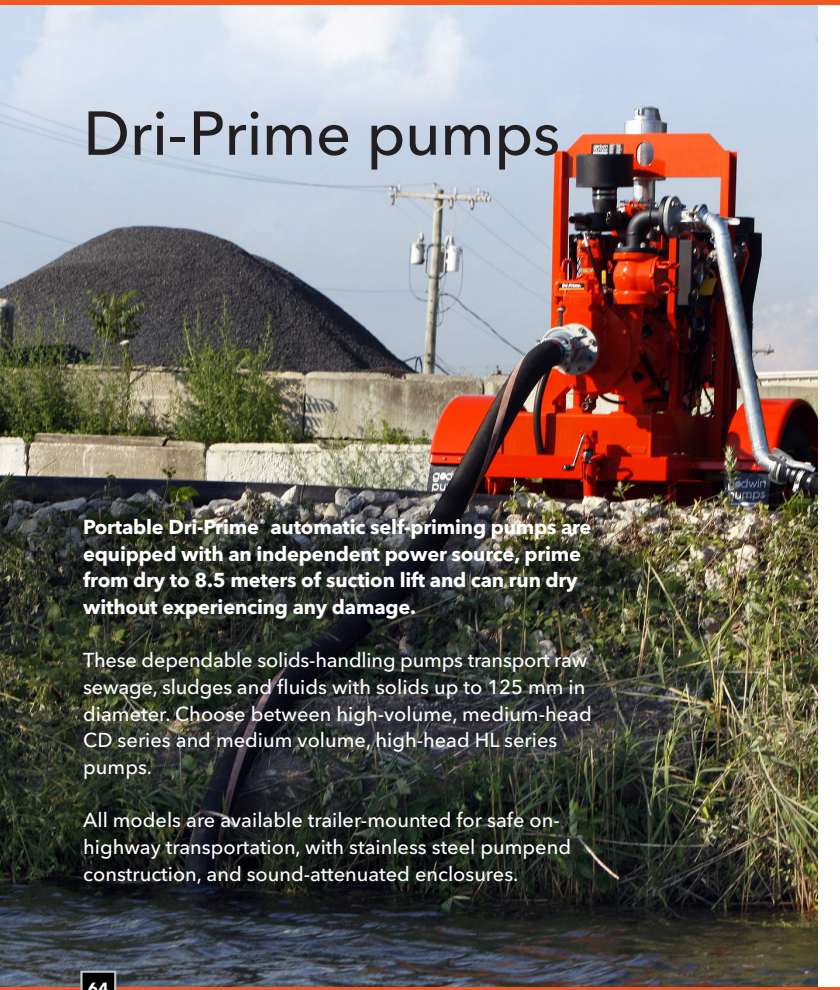
Dri-Prime pumps



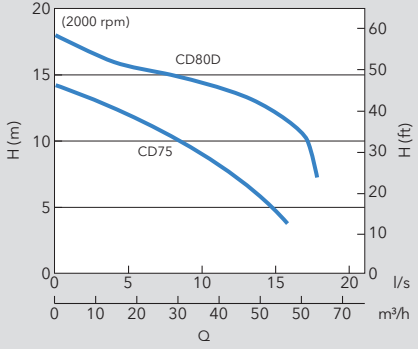
Portable Dri-Prime® automatic self-priming pumps are equipped with an independent power source, prime from dry to 8.5 meters of suction lift and can run dry without experiencing any damage.

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

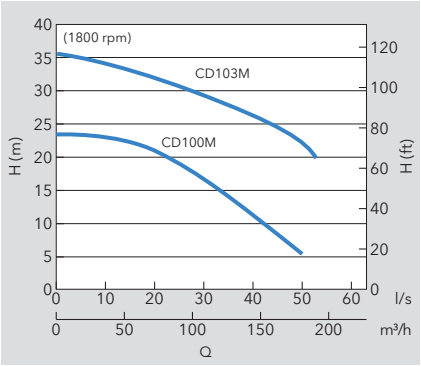


Model	CD75	CD80D
Engine	Yanmar L100 AE	Kubota Z482
Max. solids handling [mm]	40	40
Suction Ø [mm]	50	80
Discharge Ø [mm]	50	80
Max. operating speed [rpm]	2000	2000
Min. running time at max. speed	4 h	52 h
Fuel tank capacity [l]	5	72
Dry run capacity	Yes	Yes
Consumed power [kW]	4.5	4.5
Dimensions L×W×H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

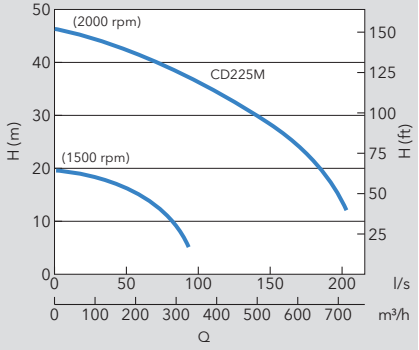


Model	CD100M	CD103M
Engine	Perkins 403D-15	Perkins 404D-22
Max. solids handling [mm]	45	75
Suction Ø [mm]	100	100
Discharge Ø [mm]	100	100
Max. operating speed [rpm]	1800	1800
Min. running time at max. speed	22 h	26 h
Fuel tank capacity [l]	72	170
Dry run capacity	Yes	Yes
Consumed power [kW]	11	23
Dimensions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



