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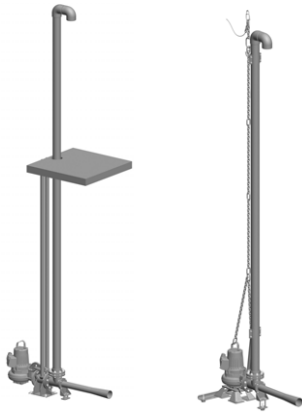
Water & Wastewater

Technical specification

Flygt jet aerator JA 117, 50/60 Hz



Engineered for life



JA 117

Product

Submersible, self-aspirating jet aerator intended for aerating and mixing of waste water. The jet aerator is based on a submersible Flygt pump and a Flygt designed ejector system.

Denomination

Product code	JA 117
No of ejectors	1
Installation	P, Guide bar system S, Self supporting

Process data

Liquid temperature	max +40 °C (104°F)
The pH of the pumped liquid	5.5 – 14
Liquid density	max 1100 kg/m3 (9.2 lb per US gallon)

For temperature higher than 40° C (104°F), please contact your ITT representative.

Material

Ejector

Ejector housing	Cast iron or stainless steel
Nozzle	Polyethylene high density (PEHD)
Outlet pipe	Stainless steel

Pipes

Suction; extension pipes	PVC-U -Pressure class min. PN10
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Others

Screws, nuts, washers	Stainless steel
Gasket	Rubber
Chain sling	Galvanized steel, stainless steel

Recommendation

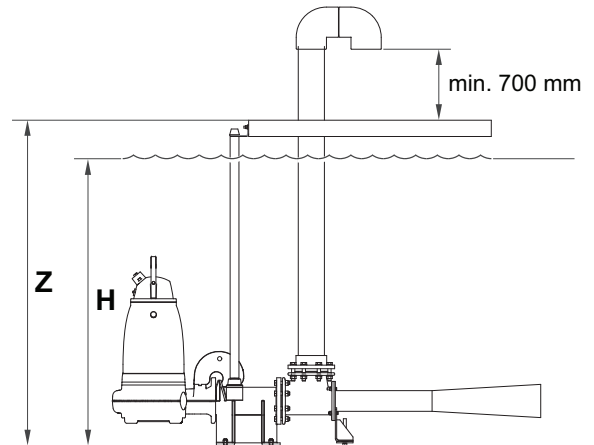
Choose the stainless steel version when the pH of the pumped liquid >11.

Installation alternatives

The total submergence H is the depth from the liquid surface in the tank to the bottom of the tank.

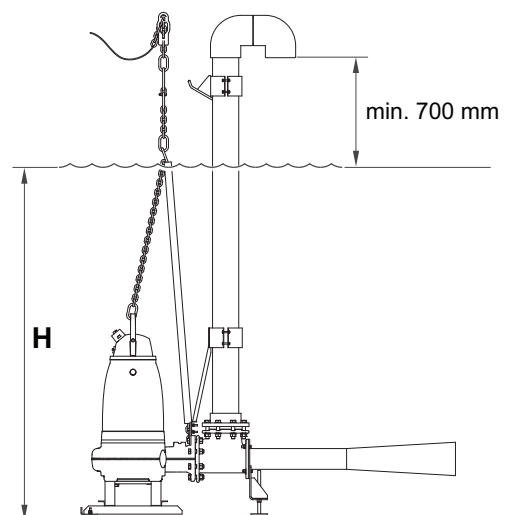
The distance Z is measured from the bottom of the tank to the floor above the tank.

