



1330, 60Hz

**LENNTECH**  
WATER TREATMENT SOLUTIONS

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**xylem**  
Let's Solve Water



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# 1 Non-clog

## 1.1 Product description



### Usage

A submersible pump for efficient pumping of clean water, surface water, and wastewater containing solids. The pump is designed for sustained efficiency over time.

### Denomination

Type	Non-explosion proof version	Explosion proof version	Model variant	Installation types
Non-clog	1330.181	1330.090	<ul style="list-style-type: none"><li>• H - High head</li><li>• L - Low head</li><li>• M - Medium head</li><li>• S - Super high head</li></ul>	<ul style="list-style-type: none"><li>• Free-standing</li><li>• Wet-well</li></ul>

The pump can be used in the following installations:

Free-standing    Portable semipermanent, wet well arrangement with hose coupling or flange for connection to the discharge pipeline.

Wet-well    Semipermanent, wet well arrangement with the pump installed on two guide bars. The connection to the discharge is automatic.

### Application limits

Feature	Description
Liquid temperature	Maximum 40°C (104°F)
Depth of immersion	Maximum 20 m (65 ft)
pH of the pumped liquid	5.5 - 14
Liquid density	Maximum 1100 kg/m <sup>3</sup>

## Motor data

Feature	Description
Motor type	Squirrel-cage induction motor
Frequency	60 Hz
Power supply	3-phase
Starting method	<ul style="list-style-type: none"> <li>• Direct on-line</li> <li>• Star-delta</li> <li>• Variable Frequency Drive (VFD)</li> </ul>
Number of starts per hour	Maximum 15
Code compliance	IEC 60034-1
Voltage variation without overheating	±10%, if it does not run continuously at full load
Voltage imbalance between phases	Maximum 2%
Stator insulation class	F (155°C [311°F])

## Cables

Application	Type
Direct-on-line start or Y/D start with two cables	Flygt SUBCAB® - a heavy duty 4 cores motor power cable with two twisted pair screened control cores. Conductor insulation rating of 90°C, which allows for increased current. Superior mechanical strength and high abrasion and tear resistant. Chemical resistant within pH 3-10 and ozone, oil, and flame resistant. Used up to 70°C water temperature. Cables < 10 mm <sup>2</sup> with unscreened control cores.
Y/D start	Flygt SUBCAB® - a heavy duty 7 cores motor power cable with two twisted pair screened control cores. Conductor insulation rating of 90°C, which allows for increased current. Superior mechanical strength and high abrasion and tear resistant. Chemical resistant within pH 3-10 and ozone, oil, and flame resistant. Used up to 70°C water temperature. Cables < 7G6 mm <sup>2</sup> with unscreened control cores.

## Monitoring equipment

Motor	Thermal contacts opening temperature
25-18-2Z, 25-18-6Z, 25-19-4Z	140°C (284°F)

## Materials

Table 1: Major parts except mechanical seals

Denomination	Material	ASTM	EN
Major castings	Cast iron, gray	30B	GJL-200
Pump housing	Cast iron, gray	30B	GJL-200
Impeller	Cast iron, gray	30B	GJL-200
Lifting eye bolt	Steel electro zinc coated	-	EN 10084 - C15E
Lifting handle	Stainless steel	AISI 304	1.4301
Shaft	Stainless steel	AISI 431	1.4057+QT800
Screws and nuts	Stainless steel, A2	AISI 304	1.4301, 1.4306, 1.4307, 1.4311

Denomination	Material	ASTM	EN
O-rings	Nitrile rubber (NBR) 70° IRH	-	-
Oil, part no 901752	Medical white oil of paraffin type. Fulfills FDA 172.878 (a)	-	-

Table 2: Mechanical seals

Inner seal	Outer seal
Corrosion resistant cemented carbide (WCCR)/ Corrosion resistant cemented carbide (WCCR)	Corrosion resistant cemented carbide (WCCR)/ Corrosion resistant cemented carbide (WCCR)

#### Surface treatment

Finish
Black or blue two-component high-solid top coating. See internal standard M 0700.00.0004 for standard painting.

#### Options

- Leakage sensor in the stator housing (FLS)

#### Accessories

- Installation equipment  
Sold in kits
- Mechanical accessories such as discharge connections, adapters, and hose connections
- Electrical accessories such as pump controller, control panels, starters, monitoring relays, and cables

## 1.2 Motor rating and performance curves

These are examples of motor rating and curves. For more information, please contact your local sales and service representative.

