

# Jet Aerators



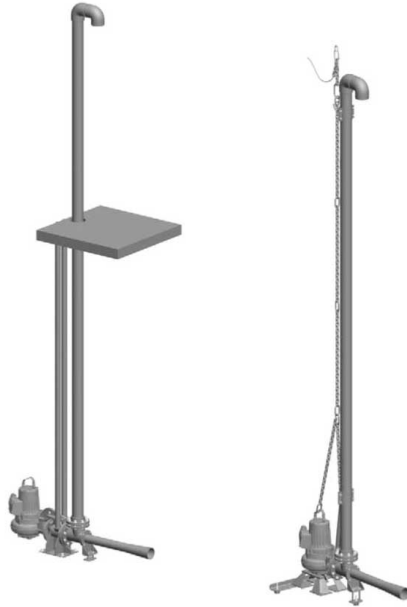
---

# Table of Contents

JA 112.....	2
Product description.....	2
Product data.....	2
Options and accessories.....	4
Motor ratings.....	5
Performance curves.....	6
JA 117.....	7
Product description.....	7
Product data.....	7
Options.....	9
Motor ratings.....	10
Performance curves.....	11
JA 217.....	13
Product description.....	13
Product data.....	13
Options.....	15
Motor ratings.....	16
Performance curves.....	17
JA 317.....	18
Product description.....	18
Product data.....	18
Options.....	20
Motor ratings.....	21
Performance curves.....	22

# JA 112

## Product description



### Usage

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

### Parts

Part	Description
Ejectors	One ejector
Pump, separately ordered	N 3085 MT
	N 3102 MT
Installation system	P, guide bar system
	S, self supporting

The pump is ordered separately.

If the pumped media is highly abrasive or has high chloride content with dissolved oxygen, then contact your sales and service representative. A Hard-Iron™ impeller and insert ring is recommend.

For S-installation, select the pump without a stand as the stand is included in the ejector system.

## Product data

### Application limits

For temperatures higher than 40° (104°F), contact your sales and service representative.

Feature	Description
Liquid temperature	Maximum 40° (104°F)
pH of the pumped liquid	5.5-14

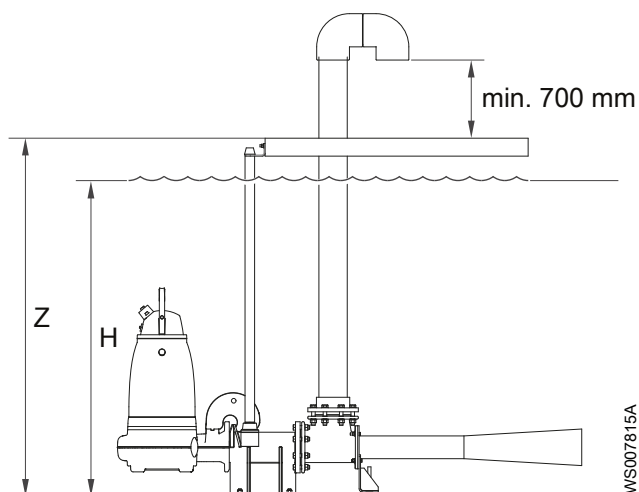
Feature	Description
Liquid density	Maximum 1100 kg/m <sup>3</sup> (9.2 lb per US gallon)

**Materials**

Recommendation: Choose the stainless steel version when the pH of the pumped liquid is greater than 11.

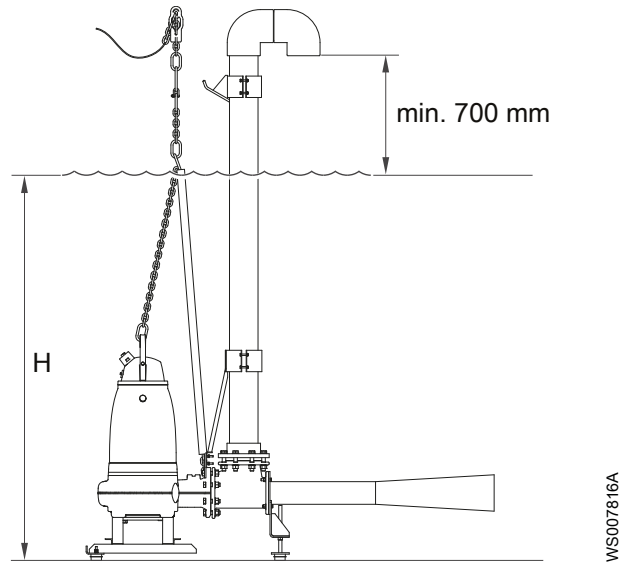
Main part	Part	Description
Ejector	Ejector housing	Cast iron or stainless steel
	Nozzle	Polyethylene high density (PEHD)
	Outlet pipe	Stainless steel
Pipes	Extension pipe	PVC-U, pressure class minimum PN10
Other	Screws, nuts, washers	Stainless steel
	Gasket	Rubber
	Chain sling	Galvanized steel or stainless steel

**P-installation**



Pump		Ejector system, part number		Weight	
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Pump weight kg (lb)	Ejector system weight kg (lb)
NP 3085 MT	1-3.5 (3 ft 3 in - 11 ft 6 in)	727 45 21	727 45 51	69 (152)	45 (99)
NP 3102 MT	1-4.5 (3 ft 3 in - 14 ft 9 in)	727 45 21	727 45 51	107 (236)	45 (99)