P-installation, 50/60 Hz



Pump	Ejector system	
	Galvanized steel	Stainless steel
N 3127 MT	727 53 21	727 53 51
N 3153 MT	727 53 21	727 53 51
N 3171 MT	727 53 21	727 53 51

S-installation, 50/60 Hz



Pump	Ejector system	
	Galvanized steel	Stainless steel
N 3127 MT	727 53 20	727 53 50
N 3153 MT	727 57 20	727 57 50
N 3171 MT	727 61 20	727 61 50

P/S-installation, 50/60 Hz

Pump	Total submergence H m(ft)
N 3127MT	1-5.7 (3'3"-18'8")
N 3153MT	1-6.3 (3'3"-20'8")
N 3171MT	1-6.3 (3'3"-20'8")

Weight
P-installation

Pump	Pump weight kg (lb)	Ejector system weight kg (lb)
N3127 MT	152 (335)	105 (232)
N3153 MT	218 (481)	105 (232)
N3171 MT	329 (725)	105 (232)

S-installation

Pump	JA weight total kg (lb)
N3127 MT	280 (617)
N3153 MT	350 (772)
N3171 MT	470 (1036)

Pump

To be ordered separately.

If the pumped media is highly abrasive or has high chloride content with dissolved oxygen, please contact your ITT representative and ask for Hard-Iron™ impeller and insert ring.

For S-installation, please choose pump without stand (699 module). The stand is included in the ejector system.

Pump data

Hz	Pump	Rated motor power kW (hp)	Impeller	Flange DN Ejector-pump
50	N 3127 MT	5.9	437	150
	N 3153 MT	9.0	433	150
	N 3171 MT	15.0	433	150
60	N 3127 MT	7,5 (10.0)	438	150
	N 3153 MT	11.2 (15.0)	435	150
	N 3171 MT	18,6 (25.0)	435	150

Accessories

Electrical accessories such as pump controller, control panels, starters, monitoring relays and cables. See www.ittwww.com, for further information.

Options
General

Options are available for metric dimensions of PVC-U PN10 suction pipes, outer diameter (OD) 160 mm.

Flange and suction pipes are to be supplied locally for US-dimensions of suction pipe outer diameter (OD) 168,3 mm (6 5/8 in).

Suction pipes

Suction pipe kit 4x1 m is available for metric dimensions if suction pipes cannot be supplied locally.

Always supplied locally for US-dimensions in lengths of approx. 5 m, which covers most needs. The approved standard quality is PVC-U PN10.

Glue is supplied locally.

Stainless steel pipes are approved and are to be supplied locally.

Suction pipe extension kit

Available for metric dimensions.

Suitable if H and/or Z > 5 m (for locally supplied pipe length 5 m).

Suitable if H and/or Z > 4 m (for pipe unit 4x1 m).

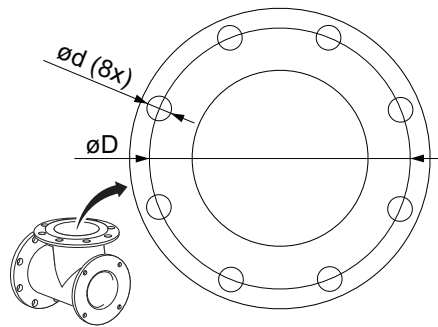
Pipe bend (for air inlet protection)

Available for metric dimensions.

Flange

Flange kit is available for metric dimensions.

Use the flange selection table below for US-dimensions.



Suction pipe connection	Suitable flange bore standards	øD mm (in)	ød mm (in)	Min. screw length mm (in)
Ejector 117 (DN150)	- EN 1092-2 table 9. - 6" AS 2129 FANC table D (flat flange). - 6" ANSI B16.1-1989 table 5.	240 (9,45)	23 (0,9)	100 (3,94)

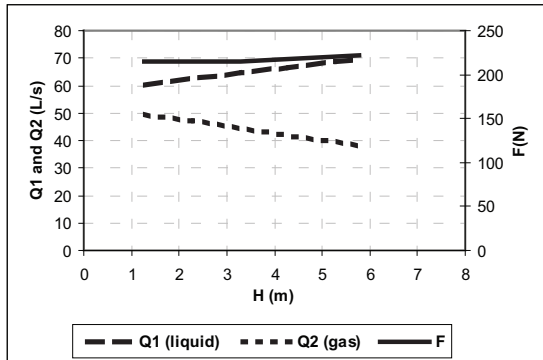
Chain sling extension kit (only S-version)

Available for metric and US-dimensions.

