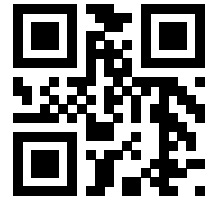


Technical Specification

90014601\_1.0



# Flygt 3152.350

50 Hz

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# 1 F-pump

## 1.1 Product description



### Usage

A submersible pump for liquid manure, or heavily contaminated sewage and sludge. The impeller is S-shaped and has a cutting function.

### Denomination

Type	Non-explosion proof version	Explosion proof version	Pressure class	Installation types
Gray iron	3152.350	-	<ul style="list-style-type: none"> <li>• LT – Low head</li> <li>• HT – High head</li> </ul>	J, P, S

The pump can be used in the following installations:

- J Semipermanent, wet well arrangement with guide bars or wire for a pump with a jet nozzle intended for mixing. For connection to a discharge stool. Jet nozzle can also be used as a hose connection.
- P Semipermanent, wet well arrangement with the pump installed on two guide bars. The connection to the discharge is automatic.
- S Portable semipermanent, wet well arrangement with hose coupling or flange for connection to the discharge pipeline.

### 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>

Feature	Description
Motor type	Squirrel-cage induction motor
Frequency	50 Hz
Power supply	<ul style="list-style-type: none"> <li>3-phase</li> </ul>
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 30
Code compliance	IEC 60034-1
Voltage variation	<ul style="list-style-type: none"> <li>Continuously running: Maximum <math>\pm 5\%</math></li> <li>Intermittent running: Maximum <math>\pm 10\%</math></li> </ul>
Voltage imbalance between phases	Maximum 2%
Stator insulation class	H (180°C, 356°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.
Variable Frequency drive	Screened Flygt SUBCAB® - a heavy duty 4 screened cores motor power cable with four 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.

## Monitoring equipment

Thermal contacts opening temperature 125°C (257°F)

## Materials

Table 1: Major parts except mechanical seals

Denomination	Material	ASTM	EN
Major castings	Cast iron, gray	35B	GJL-250
Pump housing	Cast iron, gray	35B	GJL-250
Impeller	Cast iron, nodular		GJS-400-18-LT
Suction cover, alternative 1	Cast iron, Hard-Iron™	A 532 IIIA	GJN-HB555(XCR23)

Denomination	Material	ASTM	EN
Suction cover, alternative 2	Steel	A 572 GR50	S355
Lifting handle	Steel	A 573 Gr. 65/42 and A 283 Gr. D	1.0038, 1.0114 and 1.0117 1.0044, 1.0143 and 1.0145
Shaft	Stainless steel	AISI 431	1.4057+QT800
Screws and nuts	Stainless steel, A4	AISI 316L, 316, 316Ti	1.4401, 1.4404, ...
O-rings, alternative 1	Nitrile rubber (NBR) 70° IRH	-	-
O-rings, alternative 2	Fluorinated rubber (FPM) 70° IRH	-	-
Oil, part no 901752	Medical white oil of paraffin type. Fulfills FDA 172.878 (a)	-	-

Table 2: Mechanical seals

Alternative	Inner seal	Outer seal	O-rings
1	Corrosion resistant cemented carbide (WCCR)/ Carbon (CSb)	Corrosion resistant cemented carbide (WCCR)/ Corrosion resistant cemented carbide (WCCR)	Fluorinated rubber (FPM) 70° IRH
2	Corrosion resistant cemented carbide (WCCR)/ Corrosion resistant cemented carbide (WCCR)	Corrosion resistant cemented carbide (WCCR)/ Corrosion resistant cemented carbide (WCCR)	Fluorinated rubber (FPM) 70° IRH

### Surface treatment

All cast parts are primed with a water-borne primer. The finishing coat is a high-solid two pack paint.

### Options

- Leakage sensor in the stator housing (FLS)
- Leakage sensor in the oil housing (CLS)
- Surface treatment (Epoxy)
- Zinc anodes
- Aqua cutting knife (chopper)
- Other cables

### Accessories

Discharge connections, adapters, hose connections, and other mechanical accessories  
Electrical accessories such as pump controller, control panels, starters, monitoring relays, 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.

