

CONTENTS

Page No.

	SECTION 1 LOW VOLTAGE PUMPS	5
	SECTION 2 HOME AND GARDEN PUMPS	7
	SECTION 3 PUMP / PLUMBING ACCESSORIES	15
	SECTION 4 WATER FILTRATION	19
	SECTION 5 HOT WATER PUMPS	23
	SECTION 6 SUBMERSIBLE PUMPS	27
	SECTION 7 PACKAGED PUMP STATIONS	55
	SECTION 8 IN-GROUND VERTICAL PUMP CHAMBERS	75
	SECTION 9 PUMP STATION/TANK ACCESSORIES	77
	SECTION 10 PORTABLE PUMPS	87
	SECTION 11 HOSE & FITTINGS	91
	SECTION 12 PE PIPE & FITTINGS	97
	SECTION 13 VALVES	101
	SECTION 14 RAIN / WATER TANK & HARVESTING SYSTEMS	109
	SECTION 15 ELECTRICAL	117
	USEFUL INFORMATION QUICK FIND INDEX	130 133

GENERAL/PRODUCT INFORMATION

Product Range

The Fastflo Products shown in this catalogue are a selection of both local and imported quality products from reputable well established companies and manufacturers.

We would like to emphasize that our product range is not limited to what's in the catalogue, therefore if you can't find what you're looking for please give us a call.

Specifications

Fastflo Product Specifications may change at any time without notice, due to design and product enhancement.

Technical Support

The Fastflo Pump Systems Sales Team is available to discuss any technical queries to assist in selection of products, or submit a quotation to meet a specific requirement. This includes working with individual clients including Plumbers, Drainlayers, Architects, Designers and Developers to establish their exact requirements and then liaising with their chosen Plumbing Merchant.

Purchasing

Fastflo Products can be purchased through all the mainstream plumbing merchants nationwide, as well as some pump companies and farm supply companies for certain products. If you are not sure of your nearest merchant, please give us a call on our Freephone: 0800-327-835

Pricing

For all product pricing please call us on our freephone, or contact your local plumbing merchant.

Freight

Orders over \$500 plus GST are freight free. Orders under this amount will incur freight charges. NB: This excludes the Slimline City Tanks and Above Ground Water Tanks.

Availability

Please give us a call to check on Fastflo Product availability. This can vary from day to day depending on demand or other factors that are beyond our control.

Warranty

All Fastflo Product Warranties are shown on the respective product sheets. The warranty period is from date of invoice against faulty parts and workmanship.

Disclaimer

The Fastflo Products listed in this catalogue are described in general terms, and all technical information and applications are given as a guideline only. Final Product selection and suitability is the customer's responsibility - refer to Terms and Conditions at the back of this catalogue.



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SECTION I

LOW VOLTAGE PUMPS



"Low Voltage Pumps are designed for installations where mains supply is not available and are extensively used in many industry types.

Eg. Marine, Agriculture, Motor Homes."

LOW VOLTAGE PUMPS

LV SERIES

DESCRIPTION

- Low Voltage Pumps are designed for use where mains supply is not available
- Designed for transfer or boosting of liquids as required
- Flojet, and Shurflo brands available

CONSTRUCTION/FEATURES

- Positive Displacement Type
- Self Priming
- Can run dry without damage
- Quiet, balanced operation
- Safe - no mains voltage
- 12V & 24V options available
- Dry mount or submersible pumps available

APPLICATIONS

- Domestic/Water Boosting
- Motor Homes/Caravans
- Agricultural/Farm
- Spraying/Chemicals
- Contractors
- Marine
- Industry
- Diesel Transfer



AQ500-101



240-051215



4300-143

Model	Type	Voltage	Flow (LPM)	Pressure (PSI)	
03526-144	TRIPLEX	12V	11	50	Portable Water Caravan
03501-506	TRIPLEX	12V	7.6	60	Chemical/Spray
4300-143	QUAD	12V	18	45	Potable Water
4406-143	QUAD	12V	12.5	35	Water/Caravan Solar
LVM105	INLINE SUB	12V	18	13	Water/Diesel Transfer
240-DS1215	SUB BILGE	12V	112	5m	Bilge/Calf Milk
AQ500-107	SUB	9.6V	19	N/A	Remote Water Transfer
4405-343	QUAD	24V	12.5	35	Water/Marine Solar
D7231-B5011A	DUPLEX	24V	6	60	Diesel Transfer

NB: Other 12V and 24V pumps available on request as well as accumulation tanks and accessories. 230V diaphragm pumps also available

SECTION 2

HOME AND GARDEN PUMPS



"Home Pressure Systems are designed to boost/pressurize household water supply to simulate mains pressure on demand."

TURBINE WATER BOOSTER PUMP DHT SERIES

DESCRIPTION

- Compact turbine pump designed for pressurizing of fixtures (Small flow situations)
- Designed where economy rated pump is high priority

CONSTRUCTION/FEATURES

- Cast iron pump body
- Brass impellor
- Carbon ceramic mechanical seal c/w lip seal
- Automatic electronic pump controller (P.C) c/w run dry protection & constant pressure at low flows
- 2 year warranty

APPLICATIONS

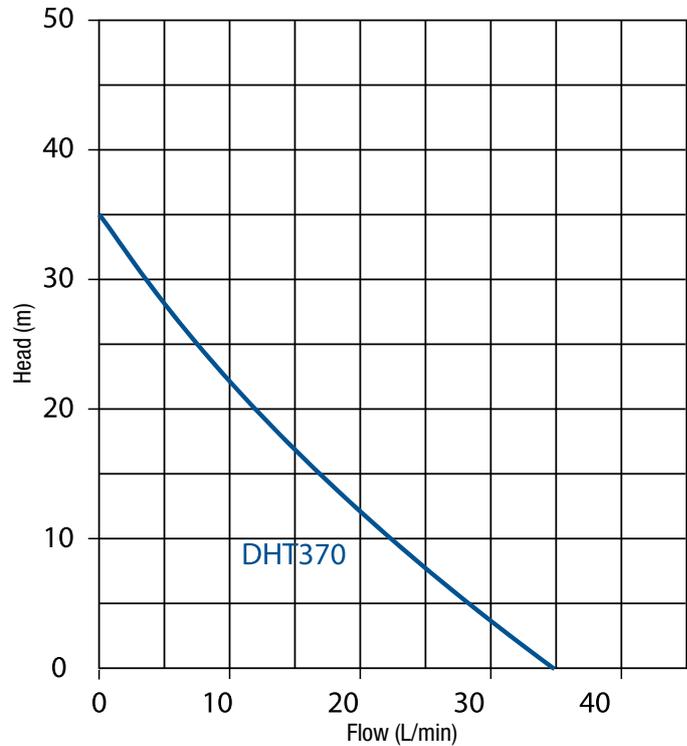
- Home/Domestic Water Supply
- Small House/Bach/Beach house water boosting applications
- Irrigation Systems
- Garden Watering
- Rainwater Harvesting Systems

Model	Motor Size	Voltage	Max Flow	Max Pressure (KPA)	Inlet/Outlet size
DHT370	0.37kW	230V	35L/M	350	25/25mm Turbine

We recommend adding either an 8Litre or 18Litre pressure tank to these pumps. PE pump covers are available if required - Refer to Pump & Plumbing accessories section 3



HYDRAULIC DATA



JET ASSISTED WATER BOOSTER PUMPS

HSJ SERIES

DESCRIPTION

- Standard jet assisted centrifugal pump range designed for pressurising household water supply.
- 4 pump sizes available to suit different requirements
- Available as dual pump sets also - see page 12

CONSTRUCTION/FEATURES

- Pump body, Impellers and shaft in Stainless Steel
- Automatic Press Controller for constant flow with inbuilt run-dry protection
- Mechanical Seal: Ceramic/Graphite/NBR
- IP55 Motor/Insulation Class F
- Heavy Duty Brass Coupling
- Plug & play Press Control Connection
- Suction lift up to 8 metres including friction loss
- 2 year warranty

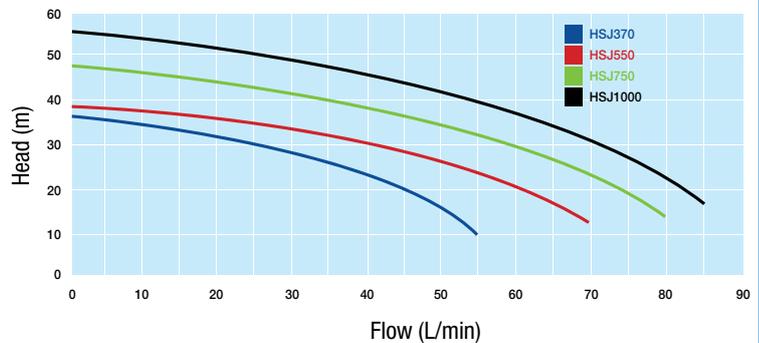
APPLICATIONS

- Household Water Supply/Pressure Boosting
- Irrigation Systems/Garden Watering
- Rainwater Harvesting Systems
- Water Transfer/Tank Filling
- Pumping from underground tanks
- Rural/Farm applications
- Granny Flats/Beach Houses
- Residential/Commercial

Model	Motor Size	Voltage	Max Flow	Max Pressure (KPA)	Inlet/Outlet Size
* HSJ370	0.37kW	230V	55L/m	360	25/25mm
* HSJ550	0.55kW	230V	70L/m	380	25/25mm
HSJ750	0.75kW	230V	80L/m	450	25/25mm
* HSJ1000	1.00kW	230V	85L/m	520	25/25mm

We recommend adding either an 8 Litre or 18 Litre pressure tank to these pumps. PE Pump covers are available if required - Refer to Pump & Plumbing accessories section 3

HYDRAULIC DATA



MULTISTAGE WATER BOOSTER PUMPS

HCM SERIES

DESCRIPTION

- Horizontal multistage centrifugal pumps designed for pressurizing household water supply – where higher pressures are required.
- Available in 3 sizes makes choosing the right pump for a reliable water supply easy
- Available as dual pump sets also - see page 12

CONSTRUCTION/FEATURES

- Stainless Steel Impellers, Chambers and Shaft
- Automatic Press Controller for constant flow with inbuilt run-dry protection
- NBR Carbon / Ceramic mechanical seal
- IP55 Motor / Insulation Class F
- Heavy Duty Brass Coupling
- Quiet Operation
- 2 Year Warranty

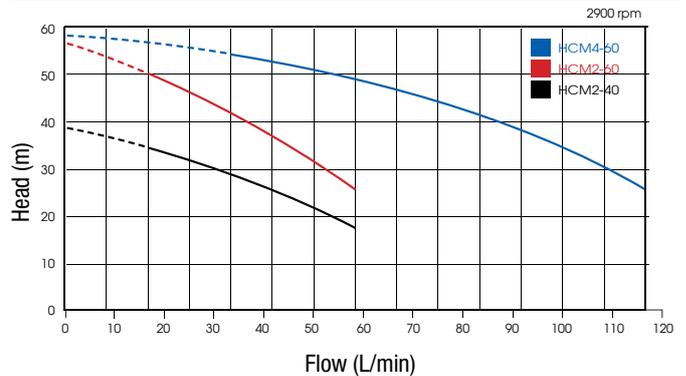
APPLICATIONS

- Household Water Supply
- Irrigation Systems
- Garden Watering
- Rainwatering Harvesting Systems
- Water Transfer
- Tank Filling
- Washing Systems/Individual Cleaning
- Pressure Boosting
- Air Conditioning
- Cooling Systems

Model	Motor Size	Voltage	Max Flow	Max Pressure	Inlet/Outlet size
HCM2-40	0.55kW	230V	58 L/M	380kPA	25/25mm
HCM2-60	0.75kW	230V	58 L/M	580kPA	25/25mm
HCM4-60	1.1kW	230V	116 L/M	590kPA	32/25mm

We recommend adding either an 8 Litre or 18 Litre pressure tank to these pumps. PE Pump covers are available if required - refer to Pump & Plumbing accessories section 3

HYDRAULIC DATA



HCM4-60

MULTISTAGE BOOSTER PUMPS: VARIABLE SPEED

PP SERIES

DESCRIPTION

- Horizontal Multi-stage non-self priming centrifugal pumps, designed for boosting household water supply
- Fully automatic operation
- Available in 3 sizes makes choosing the right pump for a reliable water supply easy

CONSTRUCTION/FEATURES

- Stainless steel wet end, Diffuser & Impeller
- Variable Speed Electronic Controller
- Digital Display - Pump status and pressure read out.
- 4 LTR Pressure Tank
- 12 month warranty

APPLICATIONS

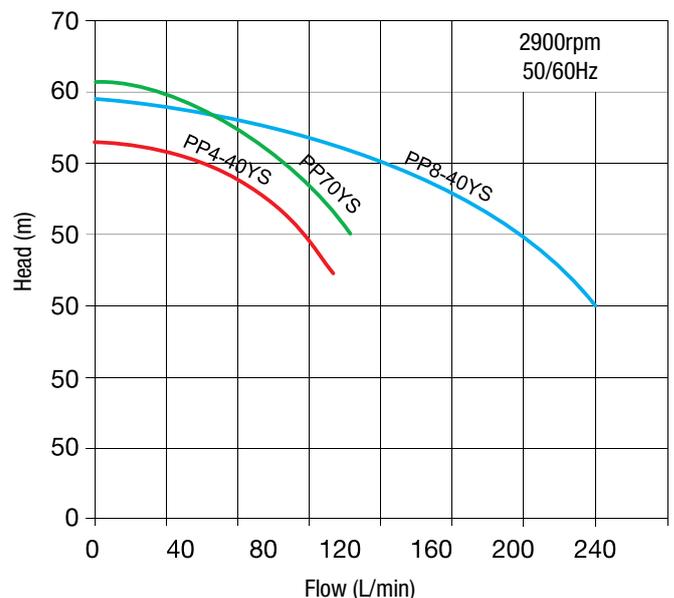
- Household Water Supply
- Irrigation Systems
- Garden Watering
- Water Transfer
- Tank Filling
- Washing Systems/Industrial Cleaning
- Pressure Boosting
- Air Conditioning/Cooling Systems
- Rainwater Harvesting Systems

Model	Motor Size	Voltage	Max Flow	Max Pressure	Outlet size
PP4-40YS	0.75kW	230V	120 L/M	520kPA	25mm
PP8-40YS	1.5kW	230V	240 L/M	580kPA	25mm
PP70YS	1.85kW	230V	120 L/M	610kPA	40mm

PE Pump covers are available if required - Refer Pump & Plumbing Accessories section 3



HYDRAULIC DATA



DUAL PUMP - BOOSTER PUMP SETS

DPBS - STD/VSD

DESCRIPTION

- Dual Pump Packaged Water Booster Pump Sets designed for more demanding applications
- Fully automatic operation

CONSTRUCTION/FEATURES

- Twin fixed speed or VSD operated pumps
- Prefabricated suction and discharge pipework/valves and pressure tanks (optional)
- Dual Pump Control panel c/w auto alternating controls
- Fixed speed pumps have press controls (see pumps pages 9 and 10)
- VSD pumps have integrated VSD controls (see pumps on page 11)
- All mounted on galvanised steel base plates

APPLICATIONS

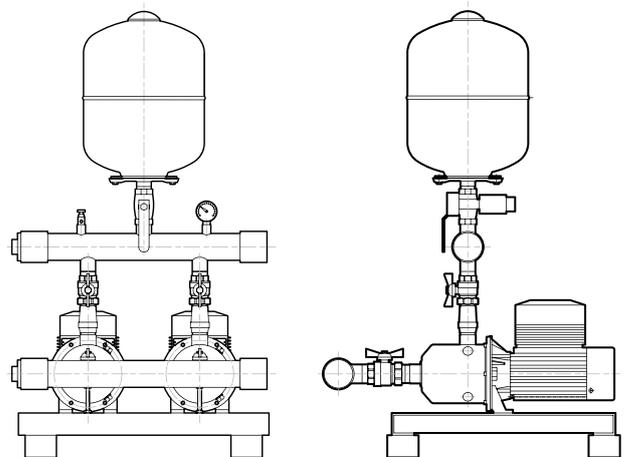
- Household Water Supply
- Irrigation Systems/Garden Watering
- Commercial/Industrial Water Supply
- Multi-Dwelling Water Supply System
- Water Supply, Boosting & Transfer
- Washing Systems/Industrial Cleaning
- Air Conditioning/Cooling Systems
- Agriculture/Stock Watering

Pump Options

STANDARD SYSTEM (DPBS-STD)	<ul style="list-style-type: none"> • Each pump with own Press Control and runs independently • Normally one pump on house and one pump on garden, but can be switched over in event of one pump going down
VSD SYSTEM (DPBS-VSD)	<ul style="list-style-type: none"> • Pumps are inter-linked • If first pump cannot maintain pressure/flow, second pump will cut in • Pumps are auto alternating (ie duty/standby) • Includes Run Dry Protection
<ul style="list-style-type: none"> • Pump performance curves available on request • Custom units available if required 	



TYPICAL DUAL WATER BOOSTER PUMP SET



TYPICAL ARRANGEMENT

GRUNDFOS PUMPS

HOME & GARDEN

We offer the following Grundfos pump range at very competitive prices.

<p>SELF-PRIMING</p> <p>Ideal for one or multiple tap outlets to your garden, toilet and laundry, the Grundfos JPRain range offers a reliable solution to help you utilise your collected rainwater in the best possible way.</p>	 <p>JP/JPC JPRAIN MQ</p>
<p>PRESSURE SYSTEM</p> <p>This range of Grundfos pumps and tanks are designed for any pumping application involving clean and non-aggressive water in household, small scale irrigation and booster applications.</p>	 <p>PM RAIN CME CM</p>
<p>SUBMERSIBLE</p> <p>Grundfos submersible pumps are easy to handle and suitable for a variety of applications such as domestic water supply, irrigation and pressure boosting.</p>	 <p>SB SPO SQN/SQEN</p>
<p>WASTEWATER AND DRAINAGE</p> <p>Grundfos wastewater and drainage pumps are designed to make pumping from household applications as simple and efficient as possible.</p>	 <p>UNILIFT CC UNILIFT KP/AP12 UNILIFT AP35/AP50 SOLOLIFT 2</p>
<p>HOT WATER AND HEATING</p> <p>The Grundfos range of circulators for heating and hot water re-circulation are available in a variety of materials and finishes to cover even the most exceptional tasks.</p>	 <p>UPA-BOOSTER COMFORT UPN/UPS ALPHA 2</p>
<p>HOUSEHOLD B-LINE</p> <p>A range of quality pumps for home and garden.</p>	 <p>JPRAIN NSB KPB</p>

SECTION 3

PUMP/PLUMBING

ACCESSORIES



"Pump / Plumbing Accessories are designed to supplement your existing or new pump system as required"

PRESSURE TANKS & ASSOCIATED PRODUCTS



FLMF

FLCMF



R5

R3



PT(V) Vertical

FLEXIBLE PUMP HOSES

FLMF/FLCMF

- S/S Branded Flexible Hoses
- Designed for interconnection of pressure pump/tanks
- Available with straight ends or optional elbow one end
- Sizes from 25mm to 40mm
- Lengths from 300mm to 800mm

3/5 WAY BRASS TEES

R3/R5

- 3 way (R3) & 5 way (R5) Brass Tees
- 25mm BSP standard size
- Designed for pressure pump/tank applications
- 5 Way Tee designed to take pressure switch & pressure gauge

PRESSURE TANKS

PTV/PTM

- S/S Water Connection – Corrosion Resistant
- Controlled Action Diaphragm - longer life
- Brass air stem c/w sealing cap – longer life
- No regular air checks required
- Food Grade FDA Approved high grade Butyl Membrane
- Suitable for drinking water
- Max. working pressure 150 PSI/10 Bar
- Max. working temperature 90°C
- Horizontal (PTH) or Vertical (PTV) options
- Pressure Switches available also. Refer to Electrical Section 14

PUMP/PLUMBING ACCESSORIES



PUMP COVERS	PC/PCL
<ul style="list-style-type: none"> • Polyethylene vented pump cover • Stainless steel Screws provided • Universal – fits most pump types • Versatile – easy to Install • Provides shelter & protection for pump • Available in range of different colours • 2 sizes available:- <ul style="list-style-type: none"> • Small 500 x 400 x 700 (PC) • Large 850 x 570 x 800 (PCL) 	
VALVE BOXES/BOUNDARY KITS	VB/BK
<ul style="list-style-type: none"> • Robust Polyethylene Construction Valve Boxes (VB) or as complete Boundary Kits (BK) • Designed to withstand light vehicle traffic loads • U.V. Resistant, High Impact, HDPE • Lid secured to body by galvanized chain c/w 316 s/s bolts • Lids available in different colours • Suitable as Boundary Kits for Sewer Pump/Pressure Systems c/w Isolating Valve, NRV and Tee Junction 	
FLOATING SUCTION STRAINERS	FSS
<ul style="list-style-type: none"> • Designed to float just below the water level to ensure you are drawing the cleanest water in your tank • Includes PVC Ball float, flexible hose, suction strainer, and hose tail. • Standard sizes are 25mm and 32mm 	

SECTION 4

WATER FILTRATION



"Water Filtration Systems are designed to remove contamination and impurities from your water supply and make it safe and healthy."

WATER FILTRATION: SEDIMENT

PF SERIES

DESCRIPTION

- Sediment In-line filters are for domestic, rural and commercial applications
- Designed to remove sediment and larger particles from water supply sources eg roof water, streams, etc.
- Provide protection for point of use filtration systems

APPLICATIONS

- Drinking Water/Rainwater
- Domestic/Rural
- Camper Van/Recreational
- Commercial/Offices
- Marine/Boat
- Industrial

CONSTRUCTION/FEATURES

- Polypropylene Filter Housings
- Poly mesh or stainless steel screens available
- Standard filter sizes are; 20mm, 25mm, 32mm, 40mm, 50mm, 80mm
- Standard mesh screens are 50 mesh (300 micron) and 100mesh (160 micron) other meshes available on request
- Housing include flushing tap as standard
- Replacement screens available if required

Model	Size	Screens Available
PF 20 SERIES	20mm (¾")	30 to 155 mesh
PF 25 SERIES	25mm (1")	30 to 155 mesh
PF 32 SERIES	32mm (¼")	30 to 155 mesh
PF 40 SERIES	40mm (1 ½")	30 to 155 mesh
PF 50 SERIES	50mm (2")	30 to 155 mesh
PF 80 SERIES	80mm (3")	30 to 155 mesh

NB: Screens are available in Poly or S/S

Mesh	Micron	MM	Colour
30	500	0.50	GREEN
50	300	0.30	BLUE
75	200	0.20	WHITE
100	160	0.16	LIGHT BLUE
120	130	0.13	RED
155	100	0.10	YELLOW

NB: Micron is the hole diameter measured in microns (1000microns = 1mm). Mesh is the number of holes per linear inch



WATER FILTRATION: TASTE & ODOUR

WF SERIES

DESCRIPTION

- Filter housing and cartridges for domestic/rural and commercial applications
- Designed for point of use to remove impurities from water eg. kitchen sink (whole house units available as well)
- Types include sediment, taste and odour, etc
- All leading brands and types available

APPLICATIONS

- Drinking Water/Rainwater
- Domestic/Rural
- Camper Van/Recreational
- Commercial/Offices
- Marine/Boat
- Industrial

CONSTRUCTION/FEATURES

- Clear filter housing in polycarbonate
- Opaque filter housing in nylon
- 10" housings/cartridges standard c/w 1/2" BSP threads
- Other sizes available as required
- Large range of filter cartridges available
- Pressure Range 30-125 PSI
- Accessories available including removal spanners and cleaning brushes

Model	Type	Cartridges Available
WF10C	10" Housing - Clear	1, 10, 20, 50 micron
WF10B	10" Housing - Black	✓
WF10C	20" Housing - Clear	✓
WF20W	20" Housing - White	✓
WFSP10	10" Spanner	✓
WFSP20	20" Spanner	✓
WFBR	Water Filter Brush	✓

NB: Accessories available for Filter Housings. Eg. Caps and O Rings



WF10B
(Black)



WF10C
(Clear)

Other Filtration Systems available on request include:

- Ozone
- Ultra Violet (UV)
- Reverse Osmosis
- KDF

SECTION 5

HOT WATER PUMPS



"Hot Water pumps are designed for use in domestic & commercial hot water applications

Hot Water Boosting Systems, Central Heating Circulation Systems, Solar Power Systems"

IN-LINE CIRCULATOR PUMPS

VS/VA & UPS SERIES

DESCRIPTION

- In-line hot water circulator pumps designed for the following applications:-
 - Hot Water Systems
 - Central home heating systems
 - Solar power systems and swimming pool systems
- Grundfos, DAB, Wilo pump brands available

CONSTRUCTION/FEATURES

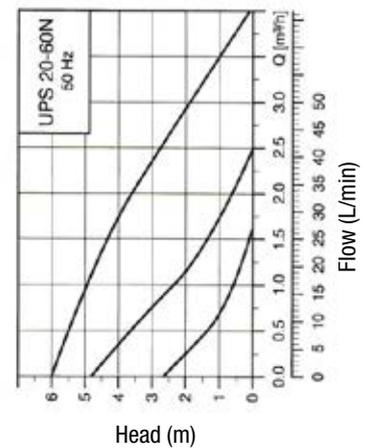
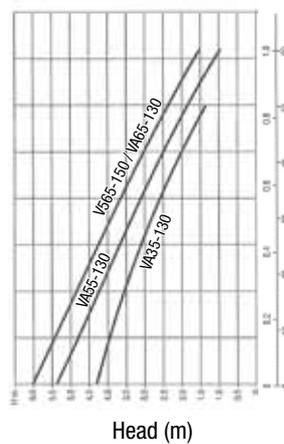
- Pump bodies are cast in either:-
 - Bronze - for hot water systems
 - Cast Iron - for central heating and cooling systems
- All models designed to withstand temperatures of up to 110°C
- Wet rotor circulators for quiet running and long working life
- Impellers are technopolymer construction
- Pump body with electrophoresis coating to ensure optimal corrosion resistance
- Motor case in aluminium
- Motor Shaft, Stator and rotor in stainless steel
- 12 month warranty

APPLICATIONS

- Domestic/Commercial Hot Water Systems (Bronze)
- Central Home Heating Systems (Cast Iron)
- Radiators/Under floor heating applications
- Solar Power Systems/Swimming Pool Systems
- Closed & Pressurized or open tank heating systems

Model	Motor Size	Voltage	Speed	Centre Distance	Union Size
Bronze Circulators (Hot Water)					
VS65-150	0.78kW	230V	1	150mm	20/25mm
* UPS20-60N	0.37kW	230V	3	150mm	20mm
* UPS25-45N	0.43kW	230V	3	150mm	25mm
Cast Iron Circulators (Heating & Cooling)					
VA35-130-EVO	0.71kW	230V	3	130mm	20/25mm
VA55-130-EVO	0.82kW	230V	3	130mm	20/25mm
VA65-130-EVO	1.02kW	230V	3	130mm	20/25mm
* UPS25-60/130	0.44kW	230V	3	130mm	25mm
* UPS25-60/180	0.44kW	230V	3	180mm	25mm
Union Sets Extra - 20mm/25mm/32mm					

HYDRAULIC DATA



HOT WATER BOOSTER PUMPS

UPA - HOME BOOSTER

DESCRIPTION

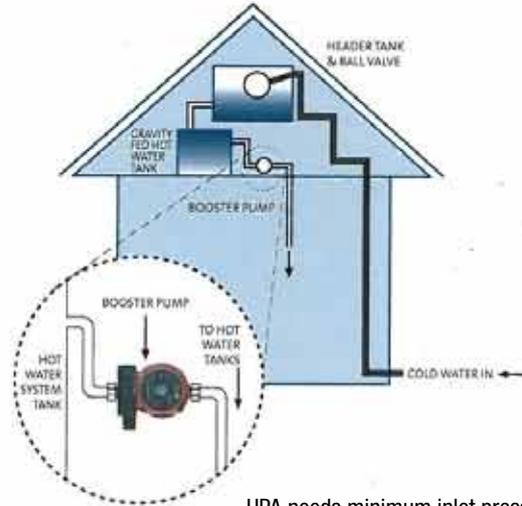
- In-line hot water booster pumps designed to increase/boost the pressure at showers and taps in domestic situations
- The pump is used in open systems and can be connected directly to the water main
- Grundfos, DAB, Wilo pump brands available

CONSTRUCTION/FEATURES

- Pump body is in Stainless Steel components
- Built in flow switch
- Water cooled system
- Leakage free - Energy saving
- Space intelligent - Easy Installation
- Maximum temperature 90°C
- 24 month warranty

APPLICATIONS

- Boosting showers and bathroom taps
- Ensuites/Bathrooms/Laundry
- Domestic household applications



UPA needs minimum inlet pressure of 0.5 m

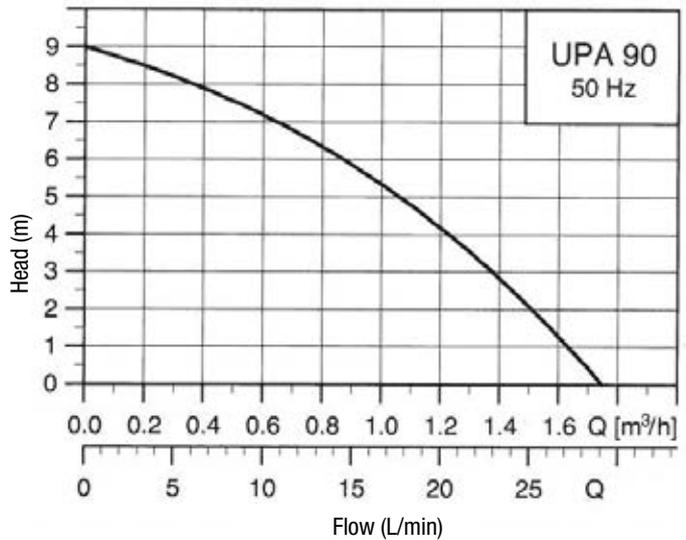
Selector in position		The pump ...
I	Off	is switched off
II	Auto	starts and stops automatically
III	Manual*	runs continuously (also if tapping points are turned off)

*pin must be removed for access to this setting



Model	Motor Size	Voltage	Speed	Centre Distance	Union Size
UPA15-90N	0.12kW	230V	1	160mm	20mm

HYDRAULIC DATA



SECTION 6

SUBMERSIBLE PUMPS



"Submersible Pumps are designed for the pumping of liquids from tanks, sumps & pits to higher levels. Typical liquid types include water, wastewater, effluent, greywater, stormwater and sewage."

GENERAL PURPOSE/DRAINAGE PUMPS

ECO SERIES

DESCRIPTION

- A general purpose submersible drainage pump for clean & dirty water applications
- Either manual or automatic models available
- Available in Single Phase only.

