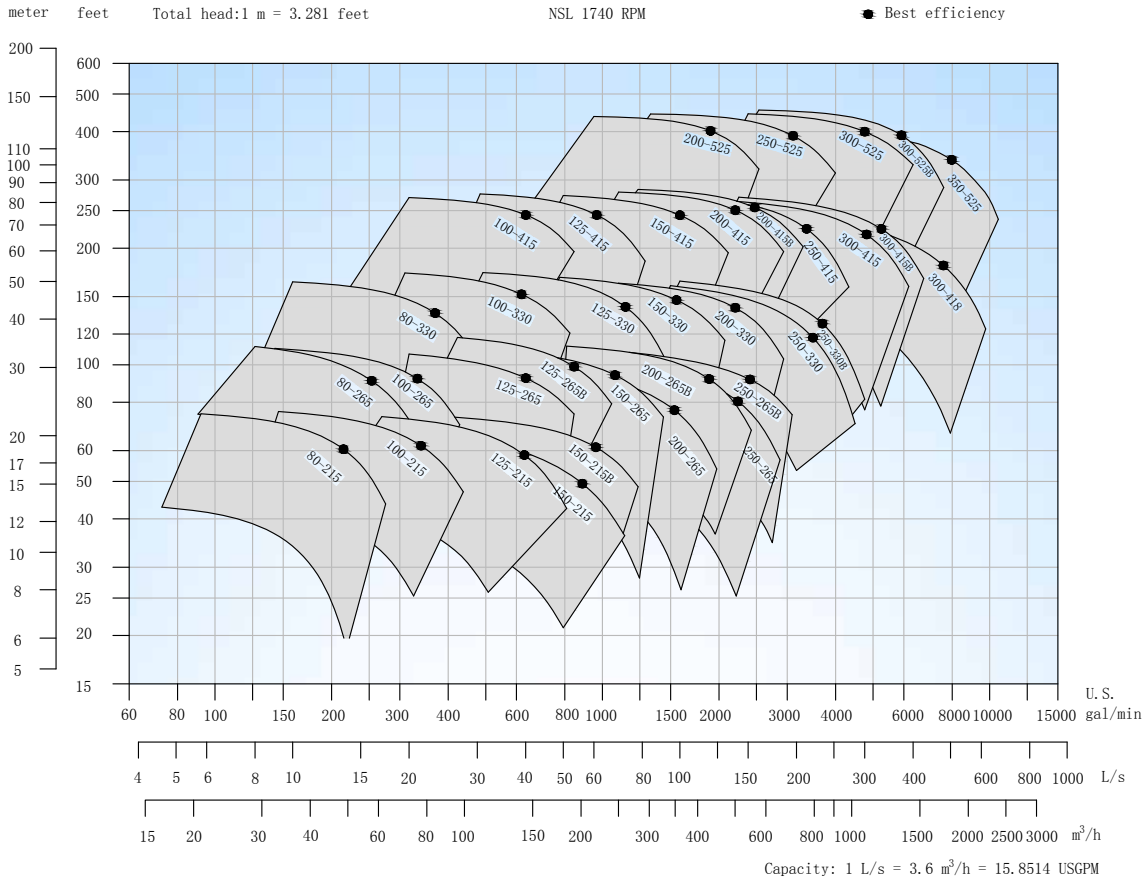
NSL Centrifugal Pump, 864 rpm, **60 HZ**



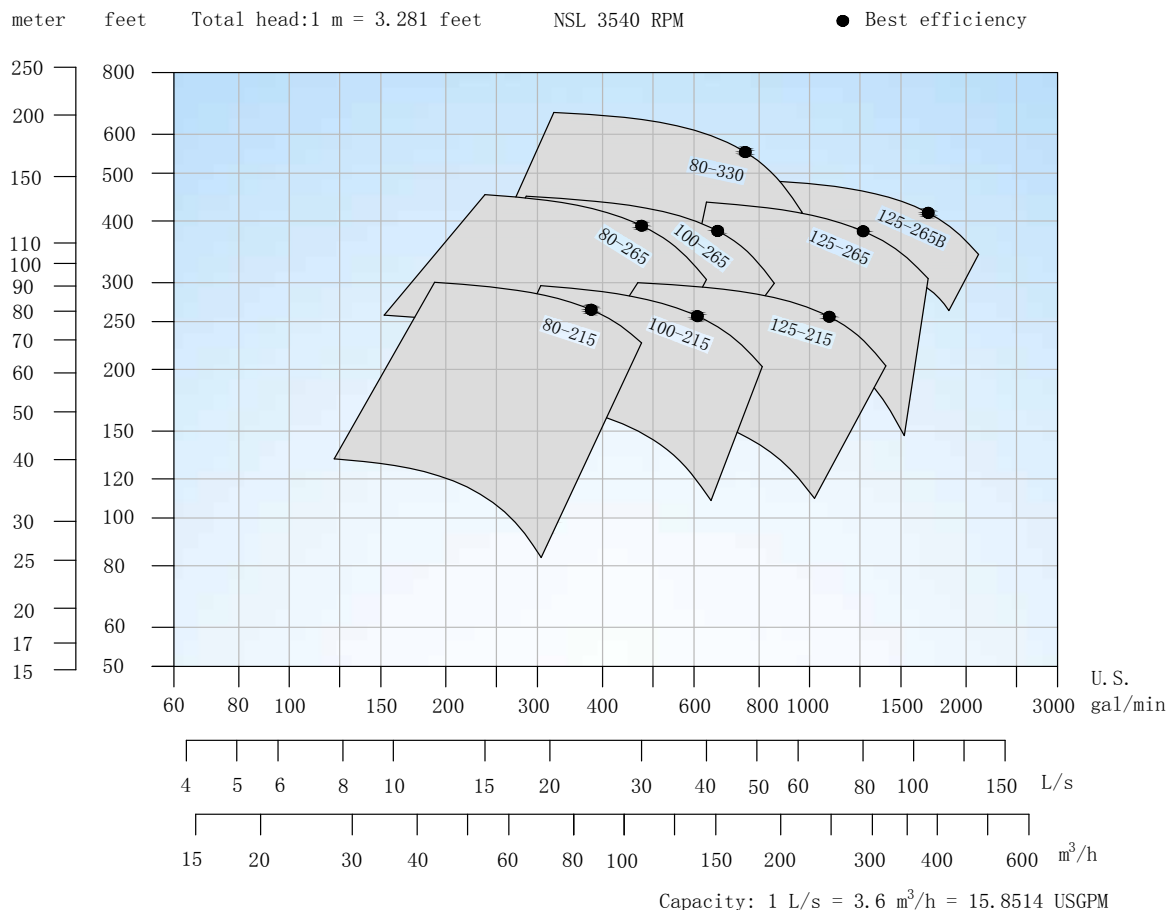
NSL Centrifugal Pump, 1152 rpm, **60 HZ**