Star-delta starting current is 1/3 of Direct on-line starting current.

H

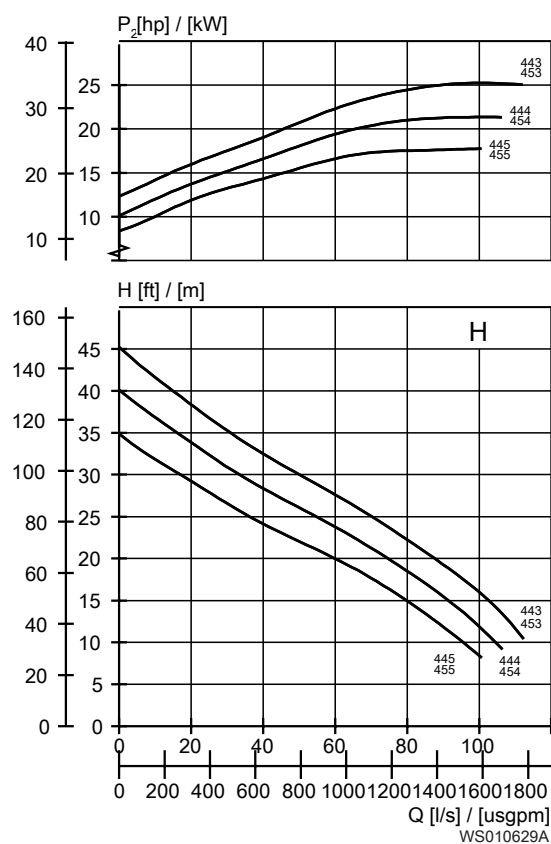


Table 3: 460 V, 60 Hz, 3-phase

Rated power, kW	Rated power, hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated Current, A	Start current, A	Power Factor, $\cos \phi$	Installation
27	36	443	1755	42	259	0.89	FS, WW
27	36	453	1755	42	259	0.89	FS, WW
24	32	444	1760	37	259	0.89	FS, WW
24	32	454	1760	37	259	0.89	FS, WW
20	27	445	1765	32	259	0.87	FS, WW
20	27	455	1765	32	259	0.87	FS, WW

- FS= Free-standing
- WW=Wet-well

L

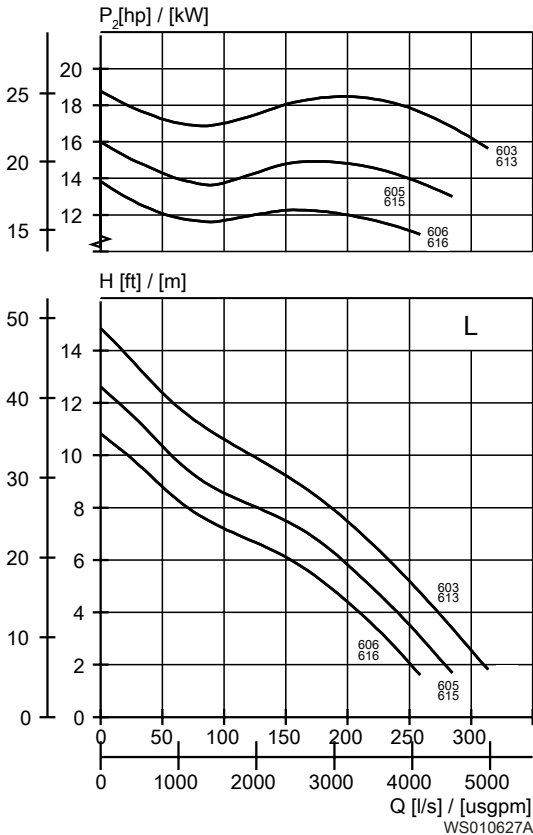


Table 4: 460 V, 60 Hz, 3-phase

Rated power, kW	Rated power, hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated Current, A	Start current, A	Power Factor, cos φ	Installation
18.6	25	603	1160	31	174	0.87	FS, WW
18.6	25	613	1160	31	174	0.87	FS, WW
17.2	23	605	1165	29	174	0.86	FS, WW
17.2	23	615	1165	29	174	0.86	FS, WW
14.9	20	606	1170	25	174	0.84	FS, WW
14.9	20	616	1170	25	174	0.84	WW