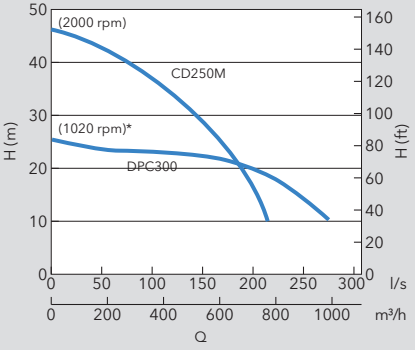
Model	CD150M	CD225M
Engine	Perkins 404D-22	Perkins 1104D-E44TA
Max. solids handling [mm]	65	75
Suction Ø [mm]	150	200
Discharge Ø [mm]	150	200
Max. operating speed [rpm]	1500	2000
Min. running time at max. speed	38 h	17 h
Fuel tank capacity [l]	170	390
Dry run capacity	Yes	Yes
Consumed power [kW]	16	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



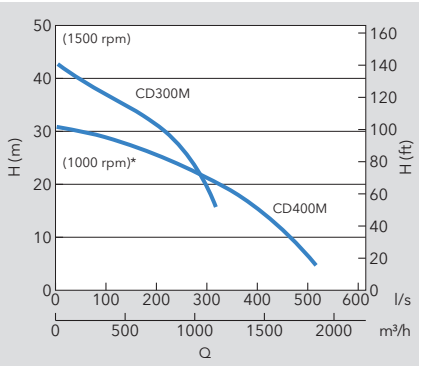
Model	CD250M	DPC300
Engine	Perkins 1104D-E44TA	Perkins 1104D-E44TA
Max. solids handling [mm]	75	95
Suction Ø [mm]	250	300
Discharge Ø [mm]	250	300
Max. operating speed [rpm]	2000	1020
Min. running time at max. speed	17 h	38 h
Fuel tank capacity [l]	390	850
Dry run capacity	Yes	Yes
Consumed power [kW]	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



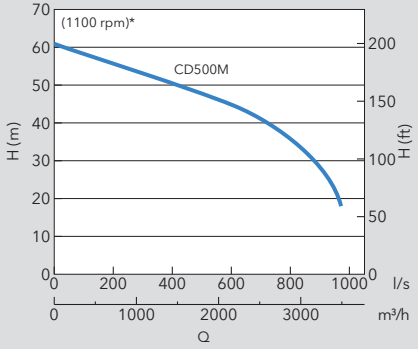
Model	CD300M	CD400M
Engine	Perkins 1106D-E66TA (129)	Perkins 1106D-E66TA (168)
Max. solids handling [mm]	95	125
Suction Ø [mm]	300	450
Discharge Ø [mm]	300	400
Max. operating speed [rpm]	1500	1000
Min. running time at max. speed	28 h	17 h
Fuel tank capacity [l]	850	685
Dry run capacity	Yes	Yes
Consumed 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

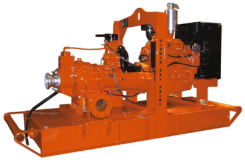


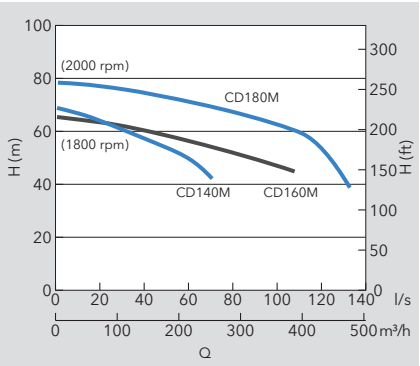
Model	CD500M
Engine	Caterpillar C18
Maximum solids handling [mm]	80
Suction Ø [mm]	500/600
Discharge Ø [mm]	450
Maximum operating speed [rpm]	1100
Minimum running time at maximum speed	9 h
Fuel tank capacity [l]	1131
Dry run capacity	Yes
Consumed power [kW]	420
Dimensions L×W×H [mm]	5400×2670×2500
Weight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

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

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

CD140M, CD160M, CD180M



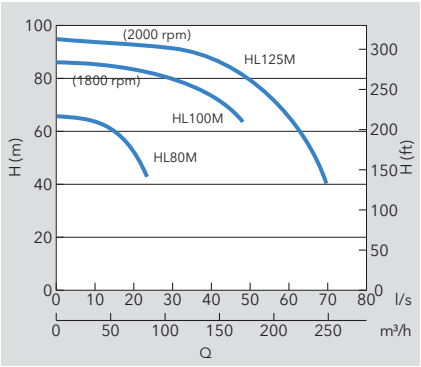


Model	CD140M	CD160M	CD180M
Engine	Perkins 1104D-44TA	Perkins 1104D-E44TA	Perkins 1106D-E66TA (129)
Max. solids [mm]	75	75	75
Suction Ø [mm]	100	150	200
Discharge Ø [mm]	100	150	150
Max. op. speed [rpm]	1800	1800	2000
Min. running time	19 h	17 h	13 h
Fuel t. capacity [l]	390	390	475
Dry run capacity	Yes	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