## NSL Centrifugal Pump, 1740 rpm, 60 HZ



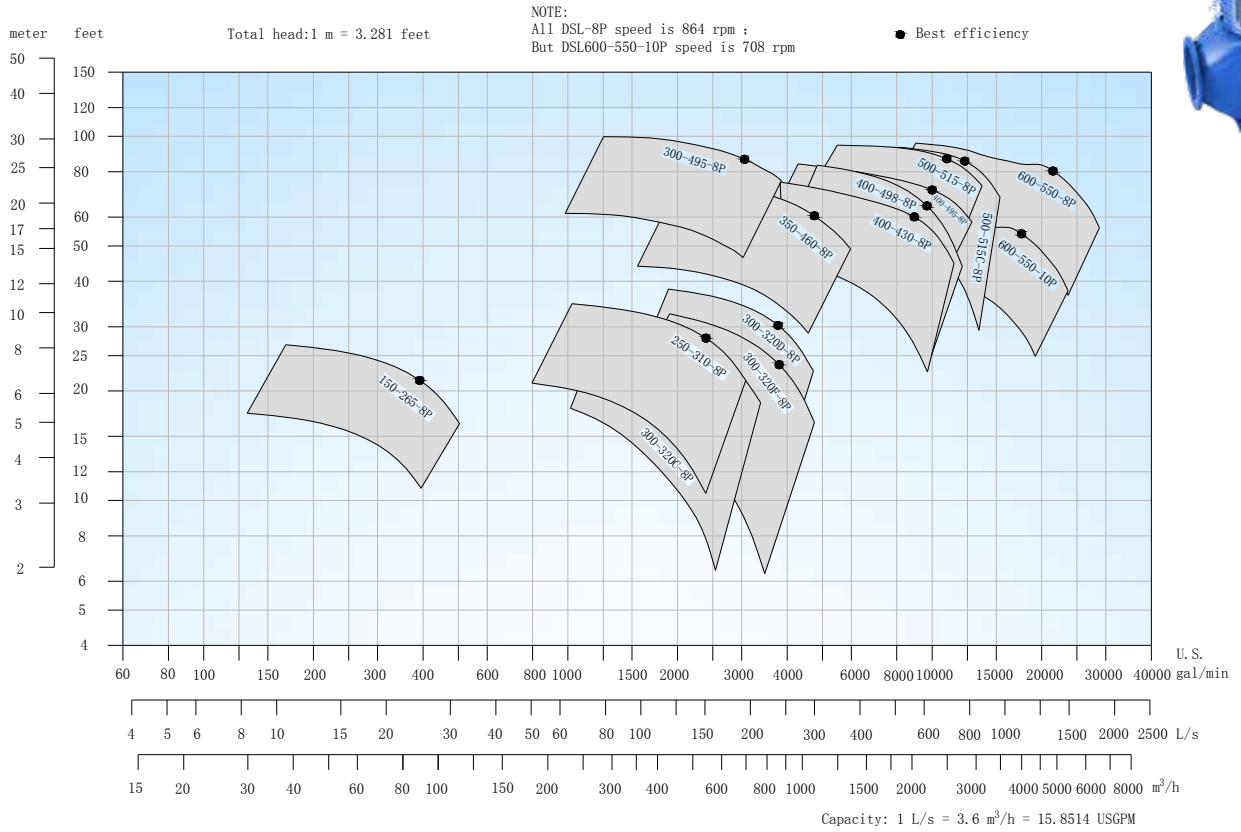
## NSL Centrifugal Pump, 3450 rpm, 60 HZ



