









## **DRAGFLOW**

A <u>success story</u>, which began in the 80's with the production of submersible pumps with agitator for heavy-duty applications, designed and built for the treatment of high solid abrasive mixtures.

<u>Present recognition</u>: today our company is known throughout the world as a manufacturer of advanced dredging pumps and systems for port, maritime, energy, mining and extraction industry sectors.

A <u>future of research and innovation</u> in which to develop cutting-edge technologies and solutions, with a vigilant eye on customer needs and requirements.

## **PROJECTS and TECHNOLOGIES**

International experience attained in the design and manufacture of submersible dredging pumps has enabled us to refine our proposals: we are able to offer high quality raw materials and exceptional product life.

We constantly strive to find new opportunities for improving performance even in extreme conditions, optimising energy and thus reducing the environmental impact and total costs.

Believing that there are no difficult challenges, if they are tackled with the support of our integrated technological systems: each pump can make use of accessories able to enhance its operation in all conditions.

## PEOPLE

Our team is constantly evolving to find new technological solutions, which improve the performance of electric and hydraulic dredging pumps.

Every day engineers and technicians discuss new ideas to innovate and offer specific solutions even for the most complex situations, placing particular emphasis on the needs of customers and sustainability.

Our business network is solid and widespread. Consistently supported by our partners and distributors to optimise logistics and carry out interventions quickly, with the possibility of performing inspections to demonstrate the efficiency of our products.

Try working with us. You will see the difference.

# **DREDGING PUMPS. State of the art design and quality**

# ELECTRIC MOTOR DESIGNED FOR HEAVY-DUTY APPLICATIONS (1)

Class H operates with mixtures with specific weight up to 1.7 kg/dm<sup>3</sup>.

All pumps are available in 50 Hz and 60 Hz.

## HIGH QUALITY METALLURGY (2)

Parts subject to wear are produced using HIGH CHROME ensuring longer life.

## **SENSORS**

### FOR EXTRA PROTECTION

Temperature and humidity sensors are available to handle complex applications.

## HIGH CHROME WEAR PLATE (3)

Adjustable and positioned on the suction side.

## FRONT DEFLECTOR (4)

## **SERVICE BOLTS (5)**

- flushing of seals
- oil inspection
- double grease point

## **THRUST BEARINGS**

Reduce vibrations and support movement.

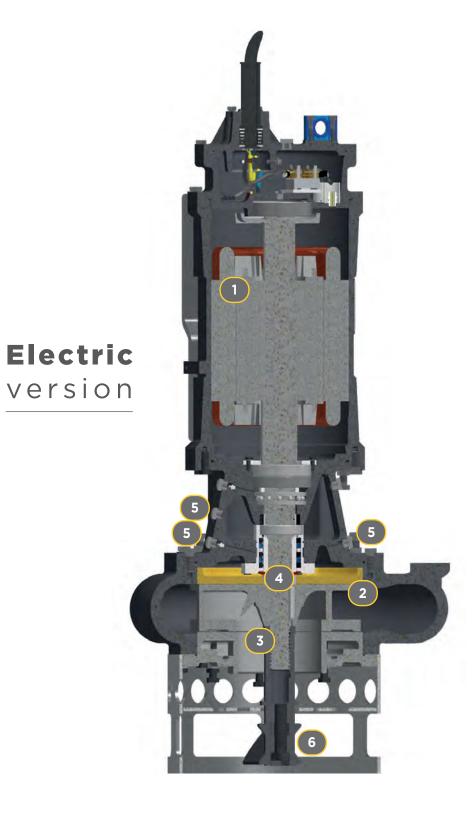
## **SOLID TRANSPORTING UP TO 4.7 INCHES**

Handling from 0.8 inches up to 4.7 inches in the largest pumps.



