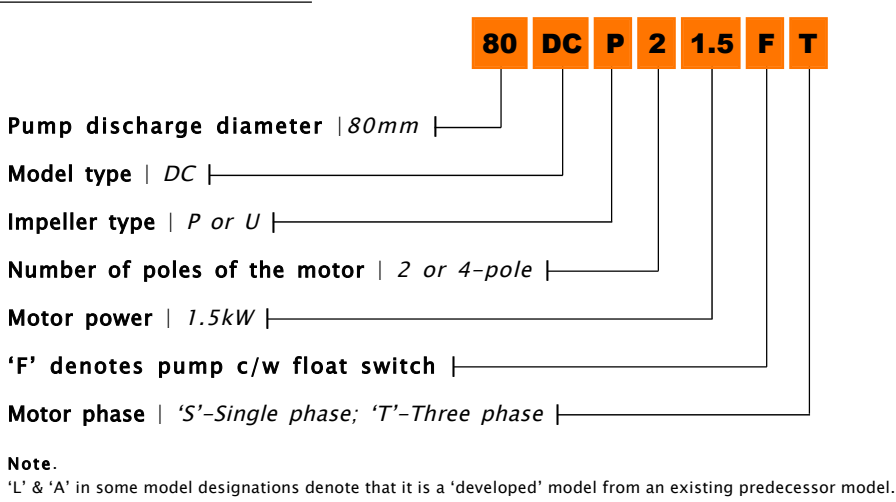


General Data

Operating Limits	
Application	Water, sewage, effluent & waste water
Medium temperature	0 ~ 40°C
Submersible depth	30 metres
Type	
Motor . Speed	'DRY' type . 2-pole ~ 4-pole
Voltage/Phase/Frequency	230V/1-ph/50Hz ; 415V/3-ph/50Hz
Insulation	2-pole Class F (Class B for 0.4kW ~2.2kW) 4-pole Class B (Class F for 3.7kW)
Protection	IP 6 8
Bearing	Deep-grooved ball type
Seal type	Double mechanical seal
Impeller	Semi-open (Type P) . Vortex (Type U)
Material of Construction	
Parts description	Material
Upper cover	Cast iron FC-200
Motor frame	Cast iron FC-200
Shaft	2-pole SUS 410 (SUS 403 for 1.5 to 3.7kW) 4-pole SUS 420J2 (SUS 403 for 0.4 & 0.75kW)
Mechanical seal	Motor side Carbon vs ceramic Pump side Silicon carbide vs silicon carbide
Casing	Cast iron FC-200
Impeller	Cast iron FC-200
Cable	VCT or H07RN-F or SJOW/SOW
Optional	Upon request, pump can be customised

Model Designation



Draco



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Sewage & Wastewater Submersible Pumps

General

The 'Draco' features a range of robust, compact and reliable submersible pumps, particularly suitable for effective handling of sewage and wastewater containing fecal or fibrous matter in a wide range of applications in both commercial buildings and industrial plants. The hydraulics with the various impeller options, ensures a blockage-free operation.

Draco, available in both 2 or 4-pole motor, covers a wide range of flowrates and heads.

The Draco pumps are designed for permanent submerged installation, e.g. by means of an auto coupling or guide rail system; or for free-standing installation on a ring stand with a flexible pipe connection.



<
'Auto-guide rail system' – Allow for quick and convenient way for pump to be maneuvered for inspection, repair and maintenance without the need to enter the sump.

Design Features

IMPELLERS | The Draco is designed to be fitted with various impeller types to suit different applications. These include the semi-open single or double vane and the semi-open vortex type. Depending on the medium pumped, the different designs ensure smooth pumping preventing clogging.

DOUBLE MECHANICAL SEAL | Fitted with superior abrasion resistant silicon carbide faced double mechanical shaft seal, with the single coiled spring in an oil chamber. This adds flexibility to accommodate misalignment, shaft deflection, as well as breaking away shock loading.

MOTOR & 'AUTO-CUT' PROTECTOR | The high efficiency 'dry' type motor design minimises operation cost. It has built-in 'auto-cut' motor protector, which automatically cuts off power to the motor when there is a power surge or overheating; and auto restarts once the temperature drops to about 60~70°C.

To attain the highest insulation class, the stator winding impregnated with varnish and heat dried in industrial oven for 8 hours.

FLOAT SWITCH | Versions installed with external float switch for automatic start/stop operation are available.

