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Dewatering pump handbook

RENTAL, SALES AND SERVICE FOR CONSTRUCTION,
MINING, MUNICIPAL AND OTHER INDUSTRIES



60Hz

Introduction

This handbook is an essential working tool for pump operators, supervisors, site managers and engineers, who work with pumps on a daily basis.

Here you will find an overview of all Flygt dewatering pumps and accessories, including technical details such as performance curves, sizes, dimensions and weights. Our comprehensive range covers virtually every size, pressure, flow rate and functionality.

Whether you want to rent or buy you can depend on us for reliable equipment, service and turnkey solutions for any dewatering application in more than 140 countries.



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Mining and quarrying

- Open pit and underground drainage
- Face and stage dewatering
- Slurry tailings removal
- Process water supply



Oil and gas

- Product transfer in refineries
- Pipeline pigging
- Process water supply
- Temporary fire pumps



Industrial

- Pumping industrial wastewater
- Fly ash removal
- Temporary fire pumps



Marine

- Barge ballasting
- Vessel dewatering
- Jetting



Construction and tunneling

- Site drainage and wellpoint dewatering
- Bentonite slurry pumping
- Stream diversions
- Drill rig water supply



Municipal

- Emergency drainage of floodwaters
- Sewage bypass
- Lift station backup pumping
- Sludge removal

Nobody does dewatering better

No matter what the challenge, our dewatering solutions keep you on solid ground.

Rental

Rent dewatering pumps, equipment and accessories on a daily, weekly, monthly or project basis.

Sales

Buy dewatering pumps, equipment and accessories.

Service

Use our service knowledge and expertise to support you with application engineering, pump repair, spare parts and turnkey project management.

2600 series

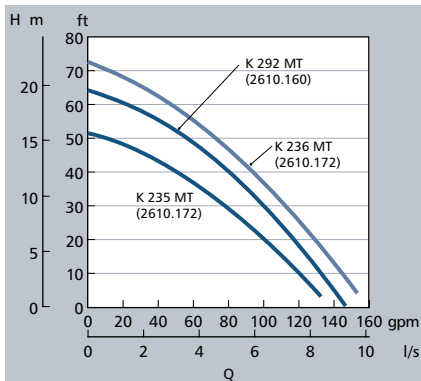
When water is your challenge, Flygt 2600 is your answer.

With a comprehensive range of pumps to suit any task, the Flygt 2600 series is the solution used to get the job done in mining, construction, industrial or municipal applications all over the world. The Flygt 2600 series have reliability built-in with innovative ways of reducing wear on the impeller and seal.



2600 series

2610.160/172



K = Open impeller.

Model	K 235 MT	K 292 MT	K 236 MT
Rating, hp (kW)	1.3 (0.97)	1.8 (1.3)	1.9 (1.4)
Voltage, V/phase	115/230, 1~	115/230, 1~	230/460, 3~
Rated current, A	11/5.6	15/8.2	5.2/2.6
Weight, lbs (kg)	47 (22)	55 (25)	47 (22)
Max. height, in (mm)	22" (570)	24" (601)	22" (570)
Max. width, in (mm)	7 7/8" (200)	7 7/8" (200)	7 7/8" (200)
Discharge Ø, in	2"	2"	2"
Strainer hole, in (mm)	5/16" (7.5)	5/16" (7.5)	5/16" (7.5)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes

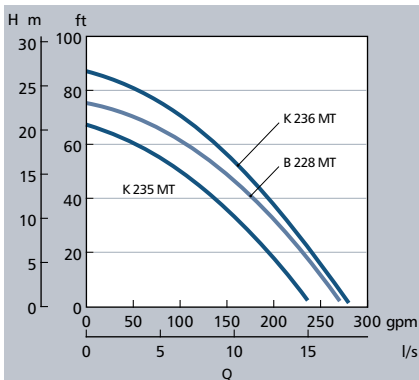
Available in MSHA versions 2610.083/2610.050

For additional specifications, see product technical documentation.

With reservation for changes.

2600 series

2620.172



B = Wear-resistant impeller. K = Open impeller.

Model	B 228 MT	K 235 MT	K 236 MT
Rating, hp (kW)	3.5 (2.6)	2.4 (1.8)	3.5 (2.6)
Voltage, V/phase	230/460, 3~	230, 1~	230/460, 3~
Rated current, A	9.5/4.7	9.9	9.5/4.7
Weight, lbs (kg)	66 (30)	64 (29)	66 (30)
Max. height, in (mm)	25" (623)	25" (623)	25" (623)
Max. width, in (mm)	9 1/2" (240)	9 1/2" (240)	9 1/2" (240)
Discharge Ø, in	3"	3"	3"
Strainer hole, in (mm)	5/16" (7.5)	5/16" (7.5)	5/16" (7.5)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes

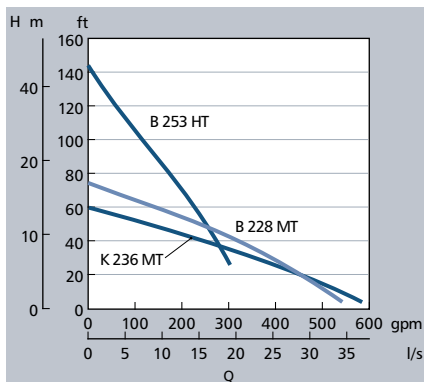
Available in MSHA versions 2620.083

For additional specifications, see product technical documentation.

With reservation for changes.

2600 series

2630.181



B = Wear-resistant impeller. K = Open impeller.

Model	B 228 MT	B 253 HT	K 236 MT
Rating, hp (kW)	5.9 (4.4)	5.9 (4.4)	5.9 (4.4)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	15/7.3	15/7.3	15/7.3
Weight, lbs (kg)	106 (48)	106 (48)	106 (48)
Max. height, in (mm)	29" (725)	29" (725)	29" (725)
Max. width, in (mm)	11 1/4" (286)	11 1/4" (286)	11 1/4" (286)
Discharge Ø, in	4"	3"	4"
Strainer hole, in (mm)	3/8" (10)	3/8" (10)	3/8" (10)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes

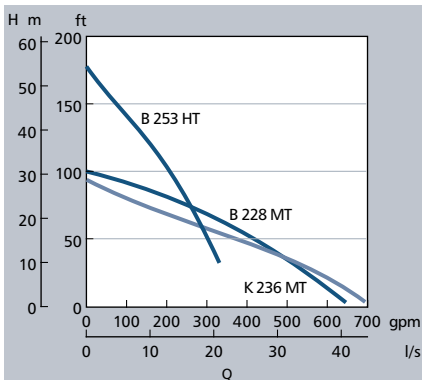
Available in MSHA versions 2630.082

For additional specifications, see product technical documentation.

With reservation for changes.

2600 series

2640.181



B = Wear-resistant impeller. K = Open impeller.

Model	B 228 MT	B 253 HT	K 236 MT
Rating, hp (kW)	8.9 (6.6)	8.9 (6.6)	8.9 (6.6)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	22/11	22/11	22/11
Weight, lbs (kg)	110 (50)	110 (50)	110 (50)
Max. height, in (mm)	29" (725)	29" (725)	29" (725)
Max. width, in (mm)	11 1/4" (286)	11 1/4" (286)	11 1/4" (286)
Discharge Ø, in	4"	3"	4"
Strainer hole, in (mm)	3/8" (10)	3/8" (10)	3/8" (10)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes

Available in MSHA versions 2640.082

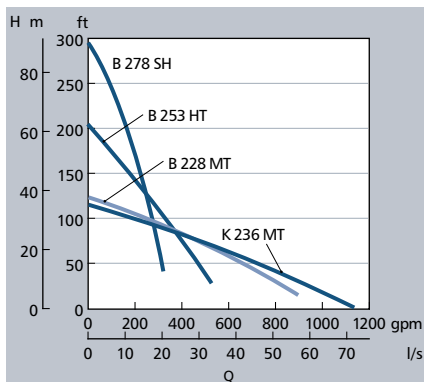
For additional specifications, see product technical documentation.