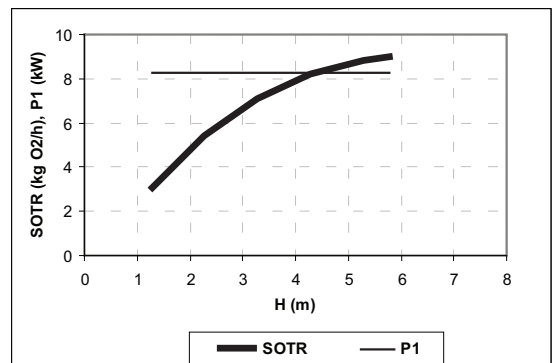
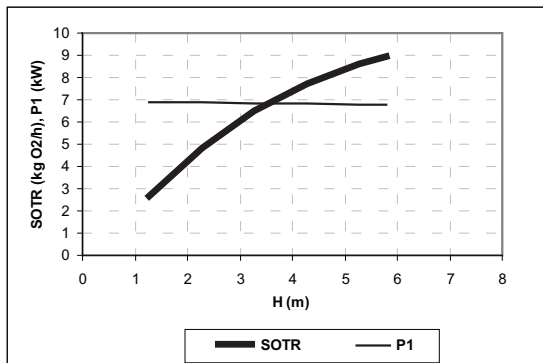
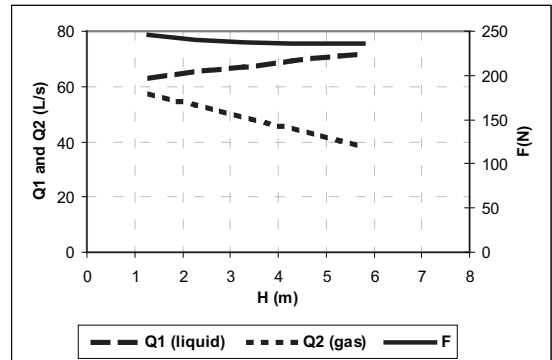
Suitable if H > 5 m.

