



### Cast iron sump pump nomenclature

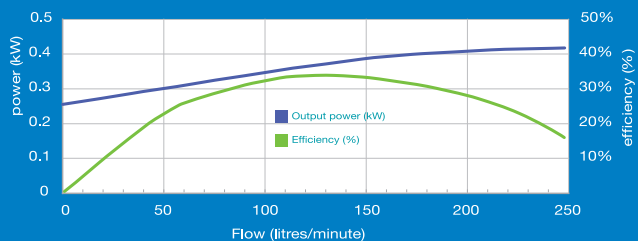
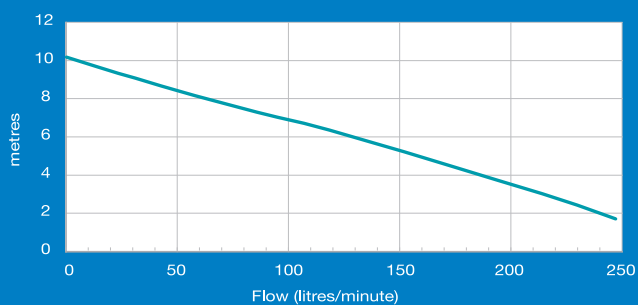
CSM	240	V	F
Cast iron submersible pump with dual mechanical seals	Max flow rate at open discharge (litres per minute)	V - vortex C - cutter XG - grinder	F - float switch, 1 ø S - single phase T - three phase

- This range of rugged cast iron submersible pumps is suitable for many dewatering, drainage, water treatment and wastewater applications
- **Available in 3 broad types:**
  - VORTEX** —→ (suitable for dewatering where some solids may be present)
  - CUTTER** —→ (suitable for draining water where stringy materials may be present)
  - GRINDER** —→ (suitable for wastewater applications and where more soft solids are present)
- Cast iron construction making them solid, durable and rugged, with high abrasion resistance to suspended particles
- Dual mechanical seals in oil bath with lip seal for motor protection to provide longer life combined with low friction for low power consumption
- Epoxy cable - motor connection for preventing water ingress through the cable
- Dry motor design with cap start/cap run provides superior motor protection with maximum starting torque
- Continuous Duty rating (40°C) [Intermittent Duty 50°C] designed to handle the largest and toughest jobs
- 30 metre maximum submergence will deal with the deepest pit dewatering
- Stainless steel fasteners for corrosion protection for long life
- Dual cutter design in stainless grade 440C, hardened to 55 Rockwell C<sup>3</sup> for long service life
- Grinder assembly replaceable without disassembling pump<sup>3</sup> for very short repair downtime
- Optional Guide Rails available - no need to enter the pit
- Stainless steel shaft with dual ball bearings and short overhang making them corrosion resistant, smooth running and reducing deflection to prolong seal and bearing life.

