

Xylem [ˈzīləm]

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

We're 12,000 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 xylem.com.



Flygt and Godwin are brands of Xylem. For the latest version of this document and more information about Flygt and Godwin products visit

www.flygt.com
www.godwinpumps.com



Dewatering pump handbook 50 Hz

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



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 and Godwin 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.



Contents

	Page
Industries and applications	4
Flygt submersible drainage pumps	6-39
· 2600 series	6
· 2600 sludge series	14
· BIBO 2800 series	18
· 2000 series	24
· 2700 series	34
· Ready series	38
Flygt slurry pumps	40-47
· 5000 series	40
Accessories for Flygt submersibles	48-51
Godwin pumps	52-85
Automatic self-priming pumps	52-73
· Dri-Prime® CD series	53
· Dri-Prime HL series	60
· Electric drive and sound attenuation availability	66
· NC series	68
· Vac-Prime series	72
Hydraulic submersible pumps	74-85
· Heidra® HS series	74
· Heidra HS slurry gate/vortex/vortex slurry gate series	79
· Heidra HS high head series	84
Accessories for Godwin pumps	86-87
Pumps 101	88-97
Monitoring & control	98
Spare parts & service	99

Industries and applications



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



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 global service network that spans 140 countries to support you with application engineering, pump repair, spare parts and turnkey project management.

2600 series

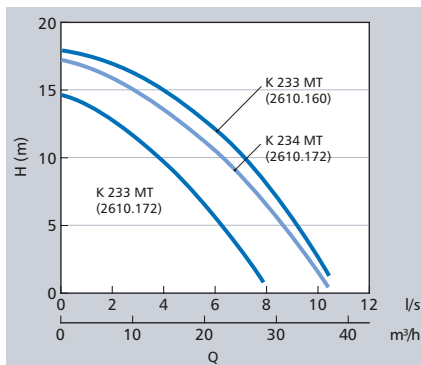
When water is your challenge, Flygt 2600 is your answer.

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.

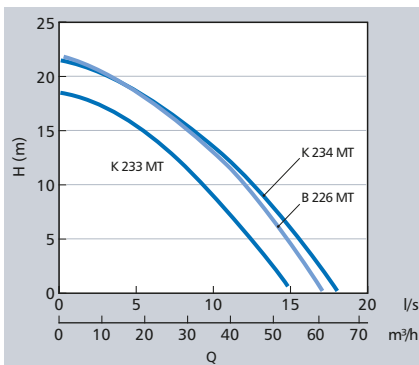
Model	K 233 MT/K 234 MT (2610.172)	K 233 MT (2610.160)
Rating [kW]	0.85/1.2	1.4
Voltage [V/phase]	(110–140, 1~)/(220–550, 3~)	220–240, 1~
Rated current [A]	(11–5.1)/(4.8–2.0)	8–7.8
Weight [kg]	21.5	25
Max. height [mm]	571	601
Max. width [mm]	200	200
Discharge Ø [in]	2"	2"
Strainer hole [mm]	7.5	7.5
Warm liquid, 70°C	Yes	Yes

For additional specifications, see product technical documentation.

With reservation for changes.

2600 series

2620.172



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

Model	K 233 MT	K 234 MT/B 226 MT
Rating [kW]	1.5	2.2
Voltage [V/phase]	220–240, 1~	220–550, 3~
Rated current [A]	8.7–8.3	8.1–3.9
Weight [kg]	32	32
Max. height [mm]	620	620
Max. width [mm]	240	240
Discharge Ø [in]	3"	3"
Strainer hole [mm]	9.0	9.0
Warm liquid, 70°C	Yes	Yes

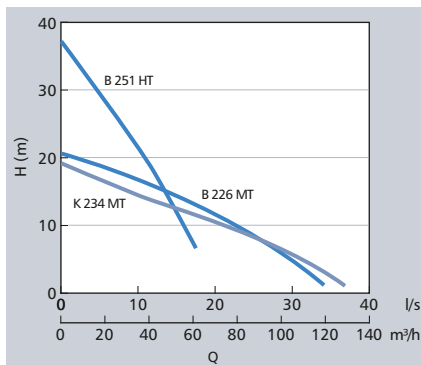
For additional specifications, see product technical documentation.

With reservation for changes.

Flygt submersible drainage pumps

2600 series

2630.181



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

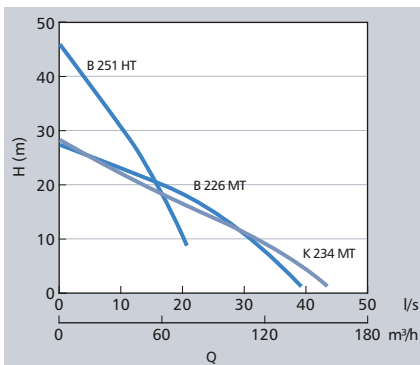
Model	B 226 MT	B 251 HT	K 234 MT
Rating [kW]	3.7	3.7	3.7
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	7.3	7.3	7.3
Weight [kg]	48	48	48
Max. height [mm]	725	725	725
Max. width [mm]	286	286	286
Discharge Ø [in]	4"	3"	4"
Strainer hole [mm]	10	10	10
Warm liquid, 70°C	Yes	Yes	Yes

For additional specifications, see product technical documentation.

With reservation for changes.

2600 series

2640.181



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

Model	B 226 MT	B 251 HT	K 234 MT
Rating [kW]	5.6	5.6	5.6
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	11	11	11
Weight [kg]	50	50	50
Max. height [mm]	725	725	725
Max. width [mm]	286	286	286
Discharge Ø [in]	4"	3"	4"
Strainer hole [mm]	10	10	10
Warm liquid, 70°C	Yes	Yes	Yes

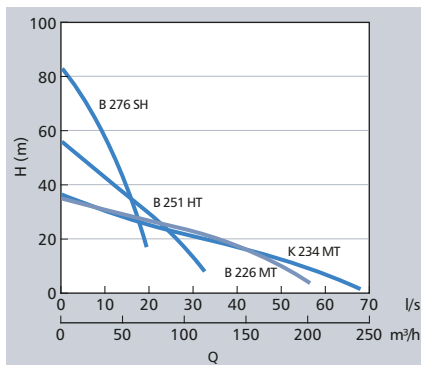
For additional specifications, see product technical documentation.

With reservation for changes.

Flygt submersible drainage pumps

2600 series

2660.181



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

Model	B 226 MT	B 251 HT	B 276 SH	K 234 MT
Rating [kW]	10	10	10	10
Voltage [V/phase]	400, 3~	400, 3~	400, 3~	400, 3~
Rated current [A]	19	19	19	19
Weight [kg]	78	78	96	78
Max. height [mm]	803	803	890	803
Max. width [mm]	346	346	346	346
Discharge Ø [in]	6"	4"	4"	6"
Strainer hole [mm]	10	10	10	10
Warm liquid, 70°C	Yes	Yes	Yes	Yes

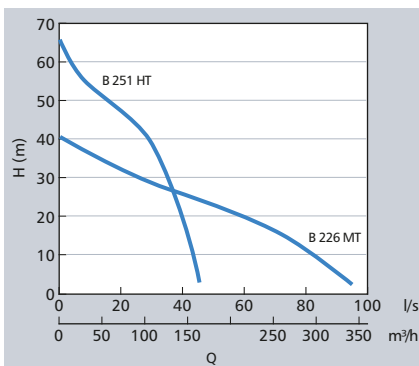
Available with Flygt Softstarter to reduce starting current. See page 49.

For additional specifications, see product technical documentation.

With reservation for changes.

2600 series

2670.181



B = Wear-resistant impeller.

Model	B 226 MT	B 251 HT
Rating [kW]	18	18
Voltage [V/phase]	400, 3~	400, 3~
Rated current [A]	32	32
Weight [kg]	132	132
Max. height [mm]	955	955
Max. width [mm]	395	395
Discharge Ø [in]	6"	4"
Strainer hole [mm]	12	12
Warm liquid, 70°C	Yes	Yes

Available with Flygt Softstarter to reduce starting current. See page 49.

For additional specifications, see product technical documentation.

With reservation for changes.

2600 sludge series

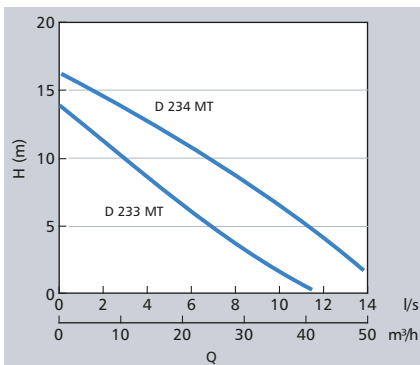
Built on the Flygt 2600 series platform, these portable sludge pumps tackle the tough challenge of moving sludge and other liquids with ease – without clogging.

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

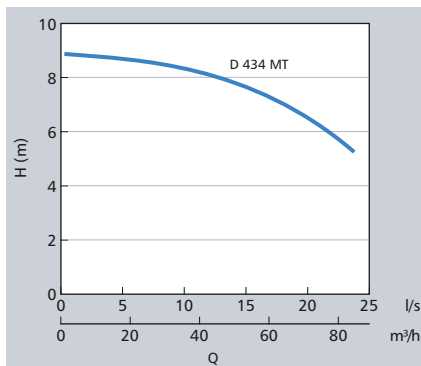


D = Solids-handling impeller.

Model	D 233 MT	D 234 MT
Rating [kW]	1.5	2.2
Voltage [V/phase]	220–240, 1~	220–525, 3~
Rated current [A]	8.7–8.3	8.1–3.7
Weight [kg]	33	33
Max. height [mm]	722	722
Max. width [mm]	410	410
Discharge Ø [in]	3"	3"
Solids passage ø [mm]	50	50
Warm liquid, 70°C	No	No

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

2600 sludge series 2630.281



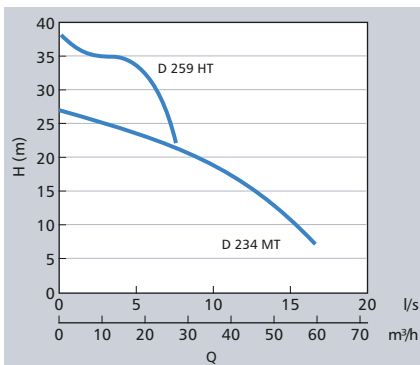
D = Solids-handling impeller.