With reservation for changes.

Flygt submersible drainage pumps

2600 series

2660.181



B = Wear-resistant impeller. K = Open impeller.

Model	B 228 MT	B 253 HT	B 278 SH	K 236 MT
Rating, hp (kW)	15 (11)	15 (11)	15 (11)	15 (11)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	35.0/18.0	35.0/18.0	35.0/18.0	35.0/18.0
Weight, lbs (kg)	172 (78)	172 (78)	212 (96)	172 (78)
Max. height, in (mm)	32" (803)	32" (803)	32" (890)	32" (803)
Max. width, in (mm)	13 ³ / ₄ " (346)	13 ³ / ₄ " (346)	13 ³ / ₄ " (346)	13 ³ / ₄ " (346)
Discharge Ø, in	6"	4"	3"	6"
Strainer hole, in (mm)	3/8" (10)	3/8" (10)	3/8" (10)	3/8" (10)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes	Yes

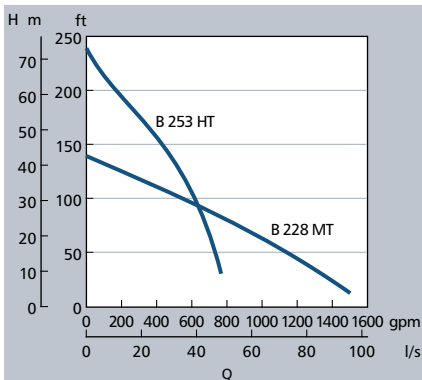
Available in MSHA versions 2660.082

For additional specifications, see product technical documentation.

With reservation for changes.

2600 series

2670.181



B = Wear-resistant impeller.

Model	B 228 MT	B 253 HT
Rating, hp (kW)	27 (20)	27 (20)
Voltage, V/phase	230/460, 3~	230/460, 3~
Rated current, A	61.0/31.0	61.0/31.0
Weight, lbs (kg)	289 (131)	289 (131)
Max. height, in (mm)	38" (955)	38" (955)
Max. width, in (mm)	16" (395)	16" (395)
Discharge Ø, in	6"	4"
Strainer hole, in (mm)	1/2" (12)	1/2" (12)
Warm liquid, 158°F (70°C)	Yes	Yes

Available in MSHA versions 2670.082

For additional specifications, see product technical documentation.

With reservation for changes.

2600 sludge series

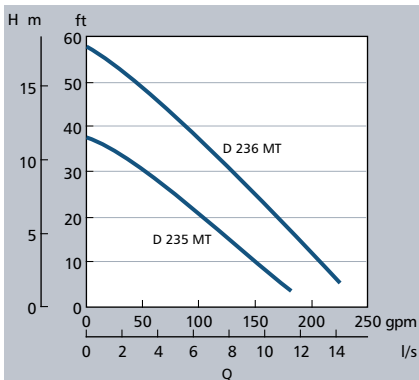
Built on the Flygt 2600 series platform, these portable sludge pumps tackle the tough challenge of moving sludge and other liquids with ease – without clogging.

These compact solids-handling pumps feature a high-chrome vortex impeller to enable the passage of large solids as well as solids concentrations of approximately 20% by weight.

This makes them ideal for dewatering in construction, mining, industrial and wastewater applications.



2600 sludge series 2620.281



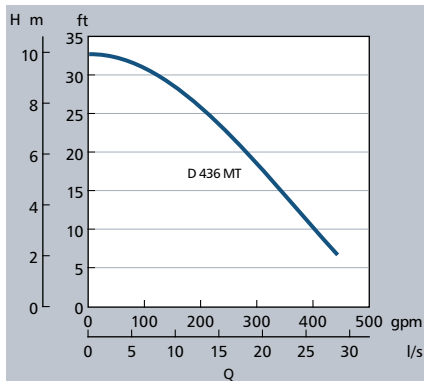
D = Solids-handling impeller.

Model	D 235 MT	D 236 MT
Rating, hp (kW)	2.4 (1.8)	3.5 (2.6)
Voltage, V/phase	230, 1~	230/460, 3~
Rated current, A	9.9	9.5/4.7
Weight, lbs (kg)	73 (33)	73 (33)
Max. height, in (mm)	28" (722)	28" (722)
Max. width, in (mm)	16" (410)	16" (410)
Discharge Ø, in	3"	3"
Solids passage Ø, in (mm)	2" (50)	2" (50)
Warm liquid, 158°F (70°C)	No	No

Available in MSHA versions 2620.580

For additional specifications, see product technical documentation.
With reservation for changes.

2600 sludge series 2630.281



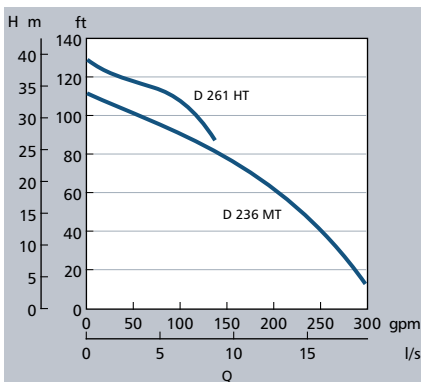
D = Solids-handling impeller.

Model	D 436 MT
Rating, hp (kW)	6 (4.5)
Voltage, V/phase	230/460, 3~
Rated current, A	17.0/8.6
Weight, lbs (kg)	119 (54)
Max. height, in (mm)	34" 859
Max. width, in (mm)	19" (480)
Discharge Ø, in	4"
Solids passage Ø, in (mm)	3" (80)
Warm liquid, 158°F (70°C)	No

For additional specifications, see product technical documentation.

With reservation for changes.

2600 sludge series 2640.281



D = Solids-handling impeller.

Model	D 261 MT	D 236 HT
Rating, hp (kW)	8.9 (6.6)	8.9 (6.6)
Voltage, V/phase	230/460, 3~	230/460, 3~
Rated current, A	22/11	22/11
Weight, lbs (kg)	123 (56)	123 (56)
Max. height, in (mm)	34" (859)	34 (859)
Max. width, in (mm)	18" (452)	18" (452)
Discharge Ø, in	3"	3"
Solids passage Ø, in (mm)	2" (46)	2" (46)
Warm liquid, 158°F (70°C)	No	No

Available in MSHA versions 2640.580

For additional specifications, see product technical documentation.
With reservation for changes.

Flygt BIBO 2800

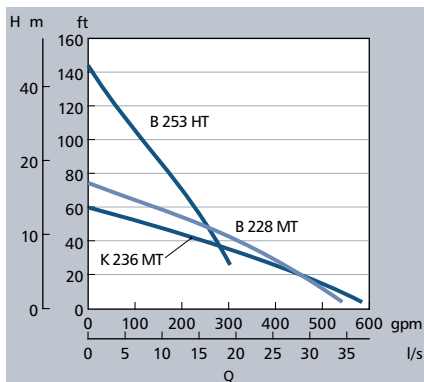
For decades whenever a dewatering challenge seemed too tough or too harsh, the answer has been simple, Flygt BIBO. So how do you improve upon a legend? Simple, we created a new one.

It still has the iconic look; a shape that means stability and robustness. We took our proven hydraulic design and merged it with features that once set the standard in dewatering pumping. For mining, quarrying, construction and tunneling, Flygt BIBO, still a choice you never regret.



BIBO 2800 series

2830.180



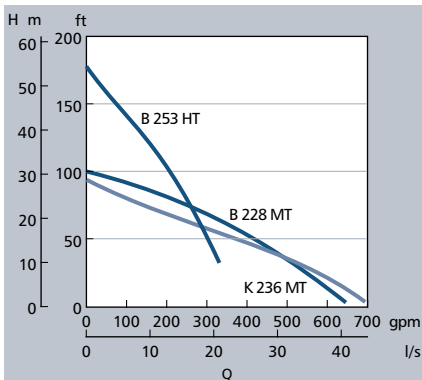
B = Wear-resistant impeller. K = Open impeller.