## AGITATOR (6)

- high efficiency agitator for lifting sedimented solid material
- able to pump up to 70% per weight density
- high abrasion resistance
- low rotation speed to reduce wear
- reversible for longer life









## Characteristics:

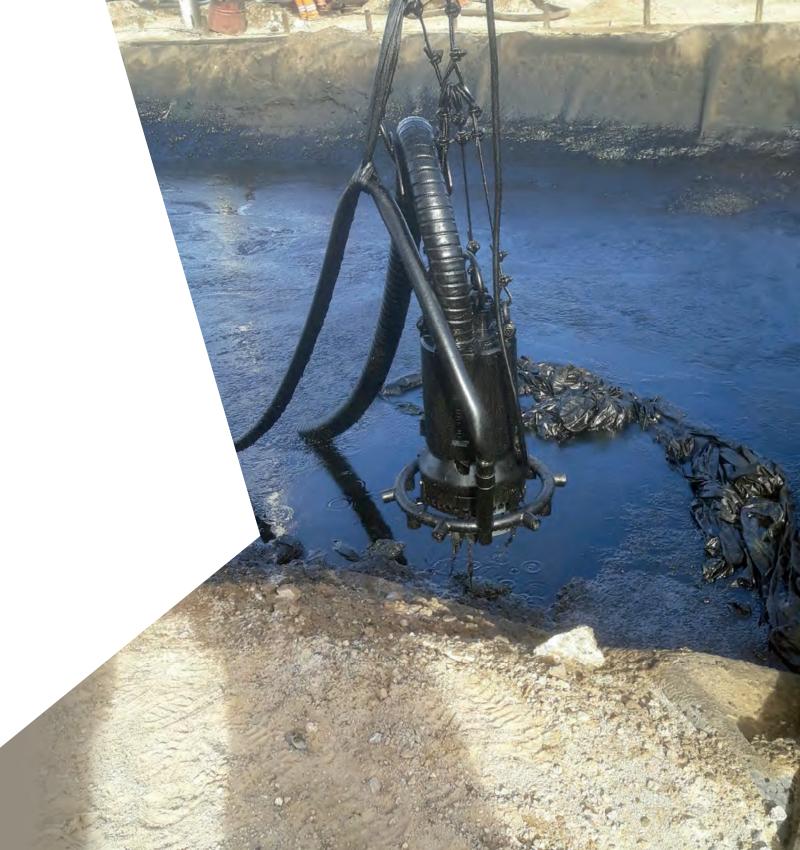
- Power: from 3.7 kW (5 hp) to 240 kW (322 hp)
- Flow rate: up to 15,410 gpm
- Drain diameter: up to 18 inches

# PUMPS FOR HEAVY-DUTY APPLICATIONS

# S and SS versions

The pumps in this line are supplied with an oversized motor capable of lifting mixtures up to 1.7 kg/dm<sup>3</sup>.

Their structure is designed to work in complex environmental conditions, performing efficiently where any other pump could fail.



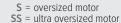


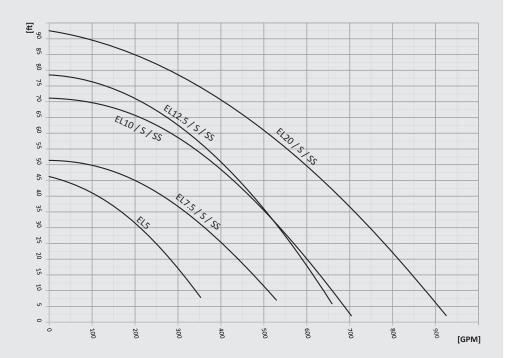


# EL5 - EL20



Model	Discharge		Capacity		He	ead	Power	R.P.M.		lid dling	Weight	
Model	mm	inch	m³/h	gpm	m	ft	HP/kW	60 Hz	mm	inch	kg	Lbs
EL5	80	3	40	176	10.3	33.9	5 / 3.7	1,740	20	0.8	220	485
EL7.5	100	4	70	308	10.9	35.6	7.4 / 5.5	1,740	25	1.0	270	595
EL7.5 S	100	4	70	308	10.9	35.6	10 / 7.5	1,740	25	1.0	280	617
EL7.5 SS	100	4	70	308	10.9	35.6	12 / 9	1,740	25	1.0	280	617
EL10	100	4	90	396	14.8	48.5	10 / 7.5	1,740	25	1.0	280	617
EL10 S	100	4	90	396	14.8	48.5	12 / 9	1,740	25	1.0	290	640
EL10 SS	100	4	90	396	14.8	48.5	14.7 / 11	1,740	25	1.0	290	640
EL12.5	100	4	80	352	17.2	56.4	12 / 9	1,740	25	1.0	290	640
EL12.5 S	100	4	80	352	17.2	56.4	14.7 / 11	1,740	25	1.0	290	640
EL12.5 SS	100	4	80	352	17.2	56.4	17.4 / 13	1,740	25	1.0	290	640
EL20	100	4	110	484	19.2	62.9	20 / 15	1,740	25	1.0	535	1,180
EL20 S	100	4	110	484	19.2	62.9	24 / 18	1,740	25	1.0	555	1,223
EL20 SS	100	4	110	484	19.2	62.9	29 / 22	1,740	25	1.0	560	1,235