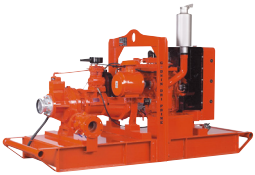


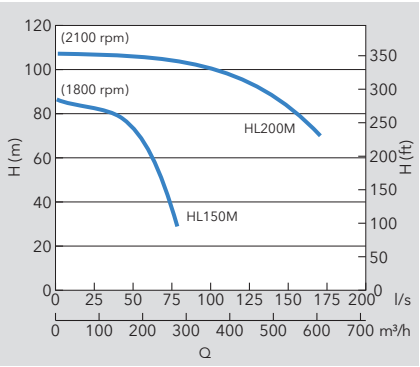
Model	HL80M	HL100M	HL125M
Engine	Perkins 404D-22T	Perkins 1104D-44TA	Perkins 1104D-E44TA
Max. solids [mm]	25	35	35
Suction Ø [mm]	100	100	150
Discharge Ø [mm]	80	100	100
Max. op. speed [rpm]	2000	1800	2000
Min. running time	17 h	23 h	15 h
Fuel t. capacity [l]	170	390	390
Dry run capacity	Yes	Yes	Yes
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



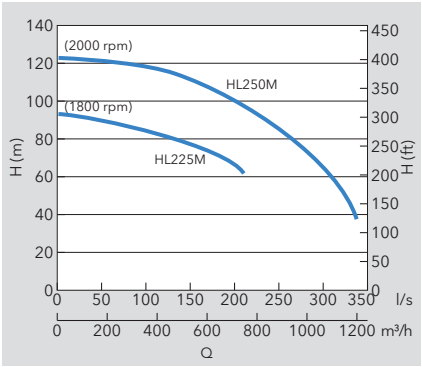


Model	HL150M	HL200M
Engine	Perkins 1104D-E44TA	Caterpillar C9
Max. solids handling [mm]	35	38
Suction Ø [mm]	150	200
Discharge Ø [mm]	150	150
Max. operating speed [rpm]	1800	2100
Min. running time at max. speed	13 h	10 h
Fuel tank capacity [l]	390	850
Dry run capacity	Yes	Yes
Consumed power [kW]	71.9	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

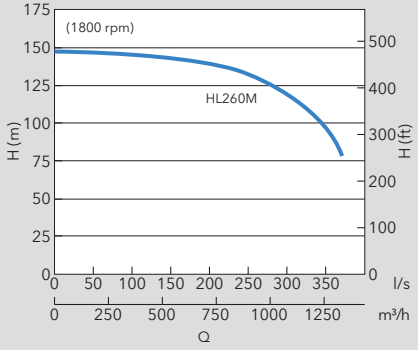


Model	HL225M	HL250M
Engine	Caterpillar C9	Caterpillar C15
Max. solids handling [mm]	65	65
Suction Ø [mm]	250	300
Discharge Ø [mm]	200	250
Max. operating speed [rpm]	1800	2000
Min. running time at max. speed	13 h	7 h
Fuel tank capacity [l]	850	685
Dry run capacity	Yes	Yes
Consumed power [kW]	203	310
Dimensions 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

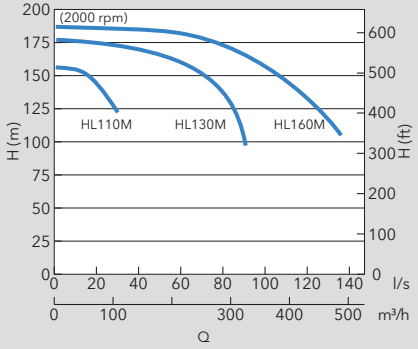


Model	HL260M
Engine	Caterpillar C18
Max. solids handling [mm]	50
Suction Ø [mm]	250
Discharge Ø [mm]	200
Max. operating speed [rpm]	1800
Min. running time at max. speed	5 h
Fuel tank capacity [l]	685
Dry run capacity	Yes
Consumed power [kW]	425
Dimensions L×W×H [mm]	4300×1980×2525
Weight [kg]	6900

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

Dri-Prime HL series (Extreme high head)

HL110M, HL130M, HL160M

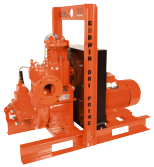


Model	HL110M	HL130M	HL160M
Engine	Perkins 1104D-E44TA	Caterpillar C9	Caterpillar C15
Max. solids [mm]	20	22	35
Suction Ø [mm]	100	150	200
Discharge Ø [mm]	80	100	150
Max. op.speed [rpm]	2000	2000	2000
Min. running time	15 h	13 h	7 h
Fuel t. capacity [l]	390	850	685
Dry run capacity	Yes	Yes	Yes
Power [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]
CD series	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
HL series	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	1450
	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.