Applications

- Drainage of waste water from attenuation, purifying and sewage tanks in a water treatment plant.
- Drainage of waste water containing fibrous additives from leather factories, dyeing and food processing factories.
- Pumping of sewage and waste water in buildings including hotels, hospitals, schools, restaurants, commercial buildings, etc.
- Application in livestock farms and agriculture.
- General drainage application from sump pits, tanks and ponds.

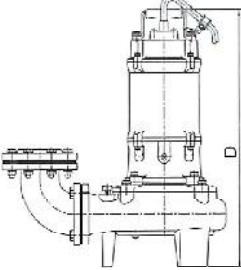
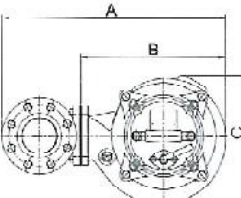
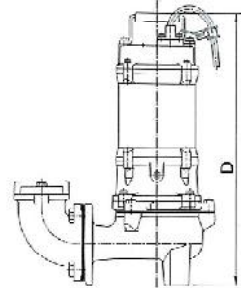
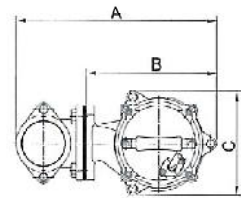
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Application in a water treatment plant

monoflo PUMPS

...engineering flow in our lives

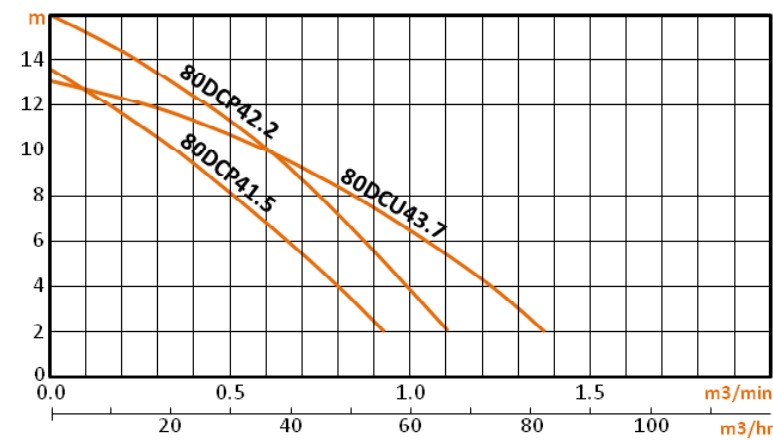
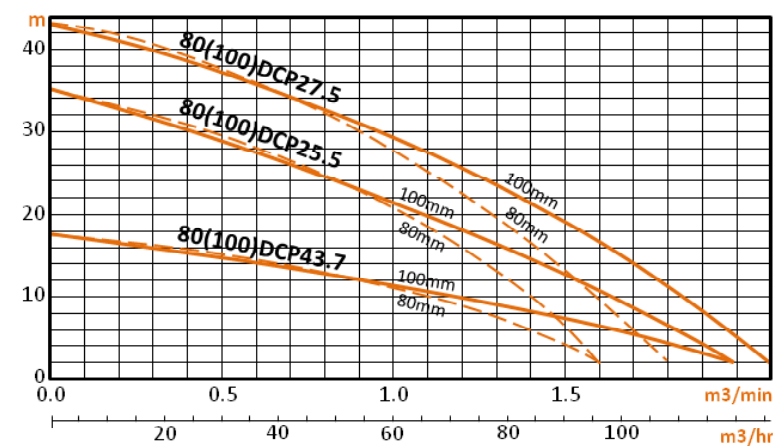
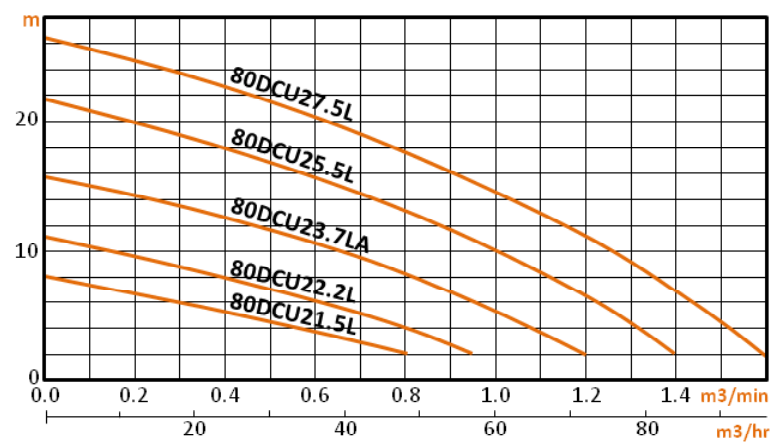
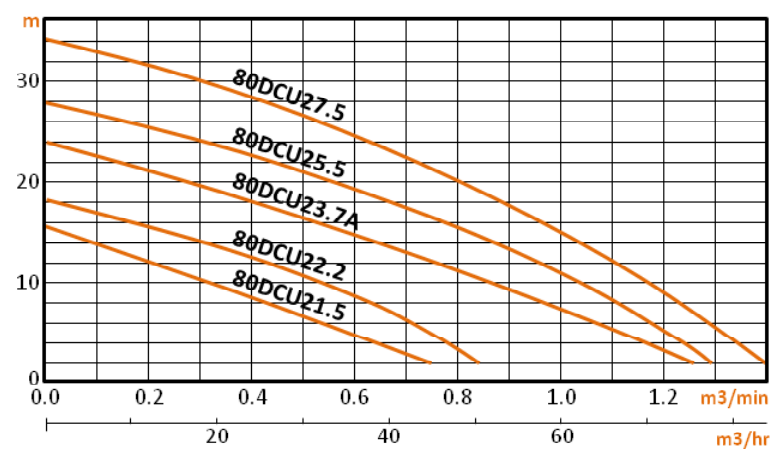
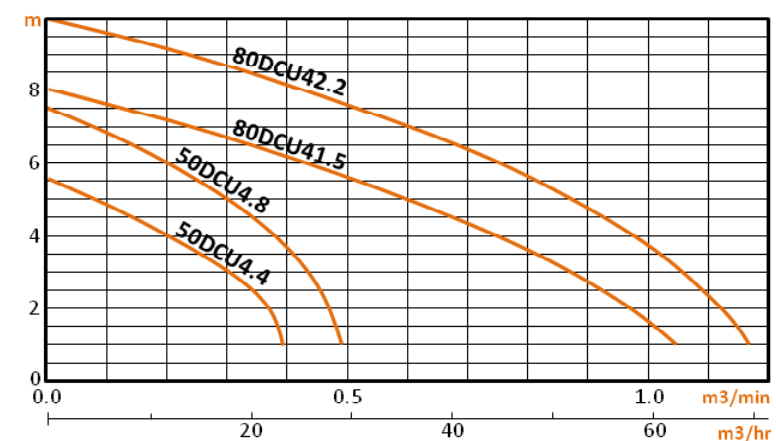
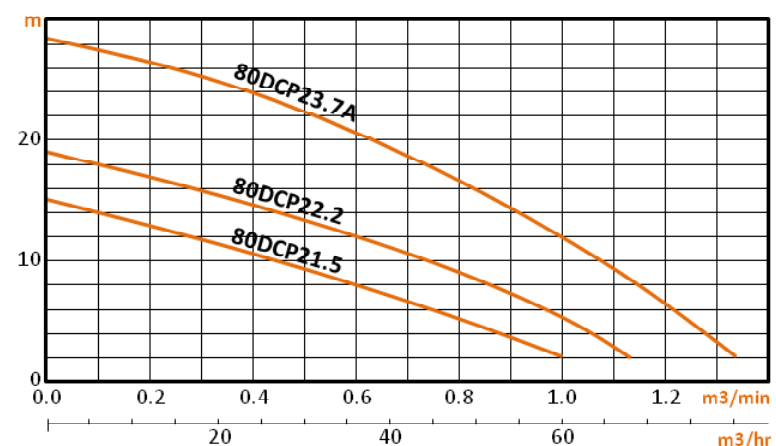
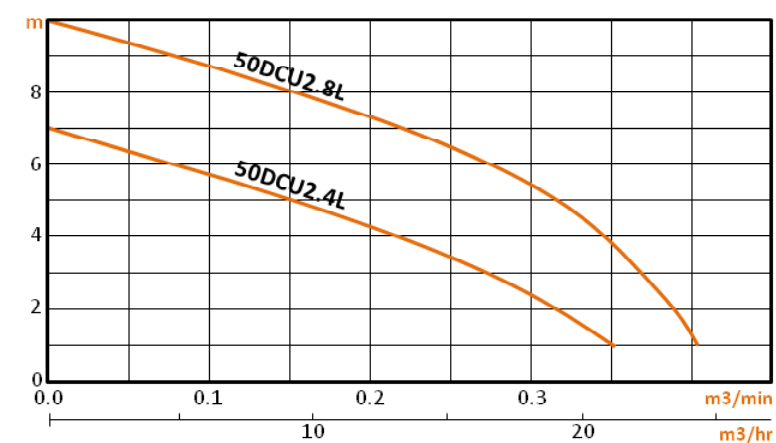
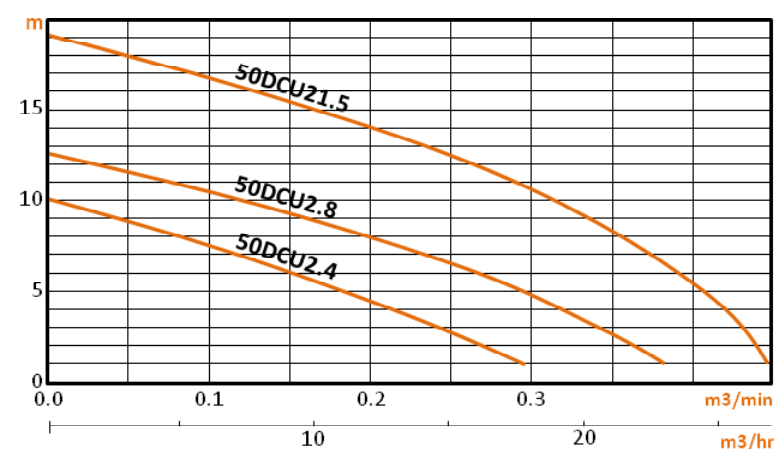
Technical data & Dimensions