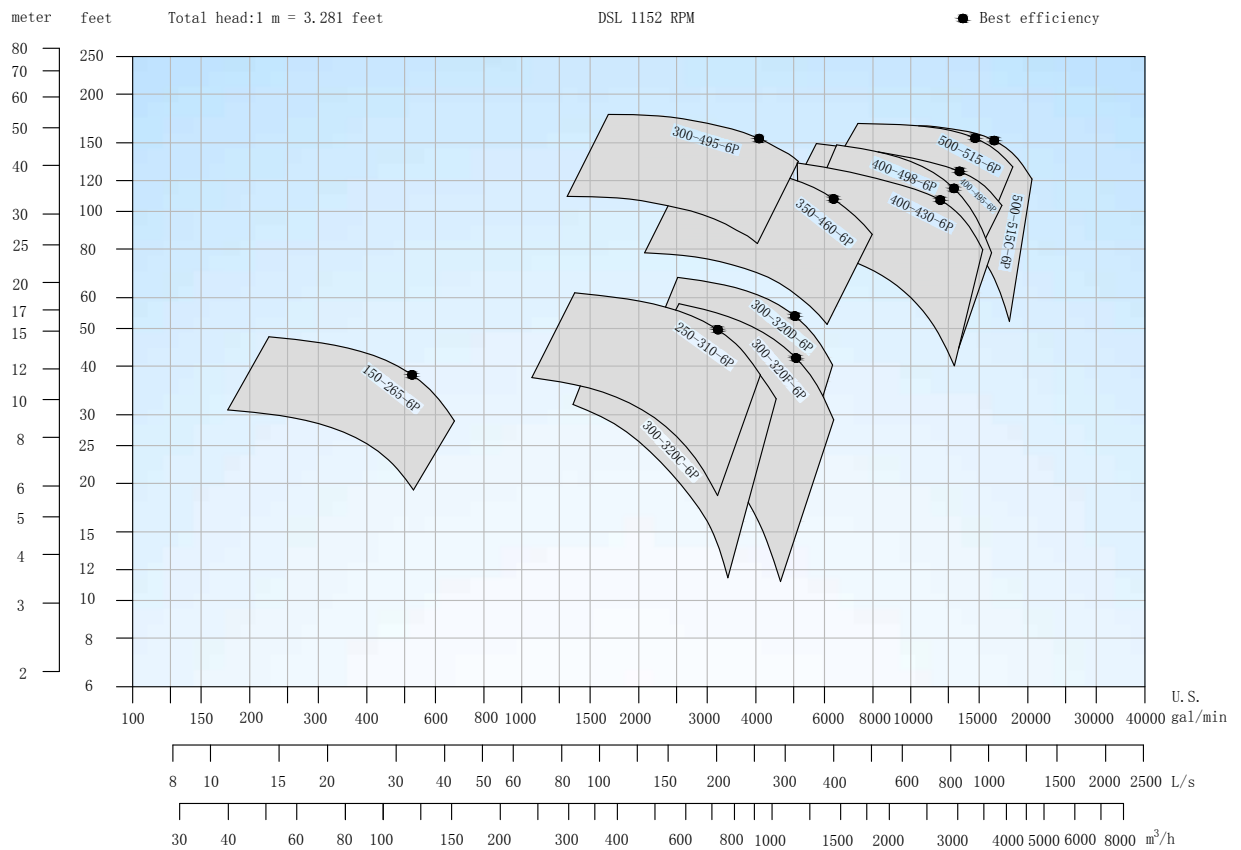
# DESMI Centrifugal Pumps - DSL



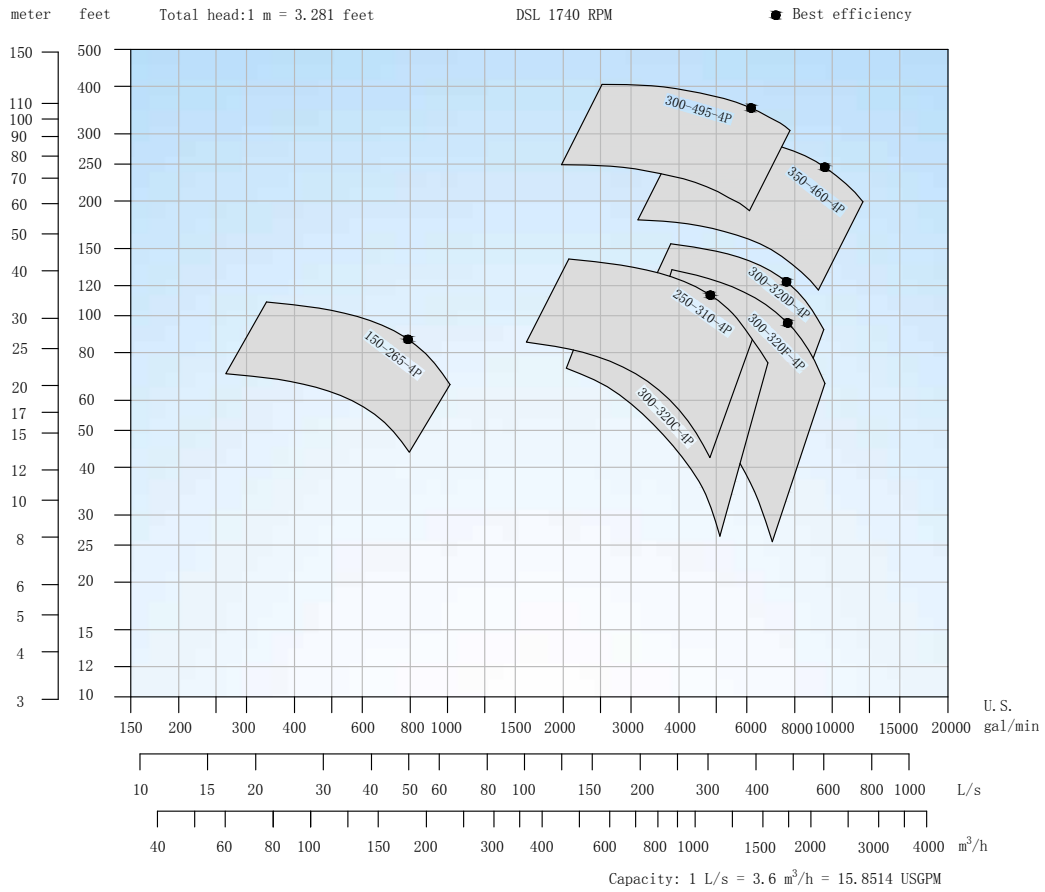
## DSL Centrifugal Pump, 864 rpm, 60 HZ



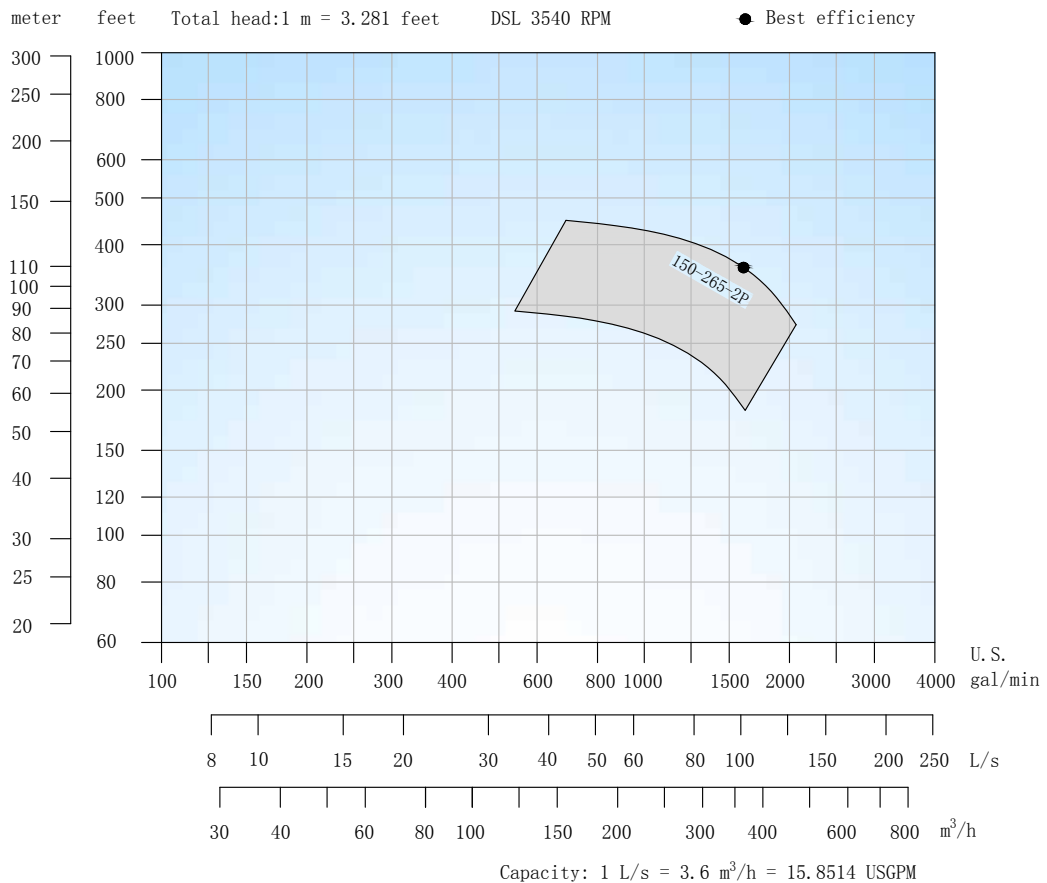
## DSL Centrifugal Pump, 1152 rpm, 60 HZ



## DSL Centrifugal Pump, 1740 rpm, 60 HZ



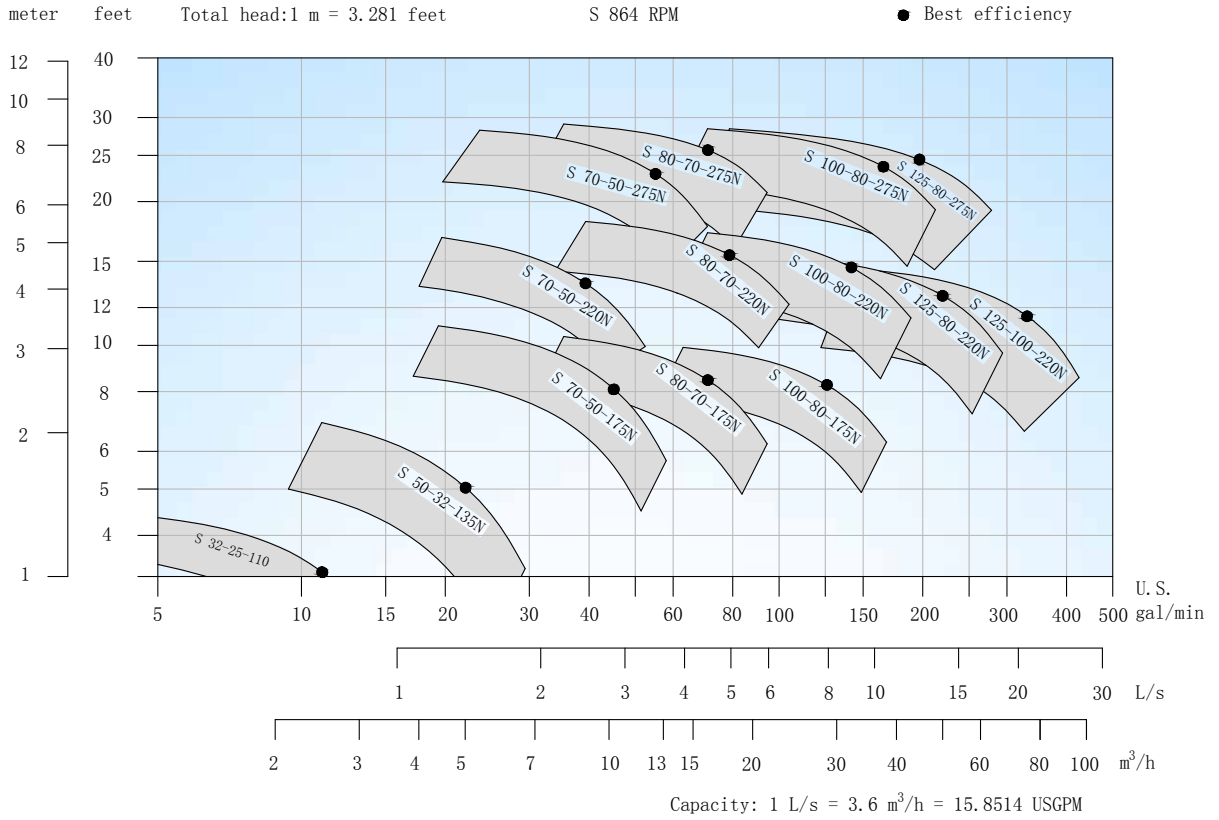
## DSL Centrifugal Pump, 3450 rpm, 60 HZ