Model	D 434 MT
Rating [kW]	3.2
Voltage [V/phase]	220–550, 3~
Rated current [A]	13–5.5
Weight [kg]	54
Max. height [mm]	815
Max. width [mm]	465
Discharge Ø [in]	3"
Solids passage ø [mm]	80
Warm liquid, 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 234 MT	D 259 HT
Rating [kW]	5.6	5.6
Voltage [V/phase]	220–1000, 3~	220–1000, 3~
Rated current [A]	19–4.3	19–4.3
Weight [kg]	56	56
Max. height [mm]	865	865
Max. width [mm]	452	452
Discharge Ø [in]	3"	3"
Solids passage ø [mm]	46	32
Warm liquid, 70°C	No	No

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

Flygt BIBO 2800

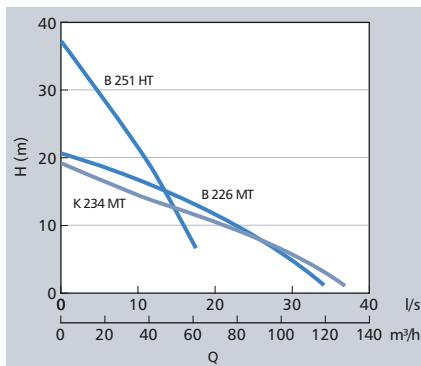
For decades whenever a dewatering challenge seemed too tough or too harsh, the answer has been simple, Flygt BIBO. So how do you improve upon a legend? Simple, we created a new one.

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.



Flygt submersible drainage pumps

BIBO 2800 series 2830.180



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

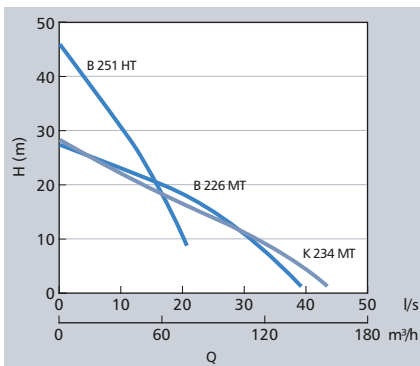
Model	B 226 MT	B 251 HT	K 234 MT
Rating [kW]	3.7	3.7	3.7
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	7.3	7.3	7.3
Weight [kg]	54	54	54
Max. height [mm]	762	762	762
Max. width [mm]	367	367	367
Discharge Ø [in]	4"	3"	4"
Strainer hole [mm]	10	10	10
Warm liquid, 70°C	Yes	Yes	Yes

For additional specifications, see product technical documentation.

With reservation for changes.

BIBO 2800 series

2840.180



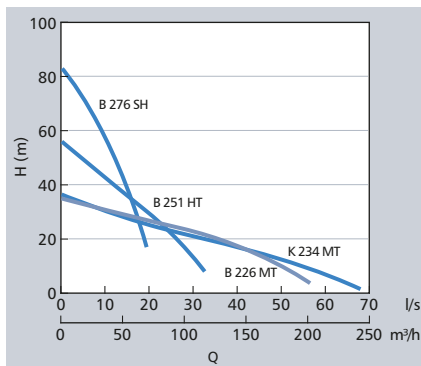
B = Wear-resistant impeller. K = Open impeller.

Model	B 226 MT	B 251 HT	K 234 MT
Rating [kW]	5.6	5.6	5.6
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	11	11	11
Weight [kg]	56	56	56
Max. height [mm]	762	762	762
Max. width [mm]	367	367	367
Discharge Ø [in]	4"	3"	4"
Strainer hole [mm]	10	10	10
Warm liquid, 70°C	Yes	Yes	Yes

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

Flygt submersible drainage pumps

BIBO 2800 series 2860.180



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

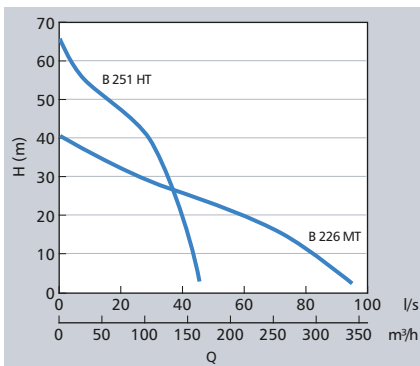
Model	B 226 MT	B 251 HT	B 276 SH	K 234 MT
Rating [kW]	10	10	10	10
Voltage [V/phase]	400, 3~	400, 3~	400, 3~	400, 3~
Rated current [A]	19	19	19	19
Weight [kg]	91	91	106	91
Max. height [mm]	889	889	925	889
Max. width [mm]	425	425	425	425
Discharge Ø [in]	6"	4"	4"	6"
Strainer hole [mm]	10	10	10	10
Warm liquid, 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 226 MT	B 251 HT
Rating [kW]	18	18
Voltage [V/phase]	400, 3~	400, 3~
Rated current [A]	32	32
Weight [kg]	154	154
Max. height [mm]	991	991
Max. width [mm]	500	500
Discharge Ø [in]	6"	4"
Strainer hole [mm]	12	12
Warm liquid, 70°C	Yes	Yes

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

2000 series

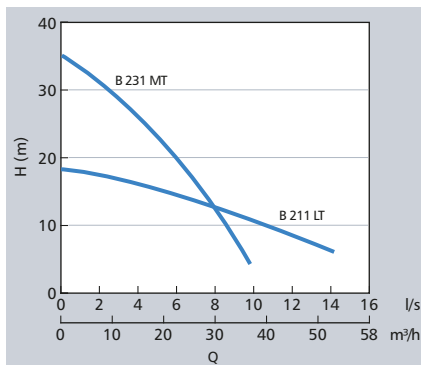
Flygt 2000 pumps easily handle chemically aggressive, mechanically abrasive or highly viscous fluids laden with particles. They handle higher flow rates up to 300 l/s and heads up to 200 meters.

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



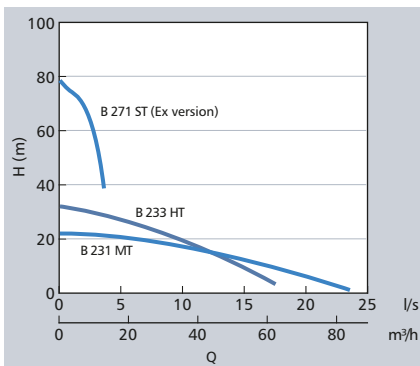
Model	B 211 LT	B 231 MT
Rating [kW]	3	3
Voltage [V/phase]	400, 3~	400, 3~
Rated current [A]	6.2	6.2
Weight [kg]	28	28
Max. height [mm]	690	690
Max. width [mm]	185	185
Discharge Ø [in]	3"	3"
Strainer hole [mm]	8×50	8×50
Warm liquid, 70°C	Yes	Yes

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2075.324 (Cast iron)



Model	B 231 MT	B 233 HT	B 271 ST
Rating [kW]	3.7	3.7	5.5
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	7.1	7.1	11
Weight [kg]	40	40	69
Max. height [mm]	570	570	650
Max. width [mm]	310	310	310
Discharge Ø [in]	4"	3"	4"
Strainer hole [mm]	6×26	6×26	6×6
Warm liquid, 70°C	Yes	Yes	Yes

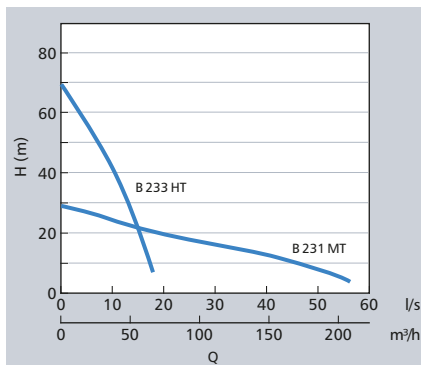
Available in Ex versions 2075.590/690

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2125.320 (Cast iron)



Model	B 231 MT	B 233 HT
Rating [kW]	8	8
Voltage [V/phase]	400, 3~	400, 3~
Rated current [A]	15	15
Weight [kg]	77	80
Max. height [mm]	830	865
Max. width [mm]	485	465
Discharge Ø [in]	4"	3"
Strainer hole [mm]	6×50	6×50
Warm liquid, 70°C	No	No

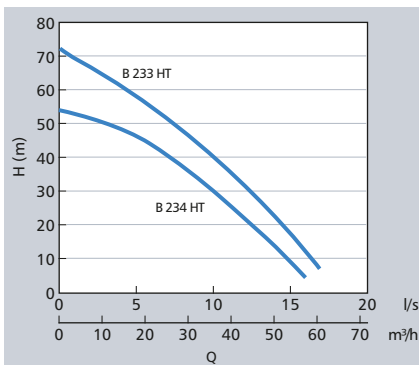
Available in Ex versions 2125.690

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2125.181



Model	B 233 HT	B 234 HT
Rating [kW]	8	8
Voltage [V/phase]	400	400
Rated current [A]	15	15
Weight [kg]	80	80
Max. height [mm]	830	830
Max. width [mm]	465	465
Discharge Ø [in]	3"	3"
Strainer hole [mm]	6×50	6×50
Warm liquid, 70°C	No	No

For additional specifications, see product technical documentation.

With reservation for changes.

Flygt submersible drainage pumps

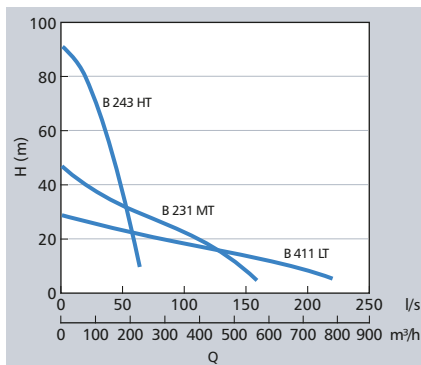
2000 series

2201.011

MT
LT



HT



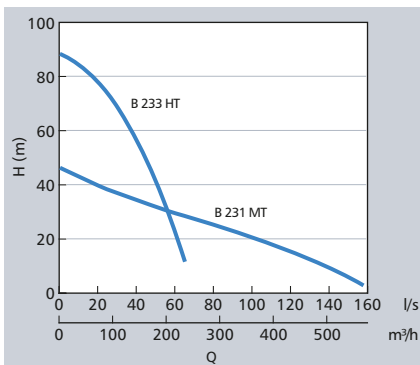
Model	B 411 LT	B 231 MT	B 243 HT
Rating [kW]	30	37	37
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	57	65	65
Weight [kg]	280	280	240
Max. height [mm]	1302	1302	1050
Max. width [mm]	500	500	430
Discharge Ø [in]	8"	8"	4"
Strainer hole [mm]	15×45	15×45	10×10
Warm liquid, 70°C	No	No	No

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2201.320 (Cast iron)



Model	B 231 MT	B 233 HT
Rating [kW]	37	37
Voltage [V/phase]	400, 3~	400, 3~
Rated current [A]	65	65
Weight [kg]	445	350
Max. height [mm]	1140	1050
Max. width [mm]	500	435
Discharge Ø [in]	8"	4"
Strainer hole [mm]	15×45	10×10
Warm liquid, 70°C	Yes	Yes

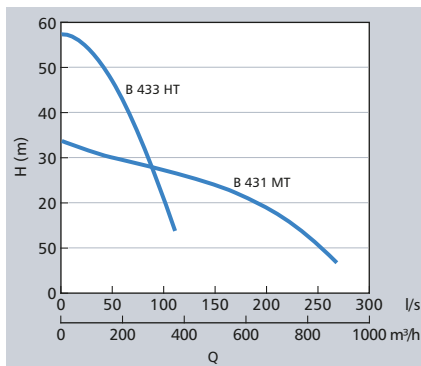
Available in Ex version 2201.590/690

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2250.011



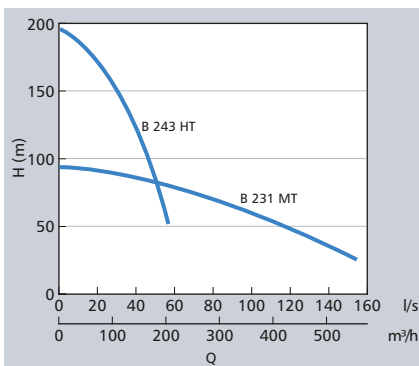
Model	B 431 MT	B 433 HT
Rating [kW]	54	54
Voltage [V/phase]	400, 3~	400, 3~
Rated current [A]	104	104
Weight [kg]	540	540
Max. height [mm]	1260	1260
Max. width [mm]	940	838
Discharge Ø [in]	10"	6"
Strainer hole [mm]	15×45	15×45
Warm liquid, 70°C	No	No

For additional specifications, see product technical documentation.