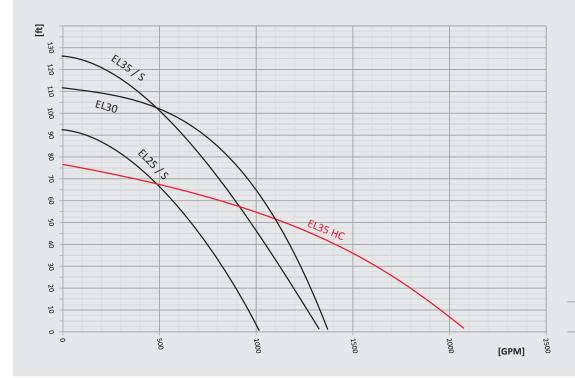


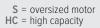


# EL25 - EL35



Model	Discharge		Capacity		Head		Power	R.P.M.		lid dling	We	ight
Model	mm	inch	m³/h	gpm	m	ft	HP/kW	60 Hz	mm	inch	kg	Lbs
EL25	100	4	130	572	18.3	60	25 / 18,5	1,164	35	1.4	715	1,580
EL25 S	100	4	130	572	18.3	60	35 / 26	1,164	35	1.4	785	1,730
EL30	100	4	100	440	32	105	40.4 / 30	1,740	40	1.5	500	1,102
EL35	100	4	150	660	26.2	85.9	35 / 26	1,164	35	1.4	780	1,580
EL35 S	100	4	150	660	26.2	85.9	60 / 45	1,164	35	1.4	780	1,580
EL35 HC	100	4	240	1,056	16	52.4	35 / 26	1,164	60	2.4	780	1,580







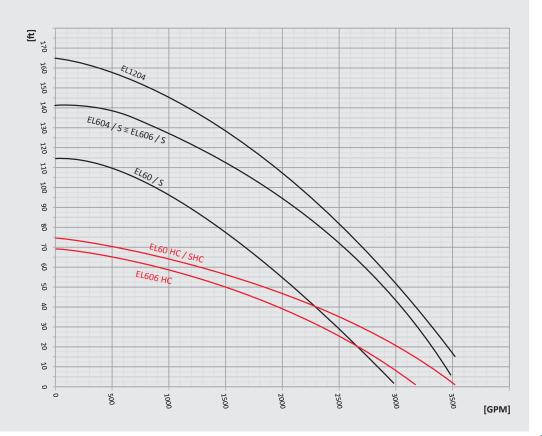


# EL60 - EL1204



Model	Discharge		Capacity		Head		Power	R.P.M.		lid dling	Wei	ght
Model	mm	inch	m³/h	gpm	m	ft	HP/kW	60 Hz	mm	inch	kg	Lbs
EL60	150	6	310	1,364	25.2	82.6	60 / 45	1,176	60	2.4	1,060	2,337
EL60 S	150	6	310	1,364	25.2	82.6	80 / 60	1,176	60	2.4	1,230	2,710
EL60 HC	250	10	410	1,804	15.5	50.8	60 / 45	1,176	90	3.5	1,200	2,645
EL60 SHC	250	10	410	1,804	15.5	50.8	80 / 60	1,176	90	3.5	1,200	2,645
EL604	150	6	400	1,760	29.9	98.1	100 / 75	1,176	60	2.4	1,100	2,425
EL604 S	150	6	400	1,760	29.9	98.1	120 / 90	1,176	60	2.4	1,115	2,460
EL606	150	6	410	1,804	30.6	100.3	100 / 75	1,182	60	2.4	1,250	2,755
EL606 S	150	6	410	1,804	30.6	100.3	120 / 90	1,182	60	2.4	1,280	2,820
EL1204	150	6	410	1,804	35.3	115.8	120 / 90	1,176	60	2.4	1,250	2,755