S-installation



Pump		Ejector system, part number		Complete jet aerator
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Weight kg (lb)
NS 3085 MT	1-3.5 (3 ft 3 in - 11 ft 6 in)	727 45 20	727 45 50	120 (266)
NX 3102 MT	1-4.5 (3 ft 3 in - 14 ft 9 in)	727 49 20	727 49 50	170 (375)

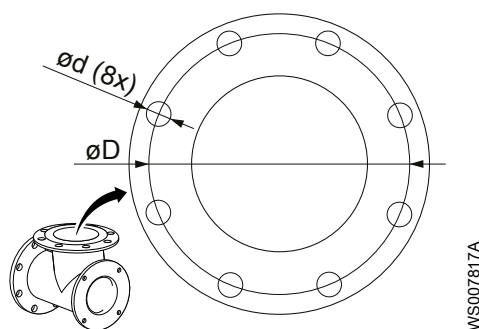
## Options and accessories

### Optional parts

Options are available for metric dimensions of PVC-U PN10 suction pipes, outer diameter (OD) 110 mm.  
 Flange and suction pipes are supplied locally for US dimensions of suction pipe with outer diameter (OD) 114.3 mm (4 ½ in).

Part	Type of dimensions	Description
Suction pipes	Metric dimensions	Supplied locally
		Kit 4x1 m
	US dimensions	Supplied locally in lengths of approximately 5 m (16.4 ft)
	Glue	Supplied locally
Suction pipe extension kit	Metric dimensions	Suitable if H or Z > 5 m (16.4 ft) For locally supplied pipe length 5 m
		Suitable if H or Z > 4 m (13.1 ft) For pipe unit 4x1 m
Pipe bend	Metric dimensions	For air inlet protection
Chain sling extension kit	Metric and US dimensions	Suitable if H > 5 m (16.4 ft).
Flange kit	Metric dimensions	Flange kit available
	US dimensions	See the flange selection table.

## Flange selection table



Flange selection table for suction pipe connection with ejector 112 (DN 100).

Suitable flange bore standards	D mm (in)	d mm (in)	Minimum screw length mm (in)
<ul style="list-style-type: none"> <li>• EN 1092-2, table 9</li> <li>• 6 in AS 2129 FANC, table D (flat flange)</li> </ul>	180 (7.09)	18 (0.71)	80 (3.15)

## Accessories

For electrical accessories such as pump controller, control panels, starters, monitoring relays and cables, contact your local sales and service representative.

## Motor ratings

### 50 Hz

Pump	Rated motor power, kW	Impeller	Ejector to pump flange, DN
N 3085 MT	2.0	460	80
N 3102 MT	3.1	460	100

### 60 Hz

Pump	Rated motor power, kW (hp)	Impeller	Ejector to pump flange, DN
N 3085 MT	2.2 (3.0)	462	80
N 3102 MT	3.7 (5.0)	463	100

# Performance curves

3085 MT

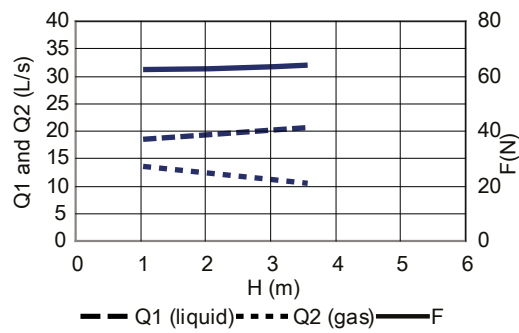


Figure 1: 50 Hz, impeller 460

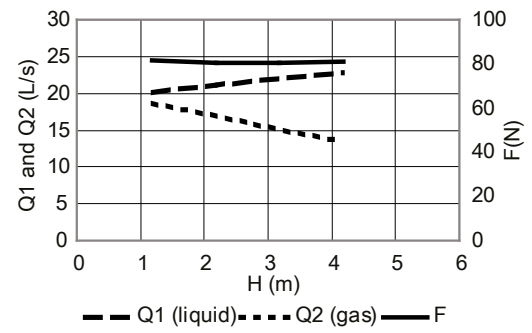


Figure 2: 60 Hz, impeller 462

3102 MT

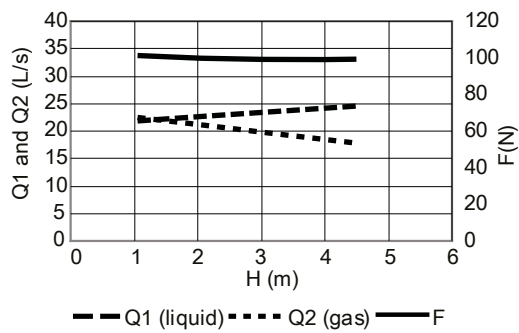


Figure 3: 50 Hz, impeller 460

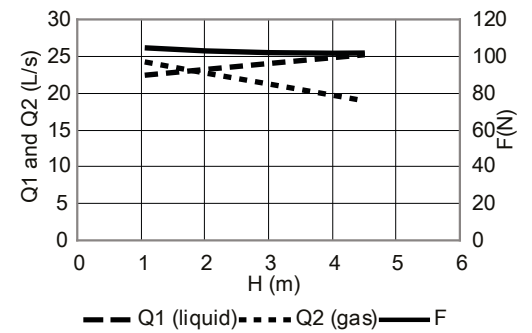
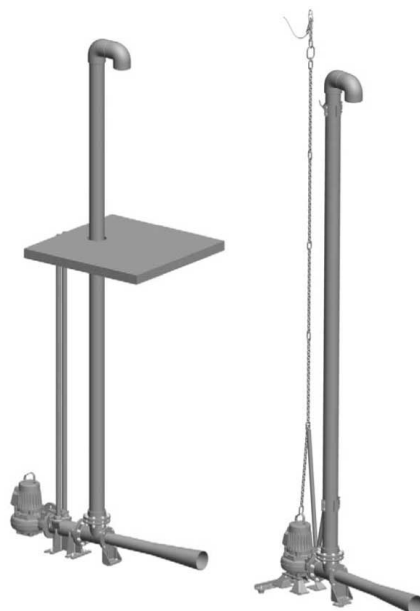