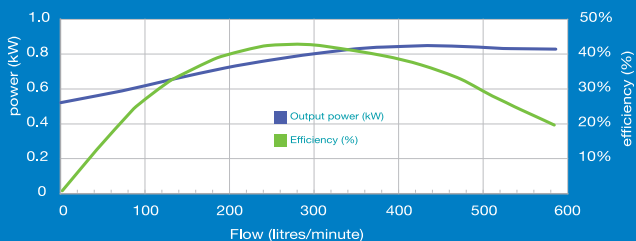
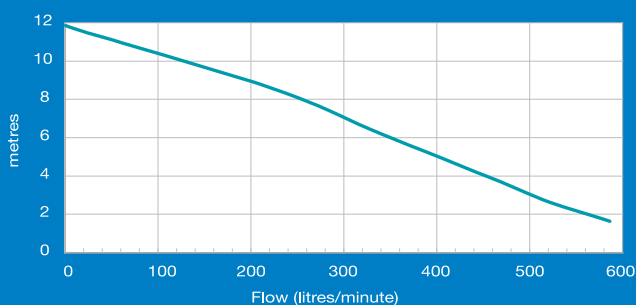
MODEL	P1		Voltage	Rated FLA (A)	Starting	Speed	Cable Length	Cable Type	Insulation Class	Start Cap	Run Cap	Power Factor	Max temp. Rating		Motor Protection
	HP	kW											Int °C	Cont °C	
CSM-240VF*	1/2	0.4	230-1-50	2.7	PSC	2 pole / 2850rpm	10m	H07RNF	B	8µF	-	0.98	50	40.6	Thermal
CSM-500VF*	1	0.75	230-1-50	5.3	PSC	2 pole / 2850rpm	10m	H07RNF	B	12µF	-	0.98	50	40.6	Auto Cut out switch (ACOS)
CSM-500VT	1	0.75	415-3-50	2.0	DOL	2 pole / 2850rpm	10m	H07RNF	B	-	-	0.86	50	40.6	
CSM-650VS	2	1.5	230-1-50	9.6	CS/CR	2 pole / 2850rpm	10m	H07RNF	B	15µF	100µF	0.89	50	40.6	
CSM-650VT	2	1.5	415-3-50	3.4	DOL	2 pole / 2850rpm	10m	H07RNF	B	-	-	0.87	50	40.6	
CSM-850CS	2	1.5	230-1-50	9.6	CS/CR	2 pole / 2850rpm	10m	H07RNF	B	15µF	100µF	0.89	50	40.6	
CSM-850CT	2	1.5	415-3-50	3.4	DOL	2 pole / 2850rpm	10m	H07RNF	B	-	-	0.87	50	40.6	
CSM-160XGS	2	1.5	230-1-50	10.2	CS/CR	2 pole / 2850rpm	10m	H07RNF	B	12µF	100µF	0.97	50	40.6	
CSM-160XGT	2	1.5	415-3-50	3.6	DOL	2 pole / 2850rpm	10m	H07RNF	B	-	-	0.86	50	40.6	
CSM-300XGT	3	2.2	415-3-50	5.3	DOL	2 pole / 2850rpm	10m	H07RNF	F	-	-	0.86	50	40.6	

PSC: Permanently Split Capacitor CS/CR: Capacitor start, Capacitor run [centrifugal switch] DOL: Direct on line  
 \* models include float switches - should you require floats with any other model please contact our Customer Service team

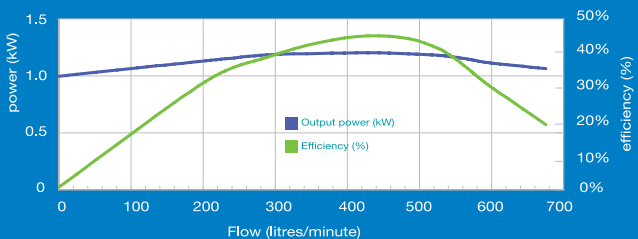
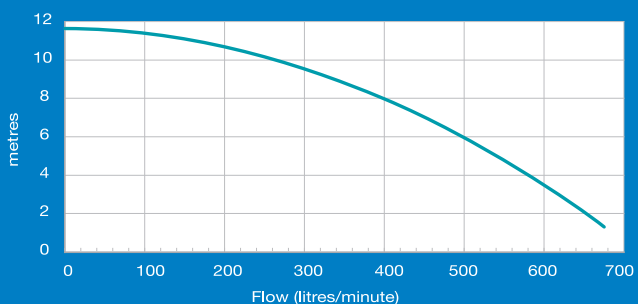
### CSM240VF



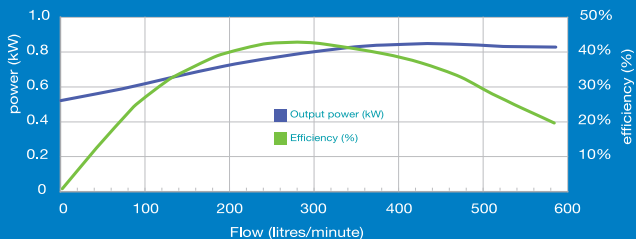
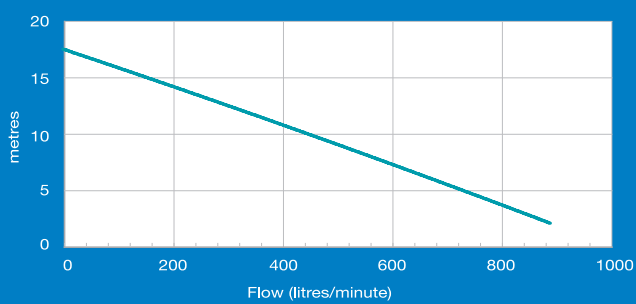
### CSM500VF / CSM500VT



