SELECTION GUIDE 2022
BIG RED BOOK | DUTYPOINT.COM

MADE IN BRITAIN

Big Red

SETTING THE BAR

Delivering reliable pump systems since 1976

Nationwide coverage from multiple locations

Huge stockholding and easy maintenance

Experienced technical support team

In-house design and UK manufacture

Applied knowledge.
Shared know-how.
Fearless innovation.
We set the bar.

WHY CHOOSE DUTYPOINT?

The quality of our services makes us the right choice for you.

EASE OF MAINTENANCE
Every design is carefully considered to ensure key components are accessible and installed to maximise longevity and performance.

VERSATILITY
We appreciate the challenges of on-site installation and focus on making life easier for specifiers and contractors by providing multiple configuration options.

HIGH-QUALITY MATERIALS
We only use high-specification metals and plastics to produce systems. Dutypoint was the first booster set manufacturer to achieve WRAS approval on its systems in 2005.

EXPERT SUPPORT
Our knowledgeable and accessible support staff are on call 24/7 to provide advice and technical assistance.

UK MANUFACTURER
Not only are we one of the largest UK pump distributors for selected brands, but we have also been manufacturing fluid technology in our UK-based depot since 1976.

AFTER-SALES SITE SUPPORT
We are always here to help, even after your purchase is complete. We can send engineers to your site if you require extra support.

We love to help!

Product-Specific Features

When assigned to a product, the following icons indicate the unique features of the range.

QUICK DELIVERY
We appreciate that sometimes things are needed in a hurry despite the most careful planning. We make sure we hold large stocks of key products to cover urgent requirements and breakdowns.

FIRE SYSTEM UPGRADE
Increasingly, cold-water booster sets are used to supply fire sprinkler systems and domestic cold-water systems. Our fire sprinkler upgrade ensures the booster set can be relied on to perform perfectly in life safety situations.

QUIKSWAP™
QuikSwap™ is a unique Dutypoint technology that's specially designed to allow pumps to be replaced as quickly and simply as possible, ensuring our products remain in service for a long time.

TRUESTANDBY™
TrueStandby™ ensures that every key component in the pressure booster has a backup to keep the system operational in the rare occurrence of a component failure, giving peace of mind.

HIRISE
HiRISE technology protects the building's pipework by ensuring the pumps start slowly during the initial fill process or following the loss of power to prevent surge and consequent damage to the riser and property.

BURST PIPE TECHNOLOGY
Protection technology that constantly monitors the system for signs of a major leakage. If detected, an alarm is activated, followed by full system deactivation if the required duty is still not met, preventing property damage.

BMS CONNECTABLE
Connection to a building management system is vital for monitoring and diagnostics. Our booster sets feature an array of volt-free contacts and fieldbus connectivity options.

ANTI-VIBRATION FITTED
Integrated anti-vibration mountings reduce noise, vibration and structural resonance, ensuring quiet and trouble-free operation.

Cold Water Booster Sets

Water booster systems for all building services, commercial and infrastructure applications.

CONTENTS

Which Booster Set?

	Luxury residential and small commercial applications	Small hotels and medium commercial applications		Large-scale and high-rise applications	Small to medium applications
	VG	**VT**	**VR**	**VMV**	**Slimline**
					