APPLICATIONS

- Light/Medium Domestic Duties
 - Pond & Swimming Pool Filling/Emptying
 - Garden/Rainwater Tank Filling/Emptying
- NB:** These are not designed for pond or continuous operation

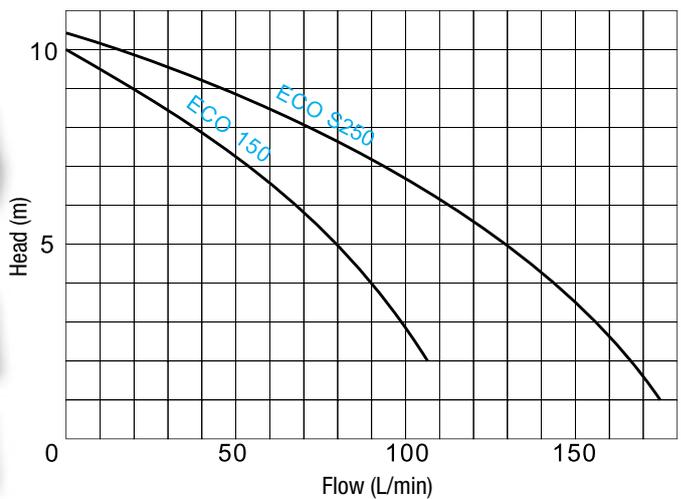
CONSTRUCTION/FEATURES

- Plastic Casing & Impeller
- Aluminium motor housing design (For ECO 150 Series)
- Stainless steel motor housing design (For ECO S 250 Series)
- Mechanical seal, oil seal, epoxy resin sealed cable
- Automatic option available with standard float switch (F) or compact Vertical Type Float (FV)
- 2 year warranty

Model	Motor Size	Voltage	Solids Passage	Outlet Size
ECO 150M (Manual)	0.15kW	230V	4mm	25mm
ECO 150F (Auto)	0.15kW	230V	4mm	25mm
ECO 150FV (Manual/Auto)	0.15kW	230V	4mm	25mm
* ECO S 250 (Manual)	0.25kW	230V	4mm	32mm
* ECO S 250 (Auto)	0.25kW	230V	4mm	32mm
* ECO S 250 (Manual/Auto)	0.25kW	230V	4mm	32mm

Hose & Fittings available if required - Refer section 11

HYDRAULIC DATA



ECO M SERIES

ECO FV SERIES

GENERAL PURPOSE/DRAINAGE PUMPS

NOVA/FEKA SERIES

DESCRIPTION

- Compact, lightweight & reliable submersible pumps designed for general purpose drainage and wastewater applications
- Include compact fixed arm float switches for tight spaces.
- Available in Single Phase only.

CONSTRUCTION/FEATURES

- Reinforced inert plastic body: non-corrosive for long life
- Built-in rigid automatic float switch, factory set for reliable operation, eliminates float cable failure
- Stainless steel shaft & screws: corrosion resistant for longer life
- Ball bearings for longer life and quiet operation
- Ground rotor shaft, triple lip seals in oil chamber: longer seal and pump life
- 2 year warranty

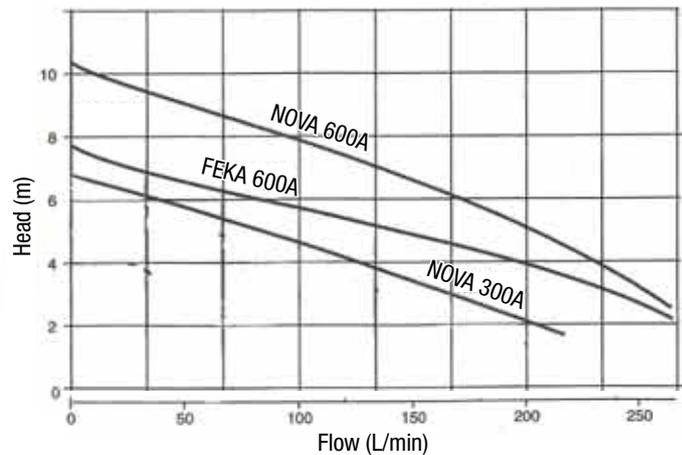
APPLICATIONS

- Domestic/Residential Ground Water & Seepage Applications
- Basements/Garages/Rumpus Rooms
- Sumps/Lift Pits/Mechanics Inspection Pits
- Stormwater/Surface Water/Roof Water
- Commercial/Industrial Complexes
- Vortex Pumps for Solids Handling/Wastewater Applications Eg Leaves & Debris (Feka Series)

Model	Motor size	Voltage	Solids Passage	Outlet size
NOVA 300A	0.22kW	230V	10mm	32mm
NOVA 600A	0.55kW	230V	10mm	32mm
FEKA 600A	0.55kW	230V	25mm	32mm

Hose & Fittings available if required. Refer section 11

HYDRAULIC DATA



GENERAL PURPOSE/DRAINAGE PUMPS

A SERIES

DESCRIPTION

- Robust, heavy duty submersible pumps for clean or dirty water applications
- Either manual or automatic models available (See specs)
- Single & Three phase options available (See specs)

CONSTRUCTION/FEATURES

- Quality cast iron & stainless steel construction designed for more serious pumping applications
- Cast Iron multi-vane impellers
- Corrosion resistant base & motor casing
- 304 stainless steel strainer
- Double mechanical seal & oil chamber plus lip seal
- Built in thermal/motor overload Auto Reset
- Free standing or guide rail mounted options available
- Pump Controllers also available
- 10m long oil neoprene resistant lead & 3 pin plug
- 2 year warranty

APPLICATIONS

- Dewatering/Groundwater/Stormwater
- Construction/Building Sites
- Flood Control/Civil Works
- Basements & Cellars
- Septic Tanks/Effluent

Hose & Fittings available if required.

Refer section 11



A21



A32

GENERAL PURPOSE/DRAINAGE PUMPS

A SERIES

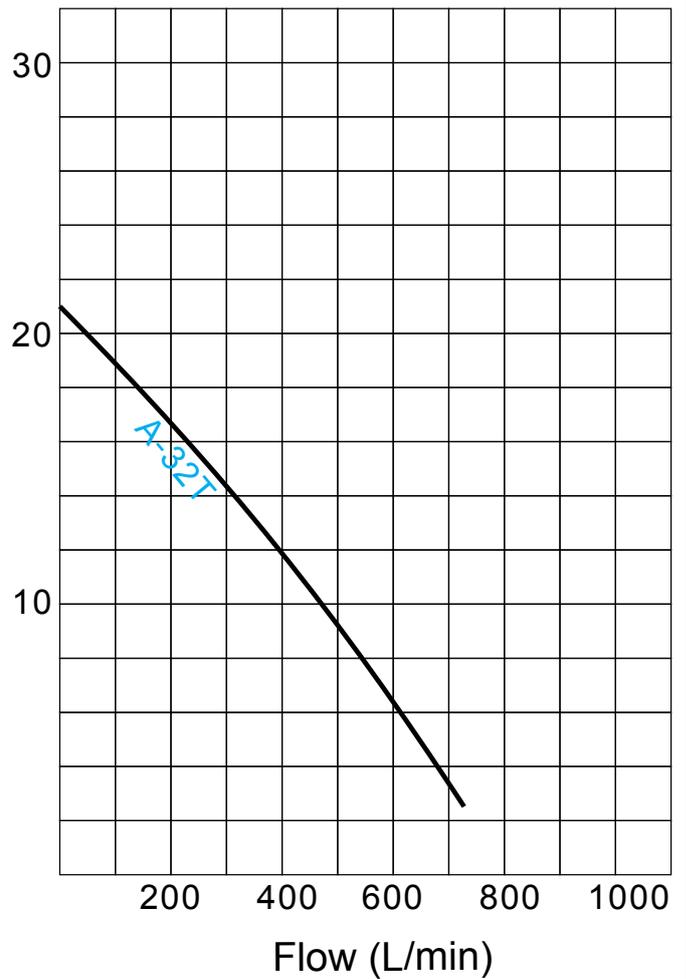
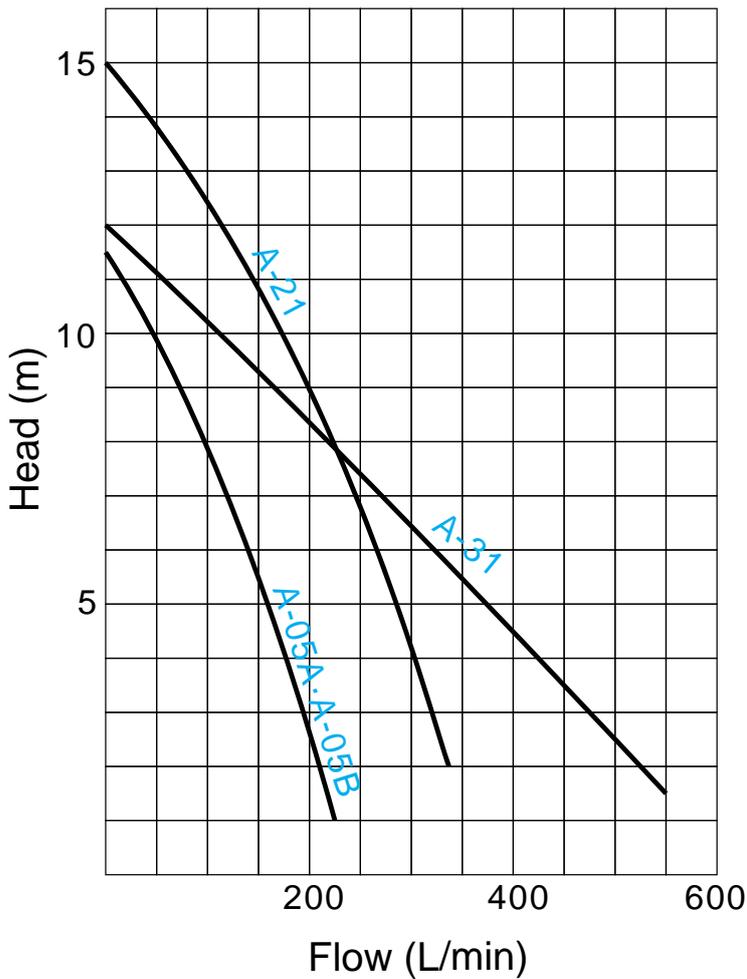
PERFORMANCE SPECIFICATION

Model	Power HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Capacity		Weight kg 1Ø/3Ø	Solid Passage mm	Dimension (mm)		
						m ³ /min	m ³ /h			Length	Width	Height
A-05B	1/2(0.4)	2"(50)	1	Capacitor	8	0.1	6	14	8	227	161	372
A-05B (F)												
A-21	1(0.75)	2"(50)	1	Capacitor	10	0.18	10.8	17	10	245	173	430
A-21 (F)												
3/A-21			3	Direct								
3/A-21(F)												
A-31 (F)	1(0.75)	3"(80)	1	Capacitor	6.5	0.3	18	19	10	278	173	457
A-32T (F)												
3/A-32T	2(1.5)	3"(80)	3	Direct	12	0.4	24	42	11	385	216	575
3/A-32T												495

The above hydraulic data figures are at a given duty point. They are not the maximum pump performances.

- 3/ Denotes 3 phase pumps
- (F) Denotes pump has a float switch (automatic)

HYDRAULIC DATA



DRAINAGE/SEWAGE SUBMERSIBLE PUMPS

ELEPON

DESCRIPTION

- Heavy duty submersible drainage and sewage pumps
- Available in drainage, vortex, cutter or non-clog options
- Manufactured in Japan

CONSTRUCTION/FEATURES

- Quality cast iron construction designed for more demanding applications
- Hard cast iron impellers and s/s shaft
- Built in thermal overload protection
- Double mechanical seals in seperate oil filled chamber
- 2 year warranty

APPLICATIONS

- Construction/Civil
- Factories/Industrial
- Buildings/Commercial
- Utilities/Councils
- Mining/Quarries
- Agricultural/Farming
- Marine/Aquaculture
- Home/Domestic
- Hose and fittings available if required
Refer to section 11



A SERIES

SC SERIES

Models

A large range of models are available. Please call us to discuss your requirements.

DEWATERING SERIES	
A SERIES J SERIES K SERIES	Single/Three Phase
VORTEX SERIES	
KV SERIES	Single/Three Phase
NON CLOGG SERIES	
OS SERIES KW SERIES	Single/Three Phase
DISC CUTTER SERIES	
SF SERIES	Single/Three Phase
GUIDE RAIL KITS	
GH SERIES - Include top & bottom brackets, chain (excludes pipes)	

CONTRACTOR PUMPS

AL/LC SERIES

DESCRIPTION

- Robust, heavy duty submersible contractor pumps for clean or dirty water applications
- Top discharge to suit construction sites
- Either manual or automatic models available (LC45)
- LC45 pump available in manual only

CONSTRUCTION/FEATURES

- Coated aluminium outer case for low weight and effective cooling
- Polyurethane impeller for abrasion resistance
- Double silicone carbide mechanical seals in oil chamber plus lip seal
- Thermal protection on motor winding
- Standard with 10m power cable
- AL45 pumps sucks down to 3mm

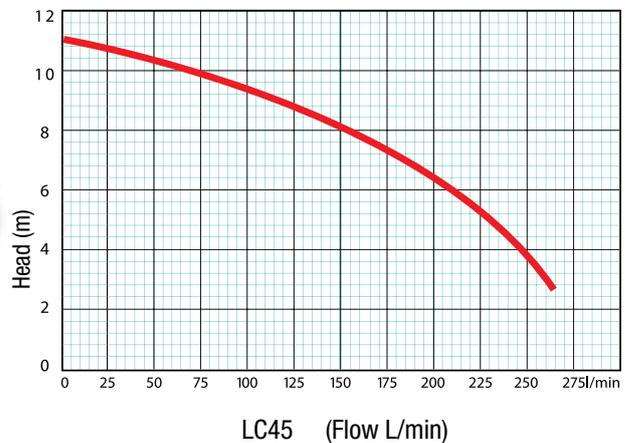
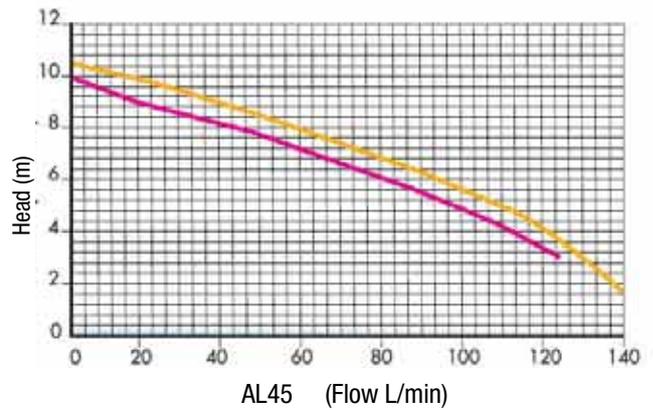
APPLICATIONS

- Building Sites, Construction, Concrete Contractors
- Civil Engineering, Tunnel De-Watering, Ground Works
- Contractors, General Drainage Applications
- Rental & Hire Companies
- Cellars, Foundations, Basements

Model	Motor size	Voltage	Solids Passage	Outlet size
AL45	0.45	230V	N/A	25/50mm
LC45	0.45	230V	N/A	50mm

Hose & Fittings available if required. Refer section 11

HYDRAULIC DATA



AL45
Puddle Sucker



LC45

CONTRACTOR PUMPS | **AS SERIES**

DESCRIPTION

- Robust, heavy duty submersible contractor pumps for clean or dirty water applications
- Top discharge to suit construction sites
- Either manual or automatic models available (See specs)
- Single & Three Phase options available (See specs)

CONSTRUCTION/FEATURES

- Quality cast iron casing with stainless steel outer cover
- Compact strong & easy handling
- Cast Iron multi-vane open type impeller
- Double silicone carbide mechanical seals in oil chamber plus lip seal
- 10 metre long neoprene oil resistant lead & 3 pin plug
- High chrome alloy (HCR) steel hardened impeller 55 - 60 Rockwell, designed to stand high abrasive applications
- Motor is cooled as water flows past it
- Pump Controllers available
- 2 year warranty

APPLICATIONS

- Building Site/De-Watering/Flood Control
- Civil Engineering, Tunnel De-Watering, Ground Works
- Contractors, General Drainage Applications
- **NB: The contractor type pump is also available in an agitator configuration if required. This creates a powerful stirring action for pumping of slurries. Please contact us if you wish to discuss this option.**
- Hose & Fittings available if required
Refer section 11
- DOL starters available if required - Refer page 119



AS-215



80ASN23.7 (AS35)



150ASL25.5

CONTRACTOR PUMPS

AS SERIES

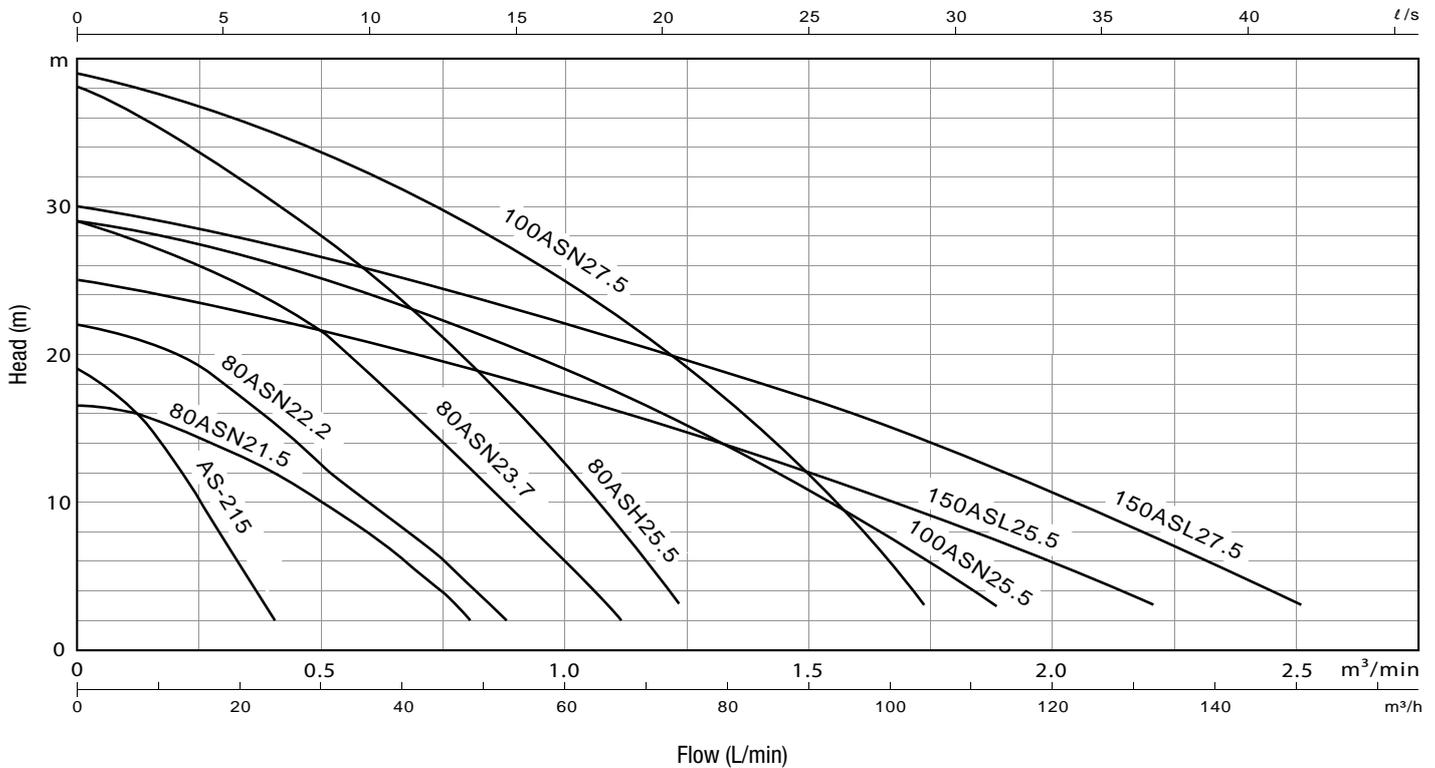
PERFORMANCE SPECIFICATION

Model	Power HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Capacity		Weight kg 1Ø/3Ø	Solid Passage mm	Dimension (mm)		
						m ³ /min	m ³ /h			Length	Width	Height
AS-215	1.5(1.1)	2"(50)	1	Capacitor	13.5	0.2	12	28	8	-	210	496
AS-215 (F)												
80AS-21.5	2(1.5)	3"(80)	1	Capacitor	10	0.4	24	43	11	252	235	616
3/80ASN21.5				Direct				37				536
3/80ASN22.2	3(2.2)	3"(80)	3	Direct	14	0.4	24	40	11	252	235	536
3/80ASN23.7	5(3.7)	3"(80)	3	Direct	20	0.5	30	44	11	252	235	561
3/80ASH25.5	7.5(5.5)	3"(80)	3	Direct	28	0.5	30	72	10	-	286	661
3/100ASN25.5	7.5(5.5)	4"(100)	3	Direct	19	1.0	60	75	10	-	286	661
3/100ASN27.5	10(7.5)	4"(100)	3	Direct	25	1.0	60	75	10	-	286	661
3/150ASL25.5	7.5(5.5)	6"(150)	3	Direct	12	1.5	90	78	10	-	286	723
3/150ASL27.5	10(7.5)	6"(150)	3	Direct	17	1.5	90	81	10	-	286	723

The above hydraulic data figures are at a given duty point. They are not the maximum pump performances.

- 3/ Denotes 3 phase pumps
- (F) Denotes pump has a float switch (automatic)

HYDRAULIC DATA



VORTEX/SOLIDS HANDLING PUMPS

DHS SERIES

DESCRIPTION

- Compact, lightweight submersible pumps designed for solids handling applications, in tight spaces
- 2 pump options available
- Available in single phase only

CONSTRUCTION/FEATURES

- Technopolymer or 304 S/S Casing options
- Technopolymer Impellers
- Mechanical Seal c/w Triple Lip Seals
- Solids Handling Vortex to handle light slurries and soft solids
- 12 Month Warranty

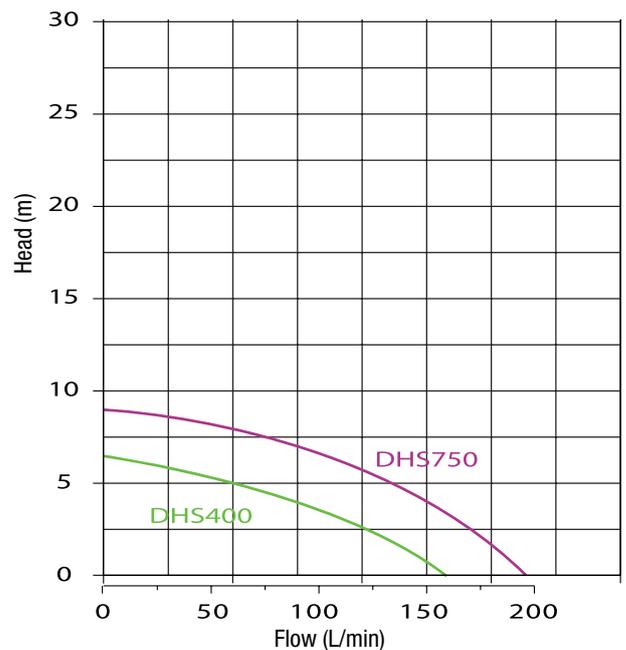
APPLICATIONS

- Grey Water Pumping
- Sump Emptying
- Stormwater/Rainwater Pumping
- Septic and Effluent Disposal Systems
- Water Transfer from Ponds & Tanks
- Light Slurries, Wastewater, Recycled Water

Model	Motor size	Voltage	Solids Passage	Outlet Size
DHS400	0.4kW	230V	30mm	25/32mm
DHS750	0.75kW	230V	30mm	25/32/40mm

Hose & Fittings available if required. Refer section 11

HYDRAULIC DATA



DHS400

DHS750

VORTEX/SOLIDS HANDLING PUMPS | **HV SERIES**

DESCRIPTION

- Medium Duty submersible pumps designed for solids handling applications, in tight spaces
- Available in Single Phase only

CONSTRUCTION/FEATURES

- Cast Iron & S/S Pump Body
- Cast Iron Impeller
- Double Mechanical Seal in Oil Bath plus lip seal
- Corrosion Resistant S/S Shaft, Motor Shell and Fasteners
- Solids Handling Vortex to handle light slurries and soft solids
- 12 Months Warranty

APPLICATIONS

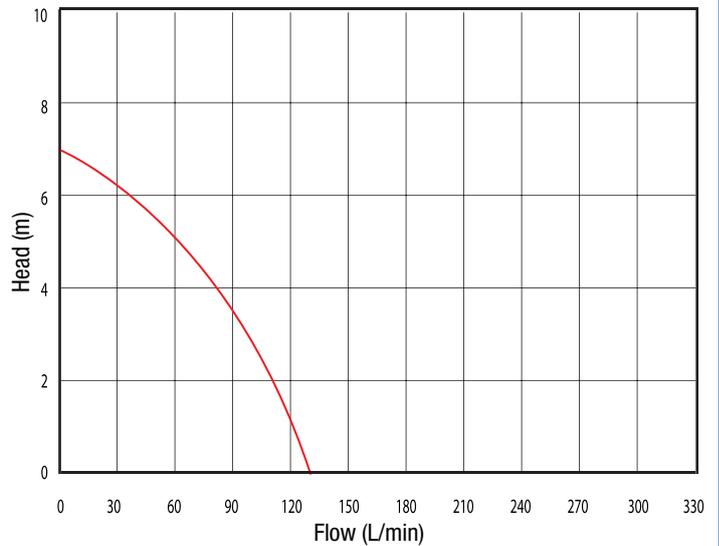
- Grey Water Pumping
- Sump Emptying
- Stormwater Pumping
- Septic & Effluent Disposal Systems
- Water Transfer from ponds & tanks
- Light Slurries and Factory Waste



Model	Motor size	Voltage	Solids Passage	Outlet Size
HV180	0.18kW	230V	15mm	25/32/40mm

Hose & Fittings available if required. Refer Section 11

HYDRAULIC DATA



VORTEX/SOLIDS HANDLING PUMPS

F SERIES

DESCRIPTION

- Robust, heavy duty submersible vortex pumps for solids handling applications
- Manual or automatic models available (See specs)
- Single Phase available only

CONSTRUCTION/FEATURES

- Quality cast iron/stainless steel construction designed for more serious pumping applications
- Cast iron vortex non-clogging impellers
- Double mechanical seal in oil chamber plus lip seal
- 10m long neoprene oil resistant lead & 3 pin plug
- Free standing or guide rail mounted option available
- Thermal motor overload - Auto Reset
- 2 year warranty

APPLICATIONS

- Domestic, Commercial, Industrial sewage & wastewater applications
- Public facilities, shopping malls, hotels & restaurants
- Septic tanks/Pump Stations/Lift Pits
- Stormwater pumping/Runoff

NB: We do not guarantee that these pumps will handle sanitary products

- Refer to page 46 for more details on Vortex/Cutter pump mechanisms.
- Hose & Fittings available if required - Refer section 11
- Refer to page 54 for more details on Guide Rail Systems



F-05U
F-21U



F-21P



F-31U

VORTEX/SOLIDS HANDLING PUMPS

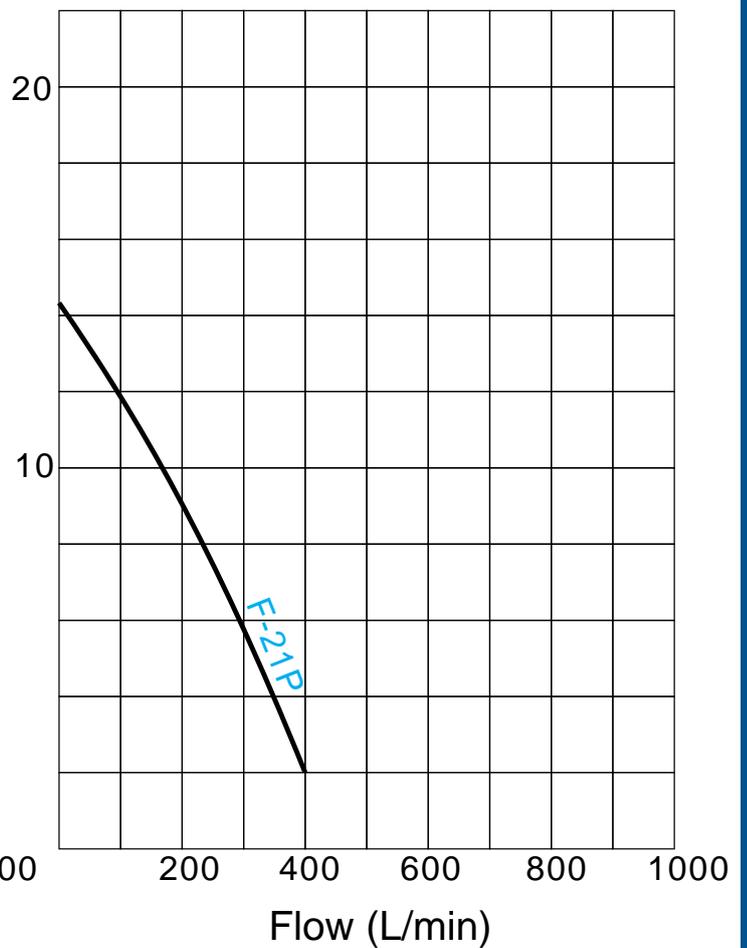
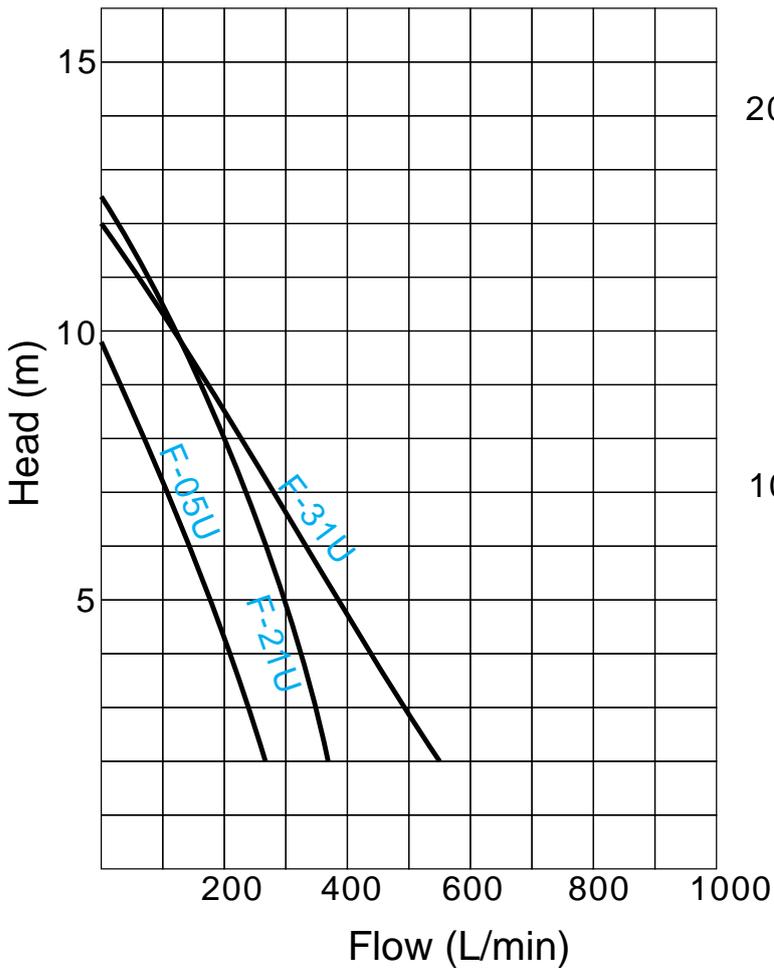
F SERIES