LT

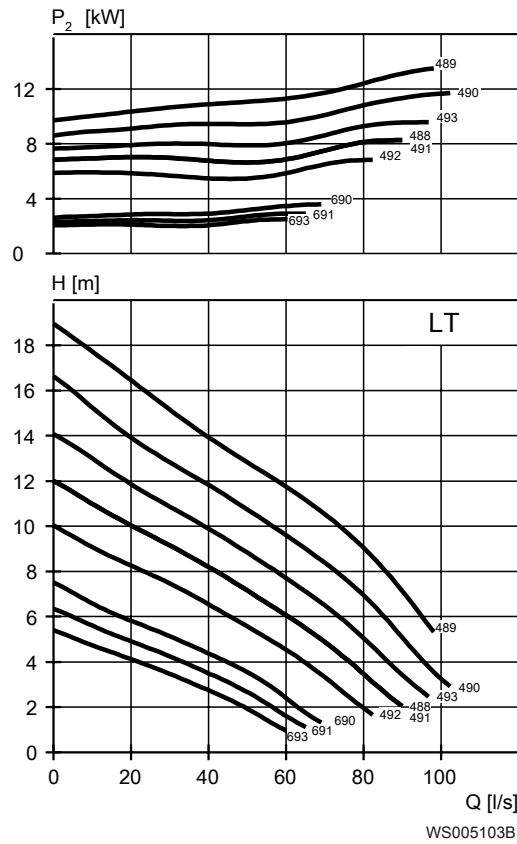


Table 3: 400 V, 50 Hz, 3-phase

Rated power, kW	Rated power, hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, $\cos \phi$	Installation
7.5	10.1	492	1460	16	104	0.81	J,P,S
8.8	11.8	690	955	18	87	0.87	J,P,S
8.8	11.8	691	955	18	87	0.87	J,P,S
8.8	11.8	693	955	18	87	0.87	J,P,S
9	12.1	491	1455	19	116	0.81	J,P,S
9	12.1	492	1455	19	116	0.81	J,P,S
13.5	18.1	488	1450	27	162	0.83	J,P,S
13.5	18.1	489	1450	27	162	0.83	J,P,S
13.5	18.1	490	1450	27	162	0.83	J,P,S
13.5	18.1	491	1450	27	162	0.83	J,P,S
13.5	18.1	492	1450	27	162	0.83	J,P,S
13.5	18.1	493	1450	27	162	0.83	J,P,S

HT

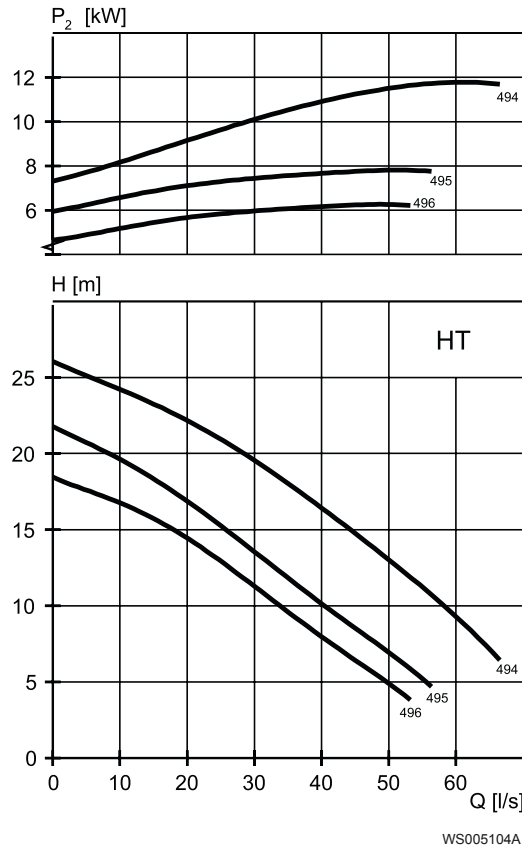


Table 4: 400 V, 50 Hz, 3-phase

Rated power, kW	Rated power, hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, cos φ	Installation
7.5	10.1	496	1460	16	104	0.81	J,P,S
9	12.1	495	1455	19	116	0.81	J,P,S
9	12.1	496	1455	19	116	0.81	J,P,S
13.5	18.1	494	1450	27	162	0.83	J,P,S
13.5	18.1	495	1450	27	162	0.83	J,P,S
13.5	18.1	496	1450	27	162	0.83	J,P,S

# 2 Dimensions and Weight

## 2.1 Drawings

All drawings are available as Acrobat documents (.pdf) and AutoCad drawings (.dwg). Contact a local sales and service representative for more information.