With reservation for changes.

2000 series

2400.402



Model	B 231 MT	B 243 HT
Rating [kW]	90	90
Voltage [V/phase]	400, 3~	400, 3~
Rated current [A]	148	148
Weight [kg]	900	985
Max. height [mm]	1180	1245
Max. width [mm]	770	770
Discharge Ø [in]	6"	4"
Strainer hole [mm]	10×10	10×10
Warm liquid, 70°C	No	No

Available in Ex versions 2400.591

For additional specifications, see product technical documentation.

With reservation for changes.

2700 stainless steel series

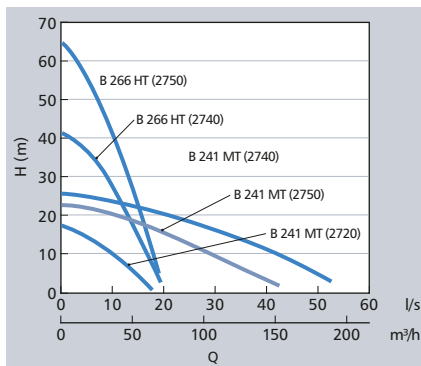
The all-stainless steel Flygt 2700 series handles corrosive and abrasive liquids with wide variances in pH levels. These pumps are built to tackle the toughest dewatering challenges.

The Flygt 2700 series consists of three drainage pumps to handle lightly contaminated liquids 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.

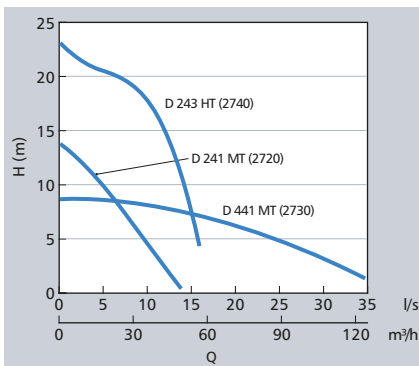
Model	B 2720	B 2740	B 2750
Rating [kW]	2.0	6.3	8.0
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	4.4	12	15
Weight [kg]	44	75	90
Max. height [mm]	600	725	780
Max. width [mm]	235	280	280
Discharge Ø [in]	3"	3"¼"	3"¼"
Strainer hole [mm]	25×7	25×7	25×7
Warm liquid, 70°C	No	No	No
pH	2–10	2–10	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 [kW]	2.0	4.1	6.3
Voltage [V/phase]	400, 3~	400, 3~	400, 3~
Rated current [A]	4.4	8.8	12
Weight [kg]	48	83	85
Max. height [mm]	715	845	845
Max. width [mm]	420	440	440
Discharge Ø [in]	3"	3 1/4"	3 1/4"
Throughlet [mm]	50	75 / 80	46
Warm liquid, 70°C	No	No	No
pH	2-10	2-10	2-10

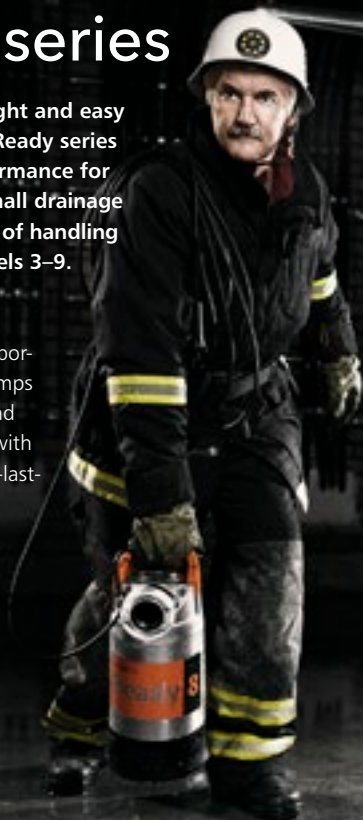
For additional specifications, see product technical documentation.

With reservation for changes.

Ready series

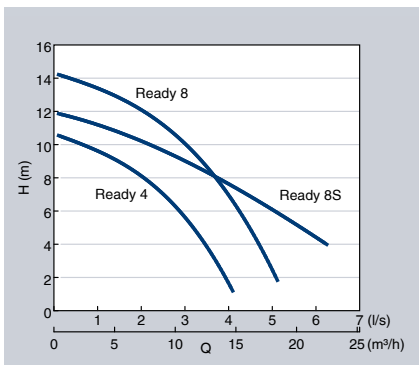
Compact, lightweight and easy to carry, the Flygt Ready series delivers high performance for their size. These small drainage pumps are capable of handling liquids with pH levels 3–9.

Impact-resistant from the inside out, these portable submersible pumps combine abrasion- and corrosion-resistance with economical and long-lasting pumping power.



Ready series

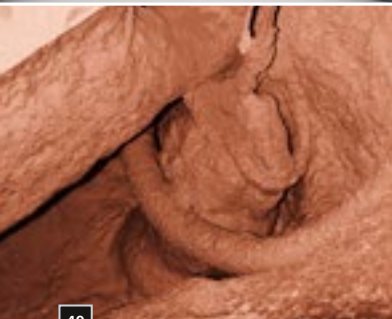
Ready 4, Ready 8, Ready 8S



Model	Ready 4	Ready 8	Ready 8S
Rating [kW]	0.4	0.75	0.9
Voltage [V/phase]	230, 1~	230, 1~	230, 1~
Rated current [A]	2.7	4.2	5.2
Weight [kg]	10	12.5	15
Max. height [mm]	400	433	510
Max. width [mm]	185	185	230
Discharge Ø [in]	2"	2"	2"
Strainer hole [mm]	11×5	11×5	38
Warm liquid, 70°C	No	No	No

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

Flygt slurry pumps





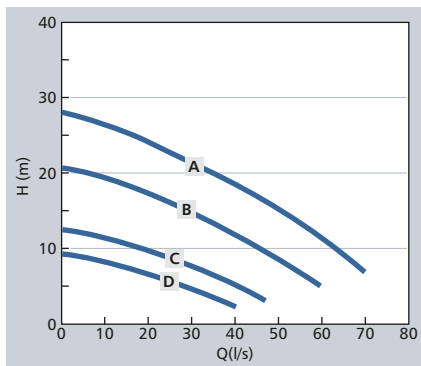
5000 series

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 [kW]	7.5–13.5	15–22	22–45
R. current [A]	9.4–28	17–41	25–82
Weight [kg]	215	277	585
Max. height [mm]	978	1124	1296
Max. width [mm]	547	547	595
Discharge Ø [in]	4"	4"	4"
Strainer hole [mm]	30	30	30
Warm liquid, 70°C	Yes	Yes	Yes
Agitator	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)

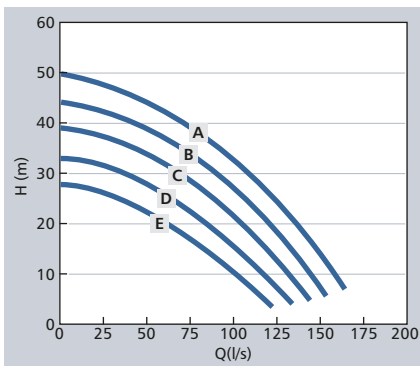
E.g. 5100.211 53–430

Internal and external cooling available

For additional specifications, see product technical documentation.

With reservation for changes.

5000 series H 5150



Model	300	350
Rating [kW]	30–45	50–70
Rated current [A]	32–82	59–132
Weight [kg]	585	817
Max. height [mm]	1410	1537
Max. width [mm]	875	875
Discharge Ø [in]	6"	6"
Strainer hole [mm]	36	36
Warm liquid, 70°C	Yes	Yes
Agitator	Yes	Yes
Ex version	310	360

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

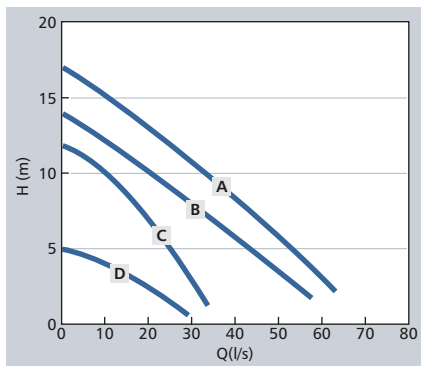
E.g. 5150.350 53–436

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 [kW]	3.1	5.9
Rated current [A]	6.3	7–12
Weight [kg]	122	203
Max. height [mm]	848	848
Max. width [mm]	478	632
Discharge Ø [in]	4"	6"
Strainer hole [mm]	20	30
Warm liquid, 70°C	Yes	Yes
Agitator	No	Yes
Ex version	Yes	Yes

	5520	5530
Performance	A	434
	B	436
	C	436
	D	438

E.g. 5530.181 53-436

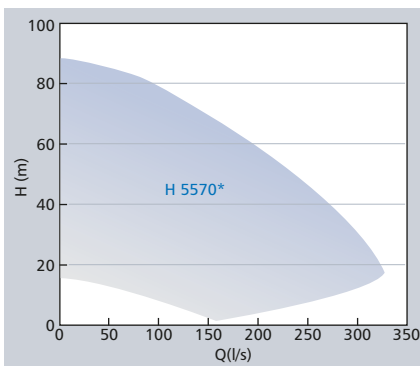
External cooling available

For additional specifications, see product technical documentation.

With reservation for changes.

5000 series

H 5570



*Consult pump selection program for details on performance.