Model	B 228 MT	B 253 HT	K 236 MT
Rating, hp (kW)	5.9 (4.4)	5.9 (4.4)	5.9 (4.4)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	15/7.3	15/7.3	15/7.3
Weight, lbs (kg)	119 (54)	119 (54)	119 (54)
Max. height, in (mm)	30" (762)	30" (762)	30" (762)
Max. width, in (mm)	19" (471)	19" (471)	19" (471)
Discharge Ø, in	4"	3"	4"
Strainer hole, in (mm)	3/8" (10)	3/8" (10)	3/8" (10)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes

For additional specifications, see product technical documentation.

With reservation for changes.

BIBO 2800 series 2840.180

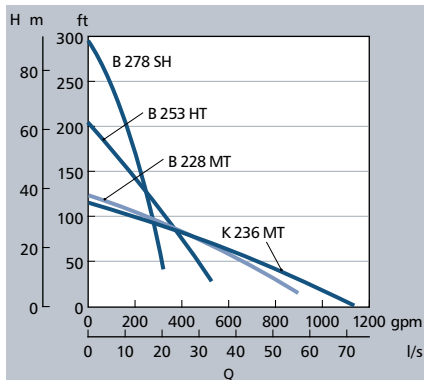


B = Wear-resistant impeller. K = Open impeller.

Model	B 228 MT	B 253 HT	K 236 MT
Rating, hp (kW)	8.9 (6.6)	8.9 (6.6)	8.9 (6.6)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	22/11	22/11	22/11
Weight, lbs (kg)	123 (56)	123 (56)	123 (56)
Max. height, in (mm)	30" (762)	30" (762)	30" (762)
Max. width, in (mm)	19 (471)	19 (471)	19 (471)
Discharge Ø, in	4"	3"	4"
Strainer hole, in (mm)	3/8" (10)	3/8" (10)	3/8" (10)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes

For additional specifications, see product technical documentation.
With reservation for changes.

BIBO 2800 series 2860.180



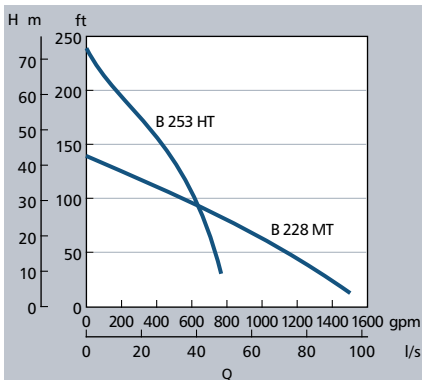
B = Wear-resistant impeller. K = Open impeller.

Model	B 228 MT	B 253 HT	B 278 SH	K 236 MT
Rating, hp (kW)	15 (11)	15 (11)	15 (11)	15 (11)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	35/18	35/18	35/18	35/18
Weight, lbs (kg)	201 (91)	201 (91)	201 (91)	201 (91)
Max. height, in (mm)	35" (899)	35" (899)	35" (899)	35" (899)
Max. width, in (mm)	22" (564)	22" (564)	22" (564)	22" (564)
Discharge Ø, in	6"	4"	3"	6"
Strainer hole, in (mm)	3/8" (10)	3/8" (10)	3/8" (10)	3/8" (10)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes	Yes

For additional specifications, see product technical documentation.

With reservation for changes.

BIBO 2800 series 2870.180



B = Wear-resistant impeller.

Model	B 228 MT	B 253 HT
Rating, hp (kW)	27 (20)	27 (20)
Voltage, V/phase	230/460, 3~	230/460, 3~
Rated current, A	61/31	61/31
Weight, lbs (kg)	340 (154)	340 (154)
Max. height, in (mm)	39" (991)	39" (991)
Max. width, in (mm)	25" (637)	25" (637)
Discharge Ø, in	6"	4"
Strainer hole, in (mm)	1/2" (12)	1/2" (12)
Warm liquid, 158°F (70°C)	Yes	Yes

For additional specifications, see product technical documentation.
With reservation for changes.

2000 series

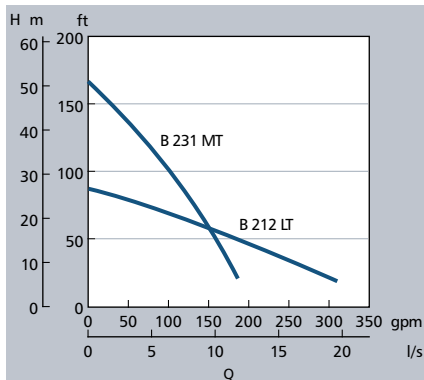
Flygt 2000 pumps easily handle mechanically abrasive or fluids laden with particles. They handle higher flow rates up to 325 l/s (5200 gpm) and heads up to 230 m (750 ft).

Flygt 2000 products are available in lightweight aluminum or corrosion-resistant cast iron. Some models are available in explosion-proof Ex versions.



2000 series

2071.010



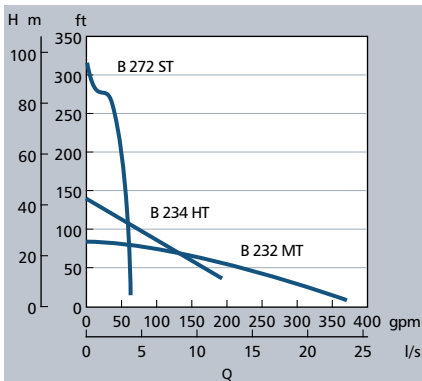
Model	B 212 LT	B 231 MT
Rating, hp (kW)	6 (4.5)	6 (4.5)
Voltage, V/phase	230/460, 3~	230/460, 3~
Rated current, A	16.0/8.0	16.0/8.0
Weight, lbs (kg)	62 (28)	62 (28)
Max. height, in (mm)	27" (690)	27" (690)
Max. width, in (mm)	7 ⁵ / ₈ " (185)	7 ⁵ / ₈ " (185)
Discharge Ø, in	3"	3"
Strainer hole, in (mm)	5/16"×2" (8×50)	5/16"×2" (8×50)
Warm liquid, 158°F (70°C)	Yes	Yes

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2075.324 (Cast iron)



Model	B 232 MT	B 234 HT	B 272 ST
Rating, hp (kW)	5.3 (4)	5.3 (4)	8.9 (6.6)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	14.0/7.2	14.0/7.2	23.0/12.0
Weight, lbs (kg)	88 (40)	88 (40)	88 (40)
Max. height, in (mm)	22" (570)	22" (570)	22" (570)
Max. width, in (mm)	12" (310)	12" (310)	12" (310)
Discharge Ø, in	3"	3"	2"
Strainer hole, in (mm)	1/4"×1" (6×26)	1/4"×1" (6×26)	1/4"×1/4" (6×26)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes

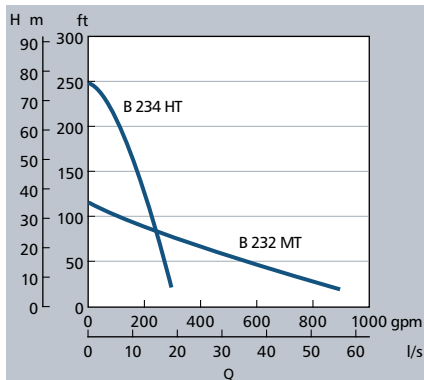
Available in Ex/MSHA versions 2075.590,690/050,490

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2125.320 (Cast iron)