Drawings are found on Xylect or on TPI.

All dimensions are in mm.

Drawing number	Discharge connection	Installation
5394100	100 (LT)	J
5394200	100 (HT)	J
5392900	150 (LT)	P
5393000	100 (HT)	P
5393100	100 (LT)	S
5393200	100 (HT)	S

### J-installation

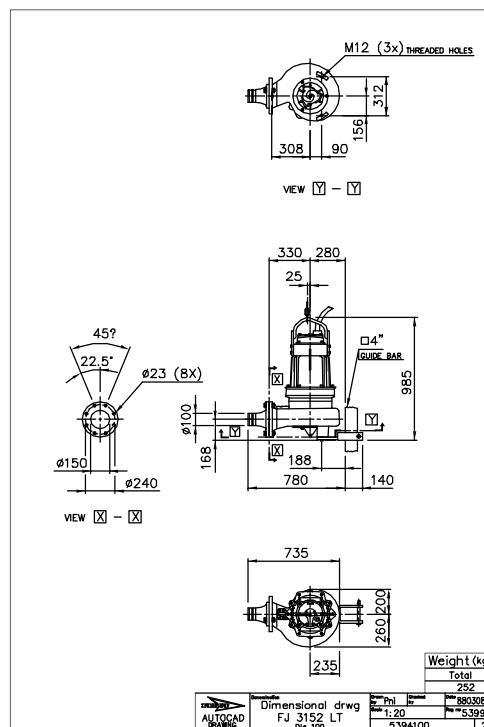


Figure 1: 100 (LT)

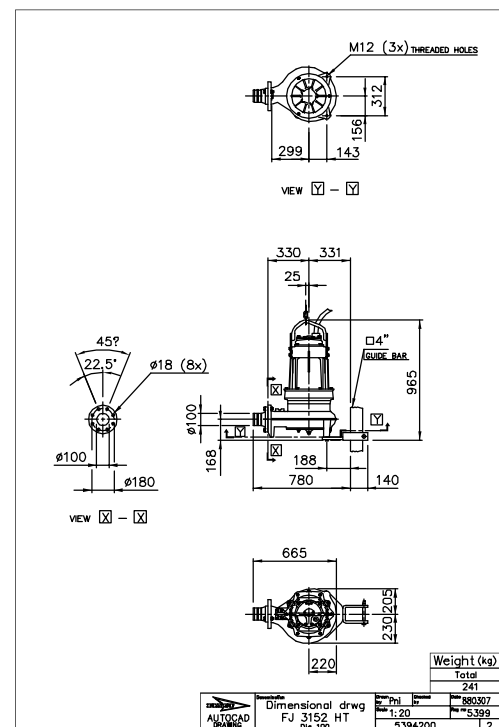


Figure 2: 100 (HT)



P-installation

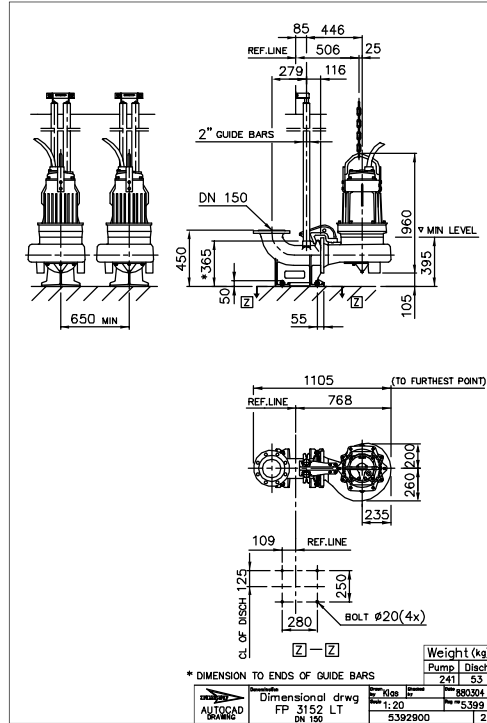


Figure 3: 150 (LT)