Model	5570 600 drive	5570 700 drive
Rating [kW]	58–105	100–215
Rated current [A]	118–200	202–395
Weight [kg]	1190–1350	1700–2000
Max. height [mm]	1675–2068	1829–2312
Max. width [mm]	983–1225	983–1225
Discharge Ø [in]	8"	8"
Strainer hole [mm]	30	30
Warm liquid, 70°C	No	No
Agitator	No	Yes
Ex version	Yes	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;

$$C_w/C_v = S/Sm$$

S = Specific gravity (SG) of dry solids

Sm = 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

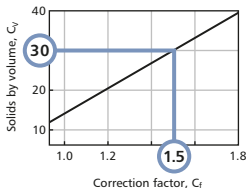
Particles < 0.1 mm 1.5 m/s

Particles < 0.6 mm 2.5 m/s

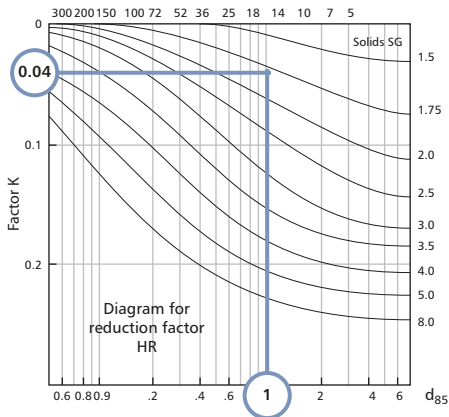
(Pipe velocity $V=Q/A$ [A =pipe area])

3. Calculate the total discharge head.

Use diagram or formula in Chapter Engineering. 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 SGs = 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.



Flygt Softstarter

Reduces starting current to smooth motor acceleration and protect the pump.



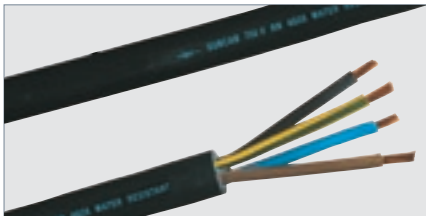
Discharge outlet types

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



Discharge hoses

Meets your requirements through a wide variety of sizes.



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.



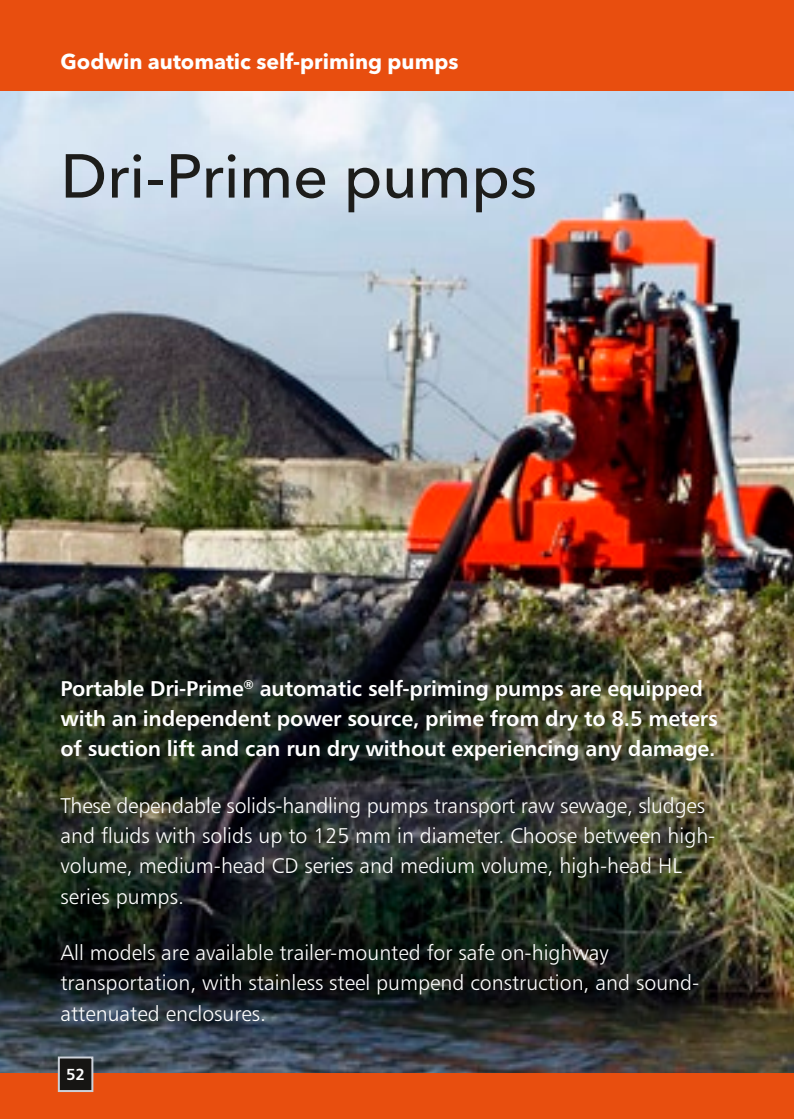
Flygt pump mounted level regulator



Flygt pump starters (manual and automatic)

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

Dri-Prime pumps



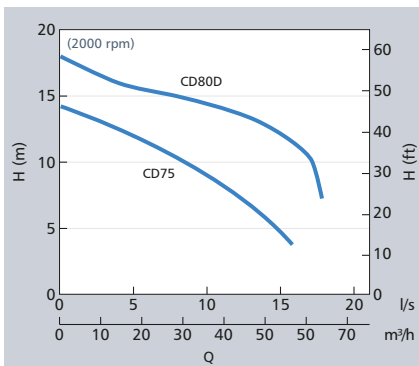
Portable Dri-Prime® automatic self-priming pumps are equipped with an independent power source, prime from dry to 8.5 meters of suction lift and can run dry without experiencing any damage.

These dependable solids-handling pumps transport raw sewage, sludges and fluids with solids up to 125 mm in diameter. Choose between high-volume, medium-head CD series and medium volume, high-head HL series pumps.

All models are available trailer-mounted for safe on-highway transportation, with stainless steel pumpend construction, and sound-attenuated enclosures.

Dri-Prime CD series

CD75, CD80D



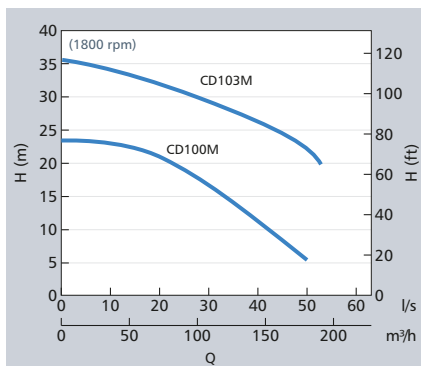
Model	CD75	CD80D
Engine	Yanmar L100 AE	Kubota Z482
Max. solids handling [mm]	40	40
Suction Ø [mm]	50	80
Discharge Ø [mm]	50	80
Max. operating speed [rpm]	2000	2000
Min. running time at max. speed	4 h	52 h
Fuel tank capacity [l]	5	72
Dry run capacity	Yes	Yes
Consumed power [kW]	4.5	4.5
Dimensions L×W×H [mm]	1100×652×800	1300×680×1900
Weight [kg]	150	569

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime CD series

CD100M, CD103M



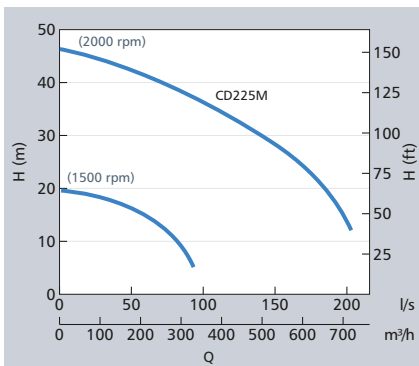
Model	CD100M	CD103M
Engine	Perkins 403D-15	Perkins 404D-22
Max. solids handling [mm]	45	75
Suction Ø [mm]	100	100
Discharge Ø [mm]	100	100
Max. operating speed [rpm]	1800	1800
Min. running time at max. speed	22 h	26 h
Fuel tank capacity [l]	72	170
Dry run capacity	Yes	Yes
Consumed power [kW]	11	23
Dimensions L×W×H [mm]	1300×680×1900	1800×1000×1900
Weight [kg]	1050	1128

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime CD series

CD150M, CD225M



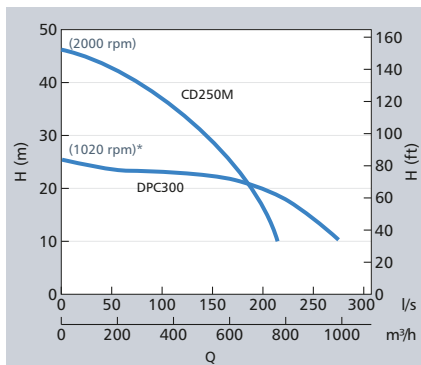
Model	CD150M	CD225M
Engine	Perkins 404D-22	Perkins 1104D-E44TA
Max. solids handling [mm]	65	75
Suction Ø [mm]	150	200
Discharge Ø [mm]	150	200
Max. operating speed [rpm]	1500	2000
Min. running time at max. speed	38 h	17 h
Fuel tank capacity [l]	170	390
Dry run capacity	Yes	Yes
Consumed power [kW]	16	74.1
Dimensions L×W×H [mm]	1800×1000×1900	2500×1300×1900
Weight [kg]	1345	2255

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime CD series

CD250M, DPC300



*Curve references pump speed, engine speed will be greater through use of gear box

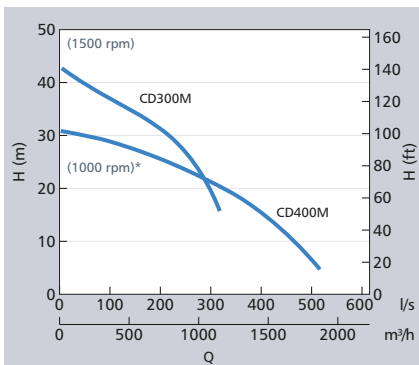
Model	CD250M	DPC300
Engine	Perkins 1104D-E44TA	Perkins 1104D-E44TA
Max. solids handling [mm]	75	95
Suction Ø [mm]	250	300
Discharge Ø [mm]	250	300
Max. operating speed [rpm]	2000	1020
Min. running time at max. speed	17 h	38 h
Fuel tank capacity [l]	390	850
Dry run capacity	Yes	Yes
Consumed power [kW]	72	74.1
Dimensions L×W×H [mm]	2500×1300×1900	3700×1700×2200
Weight [kg]	2433	4201