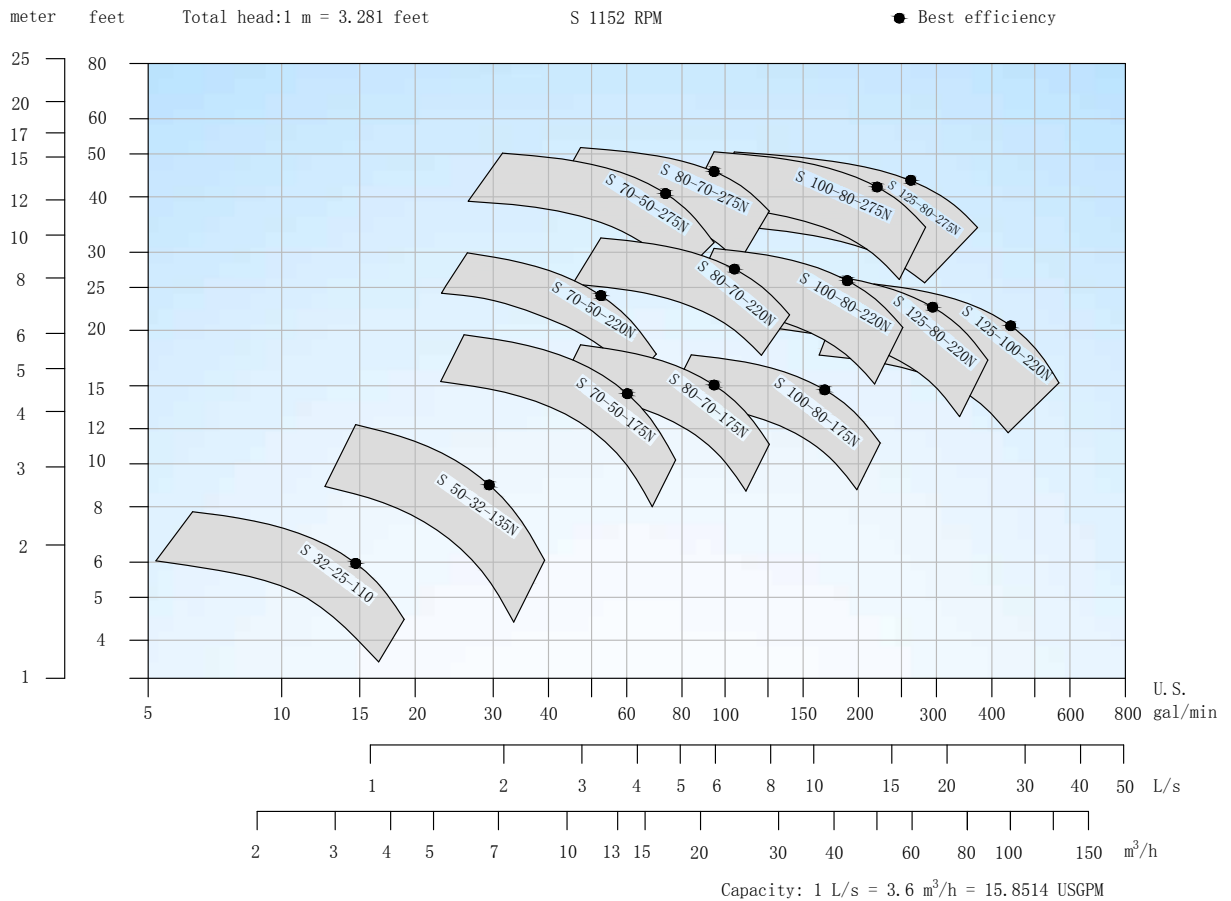
# DESMI Centrifugal Pumps - Modular S



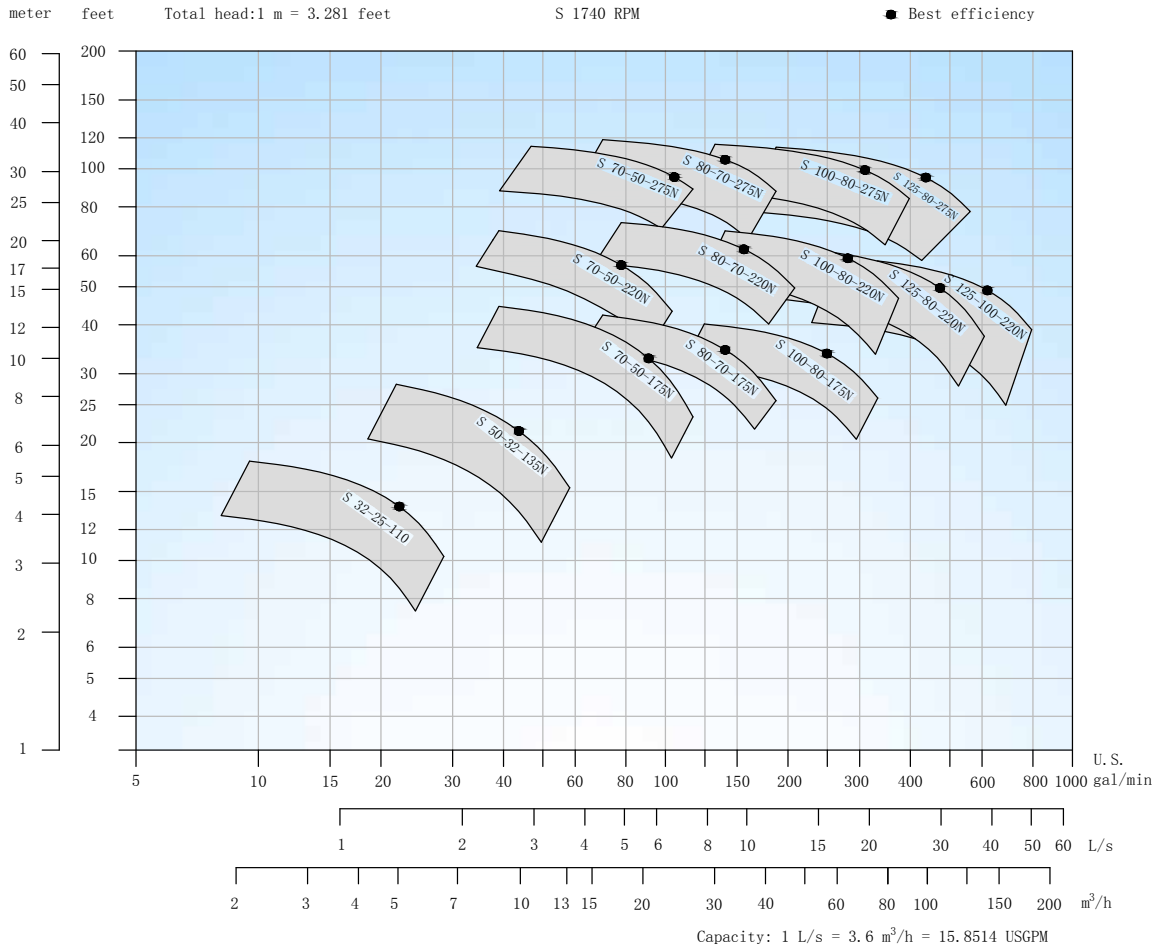
S Centrifugal Pump, 864 rpm, **60 HZ**



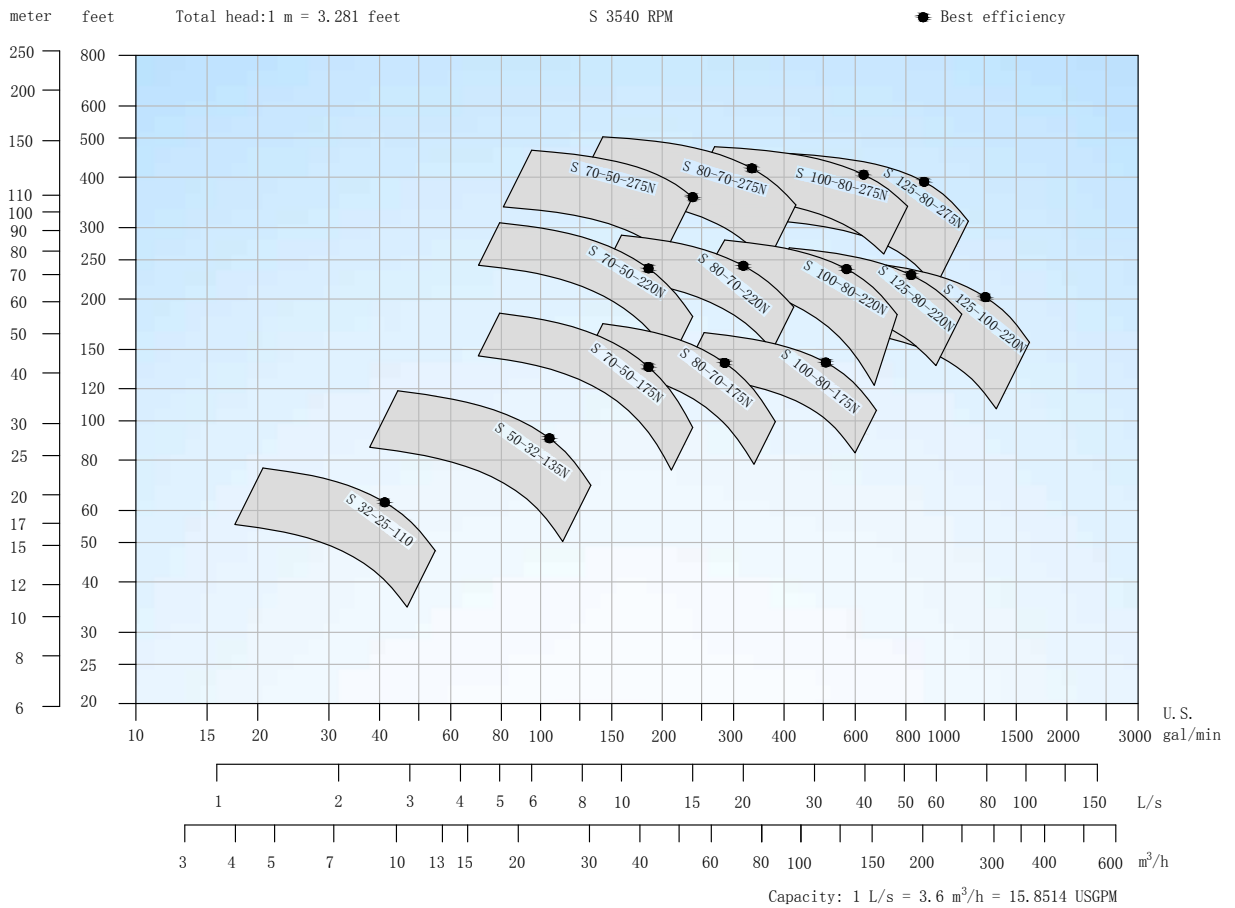
S Centrifugal Pump, 1152 rpm, **60 HZ**



## S Centrifugal Pump, 1740 rpm, 60 Hz

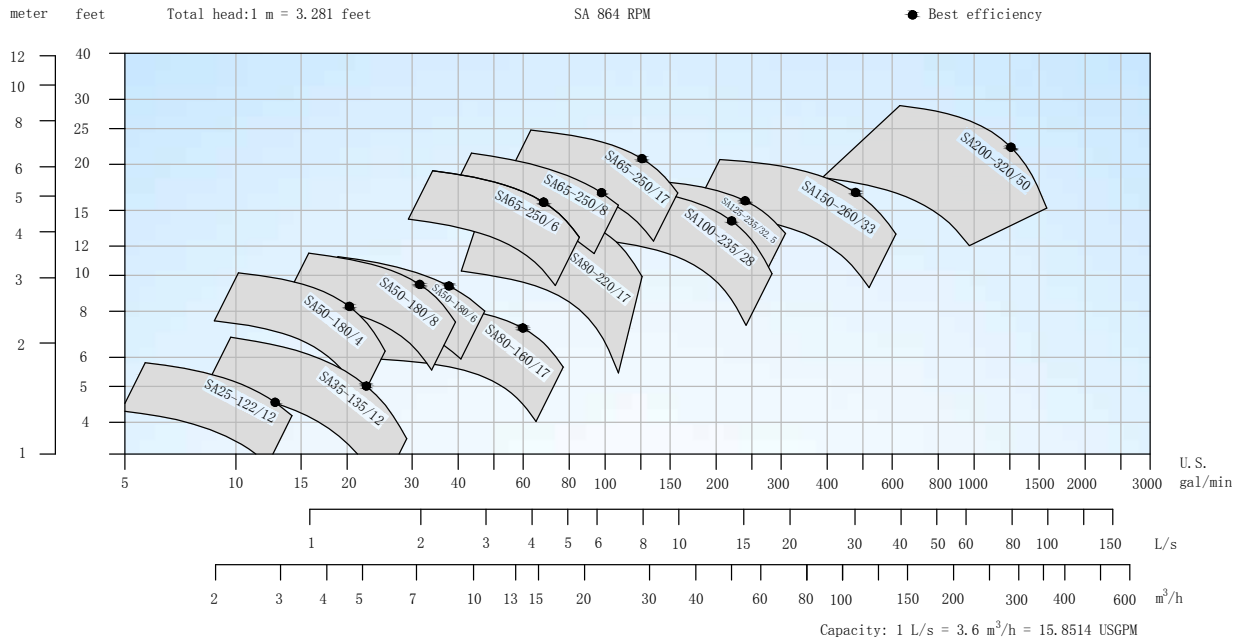


## S Centrifugal Pump, 3450 rpm, 60 Hz

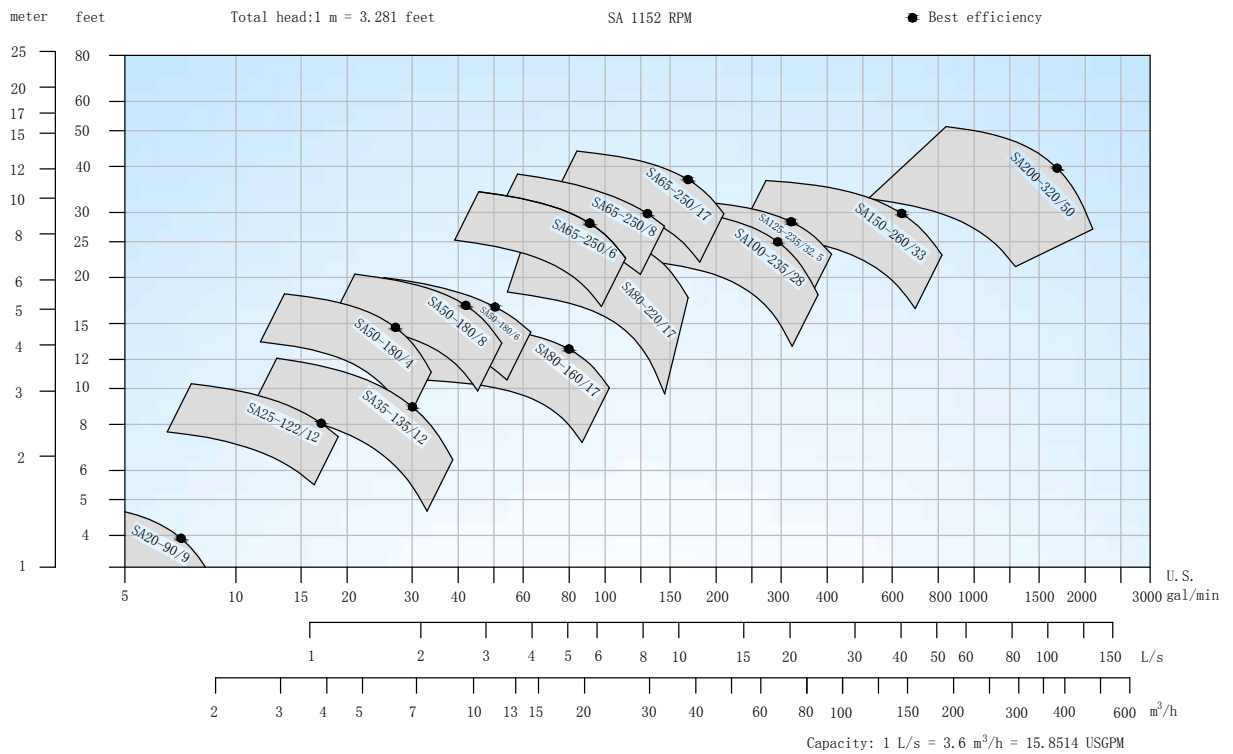




## SA Centrifugal Pump, 864 rpm, 60 HZ

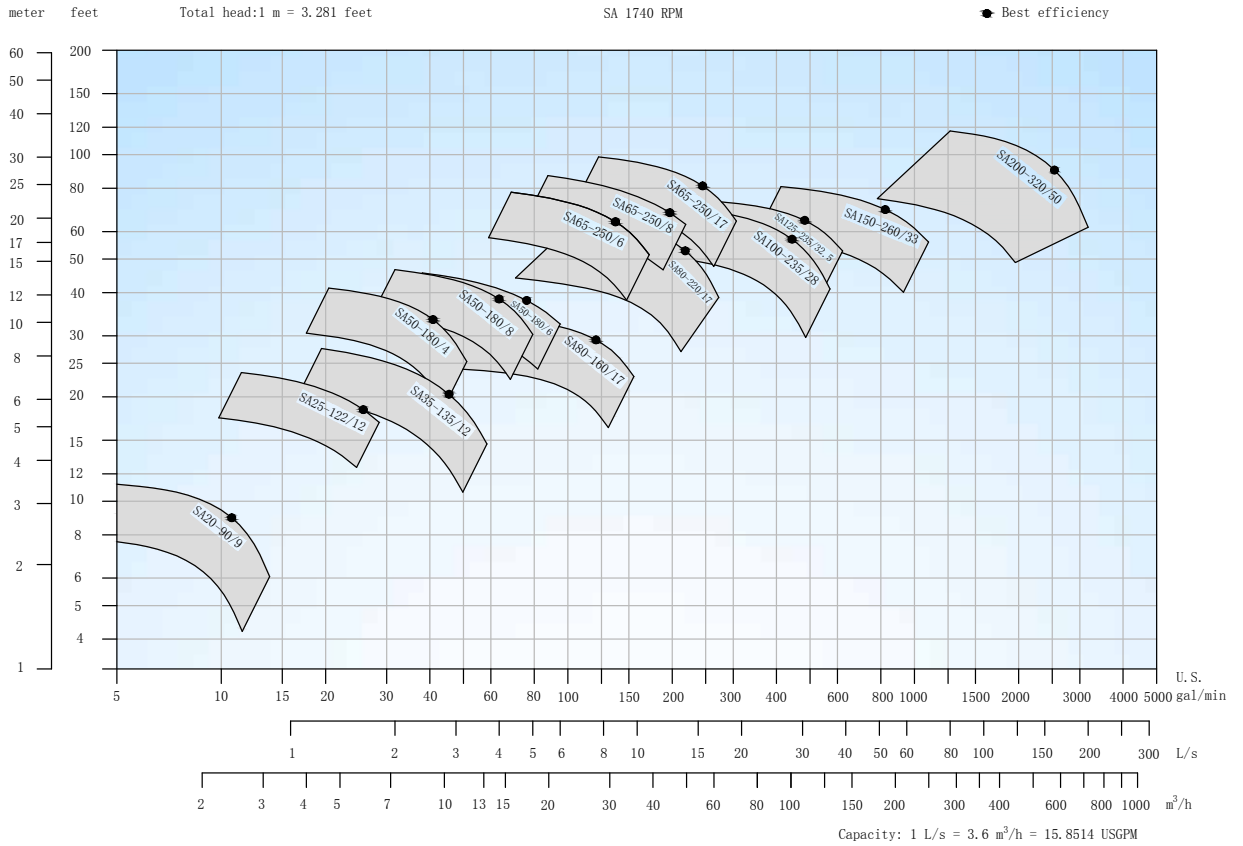


## SA Centrifugal Pump, 1152 rpm, 60 HZ

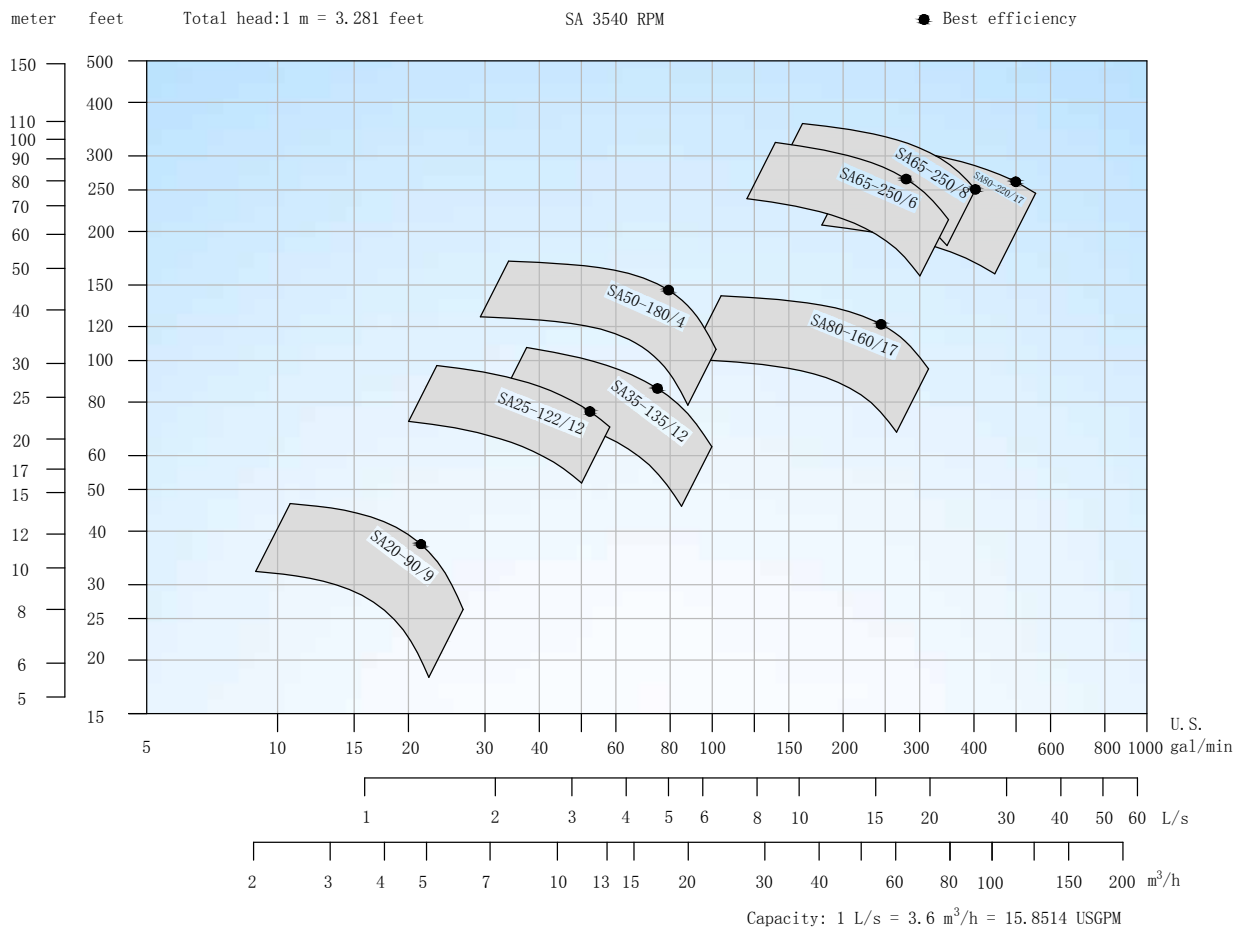




## SA Centrifugal Pump, 1740 rpm, 60 Hz



## SA Centrifugal Pump, 3450 rpm, 60 Hz



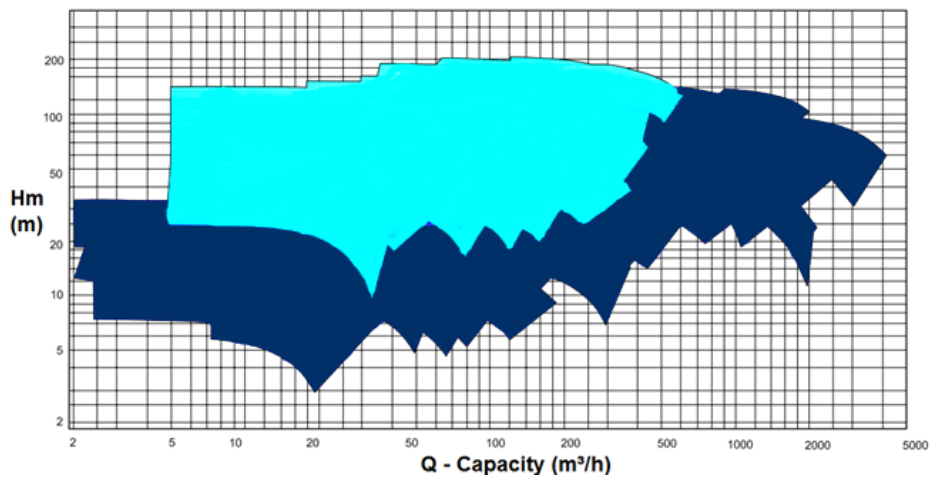
# DESMI Centrifugal Pumps

## End-suction, ISO

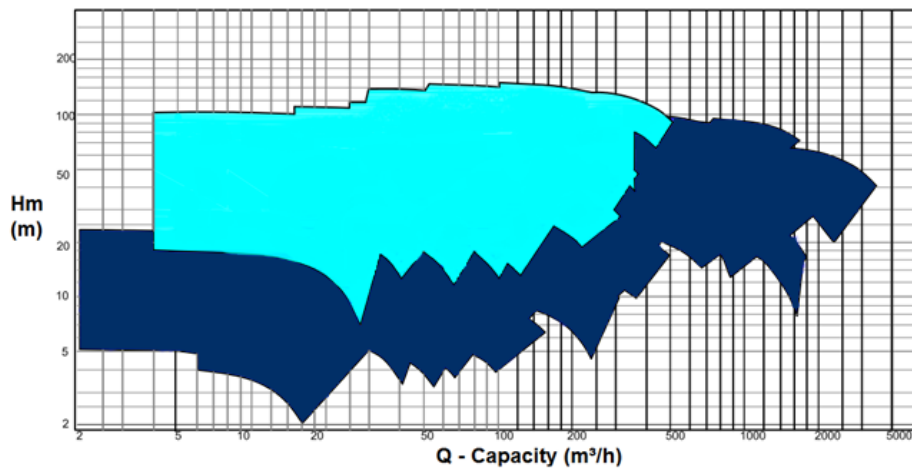