### CSM650VS / CSM650VT

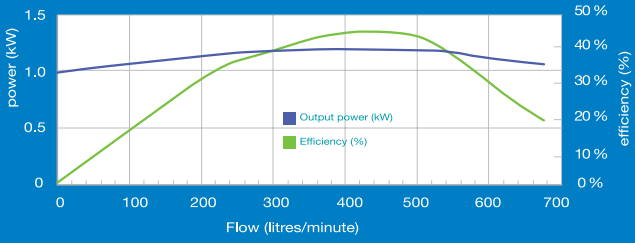
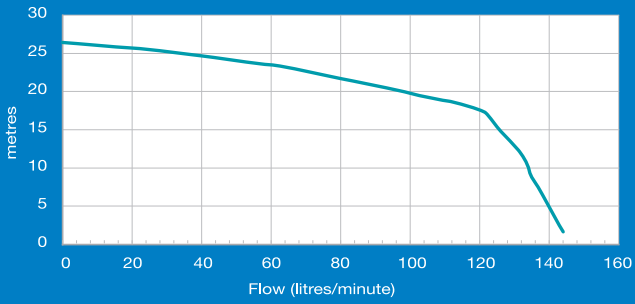


### CSM850CS / CSM850CT

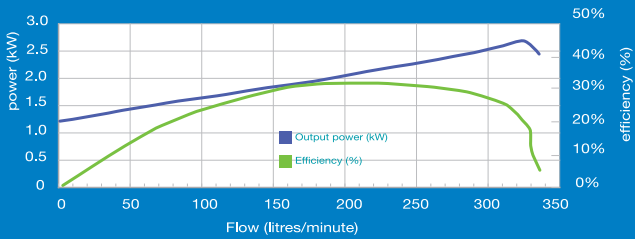
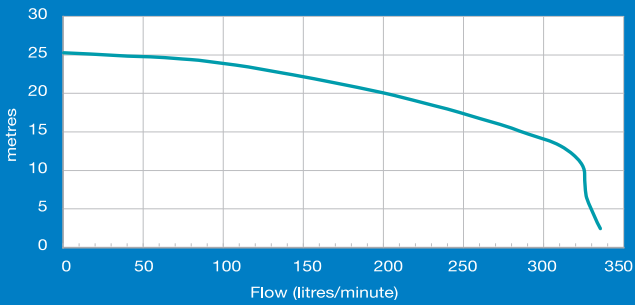


APPLICATIONS	MODELS							
		CSM240VF	CSM500V	CSM650V	CSM850C	CSM160XG	CSM300XGT	
Ponds and fountains		•	•	•				
Dairy pit drainage				•	•	•	•	
Water treatment circulation		•	•	•	•			
Pit drainage (few small hard solids)		•	•	•	•			
Raw sewerage disposal						•	•	
Low pressure sewerage						•	•	
Dewatering (clean water)		•	•	•				
Water with stringy material					•	•	•	
Grey water (hair, small soft solids)		•	•	•	•	•	•	

### CSM160XGS / CSM160XGT



### CSM300XGT





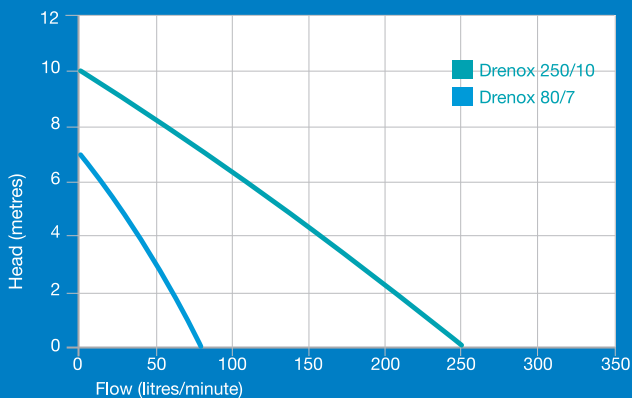
# SUBMERSIBLE SUMP PUMPS

## Drenox Range



- The Onga Drenox range 250/10 is constructed entirely of 304 grade stainless steel, including a cast stainless steel impeller. 80/7 is 304 grade stainless steel with a plastic impeller.
- Includes a heat exchange chamber to cool the motor for long periods of unsubmerged operation, and an oil chamber for lubrication of the seal.
- Suitable for continuous operation. Drenox 80/7 drains down to a level of 3mm.