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime CD series

CD300M, CD400M



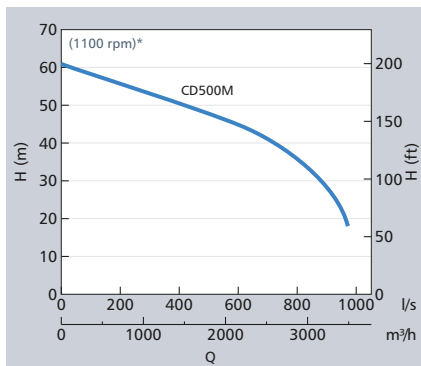
*Curve references pump speed, engine speed will be greater through use of gear box

Model	CD300M	CD400M
Engine	Perkins 1106D-E66TA (129)	Perkins 1106D-E66TA (168)
Max. solids handling [mm]	95	125
Suction Ø [mm]	300	450
Discharge Ø [mm]	300	400
Max. operating speed [rpm]	1500	1000
Min. running time at max. speed	28 h	17 h
Fuel tank capacity [l]	850	685
Dry run capacity	Yes	Yes
Consumed power [kW]	94.5	109
Dimensions L×W×H [mm]	3700×1700×2200	4000×1950×2220
Weight [kg]	5168	7250

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime CD series CD500M



*Curve references pump speed, engine speed will be greater through use of gear box

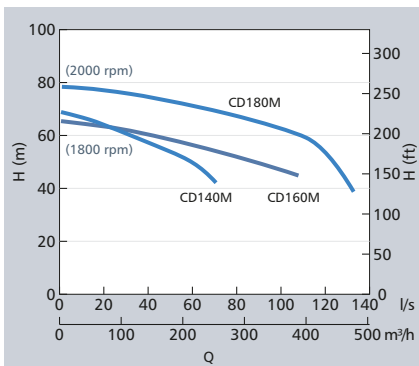
Model	CD500M
Engine	Caterpillar C18
Maximum solids handling [mm]	80
Suction Ø [mm]	500/600
Discharge Ø [mm]	450
Maximum operating speed [rpm]	1100
Minimum running time at maximum speed	9 h
Fuel tank capacity [l]	1131
Dry run capacity	Yes
Consumed power [kW]	420
Dimensions L×W×H [mm]	5400×2670×2500
Weight [kg]	11750

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime CD series (Elevated head, solids handling)

CD140M, CD160M, CD180M



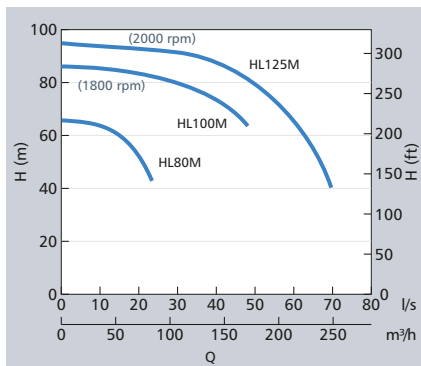
Model	CD140M	CD160M	CD180M
Engine	Perkins 1104D-44TA	Perkins 1104D-E44TA	Perkins 1106D-E66TA (129)
Max. solids [mm]	75	75	75
Suction Ø [mm]	100	150	200
Discharge Ø [mm]	100	150	150
Max. op. speed [rpm]	1800	1800	2000
Min. running time	19 h	17 h	13 h
Fuel t. capacity [l]	390	390	475
Dry run capacity	Yes	Yes	Yes
Con. power [kW]	57	71.9	106.7
Dim. L×W×H [mm]	2500×1300×1900	2500×1300×1900	2950×1300×1900
Weight [kg]	2131	2425	2758

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime HL series

HL80M, HL100M, HL125M



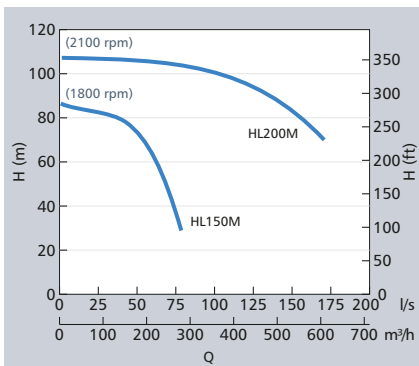
Model	HL80M	HL100M	HL125M
Engine	Perkins 404D-22T	Perkins 1104D-44TA	Perkins 1104D-E44TA
Max. solids [mm]	25	35	35
Suction Ø [mm]	100	100	150
Discharge Ø [mm]	80	100	100
Max. op. speed [rpm]	2000	1800	2000
Min. running time	17 h	23 h	15 h
Fuel t. capacity [l]	170	390	390
Dry run capacity	Yes	Yes	Yes
Con. power [kW]	29	54	74.1
Dim. L×W×H [mm]	1800×1000×1900	2500×1300×1900	2500×1300×1900
Weight [kg]	1245	2152	2233

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime HL series

HL150M, HL200M



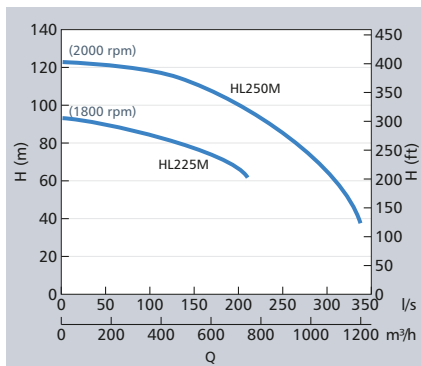
Model	HL150M	HL200M
Engine	Perkins 1104D-E44TA	Caterpillar C9
Max. solids handling [mm]	35	38
Suction Ø [mm]	150	200
Discharge Ø [mm]	150	150
Max. operating speed [rpm]	1800	2100
Min. running time at max. speed	13 h	10 h
Fuel tank capacity [l]	390	850
Dry run capacity	Yes	Yes
Consumed power [kW]	71.9	191
Dimensions L×W×H [mm]	2500×1300×1900	3700×1700×2200
Weight [kg]	2333	4750

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime HL series

HL225M, HL250M



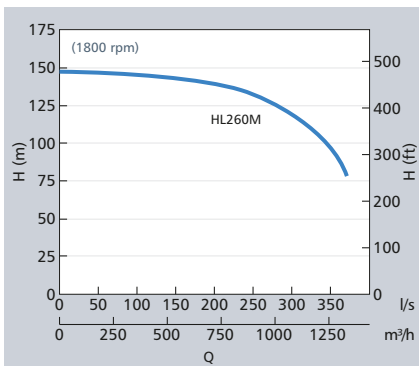
Model	HL225M	HL250M
Engine	Caterpillar C9	Caterpillar C15
Max. solids handling [mm]	65	65
Suction Ø [mm]	250	300
Discharge Ø [mm]	200	250
Max. operating speed [rpm]	1800	2000
Min. running time at max. speed	13 h	7 h
Fuel tank capacity [l]	850	685
Dry run capacity	Yes	Yes
Consumed power [kW]	203	310
Dimensions L×W×H [mm]	3700×1700×2200	4000×1950×2220
Weight [kg]	5231	6332

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime HL series (Extreme high head)

HL260M

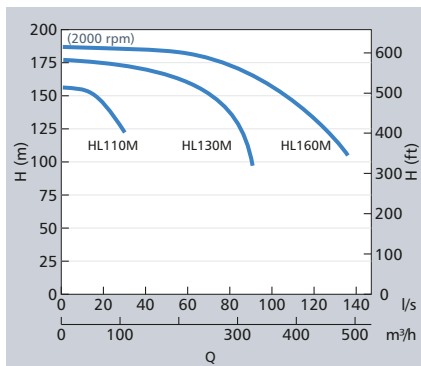


Model	HL260M
Engine	Caterpillar C18
Max. solids handling [mm]	50
Suction Ø [mm]	250
Discharge Ø [mm]	200
Max. operating speed [rpm]	1800
Min. running time at max. speed	5 h
Fuel tank capacity [l]	685
Dry run capacity	Yes
Consumed power [kW]	425
Dimensions L×W×H [mm]	4300×1980×2525
Weight [kg]	6900

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

Dri-Prime HL series (Extreme high head)

HL110M, HL130M, HL160M



Model	HL110M	HL130M	HL160M
Engine	Perkins 1104D-E44TA	Caterpillar C9	Caterpillar C15
Max. solids [mm]	20	22	35
Suction Ø [mm]	100	150	200
Discharge Ø [mm]	80	100	150
Max. op. speed [rpm]	2000	2000	2000
Min. running time	15 h	13 h	7 h
Fuel t. capacity [l]	390	850	685
Dry run capacity	Yes	Yes	Yes
Power [kW]	74.1	205	303
Dim. L×W×H [mm]	2500×1300×1900	3700×1700×2200	4000×1950×2220
Weight [kg]	2600	5331	6440

For additional specifications, see product technical documentation.

With reservation for changes.



Electric drive availability

Electric drive Godwin Dri-Prime pumps are ideal for use when line power is readily available or when refueling can be difficult. Electric Dri-Prime pumps are available with soft starts and variable frequency drives.



Pump model	Motor [kW]	Voltage [V/phase]	Rated current [A]	Max. RPM	Dimensions, L×W×H [mm]	Weight [kg]
CD75	15	400V, 3~	29	2900	1300×500×800	195
CD80D	15	400V, 3~	29	2900	1400×570×1000	390
CD100M	30	400V, 3~	54	2000	1800×650×1000	475
CD103M	45	400V, 3~	80	2200	2000×650×1050	780
CD140M	75	400V, 3~	130	2000	2350×780×1050	1350
CD150M	75	400V, 3~	130	2200	2350×780×1050	1300
CD160M	110	400V, 3~	190	2000	2700×1100×1300	1940
CD180M	110	400V, 3~	190	2000	2700×1100×1300	1950
CD225M	110	400V, 3~	190	2200	2700×1100×1300	2000
CD250M	110	400V, 3~	190	2200	2700×1100×1300	2050
CD300M	160	400V, 3~	275	1800	3200×1600×1550	3510
DPC300	110	400V, 3~	190	1200	3100×1500×1500	3100
CD400M	200	400V, 3~	341	1200	4200×2100×1750	4950
CD500M	475	400V, 3~	830	1100	4200×2450×2000	7100
HL80M	75	400V, 3~	130	2400	2100×680×1140	1250
HL100M	110	400V, 3~	190	2200	2200×1050×1295	1800
HL110M	110	400V, 3~	190	2200	2300×1050×1295	1985
HL125M	160	400V, 3~	275	2400	2595×1115×1270	2200
HL130M	200	400V, 3~	341	2000	2800×1250×1300	3825
HL150M	160	400V, 3~	275	2400	2750×1240×1400	2250
HL160M	315	400V, 3~	529	2000	3100×1300×1500	4350
HL200M	170	400V, 3~	310	2000	2790×1300×1400	3950
HL225M	280	400V, 3~	462	2000	3000×1300×1450	4150
HL250M	325	400V, 3~	575	2000	3100×1300×1500	4525
HL260M	550	400V, 3~	1050	1800	3200×1350×1600	5300

Note: The maximum speeds listed are achieved with a gearbox mounted on the motor flange or by use of a variable frequency (VFD) control.