Pump type	End suction IE5	Vertical multistage	Vertical multistage	Vertical multistage	Inline vertical
Inverter type	Integral to motor	Integral to panel	Motor mounted	Motor mounted	Integral to panel
Flow rate range	0.3 - 16.5 l/s	0.75 - 23 l/s	0.5 - 24 l/s	5.1 - 64 l/s	0.4 - 11.7 l/s
Pressure range	1.5 - 15 bar	2.5 - 14 bar	2 - 16 bar	2.5 - 16 bar	2 - 10 bar
Fault display	Error code display	Detailed fault message with log	Error code display and warning lamp	Error code display and warning lamp	Detailed fault message with log
Connection type	BSP/DIN flanged	DIN flanged	DIN flanged	DIN flanged	DIN flanged
Number of pumps	1 to 3	2 to 3	2 to 3	2 to 4	2 to 3
Integral pressure transducers	✓	✓	✓	✓	✓
Integral accumulators	✓	✓	✓	✓	✓
Cyclic duty changeover	✓	✓	✓	✓	✓
Individual pump isolation valves	✓	✓	✓	✓	✓
External on/off VFC	✓	✓	✓	✓	✓
Vessel drain-down facility	✓	✓	✓	✓	✓
Integral anti-vibration mounts	✓	✓	✓	✓	✓
Control panel included	✓	✓	✓	✓	✓
Common fault VFC	✓	✓	✓	✓	✓
Low-level VFC	✓	✓	✓	✓	✓
High-level VFC	-	✓	Optional	Optional	✓
Backup transducer	-	✓	✓	✓	✓
HiRISE	-	✓	✓	✓	✓
Hand/off/auto selectors	-	✓	Optional	Optional	✓
HMI touchscreen	-	✓	-	-	✓
QuikSwap™	-	-	✓	-	✓
Bespoke options available	-	-	✓	✓	✓
TrueStandby™	-	-	✓	✓	✓

How to Use the Booster Set Selector

3 steps to select the best booster set for your project

EXAMPLE

Configuration required	Duty/assist variable speed
Pressure required	4.0 bar
Flow rate required	1.9 litres/second

Step 1

Identify the configuration required and find the relevant chart.

A	DUTY, STANDBY	**Duty/standby** Twin pump set where either pump will cover the whole duty
B	DUTY, ASSIST	**Duty/assist** Twin pump set where both pumps run to cover the duty flow
C	DUTY, ASSIST, STANDBY	**Duty/assist/standby** Three pump set where two pumps can cover the duty
D	DUTY, ASSIST, ASSIST	**Duty/assist/assist** Three pump set where all three pumps run to cover the duty
E	DUTY, ASSIST, ASSIST, STANDBY	**Duty/assist/assist/standby** Four pump set where three pumps run

Step 2

Use the selector (on the left-hand page) and find the column that matches or exceeds the discharge head required (e.g. 4.0 bar). In this column, find the box that matches or exceeds the total flow rate required (e.g. 1.9 litres/second) and note the corresponding reference number.

3.0 bar		3.5 bar		4.0 bar		4.5 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1	**1**	0.9	**2**	1.1	**3**	1.6
2	1.7	**2**	1.4	**3**	1.8	**5**	2.1
3	2.3	**3**	2	**5**	2	**12**	3.3
10	3.2	**10**	2.7	**12**	3.6	**13**	3.8

Step 3

Use this reference (5) to identify which booster set model numbers fit this spec. In this example, booster set VR2-0509-LHM is the recommended product.

Booster set models			
	VG	**VR**	**VMV**
1	VG2-3HME03-LSM		
2	VG2-3HME04-LSM		
3	VG2-3HME06-LSM		
4		VR2-0508-LHM	
5		VR2-0509-LHM	

VG

Light-duty IE5 variable speed booster sets.