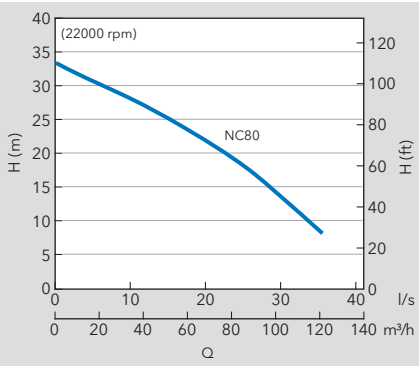
NC series

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

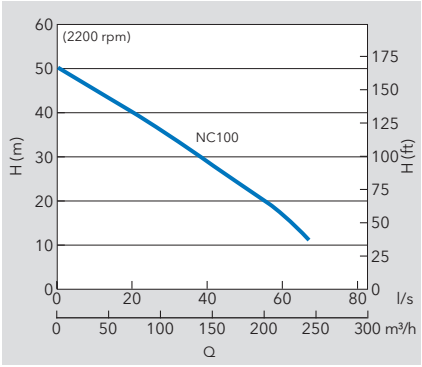


Model	NC80
Engine	Yanmar 3TNV76-CS
Suction Ø [mm]	100
Discharge Ø [mm]	80
Maximum operating speed [rpm]	2200
Minimum running time at maximum speed	19 h
Fuel tank capacity [l]	72
Dry run capacity	Yes
Consumed power [kW]	11
Dimensions L×W×H [mm]	1300×680×1900
Weight [kg]	945

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.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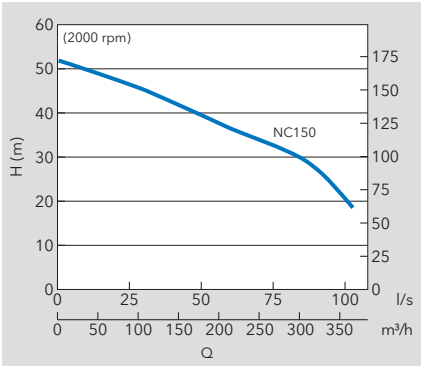
Dri-Prime NC series

NC150

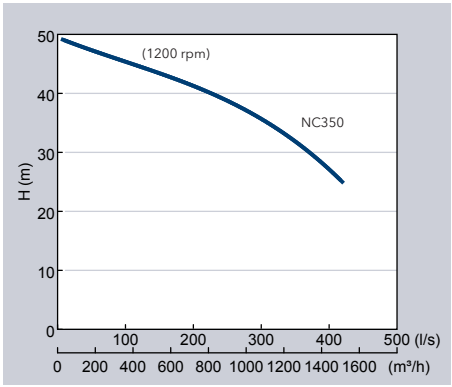


Model	NC150
Engine	Perkins 1104DT
Suction Ø [mm]	150
Discharge Ø [mm]	150
Maximum operating speed [rpm]	2000
Minimum running time at maximum speed	30 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	55
Dimensions L×W×H [mm]	2500×930×1390
Weight [kg]	2130

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

Dri-Prime NC series

NC350



Model	NC350
Engine	TBC
Suction Ø [mm]	400 mm
Discharge Ø [mm]	400 mm
Maximum operating speed [rpm]	1200
Minimum running time at maximum speed	10 h
Fuel tank capacity [l]	550
Dry run capacity	Yes
Consumed power [kW]	170 kW
Dimensions L×W×H [mm]	5000 x 2200 x 2400
Weight [kg]	8000

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

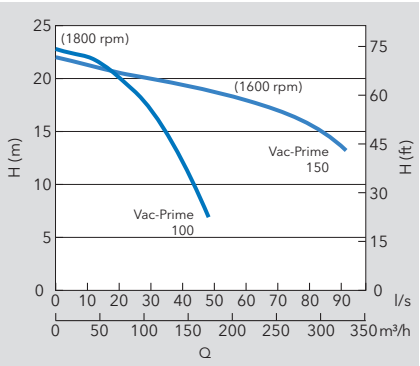
Vac-Prime series

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

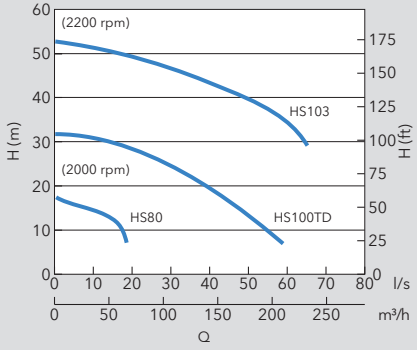
Self-contained Heidra® pumps are reliable hydraulic submersible pumpends with diesel- or electric-driven power packs for general pumping of light slurries and municipal sludges.