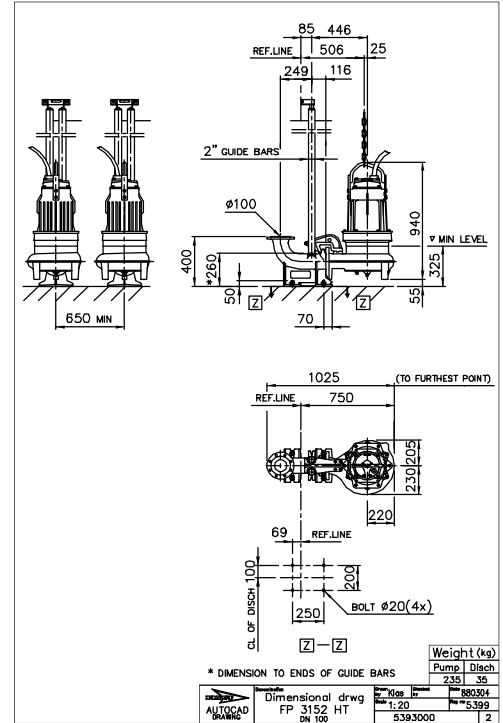


Figure 4: 100 (HT)

S-installation

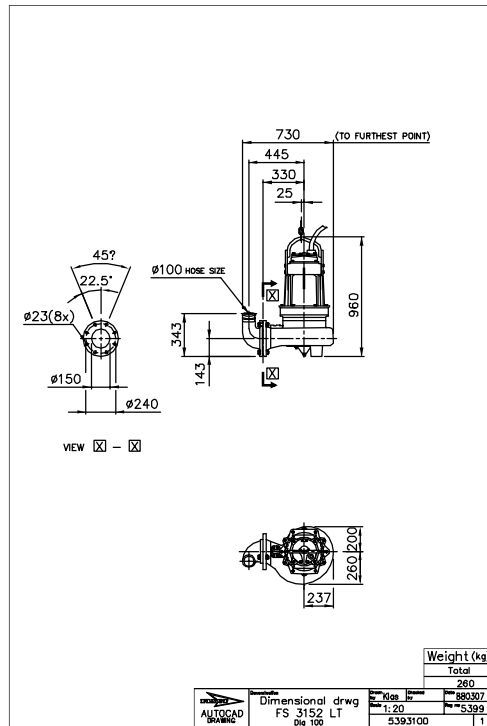


Figure 5: 100 (LT)

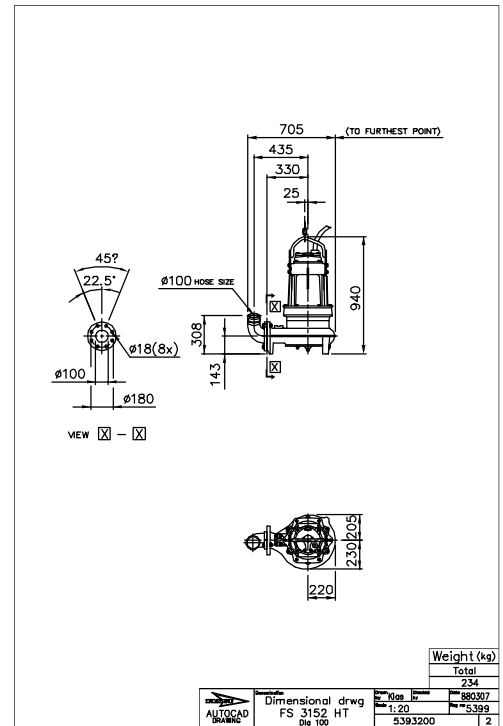


Figure 6: 100 (HT)



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