Sound attenuation availability

Available for all pump models, Godwin sound-attenuated enclosures are perfect for use in residential and other areas to dampen the sound of diesel engine pumps.



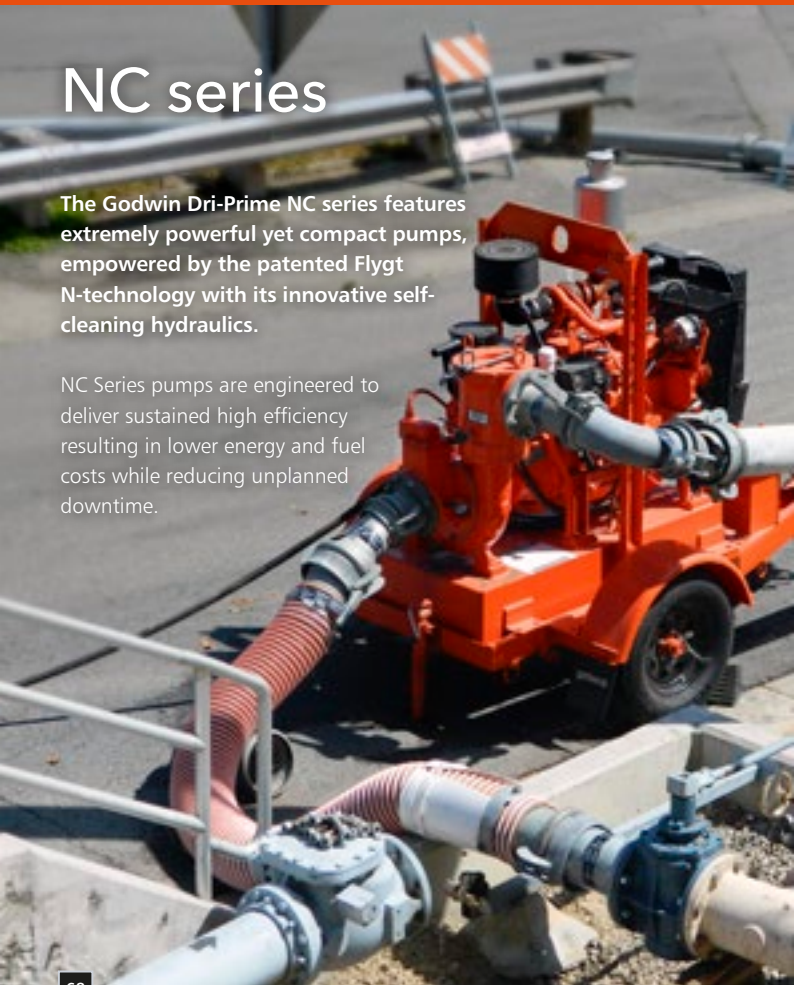
	Pump model	Engine model*	dB(A) at 7m	Dimensions, L×W×H [mm]	Weight (wet) [kg]
CD series	CD75	N/A	N/A	N/A	N/A
	CD80D	Kubota Z482	57	1780×840×1360	900
	CD100M	Perkins 403D-15	65	1940×1050×1500	1168
	CD103M	Perkins 404D-22	65	2190×1050×1500	1400
	CD140M	Perkins 1104D-44TA	77	2890×1300×1800	2400
	CD150M	Perkins 404D-22	65	2190×1050×1500	1400
	CD160M	Perkins 1104D-E44TA	66	2890×1300×1800	2855
	CD180M	Perkins 1106D-E66TA (129)	66	2890×1300×1800	2700
	CD225M	Perkins 1104D-E44TA	66	2890×1300×1800	2460
	CD250M	Perkins 1104D-E44TA	66	3350×1300×1887	3200
	CD300M	Perkins 1106D-E66TA (129)	67	4200×1500×1900	5168
	DPC300**	Perkins 1106D-E66TA (129)	66	4580×1300×1900	5480
	CD400M**	Perkins 1106D-E66TA (129)	67	4200×1500×1900	6600
	CD500M**	Caterpillar C18	68	5200×2500×2700	13500
	HL series	HL80M	Perkins 404D-22T	65	2190×1050×1500
HL100M		Perkins 1104D-44TA	65	2890×1300×1800	2400
HL110M		Perkins 1104D-44TA	65	2890×1300×1800	2800
HL125M		Perkins 1104D-E44TA	65	2890×1300×1800	2500
HL130M		Caterpillar C9	67	4580×2065×2545	6550
HL150M		Perkins 1104D-E44TA	65	2890×1300×1800	2600
HL160M		Caterpillar C15	70	5200×2200×2700	9100
HL200M		Caterpillar C9	67	4580×2065×2545	5968
HL225M		Caterpillar C9	67	4580×2065×2545	6450
HL250M**		Caterpillar C15	70	5200×2200×2700	9200
HL260M**		Caterpillar C18	70	5200×2200×2700	9500

* Additional engine options available on request. ** Estimated.

NC series

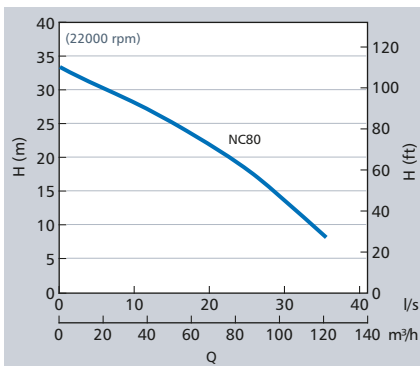
The Godwin Dri-Prime NC series features extremely powerful yet compact pumps, empowered by the patented Flygt N-technology with its innovative self-cleaning hydraulics.

NC Series pumps are engineered to deliver sustained high efficiency resulting in lower energy and fuel costs while reducing unplanned downtime.



Dri-Prime NC series

NC80

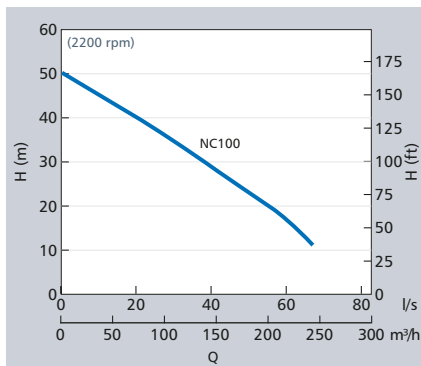


Model	NC80
Engine	Yanmar 3TNV76-CS
Suction Ø [mm]	100
Discharge Ø [mm]	80
Maximum operating speed [rpm]	2200
Minimum running time at maximum speed	19 h
Fuel tank capacity [l]	72
Dry run capacity	Yes
Consumed power [kW]	11
Dimensions L×W×H [mm]	1300×680×1900
Weight [kg]	945

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

Dri-Prime NC series

NC100



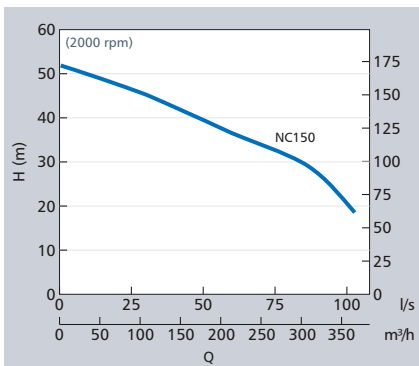
Model	NC100
Engine	Perkins 404D-22
Suction Ø [mm]	100
Discharge Ø [mm]	100
Maximum operating speed [rpm]	2200
Minimum running time at maximum speed	26 h
Fuel tank capacity [l]	170
Dry run capacity	Yes
Consumed power [kW]	23
Dimensions L×W×H [mm]	1800×784×1510
Weight [kg]	1140

For additional specifications, see product technical documentation.

With reservation for changes.

Dri-Prime NC series

NC150



Model	NC150
Engine	Perkins 1104DT
Suction Ø [mm]	150
Discharge Ø [mm]	150
Maximum operating speed [rpm]	2000
Minimum running time at maximum speed	30 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	55
Dimensions L×W×H [mm]	2500×930×1390
Weight [kg]	2130

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

Vac-Prime series

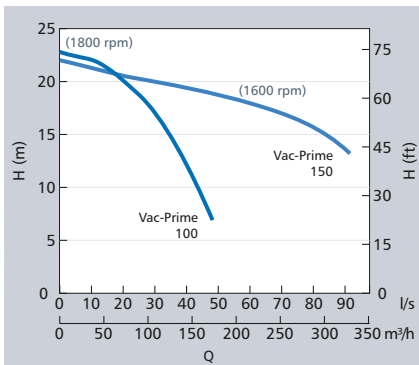
Until now, you could only use Godwin pumps for medium to high heads. But with Vac-Prime, you can now get Godwin reliability for lower head jobs too.



Even though a Vac-Prime is small and light, it's made to the same exacting tolerances as the larger members of the family. So, not only is a Vac-Prime reliable, but it's also a lean machine that punches above its weight, providing best-in-class heads, plus excellent fuel economy.

Vac-Prime series

Vac-Prime 100, Vac-Prime 150



Model	Vac-Prime 100	Vac-Prime 150
Engine	2 cylinder Air Cooled	3 cylinder Air Cooled
Max. solids handling [mm]	45	75
Suction Ø [mm]	100	150
Discharge Ø [mm]	100	150
Max. operating speed [rpm]	1800	1600
Min. running time at max. speed	23 h	15 h
Fuel tank capacity [l]	75	75
Dry run capacity	Yes	Yes
Consumed power [kW]	12	18
Dimensions L×W×H [mm]	1700×1250×1435	1700×1250×1435
Weight [kg]	800	1000

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra pumps

Self-contained Heidra® pumps are reliable hydraulic submersible pumps with diesel- or electric-driven power packs for general pumping of light slurries and municipal sludges.

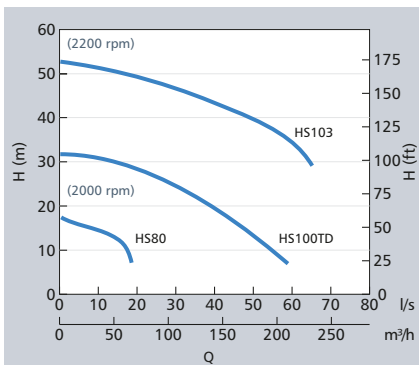
Choose from our standard high-volume, vortex, slurry gate or high head versions.

All models are available trailer-mounted for safe on-highway transportation, in stainless steel for high and low pH applications, and with sound-attenuated enclosures to dampen noise.