Figure 4: 60 Hz, impeller 463



# JA 117

## Product description



### Usage

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

### Parts

Part	Description
Ejectors	One ejector
Pump, separately ordered	N 3127 LT
	N 3153 MT
	N 3171 MT
Installation system	P, guide bar system
	S, self supporting

The pump is ordered separately.

If the pumped media is highly abrasive or has high chloride content with dissolved oxygen, then contact your sales and service representative. A Hard-Iron™ impeller and insert ring is recommend.

For S-installation, select the pump without a stand as the stand is included in the ejector system.

## Product data

### Application limits

For temperatures higher than 40° (104°F), contact your sales and service representative.

Feature	Description
Liquid temperature	Maximum 40° (104°F)

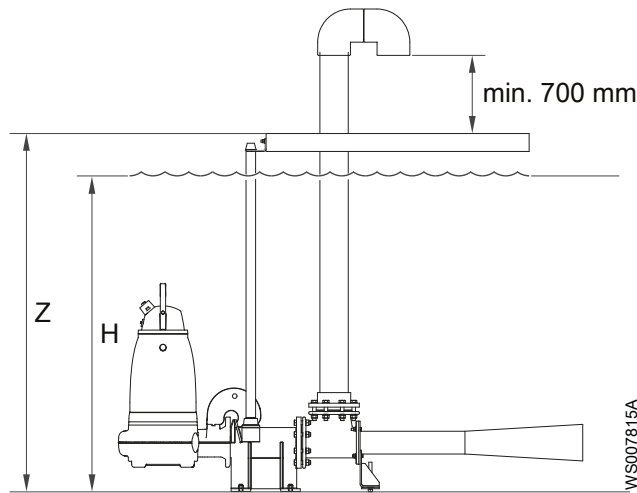
Feature	Description
pH of the pumped liquid	5.5-14
Liquid density	Maximum 1100 kg/m <sup>3</sup> (9.2 lb per US gallon)

**Materials**

Recommendation: Choose the stainless steel version when the pH of the pumped liquid is greater than 11.

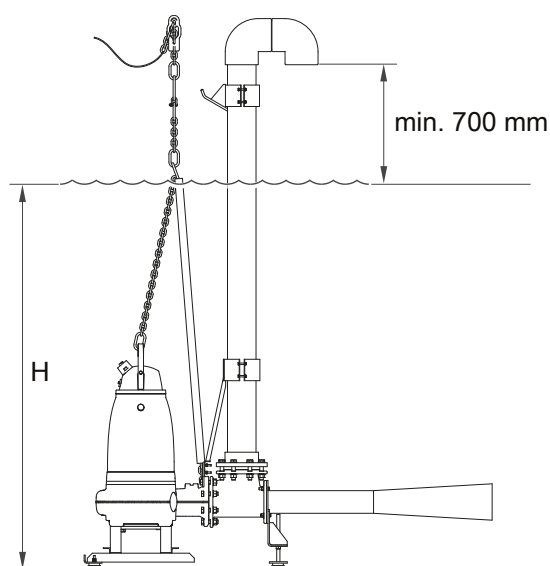
Main part	Part	Description
Ejector	Ejector housing	Cast iron or stainless steel
	Nozzle	Polyethylene high density (PEHD)
	Outlet pipe	Stainless steel
Pipes	Extension pipe	PVC-U, pressure class minimum PN10
Other	Screws, nuts, washers	Stainless steel
	Gasket	Rubber
	Chain sling	Galvanized steel or stainless steel

**P-installation**



Pump		Ejector system, part number		Weight	
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Pump weight kg (lb)	Ejector system weight kg (lb)
NP 3127 LT	1-5.1 (3 ft 3 in - 16 ft 8 in)	727 53 21	727 53 51	154 (339)	105 (232)
NP 3153 MT	1-6.3 (3 ft 3 in - 20 ft 8 in)	727 53 21	727 53 51	218 (481)	105 (232)
NP 3171 MT	1-7.1 (3 ft 3 in - 23 ft 4 in)	727 53 21	727 53 51	329 (725)	105 (232)

## S-installation



Pump		Ejector system, part number		Complete jet aerator
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Weight kg (lb)
NX 3127 LT	1-5.1 (3 ft 3 in - 16 ft 8 in)	727 53 20	727 53 50	282 (621)
NX 3153 MT	1-6.3 (3 ft 3 in - 20 ft 8 in)	727 57 20	727 57 50	350 (772)
NX 3171 MT	1-7.1 (3 ft 3 in - 23 ft 4 in)	727 61 20	727 61 50	470 (1036)

## Options

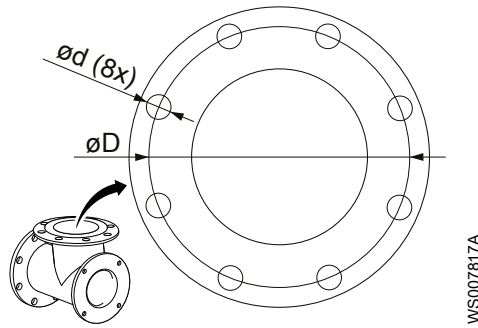
### Optional parts

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

Flange and suction pipes are supplied locally for US dimensions of suction pipe with outer diameter (OD) 168.3 mm (6 <sup>5</sup>/<sub>8</sub> in).