PERFORMANCE SPECIFICATION

Model	Power HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Capacity		Weight kg 1Ø/3Ø	Solid Passage mm	Dimension (mm)		
						m ³ /min	m ³ /h			Length	Width	Height
F-05U	1/2(0.4)	2"(50)	1	Capacitor	6	0.15	9	16	35	237	154	427
F-21U	1(0.75)	2"(50)	1	Capacitor	8	0.2	12	18	35	237	154	427
F-31U	1(0.75)	3"(80)	1	Capacitor	6.5	0.3	18	19	30	278	173	457
F-21P	1(0.75)	2"(50)	1	Capacitor	9	0.2	12	18	22	274	235	440

The above hydraulic data figures are at a given duty point. They are not the maximum pump performances.
 - (F) Denotes pump has a float switch (automatic)

HYDRAULIC DATA



VORTEX/SOLIDS HANDLING PUMPS

AF SERIES

DESCRIPTION

- Robust, heavy duty submersible vortex pumps for solids handling applications
- Either manual or automatic models available (See specs)
- Single & Three Phase options available (See specs)

CONSTRUCTION/FEATURES

- Quality cast iron construction designed for more serious pumping applications
- Cast Iron vortex non-clogging impellers
- Double mechanical seal in oil chamber plus lip seal
- 10m long neoprene oil resistant lead
- Free standing or guide rail mounted option available
- Pump controllers available
- 2 year warranty

APPLICATIONS

- Domestic, Commercial, Industrial Sewage
- Wastewater Applications
- Public Facilities, Shopping Malls, Hotels & Restaurants
- Septic Tanks/Pump Stations/Lift Pits
- Stormwater Pumping/Runoff

NB: We do not guarantee that these pumps will handle sanitary products

- Refer to page 46 for more details on Vortex/Cutter pump mechanisms
- Refer to page 54 for more details on Guide Rail Systems



50AFU2.8



80AFP21.5

VORTEX/SOLIDS HANDLING PUMPS

AF SERIES

PERFORMANCE SPECIFICATION

Pole	Model	Power HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Capacity		Head feet	Capacity GPM	Weight kg 1Ø/3Ø	Solid Passage mm	Dimension (mm)		
							m³/min (m³/hr)						Length	Width	Height
2P	80AFU21.5L	2(1.5)	3"(80)	3	Direct	4.5	0.5(30)	-	-	40	76	443	255	622	
	80AFU22.2L	3(2.2)	3"(80)	3	Direct	7	0.5(30)	-	-	40	76	538	289	695	

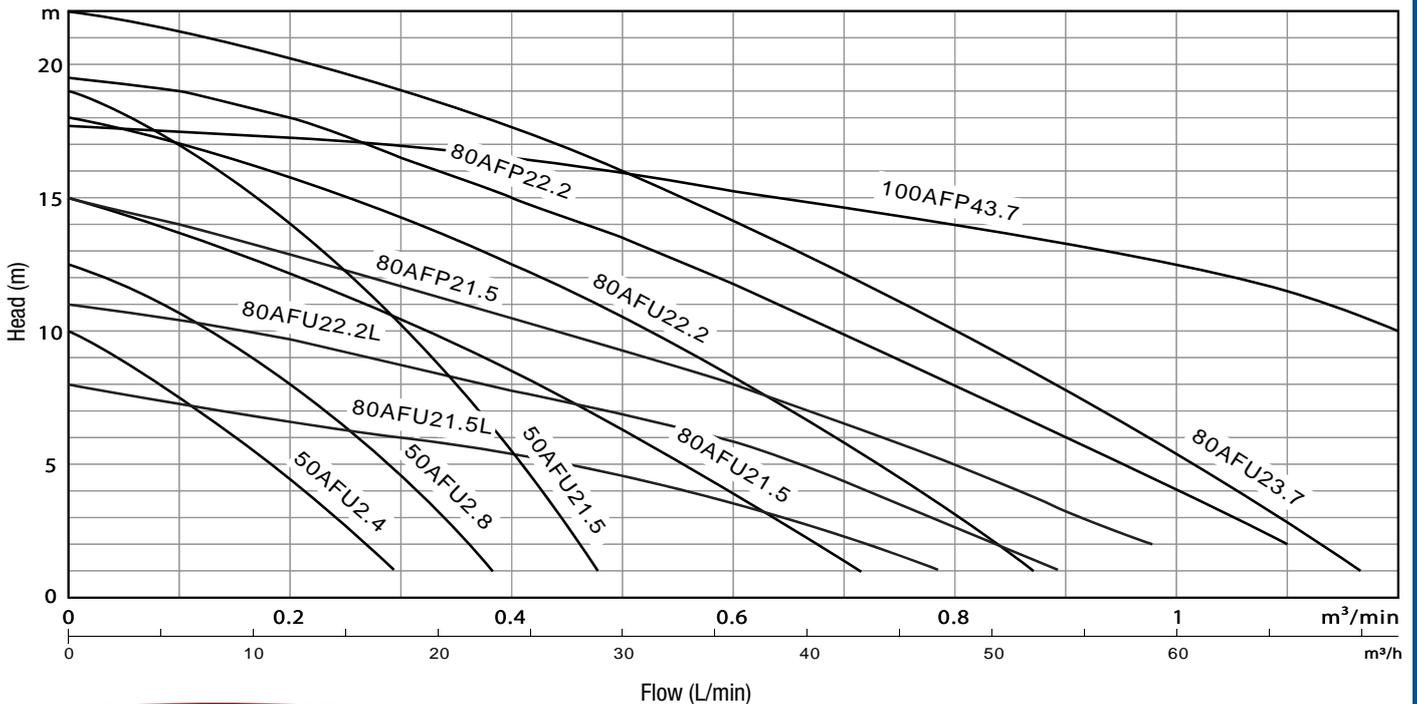
Pole	Model	Power HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Capacity		Weight kg 1Ø/3Ø	Solid Passage mm	Dimension (mm)		
							m³/min	m³/h			Length	Width	Height
2P	50AFU2.8	1(0.75)	2"(50)	1	Capacitor	8	0.2	12	20	35	236	152	418
				3	Direct								
	50AFU21.5	2(1.5)	2"(50)	1	Capacitor	14	0.2	12	64	35	288	202	532
				3	Direct								477
	80AFU21.5	2(1.5)	3"(80)	1	Capacitor	8.5	0.4	24	40	50	379	202	575
	3/80AFU21.5			3	Direct								36
	80AFU22.2	3(2.2)	3"(80)	3	Direct	12.5	0.4	24	38	50	379	202	524
	80AFP21.5	2(1.5)	3"(80)	1	Capacitor	8	0.6	36	42	35	413	260	576
	3/80AFP21.5			3	Direct								38
	80AFP22.2	3(2.2)	3"(80)	3	Direct	12	0.6	36	40	35	413	260	525
	80AFU23.7	5(3.7)	3"(80)	3	Direct	16	0.5	-	-	56	478	220	588
	4P	100AFP43.7	5(3.7)	4"(100)	3	Direct	11.5	1.0	-	-	50	571	313

The above hydraulic data figures are at a given duty point. They are not the maximum pump performances.

- 3/ Denotes 3 phase pumps

- (F) Denotes pump has a float switch (automatic)

HYDRAULIC DATA



CUTTER PUMPS D SERIES

DESCRIPTION

- Robust, heavy duty submersible cutter pumps for solids handling applications Eg Sewage, Wastewater
- Single & Three Phase options available

CONSTRUCTION/FEATURES

- Quality cast iron/stainless steel construction designed for more serious pumping applications
- Cast iron impeller & tungsten carbide cutting tip
- Double mechanical seal in oil chamber plus lip seal
- 10m long lead & 3 pin plug
- Free standing or guide rail mounted option available
- 2 year warranty

APPLICATIONS

- Domestic/Industrial/Sewage & Wastewater applications
- Public facilities, shopping malls, hotels & restaurants
- Septic Tanks/Pump Stations/Lift Pits
- Pumping wastewater with stringy or long soft solids in suspension

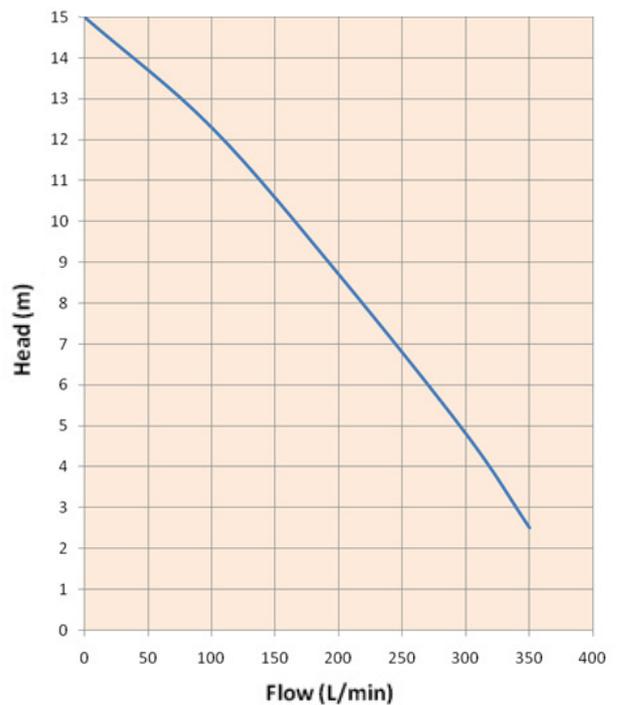
NB: We do not guarantee that these pumps will handle sanitary products

Refer to page 46 for more details on cutter pump mechanisms

Model	Motor Size	Voltage	Solids Passage	Outlet Size
D75KA (Auto)	0.75kW	230V	40mm	50mm
DT08K (Manual)	0.75kW	400V	40mm	50mm

Hose & Fittings available if required. Refer section 11
Valves available if required. Refer section 13

HYDRAULIC DATA



D75KA

GRINDER PUMPS - HIGH HEAD

SABRE HGP2 SERIES

DESCRIPTION

- Robust, heavy duty Twin Impellor High Head Grinder Pumps
- Designed for pumping sewage & wastewater through small bore pipelines

CONSTRUCTION/FEATURES

- Dual impellor - centrifugal design
- Cast iron motor housing & ductile iron impellers designed for more serious pumping applications
- Oil filled motor to give better cooling
- Cutters hardened to 44055T
- Heads up to 60 metres (approx)
- Flow Rates up to 100 L/m (approx)
- 2 year warranty

APPLICATIONS

- Domestic/Residential/Subdivisional sewage and wastewater applications
- Pressure Sewer Projects & domestic housing developments
- Commercial/Industrial Situations
- Especially for very high head or extra long length rising mains

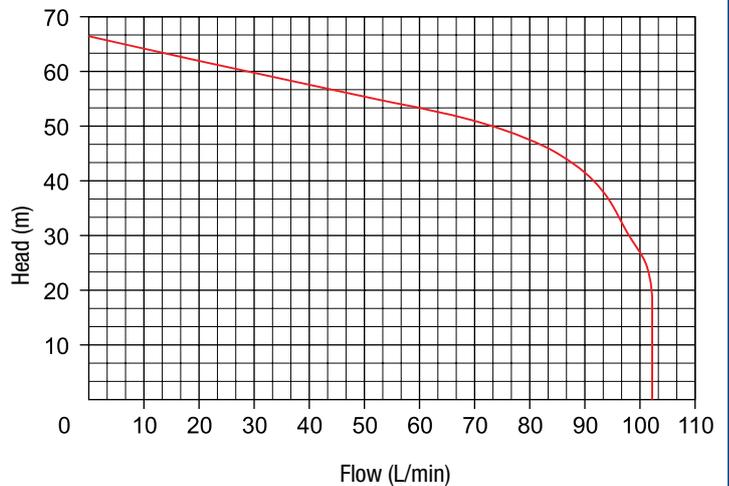
NB: We do not guarantee that these pumps will handle sanitary products

Refer to page 46 for more details on grinder pump mechanisms



Model	Motor size	Voltage	Outlet size
HGP2-2021-50	1.5kW	230V	32mm
HGP2-2043-50	1.5kW	400V	32mm

HYDRAULIC DATA



GRINDER PUMPS

GF SERIES

DESCRIPTION

- Robust, heavy duty submersible grinder pumps
- Super grinding ability for grinding troublesome/foreign objects
- Either manual or automatic models available (See specs)
- Single & Three Phase options available (See specs)

CONSTRUCTION/FEATURES

- Durable heavy duty cast iron construction designed for more serious pumping applications
- Grinder unit with radial cutter & cutting ring hardened to 55 - 60 Rockwell
- Double mechanical seal in oil chamber plus lip seal
- 10m neoprene oil resistant lead
- Free standing or guide rail mounted options available
- Pump Controllers available
- 2 year warranty

APPLICATIONS

- Domestic, Commercial, Industrial Sewage
- Wastewater Applications
- Public Toilets, Schools, & Sports Facilities

NB: We do not guarantee that these pumps will handle sanitary products

- Refer to page 46 for more details on Grinder Pump mechanisms
- Refer to page 54 for more details on Guide Rail Systems



32GF21.5



50GF23.7

GRINDER PUMPS

GF SERIES

PERFORMANCE SPECIFICATION

Model	Power HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Capacity		Weight kg 1Ø/3Ø	Dimension (mm)		
						m ³ /min	m ³ /h		Length	Width	Height
32GF21.0 (F)	1.3(1.0)	1½"(32)	1	Capacitor	17	0.06	3.6	28	249	177	555
32GF21.5 (F)	2(1.5)	1½"932)	1	Capacitor	23	0.06	3.6	36	285	203	597
3/32GF21.5			3	Direct				33			546
3/32GF21.5 (F)			1	Capacitor	26	0.06					
*32GF21-5H			3	Direct							
*32GF21.5H (F)											
32GF22.2	3(2.2)	1½"(32)	3	Direct	29	0.06	3.6	38 35	285	203	546
50GF22.2	3(2.2)	2"(50)	3	Direct	19	0.2	12	51	393	226	616
50GF23.7	5(3.7)	2"(50)	3	Direct	26	0.2	12	53	393	226	616

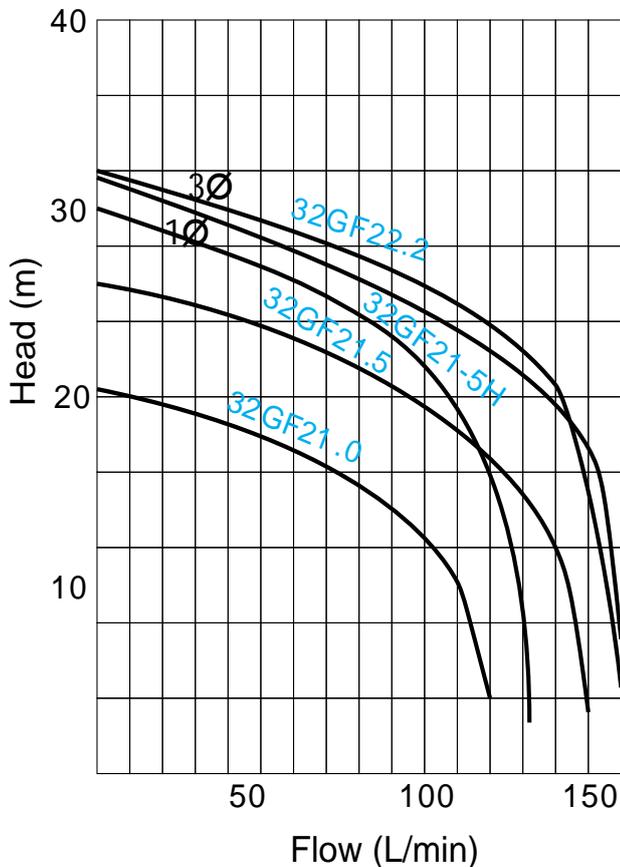
The above hydraulic data figures are at a given duty point. They are not the maximum pump performances.

- 3/ Denotes 3 phase pumps

- (F) Denotes pump has a float switch (automatic)

*New model

HYDRAULIC DATA



TECHNICAL OVERVIEW

VORTEX SUBMERSIBLE PUMPS



- The Vortex (semi-open) Impeller produces a vortex (whirlpool effect) allowing long fibrous materials and other solid waste to pass through without contact with the impeller
 - Designed for sewage & wastewater applications in domestic and commercial applications
- NB: We do not guarantee that these pumps will pump sanitary products**

CUTTER SUBMERSIBLE PUMPS



- The cutter (semi-open) impeller enables cutting of delicate materials to prevent clogging
 - The impeller is imbedded with a tungsten blade/tip to assist in cutting product
 - Designed for sewage & wastewater applications domestic and commercial applications
- NB: We do not guarantee that these pumps will pump sanitary products**

GRINDER SUBMERSIBLE PUMPS



- The Grinder Pumps utilise grinder mechanism to grind foreign objects prior to entering pump.
 - Incorporate hardened radial cutter and cutter ring for maximum grinding action
 - Designed for Sewage and Wastewater in domestic, commercial, industrial applications
- NB: We do not guarantee that these pumps will pump sanitary products.**



POND & WATERFALL PUMPS

DP SERIES

DESCRIPTION

- Submersible Pond/Waterfall pumps designed for domestic & commercial fountains and waterfalls. These pumps are continuous rated for 24/7 submerged operation.
- Available in Single Phase only.

CONSTRUCTION/FEATURES

- Vertical or horizontal installation
- Open impeller allowing the passage of small solids
- Adjustable inlet strainer holes (5mm or 10mm) to control water flow through the pump.
- Oil free motor, so they are safe for fishponds
- Maximum submergence of up to 3 metres.
- 32mm BSP female outlet & elbow for hose connection.
- 2 year warranty



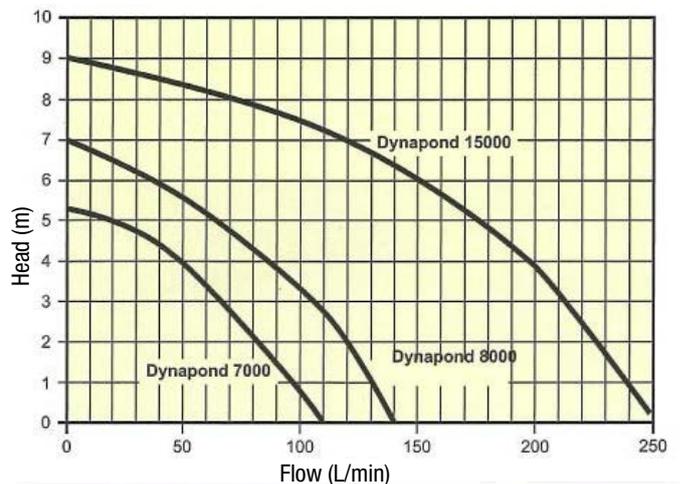
APPLICATIONS

- Domestic/Commercial applications
- Ponds/Garden Pools
- Fountains/Waterfalls
- Koi/Fish Ponds
- Fresh Water Aqua Culture
- Salt Water Aqua Culture (Dynapond 8000)

Model	Motor size	Voltage	Outlet size
DP7000	0.2kW	230V	32mm
DP8000	0.28kW	230V	32mm
DP15000	0.75kW	230V	32mm

4 Nozzle types are available.

HYDRAULIC DATA



Depth of water at top of waterfall	FLOW	
	(lpm)	(l/hr)
5mm	45	0.45
10mm	100	0.78
15mm	200	0.58
20mm	300	0.80

MULTISTAGE PRESSURE PUMPS

DHS SERIES

DESCRIPTION

- 6" Multistage submersible pressure pump with Float Switch for situations where high pressure is required
- Available in Single Phase only

CONSTRUCTION/FEATURES

- Techno polymer & 304 s/s pump body
- Technopolymer impellor
- Heads up to 32 metres (320kPA)
- Flows up to 100 Litres/minute
- 12 month warranty

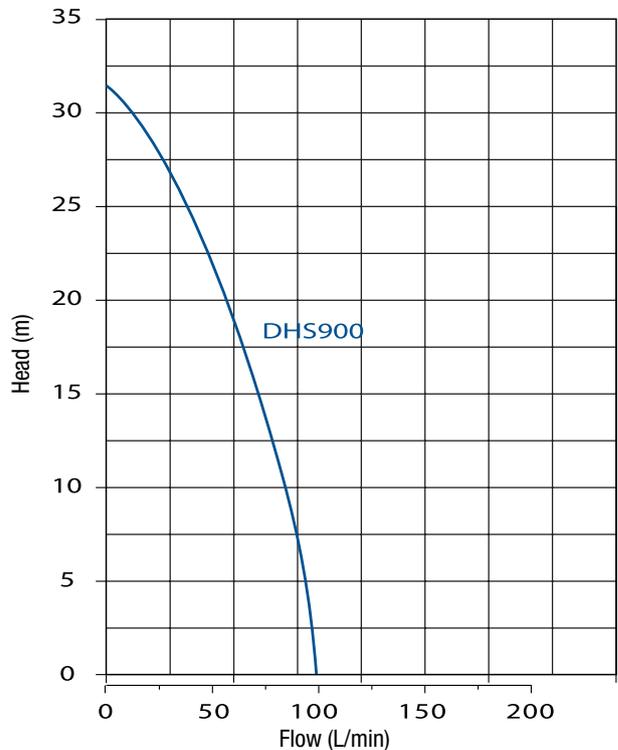
APPLICATIONS

- Rainwater Systems
- Sprinklers
- Irrigation Systems
- Pumping water from tanks, ponds & wells that require high pressure
- Effluent applications
- Grey water applications

Model	Motor size	Voltage	Solids Passage	Outlet Size
DHS900	0.9kW	230V	1mm	25mm
Hose & Fittings available if required. Refer section 11				



HYDRAULIC DATA



MULTISTAGE PRESSURE PUMPS

DT/HSM SERIES

DESCRIPTION

- 4" and 6" Multistage submersible pressure pumps with built-in integrated electronics, designed to automatically start and stop the pump.
- Available in Single Phase only
- Grundfos and Davey brands also available

CONSTRUCTION/FEATURES

- Techno polymer/stainless steel construction
- Stainless shaft/Double Mechanical Seal (HSM Pump)
- Built-in electronic pressure switch and flow sensor
- Equipped with dry run protection and built-in NRV
- HSM Slimline option (125mm at base/100mm at top)
- DT option available with screen filter (DT1200) or stainless steel ring for use with suction kit (DT1200X)
- Automatic Reset
- Quiet Operation
- 12 month warranty

***NEW MODEL**



*



DT1200



DT1200X

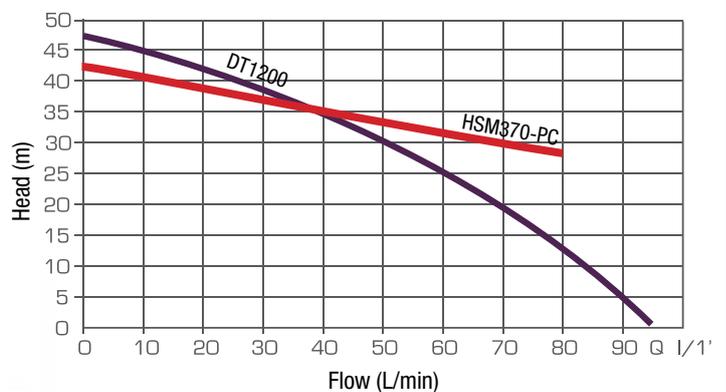
APPLICATIONS

- Household Water Supply
- Clean Water Plumbing Systems
- Rainwater Systems/Irrigation
- Potable Water/Water Transfer
- Pressure Boosting/Domestic Supply
- Bathrooms/Ensuites
- Kitchen/Laundrys
- Industrial Wash Down
- Tank Filling

Model	Motor Size	Voltage	Solids Passage	Outlet Size
DIVERTRON DT1200	1.1kW	230V	1mm	25mm
DIVERTRON DT1200X	1.1kW	230V	1mm	25mm
HSM370-PC	0.37kW	230V	1mm	32mm

Hose, Pipe & Fittings available if required. Refer section 11
We recommend adding either an 8 Litre or 18 Litre pressure tank to these pumps. (Refer to Pump & Plumbing Accessories Section 3)

HYDRAULIC DATA



MULTISTAGE PRESSURE PUMPS

BIA SERIES

DESCRIPTION

- 6" Multistage submersible pressure pump with Float Switch for situations where high pressure is required
- For pumping of slightly dirty water/effluent
- Available in single phase only
- Davey and Grundfos brands available also

CONSTRUCTION/FEATURES

- Glass filled pump body and noryl impellers for durability
- Dual mechanical seals
- Heads up to 32 metre (320kPA)
- Flows up to 105 Litres/minute
- 24 month warranty

APPLICATIONS

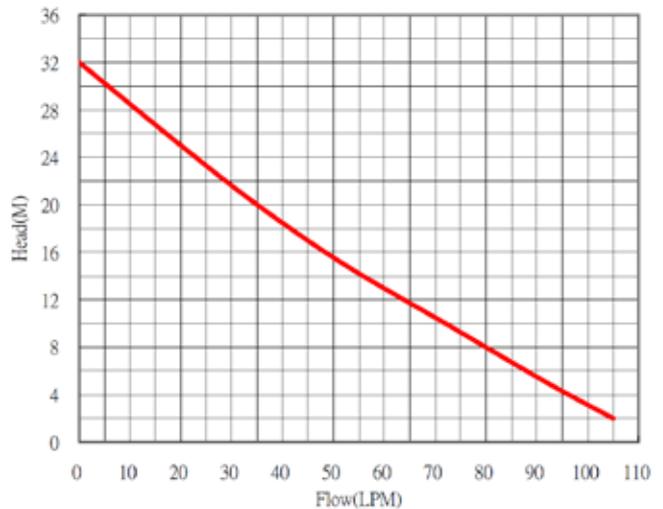
- Rainwater/Harvesting Systems
- Sprinklers/Garden
- Irrigation Systems
- Pumping water from tanks, ponds & wells that require high pressure
- Effluent applications
- Grey water applications



Model	Motor size	Voltage	Solids Passage	Outlet Size
BIA-B42A	0.55kW	230V	3mm	32mm

Hose & Fittings available if required. Refer section 11

HYDRAULIC DATA



MULTISTAGE PRESSURE PUMPS D42 / D53 SERIES

DESCRIPTION

- Multistage submersible drainage pumps c/w 2 or 3 impeller designs for higher head pressures
- Either manual or automatic models available

CONSTRUCTION/FEATURES

- Corrosion resistant thermo-plastic pump casings & stainless steel motor caps for longer life
- Double mechanical seal (one in oil bath) for reliability & longer service life
- Corrosion resistant hard wearing polycarbonate impellers for longer service life
- Multistage impeller design for higher pressures & heads

APPLICATIONS

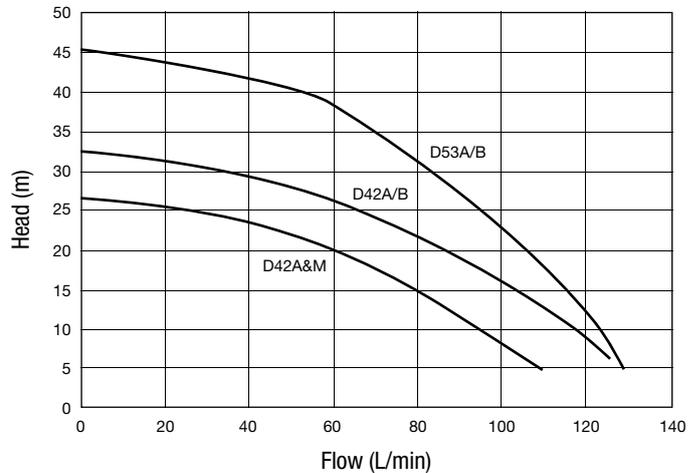
- Lawn & garden irrigation
- Sump emptying to higher heads
- Treated effluent disposal
- Water transfer from wells
- A/B models specially designed for non potable rainwater applications



D42 AB / D53AB

Model	Motor size	Voltage	Speed	Centre Distance	Union Size
D42A	0.6kW	230V	110 L/m	26m	25mm
D42M	0.6kW	230V	110 L/m	26m	25mm
D42A/B	0.6kW	230V	125 L/m	33m	25mm
D42A/B - 20	0.6kW	230V	125 L/m	33m	25mm
D53A/B	0.84kW	230V	130 L/m	45m	25mm
D53A/B - 20	0.84kW	230V	130 L/m	45m	25mm

HYDRAULIC DATA



CAST STAINLESS STEEL PUMPS

SS/SF SERIES

DESCRIPTION

- Robust, heavy duty submersible pumps for corrosive/aggressive liquid applications
- Either manual or automatic models available (See specs)
- Single & Three Phase options available (See specs)

CONSTRUCTION/FEATURES

- Cast 316 stainless steel casings designed for serious pumping applications
- Cast stainless steel impeller
- Double silicone carbide mechanical seal in oil chamber plus lip seal and viton O rings
- 10 metre long neoprene oil resistant lead
- Pump options: Drainage Pumps (SS) or Vortex Pumps (SF)
- Pump Controllers available
- 2 year warranty

APPLICATIONS

- Vineyards/Wineries With Acidic Waters
- Abattoirs/Industrial Process Plants/Factories
- Seawater/Saltwater
- Chemical, Pharmaceutical, And Metal Processing Industry
- Sanitary Sewer
- Hose & Fittings available if required - Refer section 11
- Guide Rail Systems available if required - Refer to page 54