Performance curves

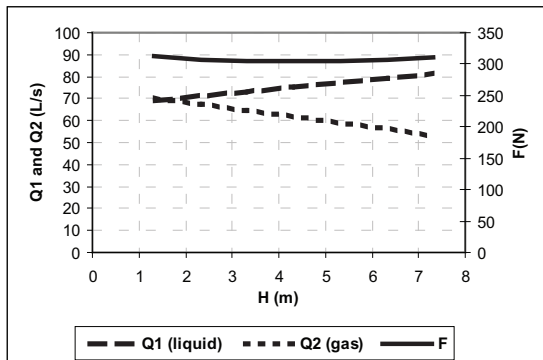
JA 117 3127 MT, 50 Hz, impeller 437



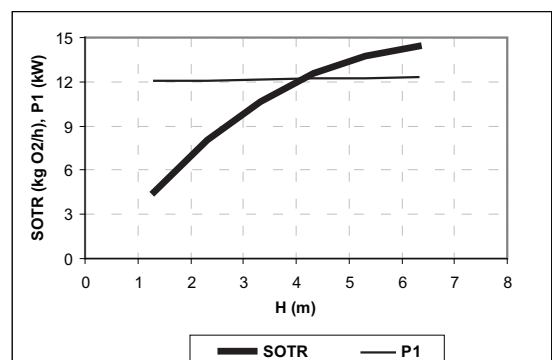
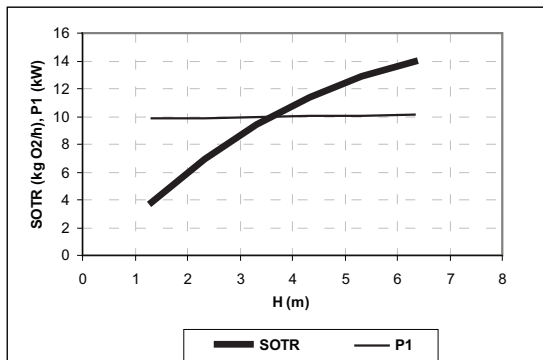
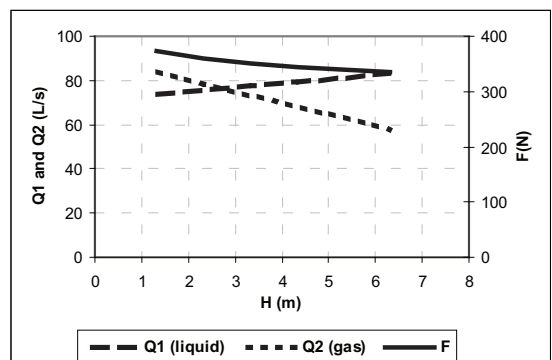
JA 117 3127 MT, 60 Hz, impeller 438



JA 117 3153 MT, 50 Hz, impeller 433



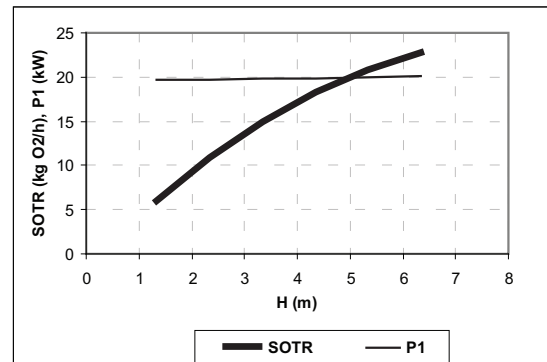
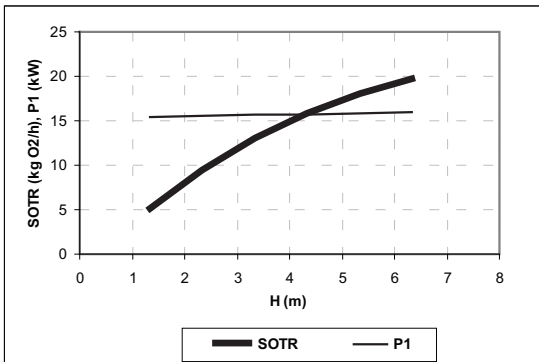
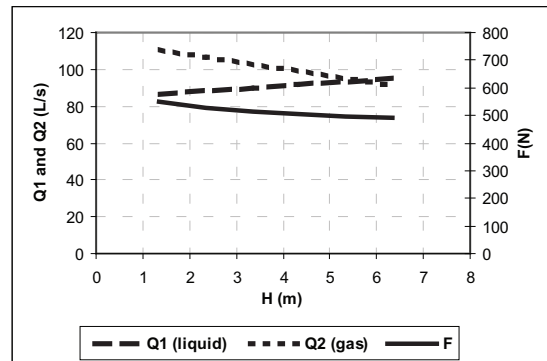
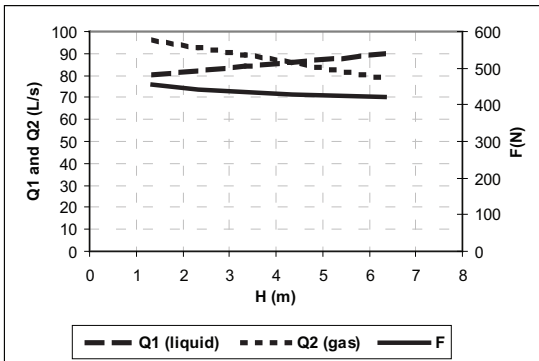
JA 117 3153 MT, 60 Hz, impeller 435



Based on performance at standard conditions in clean water (watertemp 20°C (68°F), 1 atm, air temp 20°C). Measurement standards; American: ASCE/ANSI 2-91, European: EN12255-55:2003.