Part	Type of dimensions	Description
Suction pipes	Metric dimensions	Supplied locally
		Kit 4x1 m
	US dimensions	Supplied locally in lengths of approximately 5 m (16.4 ft)
	Glue	Supplied locally
	Stainless steel pipes	Supplied locally
Suction pipe extension kit	Metric dimensions	For locally supplied pipe length 5 m
		For pipe unit 4x1 m
Pipe bend	Metric dimensions	For air inlet protection
Chain sling extension kit	Metric and US dimensions	Suitable if submergence is greater than 5 m.
Flange kit	Metric dimensions	Flange kit available
	US dimensions	See the flange selection table.

Flange selection table



Flange selection table for suction pipe connection with ejector 117 (DN 150).

Suitable flange bore standards	D mm (in)	d mm (in)	Minimum screw length mm (in)
<ul style="list-style-type: none"> <li>• EN 1092-2, table 9</li> <li>• 6 ft AS 229 FANC, table D (flat flange)</li> <li>• 6 ft ANSI B16, 1-1989, table 5</li> </ul>	240 (9.45)	23 (0.9)	100 (3.94)

Motor ratings

50 Hz

Pump	Rated motor power, kW	Impeller	Ejector to pump flange, DN
N 3127 LT	5.9	424	150
N 3153 MT	9.0	433	150
N 3171 MT	15.0	433	150

60 Hz

Pump	Rated motor power, kW (hp)	Impeller	Ejector to pump flange, DN
N 3127 LT	7.5 (10.0)	421	150
N 3153 MT	11.2 (15.0)	435	150
N 3171 MT	18.6 (25.0)	435	150