- FS= Free-standing
- WW=Wet-well



M

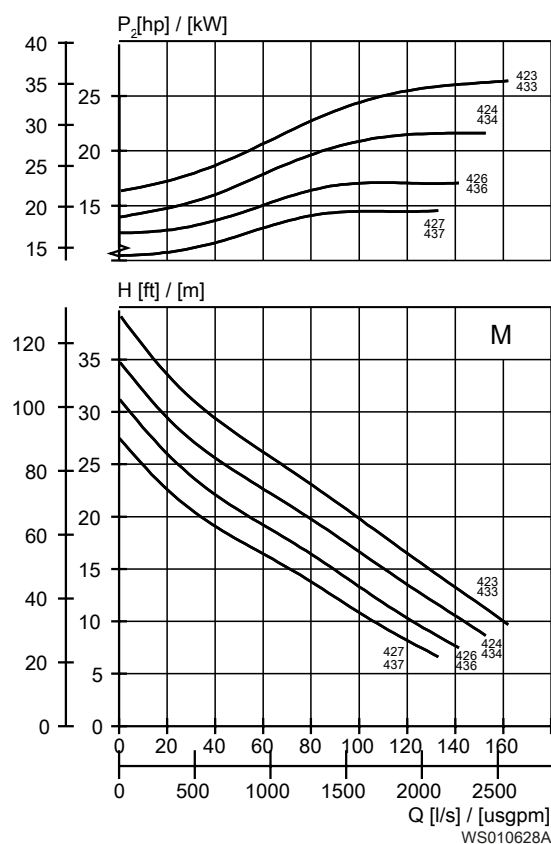


Table 5: 460 V, 60 Hz, 3-phase

Rated power, kW	Rated power, hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated Current, A	Start current, A	Power Factor, $\cos \phi$	Installation
17.2	23	427	1770	28	259	0.84	FS, WW
17.2	23	437	1770	28	259	0.84	FS, WW
27	36	423	1755	42	259	0.89	FS, WW
27	36	433	1755	42	259	0.89	FS, WW
24	32	424	1760	37	259	0.89	FS, WW
24	32	434	1760	37	259	0.89	FS, WW
20	27	426	1765	32	259	0.87	FS, WW
20	27	436	1765	32	259	0.87	FS, WW

- FS= Free-standing
- WW=Wet-well

S

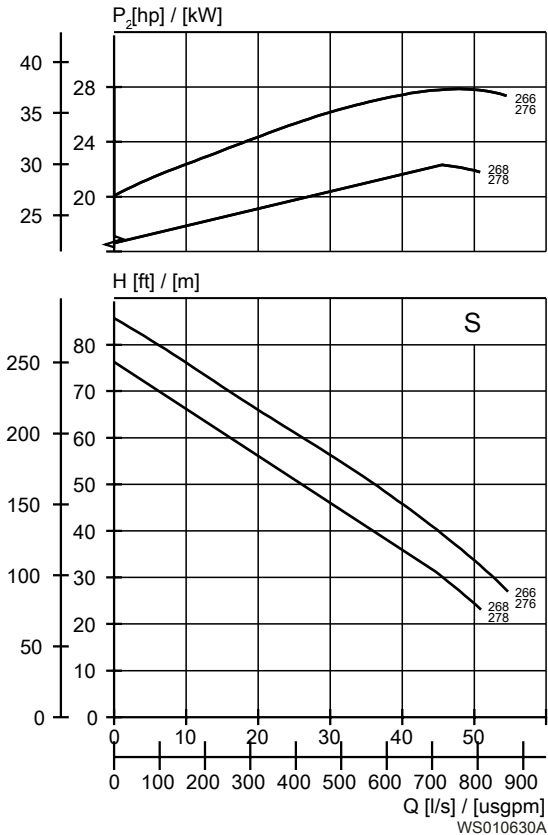


Table 6: 460 V, 60 Hz, 3-phase

Rated power, kW	Rated power, hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated Current, A	Start current, A	Power Factor, cos $\phi$	Installation
28	38	266	3510	42	274	0.93	FS, WW
28	38	276	3510	42	274	0.93	FS, WW
22	30	268	3535	34	273	0.92	FS, WW
22	30	278	3535	34	273	0.92	FS, WW

- FS= Free-standing
- WW=Wet-well



# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

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