Model	B 232 MT	B 234 HT
Rating, hp (kW)	13 (9.7)	13 (9.7)
Voltage, V/phase	230/460, 3~	230/460, 3~
Rated current, A	32.0/16.0	32.0/16.0
Weight, lbs (kg)	170 (77)	361 (164)
Max. height, in (mm)	33" (830)	34" (865)
Max. width, in (mm)	19" (485)	18" (465)
Discharge Ø, in	4"	3"
Strainer hole, in (mm)	1/4"×2" (6×50)	1/4"×2" (6×50)
Warm liquid, 158°F (70°C)	No	No

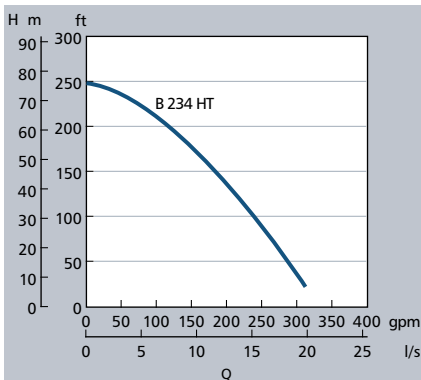
Available in Ex versions 2125.690

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2125.181

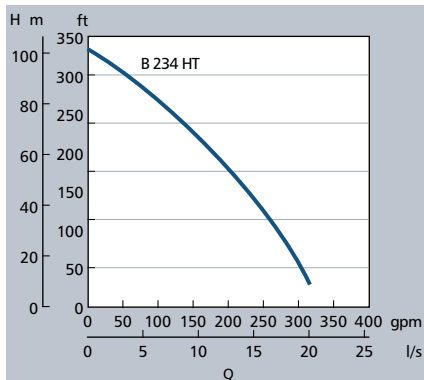


Model	B 234 HT
Rating, hp (kW)	13 (9.7)
Voltage, V/phase	230/460, 3~
Rated current, A	32.0/16.0
Weight, lbs (kg)	170 (77)
Max. height, in (mm)	33" (830)
Max. width, in (mm)	18" (465)
Discharge Ø, in	3"
Strainer hole, in (mm)	1/4"×2" (6×50)
Warm liquid, 158°F (70°C)	No

Available in MSHA version 2125.051

2000 series

2140.010



Model	B 234 HT
Rating, hp (kW)	19 (14.2)
Voltage, V/phase	230/460, 3~
Rated current, A	46.0/23.0
Weight, lbs (kg)	187 (85)
Max. height, in (mm)	33" (843)
Max. width, in (mm)	14" (360)
Discharge Ø, in	3"
Strainer hole, in (mm)	1/4"×2" (6×50)
Warm liquid, 158°F (70°C)	No

For additional specifications, see product technical documentation.

With reservation for changes.

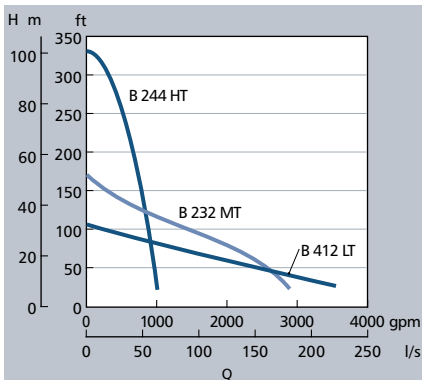
2000 series

2201.011

MT
LT



HT



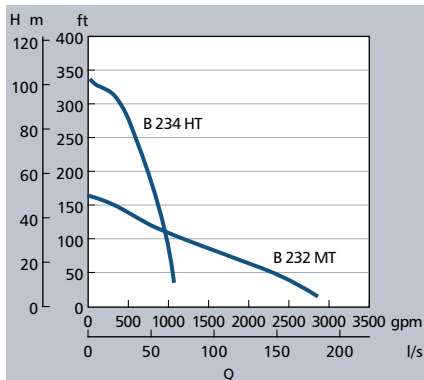
Model	B 412 LT	B 232 MT	B 244 HT
Rating, hp (kW)	50 (37)	58 (43)	58 (43)
Voltage, V/phase	460/575, 3~	460/575, 3~	460/575, 3~
Rated current, A	64/48	65/52	65/52
Weight, lbs (kg)	617 (280)	617 (280)	529 (240)
Max. height, in (mm)	48" (1215)	48" (1215)	41" (1050)
Max. width, in (mm)	19" (500)	19" (500)	17" (430)
Discharge Ø, in	8"	8"	4"
Strainer hole, in (mm)	3/8"×3/8" (10×10)	5/8"×5/8" (15×45)	3/8"×3/8" (10×10)
Warm liquid, 158°F (70°C)	No	No	No

Available in Ex/MSHA versions 2201.690/590

For additional specifications, see product technical documentation.
With reservation for changes.

2000 series

2201.320 (Cast iron)



Model	B 232 MT	B 234 HT
Rating, hp (kW)	58 (43)	58 (43)
Voltage, V/phase	460/575, 3~	460/575, 3~
Rated current, A	65/52	65/52
Weight, lbs (kg)	981 (445)	771 (350)
Max. height, in (mm)	45" (1140)	41" (1050)
Max. width, in (mm)	20" (500)	17" (435)
Discharge Ø, in	8"	4"
Strainer hole, in (mm)	5/8"×5/8" (15×45)	3/8"×3/8" (10×10)
Warm liquid, 158°F (70°C)	Yes	Yes

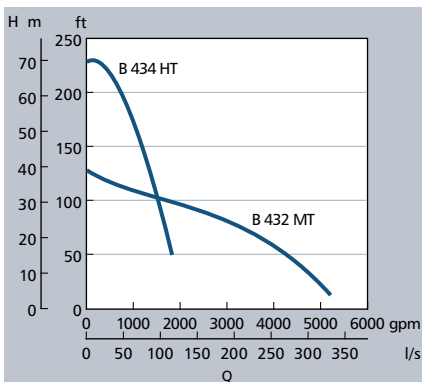
Available in Ex/MSHA versions 2201.690/590

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2250.011



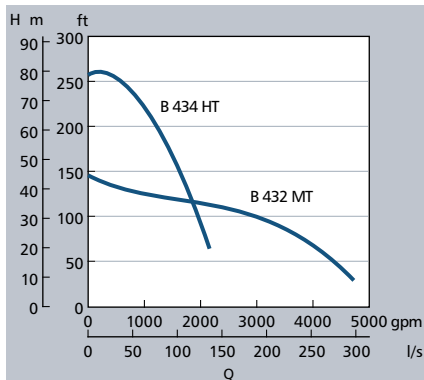
Model	B 432 MT	B 434 HT
Rating, hp (kW)	87 (65)	87 (65)
Voltage, V/phase	460/575, 3~	460/575, 3~
Rated current, A	103/84	103/84
Weight, lbs (kg)	1190 (540)	1190 (540)
Max. height, in (mm)	49" (1260)	49" (1260)
Max. width, in (mm)	37" (940)	33" (838)
Discharge Ø, in	10"	6"
Strainer hole, in (mm)	5/8"×5/8" (15×45)	5/8"×5/8" (15×45)
Warm liquid, 158°F (70°C)	No	No

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2290.010



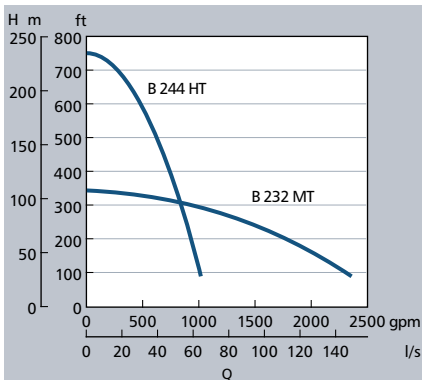
Model	B 432 MT	B 434 HT
Rating, hp (kW)	110 (82)	110 (82)
Voltage, V/phase	460/575, 3~	460/575, 3~
Rated current, A	131/100	131/100
Weight, lbs (kg)	1190 (540)	1190 (540)
Max. height, in (mm)	49" (1260)	49" (1260)
Max. width, in (mm)	37" (940)	37" (940)
Discharge Ø, in	10"	3"
Strainer hole, in (mm)	5/8"×5/8" (15×45)	5/8"×5/8" (15×45)
Warm liquid, 158°F (70°C)	No	No

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2400.402



Model	B 232 MT	B 244 HT
Rating, hp (kW)	140 (104)	140 (104)
Voltage, V/phase	460/575, 3~	460/575, 3~
Rated current, A	148/118	148/118
Weight, lbs (kg)	1984 (900)	2172 (985)
Max. height, in (mm)	46" (1180)	49" (1245)
Max. width, in (mm)	30" (770)	27" (770)
Discharge Ø, in	6"	4"
Strainer hole, in (mm)	3/8"×3/8" (10×10)	3/8"×3/8" (10×10)
Warm liquid, 158°F (70°C)	No	No

Available in Ex/MSHA versions 2400.591/490

For additional specifications, see product technical documentation.