• Drenox Range Performance



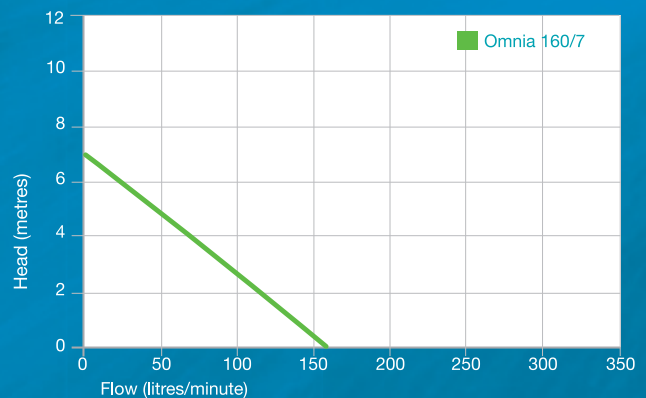
MODEL	Product code	Free Passage	Voltage	kW	
				P1	P2
DRENOX 80/7	P1031020	3mm	230V	0.30	0.20
DRENOX 250/10	P1031400	6mm	230V	0.90	0.55

## Omnia 160/7



- The Onga Omnia 160/7 includes all the great features of the Drenox and includes a vortex impeller so that it can pass larger solids.
- Dual oil-lubricated NBR70 lip seal on a hard ceramic shaft.

• Omnia 160/7 Performance



MODEL	Product code	Free Passage	Voltage	kW	
				P1	P2
OMNIA 160/7	P2081010	20mm	230V	0.90	0.37

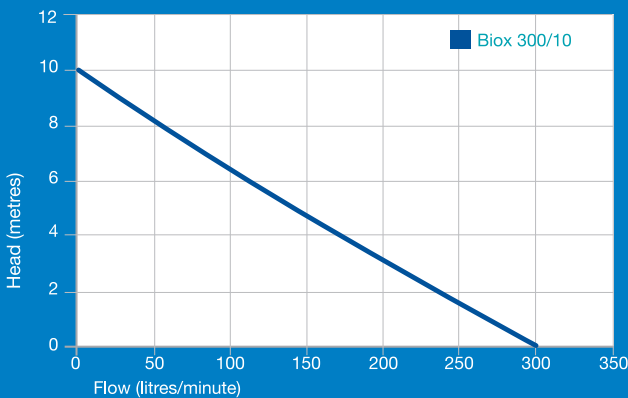
# SUBMERSIBLE SUMP PUMPS

## Biox 300/10



- The Onga Biox is a submersible vortex pump that includes both a lip seal with sand guard and a carbon-ceramic mechanical seal
- 2" discharge connection enables soft solids up to 40mm in diameter
- Suitable for continuous use
- Motor must remain submerged for cooling

• Biox 300/10 Performance



MODEL	Product code	Free Passage	Voltage	kW	
				P1	P2
BIOX 300/10	P2091010	40mm	230V	0.90	0.60