# Performance curves

3127 LT

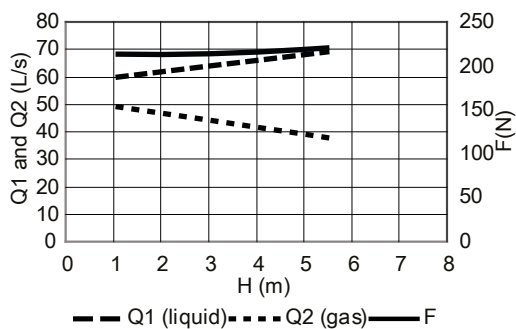


Figure 5: 50 Hz, impeller 424

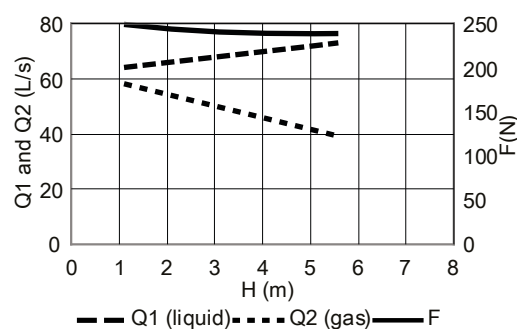


Figure 6: 60 Hz, impeller 421

3153 MT

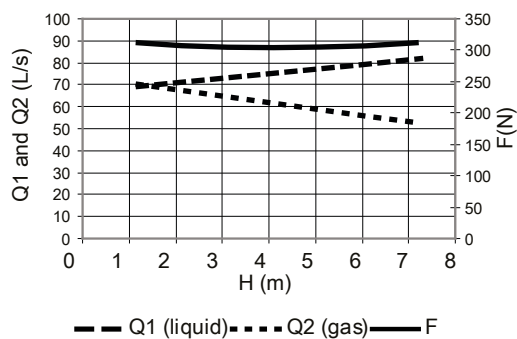


Figure 7: 50 Hz, impeller 433

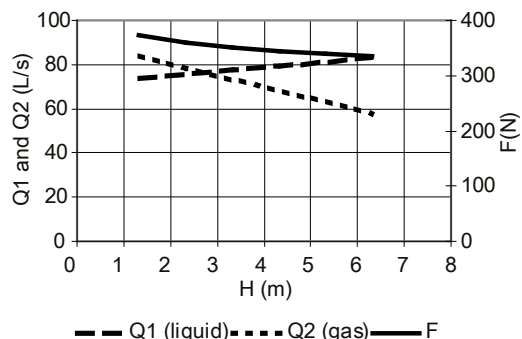


Figure 8: 60 Hz, impeller 435

3171 MT

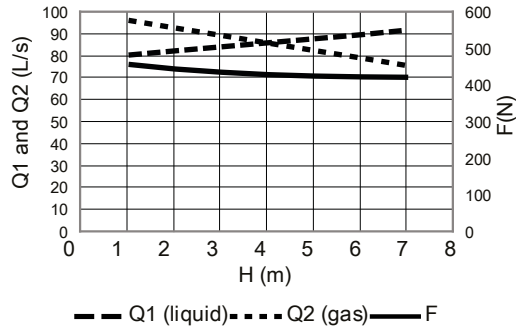


Figure 9: 50 Hz, impeller 433

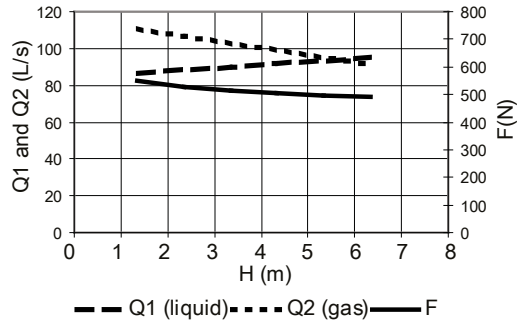
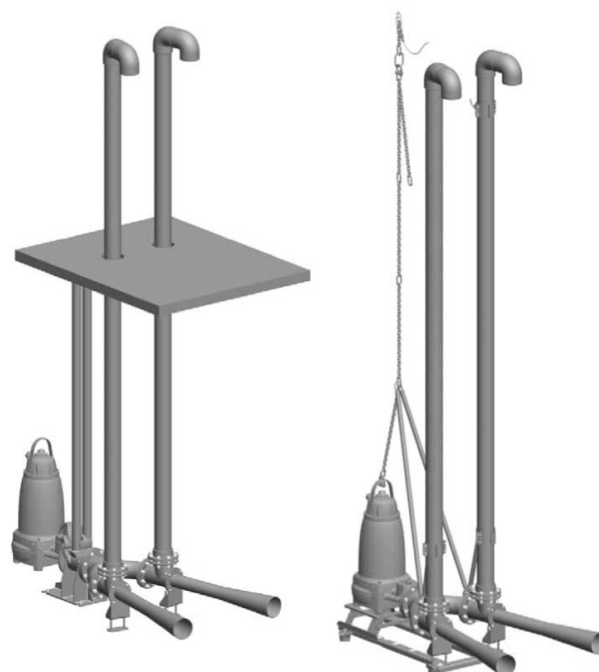


Figure 10: 60 Hz, impeller 435

# JA 217

## Product description



### Usage

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

### Parts

Part	Description
Ejectors	Two ejectors
Pump, separately ordered	N 3202 MT
Installation system	P, guide bar system
	S, self supporting

The pump is ordered separately.

If the pumped media is highly abrasive or has high chloride content with dissolved oxygen, then contact your sales and service representative. A Hard-Iron™ impeller and insert ring is recommend.

For S-installation, select the pump without a stand as the stand is included in the ejector system.

## Product data

### Application limits

For temperatures higher than 40° (104°F), contact your sales and service representative.

Feature	Description
Liquid temperature	Maximum 40° (104°F)

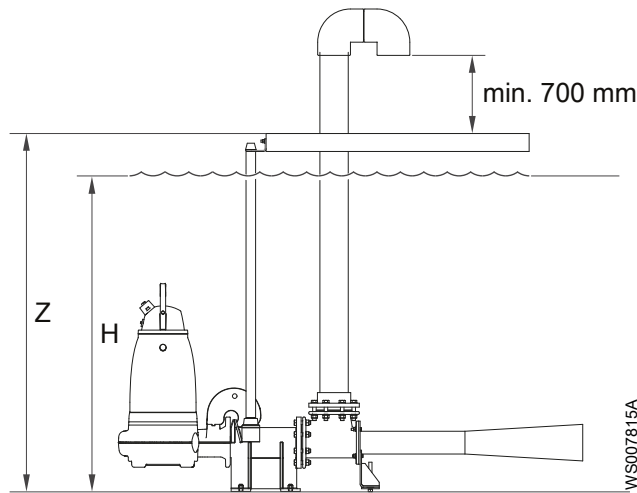
Feature	Description
pH of the pumped liquid	5.5-14
Liquid density	Maximum 1100 kg/m <sup>3</sup> (9.2 lb per US gallon)

**Materials**

Recommendation: Choose the stainless steel version when the pH of the pumped liquid is greater than 11.

Main part	Part	Description
Ejector	Ejector housing	Cast iron or stainless steel
	Nozzle	Polyethylene high density (PEHD)
	Outlet pipe	Stainless steel
Pipes	Extension pipe	PVC-U, pressure class minimum PN10
Other	Screws, nuts, washers	Stainless steel
	Gasket	Rubber
	Chain sling	Galvanized steel or stainless steel

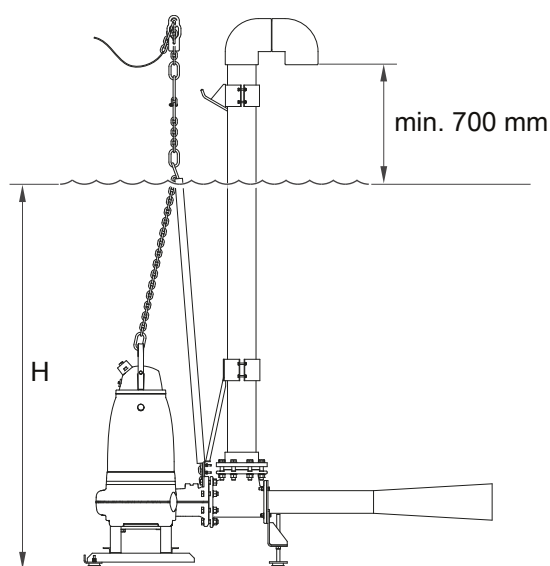
**P-installation**



Pump		Ejector system, part number		Weight	
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Pump weight kg (lb)	Ejector system weight kg (lb)
NP 3202 MT	1-7.1 (3 ft 3 in - 23 ft 4 in)	727 65 21	727 65 51	580 (1279)	235 (518)