With reservation for changes.

2700 stainless steel series

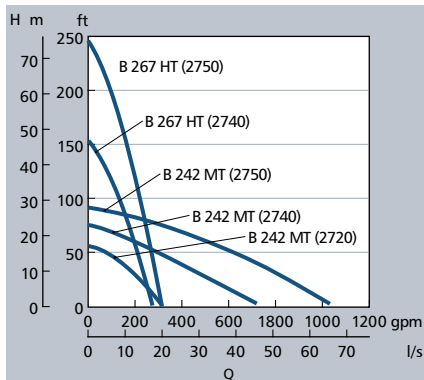
The all-stainless steel Flygt 2700 series handles corrosive and abrasive liquids with wide variances in pH levels. These pumps are built to tackle the toughest dewatering challenges.

The Flygt 2700 series consists of three drainage pumps and three solids handling pumps. Ideal for pH values between 2 and 10, these pumps are tough enough to handle both highly acidic and highly alkaline media.



2700 series

2720, 2740, 2750



B = Wear-resistant impeller.

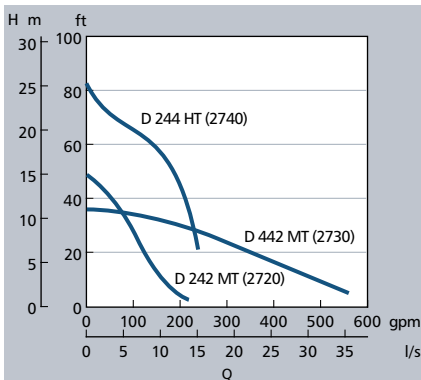
Model	B 2720	B 2740	B 2750
Rating, hp (kW)	3.1 (2.3)	9 (6.7)	13 (9.7)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	8.5/4.2	21.0/11.0	31.0/15.0
Weight, lbs (kg)	97 (44)	165 (75)	198 (90)
Max. height, in (mm)	24" (600)	29" (725)	31" (780)
Max. width, in (mm)	9" (235)	11" (280)	11" (280)
Discharge Ø, in	3"	3" / 4"	3" / 4"
Strainer hole, in (mm)	1"×1/4" (25×7)	1"×1/4" (25×7)	1"×1/4" (25×7)
Warm liquid, 158°F (70°C)	No	No	No
pH	2-10	2-10	2-10

For additional specifications, see product technical documentation.

With reservation for changes.

2700 sludge series

2720, 2730, 2740



D = Solids-handling impeller.

Model	D 2720	D 2730	D 2740
Rating, hp (kW)	3.1 (2.3)	6.8 (5.1)	9 (6.7)
Voltage, V/phase	230/460, 3~	230/460, 3~	230/460, 3~
Rated current, A	8.5/4.2	18.0/9.0	21.0/11.0
Weight, lbs (kg)	97 (48)	183 (83)	187 (85)
Max. height, in (mm)	28" (715)	33" (845)	33" (845)
Max. width, in (mm)	16½" (420)	17" (440)	17" (440)
Discharge Ø, in	3"	3" / 4"	3" / 4"
Strainer hole, in (mm)	2" (50)	3" (75 & 80)	2" (46)
Warm liquid, 158°F (70°C)	No	No	No
pH	2-10	2-10	2-10

For additional specifications, see product technical documentation.
With reservation for changes.

Ready

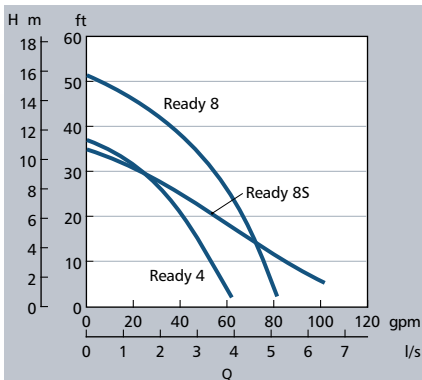
Whether it's for construction or industrial sites, manholes or emergency situations, you'll be ready for on-the-spot dewatering – time and time again.

Ready pumps are easy to carry, install and service. These pumps go where other pumps do not fit and can be stored easily in service vehicles for quick response to flooding or clean-up.



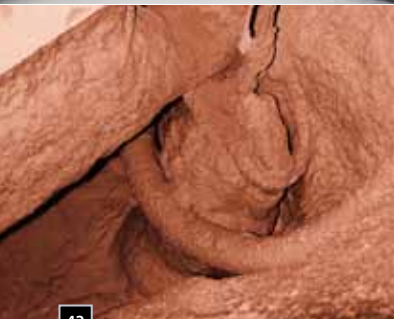
Ready

Ready 4, Ready 8, Ready 8S



Model	Ready 4	Ready 8	Ready 8S
Rating, hp (kW)	0.6 (0.5)	1.1 (0.82)	1.1 (0.82)
Voltage, V/phase	115/230, 1~	115/230, 1~	115/230, 1~
Rated current, A	5.5/2.9	9.8/4.8	9.8/4.8
Weight, lbs (kg)	26 (12)	32 (14.5)	37 (17)
Max. height, in (mm)	17" (438)	17" (438)	20" (512)
Max. width, in (mm)	7 1/4" (184)	7 1/4" (184)	10 1/2" (263)
Discharge Ø, in	2"	2"	2"
Strainer hole, in (mm)	3/8"×3/16" (11×5)	3/8"×3/16" (11×5)	1.5" (38)
Warm liquid, 158°F (70°C)	No	No	No

For additional specifications, see product technical documentation.
With reservation for changes.





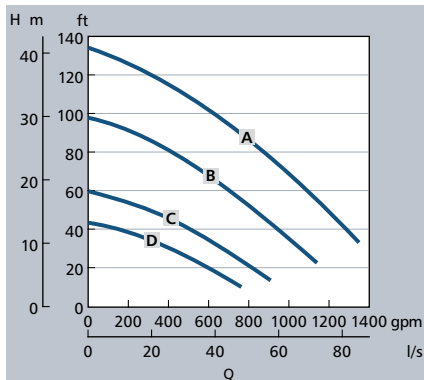
5000 series

Rugged, reliable and cost effective, the Flygt 5000 series of submersible slurry pumps handle transportation of the most abrasive solids that are suspended in liquid.

Designed for excellent performance, low energy consumption, long wear life and easy maintenance, our Flygt 5000 series pumps serve a wide range of slurry transport applications.

With a slim, compact design, these abrasive- and corrosive-resistant portable slurry pumps provide quiet, economical solutions for slurry transportation.