## VF150

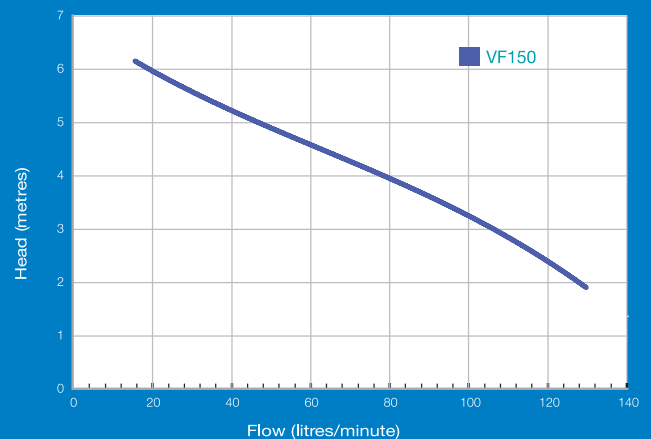


- The VF150 is a single phase drainage pump with cast iron construction making it durable and providing a longer life cycle
- Contains a vortex impeller capable of handling soft solids up to 15mm
- Optimum performance reaches 80 litres per minute at 4 metres head
- Automatic float switch operation protects pump against dry running
- Lip seal and dual mechanical seal for improved service life

### Applications:

- Septic effluent disposal, water transfer, grey water and sump pumping liquid including grey water (of neutral pH with soft solids up to 15mm at a 10% content or fine solids at 1% concentration).

• VF150 Performance



MODEL	Watts (P2)	Nominal Current (Amps)	Full Load Current (Amps)
VF150	180	1.4	2.0



# Submersible Sump Pumps

## Onga Submersible Range Moulded & Stainless Steel Submersible Sump Pumps

Onga offers a wide range of submersible sump pumps to suit almost any drainage application – from the cost effective and dependable VIP range to the professional quality, highly featured Minivort range. A large range of all-stainless construction drainage pumps makes our range second to none.

### VIP Range

The Onga VIP range is designed for dewatering applications such as disposal of rainwater from garages, basements, cellars, drainage pits and decorative fountains. These pumps can pass 6mm solids, and drain down to 20mm water level.

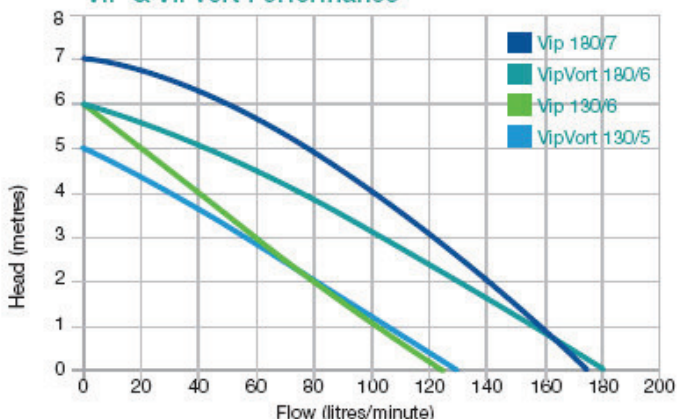
The Onga VIPvort range is designed to pump grey water with soft solids up to 25mm diameter. They are designed for transfer of waste water from domestic applications, dewatering and drainage pits. These pumps will drain to a water level of 25mm.



#### Onga VIP & VIPvort range features

Polypropylene body	Corrosion free
Dual lip seal in Nitrile NBR 70 with an oil chamber for lubrication	Efficient and effective seal in clean water applications
Impellers are from injection-moulded Noryl	Engineered plastic for strength and corrosion protection
Heavy duty H05RN-F power cable	Durable in tough environments
Auto-resetting thermal motor overload protection	Protected against abnormal conditions
Stainless steel shaft with ceramic coating for continuous use	Efficient low drag design with built in toughness

#### VIP & VIPvort Performance



### Biox 300/10

The Onga Biox is a submersible vortex pump that includes both a lip seal with sand guard and a carbon-ceramic mechanical seal. It features a 2" discharge connection, and will pump water containing soft solids up to 40mm in diameter. For cooling, the motor of this pump must remain submerged, and is suitable for continuous use.



### Omnia 160/7

The Onga Omnia 160/7 includes all the great features of the Drenox, and includes a vortex impeller so that it can pass larger solids. Like the Drenox it also uses a dual oil-lubricated NBR70 lip seal on a hard ceramic shaft.