## S-installation



Pump		Ejector system, part number		Complete jet aerator
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Weight kg (lb)
NX 3202 MT	1-7.1 (3 ft 3 in - 23 ft 4 in)	727 65 20	727 65 50	750 (1653)

## Options

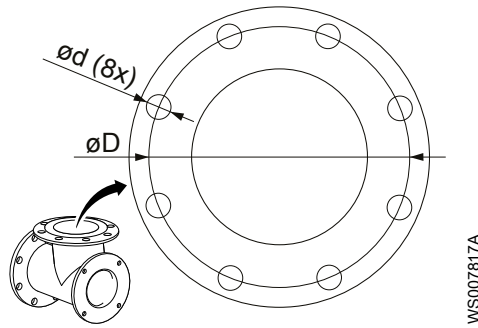
### Optional parts

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

Flange and suction pipes are supplied locally for US dimensions of suction pipe with outer diameter (OD) 168.3 mm (6 <sup>5</sup>/<sub>8</sub> in).

Part	Type of dimensions	Description
Suction pipes	Metric dimensions	Supplied locally
		Kit 4x1 m
	US dimensions	Supplied locally in lengths of approximately 5 m (16.4 ft)
	Glue	Supplied locally
	Stainless steel pipes	Supplied locally
Suction pipe extension kit	Metric dimensions	Suitable if H or Z > 5 m (16.4 ft) For locally supplied pipe length 5 m
		Suitable if H or Z > 4 m (13.1 ft) For pipe unit 4x1 m
Pipe bend	Metric dimensions	For air inlet protection
Chain sling extension kit	Metric and US dimensions	Suitable if H > 5 m (16.4 ft).
Flange kit	Metric dimensions	Flange kit available
	US dimensions	See the flange selection table.

Flange selection table



Flange selection table for suction pipe connection with ejector (DN 150).

Suitable flange bore standards	D mm (in)	d mm (in)	Minimum screw length mm (in)
<ul style="list-style-type: none"> <li>• EN 1092-2, table 9</li> <li>• 6 in AS 2129 FANC, table D (flat flange)</li> <li>• 6 in ANSI B16.1 - 1989, table 5</li> </ul>	240 (9.45)	23 (0.9)	100 (3.94)

Accessories

For electrical accessories such as pump controller, control panels, starters, monitoring relays and cables, contact your local sales and service representative.

Motor ratings

50 Hz

Pump	Rated motor power, kW	Impeller	Ejector to pump flange, DN
N 3202 MT	22	641	200

60 Hz

Pump	Rated motor power, kW (hp)	Impeller	Ejector to pump flange, DN
N 3171 MT	34 (45.0)	641	200

# Performance curves

3202 MT

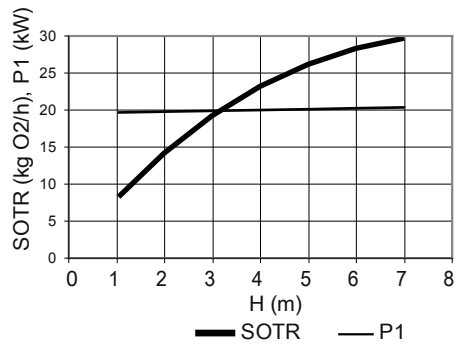
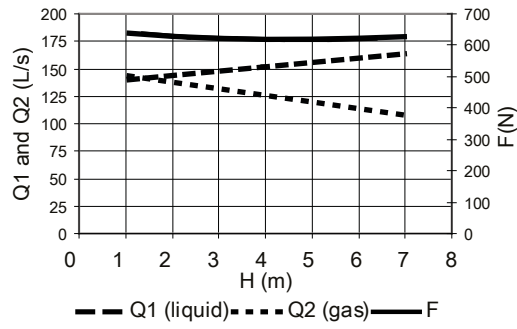


Figure 11: 50 Hz, impeller 641

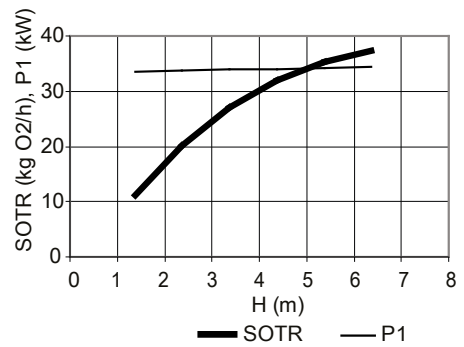
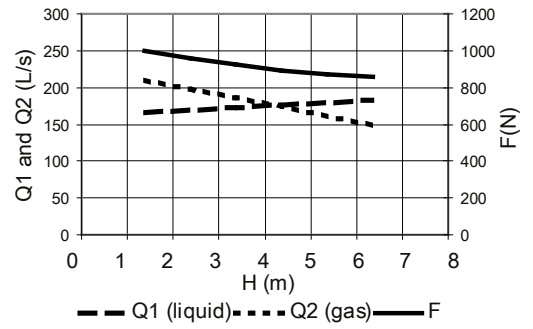
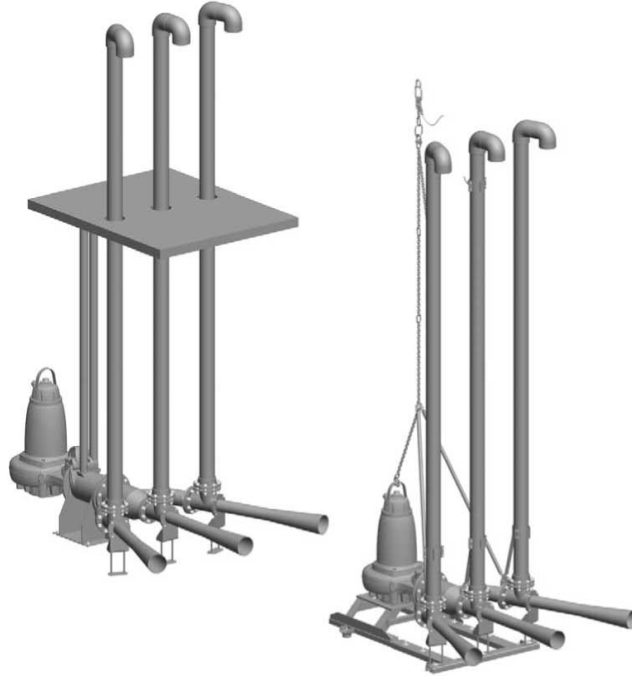