5000 series H 5100



Model	211	251	300
Rating, hp (kW)	12-20 (9-15)	25-34(19-25)	35-60(26-45)
R. current, A	21-26	31-40	52-80
Weight, lbs (kg)	474 (215)	611 (277)	1290 (585)
Max. height, in (mm)	39" (978)	44" (1124)	51" (1296)
Max. width, in (mm)	21½" (547)	21½" (547)	23" (595)
Discharge Ø, in	4"	4"	4"
Strainer hole, in (mm)	1 3/16" (30)	1 3/16" (30)	1 3/16" (30)
Warm liquid, 158°F (70°C)	Yes	Yes	Yes
Agitator available	Yes	Yes	Yes
EX version	221	261	310

	211	251	300
Performance	A	430	430
	B	432	432
	C	630	630
	D	632	632

(400 = 4 pole, 600 = 6 pole)

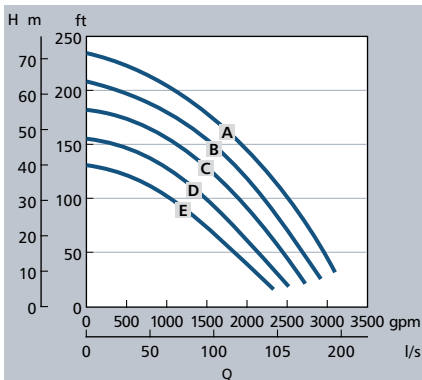
E.g. 5100.300 63-430

Internal and external cooling available

For additional specifications, see product technical documentation.

With reservation for changes.

5000 series H 5150



Model	300	350
Rating, hp (kW)	45-70 (34-56)	85-105 (63-78)
Rated current, A	52-80	101-121
Weight, lbs (kg)	1290 (585)	1800 (817)
Max height, in (mm)	56" (1410)	60" (1537)
Max width, in (mm)	34" (875)	34" (875)
Discharge Ø, in	6"	6"
Strainer hole, in (mm)	1 3/8" (36)	1 3/8" (36)
Warm liquid, 158°F (70°C)	Yes	Yes
Agitator available	Yes	Yes
EX version	310	360

	300	350	
Performance curves	A	430	
	B	432	
	C	434	
	D	432	436
	E	434	438

E.g. 5150.350 63-436

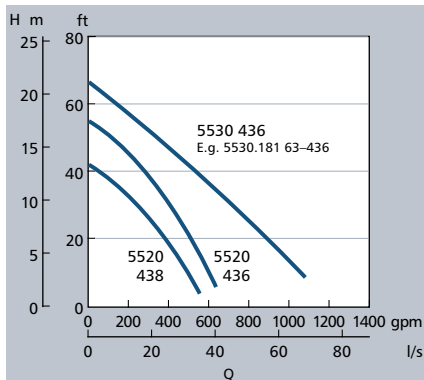
Internal and external cooling available

For additional specifications, see product technical documentation.

With reservation for changes.

5000 series

H 5520, 5530



Model	5520	5530
Rating, hp (kW)	5 (3.7)	10 (7.5)
R. current, A	7.4	15
Weight, lbs (kg)	269 (122)	448 (203)
Max. height, in (mm)	33" (848)	33" (848)
Max. width, in (mm)	19" (478)	25" (632)
Discharge Ø, in	4"	6"
Strainer hole, in (mm)	3/4" (20)	1 3/16" (30)
Warm liquid, 158°F (70°C)	Yes	Yes
Agitator available	No	Yes
EX version	Yes	Yes

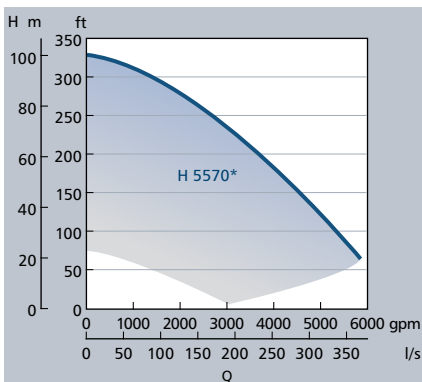
External cooling available

For additional specifications, see product technical documentation.

With reservation for changes.

5000 series

H 5570



*) For H 5570 – consult pump selection program for details on performance.

Model	5570
Rating, hp (kW)	90–335 (67–250)
R. current, A	118-395
Weight, lbs (kg)	73 (1240)
Max. height, in (mm)	73" (1868)
Max. width, in (mm)	39" (983)
Discharge Ø, in	8"
Strainer hole, in (mm)	1 3/16" (30)
Warm liquid, 158°F (70°C)	No*
Agitator available	Yes
EX version	Yes

*External cooling available

For additional specifications, see product technical documentation.

With reservation for changes.

Calculation effects of slurry

1. Determine SG/density of the liquid. If the density is unknown, it can be determined by using the formula or nomograph;

$$C_w/C_v = S/S_m$$

S = Specific gravity (SG) of dry solids

S_m = SG of the slurry

C_v = Concentration of solids by volume

C_w = Concentration of solids by weight

Max C_v for centrifugal pumps is 40%

2. Calculate the critical velocity. Choose a pipe diameter so that the pipe velocity is higher than the critical velocity.

1. Water + coarse gravel 4 m/s

2. Water + gravel 3 m/s

3. Water + sand

Particles < 0.1 mm 1.5 m/s

Particles < 0.6 mm 2.5 m/s

(Pipe velocity $V=Q/A$ [A =pipe area])

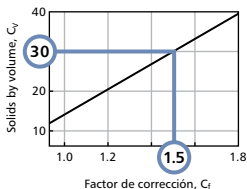
3. Calculate the total discharge head.

Use diagram or formula on page 86

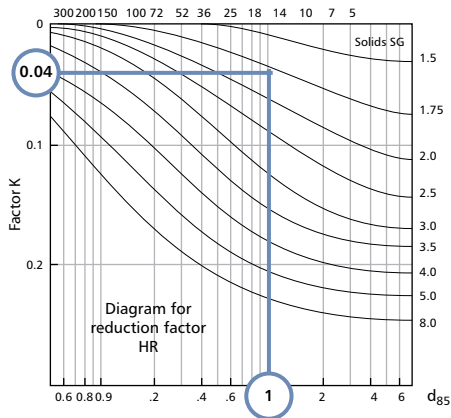
(Friction loss chart in Pumps 101 section).

If the concentration is more than 15% by volume (C_v), the value should be adjusted using the correction factor (C_f) diagram.

C_f for slurry $C_v=30\%=1.5$



4. The required duty point has now been established (H_{total}). If the solid concentration exceeds 15% by volume, the discharge head of the pump must be reduced. By dividing the duty head with the reduction factor (HR), the equivalent clean-water pump head is obtained (H_{CV}).



Head Reduction:

$$HR = 1 - K \times \frac{C_v}{20}$$

$$= 1 - 0.04 \times \frac{30}{20}$$

$$H_{CV} = \frac{H_{total}}{HR}$$

H_{total} = Head total slurry

H_{frsl} = Friction losses for slurry

H_{frcw} = Friction losses Clean Water

$H_{frsl} = H_{frcw} \times Cf$

$H_{total} = H_{stat} + H_{frsl}$

Example $S = 1.8$. $d_{85} = 1$ mm. $K = 0.04$

5. The pump can now be selected based on the flow and head values above.

6. The power curves for the pumps are based on clean water and these must then be multiplied by the specific gravity of the slurry to obtain the corresponding value for slurry pumping. Flygt recommends a motor with a 20% excess power margin for slurry applications due to variations in slurry.

Accessories



Hoses, cables and starters

Complement our extensive range of Flygt submersible drainage pumps with a wide range of accessories that simplify installation and operation.



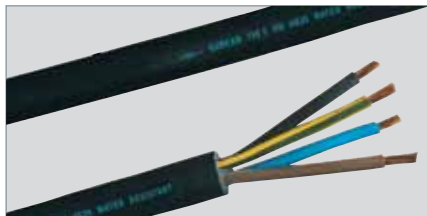
Discharge hoses

Meets your requirements through a wide variety of sizes.