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



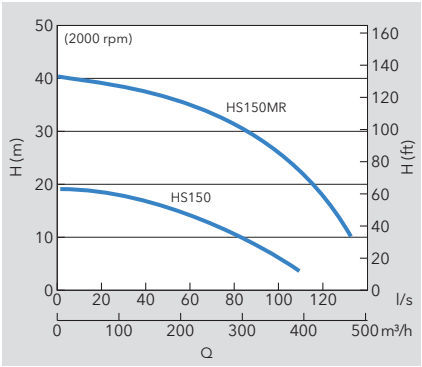
Model	HS80	HS100TD	HS103
Engine	Kubota Z482	Perkins 403D-15	Perkins 404D-22T
Max. solids handling [mm]	40	45	75
Discharge Ø [mm]	75	100	100
Max. operating speed [rpm]	2000	2000	2200
Min. runtime @ max. speed	56 h	18 h	27 h
Fuel tank capacity [l]	72	72	170
Dry run capacity	Yes	Yes	Yes
Consumed power [kW]	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.

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

Heidra series

HS150, HS150MR

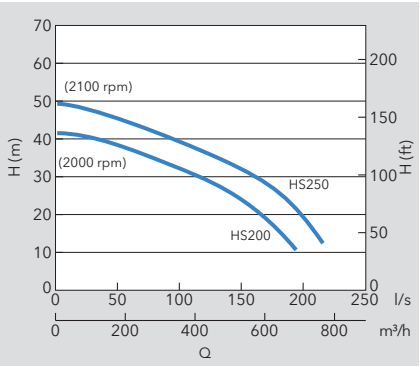


Model	HS150	HS150MR
Engine	Perkins 403D-22	Perkins 1104D-44T
Max. solids handling [mm]	65	65
Discharge Ø [mm]	150	150
Max. operating speed [rpm]	2000	2000
Min. runtime @ max. speed	36 h	51 h
Fuel tank capacity [l]	170	390
Dry run capacity	Yes	Yes
Consumed power [kW]	15	41
Powerpack L×W×H [mm]	1800×520×570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

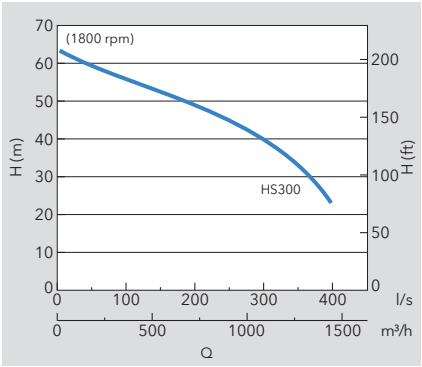


Model	HS200	HS250
Engine	Perkins 1104D-E44TA	Perkins 1106D-E66TA (129)
Max. solids handling [mm]	75	75
Discharge Ø [mm]	200	200
Max. operating speed [rpm]	2000	2100
Min. runtime @ max. speed	17 h	26 h
Fuel tank capacity [l]	390	850
Dry run capacity	Yes	Yes
Consumed power [kW]	61	78
Powerpack L×W×H [mm]	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

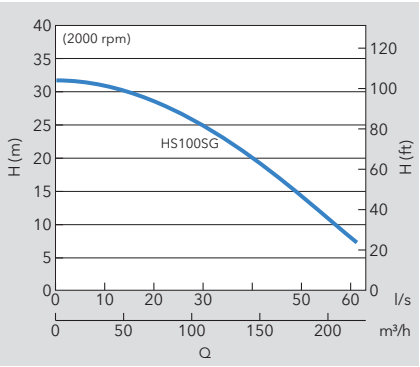


Model	HS300
Engine	Caterpillar C9
Max. solids handling [mm]	95
Discharge Ø [mm]	300
Max. operating speed [rpm]	1800
Min. runtime @ max. speed	13 h
Fuel tank capacity [l]	685
Dry run capacity	Yes
Consumed power [kW]	160
Powerpack L×W×H [mm]	3700×1700×2200
Pumpend L×W×H [mm]	1401×1052×1830
Weight pumpend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

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

Heidra series (Slurry gate)

HS100SG

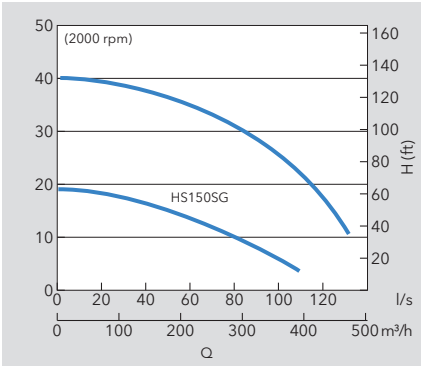


Model	HS100SG
Engine	Perkins 403D-15
Max. solids handling [mm]	45
Discharge Ø [mm]	100
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	18 h
Fuel tank capacity [l]	72
Dry run capacity	Yes
Consumed power [kW]	14
Pumpend L×W×H [mm]	480×580×700
Powerpack L×W×H [mm]	1300×680×1900
Weight pumpend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

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

Heidra series (Slurry gate)