Figure 12: 60 Hz, impeller 641

# JA 317

## Product description



### Usage

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

### Parts

Part	Description
Ejectors	Three ejectors
Pump, separately ordered	N 3202 LT
Installation system	P, guide bar system
	S, self supporting

The pump is ordered separately.

If the pumped media is highly abrasive or has high chloride content with dissolved oxygen, then contact your sales and service representative. A Hard-Iron™ impeller and insert ring is recommend.

For S-installation, select the pump without a stand as the stand is included in the ejector system.

## Product data

### Application limits

For temperatures higher than 40° (104°F), contact your sales and service representative.

Feature	Description
Liquid temperature	Maximum 40° (104°F)

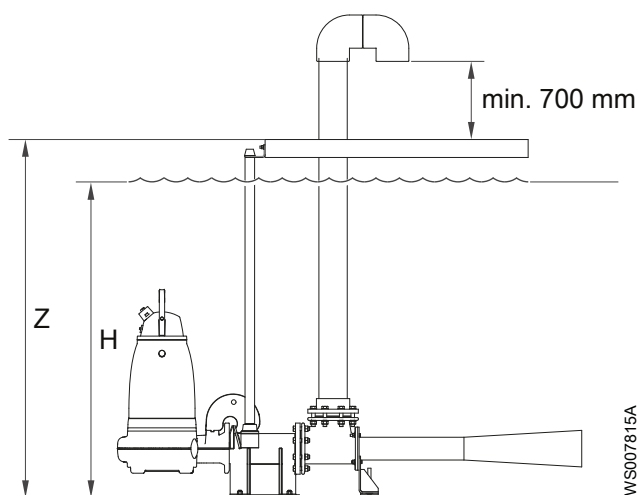
Feature	Description
pH of the pumped liquid	5.5-14
Liquid density	Maximum 1100 kg/m <sup>3</sup> (9.2 lb per US gallon)

**Materials**

Recommendation: Choose the stainless steel version when the pH of the pumped liquid is greater than 11.

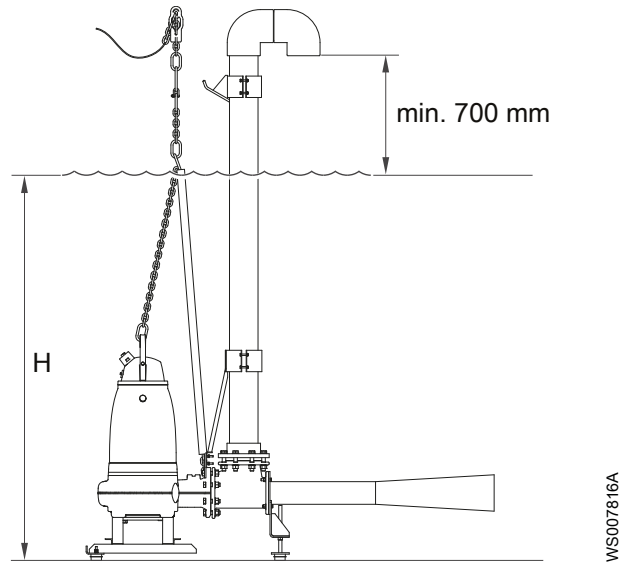
Main part	Part	Description
Ejector	Ejector housing	Cast iron or stainless steel
	Nozzle	Polyethylene high density (PEHD)
	Outlet pipe	Stainless steel
Pipes	Extension pipe	PVC-U, pressure class minimum PN10
Other	Screws, nuts, washers	Stainless steel
	Gasket	Rubber
	Chain sling	Galvanized steel or stainless steel

**P-installation**



Pump		Ejector system, part number		Weight	
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Pump weight kg (lb)	Ejector system weight kg (lb)
NP 3202 LT	1-7.1 (3 ft 3 in - 23 ft 4 in)	727 69 21	727 69 51	790 (1742)	380 (838)

S-installation



Pump		Ejector system, part number		Complete jet aerator
Type	Submergence H, m (ft)	Galvanized steel	Stainless steel	Weight kg (lb)
NX 3202 LT	1-7.1 (3 ft 3 in - 23 ft 4 in)	727 69 20	727 69 50	1300 (2866)

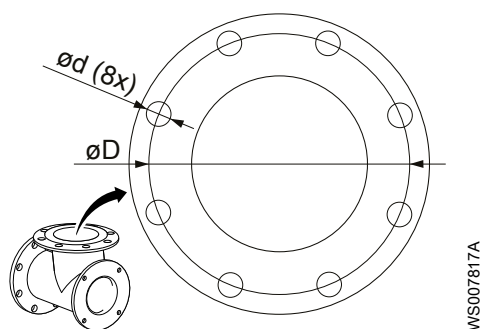
Options

Optional parts

Options are available for metric dimensions of PVC-U PN10 suction pipes, outer diameter (OD) 160 mm.  
 Flange and suction pipes are supplied locally for US dimensions of suction pipe with outer diameter (OD) 168.3 mm (6 5/8 in).