Model	Motor [Pole] [kW]		DN [mm]	Head [m]	Capacity [m³/m] [m³/h]		Solid Passage [mm]	Weight [kg]		Dimensions [mm]				
								1 Ø	3 Ø	A	B	C	D 1 Ø	D 3 Ø
50DCU2.4 ^S _T	2	0.4	50	6.0	0.15	9.0	35	19	18	236	–	155	418	418
50DCU2.4L ^S _T	2	0.4	50	4.0	0.22	13.2	50	20	19	306	201	163	448	448
50DCU2.8 ^S _T	2	0.75	50	8.0	0.2	12.0	35	20	19	236	–	155	418	418
50DCU2.8L ^S _T	2	0.75	50	6.5	0.25	15.0	50	22	21	306	201	163	448	448
50DCU21.5 ^S _T	2	1.5	50	14.0	0.2	12.0	35	33	29	288	–	202	532	477
80DCU21.5 ^S _T	2	1.5	80	8.5	0.4	24.0	50	35	32	397	260	202	574	519
80DCU21.5L ^S _T	2	1.5	80	4.5	0.5	30.0	76	38	34	402	265	221	626	571
80DCU22.2 ^S _T	2	2.2	80	12.5	0.4	24.0	50	38	34	397	260	202	601	519
80DCU22.2L ^S _T	2	2.2	80	7.0	0.5	30.0	76	40	36	402	265	221	653	571
80DCU23.7AT	2	3.7	80	16.5	0.5	30.0	50	–	46	481	286	222	–	573
80DCU23.7LAT	2	3.7	80	10.5	0.6	36	76	–	48	481	286	235	–	625
80DCU25.5T	2	5.5	80	19.5	0.6	36	50	–	68	504	309	258	–	665
80DCU25.5LT	2	5.5	80	13	0.8	48	76	–	70	509	314	273	–	717
80DCU27.5T	2	7.5	80	24.5	0.6	36	50	–	74	504	309	258	–	665
80DCU27.5LT	2	7.5	80	17.5	0.8	48	76	–	76	509	314	273	–	717
80DCP21.5 ^S _T	2	1.5	80	8.0	0.6	36.0	35	37	33	413	275	260	576	525
80DCP22.2 ^S _T	2	2.2	80	12.0	0.6	36.0	35	40	35	413	275	260	608	525
80DCP23.7AT	2	3.7	80	20.5	0.6	36.0	32	–	48	500	305	290	–	578
80DCP25.5T	2	5.5	80	28	0.6	36.0	30	–	75	568	373	345	–	689
80DCP27.5T	2	7.5	80	36	0.6	36	30	–	81	568	373	345	–	689
100DCP25.5T	2	5.5	100	21.5	1.0	60.0	30	–	75	596	373	345	–	689
100DCP27.5T	2	7.5	100	29.5	1.0	60.0	30	–	81	596	373	345	–	689
50DCU4.4 ^S _T	4	0.4	50	3.5	0.25	15.0	50	30	28	346	241	204	516	516
50DCU4.8 ^S _T	4	0.75	50	5.0	0.3	18.0	50	30	29	346	241	204	516	516
80DCU41.5 ^S _T	4	1.5	80	5.0	0.6	36.0	76	47	47	443	305	255	700	622
80DCU42.2T	4	2.2	80	7.0	0.6	36.0	76	–	57	538	422	289	–	675
80DCU43.7T	4	3.7	80	10.0	0.6	36.0	76	–	65	538	422	289	–	695
80DCP41.5 ^S _T	4	1.5	80	8.0	0.5	30.0	50	47	47	472	334	290	645	567
80DCP42.2T	4	2.2	80	10.0	0.6	36.0	50	–	57	553	437	313	–	623
80DCP43.7T	4	3.7	80	14.5	0.6	36.0	50	–	67	553	437	313	–	643
100DCP43.7T	4	3.7	100	11.5	1.0	60.0	50	–	67	571	437	313	–	643