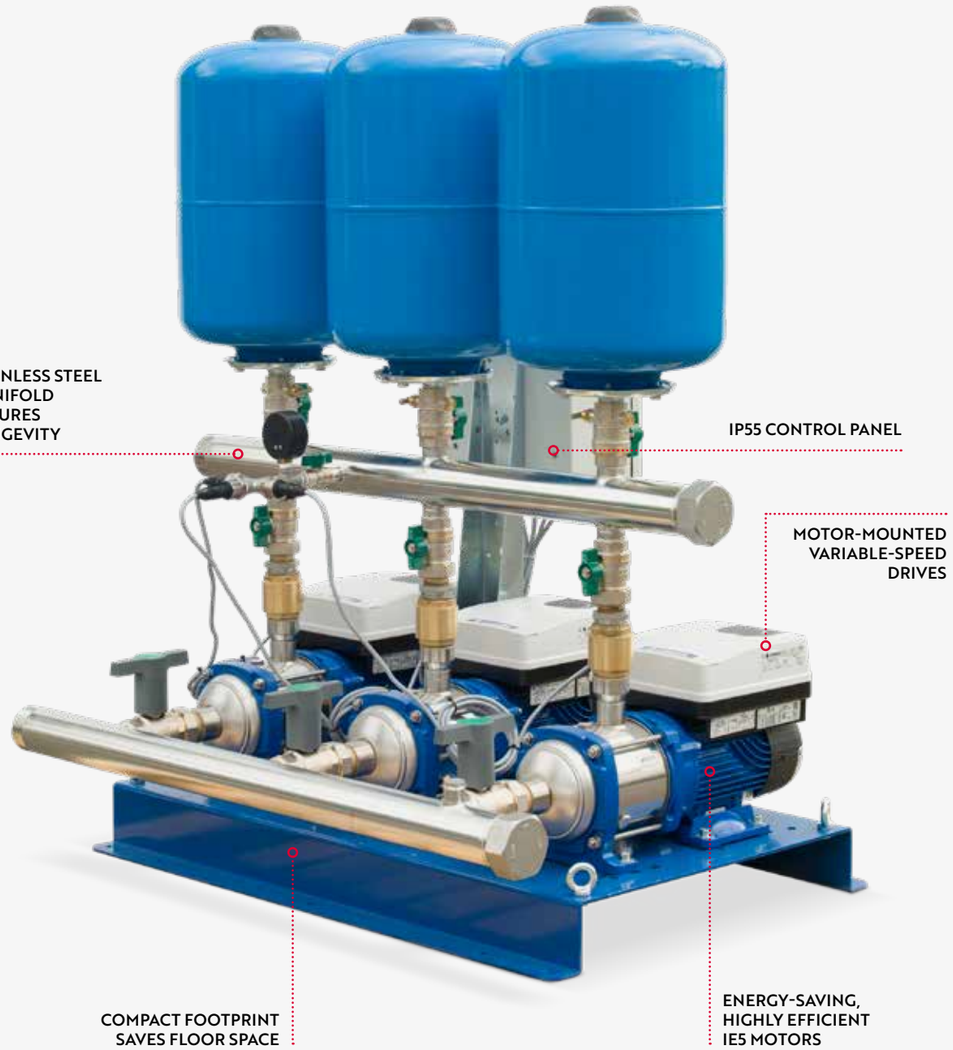
PRODUCT OVERVIEW

- Highly efficient IE5 permanent-magnet variable speed motors for class-leading efficiency
- Common fault volt-free contact as standard
- Pressure sensor for each pump ensures redundancy in case of component failure
- All functions accessed via built-in controls – no external controller required
- 24-hour delivery on popular models

WRAS APPROVED PRODUCT

UK CA

Key Features



QUICK DELIVERY

ANTI-VIBRATION FITTED

QUIKSWAP™

BMS CONNECTABLE

COLD WATER BOOSTER SETS
VG

Specification

The Dutypoint VG is a compact, cost-effective cold-water booster set that is ideal for a wide range of residential and commercial applications. Despite its compact design, the Dutypoint VG includes technology normally associated with larger booster sets, including fault signals, BMS integration, error code display and a full-size control panel as standard.

The addition of high-efficiency pumps with permanent magnet motors allows class-leading IE5 energy efficiency, reducing running costs.

PRODUCT OVERVIEW

- IE5-rated permanent-magnet motors for highly efficient operation
- Low-water cut-out contacts in panel
- Anti-vibration mounts reduce system noise
- Error code display allows simple fault diagnosis
- IP55-rated control panel allows for simple and safe maintenance
- Cyclic duty changeover ensures even wear across pumps
- Common fault volt-free contact for connection to building management systems
- External start/stop contact for connection to external control systems
- RS485 connections for connection to Modbus

RANGE PERFORMANCE

Number of pumps	1, 2 or 3
Flow range	0.3 - 16.5 l/s
Pressure range	1.5 - 15 bar
Max system pressure	16 bar
Controller type	Motor-mounted smart controller
Max system temperature	40°C*
Noise data	Motor at 3600 rpm < 70LpA (dB +/-2)**

*Higher temperature options available; please contact the sales team. **More specific details available on request.