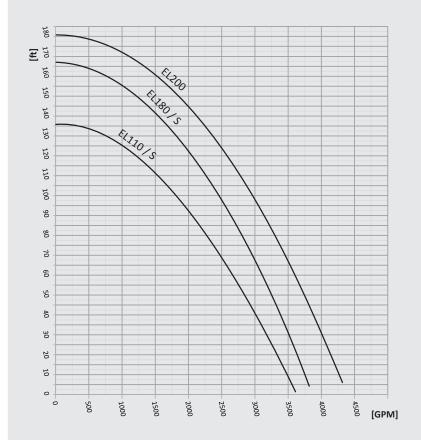




# EL110 - EL200



Model	Discharge		Capacity		Head		Power	R.P.M.		lid dling	Wei	ght
Model	mm	inch	m³/h	gpm	m	ft	HP/kW	60 Hz	mm	inch	kg	Lbs
EL110	200	8	370	1,628	32.8	107.6	107 / 80	894	60	2.4	2,450	5,400
EL110 S	200	8	370	1,628	32.8	107.6	150 / 110	894	60	2.4	2,450	5,400
EL180	200	8	440	1,936	38.3	125.6	180 / 130	1,176	60	2.4	2,750	6,060
EL180 S	200	8	440	1,936	38.3	125.6	201 / 150	1,176	60	2.4	2,900	6,400
EL200	200	8	490	2,156	42	137.7	201 / 150	1,176	60	2.4	3,000	6,600





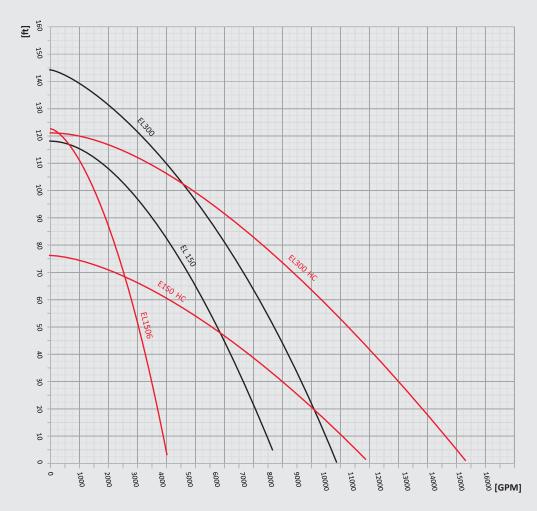
S = oversized motor



# EL150HC - EL300HC



Model	Discharge		Capacity		Head		Power	R.P.M.	Solid Handling		Wei	ght
Model	mm	inch	m³/h	gpm	m	ft	HP/kW	60 Hz	mm	inch	kg	Lbs
EL150	250	10	880	3,872	26.6	87.2	147 / 110	700	120	4.7	4,500	9,920
EL150 HC	450	18	1,360	5,984	15.2	49.8	147 / 110	700	120	4.7	5,000	11,000
EL1506	200	8	420	1,848	28.8	94.4	147 / 110	1,182	60	2.4	2,750	6,060
EL300	250	10	1,360	5,984	26.7	87.5	322 / 240	895	120	4.7	5,170	11,400
EL300 HC	450	18	1,770	5,148	24.6	80.7	322 / 240	895	120	4.7	5,420	12,000