JA 117 3171 MT, 50 Hz, impeller 433

JA 117 3171 MT, 60 Hz, impeller 435



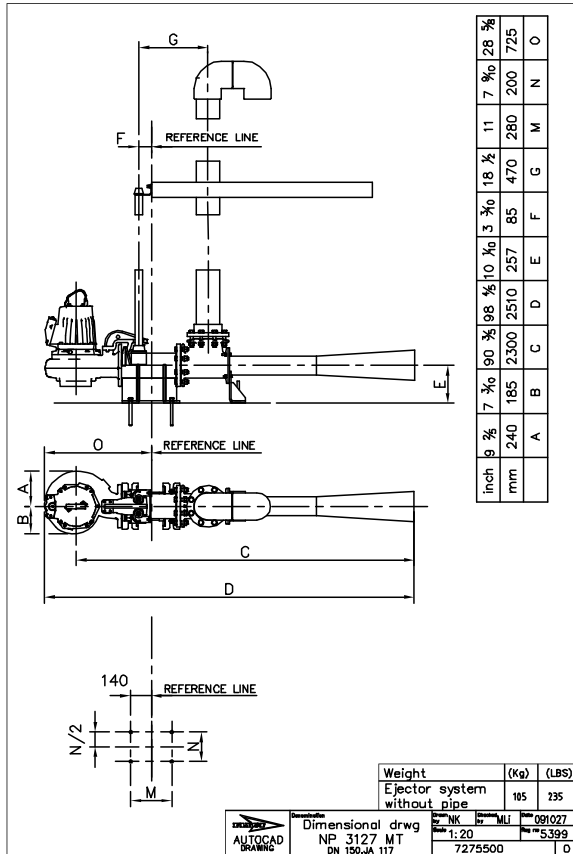
Based on performance at standard conditions in clean water (watertemp 20°C (68°F), 1 atm, air temp 20°C). Measurement standards; American: ASCE/ANSI 2-91, European: EN12255-55:2003.

Dimensional drawing

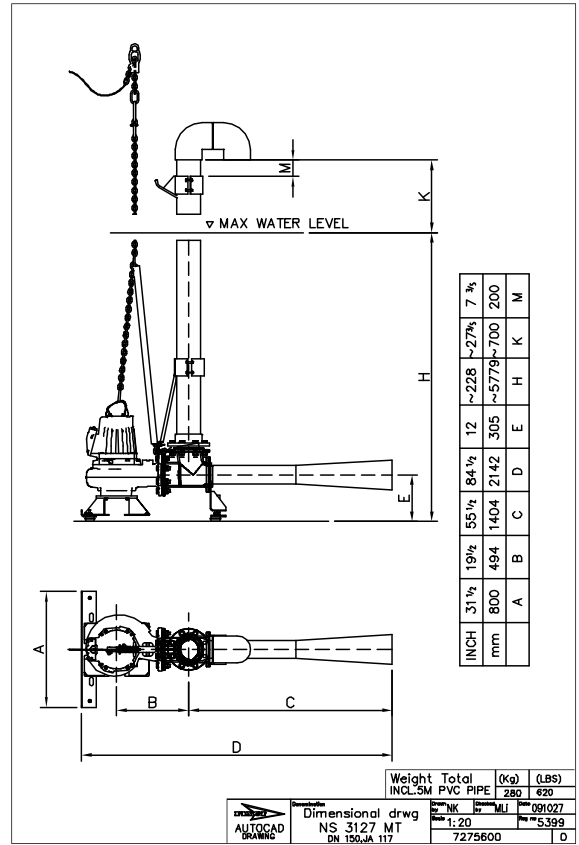
All drawings are available as Acrobat documents (.pdf) and AutoCad drawings (.dwg). Contact your ITT representative for more information.