SS-21



SF-21A



SF-32

CAST STAINLESS STEEL PUMPS

SS/SF SERIES

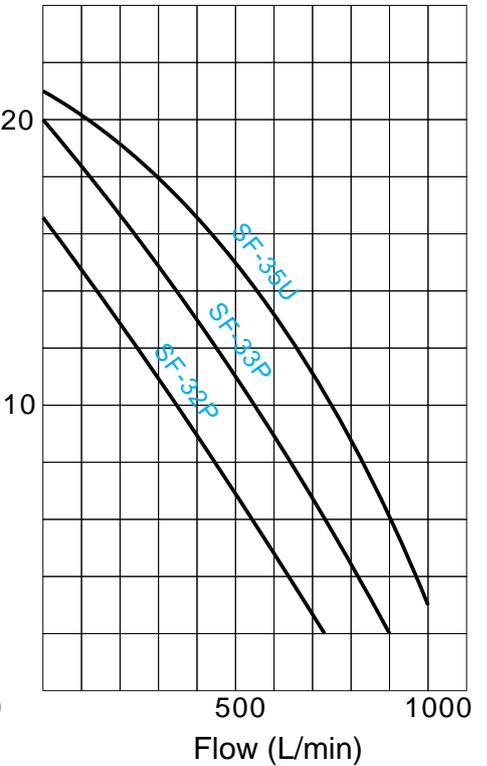
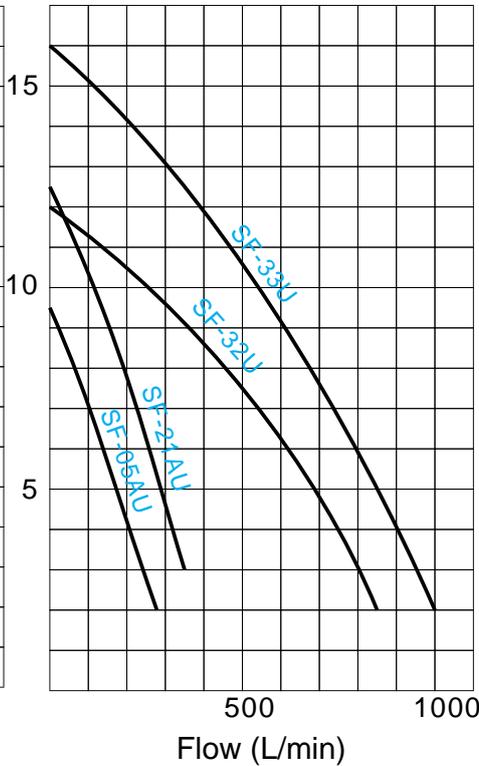
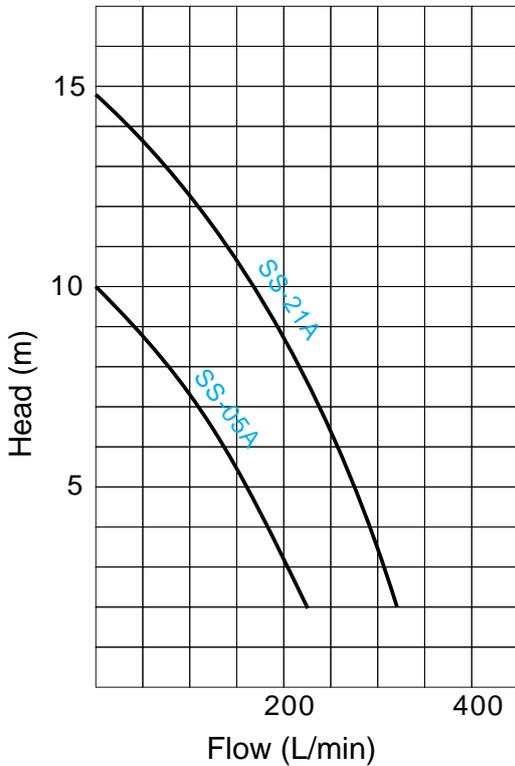
PERFORMANCE SPECIFICATION

Model	Power HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Capacity		Weight kg 1Ø/3Ø	Solid Passage mm	Dimension (mm)		
						m³/min	m³/h			Length	Width	Height
SS-05A (F)	1/2(0.4)	2"(50)	1	Capacitor	7	0.12	7.2	15	10	245	216	439
3/SS-05A			3	Direct								
SS-21A (F)	1(0.75)	2"(50)	1	Capacitor	10	0.17	10.2	17	10	245	216	439
3/SS-21			3	Direct								
SF-05AU (F)	1/2(0.4)	2"(50)	1	Capacitor	6	0.15	9	15	35	237	154	427
3/SF-05AU			3	Direct								
SF-21AU (F)	1(0.75)	2"(50)	1	Capacitor	8	0.2	12	16	35	237	154	427
3/SF-21AU			3	Direct								
3/SF-32U	2(1.5)	3"(80)	3	Direct	8.5	0.4	24	35	35	441	250	538
3/SF-33U	3(2.2)	3"(80)	3	Direct	10.5	0.5	30	37	35	441	250	563
3/SF-35U	5(3.7)	3"(80)	3	Direct	15	0.5	30	45	38	453	215	572
3/SF-32P	2(1.5)	3"(80)	3	Direct	8	0.45	27	36	35	441	250	538
3/SF-33P	3(2.2)	3"(80)	3	Direct	9	0.6	36	38	30	441	250	563

The above hydraulic data figures are at a given duty point. They are not the maximum pump performances.

- SS Pumps are General Purpose Drainage type pumps with s/s strainer/screen
- SF Pumps are Vortex/Solids handling type pumps
- 3/ Denotes 3 phase pumps
- (F) Denotes pump has a float switch (automatic)

HYDRAULIC DATA



GUIDE RAIL SYSTEMS

TOS SERIES

DESCRIPTION

- Guide Rail Systems (GRS) are designed to provide easy and accurate pump alignment, for submersible pumps in pumping stations/wet wells

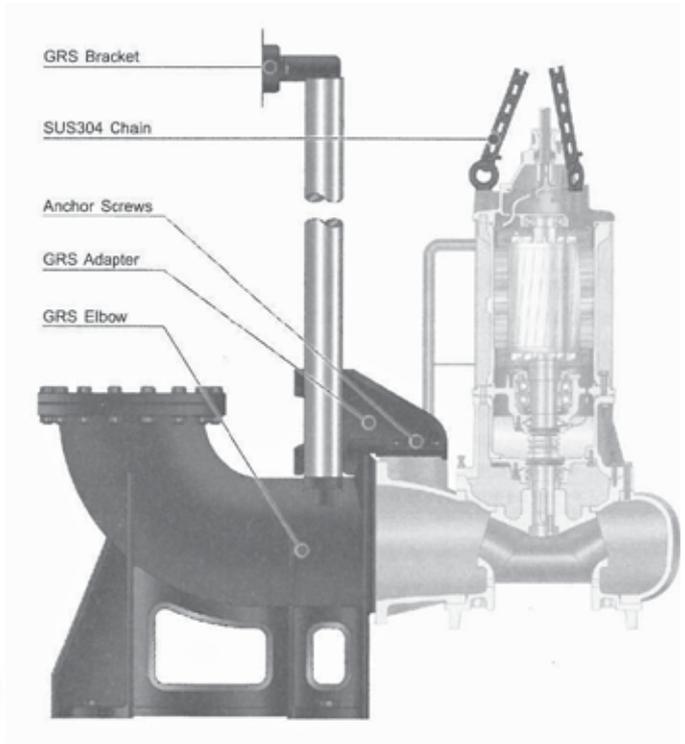
CONSTRUCTION/FEATURES

- Cast Iron Construction designed for more serious pumping applications
- Cast Stainless Steel guide rail couplers available also (refer to pricelist)
- Auto-coupling of pumps to provide water tight seal
- Large range of sizes available from 50mm to 400mm discharge size
- 2 year warranty

APPLICATIONS

- Commercial/Residential/Industrial Sewage & Stormwater Systems
- Septic Tanks/Pumping Stations/Lift Pits
- Situations where pumping stations must be regularly maintained and serviced.
- Public facilities/Shopping Malls, Hotels & Restaurants

Model	Discharge Size	Pump Type Use
TOS 50A	50mm	Vortex & Cutter
TOS 50C	50mm	Grinder (32mm)
TOS 50D	50mm	Grinder (50mm)
TOS 80C	80mm	Vortex & Cutter
TOS 100C	100mm	Vortex & Cutter



SECTION 7

PACKAGED PUMP STATIONS



"Packaged Pump Stations are fully integrated packaged systems designed for the pumping of greywater, stormwater, sewage and wastewater when gravity discharge is not feasible."

PACKAGED PUMPING STATIONS - OVERVIEW

"Your answer to gravity discharge problems"

DESCRIPTION

FASTFLO™ Packaged Pump Stations are fully integrated pumping stations designed to ease sewage, wastewater, and stormwater problems for domestic commercial, industrial, & civil applications in situations where gravity discharge is not available.

THE BENEFITS

- Easy & lightweight to handle
- Polyethylene tanks designed to be buried underground
- Don't rust or corrode, and no water ingress
- Supplied as a complete package, ready to install
- Large range of tank & pump options to suit all applications
- Quality components to reliably work for you, day after day.

If you're below the sewer line...

Get Online

THE ADVANTAGES

- Over 1900 FASTFLO Packaged Pumping Stations installed in NZ - that means experience next to none other.
- Holding tanks that are manufactured in NZ to meet NZ conditions
- Installed in most areas of NZ and are recognized by local councils to be a superior product
- Well recognized in the Plumbing & Drainlaying industry to be a superior product.
- Are manufactured using only top quality materials & components
- Are manufactured in accordance and comply with AS/NZS 1546-1:2008 and NSF/ANSI 46-2007
- Are covered by the following warranty:-
 - Submersible Pump – 24 months
 - Polyethylene Tank – 20 years
 - FRP Tank – 20 years



CONDENSATE PUMP-OUT UNITS

SANI SERIES

DESCRIPTION

- Compact Condensate Pump-out units are designed for the collection and removal of condensation from air-conditioning and refrigeration systems.

CONSTRUCTION/FEATURES

- PVC Pump Housing & Collecting Tray
- Two models available – either Plus (Air Condensate), or Best (Oil & Gas Boilers Condensate)
- L277mm x W160mm x H146mm (Plus)
- L279mm x W190mm x H254mm (Best)
- Designed to be mounted on walls or in ceiling spaces
- 12 month warranty

APPLICATIONS

- Condensing Boiler Systems
- Air Conditioning Systems
- Refrigeration Systems
- Removal Of Water From Other Systems Where Gravity Discharge Is Not Possible
- Oil & Gas Boilers – Acidic Concentrates

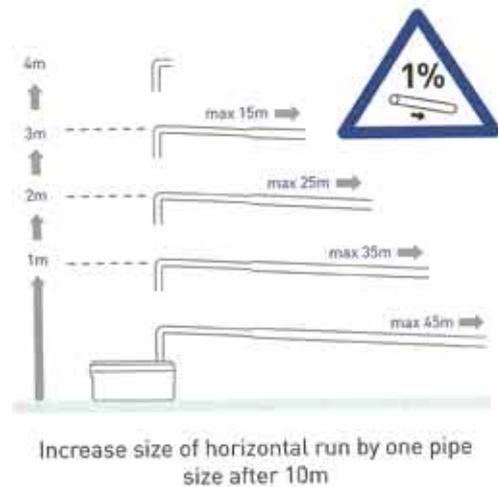
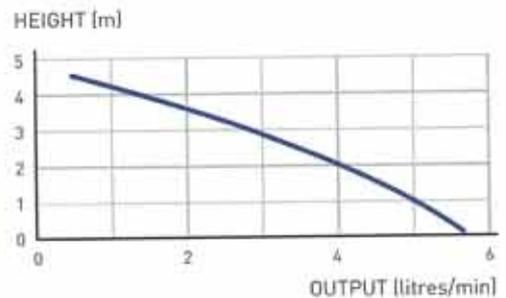
Model	Motor size	Description
SANI CONDENS PLUS	60W	Designed for condensing boilers & air conditioner concentrate
SANI CONDENS BEST	60W	Evacuates & neutralises acidic concentrates from oil & gas boilers



SANI CONDENS PLUS



SANI CONDENS BEST



WASTEWATER/GREYWATER PUMP STATIONS

CUBE

DESCRIPTION

- Smaller sized self contained above-ground wastewater pump out unit, for situations where gravity is not feasible
- Units are usually installed below sink or basin unit to accept gravity waste pipe inlets

NB: Separate carbon vent available if required, otherwise units require venting. Hunter valves are not suitable

CONSTRUCTION/FEATURES

- Polyethylene Sealed Tank c/w bolted PE Sealed lid
- Non-corrosive and long lasting tank
- Semi-Compact - more suited for domestic and light commercial applications where less space is available
- Simple installation - all internal plumbing done
- 3 standard pump options - Custom units available with larger pumps
- 2 year pump warranty



Tank size: 410mm L x 300mm W x 400mm H
Tank capacity: 43 Litres

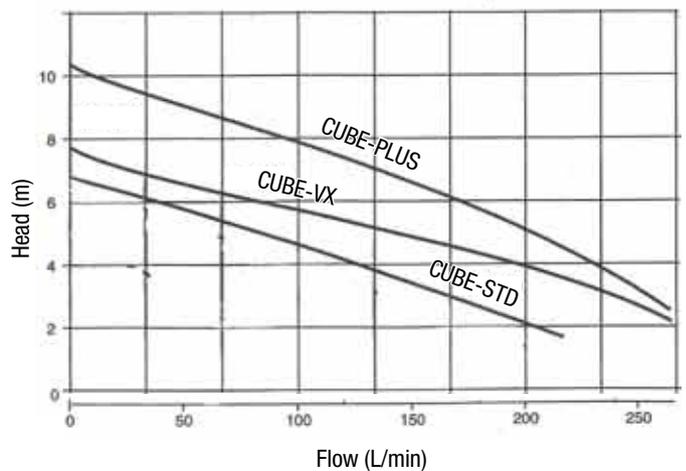
APPLICATIONS

- Kitchen Sinks/Kitchenettes/Bakeries
- Laundry Tubs/Washing Machines
- Cleaners Sinks/Wash Rooms
- Restaurants/Cafes/Lunch Bars
- Doctors/Dentists/Clinics
- Surgeries/Hospitals/Medical Centres
- Office Blocks/High rise buildings
- General domestic and light commercial

Model	Motor size	Voltage	Solids Passage	Outlet size
CUBE - STD (Standard)	0.22kW	230 V	10mm	32mm
CUBE - PLUS (Medium)	0.55kW	230 V	10mm	32mm
CUBE - VX (Vortex)	0.55kW	230 V	25mm	32mm

High Level Alarm available if required. Refer page 120
Solenoid valves available if required. Refer page 106

HYDRAULIC DATA



WASTEWATER/GREYWATER PUMP STATIONS

UNDERSINK (LARGE) US SERIES

DESCRIPTION

- Medium sized self contained above-ground wastewater pump out unit, for situations where gravity is not feasible
- Units are usually installed below sink or basin unit to accept gravity waste pipe inlets

NB: Separate carbon vent available if required, otherwise units require venting. Hunter valves are not suitable

CONSTRUCTION/FEATURES

- Polyethylene Sealed Tank c/w bolted PE Sealed lid
- Non-corrosive and long lasting tank
- Semi-Compact - more suited for domestic/light commercial applications where more space is available
- Simple installation - all internal plumbing done
- 3 standard pump options - Custom units available with larger pumps
- Stainless steel tanks available for hygiene sensitive applications if required eg. Hospitals
- 2 year pump warranty

APPLICATIONS

- Restaurants/Cafes/Lunch Bars
- Kitchens
- Bakeries
- Laboratories/Laundry
- Doctors/Dentists
- Surgeries/Hospitals
- Office blocks/High rise Buildings
- Temporary Building and Construction Sites
- Portable Building Facilities

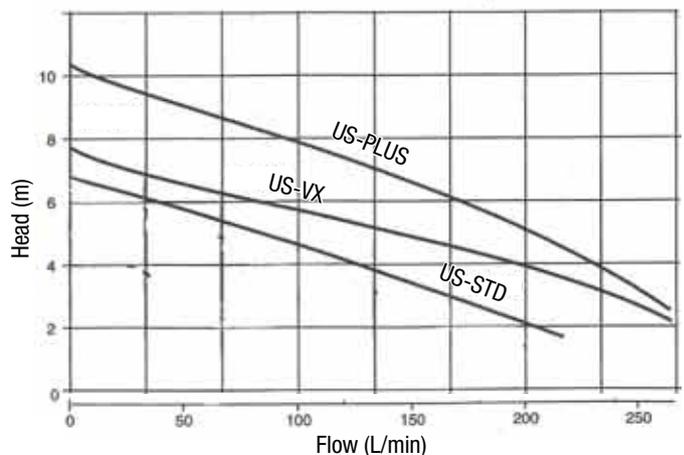
Model	Motor size	Voltage	Solids Passage	Outlet size
US - STD (Standard)	0.22kW	230 V	10mm	32mm
US - PLUS (Medium)	0.55kW	230 V	10mm	32mm
US - VX (Vortex)	0.55kW	230 V	25mm	32mm

High Level Alarm available if required. Refer page 120
Solenoid valves available if required. Refer page 106



Tank size: 510mm L x 410mm W x 475mm H
Tank capacity: 90 Litres

HYDRAULIC DATA



SANI PUMP OUT UNITS - GREY WATER

SOLOLIFT 2 C3 & D2

DESCRIPTION

- Compact self-contained sanitary pump-out units for pumping of greywater only (not toilets) in domestic situations only
- Units are installed beside or under sanitary fixtures depending on site conditions in the same room

CONSTRUCTION/FEATURES

- Unique welded pressure tight PVC tank
- Powerful robust motor c/w Stainless Steel parts
- Vortex impellor with 20mm free passage
- Alarm device optional/easy retrofit
- Hot water resistant - up to 90°C for 30 minutes
- 2 year warranty

APPLICATIONS

- Washing machines/showers/sink/wash hand basins
- Ensuites/basement bathrooms/garages

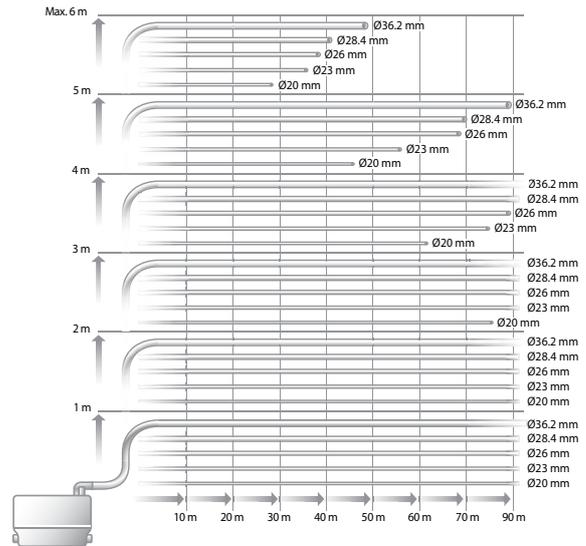
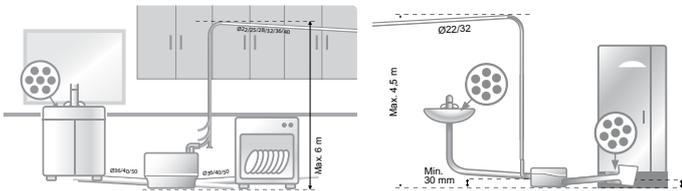
NB: These units are not suitable for commercial applications, and we do not guarantee they will handle sanitary products

Model	Motor size	Voltage	Outlet size
SOLOLIFT2 C3	640W	230V	25/32/40
SOLOLIFT2 D2	280W	230V	25/32/40

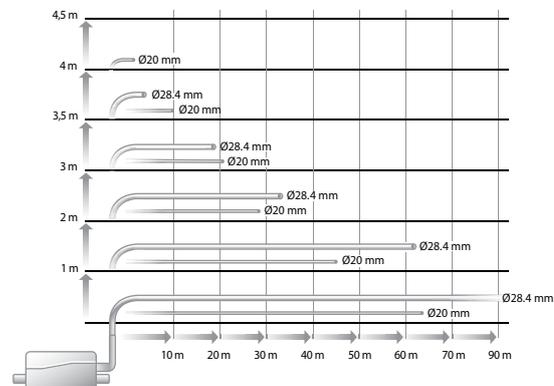
HL/Solenoid valve available if required - Refer pages 106 & 120

Sololift2 C-3 for washing machine and sink

Sololift2 D-2 for shower and sink



Sololift2 C-3



Sololift2 D-2

SANI PUMP OUT UNITS - SEWAGE/GREYWATER

SOLOLIFT 2 WC SERIES

DESCRIPTION

- Compact self-contained sanitary pump-out units for pumping of either raw sewage/greywater in domestic situations only
- Units are installed directly behind WC units - in the same room as the fixture
- Especially designed for tight spaces where holding tanks are not feasible

CONSTRUCTION/FEATURES

- Unique welded pressure tight PVC tank
- Powerful robust motor c/w Stainless Steel parts
- Grinder/cutter impellor for sewage water
- Self cleaning function & hardened Stainless Steel parts
- Alarm device optional/easy retrofit - simply insert a small PCB with buzzer
- Hot water resistant - up to 50°C
- 2 year warranty

APPLICATIONS

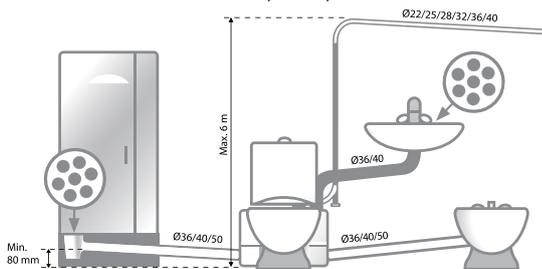
- Bathroom/Basement Ensuities/Facilities
- Granny Flats/Beach Houses/Baches
- Toilets/Showers/Wash Hand Basins/Vanity Units
- Laundry Fixtures/Kitchen Fixtures

NB: These units are not suitable in commercial applications, and we do not guarantee they will handle sanitary products

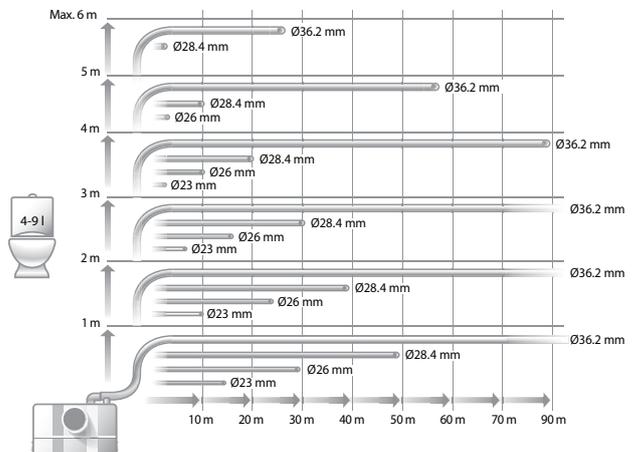
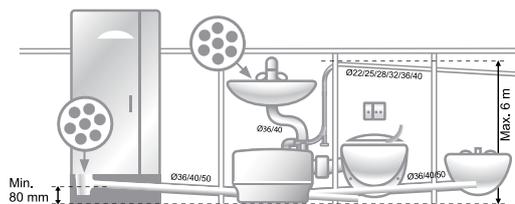
Model	Motor size	Voltage	Outlet size
SOLOLIFT 2 WC-1	620W	230V	25/32/40
SOLOLIFT 2 WC-3	620W	230V	25/32/40
SOLOLIFT 2 CWC-3	620W	230V	25/32/40

HL/Solenoid valve available if required - Refer pages 106 & 120

Sololift2 WC-3 for WC, WHB, bidet and shower



Sololift2 CWC-3 for wall hung WC, WHB, bidet and shower



Sololift2 WC-1 Sololift2 WC-3 Sololift2 CWC-3

GREY WATER DIVERSION SYSTEMS

WATERMATE

DESCRIPTION

- Compact fully automatic grey water diversion systems for removal and re-using unwanted greywater. Eg Showers, basins and washing machines
- Smaller standard above-ground unit designed for lesser flow situations (can be partially buried only)
- Larger below-ground unit (UG) designed for whole house situations with larger flows

CONSTRUCTION/FEATURES

- PE Ribbed Holding Tanks - 30Ltr (STD) 260Ltr (UG)
- L590mm x W370mm x H500mm (Smaller STD unit)
- L800mm x W600mm x H660mm (Larger UG unit)
- Cross Flow Depth Filtrator design
- Multi-Chamber Plug Flow concept
- Solids Removal - up to 75% for pump operated unit and 90% for gravity units
- Single Submersible Pump
- 12 month warranty

APPLICATIONS

- Domestic Dwellings/Houses
- Garden Irrigation Systems
- Commercial/Office
- Beach Houses/Baches
- Schools/Kindergartens
- Hospitals/Medical Centres



OPTIONAL EXTRAS

- Irrigation/Dripline Tube
- Pipe/Fittings
- Valves/Solenoid Valves
- Filters/Screens
- Electronic Timers
- Auto Pump Controllers
- H.L Alarms/Systems

Please contact us to discuss your requirements.



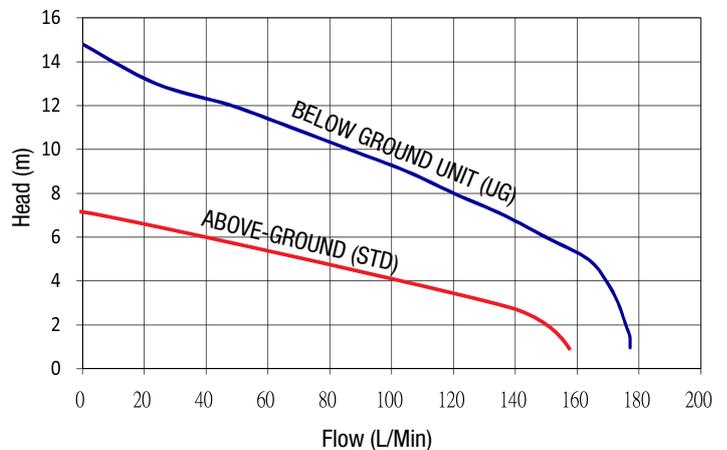
ABOVE-GROUND (STD)

***NEW MODEL**



BELOW GROUND UNIT (UG)

HYDRAULIC DATA



SEWAGE & WASTEWATER LIFTING STATIONS

SANI CUBIC

DESCRIPTION

- Compact above-ground fully automatic single or dual pump stations designed for pumping sewage & wastewater, in sanitary applications where gravity discharge is not feasible

Codes:

- SC1 - Sani Cubic Classic 1 - (Single Pump)
- SC2P - Sani Cubic Plus 2 Pro - (Dual Pump)

CONSTRUCTION/FEATURES

- PVC Pump Housing
- L557 x W491 x H408mm
- Multiple inlets with various diameter
- Single or Dual 1.5kW 230V motors
- Includes option of unit alarm only or unit alarm plus remote alarm and solenoid valve if required (Refer to pages 106 & 120)
- 2 Year pump warranty

APPLICATIONS

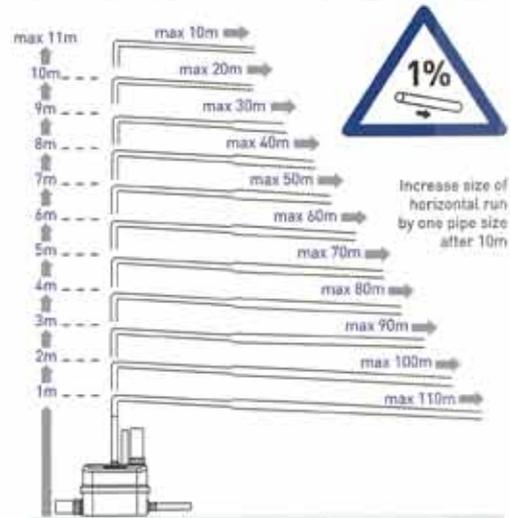
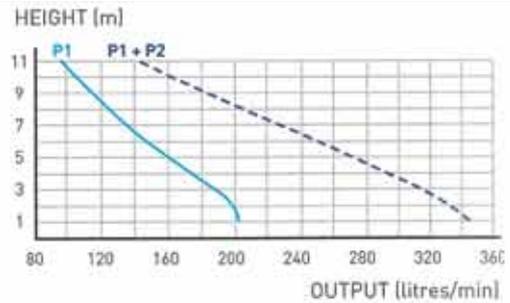
- Basement Ensuites/Bathrooms
- Granny Flats/Beach Houses/Baches
- Toilets/Showers/Wash Hand Basins/Vanity Units
- Laundry Fixtures - Tubs & Washing Machines
- Kitchen Fixtures
- Bars/Restaurants
- Multiple WCS & urinals

NB: All fixtures need to be 275mm above the base of the pump.

Model	Motor size	Description
SANI CUBIC 1 (SC1)	1 x 1.5kW	Single Pump - Includes unit alarm only
SANI CUBIC 2 PRO (SC2P)	2 x 1.5kW	Dual Pump - Remote & unit alarms



SANICUBIC 2 PRO



SEWAGE & WASTEWATER LIFTING STATIONS

ABS - SANIMAT

DESCRIPTION

- Above-ground compact self-contained sanitary pump-out units for pumping of either raw sewage/greywater
- Units are either installed in recess/cavity or basement below the level of the fixtures
- Especially designed for tight spaces where holding tanks are not feasible
- Single or Dual pump options available in both single and three phase
- ABS, Grundfos, Sanimaster brands available

CONSTRUCTION/FEATURES

- Robust, compact, polyethylene tanks
- Easily transported and fitted up on site
- Powerful Grinder or Vortex Pump options
- Multiple inlet port options available
- Cast iron motor housings and impeller
- Integrated ball type NRV included
- Large range of flows and heads available
- 2 year warranty

APPLICATIONS

- Commercial Sanitary Fixtures
- Bathroom/Basement Ensuites
- Toilets/Showers/Wash Hand Basins/Vanity Units
- Laundry Fixtures - Tubs & Washing Machines
- Kitchen Fixtures/Bars/Restaurants/Cafes

Model	Motor size	Voltage	Outlet size
1000 W (single)	1.3 kW	230 V	80/100mm
1000 D (single)	1.4 kW	400V	
1000 D/HD (single)	2.2 kW	400V	
1002 D (Dual)	1.7 kW	400V	80/100mm
1002 D/HD (Dual)	2.2 kW		
2002 D/HD (Dual)	2.2 kW	400V	80/100mm
2002 D/XD (Dual)	3 kW		

Code

1000 Series Tank = 70 Litre Capacity

1002 Series Tank = 140 Litre Capacity

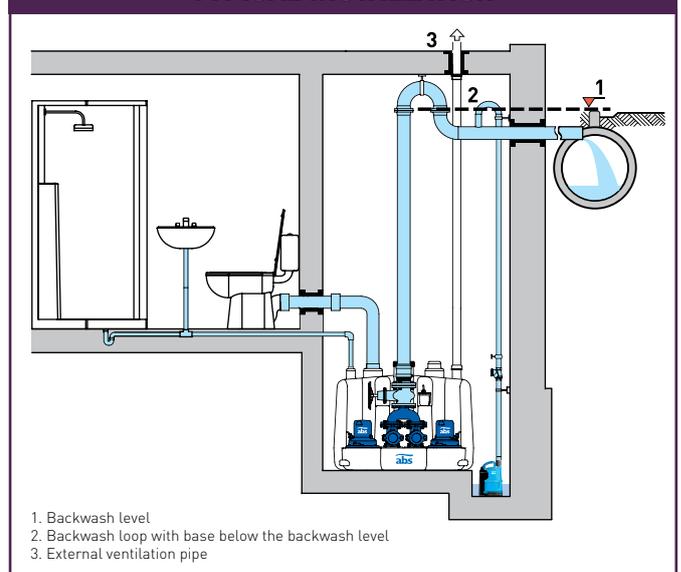
2002 Series Tank = 320 Litre Capacity

*Solenoid valves available if required - Refer pages 106 & 120.