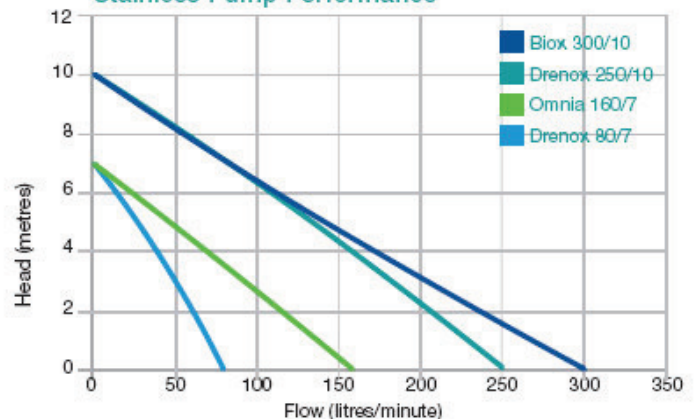


### Drenox Range

The Onga Drenox range is constructed entirely of 304 grade stainless steel, including a cast stainless steel impeller. This design includes a heat exchange chamber to cool the motor for long periods of unsubmerged operation, and an oil chamber for lubrication of the seal. They are suitable for continuous operation. Drenox 80/7 drains down to a level of 3mm.



#### Stainless Pump Performance





- The impeller stack is of a floating design, so that individual impellers can move vertically to allow small solids to pass through, rather than locking up the pump
- Large hexagonal shaft transmits power without wear or flex
- Heavy gauge outer shell makes it strong, rigid and long lasting
- Superior ceramic wear surface reduces problems running in sandy or abrasive water
- Floating impeller design reduces sand lock up problems and ensures a longer motor life and trouble free operation

### Applications:

- Residential, irrigation, water transfer and stock watering.

#### 20 Litre pump

The 20 litre pump range are manufactured to a special TRIMLINE OD of 3.75" and features bronze ends for corrosion protection. Discharge 1 1/4" BSP.

MODEL	HP	kW	Stages
20S4FTL	1.5	1.10	26
20S4ETL	1.0	0.75	22
20S4DTL	0.75	0.55	15
20S4CTL	0.5	0.37	11

#### 30 Litre pump

Glass reinforced engineering plastic ends for corrosion protection. Discharge 1 1/4" BSP.

MODEL	HP	kW	Stages
30S4GT	2.0	1.5	25
30S4FT	1.5	1.1	19
30S4ET	1.0	0.75	14
30S4DT	0.75	0.55	11

#### 50 Litre pump

Glass reinforced engineering plastic ends for corrosion protection. Discharge 1 1/4" BSP.

MODEL	HP	kW	Stages
50S4GT	2.0	1.5	22
50S4FT	1.5	1.1	17
50S4ET	1.0	0.75	12
50S4DT	0.75	0.55	9

#### 70 Litre pump

Glass reinforced engineering plastic ends for corrosion protection. Discharge 1 1/4" BSP.

MODEL	HP	kW	Stages
70S4HT	3.0	2.2	26
70S4GT	2.0	1.5	17
70S4FT	1.5	1.1	13
70S4ET	1.0	0.75	10

#### 90 Litre pump

Glass reinforced engineering plastic ends for corrosion protection. Discharge 1 1/4" BSP.

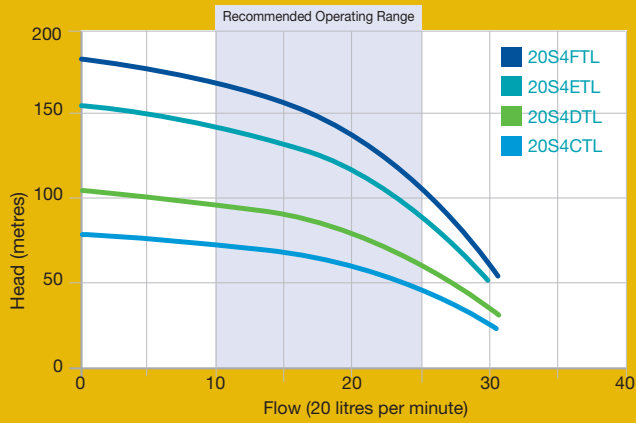
MODEL	HP	kW	Stages
90S4HT	3.0	2.2	18
90S4GT	2.0	1.5	12
90S4FT	1.5	1.1	10