Discharge outlet types

Enables convenient attachment of a hose or connection for vertical and horizontal pumping.



Flygt SUBCAB®

Ensures electricity supply and supervision reliability through built-in monitoring cores in submersible power cables.

Mechanical accessories

Adapt your pump to your specific requirements using our broad range of mechanical accessories.



Flygt pump raft
Keeps pump afloat using lightweight glass-fiber reinforced polymer.



Flygt tandem connection
Connects two or more pumps in series for extra high head operation.



Flygt low suction collar
Removes unwanted water down to very low levels when required for emergency services.



Flygt zinc anode kits
Provides extra protection against galvanic corrosion for all metal parts.

Electrical accessories

Automate pump operations with Flygt electrical accessories and reduce energy costs as well as pump wear.



Flygt FPC100 pump controller

Automatically controls the pump without the use of level sensors.



Flygt external level controller



Flygt level regulators

Controls pump starts and stops based on actual water levels and/or activates an alarm device.



Flygt pump mounted level regulator



Flygt pump starters (manual and automatic)

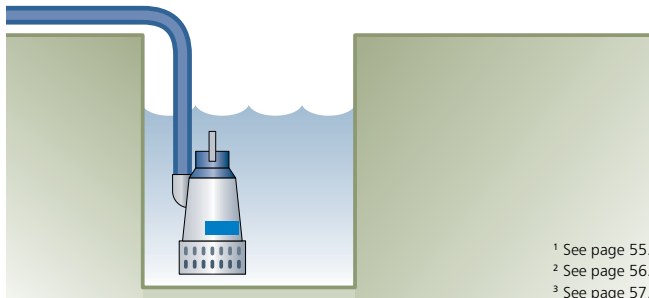
Provides thermal/magnetic overload protection, thermal contact supervision and phase sequence indication.

Basic pump hydraulics

All pumping applications have three things in common:

- Flow** Amount of liquid to be pumped
= Quantity divided by time¹
- Elevation** Gravity resistance
= Difference in vertical elevation from source to termination²
- Distance** Friction resistance, determined by the diameter, flow and hose/pipe material = Length of hose/pipe from source to termination³

To size a permanent or temporary pumping application, start by gathering data on flow, elevation and distance.



¹ See page 55.

² See page 56.

³ See page 57, 60.

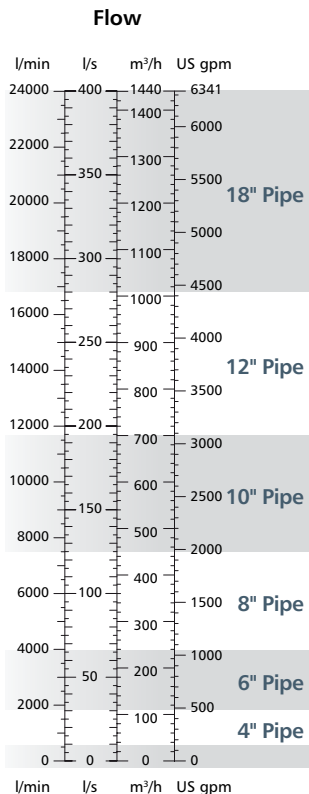
Flow determines pipe size

Liquid velocity is critical to keep solids in suspension. If velocity is too slow, solids drop out. If it's too fast, friction loss becomes an issue.

The chart on the right shows four different measurements for flow along with the corresponding hose/pipe size in inches.

Determining the flow is the first step in designing a complete pump system because flow determines the size of the pipe. When flow is not known, calculate quantity and divide by the time required to move the liquid.

<u>Flow</u>	=	<u>Quantity</u>	÷	<u>Time</u>
l/min		Liters		Minute
l/sec		Liters		Second
m ³ /hr		Meters ³		Hour
gpm		Gallons		Minute



Elevation determines required pump strength

It's not where the liquid is, but where it's going that determines the strength of the pump required. Static head is the difference in vertical elevation from the product source to its termination point.

Elevation guidelines

0–15 m (50 ft.)

15–30 m (50–100 ft.)

30–60 m (100–200 ft.)

60–180 m (200–600 ft.)

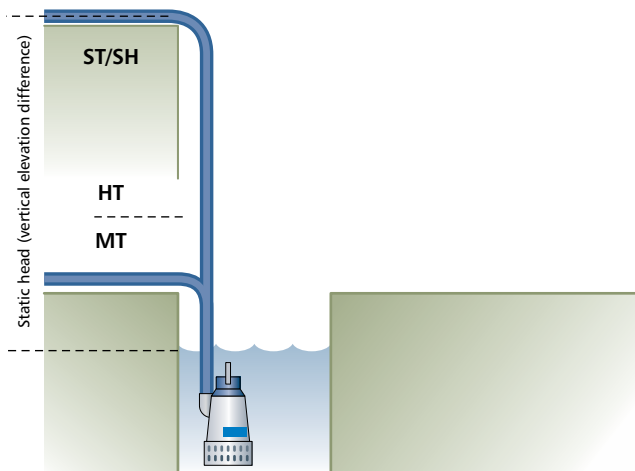
Flygt

MT

HT

MT/ST/SH

MT/ST/SH (Tandem)



Distance determines increase in pipe size

Every meter or foot of hose/pipe on suction or delivery piping creates friction resistance*, which is added to the static head (vertical elevation). The longer the discharge run, the more the friction. If the discharge length is too long, friction can be significantly reduced by increasing the diameter of the hose or pipe. To maintain the required flow over great distances, use these guidelines:

Total length of hose/pipe:

Up to 300 m (1,000 ft.)

Use the recommended diameter of hose/pipe according to the flow requirements indicated on page 81.

Over 300 m (1,000 ft.)

Increase the diameter of hose/pipe according to the flow requirements on page 55.

Example:

If a pump must transport 62 l/s (1,000 US gpm) of product over 400 m (1300 ft), for instance, you should increase the hose/pipe diameter from 6" to 8".



*See page 60 for friction losses in pipes and hoses.

Choosing the right pump

Once you have determined flow, lift and distance and established the basic design of the pumping system, one critical question remains:

What is being pumped?

Selecting the right pump ensures reliable operation to get the job done. Choosing the wrong pump may cause pump failure, service disruption and costly repair or replacement.

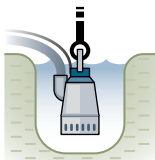
<i>Pumped media</i>	<i>Applications</i>	<i>Recommended pumps</i> Flygt
Clean or dirty water pH range 5–8	<ul style="list-style-type: none"> · Mining · Construction · Municipal 	2600 series 2000 series BIBO Ready
Sludge pH range 5–8	<ul style="list-style-type: none"> · Construction · Municipal · Industrial 	2600 series
Extreme pH (Corrosive) pH range 2–10	<ul style="list-style-type: none"> · Mining · Industrial 	2700 series
Slurry (Abrasive) pH range 5–9	<ul style="list-style-type: none"> · Mining · Industrial · Municipal 	5000 series

Positioning pumping equipment

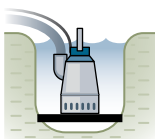
To complete the pumping job successfully, proper positioning of equipment is essential.

Submersible pumps (Flygt):

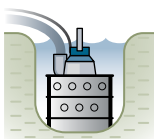
The following three options for drainage pumps provide reliable results.



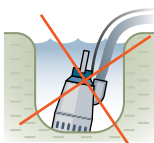
1. *Suspended*
(Not by electric cable)



2. *Supported*



3. *Surrounded*



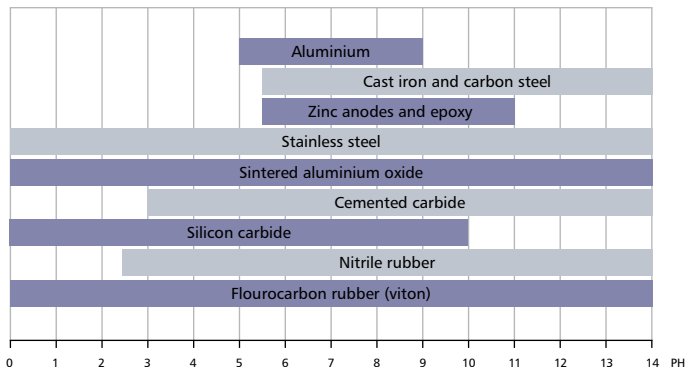
Sunk!