MATERIAL SPECIFICATION

Manifolds	AISI 304 stainless steel
Isolation valves	Nickel-plated brass
Non-return valves	Brass
Pressure transducers	AISI 304 stainless steel
Pump casing	AISI 304 stainless steel
Pump impellers	AISI 304 stainless steel
Mechanical seals	Silicon carbide, graphite, EPDM
Pressure vessels	WRAS approved
Base plate	Powder-coated mild steel

VG1 - Single Pump Duty Selector

DUTY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	0.7	**1**	0.6	**1**	0.5	**1**	0.4	**1**	0.3	**2**	0.6	**3**	0.8	**3**	0.6	**4**	0.8
2	1.2	**2**	1.1	**2**	1	**2**	0.8	**2**	0.7	**3**	0.9	**4**	1.1	**4**	1	**5**	1.1
3	1.4	**3**	1.3	**3**	1.2	**3**	1.1	**3**	1	**4**	1.2	**5**	1.33	**5**	1.2	**8**	1.2
6	2	**6**	1.7	**6**	1.5	**4**	1.3	**4**	1.3	**7**	1.5	**7**	1.2	**8**	1.5		
7	2.5	**7**	2.3	**7**	2	**6**	1.2	**7**	1.7	**8**	2	**8**	1.7				
9	2.9	**8**	2.7	**8**	2.5	**7**	1.8	**8**	2.1	**11**	3.1	**11**	2.4				
10	4	**9**	2.3	**10**	3	**8**	2.3	**10**	2.2	**13**	2.6						
12	4.4	**10**	3.5	**11**	4.2	**10**	2.6	**11**	3.5								
13	5.5	**11**	4.5	**13**	4.1	**11**	3.9	**13**	3								
		12	3.3			**13**	3.5										
		13	4.8														

VG MODEL

Ref	Model no.
1	VG1-1HME05-LSM
2	VG1-3HME05-LSM
3	VG1-3HME07-LSM
4	VG1-3HME09-LSM
5	VG1-3HME12-LSM
6	VG1-5HME04-LSM
7	VG1-5HME06-LSM
8	VG1-5HME08-LSM
9	VG1-5HME10-LST
10	VG1-10HME02-LSM
11	VG1-10HME03-LSM
12	VG1-10HME04-LST
13	VG1-15HME02-LSM
14	VG1-15HME03-LST

COLD WATER BOOSTER SETS
VG

VG2 - Twin Pump Duty/Standby Selector

DUTY STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	0.7	**1**	0.6	**1**	0.5	**1**	0.4	**1**	0.3	**2**	0.6	**3**	0.8	**3**	0.6	**4**	0.8
2	1.2	**2**	1.1	**2**	1	**2**	0.8	**2**	0.7	**3**	0.9	**4**	1.1	**4**	1	**5**	1.1
3	1.4	**3**	1.3	**3**	1.2	**3**	1.1	**3**	1	**4**	1.2	**5**	1.3	**5**	1.2	**8**	1.2
6	2	**6**	1.7	**6**	1.5	**4**	1.3	**4**	1.3	**7**	1.5	**7**	1.1	**8**	1.5		
7	2.5	**7**	2.3	**7**	2	**6**	1.2	**7**	1.7	**8**	2	**8**	1.7				
9	2.9	**8**	2.7	**8**	2.5	**7**	1.8	**8**	2.1	**11**	3.1	**11**	2.4				
10	4	**9**	2.3	**10**	3	**8**	2.3	**10**	2.2	**13**	2.6						
12	4.4	**10**	3.5	**11**	4.2	**10**	2.6	**11**	3.5								
13	5.5	**11**	4.5	**13**	4.1	**11**	3.9	**13**	3								
		12	3.3			**13**	3.5										
		13	4.8														