All dimensions are in mm (inch).

JA 117 P 3127 MT

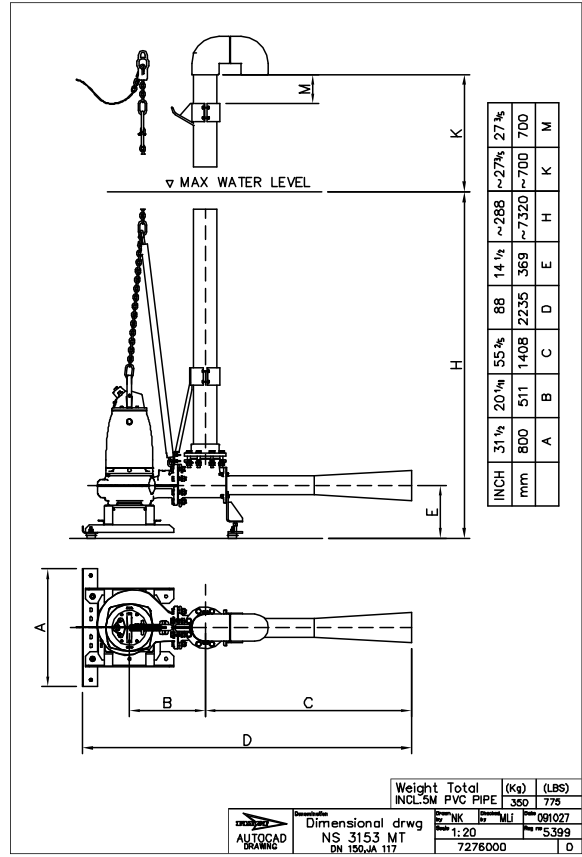
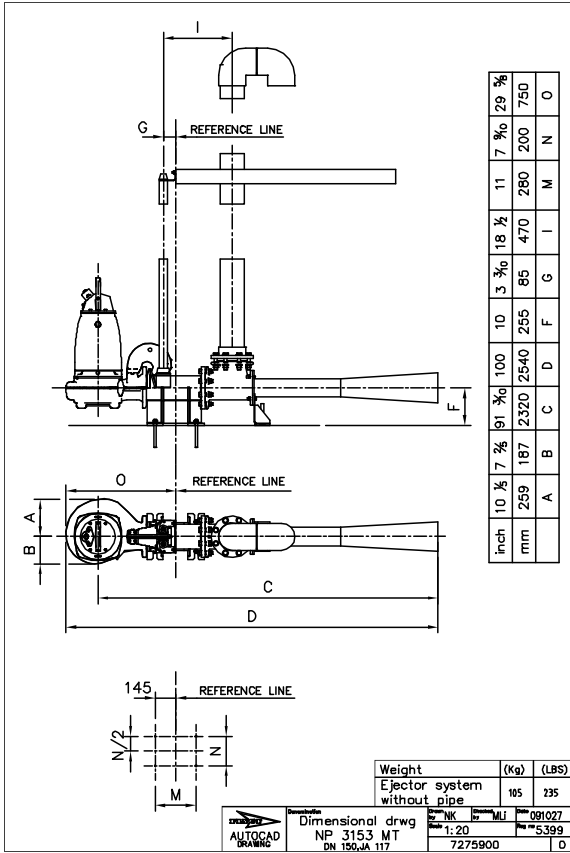