HS150SG, HS150MRSG

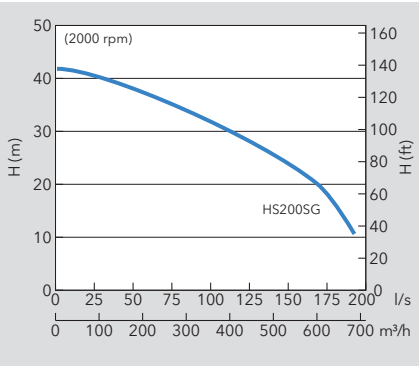


Model	HS150SG	HS150MRSG
Engine	Perkins 404D-22	Perkins 1104D-44T
Max. solids handling [mm]	65	65
Discharge Ø [mm]	150	150
Max. operating speed [rpm]	2000	2000
Min. runtime @ max. speed	36 h	51 h
Fuel tank capacity [l]	170	390
Dry run capacity	Yes	Yes
Consumed power [kW]	15	41
Pumpend L×W×H [mm]	725×680×1010	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

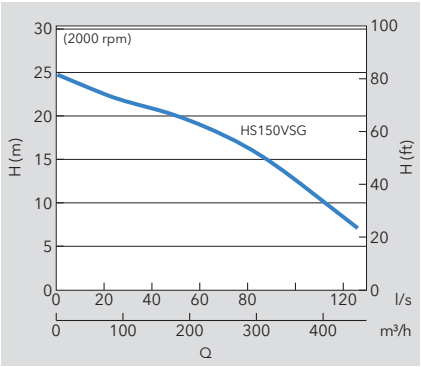


Model	HS200SG
Engine	Perkins 1106D-E66TA (129)
Max. solids handling [mm]	75
Discharge Ø [mm]	200
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	32 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	61
Pumpend L×W×H [mm]	850×725×1300
Powerpack L×W×H [mm]	2500×1300×1900
Weight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

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

Heidra series (Vortex slurry gate)

HS150VSG

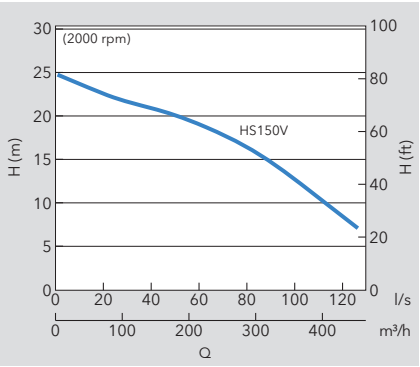


Model	HS150VSG
Engine	Perkins 1104D-44T
Max. solids handling [mm]	125
Discharge Ø [mm]	150
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	23 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	51
Pumpend L×W×H [mm]	700×650×800
Powerpack L×W×H [mm]	2500×1300×1900
Weight pumpend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

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

Heidra series (Vortex)

HS150V

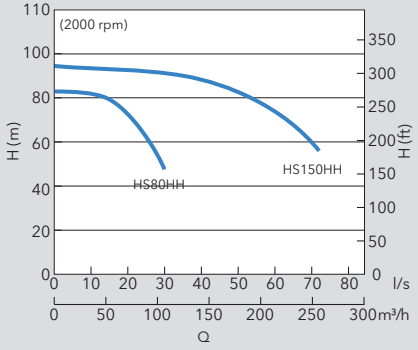


Model	HS150V
Engine	Perkins 1104-44T
Max. solids handling [mm]	125
Discharge Ø [mm]	150
Max. operating speed [rpm]	2000
Min. runtime @ max. speed	23 h
Fuel tank capacity [l]	390
Dry run capacity	Yes
Consumed power [kW]	51
Powerpack L×W×H [mm]	2500×1300×1900
Pumpend L×W×H [mm]	577×514×816
Weight pumpend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

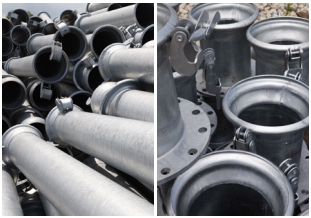
For additional specifications, see product technical documentation.With reservation for changes.

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


godwin
xylem

Basic pump hydraulics

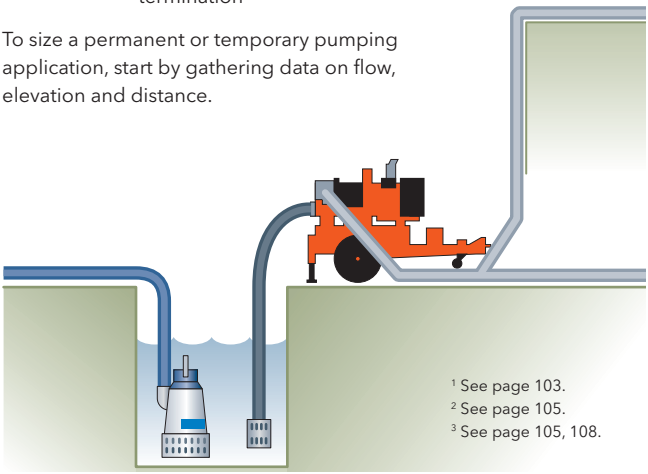
All pumping applications have three things in common:

Flow Amount of liquid to be pumped
= Quantity divided by time[1]

Elevation Gravity resistance
= Difference in vertical elevation from source to termination[2]

Distance Friction resistance, determined by the diameter, flow and hose/pipe material
= Length of hose/pipe from source to termination[3]

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



[1] See page 103.
[2] See page 105.
[3] See page 105, 108.