ABS SANIMAT 2002

TYPICAL INSTALLATION



SEWAGE & WASTEWATER PUMP STATIONS

DRAIN BOX SERIES

DESCRIPTION

- Compact above-ground fully automatic single pump stations designed for pumping sewage and wastewater for smaller sanitary applications in situations where gravity discharge is not feasible
- There are 4 different pump types available to suit different site conditions & applications
- Dual pump options also available

CONSTRUCTION/FEATURES

- Tough PE Holding tank - 250 Litre c/w sealed bolted PE lid (trafficable rated lid option available if required)
- Robust, Heavy duty sewage pumps - either Vortex (VX), Cutter (CR), or Grinder (GR) options available
- Lightweight - easily handled & installed by 1 man
- Space Saving - all below-ground installation
- Sealed Unit - No ground water infiltration or leakage
- Labour Saving - on site costs are minimal as all components are supplied including pipework, valves, control box, and HL Alarm
- 2 year pump warranty



FASTFLO DRAIN BOX
650 x 650 x 750H (250LTRS Max)

APPLICATIONS

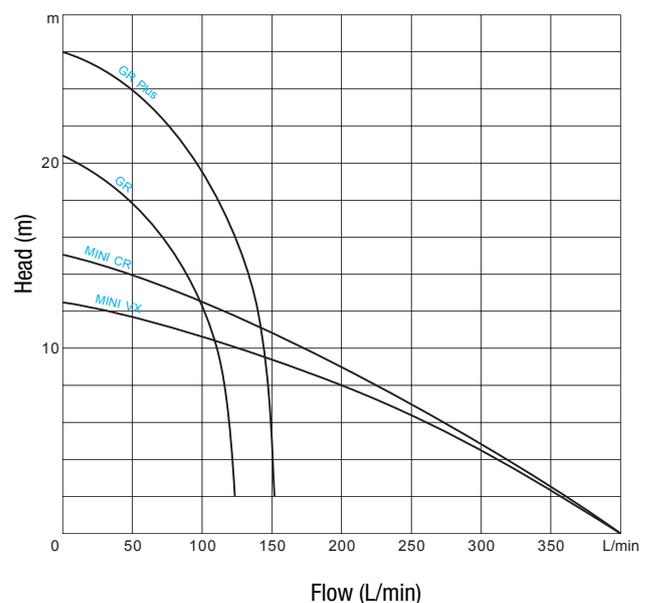
- Basement Ensuites/Bathrooms
- Granny Flats/Beach Houses/Baches
- Bathrooms/Laundries/Kitchen
- Lift Pits/Carparks
- Restaurants/Lunch Bars
- Commercial Kitchens
- Toilets, Showers, Washhand Basins, Vanity Units

NB: These units are not designed for whole house situations. We do not guarantee that these pumps will handle sanitary products

Refer to Technical Overview on pump types - page 46

Model	Motor size	Voltage	Solids Passage	Outlet size
D Box VX	0.75kW	230 V	35mm	50mm
D Box CR	0.75kW	230 V	40mm	50mm
D Box GR	1.0kW	230 V	N/A	32mm
D BoxGR Plus	1.5kW	230 V	N/A	32mm

HYDRAULIC DATA



SEWAGE & WASTEWATER PUMP STATIONS

MAXI SERIES

DESCRIPTION

- Compact above-ground fully automatic dual pump stations designed for pumping sewage and wastewater for smaller sanitary applications in situations where gravity discharge is not feasible
- There are 4 different pump types available to suit different site conditions & applications

CONSTRUCTION/FEATURES

- Tough PE Holding tank - 500 Litre c/w dual sealed bolted PE lids (trafficable rated lid option available if required)
- Robust, Heavy duty sewage pumps - either Vortex (VX), Cutter (CR), or Grinder (GR) options available
- Lightweight - easily handled & installed by 1 man
- Space Saving - all below-ground installation
- Sealed Unit - No ground water infiltration or leakage
- Labour Saving - on site costs are minimal as all components are supplied including pipework, valves, control box, and HL Alarm
- 2 year pump warranty

APPLICATIONS

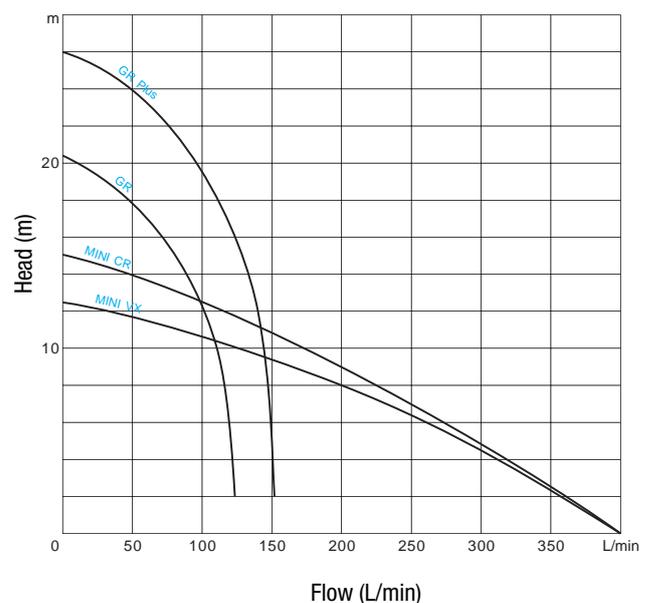
- Basement Ensuites/Bathrooms
- Granny Flats/Beach Houses/Baches
- Bathrooms/Laundries/Kitchen
- Lift Pits/Carparks
- Restaurants/Lunch Bars
- Commercial Kitchens
- Toilets, Showers, Washhand Basins, Vanity Units

NB: We do not guarantee that these pumps will handle sanitary products

Refer to Technical Overview on pump types - page 46

Model	Motor size	Voltage	Solids Passage	Outlet size
MAXI VX	0.75kW	230 V	35mm	50mm
MAXI CR	0.75kW	230 V	40mm	50mm
MAXI GR	1.0kW	230 V	N/A	32mm
MAXI GR PLUS	1.5kW	230 V	N/A	32mm

HYDRAULIC DATA



MAXI (DUAL)
720 x 1270 x 770 H (500Ltrs max)

SEWAGE & WASTEWATER PUMP STATIONS

MINI SERIES

DESCRIPTION

- Compact in-ground fully automatic single pump stations designed for pumping sewage and wastewater for smaller sanitary applications in situations where gravity discharge is not feasible
- There are 4 different pump types available to suit different site conditions & applications
- Dual pump options also available

CONSTRUCTION/FEATURES

- Tough PE Holding tank - 330 Litre c/w sealed bolted PE lid (trafficable rated lid option available if required)
- Robust, Heavy duty sewage pumps - either Vortex (VX), Cutter (CR), or Grinder (GR) options available
- Lightweight - easily handled & installed by 1 man
- Space Saving - all below-ground installation
- Sealed Unit - No ground water infiltration or leakage
- Labour Saving - on site costs are minimal as all components are supplied including pipework, valves, control box, and HL Alarm
- 2 year pump warranty



FASTFLO MINI
800mmØ x 850mm high (330 Ltrs max)

APPLICATIONS

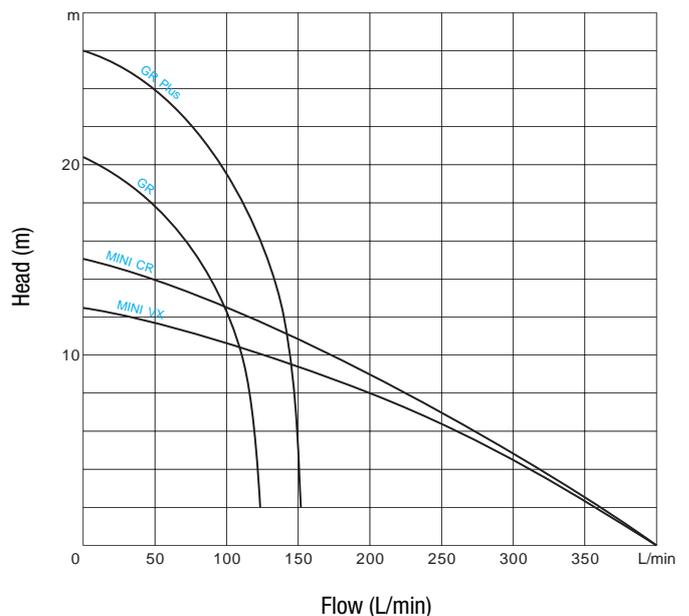
- Basement Ensuites/Bathrooms
- Granny Flats/Beach Houses/Baches
- Bathrooms/Laundries/Kitchen
- Lift Pits/Carparks
- Restaurants/Lunch Bars
- Commercial Kitchens
- Toilets, Showers, Washhand Basins, Vanity Units

NB: The Mini Series units are not designed for whole house situations. We do not guarantee that these pumps will handle sanitary products

Refer to Technical Overview on pump types page 46

Model	Motor size	Voltage	Solids Passage	Outlet size
Mini VX	0.75kW	230 V	35mm	50mm
Mini CR	0.75kW	230 V	40mm	50mm
Mini GR	1.0kW	230 V	N/A	32mm
Mini GR Plus	1.5kW	230 V	N/A	32mm

HYDRAULIC DATA



SEWAGE & WASTEWATER PUMP STATIONS

1000/1500/2000*
SERIES

DESCRIPTION

- Compact in-ground fully automatic single pump stations designed for pumping sewage & wastewater in whole house situations where gravity discharge is not feasible
- Dual pump options also available

CONSTRUCTION/FEATURES

- Tough PE Holding Tank - 1000Ltr/1500Ltr/2000Ltr options c/w Sealed Bolted PE Lid (trafficable rated lid option available if required)
- Robust, Heavy duty sewage pumps - either Vortex (VX), Cutter (CR), or Grinder (GR) options available
- Lightweight - easily handled & installed by 2 men
- Space Saving - all below ground installation
- Sealed Unit - No ground water infiltration
- Labour Saving - on site costs are minimal as all components are supplied, including pipework, valves, control box, and HL alarm
- 2 year pump warranty/20 year tank warranty

APPLICATIONS

- Individual dwellings/houses
- Kindergartens/Schools/Colleges
- Hotels/Motels/Tourist Complexes
- Caravan Parks/Picnic Areas
- Sports Clubs/Golf Clubs/Boat Shed Facilities
- Medical Centres/Hospitals
- Industrial Complexes

NB: We do not guarantee these pumps will handle sanitary products
Refer to Technical Overview on pump types on page 46

Model	Motor size	Voltage	Solids Passage	Outlet size
1000 VX	0.75kW	230 V	35mm	50mm
1500 VX				
* 2000 VX				
1000 CR	0.75kW	230 V	40mm	50mm
1500 CR				
* 2000 CR				
1000 GR	1.0kW	230 V	N/A	32mm
1500 GR				
* 2000 GR				
1000 GR PLUS	1.5kW	230V	N/A	32mm
1500 GR PLUS				
* 2000 GR PLUS				

Fastflo 1000
1.1mØ x 1.7m High

Fastflo 1500
1.1mØ x 2.1m High

*Fastflo 2000
1.1mØ x 2.6m High

***NEW
MODEL**



1000 SERIES

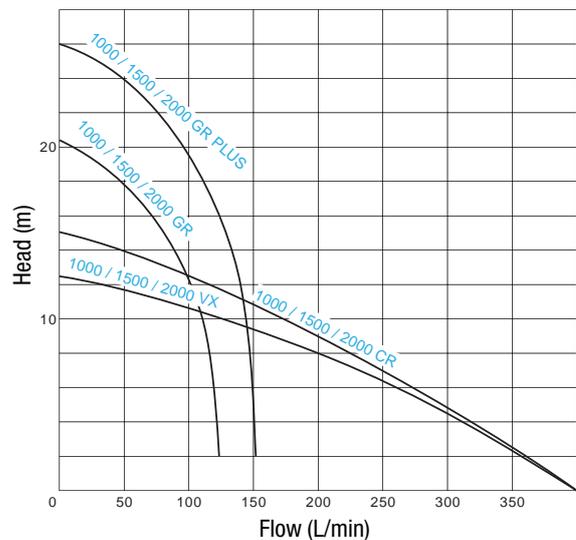


1500 SERIES



*2000 SERIES

HYDRAULIC DATA



SEWAGE & WASTEWATER PUMP STATIONS

HYDROPRO PRESSURE SEWER SERIES

DESCRIPTION

- Compact in-ground fully automatic single pump stations designed for pumping sewage & wastewater from either single homes or entire communities via a pressure main to a centralized treatment plant or municipal wastewater collection network.
- Especially designed for hilly or low lying areas where gravity sewers would be expensive to install or for replacing aged septic tank systems, without major disruption to established areas
- Dual pump options also available

CONSTRUCTION/FEATURES

- Tough PE holding Tank – 330/1000/1500 Litre options
- Robust, heavy duty High Head Grinder Pump
- Environmental friendly as remove sewage & wastewater off the property
- Use small bore discharge pipelines
- Sealed Unit – no ground water infiltration
- Reliable & proven design
- Cost Effective/Low running costs
- Labour saving/Easy to install
- 2 year pump warranty

APPLICATIONS

- Individual Dwellings/Houses
- Kindergartens/Schools/Colleges
- Hotels/Motels/Tourist Complexes
- Caravan Parks/Picnic Areas
- Sports Clubs/Golf Clubs
- Medical Centres/Hospitals
- Boat Shed Facilities
- Residential Subdivisions/Communities
- Industrial Complexes

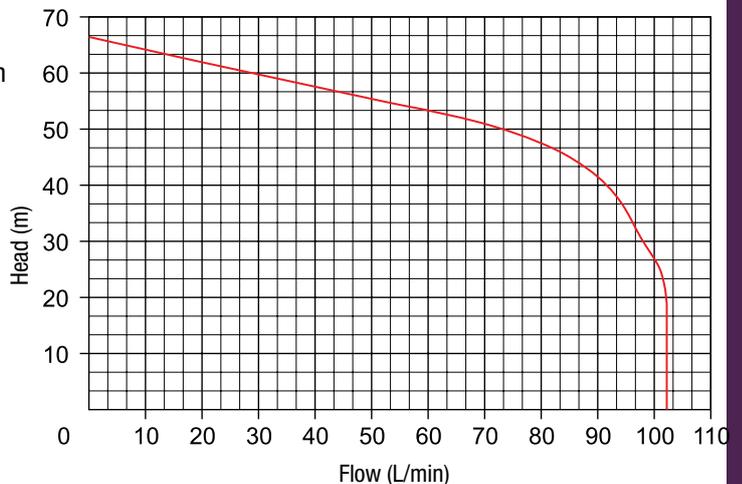
NB: We do not guarantee these pumps will handle sanitary products

- Refer to Technical Overview on grinder pumps page 46
- Includes CB - Deluxe Single Pump Controller/HL Alarm - Refer page 121

Model	Motor Size	Voltage	Solids Passage	Outlet Size
MINI HP	1.5kW	230V	N/A	32mm
1000 HP	1.5kW	230V	N/A	32mm
1500 HP	1.5kW	230V	N/A	32mm
2000 HP	1.5kW	230V	N/A	32mm

Boundary Boxes available if required. Refer to page 69

HYDRAULIC DATA



HYDROPRO 1000 (shown)

HYDROPRO MINI
800mmØ x 850mm high
(330Ltrs)

HYDROPRO 1000
1.1mØ x 1.7m high
(1200Ltrs max)

HYDROPRO 1500
1.1mØ x 2.1m high
(1600Ltrs max)

HYDROPRO 2000
1.1mØ x 2.6m high
(2000Ltrs max)

SEWAGE & WASTEWATER PUMP STATIONS

3000/4000 SERIES

PACKAGED PUMP STATIONS

DESCRIPTION

- Compact in-ground fully automatic pump stations designed for pumping sewage and wastewater in commercial, industrial and residential situations where gravity discharge is not feasible - Designed for dual pump applications, where larger flows are required

CONSTRUCTION/FEATURES

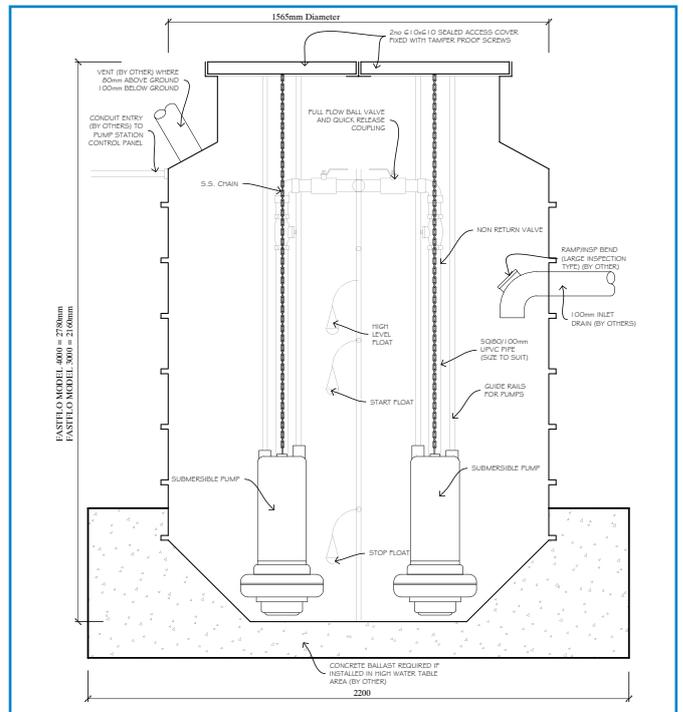
- Tough PE Holding Tanks - 3000 litre, 4000 litre options c/w Sealed Bolted PE Lids (trafficable rated lid option available if required)
- Robust, Heavy duty sewage pumps - either Vortex (VX), Cutter (CR), or Grinder (GR) options available
- Lightweight - Can be lifted by standard excavators
- Space Saving - All below ground installation
- Sealed Unit - No ground water infiltration
- Labour Saving - on site costs are minimal as all components are supplied, including pipework, valves, control box, and HL alarm (Refer pages 122, 123)
- 2 year pump warranty/20 year tank warranty

APPLICATIONS

- Small - Medium Residential Complexes
- Kindergartens/Schools/Colleges
- Hotels/Motels/Tourist Complexes
- Caravan Parks/Picnic Areas
- Sports Clubs/Golf Clubs
- Medical Centres/Hospitals
- Boat Shed Facilities
- Industrial Complexes

Refer to Technical Overview on pump types on page 46

Model	Pipe Size	Pump Type	Voltage	Valve Box (Extra)
3000-50	50mm	Vortex/Grinder	1 PH/3 PH	✓
3000-80	80mm	Vortex/Grinder	1 PH/3 PH	✓
4000-50	50mm	Vortex/Grinder	1 PH/3 PH	✓
4000-80	80mm	Vortex/Grinder	1 PH/3 PH	✓



ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

EFFLUENT PUMP STATIONS

EFF SERIES

DESCRIPTION

- Compact in-ground fully automatic single pump stations designed for pumping effluent & greywater for whole house situations in conjunction with septic tank systems E.g. Post Septic Tank - pumping to remote distribution/effluent fields
- Dual pump options also available

CONSTRUCTION/FEATURES

- Tough PE Holding Tank - 1000/1500/2000LTR options c/w sealed lid (trafficable rated lid option available if required)
- Robust, Heavy duty drainage pumps - either low, medium head or high head pump options
- Lightweight - easily handled & installed by 2 men
- Space Saving - all below ground installation
- Sealed Unit - No ground water infiltration
- Labour Saving - on site costs are reduced to a minimal as all components are supplied including pipework, valves, control box, and HL alarm
- 2 year pump warranty/20 year tank warranty



EFFLUENT 1000 (shown)

EFFLUENT MINI
800Ø x 850 H

EFFLUENT 1000
1.1mØ x 1.7m high
(1200Ltrs max)

EFFLUENT 1500
1.1mØ x 2.1m high
(1600Ltrs max)

* EFFLUENT 2000
1.1mØ x 2.6m high
(2000Ltrs max)

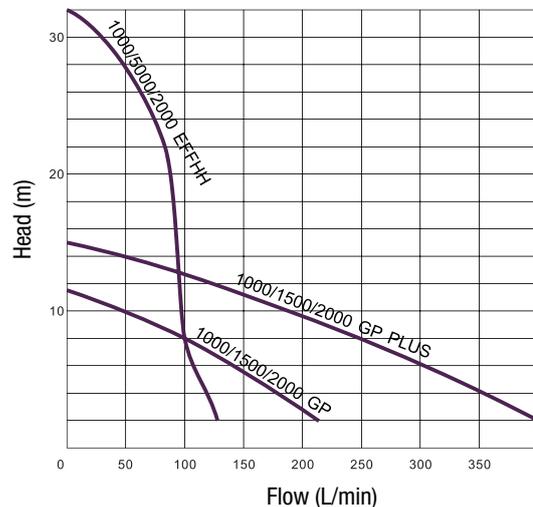
APPLICATIONS

- Individual dwellings/houses - Post Septic Tank
- Kindergartens/Schools/Colleges
- Hotels/Motels/Tourist Complexes
- Caravan Parks/Picnic Areas
- Sports Clubs/Golf Clubs/Boat sheds
- Medical Centres/Hospitals
- Industrial Complexes

NB: These pumps are not suitable for pumping raw sewage or sanitary products.

Model	Motor size	Voltage	Solids Passage	Outlet size
MINI EFF GP	0.4kW	230 V	8mm	50mm
1000 EFF GP				
1500 EFF GP				
* 2000 EFF GP	0.75kW	230 V	10mm	50mm
MINI EFF GP PLUS				
1000 EFF GP PLUS				
1500 EFF GP PLUS				
* 2000 EFF GP PLUS	0.6kW	230 V	1-3mm	50mm
MINI EFF HH				
1000 EFF HH				
1500 EFF HH				
* 2000 EFF HH				

HYDRAULIC DATA



STORMWATER PUMP STATIONS

SW SUMP SERIES

DESCRIPTION

- Compact in-ground fully automatic pump/sump stations designed for pumping stormwater and ground water in domestic situations with small surface areas
- There are 2 different pump types to suit different site conditions and applications General Purpose (GP) or Vortex (VX) pumps

CONSTRUCTION/FEATURES

- Tough 100Ltr P.E holding tank c/w galvanised grate lid
- Reinforced inert plastic pump body – non-corrosive for long life
- Built-in rigid float activated automatic switch, factory set for reliable operation – eliminates cable failure
- 2 year pump warranty

APPLICATIONS

- Domestic/Residential/Commercial Applications
- Basements/Garages/Rumpus Rooms
- Driveway/Yard Run-Off
- Seepage Water/Below Ground
- General Stormwater/Roof Run-Off
- Surface Water
- Vortex Pump Options For Solids Handling Eg Leaves & Debris

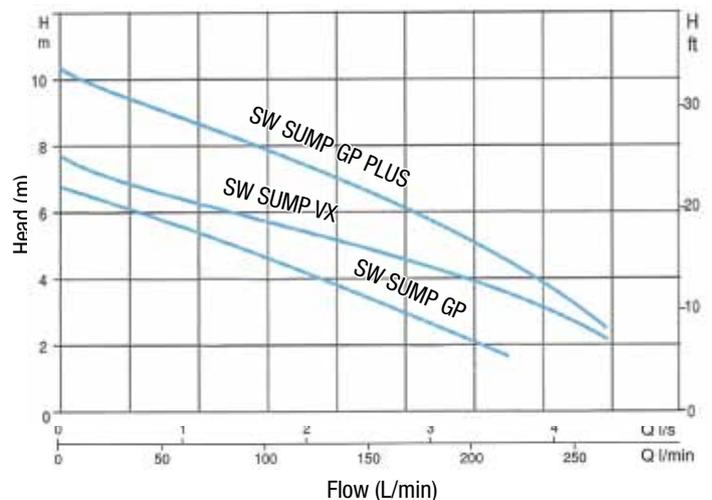
High Level Alarm available as extra - Refer page 121



SW SUMP GP
450mm x 450mm x 625mm
(100 Ltrs)

Model	Motor Size	Voltage	Solids Passage	Outlet Size
SW Sump GP	0.22kW	230V	10mm	32mm
SW Sump GP Plus	0.55kW	230V	10mm	32mm
SW Sump VX	0.55kW	230V	25mm	32mm

HYDRAULIC DATA



STORMWATER PUMP STATIONS

SW STANDARD SERIES

DESCRIPTION

- Compact in-ground fully automatic single pump stations designed for pumping stormwater & groundwater in low lying areas where gravity discharge is not feasible
- There are 4 pump options, and 3 tank options available
- Dual pump options also available

CONSTRUCTION/FEATURES

- Tough PE holding Tanks c/w either PE or galv. grate lid options (Trafficable rated lid option available if required)
- Robust, heavy duty cast iron & S/S drainage General Purpose (GP) or Vortex (VX) Pump options
- Lightweight units – can easily be handled by two men
- Space saving – all below ground installation
- Sealed unit – no ground water infiltration
- Labour saving – on site costs reduced to a minimum, as all prefabricated unit c/w pipework & valves
- Larger tanks & custom units available on requested (including dual pumps options)
- 2 year pump warranty

***NEW MODEL**



NB: Larger sized stormwater pump stations also horizontal stormwater detention and retention tanks available if required.

APPLICATIONS

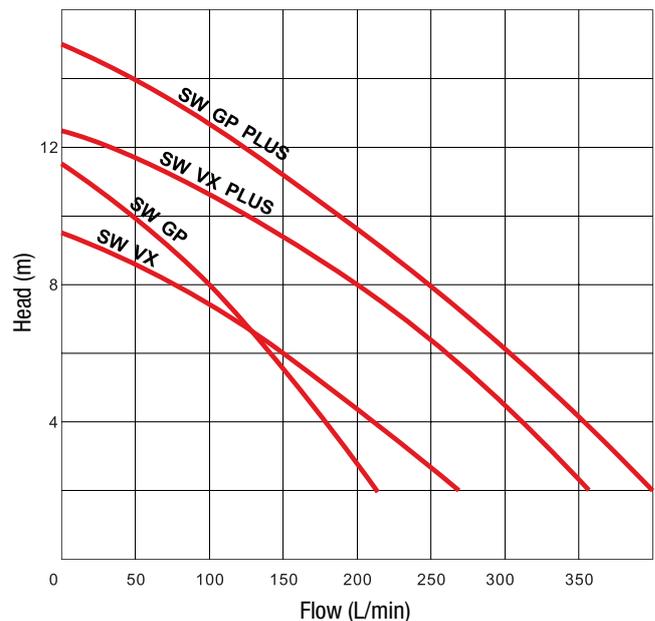
- Domestic/Roof Gutter Collection
- Drainage/Ground Water/Driveway Runoff
- Commercial Car-park collection
- General Seepage Water/Surface water

Model	Tank Size	Tank Volume
MINI	800mm dia x 850mm high	330 Litre
1000	1100mm dia x 1700mm high	1200 Litre
1500	1100mm dia x 2100mm high	1600 Litre
* 2000	1100mm dia x 2600mm high	2000 Litre

Model	Motor Size	Voltage	Solids Passage	Outlet Size
GP	0.4kW	230V	8mm	50mm
GP PLUS	0.75kW	230V	10mm	50mm
VX	0.4kW	230V	35mm	50mm
VX PLUS	0.75kW	230V	35mm	50mm

High level alarm available as extra. Refer section 121

HYDRAULIC DATA



SECTION 8

IN-GROUND VERTICAL PUMP CHAMBERS



"In-Ground Vertical Pump Chambers are designed for sewage and stormwater applications in either retrofit/ replacement or new tank installations."

(These exclude pumps, pipework, valves & controls)

UNDERGROUND VERTICAL PUMP CHAMBERS

T SERIES

DESCRIPTION

- In-Ground Vertical Pump Chambers are designed for sewage and stormwater applications in either retrofit, replacement or new tank installations

NB: These tanks include flat base for pumps, but exclude the pumps, pipework and valves.

CONSTRUCTION/FEATURES

- Tough PE rotationally moulded chambers c/w PE Sealed Lids (Trafficable rated lids available if required)
- Lightweight - easily transported handled, and lifted as required
- Longevity - PE is inert to most chemicals and will not rust or rot
- Space Saving - all below ground installation
- Sealed unit - No ground water infiltration
- 20 year warranty on tanks

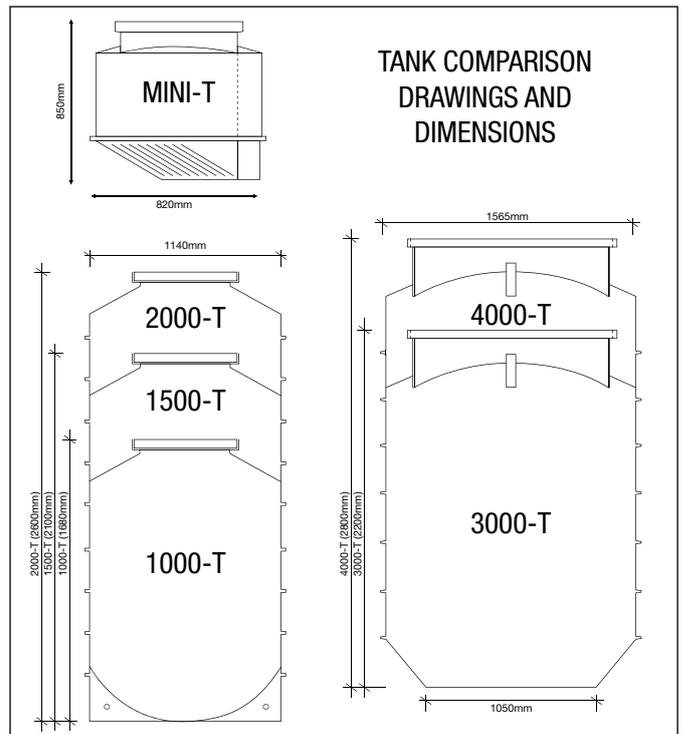
APPLICATIONS

- Stormwater/Rainwater Harvesting/Garden
- Wastewater/Greywater
- Sewage/Sludge
- Farm Effluent
- Industrial Waste
- Landfills/Leachate
- Wineries/Breweries

Model	Litres	Tank Size
MINI-T	330	800Ø x 850H
1000-T	1200	1.1Ø x 1.680H
1500-T	1600	1.1Ø x 2.1H
* 2000-T	2000	1.1Ø x 2.6H
* 3000-T	3500	1.5Ø x 2.2H
* 4000-T	4400	1.5Ø x 2.8H



NB: Tank photos are not to scale



SECTION 9

PUMP STATION/TANK

ACCESSORIES



"A range of pump station accessories designed to supplement your existing or new pump station installation, as required. Product range includes: Extension Risers, Valve Chambers, Grease & Scum Digestors, Rainwater Tank Purifiers."