JA 117 S 3127 MT



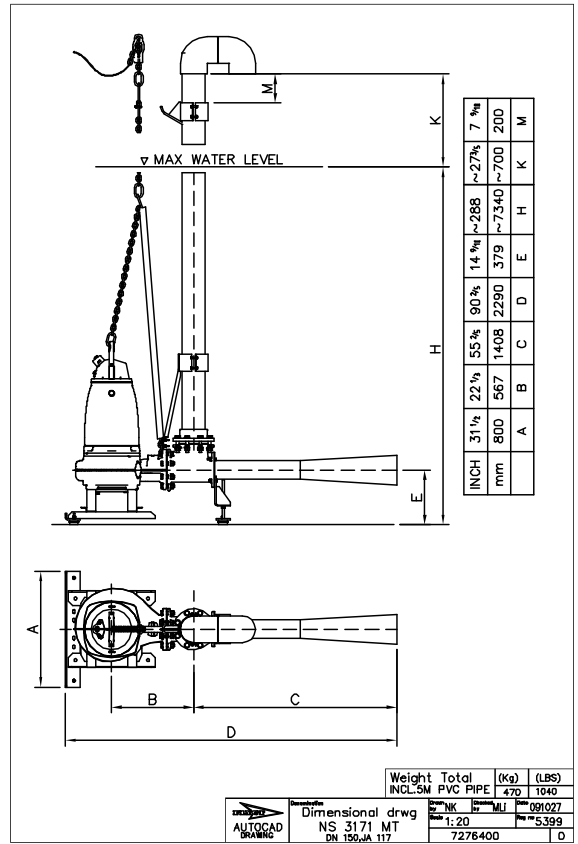
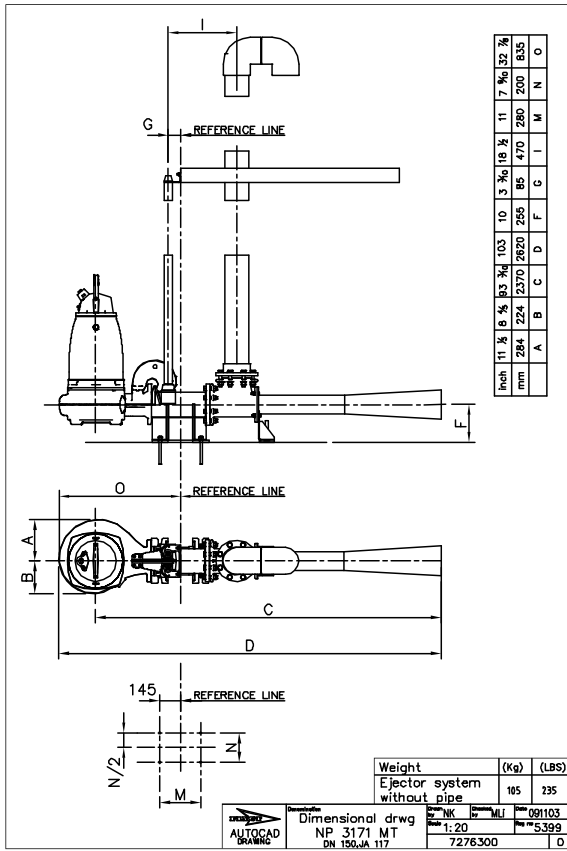
JA 117 P 3153 MT

JA 117 S 3153 MT



JA 117 P 3171 MT

JA 117 S 3171 MT





What can ITT Water & Wastewater do for you?

Integrated solutions for fluid handling are offered by ITT Water & Wastewater as a world leader in transport and treatment of wastewater. We provide a complete range of water, wastewater and drainage pumps, equipment for monitoring and control, units for primary and secondary biological treatment, products for filtration and disinfection, and related services. ITT Water & Wastewater, headquartered in Sweden, operates in some 140 countries across the world, with own plants in Europe, China and North and South America. The company is wholly owned by the ITT Corporation of White Plains, New York, supplier of advanced technology products and services.



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www.ittwww.com

ITT Water &
Wastewater AB
SE-174 87 Sundbyberg

Sweden
Visiting address:
Gesällvägen 33
Sundbyberg

Sweden
Tel. +46 8 475 60 00
Fax +46 8 475 69 00