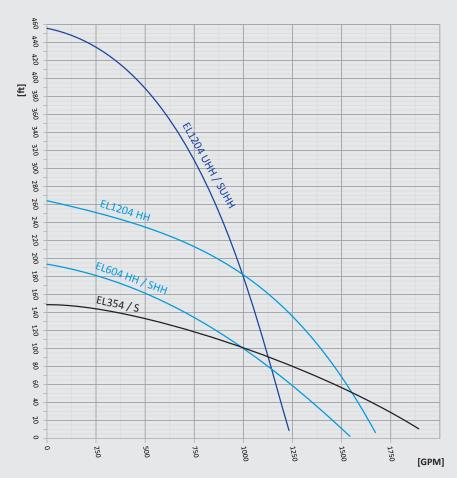


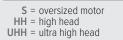
HC = high capacity

# EL354 - EL1204 HH



Model	Discharge		Capacity		Head		Power	R.P.M.		lid dling	Wei	ght
Model	mm	inch	m³/h	gpm	m	ft	HP/kW	60 Hz	mm	inch	kg	Lbs
EL354	100	4	220	968	31.6	103.6	49 / 37	1,758	35	1.4	780	1,580
EL354 S	100	4	220	968	31.6	103.6	59 / 44	1,782	35	1.4	780	1,580
EL604 HH	100	4	190	836	37.3	122.3	100 / 75	1,776	35	1.4	1,250	2,755
EL604 SHH	100	4	190	836	37.3	122.3	120 / 90	1,776	35	1.4	1,250	2,755
EL1204 HH	100	4	220	968	56.9	186.6	120 / 90	1,776	35	1.4	1,250	2,755
EL1204 UHH	100	4	140	616	108.2	354.9	160 / 120	1,740	20	8.0	1,850	4,080
EL1204 SUHH	100	4	140	616	108.2	354.9	188 / 140	1,740	20	8.0	1,915	4,250







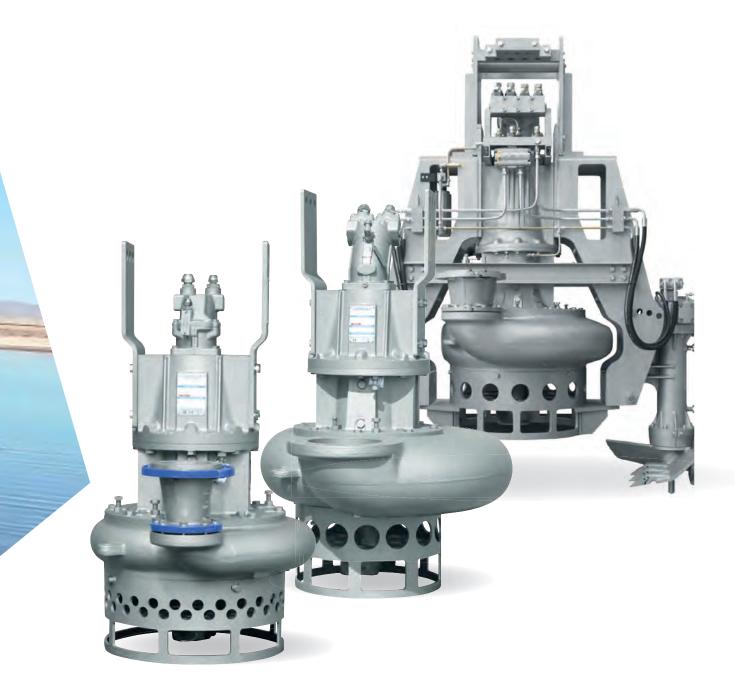


# HIGH HEAD PUMPS FOR HEAVY-DUTY APPLICATIONS

# **HH Versions**

Designed to transport any type of mixture, the high head line does an excellent job on heavy water and abrasive solids mixtures at a much higher pressure than any other submersible agitator pump on the market.





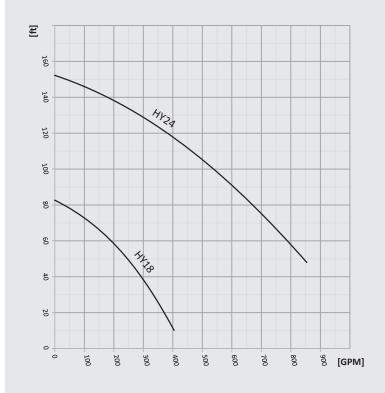
## Characteristics:

- Power: from 13 kW (17 hp) to 475 kW (630 hp)
- Flow rate: up to 19,810 gpm
- Drain diameter: up to 18 inches