CHAINS/SHACKLES/UNISEALS



PCSS



PCGV



PS-D

PS-B

PS-D



USL

PUMP CHAIN | **PCSS/PCGV**

- Stainless steel (PCSS) and Galvanized Pump Chain (PCGV)
- Standard Galvanized Chain sizes 6mm and 8mm
- Standard Stainless steel Chain sizes 4mm, 5mm, 6mm and 8mm
- Designed for coupling of submersible pumps in wet well situations
- Suitable for general purpose use as well

PUMP SHACKLES | **PS-D/PS-B**

- Stainless steel Pump Shackles
- Standard types either 'D' shackle (PS-D) or 'Bow' Shackle (PS-D)
- Designed to couple submersible pumps onto lifting chains in wet well situations
- Standard sizes 5mm and 6mm
- Large range of sizes available on request

UNISEALS | **USL**

- Rubber compression seals, especially designed for fitting of pipework into polyethylene tanks and chambers Eg Pumping stations
- Unique lip ensures a high integrity seal
- Easy to Install – you only require the right size holesaw and drill
- Accomodates tank wall thickness up to 15mm
- Provides a flexible, water tight seal in tanks
- Standard sizes to suit pipe from 10mm up to 160mm

PE EXTENSION RISER/VALVE BOX

EXR/VBX SERIES

DESCRIPTION

- PE Extension Riser (EXR) / Valve Box (VBX) designed for above or below ground applications
- The single riser fits the Mini, 1000, 1500 or 2000 Litre Pump Stations.
- The dual riser fits the 3000 and 4000 Litre pump stations
- Designed if extra depth required, or as a separate valve chamber

CONSTRUCTION/FEATURES

- Tough PE riser available with or without PE Lid
- Trafficable rated lids available if required
- Extends tank by 300mm or 700mm (nominal)
- Available in either single or dual chamber sizes
- (250 Litre or 500 Litre size)

APPLICATIONS

- Sewage or Stormwater Pump Stations
- In-ground valve pits/chambers
- Irrigation Boxes
- Electrical junction boxes/Tele-communications pits

Model	Size	Other
EXR-1 (Ext Riser)	650 x 650 x 770H	No Lid
* EXR-2	720 x 1270 x 770H	No Lid
VBX-1 (Valve Box)	650 x 650 x 770H	Single Lid, 250 Litre
* VBX-2	720 x 1270 x 770H	Dual Lid, 500 Litre



EXR-1 / VBX-1



*EXR-2 / VBX-2

***NEW MODELS**

PUMP STATION LIDS



POLYETHYLENE - STD		PEI
Model	Size	Description
PE 1	610mm x 610mm	Standard Pedestrian Rated PE Lid
SSFX	N/A	S/S Fixing Set c/w Sealed Washer (For PE1 Lid)



ALUMINIUM SAFETY GRILLE		ASG
Model	Size	Description
ASG	540mm x 540mm	Aluminium Safety Grille which fits inside pump station opening



GALVANISED LID/FRAME		GLF
Model	Size	Description
GLF	610mm x 610mm	5 tonne Loading Light Traffic Rated

PUMP STATION LIDS



CAST IRON – LID/FRAME		DRC
Model	Size	Description
DRC66AB	615mm x 615mm	AB Rated – 53kN Light Duty Traffic Rated
DRC66CD	615mm x 615mm	CD Rated – 140kN Heavy Duty Traffic Rated



GALVANISED WEB GRATING		GWG
Model	Size	Description
GWG-A	610mm x 610mm	Pedestrian Rated (Class A)
GWG-B	610mm x 610mm	Pedestrian Rated (Class B) - Includes Frame
GWG-C	610mm x 610mm	Heavy Duty Rated (Class C) - Includes Frame

***NEW MODELS**



*
*

ALUMINIUM HINGED/LOCKABLE		ALH
Model	Size	Description
ALH-SL	610mm x 610mm	Hinged Lockable Aluminium Lid (Single)
ALH-DL	1210mm x 610mm	Hinged Lockable Aluminium Lid (Double)

VENT ODOUR FILTERS

VF SERIES

DESCRIPTION

- Vent Odour Filters are designed to remove foul odours, noxious and corrosive gases from vent pipes (including hydrogen sulfide)
- They are designed to fit sewer vent pipes (see table below)

CONSTRUCTION/FEATURES

- U.V and chemical resistant PVC construction to last many years exposed to elements
- The filter media consists of various grades of an absorbent natural mineral combined with a very small quantity of oxidising chemical.
- Safe to handle and easily installed
- Replacement media cartridges available if required
- Extractor fans available to make more effective if required

APPLICATIONS

- Sewage or Stormwater Pump Stations
- Septic Tanks
- Sewage Treatment Systems
- Residential/Commercial/Industrial
- Municipal/Council/Utilities



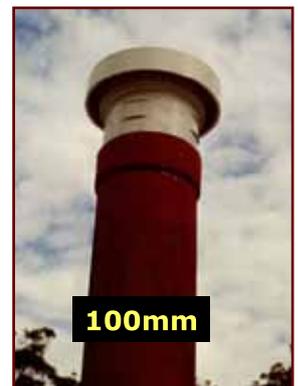
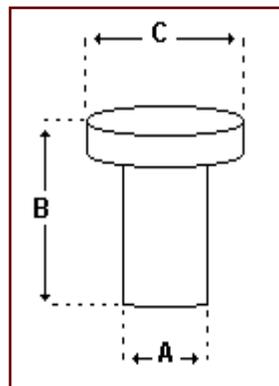
50mm

100mm



150mm

Model	Size (mm)			Weight
	A	B	C	
VF 50	55	130	90	230gms
VF 100	110	120	165	820gms
VF 150	160	190	250	2355gms
VF 300	300	430	400	12Kg



LINEAR MEMBRANE BLOWERS

DBMX SERIES

DESCRIPTION

- Linear Air Blowers are designed for aeration purposes in sewage systems
- Air Blowers provide 24/7 aeration to promote oxygenation of liquids.

CONSTRUCTION/FEATURES

- Aluminium body to provide efficient cooling
- Steady air flow
- Oil Free operation
- Built in thermal protection
- Micro switch to detect diaphragm rupture and shut down pump
- Silent, robust and reliable

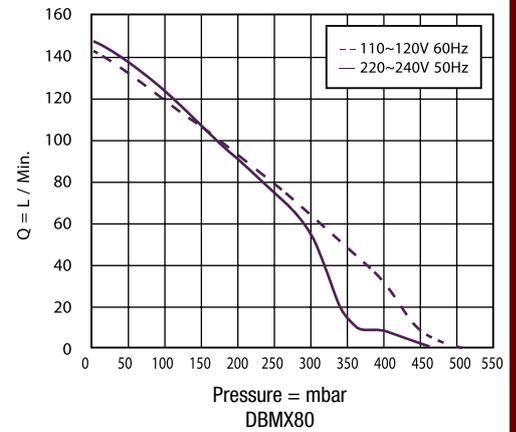
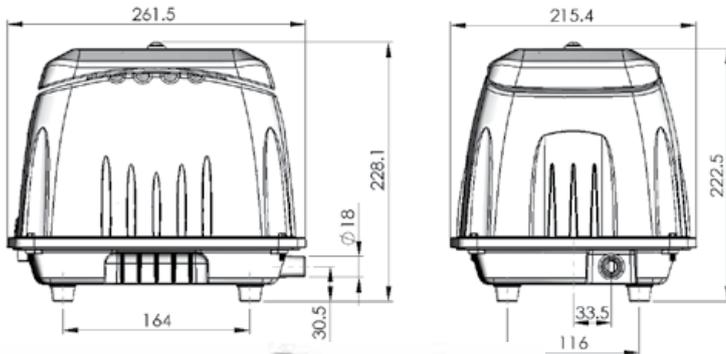
APPLICATIONS

- Septic Tank Systems
- Aeration of sewage systems
- Fish farms
- Aquaculture

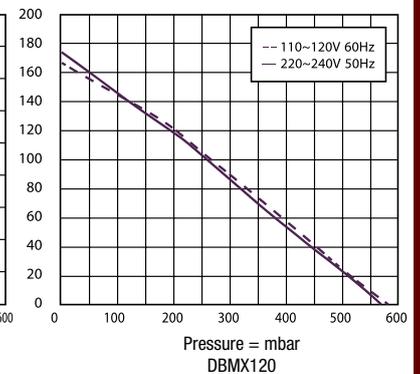
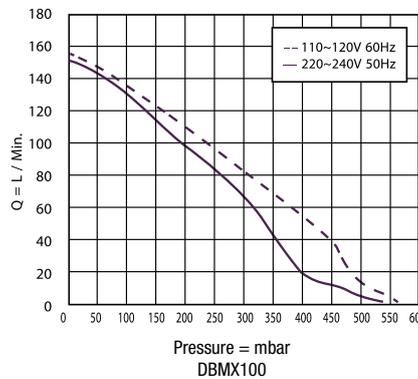
Model	Motor size	Voltage	Airflow (L/m)	Pressure (mbar)
DBMX 80	88W	230V	96	+180
DBMX 100	106W	230V	102	+180
DBMX 120	110W	230V	120	+200

HYDRAULIC DATA

Dimensions = mm



DBMX120



TREATMENT PRODUCTS: WASTEWATER

**G-MINT/BIO-F
BIO TST**

**NEW
PRODUCT**

- Natural
- Sustainable
- Pure Strain
- Earth Derived
- Non-Toxic
- Non-Pathogenic



GREASE MINT	G-MINT
<ul style="list-style-type: none"> • Designed to continually release powerful fat and scum digesting bacteria in pump stations, WWTPs, Septic Tanks, Grease-traps & Sewer Drains • Breaks down fat accumulations • Makes pump maintenance easier • Reducers odours in the collection system • Reducers grease trap pump out time frequency • Cost effective solution to your effluent discharge permits and maintenance problems 	

- Biological Control
- Reduces Contaminants
- Controls Odours
- Keeps drains flowing
- Liquefies Fat & Grease
- Cost Effective



BIO-FLUSH	BIO-F
<ul style="list-style-type: none"> • Live Culture Grease & Fat Digester for under-bench restaurant Fat Collection Systems & Grease-traps - 1 LTR • Excellent at keeping fat & grease liquified • Softens hardened fat build up • Helps to lower the levels of water born contaminants when used regularly • Helps to keep drain lines open and free flowing • Reduces bad odours from old fat and sediment • Removes slime build-up in refrigeration condensate lines & drip tray 	

- Regular Concentrate
- Biological Control
- Consistent Results
- Cost Effective
- Non-toxic
- Eliminates Foul Odours
- Maximizes Waste Digestion
- Effluent System Efficiency Maintainer



BIO-TRAK ST	BIO-TST
<ul style="list-style-type: none"> • Septic Tank Maintainer - 5 LTR • Live Bacterial Culture for regular treatment of Septic Tank Systems for houses & small commercial sites • Assists the Septic Systems to digest many types of waste quickly & efficiently • Gives System extra capacity to withstand sudden increased loadings & shock loadings • Excellent for increasing and maintaining the efficiency and cleaning capability of septic tank systems 	

TREATMENT PRODUCTS: WASTEWATER/WATER | **BIO/SLB/AQS**

- Super Concentrate
- Biological Control
- Fast Results
- Cost Effective
- Non toxic
- Eliminates foul odours
- Maximizes Waste Digestion
- Effluent System Problem Solver



BIO-TRAK SUPER	BIO-TS
<ul style="list-style-type: none"> • Septic Tank Treatment - 1 LTR • Specially prepared concentrate live bacterial culture for treating problem septic tanks • Excellent for fast recovery of overloaded systems or systems that have received sudden heavy shock loading, e.g. Sudden flow changes in holiday seasons • Assists in clearing blocked drainage fields and smelly drains • Safe non-toxic live culture that quickly digests household & kitchen waste • Biological nutrients & activators to maximize digestion. 	

- Long Lasting High Activity Rate
- Biological Control
- Cost Effective
- Non-toxic
- Eliminates Bad Odours
- Reduces Algae
- Fish Friendly
- Simple & Safe to use
- Digests Green Waste & Fertilizer run-off



SLUDGE BOMB	SLB
<ul style="list-style-type: none"> • Pond Sediment Treatment • Slow release live culture bacteria suitable for bio-degrading excess nutrients & pond sediment. • Breaks down grass clippings, leaves, and fertilizer run off • Helps to create a balanced aqua-system that is suitable for fish, animals and birdlife. • Works in conjunction with Aquaboost product to complete digestion cycle and bring beautiful clarity to the water 	

NEW PRODUCT

- Liquid Disinfection
- Natural process of oxidation
- Makes water safer
- Safe/tasteless & odourless
- Non-toxic



AQUA SAFE	AQS
<ul style="list-style-type: none"> • Tank/rainwater – treatment • Available in 1, 5 or 25 litre sizes • Uses natural process of oxidation to eliminate pathogens • Works on bacteria, viruses, mold, algae, fungi, and bio film • Lasts up to 2 months even when water is added to tank 	

SECTION 10

PORTABLE PUMPS



"Portable Pumps are designed for transferring water when required especially where no power supply is available."

HONDA PORTABLE PUMPS

FF WP SERIES

DESCRIPTION

- Portable Water Pumps designed for clean/dirty water transfer applications
- Other pump types also available (refer to next page)
- Petrol or Diesel pump options available

CONSTRUCTION/FEATURES

- Aluminium Pump Housings
- Cast Iron Impellers and Volutes
- Honda Engines made in Japan (other brands available if required)
- Self Priming to 8m
- Standard sizes are:- 25mm/50mm/80mm/100mm
- Electric Start Options on some models if required
- 12 month warranty

APPLICATIONS

- De-watering/Drainage Applications
- Civil Engineering/Building Sites
- Farms/Agricultural Applications
- Emptying Tanks, Troughs, Swimming Pools
- Irrigation/Sprinkler Systems
- Washdown
- General Water transfer
- Firefighting

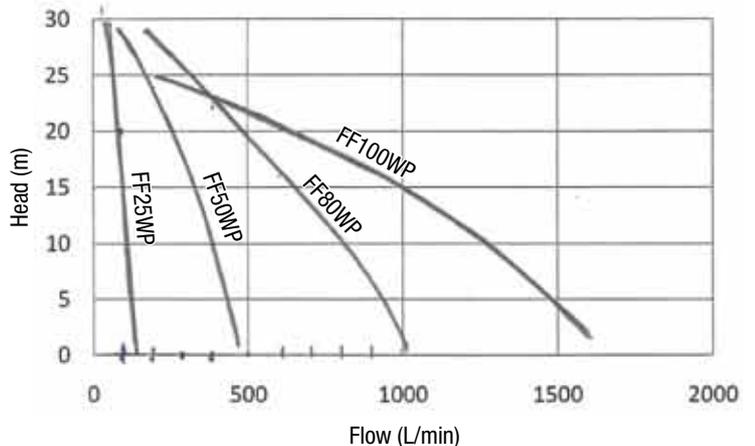


FF80WP HONDA PUMP

Model	Engine	HP	Inlet/Outlet Size
FF25WP	Honda	4-Stroke	25mm/25mm
FF50WP	Honda	4 HP	50mm/50mm
FF50WPE	Honda Electric Start	4 HP	50mm/50mm
FF80WP	Honda	5.5HP	80mm/80mm
FF80WPE	Honda Electric Start	5.5HP	80mm/80mm
FF100WP	Honda	8HP	100mm/100mm

Hose & Fittings available if required. Refer to section 10

HYDRAULIC DATA



HONDA PORTABLE PUMPS

GENERAL

We can also offer other portable pump types at competitive prices

HIGH PRESSURE PUMPS

For irrigation, fire fighting, washdown and uphill to tanks diaphragm type for gorse & crop spraying, and pumping water to high head



SEMI TRASH/TRASH PUMPS

- Semi trash for pumping water with solids up to 20mm
- Full trash for pumping water with solids and trash up to 31mm



FLEXI DRIVE PUMPS

Ideal for drainage and dewatering applications
Available in either 50mm or 80mm



DIAPHRAGM SLUDGE PUMPS

Ideal pumps for pumping muddy water containing sand and sludge etc



POLY PUMPS

For pumping corrosive liquids such as liquid fertiliser, salt water, and chemicals



FIREFIGHTING PUMPS

Single and twin impellor High Head pumps for firefighting, pumping up hills, and irrigation etc



SECTION II

HOSE & FITTINGS



"Hose & Fittings are designed for conveyance of water on pump suction & discharge lines"

SUCTION & DELIVERY HOSE/HOSE CLAMPS



FLEXIBLE: SUCTION/DELIVERY HOSE

SDH SERIES

- Flexible Suction & Delivery Hose
- Designed for water applications
- Will not kink flat - better water flow
- Designed for portable pump & similar applications
- Large range of sizes available from 19mm up to 200mm
- Available in General Purpose (green) or Oil Resistant (blue)



LAYFLAT: DELIVERY HOSE

LFH SERIES

- Layflat delivery hose
- Designed for water applications e.g. Irrigation, Water transfer etc
- Rolls up for easy handling & storage
- Designed for portable pump & similiar applications
- Large range of sizes available from 25mm to 200mm
- Available in either light duty (blue) or heavy duty (red)



S/S Hose Clip
(HCNPSS)



S/S Hose Clamp
(HCHDSS)

STAINLESS STEEL CLIPS/CLAMPS

HC SERIES

- Non-perforated S/S hose clips to suit hose diameters from 6mm up to 140mm
- S/S 51 Hose Clamps to suit hose diameters from 79mm up to 240mm
- Designed for general/multi-purpose hose applications in conjunction with pumps & associated equipment

PUMP SUCTION STRAINERS/FOOT VALVE SCREENS



STAINLESS STEEL STRAINER

SSS

- S/S Strainer c/w Male BSP Thread
- Designed to screw into BSP Female Non-Return Valves
- Designed for underwater fixed pipework applications e.g. Pressure Pumps
- Standard Sizes from 10mm up to 100mm

GALV STEEL STRAINER

GSS

- Galv Steel Strainer c/w Female BSP Thread
- Designed to screw into BSP Male Hose-tails etc (see below)
- Designed for portable pump or similar applications E.g. Civil/Construction
- Standard Sizes from 40mm up to 200mm

GALV HOSE TAIL

GHT

- Galv Hose Tail c/w Male BSP Thread
- Designed to screw into BSP female Fittings e.g. Galvanised Steel Strainers (see above)
- Designed for portable pump or similar applications
- Standard sizes from 15mm up to 200mm

PUMP/PLUMBING FITTINGS



PUMP COUPLINGS	PPC/NPC
<ul style="list-style-type: none"> PVC Quick Disconnect Pump Couplings (PPC) (Socket Only) Nylon Quick Disconnect Pump Couplings (NPC) (BSP threaded only) Standard Sizes from 20mm to 50mm 	



PVC SWEPT ELBOWS	PSE
<ul style="list-style-type: none"> Large radius (swept) PVC Elbows Available in 45° and 90° Bends Designed to reduce friction losses in pumping discharge lines. Eg Sewage pump stations Standard Sizes 32mm up to 100mm 	



PVC SWEPT WYE	PSY
<ul style="list-style-type: none"> PVC Swept Wye Junctions Designed to reduce friction losses. Eg Sewage pump stations Standard Sizes 50mm, 80mm, 100mm Other Sizes available on request 	

CAMLOCK COUPLINGS: ALUMINIUM/POLYPROP

AL/PP SERIES

DESCRIPTION

- A range of camlock couplings available for quick disconnection of hoses, when associated with pumping and associated equipment

CONSTRUCTION/FEATURES

- Available in either aluminium (AL) or polypropylene (PP) stainless steel (SS) or agricultural (AG) on request
- Robust construction for long life
- Watertight seal - Suitable for pump applications
- Standard sizes from 20mm up to 100mm (Larger ones available on request)

APPLICATIONS

- Water Pumping/Portable Pumps
- General Hose Applications
- Irrigation/Sprinkler Systems
- Plumbing & Drainage Applications
- De-watering/Well-pointing
- Civil Works/Construction Sites



Alum - Camlock



Poly - Camlock

Type	Camlock Type	Alum & PP	Sizes 20mm to 100mm
TYPE A	Female Adaptor	✓	✓
TYPE B	Male Coupler	✓	✓
TYPE C	Hosetail Coupler	✓	✓
TYPE D	Female Coupler	✓	✓
TYPE E	Hosetail Adaptor	✓	✓
TYPE F	Male Adaptor	✓	✓
TYPE DC	Dust Cap	✓	✓
TYPE DP	Dust Plug	✓	✓

Spare Parts also available

- Buna Camlock Washers
- Brass Lever Arms
- S/S Pins

Suction & Delivery Hoses available if required. Refer page 94

CAMLOCK COUPLINGS: ALUMINIUM/POLYPROP

AL/PP SERIES

ALUMINIUM CAMLOCK COUPLINGS (AL)



Female Adaptor
(Type A)



Male Coupler
(Type B)



Hosetail Coupler
(Type C)



Female Coupler
(Type D)



Hosetail Adaptor
(Type E)



Male Adaptor
(Type F)



Dust Cap
(Type DC)



Dust Plug
(Type DP)

POLYPROPYLENE CAMLOCK COUPLINGS (PP)



Female Adaptor
(Type A)



Male Coupler
(Type B)



Hosetail Coupler
(Type C)



Female Coupler
(Type D)



Hosetail Adaptor
(Type E)



Male Adaptor
(Type F)



Dust Cap
(Type DC)



Dust Plug
(Type DP)

SECTION 12

PE PIPE & FITTINGS



"PE Pipe & Fittings are designed for conveyance of water, wastewater, effluent, greywater or sewage as required."

METRIC OD COMPRESSION FITTINGS

EL SERIES

DESCRIPTION

- Range of PE Compression Fittings for Water & Air Applications
- Designed to suit metric MDPE pipe manufactured to NZS4130
- Range – large range of fittings available: metric OD Series from 20mm OD up to 110mm OD

CONSTRUCTION/FEATURES

- Body, Cap, Insert – Polypropylene, copolymer PP.B.
- Split Ring: Polyacetal
- O-ring: Elastomeric rubber NBR70
- Reinforcing Ring: Stainless steel
- Fittings comply with BS 6920 : 2000 for use in potable water
- Fittings suitable for exposure to U.V. and give excellent chemical resistance
- Sizes: 20mm OD to 63mm OD – 16 Bar @ 20°C
- Sizes: 75mm OD to 110mm OD – 10 Bar @ 20°C

APPLICATIONS

- Water/portable water supply systems
- Irrigation/plumbing systems
- Effluent/sewage pumping stations
- Stormwater pumping stations
- Compressed air systems
- Industrial - slurries, chemicals etc



Model	Fitting Type	20mm OD to 110mm OD
ELMC	Male Coupler	✓
ELFC	Female Coupler	✓
ELEP	End Plug	✓
ELSC	Straight Coupler	✓
ELRC	Reducing Coupler	✓
ELE	90° Elbow	✓
ELME	Male Elbow	✓
ELFE	Female Elbow	✓
ELT	Tee	✓
ELRT	Reducing Tee	✓
ELFT	Female Tee	✓
ELMT	Male Tee	✓
ELSFC	Slide-Fix Coupler	✓
ELBE	Bracket Elbow	20/25
ELTE	Take-off Elbow	25/32
ELACW	Cap Wrench	63 to 110mm

SPARE PARTS ALSO AVAILABLE

- O-Ring Gaskets
- Cap Nuts
- Split Rings
- Thrust Rings

MDPE Pipe available to suit above fittings
- Refer to page 100

METRIC OD COMPRESSION FITTINGS

EL SERIES



Male Coupler
(ELMC)



Female Coupler
(ELFC)



End Plug
(ELEP)



Straight Coupler
(ELSC)



Reducing Coupler
(ELRC)



90° Elbow
(ELE)



Male Elbow
(ELME)



Female Elbow
(ELFE)



Tee
(ELT)



Reducing Tee
(ELRT)



Female Tee
(ELFT)



Male Tee
(ELMT)



Slide-Fix Coupler
(ELSFC)



Bracket Elbow
(ELBE)



Take-Off Elbow
(ELTE)



Cap Wrench
(ELACW)

POLYETHYLENE PIPE

MDPE

DESCRIPTION

- MDPE Black Effluent Pipe designed for effluent & sewage discharge applications

CONSTRUCTION/FEATURES

- MDPE (medium density polyethylene)
- Standard sizes: 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm
- Standard pressure ratings 6.3 Bar and 8 Bar
- Standard coil lengths: 25m, 50m, 100m
- Saves installation time on long discharge pipelines
- Less pipe joints - therefore eliminates likelihood of leaking pipework

APPLICATIONS

- Effluent/Sewage Pumping Stations
- Stormwater Pumping Stations
- Irrigation/Plumbing Systems
- Industrial Slurries
- General Water Reticulation

NB: We do not recommend using blue MDPE pipe for effluent and sewage applications, as blue pipe is normally the designated colour for potable water supply pipe.

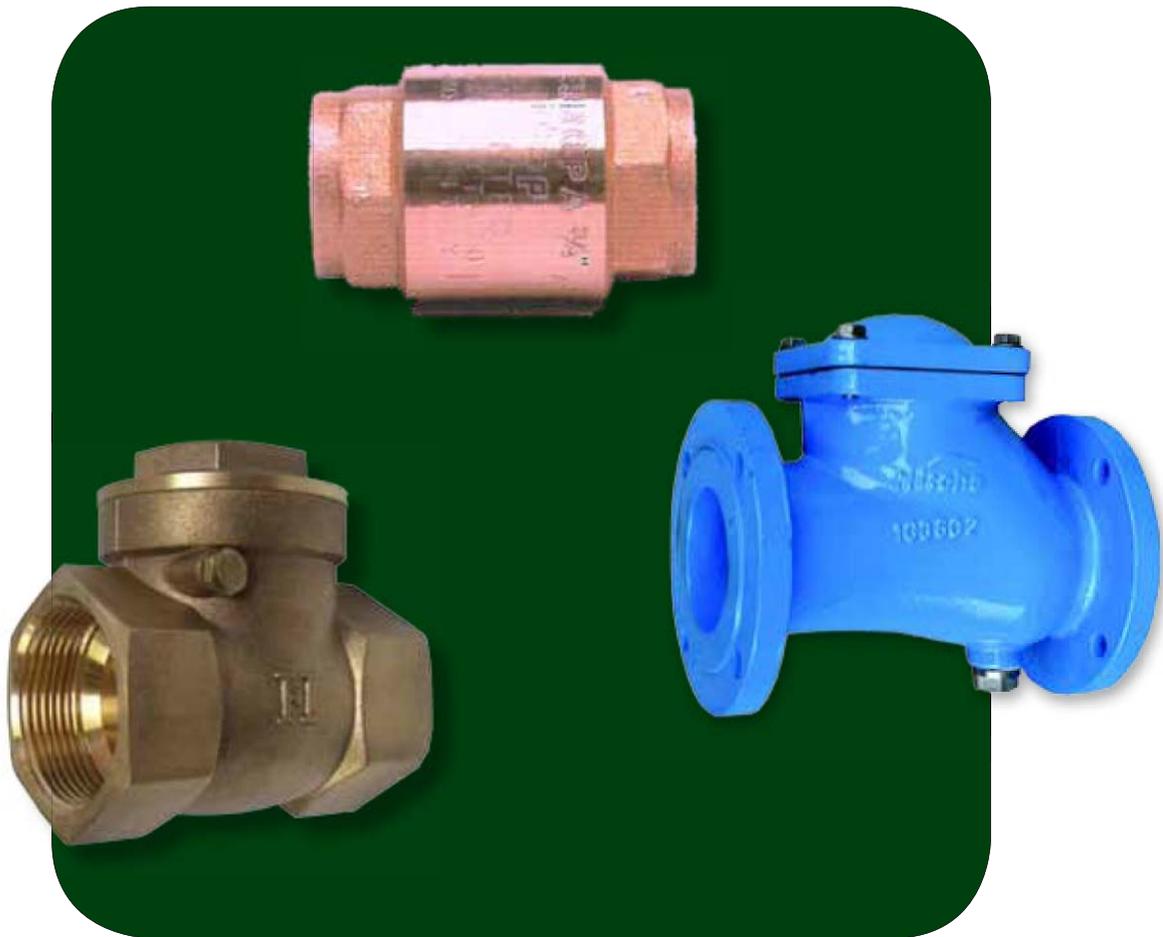


MDPE EFFLUENT PIPE

Size	PN6.3	PN8
32mm OD	✓	✓
40mm OD	✓	✓
50mm OD	✓	✓
63mm OD	✓	✓
75mm OD		✓
90mm OD		✓
110mm OD		✓

Pipe Fittings available if required to suit above fittings. Refer to page 98, 99.

SECTION 13 VALVES



"These valves are designed for water, wastewater, and sewage applications. Valves types include Gate Valves, Isolating Valves, Non-Return Valves with others available on request."