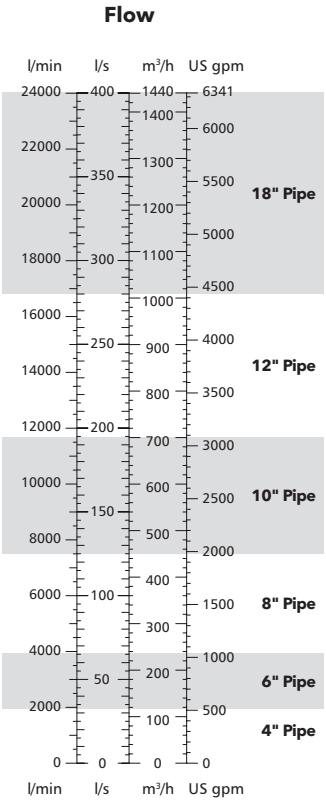
Flow determines pipe size

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.

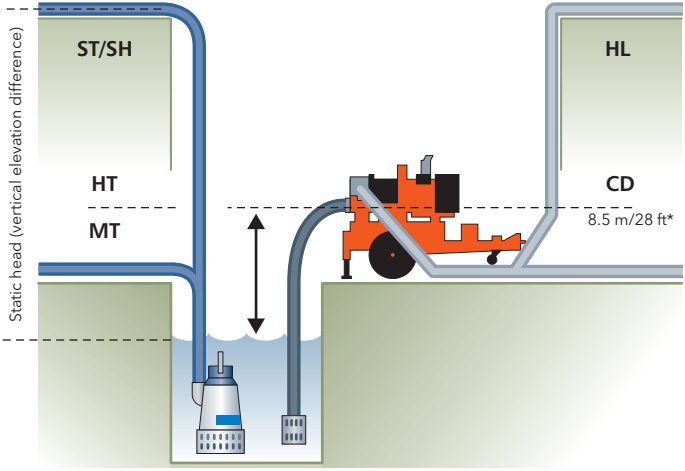
Flow	=	Quantity	÷	Time
l/min		Liters		Minute
l/sec		Liters		Second
m³/hr		Metres³		Hour
gpm		Gallons		Minute



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	**Flygt**	**Godwin**
0–15 m (50 ft.)	MT	CD
15–30 m, (50–100 ft.)	HT	CD – Elevated head
30–60 m (100–200 ft.)	MT/ST/SH	HL
60–180 m (200–600 ft.)	MT/ST/SH (Tandem)	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 103.

Over 300 m (1,000 ft.)
Increase the diameter of hose/pipe according to the flow requirements on page 103.

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 108 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?*

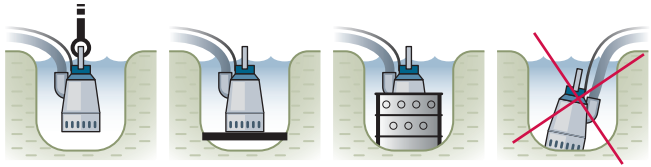
Selecting the right pump ensures reliable operation to get the job done. Choosing the wrong pump may cause pump failure, service disruption and costly repair or replacement. Generally speaking, go with a Godwin when electric power is not readily available.

Pumped media	*Applications*	*Recommended pumps*	
		Flygt	**Godwin**
Clean or dirty water pH range 5–8	· Mining · Construction · Municipal	2600 series 2000 series BIBO, Ready	Dri-Prime Vac-Prime Heidra
Sludge pH range 5–8	· Construction · Municipal · Industrial	2600 series	Dri-Prime Heidra
Extreme pH (Corrosive) pH range 2–10	· Mining · Industrial	2700 series	Dri-Prime Heidra (with stainless steel pumpend)
Slurry (Abrasive) pH range 5–9	· 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.



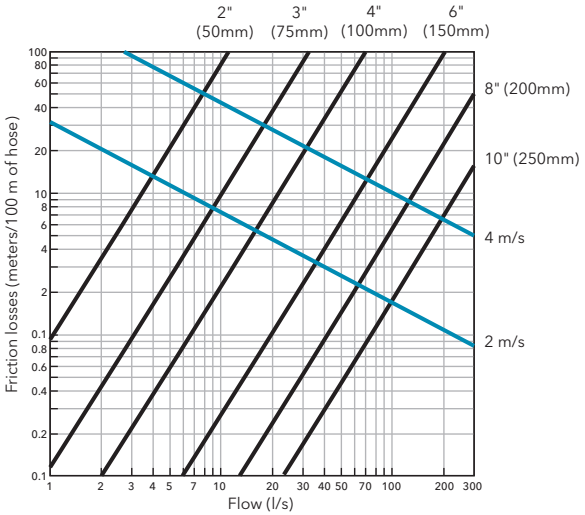
1. Suspended (Not by electric cable) *2. Supported* *3. Surrounded* *Sunk!*

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.