#### 150 Litre pump

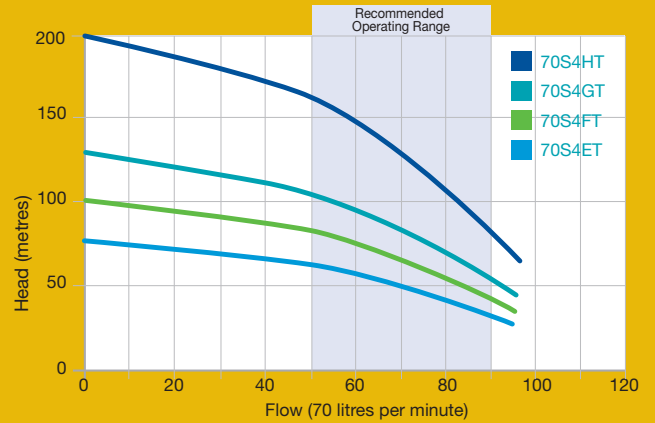
Glass reinforced engineering plastic ends for corrosion protection. Discharge 1 1/4" BSP.

MODEL	HP	kW	Stages
150S4KT	7.5	5.5	30
150S4JT	5.0	3.7	20
150S4HT	3.0	2.2	12
150S4GT	2.0	1.5	8

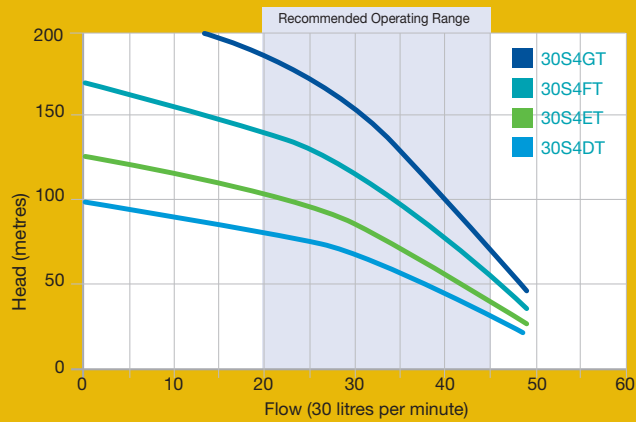
### 20S4 Range Performance



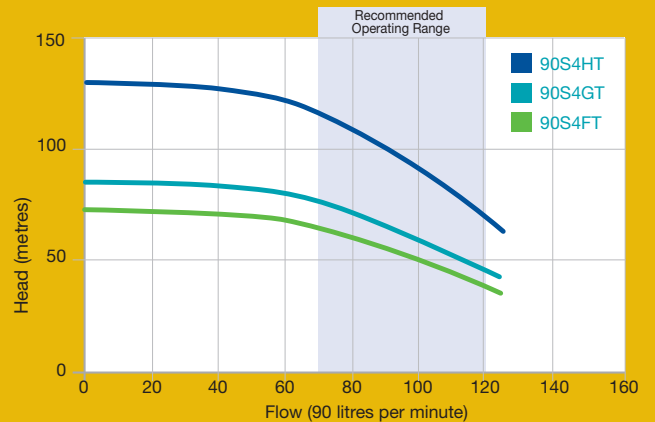
### 70S4 Range Performance



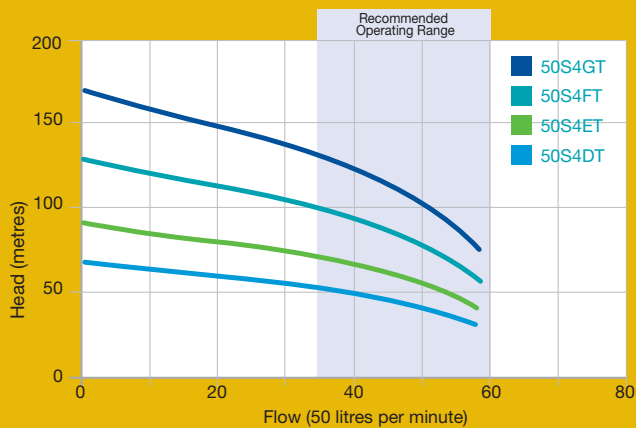
### 30S4 Range Performance



### 90S4 Range Performance



### 50S4 Range Performance



### 150S4 Range Performance