www.monoflopumps.com

Performance Curves
50 Hz | 2 & 4-pole | 50mm . 80mm . 100mm



'AUTO-CUT' PROTECTOR

The 'auto-cut' protector, a standard feature for all motor sizes of 7.5kW and below, is integrated in the motor. It protects the motor from 'burning' by automatically cutting off the motor circuit in the event of power surge or excessive heat built-up. The 'auto-protector' switch automatically restarts the motor once the temperature drops to about 60~70°C; or when the pump has been rectified from the cause of the power surge.

SHAFT

High-tensile stainless steel shaft to handle maximum loading. It is supported by upper and lower ball bearings.

MECHANICAL SEAL

Superior abrasion resistant 'double' mechanical seal is fitted as standard for the AF Series. With single spring coiled in oil chamber designed for more flexibility to accommodate misalignment, shaft deflection and break away shock loading. The mating faces at the impeller-side is SiC against SiC; whereas the motor-side is of carbon against ceramic.

OIL CHAMBER (LUBRICANT)

Separate oil chamber, lubricating and cooling the mechanical seals.

AIR VENT PLUG

DISCHARGE ELBOW

IMPELLER

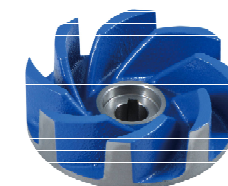
Draco DC Series comes in different impeller design or types offering a range of capacities and lifts.

P-TYPE.
Semi-open
Single or Double-vane



Excellent for application in handling impurities and sludge with solid particles with minimal clogging. The ample free passages reduces the risk of fouling.

U-Type.
Semi-open
Vortex



Produces a vortex (whirlpool effect) coupled with a wide pump casing, allows fibrous matters and other solid waste to pass through, without contact with the impeller.

POWER CABLE

Available in VCT or H07RN-F or SJOW/SOW. Variable length of cable is available upon request.

CABLE BASE (ENTRY)

Epoxy resin sealed cable base to prevent the intrusion of moisture into motor through the core wires.

UPPER BEARING

MOTOR FRAME (CASING)

MOTOR

High-efficiency, squirrel caged 'dry-type' induction motor, designed to ensure energy saving operations. Housed in a water tight casing, highest insulation class is achieved by 8 hours of stator winding impregnated with varnish heat dried in industrial oven.

LOWER BEARING

High grade, deep grooved, ball bearing, which is sealed-for-life type. As the bearings are permanently lubricated by grease, there is no requirement for lubricating oil.

MECHANICAL SEAL BRACKET

The mechanical seal bracket is designed with 'oil elevator'. The 'oil elevator' ensures that the upper mating surfaces of the mechanical seal are lubricated and cooled in the event when the oil level in the oil chamber is low. With this feature, the mechanical seal is protected, and its operating life prolonged.

PUMP CASING

OIL SEAL

An oil lip seal is mounted outside of the seal chamber to prevent solids from gathering around the mechanical seal faces.

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Cut-away construction
of DRACO