# HY18 - HY24



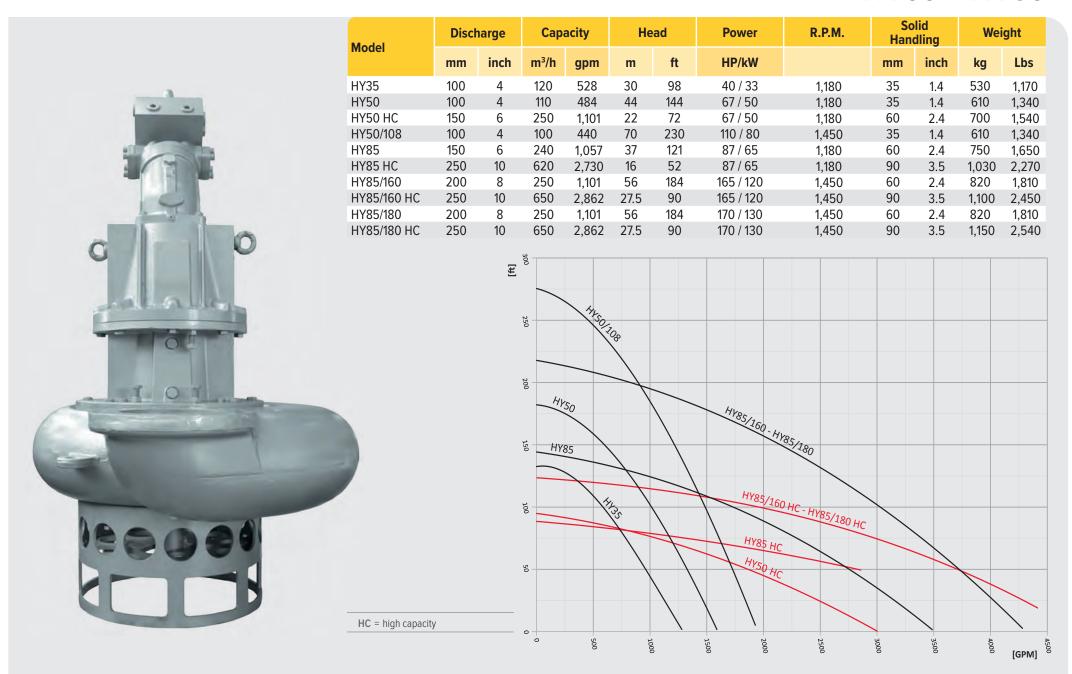
Model	Discharge		Capacity		Head		Power	R.P.M.	Solid Handling		Weight	
Model	mm	inch	m³/h	gpm	m	ft	HP/kW		mm	inch	kg	Lbs
HY18	80	3	50	220	17.5	57	17 / 13	2,000	20	0.8	170	375
HY24	100	4	80	352	37	121	32.5 / 24	2,000	25	1.0	220	485