| NME Series<br>Centrifugal pump |  |
|--------------------------------|--|
| Capacity range                 | 5 - 3500 m <sup>3</sup> /h   |
| Maximum head                   | 210 mWc  |
| Approval                       | ISO 2858   |
| Standard                       | DIN 2858   |
| Suction flange                 | DN 50 to DN 400  |
| Discharge flange               | DN 32 to DN 350  |
| Operating pressure             | 16 bar   |
| Casing test pressure           | 20 bar   |
| Impeller diameter (Max.)       | Ø 500 mm   |
| Speed range                    | 1000 to 3600 d/dak   |
| Flow range                     | 5 to 3500 m <sup>3</sup> /h  |
| Pump flanges                   | DIN Norm PN 16/25 ANSI B16.5<br>Class 250/300<br>Suction and discharge flanges |



**NME 60 Hz**



**NME 50 Hz**

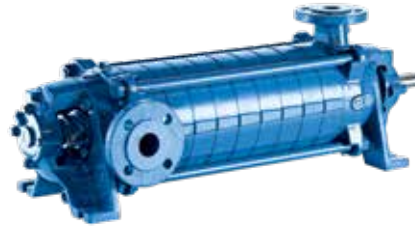




# DESMI Water and Waste Water Centrifugal Pumps



Norm Pump



Horizontal High-pressure Pump



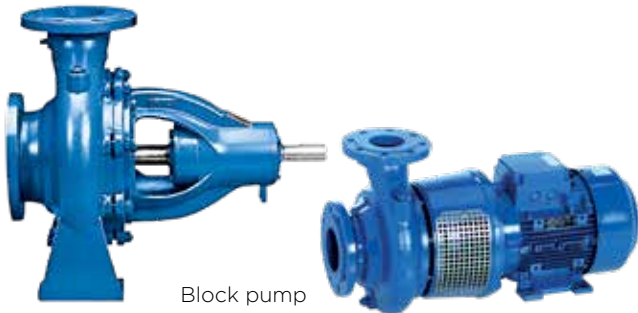
Vertical High-pressure Pump

## Single-stage Norm Pumps

| Norm pumps EN 733, ISO 2858/5199<br>Block pumps  |   |
|--|---|
| Nominal diameter (DN)  | 32 to 150                                 |
| Flow rate  | Up to 600 m <sup>3</sup> /h (2642 US gpm) |
| Head   | Up to 160 m (525 ft)                      |
| Pressure   | Up to 16 bar (232 psi)                    |
| Temperature  | Up to 140° C (284° F)                     |
| Applications: Water, pulp and paper, sugar, thermal power, other industries, small hydropower<br>Media: Clean, slightly contaminated, and aggressive liquids up to a viscosity of 150 mm <sup>2</sup> /s without abrasive and solids content |   |

## High-pressure Pumps

| HP 45/46/49<br>Horizontal High-pressure Pump<br>Vertical High-pressure Pump   |   |
|---|---|
| Nominal diameter (DN)   | 25 to 250                                 |
| Flow rate   | Up to 800 m <sup>3</sup> /h (3522 US gpm) |
| Head  | Up to 1000 m (2625 ft)                    |
| Pressure  | Up to 100 bar (1450 psi)                  |
| Temperature   | Up to 160° C (320° F)                     |
| Applications: Water, pulp and paper, sugar, thermal power, other industries, small hydropower.<br>Media: Clean and slightly contaminated liquids up to a viscosity of 150 mm <sup>2</sup> /s without abrasive and solids content. |   |