Friction losses in pipes and hoses

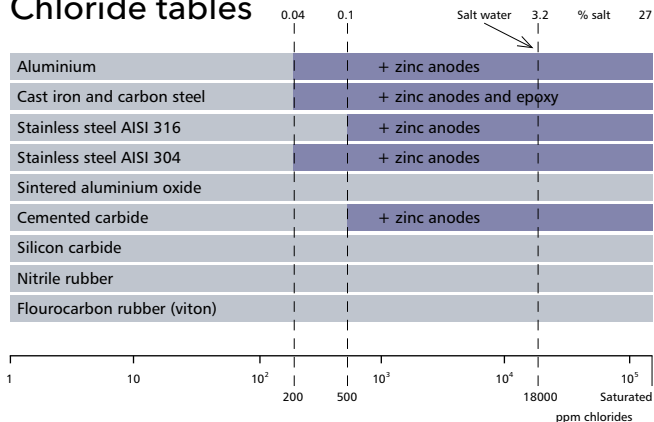
All pump capacities are measured for clean water, directly at the discharge outlet. When connecting a hose, you must consider the friction losses that come from the hose size and length

GPM	2"		3"		4"		6"		8"		10"	
	Heed loss FT/100'	Velocity FT./SEC.	Heed loss FT/100'	Velocity FT./SEC.	Heed loss FT/100'	Velocity FT./SEC.	Heed loss FT/100'	Velocity FT./SEC.	Heed loss FT/100'	Velocity FT./SEC.	Heed loss FT/100'	Velocity FT./SEC.
10	0,4	1,0										
15	0,9	1,5										
25	2,3	2,6	0,3	1,1								
50	8,3	5,1	1,2	2,3								
75	17,6	7,7	2,5	3,4								
100	30,0	10,2	4,2	4,5	1,0	2,6						
125	45,4	12,8	6,3	5,7	1,6	3,2						
150	63,6	15,3	8,8	6,8	2,2	3,8						
175	84,5	17,9	11,8	7,9	2,9	4,5						
200			15,1	9,1	3,7	5,1						
250			22,7	11,3	5,6	6,4	0,8	2,8				
300			31,9	13,6	7,9	7,7	1,1	3,4				
350			42,4	15,9	10,5	8,9	1,5	4,0				
400			54,3	18,2	13,4	10,2	1,9	4,5	0,5	2,6		
500					20,2	12,8	2,8	5,7	0,7	3,2		
600					28,3	15,3	3,9	6,8	1,0	3,8	0,3	2,5
700					37,7	17,9	5,2	7,9	1,3	4,5	0,4	2,9
800					48,3	20,4	6,7	9,1	1,7	5,1	0,6	3,3
1 000					72,9	25,5	10,1	11,3	2,5	6,4	0,8	4,1
1 250							15,3	14,2	3,8	8,0	1,3	5,1
1 500							21,5	17,0	5,3	9,6	1,8	6,1
1 750							28,6	19,9	7,0	11,2	2,4	7,1
2 000							36,6	22,7	9,0	12,8	3,0	8,2
2 500							55,2	28,4	13,6	16,0	4,6	10,2
3 000									19,1	19,1	6,4	12,3
3 500									25,4	22,3	8,6	14,3
4 000									32,5	25,5	11,0	16,3
4 500											13,6	18,4
5 000											16,6	20,4
6 000											23,2	24,5
7 000											30,9	28,6
8 000											39,6	32,7

pH tables



Chloride tables



Generator sizing chart

These are the recommended sizes of generators for Flygt submersible drainage pumps.

Voltages 3 ~ 460 V, 60 Hz

Pump Model	Max Power Consumption		Rated Current [A]	Permissible Cable Length		Delayed Fuse [A]	Generator Set [kVA]
	[HP]	[kW]		[ft]	[m]		
2610	2	1.5	2.6	980	299	10	5
2620	4	2.9	4.7	650	198	10	8
2630	6.8	5.0	7.1	490	149	20	15
2640	10	7.4	11	490	149	20	20
2660	16.8	12.3	18	490	149	30	35*/40
2670	30	22.1	31	290	88	50	60*/70
2125 HT	14.8	10.9	16	360	110	30	35*/40
2201	64.4	47.3	65	360	110	100	120*/150
2250	94	69.1	104	360	110	125	200*/250
2400	140	102.9	148	520	158	170	275*/350
2720	3.8	2.8	4.2	820	250		8
2730	7.8	5.7	9	650	198	20	16
2740	10	7.4	11	490	149	20	20
2750	14.5	10.7	15	590	180	20	30

*Y/D start

Voltages 1 ~ 230 V, 60 Hz

Pump Model	Max Power Consumption		Rated Current [A]	Permissible Cable Length		Delayed Fuse [A]	Generator Set [kVA]
	[HP]	[kW]		[ft]	[m]		
Ready 4	0.8	0.6	3.1	130	40	10	3
Ready 8	1.3	1.0	5.1	160	49	10	3
Ready 8S	1.5	1.1	5.1	160	49	10	4
2610	1.9	1.4	7.5	160	49	20	5
2620	2.8	2.1	10	230	70	20	6

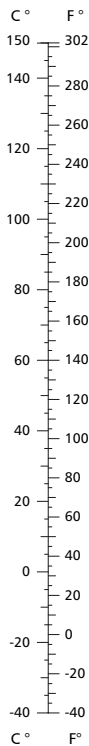
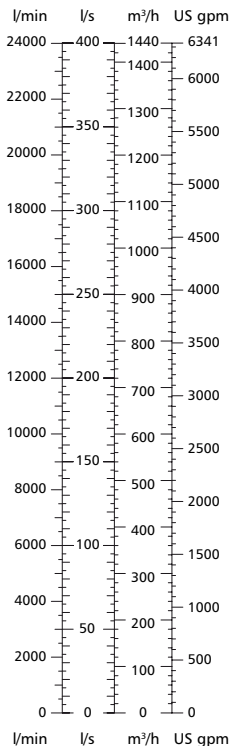
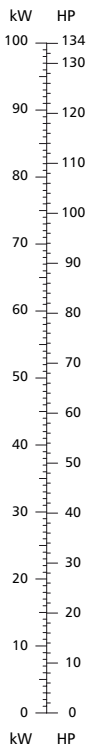
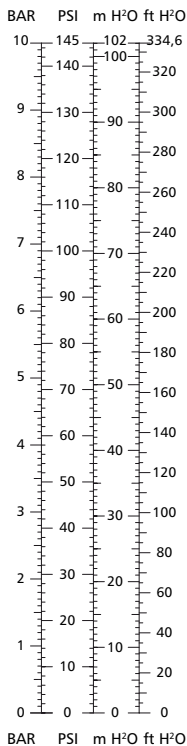
Measurement conversion reference chart

Pressure

Power

Flow

Temp.



Total control

Practical easy-to-use monitoring and control systems are essential to get a complete overview of your operations.

Whether you use a single pump or two or more in a series, we can supply everything you need to ensure continuous operation – from single pump controllers, sensors and startup equipment to SCADA software for complete fluid handling supervision.

Our monitoring and control systems help reduce operational costs, minimize report handling and improve environmental control.

Extensive support

To provide you with outstanding support and service, we have a global service network that spans 140 countries.

Our dedicated professionals are at work in over 175 service centers worldwide. Plus there are hundreds of authorized Flygt service partners who also provide top-notch service and support.

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