Part	Type of dimensions	Description
Suction pipes	Metric dimensions	Supplied locally
		Kit 4x1 m
	US dimensions	Supplied locally in lengths of approximately 5 m (16.4 ft)
	Glue	Supplied locally
	Stainless steel pipes	Supplied locally
Suction pipe extension kit	Metric dimensions	Suitable if H or Z > 5 m (16.4 ft) For locally supplied pipe length 5 m
		Suitable if H or Z > 4 m (13.1 ft) For pipe unit 4x1 m
Pipe bend	Metric dimensions	For air inlet protection
Chain sling extension kit	Metric and US dimensions	Suitable if H > 5 m (16.4 ft).
Flange kit	Metric dimensions	Flange kit available
	US dimensions	See the flange selection table.

## Flange selection table



Flange selection table for suction pipe connection with ejector (DN 150).

Suitable flange bore standards	D mm (in)	d mm (in)	Minimum screw length mm (in)
<ul style="list-style-type: none"> <li>• EN 1092-2, table 9</li> <li>• 6 in AS 2129 FANC, table D (flat flange)</li> <li>• 6 in ANSI B16.1 - 1989, table 5</li> </ul>	240 (9.45)	23 (0.9)	100 (3.94)

## Accessories

For electrical accessories such as pump controller, control panels, starters, monitoring relays and cables, contact your local sales and service representative.

## Motor ratings

50 Hz

Pump	Rated motor power, kW	Impeller	Ejector to pump flange, DN
N 3202 LT	37	610	300

60 Hz

Pump	Rated motor power, kW (hp)	Impeller	Ejector to pump flange, DN
N 3202 LT	45 (60.0)	614	300

# Performance curves

3202 LT

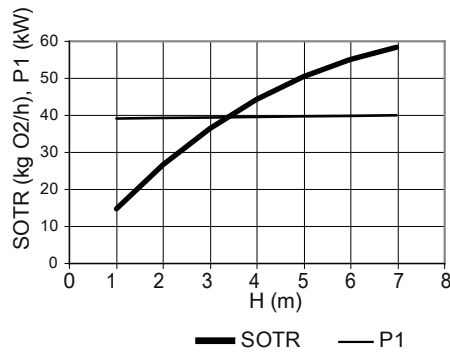
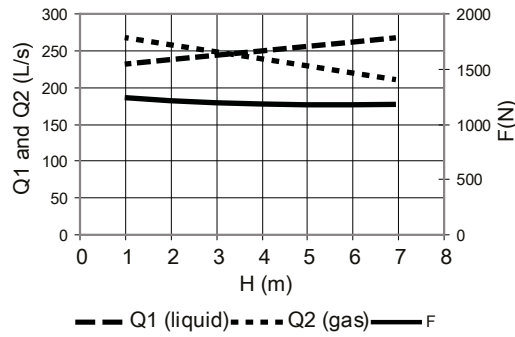


Figure 13: 50 Hz, impeller 610

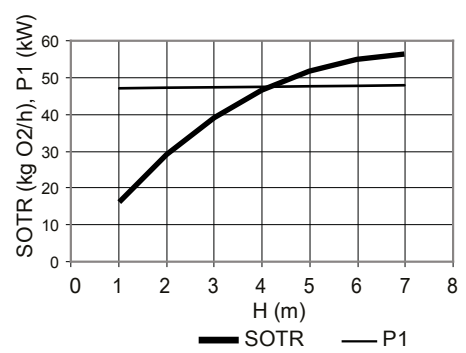
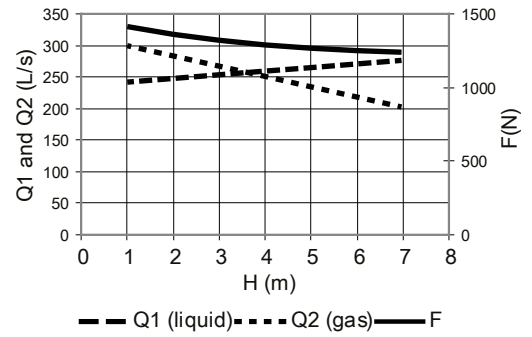


Figure 14: 60 Hz, impeller 614









# Xylem |'zīləm|

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

We're 12,900 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. 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, backed by a legacy of innovation.

For more information on how Xylem can help you, go to [xyleminc.com](http://xyleminc.com)

Refer to [www.xylemwatersolutions.com/contacts/](http://www.xylemwatersolutions.com/contacts/) for contact details of your local sales and service representative.



Xylem Water Solutions  
Manufacturing AB  
361 80 Emmaboda  
Sweden  
Tel: +46-471-24 70 00  
Fax: +46-471-24 47 01  
<http://tpi.xyleminc.com>

Visit our Web site for the latest version of this document and more information

The original instruction is in English. All non-English instructions are translations of the original instruction.

© 2014 Xylem Inc