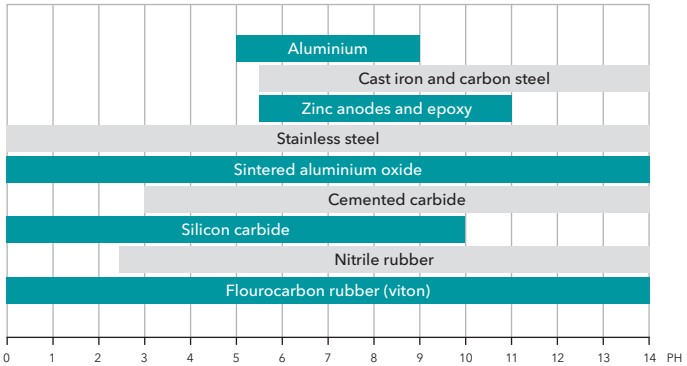
Critical suction lifts:
In applications where suction lifts are greater than 6 m (20 ft), increase the suction hose size to reduce suction velocity and thereby prevent suction cavitation.

Friction losses in pipes and hoses

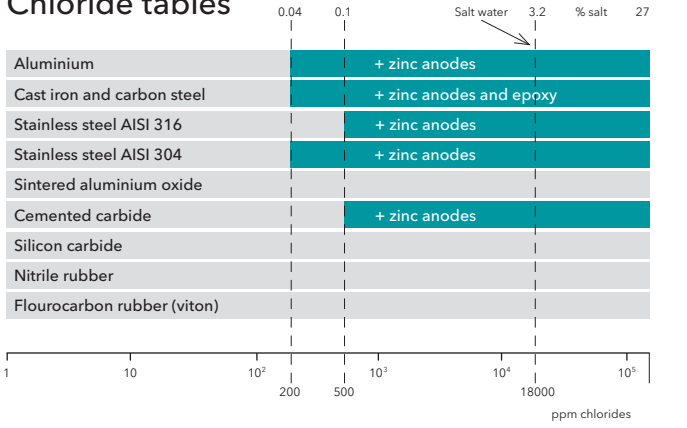
All pump capacities are measured for clean water, directly at the discharge outlet. When connecting a hose, you must consider the friction losses that come from the hose size and length. See the chart below.



pH tables



Chloride tables



Generator sizing chart

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

Voltages 3 ~ 400V 50 Hz

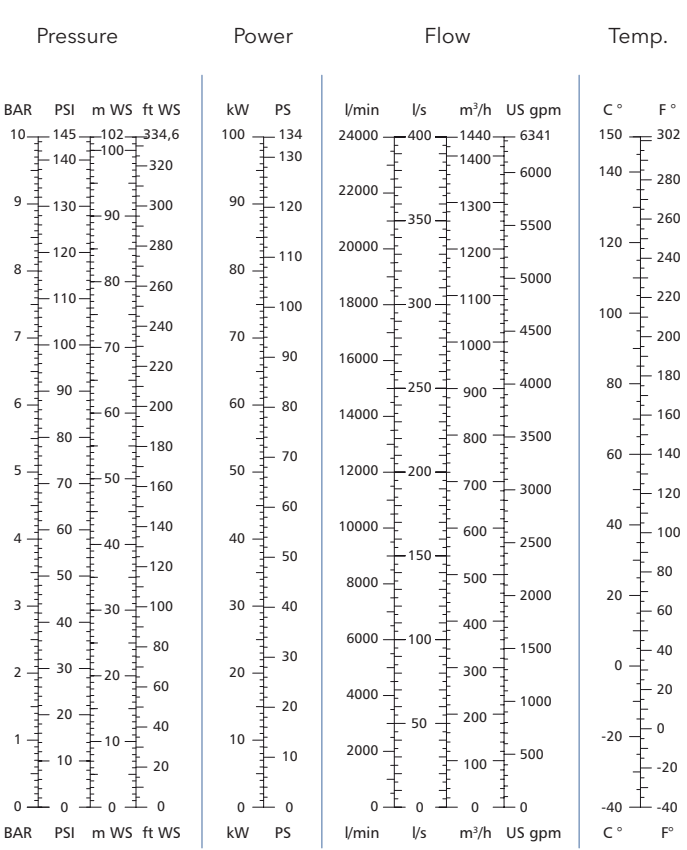
Pump model	Max. power consumption [kW]	Rated current [A]	Permissible cable length [m]	Delayed fuse [A]	Generator set [kVA]
2610	1.6	2.7	270	10	5
2620	2.7	4.7	200	10	8
2630	4.5	7.3	215	16	13
2640	6.7	11	145	25	18
2660	11.7	19	130	32	25*/30
2670	20	32	115	63	40*/50
2125 HT	10.2	16	95	32	25*/30
2201	41	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 4L	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



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 150 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.

Notes

Xylem [ˈzīləm]

1) The tissue in plants that brings water upward from the roots;
2) a leading global water technology company.

We're a global team 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 www.xyleminc.com

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