GENERAL PLUMBING VALVES

NON-RETURN



BRASS SPRING CHECK VALVES

BSV

- Brass Spring Check Valves for clean water applications
- Brass Plunger
- Nitrile Rubber Seat
- Stainless steel Spring
- Max. working temperature 110°C
- Standard sizes from 10mm to 100mm



BRASS SWING CHECK VALVES

BCV

- Brass Full Flow Swing Check Valve for dirty water applications with small solids
- BSP Ends to suit all pipework types
- Fully accessible for removal of blockages or replacement of ports
- Robust brass construction
- Standard sizes from 15mm to 100mm



PVC SWING CHECK VALVE

PSV

- PVC Full Flow Swing Check Valve for dirty water applications with small solids
- Glued socket ends for quick installation
- Available with spring or swing check valve
- Ideally suited to a wide range of applications
- Standard Sizes from 15mm to 150mm

GENERAL PLUMBING VALVES



DOUBLE UNION BALL VALVES | **FIP**

- PVC Double Union Full Flow Ball Valve
- Incorporates Safe Block design and includes fully adjustable removable seats
- Designed for water, effluent, and sewage applications
- Balls are made from PE – PTFE Technopolymer, EPDM O-Rings, PVC Valve Body
- Either BSP or Socket Ends Available
- Standard Sizes from 15mm to 100mm



SPRING CHECK VALVE | **ACV**

- Spring loaded inline check valve
- Non-corrosive Materials
- Body in Glass Reinforced Nylon
- Spring in 316 Stainless steel
- Robust Design
- High Flow – designed for clean water
- Horizontal or Vertical Configuration
- Standard Sizes from 15mm to 50mm



FOOT VALVE SCREEN | **ACVS**

- Non-corrosive Materials – Glass Fibre Reinforced Nylon
- Male BSP Threads
- Designed to fit above spring check valve, or any other check valves
- Designed for Clean Water Applications
- Standard Sizes from 20mm to 50mm

GENERAL PLUMBING VALVES

HI-FLO SERIES



FULL FLOW BALL VALVE

HBV

- Versatile Full Flow Ball Valve
- Lightweight & Strong
- Manufactured from non-corrosive, UV stabilized materials
- Potable water approved - AS/NZS 4020
- Available in BSP, T NPT ACME Threads
- Removable Handle for security etc
- Positive 'click' smooth open/close action
- High Pressure 16 Bar Rated
- Standard Sizes from 15mm to 50mm



CHECK VALVE

HCV

- High performance, Cost Effective Check Valve
- Strong Compact Design
- Delivers high volumes of water quickly with unrestricted full flow
- Screw cap for easy access for in-line servicing
- No poppet valve to wear or jam
- Interchangeable diaphragm and spring with foot valve
- Standard sizes from 25mm to 63mm



FOOT VALVE

HFV

- High performance, Cost Effective Foot Valve
- Delivers high volumes of water quickly with unrestricted flow
- Efficiency in excess of 95% of many other valve types
- Unique design incorporates a self-cleansing diaphragm
- Operates via Pressure Differential at any angle or position
- No poppet valve to wear or jam
- Interchangeable diaphragm and spring with check valve
- Standard sizes from 25mm to 63mm

SOLENOID VALVES

SV SERIES

DESCRIPTION

- Economical, general purpose industrial solenoid valves c/w encapsulated coil
- Designed to isolate water supply in the event of power failure or product malfunction etc.

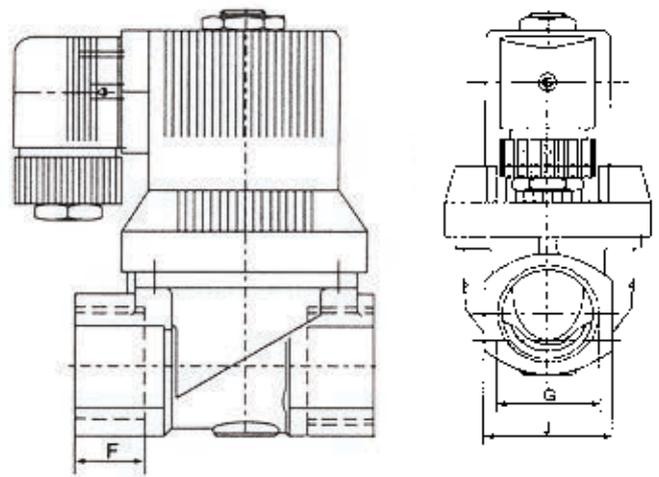
CONSTRUCTION/FEATURES

- Brass or Stainless steel Bodies
- NBR, EPDM, FKM Diaphragms
- Fluid Temp - 10°C to 80°C'
- Ambient Temp - Max 55°C
- Available in normally closed or normally open configuration
- Standard sizes from 10mm to 40mm
- 15mm-25mm Rated 0.3 - 10 Bar
- Available in 12VAC, 24VAC, 240VAC, 12VDC, 24VDC
- IP65 Protection

APPLICATIONS

- Sewage & Wastewater Pump Stations
- Sani/Grey-Water Pump Systems
- Mechanical Services
- Fluid Control/Irrigation
- Air/Inert Gases/Light Oils

Model	Size	Normally Closed	Normally Open
SV3515	15mm	✓	
SV3520	20mm	✓	
SV3525	25mm	✓	
SV3532	32mm	✓	
SV3540	40mm	✓	
SV3550	50mm	✓	
SV3615	15mm		✓
SV3620	20mm		✓
SV3625	25mm		✓
SV3632	32mm		✓
SV3640	40mm		✓
SV3650	50mm		✓



SOLENOID VALVES: PULSE LATCHING

D80 SERIES

DESCRIPTION

- 12VDC Pulse Latching Solenoid in 20mm & 25mm

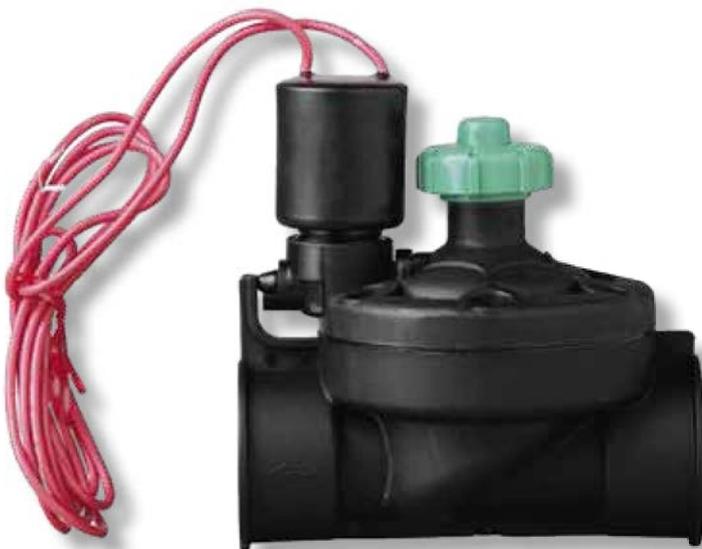
CONSTRUCTION/FEATURES

- Durable, corrosion free materials
- Simple, reliable and economical
- Unique clog-free labyrinth inlet of the activation water
- Operation at wide range of flow rates, from near zero to the maximal flow
- Internal bleed manual override opening
- Larger sizes available on request
- 0.5 - 12 Bar pressure rated
- Suitable for use on our Fastflo Pump Solenoid option Control Boxes (US-SOL/GRF-SOL)
- Unique operation:
 - 1 pulse to open
 - 1 pulse to close
 - Non powered

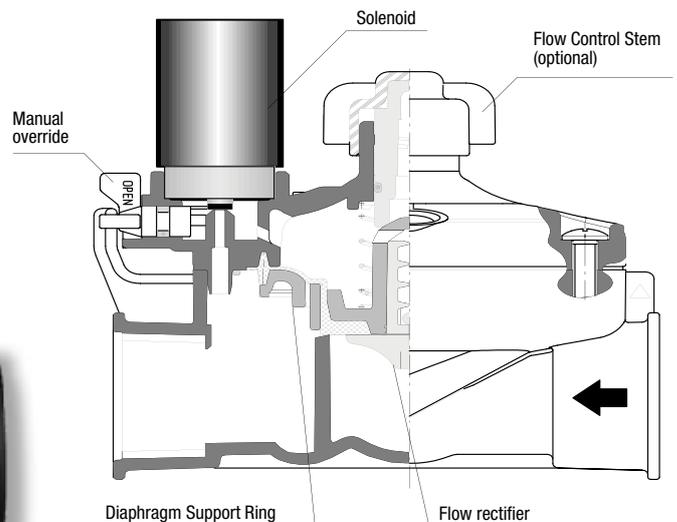
APPLICATIONS

- General Plumbing Applications
- Clean Water Up To 60°C
- Gardens, Parks, Golf Courses
- Irrigation/Sprinkler Systems
- Agricultural/Green Houses
- Filtration Systems
- Under Sink Sullage Chambers

Model	Size	24V Normally Closed
COM-30092	20mm	Brass
COM-30093	20mm	Plastic
COM-30094	25mm	Plastic



COM-30093 (shown)



CAST IRON NON RETURN VALVES: BALL CHECK

FF BCV SERIES

DESCRIPTION

- Full-flow ball check non-return valves designed for handling sewage & wastewater products
- Larger bore/full flow to eliminate blockages
- Available in BSP or Flanged configurations.

CONSTRUCTION/FEATURES

- Cast Iron Construction/Epoxy coated housing
- Nitrile coated ball/Stainless Steel fixings
- Max working pressure PN16
- Temp range 10-80°C
- Maximum back pressure for seating 0.3-0.5 bar
- Face to face dimension for flanged type EN-558-1 series 48 (DIN3202 F6)
- Flanged to AS4087 (Table D)
- 12 month warranty

APPLICATIONS

- Water, Sewage, Wastewater products
- Pumping Stations
- Lift Pits/Effluent Pits
- Domestic/Residential Applications
- Commercial/Municipal/Civil Applications
- Industrial Products/Abattoirs
- Hot Water/Sticky Fluids
- Stormwater/Flood water

Model	BSP	Flanged - Table D	Solids Size	Outlet size
FF BCV32	✓		22mm	32mm
FF BCV50	✓	✓	40mm	50mm
FF BCV65	✓	✓	55mm	65mm
FF BCV80		✓	70mm	80mm
FF BCV100		✓	90mm	100mm
FF BCV150		✓	140mm	150mm

Larger Sizes available on request (up to 300mm)
Table Gaskets available for all valve sizes

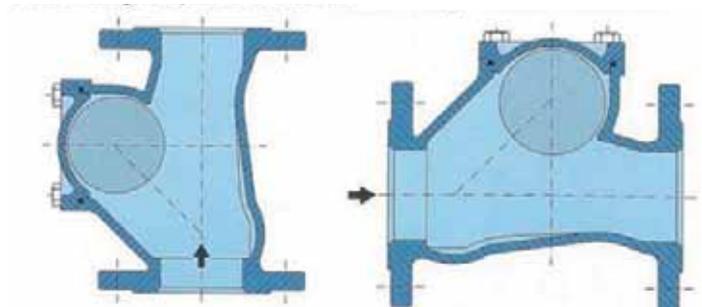
INSTALLATION OPTIONS



BSP



FLANGED



VERTICAL FITTING

HORIZONTAL FITTING

CAST IRON GATE VALVES: RESILIENT SEATED

FF RSG-V SERIES

DESCRIPTION

- Cast Iron Resilient Seated Gate Valves designed for water, wastewater and sewage applications.
- Large bore/full-flow to eliminate blockages

CONSTRUCTION/FEATURES

- Cast Iron Construction/Epoxy coated housing
- Nitrile (NBR) Coated wedges/gates
- Max working pressure PN16
- Standards – BS5163 AS/NZS2368
- Flanged to AS4087 (Table D)
- 431 or 316 S/S spindle options
- Counter clockwise to close
- Hand wheel available as option
- 12 month warranty



APPLICATIONS

- Water, Sewage, Wastewater products
- Pumping Stations
- Lift/Effluent Pits
- Domestic/Residential Applications
- Commercial/Municipal/Civil Applications
- Industrial Products/Abattoirs
- Municipal

Model	BSP	Flanged - Table D	Solids Size	Outlet size
FF RSGV50	✗	✓	40mm	50mm
FF RSGV80	✗	✓	70mm	80mm
FF RSGV100	✗	✓	90mm	100mm
FF RSGV150	✗	✓	140mm	150mm

Larger Sizes available on request (up to 600mm)
Table Gaskets available for all valve sizes

Large Range of Cast Iron Valves available including:

- **Butterfly Valves**
- **Knife Gate Valves**
- **Diaphragm Valves**
- **Air Release Valves**

SECTION 14

RAIN/WATER TANKS & HARVESTING SYSTEMS



"Rain/Water Tanks & Harvesting Systems are designed for the collection & re-use or removal of water as required."

PE WATER TANKS (SMALL) WT SERIES

"Save Water From A Rainy Day"

DESCRIPTION

Designed for collection of rainwater in urban or rural areas, or storage of water in plumbing systems

CONSTRUCTION/FEATURES

- Rotationally molded PE Construction
- UV stabilised for outdoor use
- 3 standard sizes include 270 Ltr, 550 Ltr, 1100 Ltr (larger sizes available on request)
- Easy access swivel lids
- Built in garden hose outlet
- Suitable for drinking water
- 10 year warranty

APPLICATIONS

- Domestic Dwellings/Household Use
- Rural/Farm Buildings
- Cottages/Granny Flats/Beach Houses
- Garden/Irrigation Systems
- Rainwater Harvesting Systems
- Roof/Ceiling tanks/Plumbing Systems
- Emergency storage for Civil Relief Applications
- Commercial/Offices
- Laundries/Bathrooms/Ensuites
- Home Stays/Farm Stays



WT550 Tank

Model	Size	Capacity
WT270	710mm D x 750mm H	270 Ltrs
WT550	890mm D x 990mm H	550 Ltrs
WT1100	1330mm D x 1000mm H	1100 Ltrs

- Larger sizes available on request
- First flush divertors also available (refer to page 111)



RANGE OF COLOURS TO SUIT YOUR HOUSE OR WATER TANK.

WATER TANK FIRST FLUSH DIVERTERS | **WTFFD SERIES**

"Save Water From A Rainy Day"

DESCRIPTION

- The First Flush Diverter is designed to trap the leaves and debris from roofs & gutters
- When full the diverter is automatically closed and clean water is diverted into the storage tank

CONSTRUCTION/FEATURES

- Polyethylene construction
- UV stabilised for outdoor use
- Effective simple solution for clean water - suits both plastic and concrete tanks
- 2 sizes available - standard or large to suit roof area and tank capacity
- Easy to install - suitable for overhead or underground down pipe connections
- Easy maintenance - no components to wear out, break, or clog up

APPLICATIONS

- Domestic Dwellings/Household Use
- Rural/Farm Buildings
- Cottages/Granny Flats/Beach Houses
- Garden/Irrigation Systems
- Rainwater Harvesting Systems
- Home Stays/Farm Stays
- Commercial/Offices
- Laundries/Bathrooms/Ensuites

Model	Size	Capacity
WTFFDS	230mm D x 1250mm H	45 Ltr
WTFFDL	350mm D x 1900mm H	144 Ltr

- PE water tanks also available (refer to page 110)



WTFFDS

WTFFDL



RANGE OF COLOURS TO SUIT YOUR HOUSE OR WATER TANK.

MODULAR TANK SYSTEM

CITY TANK

"Save Water From A Rainy Day"

DESCRIPTION

- PE Modular Rainwater Tank System designed for collection of rainwater in urban areas
- Tanks can be added to as required (No limit to number of tanks)

CONSTRUCTION/FEATURES

- Polyethylene ribbed construction
- Comes in 1000 Litre Modules that can be interconnected into a 2 in 1 or 3 in 1 package
- Flexible capacities from 1000 Litre to 5000 Litre +
- By far the most slim line tank available – at 750mm wide x 2100mm high
- The only tank package that includes an integral pump housing – (this is an optional extra if required)
- Pressure/Booster Pump available if required
- Available in a range of tank colours

APPLICATIONS

- Domestic Dwellings/Household Use
- Commercial/Offices
- Cottages/Granny Flats/Beach Houses
- Garden/Laundry/Toilets
- Rainwater Harvesting Systems
- Emergency Storage For Civil Relief Applications

Model	Description
CT1	1 x Tank only - No pump unit
CT1-P	1 x Tank only c/w pump unit complete
CT2	2 x Tanks - No pump unit complete
CT2-P	2 x Tanks c/w pump unit
CT3	3 x Tanks - No pump unit
CT3-P	3 x Tanks c/w pump unit
CTPP	Pressure Pump & Pipework
CTPH	PE Pump Housing
CTKC	Tank Connection Kit
HT20	20mm Brass Hose Tap
Rain/Main Water Controllers available. Refer to page 98-99	



CT3-P



Pump
(Optional)



Pump Housing Unit
(Optional)

UNDER GROUND PE RETENTION/DETENTION TANKS

EI SERIES

DESCRIPTION

- Horizontal PE exterior-ribbed tanks designed for below-ground burial for stormwater retention or detention applications
- Tanks include access riser for entry if required

CONSTRUCTION/FEATURES

- Polyethylene ribbed construction
- Suitable to be installed under driveways (conditions apply)
- Multiple inlet/outlet panels (at ends of tank)
- Tested & complies with AS/NZ25661: 1998
- Standard Tank Capacities from 1800 Litre to 9600 Litres
- Larger custom made units available on request
- Pumps can be added if required

APPLICATIONS

- Underground retention/detention of stormwater
- Domestic/Residential applications
- Commercial/Civil Applications
- Rainwater harvesting for household use
- Emergency storage for civil relief applications
- Kindergartens
- Schools/Colleges

Model	Tank Size (B series)	Capacity
E1 1800	1280mm dia x 1720mm long	1800 Litre
E1 3660	1280mm dia x 3400mm long	3660 Litre
E1 4800	1280mm dia x 4400mm long	4800 Litre
E1 6600	1280mm dia x 6000mm long	6600 Litre
E1 7800	1280mm dia x 6970mm long	7800 Litre
E1 9600	1200mm dia x 8500mm long	9600 Litre

- Underground tanks can be installed in series to increase capacity
- Larger tanks available up to 30,000 Litres available on request



E1 - 3660

Lids - These are ordered separately

Heavy duty, tamper proof lid. Suitable for very light traffic (Cast Iron lids should be used for heavy traffic)



RAIN/MAINS WATER CONTROLLER

FPC-127 SERIES

DESCRIPTION

- Designed to provide a continuous supply of water for a variety of uses, whilst prioritising and maximizing usage of rain water.

CONSTRUCTION/FEATURES

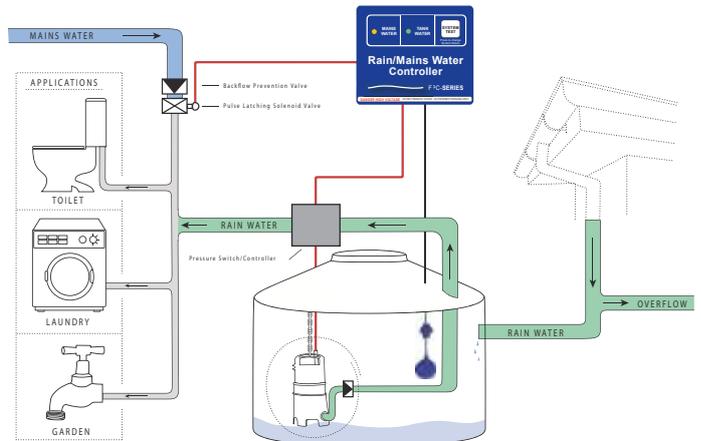
- Compatible with an entire range of high flow, low 'head loss' solenoid valves
- No continuously actuated solenoid valves
- Pump Protection Feature - If Rain Water is depleted, switching of pump output isolates power to pressure pump system
- Test Button - Provides change of system status, including pump and valve switching
- Includes pulse latching solenoid valve & 10m Float Switch
- LED's indicate 'mains water', 'rainwater'
- Available as a complete package including pump & housing - Refer page

APPLICATIONS

- Domestic dwellings
- Commercial complexes
- Industrial complexes
- Irrigation systems
- Rainwater Harvesting

Code	Model	Voltage
FPC-12721	Controller 1 PH (Quick Plug System)	230V
FPC-12724	Controller 1 PH (Hard Wired Version)	230V
FPC-12725	Controller 3 PH (Hard Wired Version)	400V

Above & below-ground water tanks available.
See pages 110 - 113



RAINS/MAINS WATER CONTROLLER

RM SERIES

DESCRIPTION

- Automatic Rain/Mains Control System c/w in-built pump all housed in custom PE Housing
- The unique electronic features make it the smartest unit available.

CONSTRUCTION/FEATURES

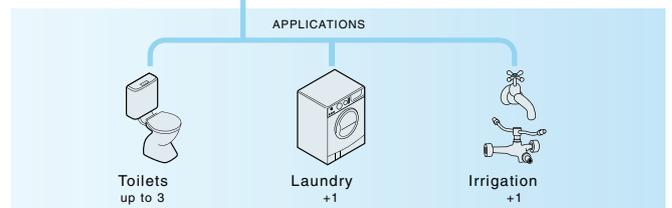
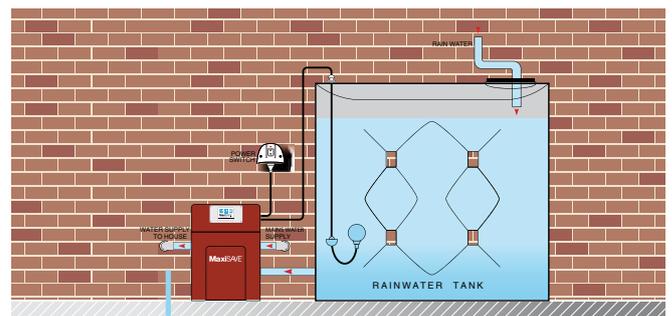
- P.E Pump Housing available in a range of colours to match your water tank
- Easy access of pump & control valves in case of maintenance
- Allows tank water to be used for water supply in preference to mains water – will automatically switch from one to the other as required
- 4 pump options available
- Allows for high water demand
- Saves water & reduces water expenses
- Seperate 20mm Solenoid plumbed with Valve & Tee available if required.
- Includes pulse latching solenoid & 10m float switch

APPLICATIONS

- Domestic Dwellings
- Commercial complexes
- Industrial complexes
- Irrigation systems
- Rainwater Harvesting

Model	Description
RM2000	Rain/Mains System with Pre-plumbed DHJ800 Automatic Pressure Pump
RM4000	Rain/Mains System with Pre-plumbed HCM2-40 Automatic Multistage Pressure Pump
RM4260	Rain/Mains System with Pre-plumbed HCM2-60 Automatic Multistage Pressure Pump
RM4460	Rain/Mains System with Pre-plumbed HCM4-60 Automatic Multistage Pressure Pump

Refer to DHJ & HCM Series Pumps - Section 2



TYPICAL INSTALLATION

SECTION 15 ELECTRICAL/CONTROL SYSTEMS



"Electrical / Control Systems are designed to provide fully automatic operation of pumping systems as required."

BASIC PUMP CONTROLLERS



PRESSURE SWITCH - STANDARD

FSG-2

- Designed for pumping applications
- Standard Pressure Range 20 – 65 PSI
- Higher Pressure Options up to 350 PSI
- Fluid Temperatures 0 - 70°C
- ¼" BSP Female Fluid Connection
- 6 Bar & 12 Bar Options
- Single & 3 Phase Options



PRESSURE SWITCH - LOSS OF PRIME

FSG-2 LOP

- Designed for pumping applications
- Standard Pressure Range up to 85 PSI
- Operates as normal but also turns off if pressure falls below 15 PSI
- Designed to protect pumps from running dry

NEW MODEL



PRESS CONTROL (ELECTRONIC)

PC

- Designed for pumping applications
- Automatically starts & stops pump when tap opens and closes
- Provides constant flow & run dry protection
- 1.5 Bar (PC10) 2.5 Bar Starting Pressure options (PC12)
- Min. Pump Pressure: 35 PSI (2.5 Bar)
- Max. Pump Pressure: 145 PSI (10 Bar)
- Max. Water Temp: 65°C/IP65 Protection
- 25mm Inlet / Outlet Connection

PUMP / MOTOR STARTERS & CABLE



DOL STARTER - STANDARD

LE1

- Hard Wearing Plastic Housing/Enclosure
- Includes contactor, overload, start & stop push button
- Ideal Starter box for all pump types
(eg. Contractor Submersible Pumps - Refer page 34)
- Available in Single & Three Phase options

DOL STARTER - DELUXE

159

- Robust powdercoated metal Housing/Enclosure
- Auto/off/manual switching
- Low voltage circuitry for input switches
- Contactor & thermal overload motor protection
- Available in Single & Three Phase options

POWER CABLE & PLUGS

CAB/PDL

CABLE

- Heavy duty submersible cable (neoprene)
- 3 core & 4 core types available from 1.5mm²

PLUGS

- Single & Three Phase IP67 plugs
- Suitable for all pump types where applicable

UNDERSINK/SOLOLIFT CONTROLLERS/ALARMS

US/GRF SERIES

DESCRIPTION

- US Models - These are designed for Undersink Sullage Pump Stations that require High Level Alarm Indication and/or require shut off solenoid.
- GRF - models - These are designed for Grundfos Sololift Units as per the above requirements
- Unique Pulse latching Solenoid requires a pulse to open and a pulse to close. Normal state is non-powered.

CONSTRUCTION/FEATURES

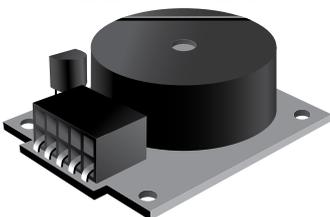
- Poly Enclosures
- Power on & Alarm LED
- Mute Button
- Low Voltage Controls (12VDC)
- Water Supply Shut Off Solenoid & Dishwasher Interlock options available



Model US-HL
(for Undersink Pump-out units)



Model US-SOL/GRF-SOL
(for Undersink Pump-out units with Solenoid Valve)

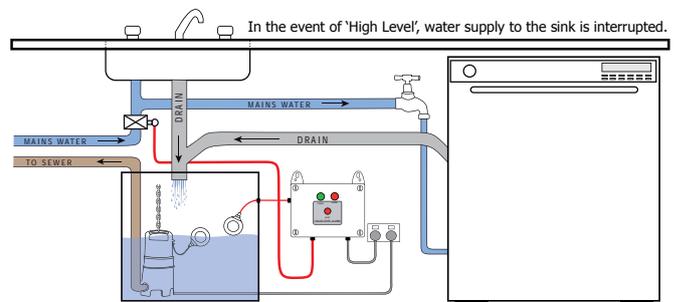


Model GRF-HL
(for Sololift Sani pump-out units)

APPLICATIONS

- Undersink Pump Stations/Sullage Chambers
- Sololift/Sani pump-out units
- Kitchens/Laundry Fixtures
- Domestic/Commercial
- Refer to Undersink Pump Stations on pages 58, 59
- Refer to Sani Pump-out Units on pages 60, 61

Model	Voltage	Description
US-HL/CONT	230VAC	High Level Alarm c/w Float Switch
US-SOL	230VAC	High Level Alarm c/w Float Switch & Solenoid Valve
US / DISH	230VAC	High Level Alarm c/w Float Switch & Dishwasher outlet
US-SOL / DISH	230VAC	High Level Alarm c/w Float Switch, Solenoid Valve & Dishwasher outlet
GRF-HL	230VAC	High Level Alarm only for Sololift
GRF-SOL	230VAC	High Level Alarm c/w Solenoid for Sololift



TYPICAL UNDERSINK INSTALLATION

STANDARD PUMP STATION CONTROLLERS/ALARMS **CB-SERIES**

DESCRIPTION

- Pump Station Control Panel incorporating pump overload and High Level Alarm Indication suited to pump station installations
- Standard Controller used in domestic pump stations (eg Mini/1000/1500/2000 models)
- Two options available - either standard or deluxe

CONSTRUCTION/FEATURES

- Poly Enclosure
- Level Alarm Indication (Keypad)
- Connections for Pump & High Level Float
- Provision for Remote Alarm Plate
- Std or Deluxe Options (for Deluxe option, call us for more details eg Red strobe light)

APPLICATIONS

- Sewage Pumps/Pumping Stations
- Pressure Sewer Systems/Pumping Stations
- Stormwater Pumps/Pumping Stations
- Septic Tank Systems
- Refer to Sewage & Stormwater Pump Stations on pages 65-69, 71, 73

Model	Voltage	Includes
CB-STD (Controller)	230 VAC (10A MAX)	Standard Control Box c/w HL Float
CB-DELUXE (Controller)	230VAC 400VAC	Deluxe Control Box c/w Control Float/HL Float (To be used with manual pumps over 10Amp)
ALP-STD	12VDC	Standard Alarm Plate
SW-HL	230VAC	HL Float/Alarm Plate



ALARM PLATE (ALP-STD)



STD CONTROLLER (Model CB-STD)



CB-DELUXE

SINGLE PUMP CONTROLLERS

FPC-1500 SERIES

DESCRIPTION

- The new FPC-1500-Advanced Single Pump Controller further enhances the “One controller does it all” concept, while at the same time, makes “simplicity of operation” even more user friendly. Although many unique features of the controller are common to all pumping applications, a number of “system specific” optional features, can be enabled or disabled at the flick of a switch.