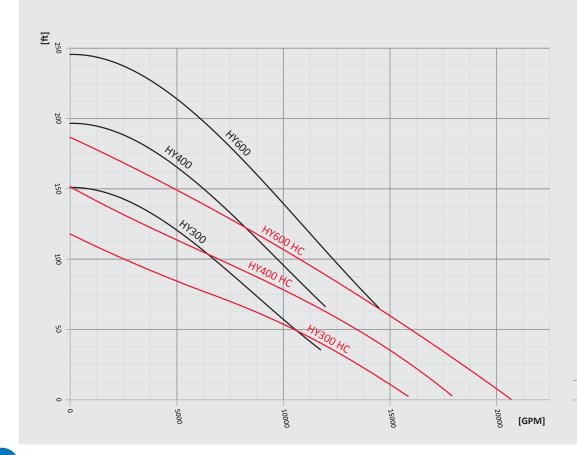
HY35 - HY85



# HY300 - HY600

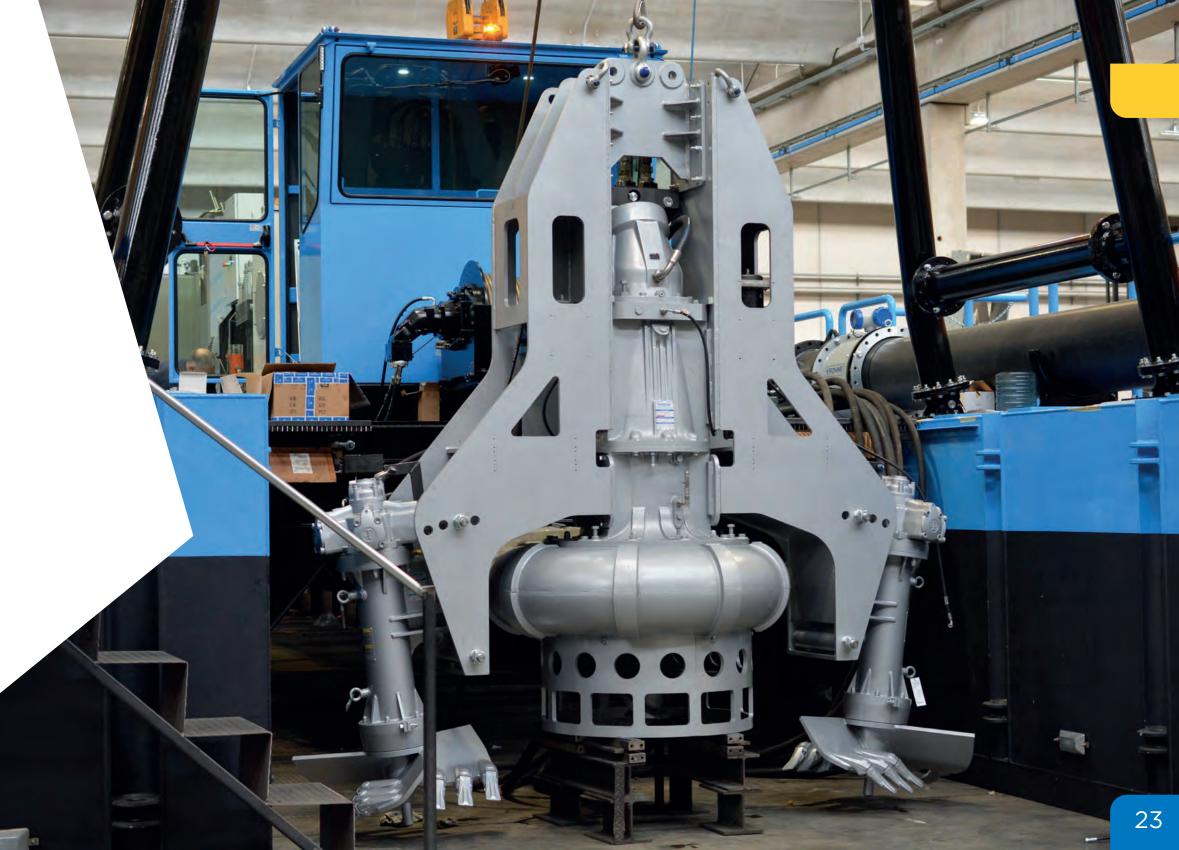


Model	Discharge		Capacity		Head		Power	R.P.M.	Solid Handling		Wei	ght
Model	mm	inch	m³/h	gpm	m	ft	HP/kW		mm	inch	kg	Lbs
HY300	250	10	900	3,963	34	112	300 / 220	750	120	4.7	3,500	7,700
HY300 HC	450	18	900	3,963	34	112	300 / 220	750	120	4.7	4,400	9,700
HY400	300	12	1,020	4,491	44	144	400 / 300	850	120	4.7	3,680	8,100
HY400 HC	450	18	1,020	4,491	44	144	400 / 300	850	120	4.7	4,500	9,920
HY600	300	12	1,570	6,912	57	187	630 / 475	950	120	4.7	3,800	8,400
HY600 HC	450	18	2,300	10,126	32	104	630 / 475	950	120	4.7	4,600	10,140





HC = high capacity



# HYDRAULIC AND ELECTRIC EXCAVATORS

## **EXCAVATORS**

Dragflow hydraulic and electric submersible excavators can be installed on the pump to create an autonomous excavation system for compacted soil, where an earth-moving machine would be required. They ensure a considerable increase in the average solid production of the dredging system.

## Technical specifications:

- Cutting head designed to reduce the cost of wear parts due the interchangeable hard teeth present.
- High efficiency and durable hydraulic or electric motor.
- Excavators suitable to operate up to 820 ft deep by means of steel cable suspension.