Block pump



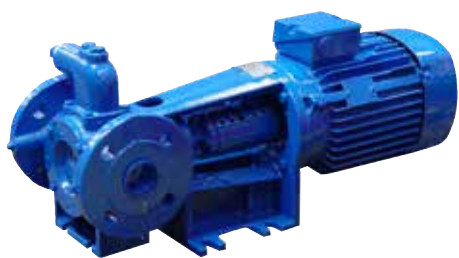
Split-case Pump

## Single-stage Block Pumps

| From closed to open impellers<br>Block pump, closed and open impeller   |  |
|---|--|
| Nominal diameter (DN)   | 65 to 600                                    |
| Flow rate   | Up to 6,000 m <sup>3</sup> /h (26417 US gpm) |
| Head  | Up to 160 m (525 ft)                         |
| Pressure  | Up to 25 bar (363 psi)                       |
| Temperature   | Up to 200° C (392° F)                        |
| Applications: Water, pulp and paper, mining, sugar, thermal power, other industries, small hydropower.<br>Media: Depending on the impeller design: water, slightly contaminated, and contaminated media with some solids content; consistencies up to 8%. |  |

## Double-flow Axial

| Horizontal split-case   |  |
|---|--|
| Nominal diameter (DN)   | 150 to 1200  |
| Flow rate   | Up to 20,000 m <sup>3</sup> /h(88057 US gpm)<br>Customized up to 36,000 m <sup>3</sup> /h<br>(158502 US gpm) |
| Head  | Up to 220 m (722 ft)   |
| Pressure  | Up to 25 bar (363 psi)   |
| Temperature   | Up to 110° C (230° F)  |
| Applications: Water, pulp and paper, mining, sugar, thermal power, other industries, small hydropower.<br>Media: Depending on the impeller design: water, slightly contaminated, and contaminated media with some solids content; consistencies up to 8%. |  |



ROTAN® GP



ROTAN® HD



ROTAN® PD



ROTAN® CD



ROTAN® ED



ROTAN® HD 202

## Internal Gear Pumps

|                       | ROTAN® GP<br>- General Purpose  | ROTAN® HD<br>- Heavy Duty  | ROTAN® PD<br>- Petrochemical Duty   | ROTAN® CD<br>- Chemical Duty  | ROTAN® ED<br>- Environmental Duty  |
|-----------------------|---|--|---|---|--|
| Capacity range        | Up to 50 m <sup>3</sup> /h / 220 gpm  | Up to 250 m <sup>3</sup> /h / 1100 gpm   | Up to 250 m <sup>3</sup> /h / 1100 gpm  | Up to 250 m <sup>3</sup> /h / 1100 gpm  | Up to 90 m <sup>3</sup> /h / 396 gpm   |
| Speed                 | Up to 1750 rpm  | Up to 1750 rpm   | Up to 1750 rpm  | Up to 1750 rpm  | Up to 1750 rpm   |
| Differential pressure | Up to 16 bar / 232 psi  | Up to 16 bar / 232 psi   | Up to 16 bar / 232 psi  | Up to 16 bar / 232 psi  | Up to 16 bar / 232 psi   |
| Suction lift          | Up to 0.5 / 7.25 psi bar vacuum while priming<br>Up to 0.8 bar / 11.6 psi vacuum while pumping                              | Up to 0.5 bar / 7.25 psi vacuum while priming<br>Up to 0.8 bar / 11.6 psi vacuum while pumping   | Up to 0.5 bar / 7.25 psi vacuum while priming<br>Up to 0.8 bar / 11.6 psi vacuum while pumping              | Up to 0.5 bar / 7.25 psi vacuum while priming<br>Up to 0.8 bar / 11.6 psi vacuum while pumping  | Up to 0.5 bar / 7.25 psi vacuum while priming<br>Up to 0.8 bar / 11.6 psi vacuum while pumping   |
| Viscosity range       | Up to 7,500 cSt   | Up to 250,000 cSt  | Up to 250,000 cSt   | Up to 250,000 cSt   | Up to 10,000 cSt   |
| Temperature           | Up to 150°C / 302°F   | Up to 250°C / 482°F  | Up to 250°C / 482°F   | Up to 250°C / 482°F   | Up to 250°C / 482°F  |
| Pump medium:          | Clean oil, glycol, vegetable oil, solvents, lube oil, waste oil, fish oil, also for marine fuel, diesel, gas, and lube oil. | Oil, asphalt, chocolate, paint/lacquer, molasses, soap, additive, polyol, viscose, sulphate soap, maltose, grease, pitch, base oil, bitumen, polyester, also for marine fuel, diesel, gas, and lube oil. | Fuel, oil, gasoline, lube oil, grease, other hydrocarbon based fluids, additives, bitumen, polystyrene, wax | Organic acid, fatty acid, alkali, caustic soda, polymer solutions, soap, shampoo, animal fat, vegetable fat, chocolate, other special fluids, resin, paint, rosin | Isocyanate, solvents hazardous organic liquids, printing ink, resin, pitch, alkyd resin, soyabean oil, linseed oil, monomers, polyol, corn syrup, also for marine fuel, diesel, gas, and lube oil. |

# DESMI Automation

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DESMI Automation offers a wide range of automation solutions developed for the industrial segment.

Our product portfolio includes solutions from simple motor starters to advanced PLC based solutions.

DESMI Automation is constantly developing new product solutions. The following products are offered as standard products:

- Motor starters ranging from 0,75kW to 90kW
- Frequency converter solutions with build-in optional web server facility, 0,75kW to 1MW (in various voltage ranges)
- Tank level control solutions
- Pump heating control solutions

DESMI Automation offers customized solutions for advanced pump systems.

Our automation team consists of skilled automation engineers and technicians, who are located in Denmark, Poland, Singapore, Korea, and China.

DESMI Automation handles technical clarification, design, programming, installation, commissioning and service.

Automation solutions are developed in accordance with specified rules and regulations, UL standard, EN/IEC standard, ATEX/IECex standard and all major marine classification societies.





## DESMI Genuine Spare Parts Kits for Simple Overhaul and Service

DESMI provides spare parts kits for easy and simple maintenance and overhaul of your pumps. We offer a variety of spare parts kits for a number of DESMI pump series.

To determine which spare parts kit you need and to provide you with the best service, we need to have the following information:

- Pump type (e.g. NSL 150-265)
- Serial number (e.g. 323249 or 30192-1)

Spare Parts Kits include:

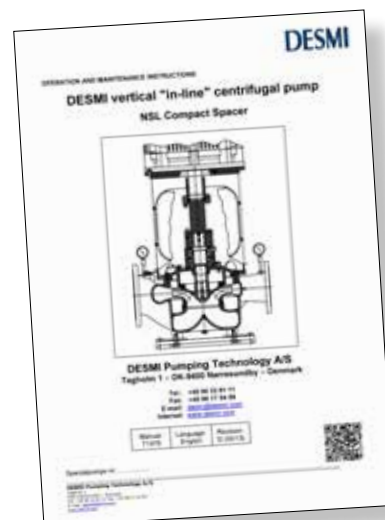
- Mechanical shaft seal
- Special tool
- Bearings
- O-rings
- Gaskets
- Washers & nuts
- Item list
- Etc.



Overhaul videos at [www.desmi.com/overhaul.aspx](http://www.desmi.com/overhaul.aspx)



Parts numbers and flyers at [www.desmi.com/parts.aspx](http://www.desmi.com/parts.aspx)



Manuals at [www.desmi.com/aftersales](http://www.desmi.com/aftersales)

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MARINE & OFFSHORE

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