CONSTRUCTION/FEATURES

- Circuit Breaker Protected Low voltage Control
- Lockable Main Isolater
- Visual and Audible Alarms c/w Mute Switch
- IP65 Weather Proof, Powder Coated Metal Enclosures
- LED Indicator Lights for System Status indication

APPLICATIONS

- Sewage Pumps/Pumping Stations
- Stormwater Pumps/Pumping Stations
- Constant Pressure Systems/Water Booster Sets
- Hot Water Circulation Systems
- Transfer Pumping Systems

Model	Voltage	Controls Mounting
FPC-15002	230V	External
FPC-15005	230V	Inner Door
FPC-15006	400V	External
FPC-15007	400V	Inner Door

Overload Sizes
AA=1.6-2.5A O/L, A=2.5-4A, B=4-6A, C=7-10A, D=9-13A, E=12-18A Order Code example: FPC-15002-B



FPC 15002 & FPC 15006
(External)



FPC 15005 & FPC 15007
(Inner Door)

DUAL PUMP CONTROLLERS

FPC-300 SERIES

DESCRIPTION

- The new FPC-300-Advanced Dual Pump Controller further enhances the “One controller does it all” concept, while at the same time, makes “simplicity of operation” even more user friendly. Although many unique features of the controller are common to all pumping applications, many “system specific” optional features, can be enabled or disabled at the flick of a switch

CONSTRUCTION/FEATURES

- Advanced Micro processor control module
- Key pad incorporating Auto/Off/Manual Operation of both pumps and status LEDs
- Thermal Overload Protection of Pump Motors
- IP65 Weather Proof, Powder Coated Metal Enclosure with removable gland plate
- Lockable Main Isolator
- Audio/Visual Alarms c/w Mute Switch

APPLICATIONS

- Sewage Pumps/Pumping Stations (Refer page 70)
- Stormwater Pumps/Pumping Stations
- Constant Pressure Systems/Water Booster Sets
- Hot Water Circulation Systems
- Transfer Pumping Systems

Model	Voltage	Controls Mounting
FPC-30010	230V	External
FPC-30020	230V	Inner Door
FPC-30030	400V	External
FPC-30040	400V	Inner Door

Overload Sizes
 Note: AA=1.6-2.5A O/L, A=2.5-4A, B=4-6A, C=7-10A, D=9-13A, E=12-18A Order Code example: FPC-30010-A



FPC 30020 & 30040
(Inner Door)



FPC 30010 & 30030
(External)

PUMP STATION CONTROLLERS - AUXILLARY EQUIPMENT

BMS/RSI/SMS

DESCRIPTION

- External alarm equipment to provide remote alarms as required
- Options include BMS, RSI and SMS management systems

CONSTRUCTION/FEATURES

BMS - (Building Management System)

- Interface for SPC and DPC controllers
- 4 Output Relays - Pump 1, Pump 2, High Level Faults, Power Fail

RSI - (Remote Status Indicator)

- For SPC and DPC Controllers
- Indication of power on, high level and pump faults
- Mute button, built in buzzer

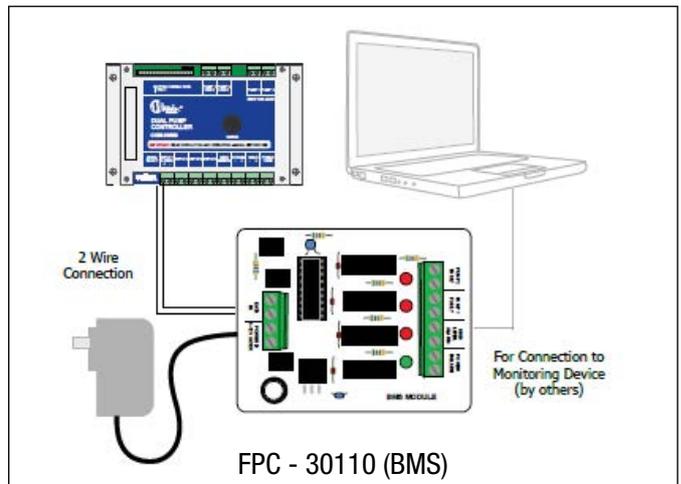
SMS - (Smart Message System) - Alarm Sender

- Send text messages when pump station fault,
- 4 output relays
- Up to 5 separate cell phone numbers to send descriptive messages to
- Dual and single pump controller compatible

APPLICATIONS

- Sewage Pumps/Pumping Stations
- Stormwater Pumps/Pumping Stations
- Constant Pressure Pumps/Pumping Stations
- Hot Water Circulation Systems
- Transfer Pumping Systems

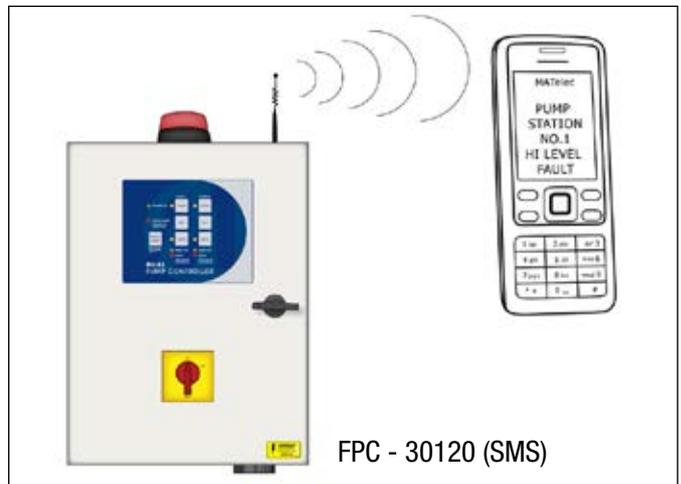
Model	Description
FPC-30110	BMS Module
FPC-15100	Remote Status - Single Pump
FPC-30100	Remote Status - Dual Pump
FPC-30120	SMS Alarm Sender



FPC - 15100



FPC - 30100



LIQUID LEVEL ALARM PACKAGES

FPC-126 SERIES

DESCRIPTION

- The Liquid Level Alarms are designed to provide warning indication when storage (Effluent, Grey Water, Rain Water etc) tank is either empty or full. Warning indication is determined by a float switch. Warnings are; Audio (buzzer), Visual (Flashing LED & Flashing Strobe on Deluxe Model) and clean contacts (for connection of an auxiliary alarm).
- Designed to stand alone HL alarm indication

CONSTRUCTION/FEATURES

- The Buzzer is muted via a button
- Pump output
- Electronics can be installed up to 50m from tank being monitored
- Low voltage controls float
- Includes 10m Float Switch

APPLICATIONS

- Effluent Systems
- Grey Water Systems
- Sewage Systems
- Rainwater/Harvesting Systems

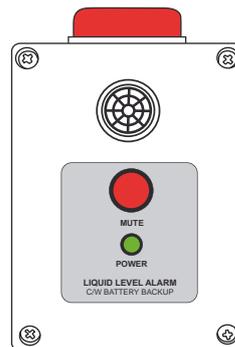
Model	Description	Voltage	Indication
FPC-12650 K	Standard	240VAC Power 12VDC Controls	LED/Buzzer - Power on - Alarm
FPC-12651 K	Deluxe	240VAC Power 12VDC Controls	Strobe/Buzzer LED - Power on - Alarm
FPC-12656 K	Flush Mount	240VAC Power 12VDC Controls	Power on Level Alert - Buzzer
FPC-12657 K	Battery Backup	240VAC Power 12VDC Controls	Power on Strobe/ Buzzer



FPC-12650
Liquid Level Alarm - Standard
Dimensions - 85mm (h) x 55mm (d) x 125mm (w)



FPC-12651
Liquid Level Alarm - Deluxe
Dimensions - 180mm (h) x 90mm (d) x 230mm (w)



FPC-12657
Dimensions - 119mm (h) x 73mm (d)
x 160mm (w)



FPC-12656
Standard Switch Plate size

FLOAT SWITCHES

FSW-900 SERIES

DESCRIPTION

- The proven 900 Series MATElec Float Switch, which utilises an innovative, yet simple, fool proof switching concept, has greatly enhanced Float Switch reliability.
- The positive microswitching, eliminates the possibility of more than one circuit being in operation at any one time. The design innovation of the Switch is the 'sliding detent action' which obviates wave induced oscillation (common in mercury type switches) while maintaining consistency in switching level accuracy.
- The smooth robust ABS switch housing on the 9006, 9008 and the 9010 models prevents adhesion of foreign materials.

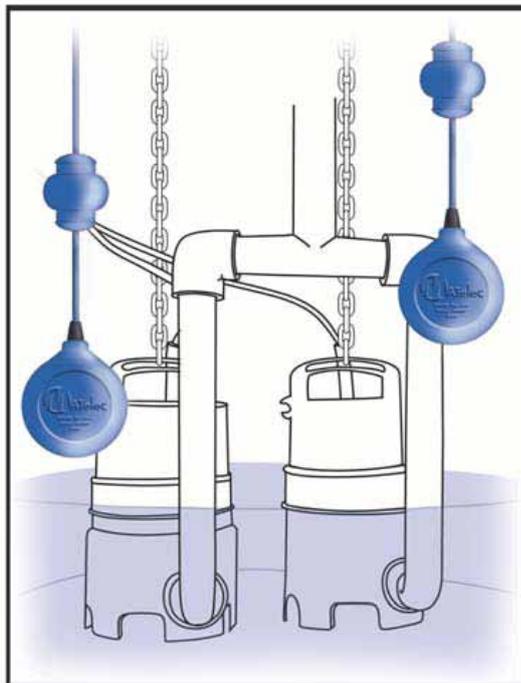
CONSTRUCTION/FEATURES

- Neoprene Rubber Cable
- ABS Housing Material
- Micro switch with NO/NC contacts
- Includes Cable weight
- Available in 2.5m, 10m and 20m lengths

APPLICATIONS

- Sewage & Stormwater pumps/Pumping Stations
- Rain Water/Water Saver Systems
- Waste Water Management
- Used To Control Pumps - When Liquid Level Changes

Model	Protection	Switching Capacity
FSW 9004	IP68 @ 20m	10A
FSW 9006	IP68 @ 20m	6A
FSW 9010	IP68 @ 20m	10A



WATER LEVEL SENSORS

FSW/FPC SERIES

DESCRIPTION

- Sensor for sensing water level
- Multi float tree, Hydrostatic Pressure Transducer

CONSTRUCTION/FEATURES

Multi Level Float Switch Tree

- No more tangled floats
- No more setting up with conduit ties
- No more trying to pull multiple float wires through undersized conduit
- Resin filled/potted connection - fully submersible

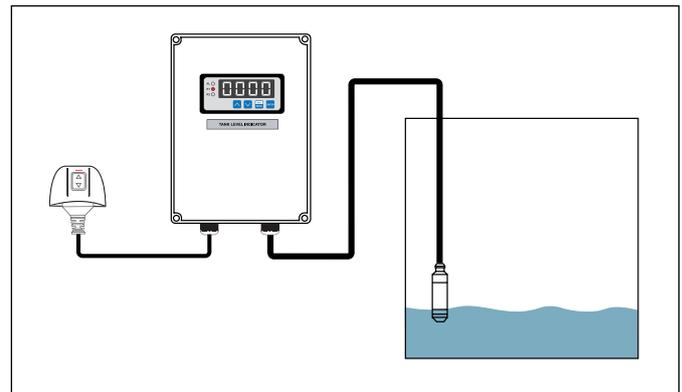
Hydrostatic Pressure Transducers

- Unit suited to 4-20 mA applications where precise level readings are required
- Pressure range 0-10m
- Small body diameter - 39mm
- Excellent Anti-Interference ability

APPLICATIONS

- Sewage Pump Stations
- Stormwater Pump Stations
- 3000/4000 Pump Stations (Refer page 70)
- Water Storage Tanks
- Wastewater Storage Tanks

Model	Description
FSW-12545	10m Float Switch Tree
FPC-12570	Waste Water Transducer
FPC-12571	Rainwater Transducer



FSW-12545
FLOAT TREE



FPC-12570
TRANSDUCER
(Wastewater)



FPC-12571
TRANSDUCER
(Rainwater)

ID68 WATERPROOF CONNECTORS/QUICK PLUG

FCN-162 SERIES

DESCRIPTION

- For safely connecting and carrying power through wet/damp environments or adverse weather conditions. The range available covers a multitude of domestic, commercial and industrial uses.
- Two versions available as follows
 - (i) In-line joiner/connector
 - (ii) In-line quick connect plug

APPLICATIONS

- Sewage Pumps/Stations
- Stormwater Pumps/Stations
- Water Booster Pumps/Packages
- Flexible Cable Joins
- Underwater Joins In Sumps
- Pump Repairs

CONSTRUCTION/FEATURES

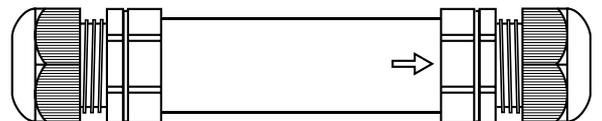
- 32A 415V Rating (FCN-16245 & 16250)
- 16A Rating (FCN-16260 & 16262)
- 80°C Temp Rating
- IP68 Rated
- Conductor size 4mm² max
- Tube PA66 UL 94V²
- Glands AA66 UL 94 V²
- Screws - Zinc passivated steel

Model	Poles	Quick Connect Plug
FCN-16245	3	No
FCN-16250	5	No
FCN-16260	3	Yes
FCN-16262	3	Yes

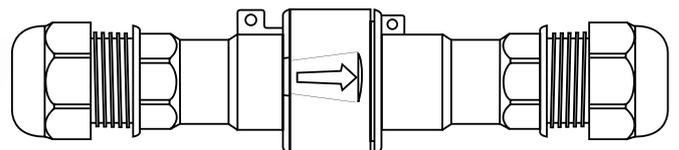
Model	MIN ODØ	MAX ODØ
FCN-16245	5mm	13mm
FCN-16250	8mm	17mm
FCN-16260	5mm	9mm
FCN-16262	8mm	13mm



IN-LINE JOINER
FCN-16250



QUICK CONNECT PLUG
FCN-16260 3P



SELECTING THE RIGHT PUMP FOR THE JOB

PLEASE FILL IN AND FAX OR EMAIL BACK TO US

1. State Your Pump Application:
- Household water pressure
 - Garden watering/sprinklers
 - Stock water supply
 - Hosing down
 - Tank filling
 - Fire fighting
 - Other (please specify)

2. State the Source of the Water Supply:
- River, creek, channel
 - Dam
 - Above ground tank, rainwater tank
 - Underground tank or cistern
 - Bore - attach Drillers Log and Water Analysis (if available)

3. If water is to be drawn from bore, state quantity of water bore will deliver litre/min

3a. State the inside diameter of the bore casing mm

4. State the Condition of Water Supply:
Clean / Muddy / Gritty / Dirty

5. How far down (vertically) from the pump to the water level itself (point 1 on diagram)? m

6. How long is the suction pipe (point 2 on diagram)? m

7. Diameter of the suction pipe is mm
Type of pipe is

8. How far along does the pump have to push the water to the outlet (point 3 on diagram)? m

9. How far up does the pump have to push the water to the outlet (point 3 on diagram)? m

10. Diameter of the discharge pipe is mm
Type of pipe is

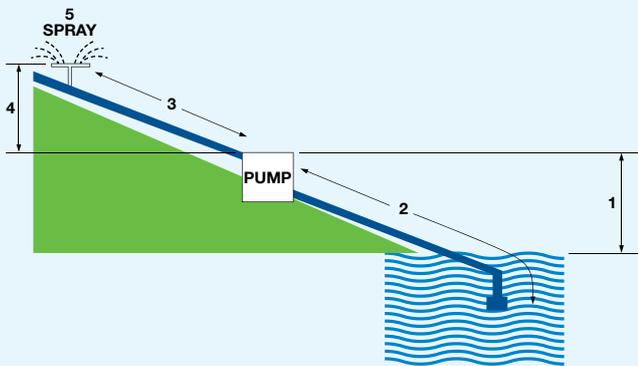
11. Total flow required litres/min
Or maximum number of taps that will run at any one time (point 5 on diagram)

12. If known, what pressure is required at the outlet (point 5 on diagram) kPa

13. State Pump Type Required:
- Automatic pressure system
 - Electric pump
 - Engine Driven pump
 - Submersible Bore
 - Belt drive without engine
 - Sump Pump
 - Other (please specify)

14. State Power Supply Available:

- Single phase 240 volt 50Hz
- Three phase 415 volt 50Hz
- Other (please specify)



COMMON AVERAGE WATER REQUIREMENTS

Shower	15lpm at 140kPa (20psi)
Lawn Sprinkler	15lpm at 140kPa (20psi)
1/2" Tap	12-15lpm at 140kPa (20psi)
3/4" Hose & 1/4" Nozzle	40lpm at 210kPa (30psi)
1" Hose & 3/8" Nozzle	75lpm at 210kPa (30psi)
Weekend Cottage	10-20L/min
Small House	20-30 L/min
Average Home	30-50 L/min
Large Home	50-90 L/min

Cattle	30-55 litres/day
Milking Cows	70 litres/day
Sheep	5-10 litres/day
Pigs	10 litres/day
Horses	55-60 litres/day
100 Chickens	25 litres/day

Flow Conversion

Litres Per Minute	Litres Per Second	Cubic Meters Per Hour	Gall Per Minute	Gall Per Hour
7.6	0.13	0.45	1.7	100
10	0.17	0.60	2.2	132
16.7	0.28	1	3.7	220
45.5	0.76	2.73	2.73	601
60.0	1	3.60	3.2	793
75.7	1.26	4.54	6.7	1000
83.3	1.39	5.00	8.3	1101

Pressure Conversion

Metres	kPa	Bar	Feet Head	PSI
1	9.81	0.10	3.28	1.42
10	98.1	0.98	32.8	14.2
10.2	100	1	33.4	14.5
15.2	149.5	1.5	50	21.6
30.5	299.0	3.0	100	43.3
35.2	354.4	3.5	115.5	50.0
70.4	690.8	6.9	231.0	100
101.9	999.6	10.0	334.2	144.7

Volume Conversion

Litres	Cubic Metres	Imp. Gals	US Gals	Cubic Feet
1	0.001	0.22	0.264	0.0353
1000	1	220	264	35.3
4.546	0.0045	1	1.2	0.1605
3.785	0.0038	0.833	1	0.1337
28.32	0.0283	6.23	7.48	1

Length Conversion

Inch	Foot	Yard	Meters
1	0.08	0.028	0.025
12	1	0.33	0.305
36	3.00	1	0.91
39.4	3.28	1.09	1

FRICITION LOSS TABLES

Friction Loss for Poly Pipe - 20mm to 63mm (m/100 metres of pipe)																														
Flow in		Medium Density Polythene Pipe																												
ltrs min	gals hr.	Rural Class B Pipe					PE80/PN8						PE80/PN10						PE80/PN12.5						PE80/PN16					
		¾"	1"	1½"	2"	2.5"	20	25	32	40	50	63	20	25	32	40	50	63	20	25	32	40	50	63	20	25	32	40	50	63
10	132	2.7	0.7	0.2	0.1	-	3.9	1.1	0.3	0.1	-	-	4.5	1.4	0.4	0.1	-	-	5.3	1.8	0.5	0.2	0.1	-	6.8	2.2	0.7	0.2	0.1	-
20	264	9.8	2.4	0.8	0.3	0.1	14.2	4.0	1.2	0.4	0.1	-	16.4	5.1	1.5	0.5	0.2	0.1	19.0	6.4	1.8	0.6	0.2	0.1	24.4	8.0	2.4	0.8	0.3	0.1
30	396	20.8	5.1	1.7	0.7	0.2	8.5	2.6	0.9	0.3	0.1	-	10.7	3.2	1.0	0.4	0.1	-	13.6	3.8	1.3	0.4	0.1	-	17.0	5.2	1.7	0.6	0.2	-
40	528	8.7	2.9	1.2	0.3	-	4.5	1.5	0.5	0.2	-	-	5.4	1.7	0.4	0.2	-	-	6.5	2.2	0.8	0.2	-	-	8.8	2.9	1.1	0.3	-	-
50	660	13.2	4.5	1.8	0.5	-	6.8	2.3	0.8	0.3	-	-	8.1	2.6	0.6	0.3	-	-	9.8	3.4	1.1	0.4	-	-	13.3	4.4	1.5	0.5	-	-
60	792	18.5	6.2	2.6	0.6	-	9.5	3.2	1.1	0.4	-	-	11.4	3.7	0.9	0.4	-	-	13.7	4.8	1.6	0.5	-	-	18.0	6.2	2.0	0.7	-	-
80	1056	30.1	10.6	4.4	1.1	-	5.5	1.8	0.6	-	-	-	6.3	1.3	0.7	-	-	-	8.1	2.7	0.9	-	-	-	10.5	3.5	1.2	-	-	-
100	1320	16.1	6.6	1.6	-	-	8.3	2.7	0.9	-	-	-	9.5	2.3	1.1	-	-	-	12.2	4.1	1.3	-	-	-	15.9	5.3	1.7	-	-	-
120	1584	9.3	2.3	-	-	-	3.8	1.3	-	-	-	-	3.4	1.5	-	-	-	-	5.8	1.9	-	-	-	-	7.4	2.4	-	-	-	-
140	1848	12.3	3.0	-	-	-	5.1	1.7	-	-	-	-	4.8	2.0	-	-	-	-	7.7	2.5	-	-	-	-	9.8	3.2	-	-	-	-
160	2112	3.9	-	-	-	-	6.5	2.2	-	-	-	-	6.4	2.6	-	-	-	-	9.8	3.2	-	-	-	-	12.6	4.2	-	-	-	-
180	2376	4.8	-	-	-	-	2.7	-	-	-	-	-	8.1	3.3	-	-	-	-	3.9	-	-	-	-	-	5.2	-	-	-	-	-
200	2639	5.9	-	-	-	-	3.3	-	-	-	-	-	4.0	-	-	-	-	-	4.8	-	-	-	-	-	6.3	-	-	-	-	-
220	2904	7.0	-	-	-	-	3.9	-	-	-	-	-	4.7	-	-	-	-	-	5.7	-	-	-	-	-	7.5	-	-	-	-	-
240	3168	8.2	-	-	-	-	4.6	-	-	-	-	-	5.6	-	-	-	-	-	6.7	-	-	-	-	-	8.8	-	-	-	-	-
250	3300	8.9	-	-	-	-	5.0	-	-	-	-	-	6.0	-	-	-	-	-	7.2	-	-	-	-	-	9.5	-	-	-	-	-

Friction Loss for Poly Pipe (m/100 metres of pipe)																		
Flow Rate			25mm O.D		32mm O.D		40mm O.D		50mm O.D		63mm O.D		75mm O.D		90mm O.D		110mm O.D	
lps	lpm	m³/hr	PN 6.3	PN 12.5	PN 6.3	PN 12.5												
0.2	12	0.72	2.12	2.97	0.56	0.90	0.02	0.32										
0.5	30	1.80	10.53	14.83	2.78	4.45	0.86	1.58	0.27	0.55								
0.8	48	2.88	24.24	34.17	6.37	10.20	1.97	3.62	0.61	1.25								
1.0	60	3.60			9.46	15.17	2.92	5.38	0.91	1.85	0.33	0.61	0.14	0.26				
1.6	96	5.76			21.88		6.73	12.41	2.08	4.25	0.75	1.13	0.33	0.49				
2.0	120	7.20					10.02	18.50	3.10	6.33	1.11	2.07	0.48	0.89	0.20	0.37		
3.0	180	10.8							6.39	13.07	2.29	4.27	0.99	1.83	0.42	0.76	0.16	0.29
4.0	240	14.4							10.70		3.82	7.15	1.65	3.05	0.69	1.27	0.27	0.49
5.0	300	18.0									5.70		2.46	4.55	1.03	1.89	0.40	0.72
6.0	360	21.6									7.92		3.42	6.32	1.43	2.63	0.55	1.00
7.0	420	25.2											4.51		1.88	3.46	0.72	1.32
9.0	540	32.4											7.09		2.96	5.45	1.14	2.07
10.0	600	36.0													3.58	6.59	1.37	2.50
15.0	900	54.0															2.85	5.20
20.0	1200	72.0															4.80	

Friction Loss for PVC Pipe (m/100 metres of pipe)																
Flow Rate			25mm		32mm		40mm		50mm		80mm		100mm		150mm	
lps	lpm	m³/hr	PN 9	PN 12	PN 9	PN 12	PN 9	PN 12	PN 9	PN 12	PN 9	PN 12	PN 9	PN 12	PN 9	PN 12
0.2	12	0.72	0.43	0.49	0.14	0.16	0.08	0.42								
0.5	30	1.80	2.15	2.40	0.70	0.80	0.37	0.97	0.13	0.14						
0.8	48	2.88	4.91	5.50	1.61	1.82	0.84	1.43	0.29	0.33						
1.0	60	3.60	7.29	8.16	2.38	2.70	1.24	3.30	0.42	0.48	0.07	0.08				
1.6	96	5.76	16.85	18.87	5.49	6.23	2.86	4.90	0.97	1.11	0.15	0.18				
2.0	120	7.20			8.17	9.27	4.25	10.12	1.42	1.65	0.23	0.26	0.07	0.05		
3.0	180	10.8					8.77	16.98	2.97	3.40	0.46	0.53	1.14	0.08		
4.0	240	14.4							4.98	5.68	0.77	0.89	1.23	0.16		
5.0	300	18.0							7.43	8.49	1.15	1.32	0.34	0.26		
6.0	360	21.6									1.60	1.83	0.48	0.39	0.09	0.11
7.0	420	25.2									2.11	2.42	0.63	0.55	0.12	0.14
8.0	480	28.8									2.68	3.07	0.80	0.72	0.16	0.18
9.0	540	32.4									3.31	3.80	0.98	0.91	0.19	0.22
10.0	600	36.0									4.00	4.59	1.19	1.13	0.23	0.27
15.0	900	54.0											2.47	1.36	0.48	0.55
20.0	1200	72.0													0.81	0.93

Friction Loss for Rubber Hose (m/100 metres of hose)							
Flow Rate			Friction Loss (m/100 metres of hose)				
lps	lpm	m³/hr	20mm	25mm	32mm	40mm	50mm
0.2	12	0.72	4.29	1.14	0.37	0.15	
0.5	30	1.80	22.81	5.88	1.90	0.77	0.2
1.0	60	3.60		21.11	6.71	2.67	0.7
2.0	120	7.20			24.37	9.56	2.47
3.0	180	10.8				20.43	5.21
4.0	240	14.4				35.22	8.9
4.5	270	16.2					11.1

QUICK FIND INDEX A - G

	PAGE		PAGE
Above Ground Pump Stations	57-66	Detention Tanks	113
Accessories	78-85	Dewatering Pumps	28-35
Access Covers	80-81	Diaphragm Sludge Pumps	89
Agricultural LV Pumps	6	Diesel Transfer Pumps	88-89
Air Blowers	83	Digestors	84-85
Alarms - for pump units	120, 125	DOL Starters	119
Aluminium Camlocks	96	Drainage Pumps	28-35
		D Shackles	78
Ball Valves	103, 104	Dual Booster Pump Sets	12
Ball Check Valves	107	Dual Pump Controllers	123
Bilge Pumps	6	Dual Pump Stations	66, 70
Blowers	83		
BMS Controllers	124	Effluent Pipe	100
Booster Pumps	8-13, 49	Effluent Pumps	50, 51
Boundary Boxes/Kits	17	Effluent Pump Stations	71
Bow Shackles	78	Electrical Controllers	114, 120-124
Brass Solenoid Valves	105, 106	Extension Risers	79
Brass Swing Check NRV	102		
Brass Spring Check NRV	102	Fat & Scum Digestors	84-85
		Fire Fighting Pumps	89
Cables	119	First Flush Divertors	111
Calf Milk Pumps	6, 28, 36	Five Way Tees	16
Camlock Couplings	95, 96	Flexible Pump Connectors	16
Centrifugal Pumps	9-13	Flexi Driver Pumps	89
Chain	78	Floating Suction Strainers	17
Check Valves	102, 107	Float Switches	126
Chemical Spray Pumps	6	Float Trees	127
Circulators	24	Float Weights	126
Civil Pump Stations	70	Foot Valves	103, 104
Compression Fittings	98, 99	Flexible Hose	92
Condensate Pumps	57		
Contractor Pumps	33, 34	Galvanised Chain	78
Controllers (Electrical)	118-124	Gate Valves	108
Control Panels	120-124	General Purpose Pumps	28-31
Cutter Pumps	42	Grates and Grills	80-81
		Grease and Scum Digestors	84-85
Delivery Hose	92	Grey Water Diversion Systems	62

QUICK FIND INDEX G - S

	PAGE		PAGE
Grey Water Pump Stations	58-61	Packaged Pump Stations	56-73
Grinder Pumps	43-45	Pipe Fittings	98-99
Guide Rail Systems	54	Plugs - Electrical	119, 128
High Pressure Pumps	43, 89	Poly Camlocks	96
Home Pressure Systems	8-13	Poly Pumps	89
Horizontal Holding Tanks	113	Pond Pumps	28, 47
Horizontal Multistage Pumps	11, 13	Portable Pumps	88, 89
Hot Water Booster Pumps	25	Power Cable	119
Hot Water Circulation Pumps	24	Press Controls	118
Hose Clips/Clamps	92	Pressure Pumps/Systems	8-13, 49
Hose Tails	93	Pressure Switches	118
Inground Pump Chambers	67-73	Pressure Tanks	16
In Line Filters	20-21	Pulse Latching Solenoid Valves	106
In Line Hot Water Pumps	24-25	Pump Connectors/Couplings	16, 94
Isolating Valves	103, 104	Pump Controllers	118-124
Jet Assisted Booster Pumps	9, 10, 13	Pump Covers	17
Layflat Hose	92	Pump Starters	119
Lids	80-81	Pump Stations	56-73
Lifting Stations	63-64	Rain/Mains Water Controllers	114, 115
Linear Membrane Blowers	83	Rainwater Tanks/Harvesting	110-113
Liquid Level Alarms	125	Resilient Seated Gate Valves	108
Loss of Prime Switches	118	Retention Tanks	113
Low Voltage Pumps	6	Riser Box	79
Marine Low Voltage Pumps	6	RSI Controllers	124
MDPE Pipe	100	Safety Grilles	80
Membrane Blowers	83	Salt Water Pumps	52-53, 89
Metric Fittings	98, 99	Sani Pump Out Units	60, 61, 63, 64
Mikalor clamps	92	Screens	95, 104
Multistage Pumps	11-13, 48-51	Scum Digestors	84, 85
Non-return Valves	102, 107	Sediment Filters	20
		Self Priming Pumps	9, 10, 13, 88, 89
		Semi Trash Pumps	89
		Sewage Pump Stations	63-70
		Sewage Pumps	38-46

QUICK FIND INDEX S-W

	PAGE		
Shackles	78	Valves - Bronze/Brass	102
Single Pump Controllers	121, 122	Valves - Cast Iron	107, 108
Sludge Pumps	89	Valves - Non Return	102, 103, 104, 107
SMS Controllers	124	Valves - RS Gate	108
Solenoid Valves	105, 106	Valves - Shut Off	103, 104, 108
Solids Handling Pumps	36-42	Valves - Spring Check	102, 103
Spray Pumps	6	Valves - Swing Check	102
Spring Check Valves	102, 103	Vent Odour Filters	32
Stainless Flexible Connectors	16	Vertical Pump Chambers	76
Stainless Steel Chain	78	Vortex Pumps	36-41, 52, 53
Stainless Steel Pumps	36, 52, 53	VSD Controlled Pumps	12
Stormwater Pump Stations	72, 73	Wastewater Pump Stations	58-60, 63-70
Stormwater Pumps	28-31, 36-41	Wastewater Pumps	29-32, 36-45
Strainers	93, 103	Water Booster Pumps	8-13, 49
Submersible Pumps	28-54	Water Filtration Products	20, 21
Suction & Delivery Hose	92	Water Proof Plugs	128
Suction Strainers	93, 104	Water Tanks	110-113
Sullage Chambers	58, 59	Water Treatment Products	20-21
Swing Check Valves	102	Waterfall Pumps	47
Swept Elbows	94	Waterproof Connectors	128
Taste and Odour Filters	21	WC Pump out Units	61, 63, 64
Tees (Brass)	16	Wye Junctions	94
Three Way Tees	16		
Toilet Pumps	61, 63		
Transducers	127		
Trash Pumps	89		
Treatment Products	84-85		
Turbine Booster Pumps	8		
Underground Pump Chambers	73, 113		
Underground Holding Tanks	73, 113		
Uniseals	78		
Valve Chambers	79		
Valves	102-108		