Heidra series

HS80, HS100TD, HS103



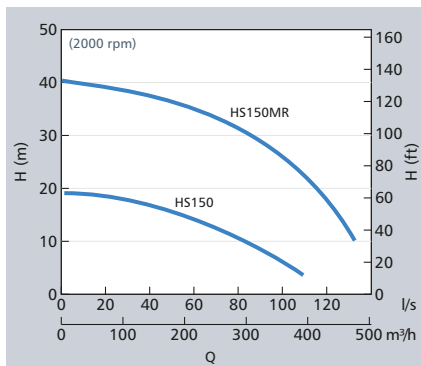
Model	HS80	HS100TD	HS103
Engine	Kubota Z482	Perkins 403D-15	Perkins 404D-22T
Max. solids handling [mm]	40	45	75
Discharge Ø [mm]	75	100	100
Max. operating speed [rpm]	2000	2000	2200
Min. runtime @ max. speed	56 h	18 h	27 h
Fuel tank capacity [l]	72	72	170
Dry run capacity	Yes	Yes	Yes
Consumed power [kW]	4	14	38
Powerpack L×W×H [mm]	1300×680×1900	1300×680×1900	1800×1000×1900
Pumpend L×W×H [mm]	400×354×558	485×420×581	500×514×647
Weight pumpend [kg]	70	75	130
Weight powerpack [kg]	810	945	1136

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series

HS150, HS150MR



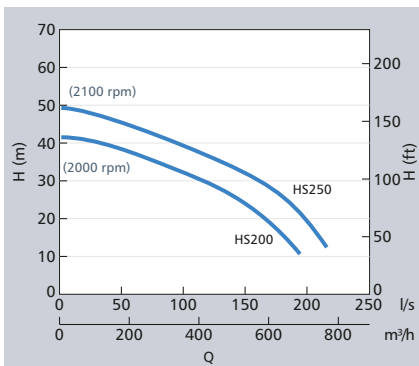
Model	HS150	HS150MR
Engine	Perkins 403D-22	Perkins 1104D-44T
Max. solids handling [mm]	65	65
Discharge Ø [mm]	150	150
Max. operating speed [rpm]	2000	2000
Min. runtime @ max. speed	36 h	51 h
Fuel tank capacity [l]	170	390
Dry run capacity	Yes	Yes
Consumed power [kW]	15	41
Powerpack L×W×H [mm]	1800×520×570	2500×1300×1900
Pumpend L×W×H [mm]	680×520×570	680×520×570
Weight pumpend [kg]	152	142
Weight powerpack [kg]	1052	2250

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series

HS200, HS250

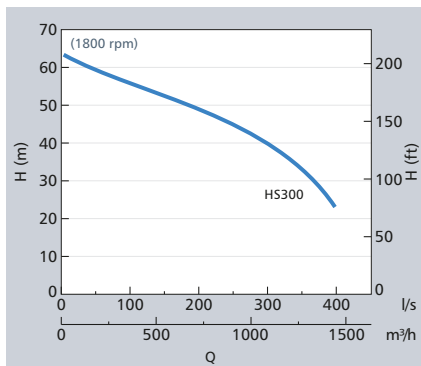


Model	HS200	HS250
Engine	Perkins 1104D-E44TA	Perkins 1106D-E66TA (129)
Max. solids handling [mm]	75	75
Discharge Ø [mm]	200	200
Max. operating speed [rpm]	2000	2100
Min. runtime @ max. speed	17 h	26 h
Fuel tank capacity [l]	390	850
Dry run capacity	Yes	Yes
Consumed power [kW]	61	78
Powerpack L×W×H [mm]	2500×1300×1900	2950×1300×1900
Pumpend L×W×H [mm]	755×721×1250	765×740×1200
Weight pumpend [kg]	354	362
Weight powerpack [kg]	2250	2598

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series HS300



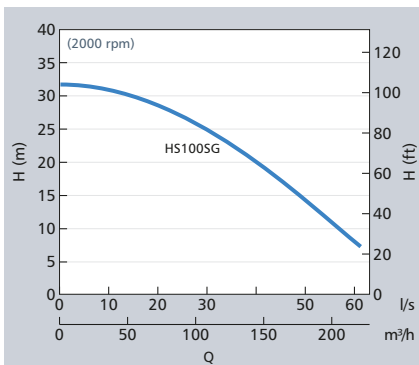
Model	HS300
Engine	Caterpillar C9
Max. solids handling [mm]	95
Discharge Ø [mm]	300
Max. operating speed [rpm]	1800
Min. runtime @ max. speed	13 h
Fuel tank capacity [l]	685
Dry run capacity	Yes
Consumed power [kW]	160
Powerpack L×W×H [mm]	3700×1700×2200
Pumpend L×W×H [mm]	1401×1052×1830
Weight pumpend [kg]	945
Weight powerpack [kg]	5325

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series (Slurry gate)

HS100SG



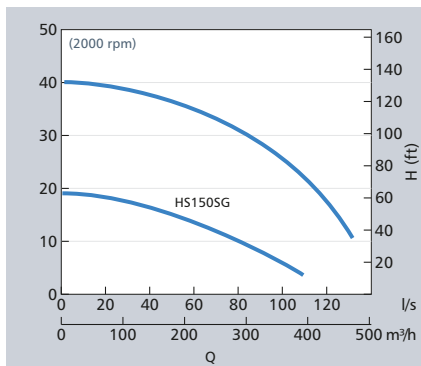
Model	HS100SG
Engine	Perkins 403D-15
Max. solids handling [mm]	45
Discharge Ø [mm]	100
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	18 h
Fuel tank capacity [l]	72
Dry run capacity	Yes
Consumed power [kW]	14
Pumpend L×W×H [mm]	480×580×700
Powerpack L×W×H [mm]	1300×680×1900
Weight pumpend [kg]	145
Weight powerpack [kg]	945

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series (Slurry gate)

HS150SG, HS150MRSG



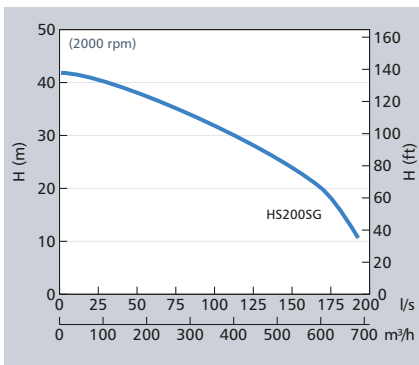
Model	HS150SG	HS150MRSG
Engine	Perkins 404D-22	Perkins 1104D-44T
Max. solids handling [mm]	65	65
Discharge Ø [mm]	150	150
Max. operating speed [rpm]	2000	2000
Min. runtime @ max. speed	36 h	51 h
Fuel tank capacity [l]	170	390
Dry run capacity	Yes	Yes
Consumed power [kW]	15	41
Pumpend L×W×H [mm]	725×680×1010	700×650×800
Powerpack L×W×H [mm]	1800×520×570	2500×1300×1900
Weight pumpend [kg]	180	170
Weight powerpack [kg]	1052	2250

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series (Slurry gate)

HS200SG



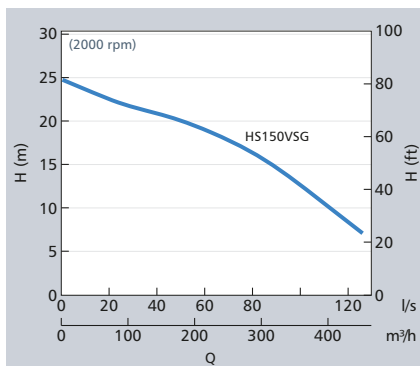
Model	HS200SG
Engine	Perkins 1106D-E66TA (129)
Max. solids handling [mm]	75
Discharge Ø [mm]	200
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	32 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	61
Pumpend L×W×H [mm]	850×725×1300
Powerpack L×W×H [mm]	2500×1300×1900
Weight pumpend [kg]	380
Weight powerpack [kg]	2250

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series (Vortex slurry gate)

HS150VSG



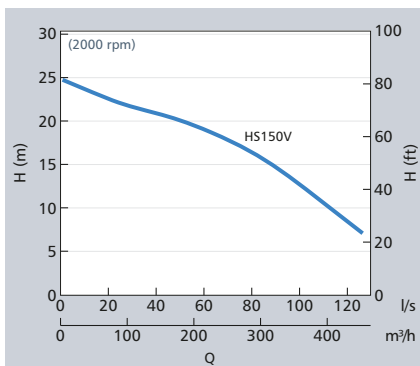
Model	HS150VSG
Engine	Perkins 1104D-44T
Max. solids handling [mm]	125
Discharge Ø [mm]	150
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	23 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	51
Pumpend L×W×H [mm]	700×650×800
Powerpack L×W×H [mm]	2500×1300×1900
Weight pumpend [kg]	170
Weight powerpack [kg]	2250

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series (Vortex)

HS150V



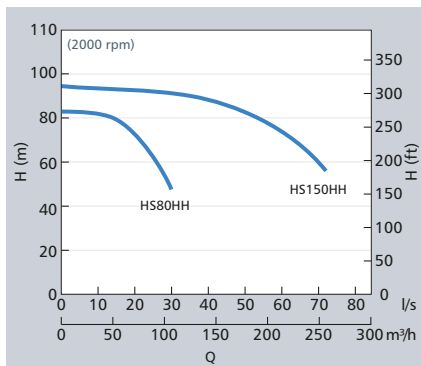
Model	HS150V
Engine	Perkins 1104-44T
Max. solids handling [mm]	125
Discharge Ø [mm]	150
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	23 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	51
Powerpack L×W×H [mm]	2500×1300×1900
Pumpend L×W×H [mm]	577×514×816
Weight pumpend [kg]	161
Weight powerpack [kg]	2250

For additional specifications, see product technical documentation.

With reservation for changes.

Heidra series (High head)

HS80HH, HS150HH



Model	HS80HH	HS150HH
Engine	Perkins 1104D-44T	Perkins 1106D-E66TA (129)
Max. solids handling [mm]	25	35
Discharge Ø [mm]	75	150
Max. operating speed [rpm]	2000	2000
Min. runtime @ max. speed	31 h	26 h
Fuel tank capacity [l]	390	850
Dry run capacity	Yes	Yes
Consumed power [kW]	44	81
Powerpack L×W×H [mm]	2500×1300×1900	2950×1300×1900
Pumpend L×W×H [mm]	451×506×715	664×770×1275
Weight pumpend [kg]	160	190
Weight powerpack [kg]	2250	2598

For additional specifications, see product technical documentation.

With reservation for changes.