## **Hydraulic Excavators**

Model	Power (kW/HP)	Speed (RPM)	Flow rate (I/min)	Pressure (psi)
EXHY20	14.5 / 19.8	50	35	3,625.94
EXHY20S	25 / 34	50	60	3,625.94
EXHY35	25 / 34	50	60	3,625.94

## **Electric Excavators**

Model	Power (kW/HP)	Speed (RPM)	Voltage / Frequency (V/Hz)	Amperage
EXEL20	9 / 12.5	25	400V-60Hz / 575V-60Hz	16.2-13







# **CUTTER HEAD**

The DRAGFLOW cutting head is a custom designed system. The DRAGFLOW cutting head can be used with any DRAGFLOW hydraulic pump and can increase efficiency especially of hard and compact material.

With an independent hydraulic motor, it can be supplied with different teeth to excavate hard or soft and compact material. The arm connection frames of the earth-moving machines are supplied by DRAGFLOW and allow the operator to use it as a standard accessory.

The combined cutter head with agitator prevents any clogging at pump suction.

Model	Power (kW/HP)	Speed (RPM)	Flow rate (I/min)	Pressure (psi)
DTM50	16.7 / 22.6	30	40	3,625.94
DTM50 HC	16.7 / 22.6	30	40	3,625.94
DTM85	16.7 / 22.6	30	40	3,625.94
DTM85 HC	16.7 / 22.6	30	40	3,625.94
DTM400	52 / 70.4	50	125	3,625.94

# **JET-RING**

Ring with high-pressure water jets, which can be used for work on compact, extremely dry or clayey materials. Combined with electric or hydraulic pumps, works in combination or as an alternative to excavators.

## It is equipped with:

- Ring frame mounted on the pump filter.
- High-pressure centrifugal pump (available in electric or hydraulic version).
- Suction pipe with filter and non-return valve.
- Delivery line.





Water jet

# **ACCESSORIES**





## **CUTTER KNIFE**

When the sludge is covered by a layer of vegetation, the Dragflow algae cutting knife, together with a modified filter, will help the pump to carry out the job without clogging.

## **AUTOMATIC GREASING SYSTEM**

Pumps installed in a semi-fixed position, or in a "non-easily accessible" installation, can be equipped with an automatic greasing system, regularly supplying fresh grease to the seals. This operation not only increases the overall duration of the sealing system, but it also allows operators to drastically reduce pump maintenance and checks.

## **ANTI-ACID**

The Dragflow pump can be made completely from SUPER DU-PLEX stainless steel (CD3MN) in the event of high or low pH. This choice makes the Dragflow pumps suitable for environments with a pH from 2 to 10.

## **HIGH DEPTH SYSTEM**

Dragflow hydraulic compensators are directly connected to the oil chamber. As the pump descends, the external pressure increases and the compensators supply oil to the oil chamber balancing the internal pressure to the external water pressure. The pump can reach over 984 ft with this system, without losing performance while protecting the pump from water ingress into the oil chamber.

# **HYDRAULIC POWER PACKS**

# VARIABLE FLOW RATE HYDRAULIC POWER PACKS

The hydraulic power packs are specifically designed for use of the Dragflow pumps. The power packs are based on diesel engines, compliant with the latest emission requirements, or electric motors built with cutting-edge components. The hydraulic system is closed circuit, consequently the maximum flow rate can be controlled without changing the speed of the diesel engine/electric motor.

## Each Power Pack can be adapted to the needs of the customer with:

- Additional oil pumps to control auxiliary equipment (for example winches or centrifugal pumps).
- Wireless remote control or advanced control panel for Power Pack monitoring from remote locations.
- Operator cabin and soundproofing for greater comfort during work.
- Container style construction.

Dragflow builds and tests all Power Packs, which are supplied with the training and supervision of an experienced technician.











## Main characteristics

IVECO or CATERPILLAR engines (other brands on request).

Hydraulic circuit based on piston oil pumps.

EC certification (UL and CSA available on request).

The risk of oil leaks is avoided thanks to the completely closed bottom plate.

Separate oil circuit for the pump and excavators.

4 lifting points from above.

## **Options**

Soundproofing.

Operator cabin (Plug & Play system for floating platforms).

Built in container style.

Wireless remote control.

Remote monitoring of work parameters.

Possibility of operating cranes, hoists and auxiliary equipment.







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