Accessories

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



Suction hoses



Discharge hose



Quick release pipe and adapters



Wellpoint systems



Suction hoses with fitted strainer

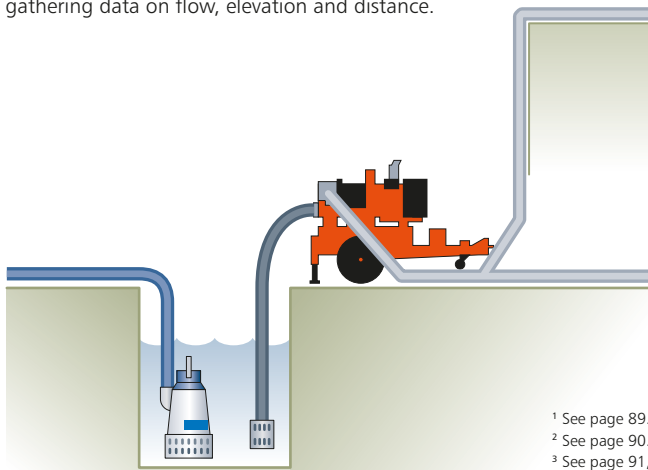


Basic pump hydraulics

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 89.

² See page 90.

³ See page 91, 94.

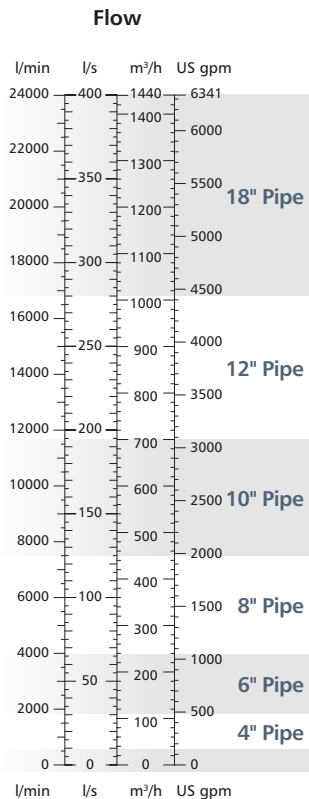
Flow determines pipe size

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		Metres 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)

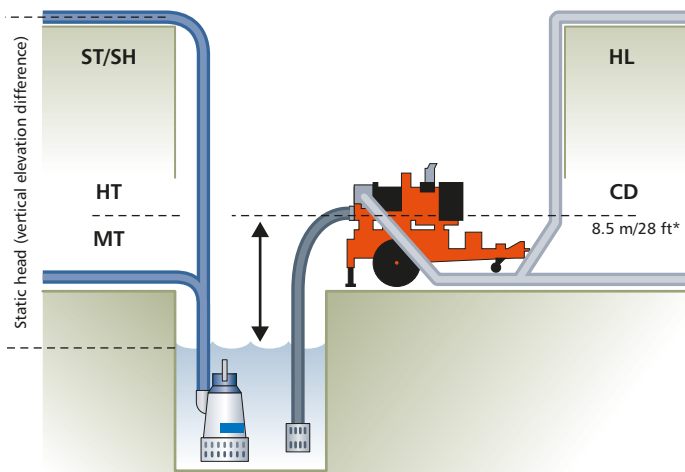
Godwin

CD

CD–Elevated head

HL

HL–Extreme head



*Maximum suction lift of a Dri-Prime pump is 8.5 m (28 ft.) at sea level.

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 89.

Over 300 m (1,000 ft.)

Increase the diameter of hose/pipe according to the flow requirements on page 89.

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 94 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. Generally speaking, go with a Godwin when electric power is not readily available.

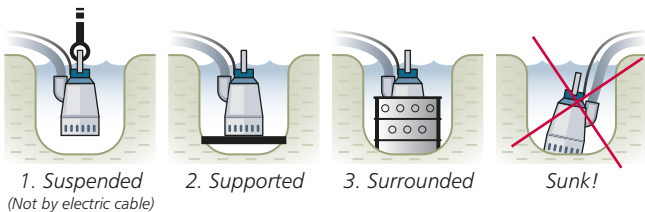
<i>Pumped media</i>	<i>Applications</i>	<i>Recommended pumps</i>	
		Flygt	Godwin
Clean or dirty water pH range 5–8	<ul style="list-style-type: none"> · Mining · Construction · Municipal 	2600 series 2000 series BIBO, Ready	Dri-Prime Vac-Prime Heidra
Sludge pH range 5–8	<ul style="list-style-type: none"> · Construction · Municipal · Industrial 	2600 series	Dri-Prime Heidra
Extreme pH (Corrosive) pH range 2–10	<ul style="list-style-type: none"> · Mining · Industrial 	2700 series	Dri-Prime Heidra (with stainless steel pumpend)
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 and Godwin Heidra):

The following three options for drainage pumps provide reliable results.



Surface-mounted suction lift pumps (Godwin Dri-Prime)

Keeping the suction lift to a minimum is the key to successful surface-mounted pumping applications. Dri-Prime pumps are limited to a suction lift of 8.5 m or 28 ft.

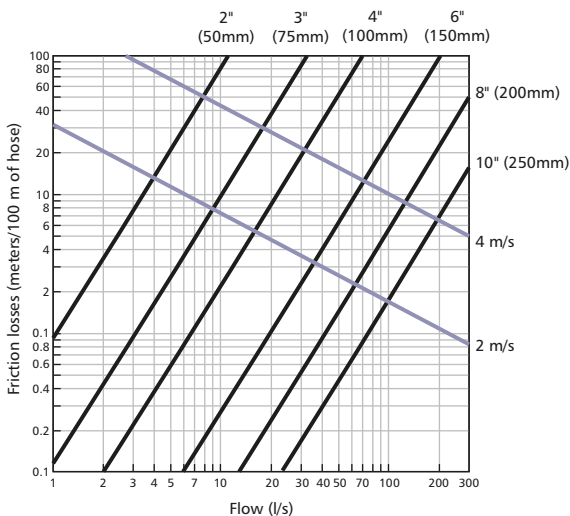
Critical suction lifts:

In applications where suction lifts are greater than 6 m (20 ft), increase the suction hose size to reduce suction velocity and thereby prevent suction cavitation.

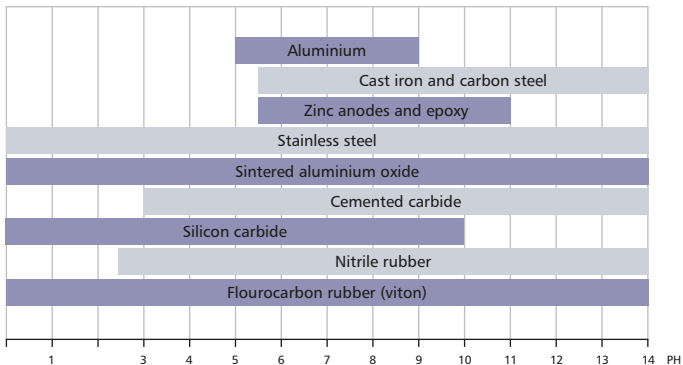


Friction losses in pipes and hoses

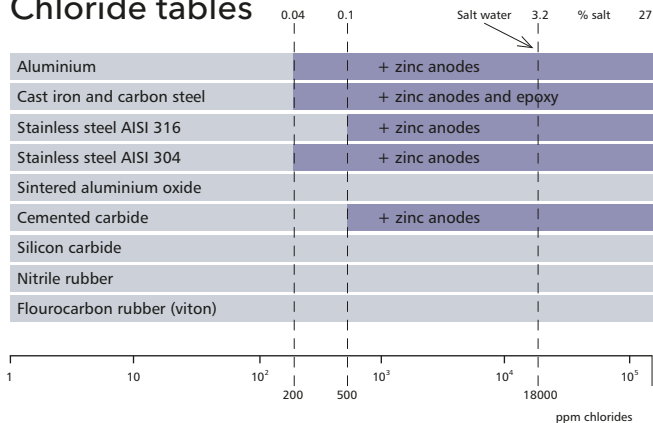
All pump capacities are measured for clean water, directly at the discharge outlet. When connecting a hose, you must consider the friction losses that come from the hose size and length. See the chart below.



pH tables



Chloride tables



Generator sizing chart

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

Voltages 3 ~ 400V 50 Hz

Pump model	Max. power consumption [kW]	Rated current [A]	Permissible cable length [m]	Delayed fuse [A]	Generator set [kVA]
2610	1.6	2.7	270	10	5
2620	2.7	4.7	200	10	8
2630	4.5	7.3	215	16	13
2640	6.7	11	145	25	18
2660	11.7	19	130	32	25*/30
2670	20	32	115	63	40*/50
2125 HT	10.2	16	95	32	25*/30
2201	41	65	100	100	85*/105
2250	62	104	100	190	125*/155
2400	95	148	35	230	225*/270
2720	2.7	4.4	200	10	8
2730	4.1	8.8	190	16	10
2740	7.3	12	130	25	20
2750	9.4	15	165	32	25

*Y/D start

Voltages 1 ~ 230V 50 Hz

Pump model	Max. power consumption [kW]	Rated current [A]	Permissible cable length [m]	Delayed fuse [A]	Generator set [kVA]
Ready 4	0.59	2.7	60	10	3
Ready 8	0.97	4.2	60	10	3
Ready 8S	1.2	5.2	50	16	3
2610	1.2	5.1	70	10	4
2610	1.7	7.2	50	16	5
2620	1.9	8.5	50	16	5

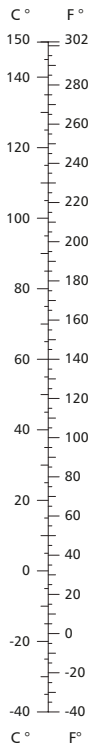
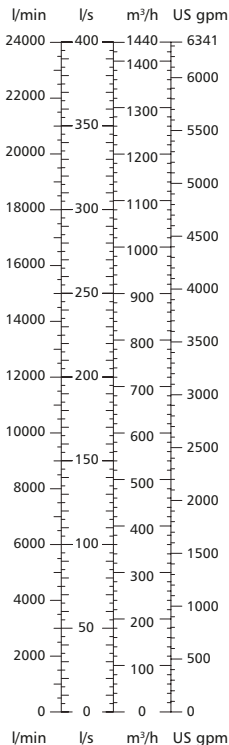
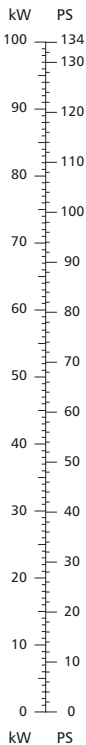
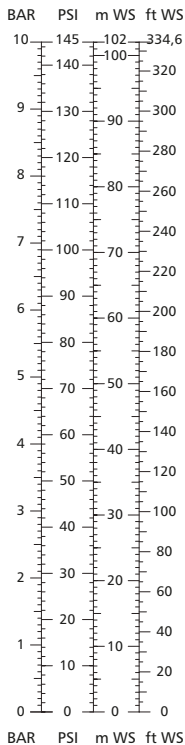
Measurement conversion reference chart

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 and Godwin service partners who also provide top-notch service and support.

All genuine Flygt and Godwin spare parts are backed by solid availability guarantees.