VG MODEL

Ref	Model no.
1	VG2-1HME05-LSM
2	VG2-3HME05-LSM
3	VG2-3HME07-LSM
4	VG2-3HME09-LSM
5	VG2-3HME12-LSM
6	VG2-5HME04-LSM
7	VG2-5HME06-LSM
8	VG2-5HME08-LSM
9	VG2-10HME02-LSM
10	VG2-10HME03-LSM
11	VG2-10HME04-LST
12	VG2-15HME02-LSM
13	VG2-15HME03-LST

VG2 - Twin Pump Duty/Assist Selector

DUTY ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1.4	**1**	1.2	**1**	1	**1**	0.9	**1**	0.6	**2**	1.3	**3**	1.5	**3**	1.2	**5**	1.7
2	2.4	**2**	2.2	**2**	1.9	**2**	1.7	**2**	1.5	**3**	1.8	**4**	2.2	**4**	2	**8**	2.2
3	2.7	**3**	2.6	**3**	2.4	**3**	2.2	**3**	2	**4**	2.5	**5**	2.7	**5**	2.4	**8**	2.3
6	4	**6**	3.4	**6**	2.9	**4**	2.7	**4**	2.6	**7**	3	**7**	2.3	8	2.9		
7	5	**7**	4.5	**7**	4.1	**6**	2.4	**7**	3.3	**8**	4	**8**	3.4				
9	5.9	**8**	5.3	**8**	5	**7**	3.7	**8**	4.3	**11**	6.2	**11**	4.9				
10	8	**9**	4.6	**10**	6	**8**	4.6	**10**	4.3	**13**	5.1						
12	8.9	**10**	7	**11**	8.3	**10**	5.1	**11**	6.9								
13	11	**11**	9	**13**	8.1	**11**	7.7	**13**	6.1								
		12	6.7			**13**	6.9										

VG MODEL

Ref	Model no.
1	VG2-1HME05-LSM
2	VG2-3HME05-LSM
3	VG2-3HME07-LSM
4	VG2-3HME09-LSM
5	VG2-3HME12-LSM
6	VG2-5HME04-LSM
7	VG2-5HME06-LSM
8	VG2-5HME08-LSM
9	VG2-10HME02-LSM
10	VG2-10HME03-LSM
11	VG2-10HME04-LST
12	VG2-15HME02-LSM
13	VG2-15HME03-LST

COLD WATER BOOSTER SETS
VG

VG3 - Triple Pump Duty/Assist/Standby Selector

DUTY ASSIST STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1.8	**1**	1.3	**2**	1.9	**2**	1.7	**2**	1.5	**2**	1.3	**3**	1.5	**3**	1.2	**4**	1.7
2	2.4	**2**	2.2	**3**	2.4	**3**	2.2	**3**	2	**3**	1.8	**4**	2.2	**4**	2	**5**	2.2
3	2.7	**3**	2.6	**6**	2.9	**4**	2.7	**4**	2.6	**4**	2.5	**5**	2.7	**5**	2.4	**7**	2.3
6	4	**6**	3.4	**7**	4.1	**6**	2.4	**7**	3.3	**7**	3	**7**	2.3	**8**	2.9		
7	5	**7**	4.5	**8**	5	**7**	3.7	**8**	4.3	**8**	4	**8**	3.4				
9	5.9	**8**	5.3	**10**	6	**8**	4.6	**10**	4.3	**11**	6.2	**11**	4.9				
10	8	**9**	4.6	**11**	8.3	**10**	5.1	**11**	6.9	**13**	5.1						
12	8.9	**10**	7	**13**	8.1	**11**	7.7	**13**	6.1								
13	11	**11**	8.9			**13**	6.9										
		12	6.7														
		13	8.9														

VG MODEL

Ref	Model no.
1	VG3-1HME05-LSM
2	VG3-3HME05-LSM
3	VG3-3HME07-LSM
4	VG3-3HME09-LSM
5	VG3-3HME12-LSM
6	VG3-5HME04-LSM
7	VG3-5HME06-LSM
8	VG3-5HME08-LSM
9	VG3-10HME02-LSM
10	VG3-10HME03-LSM
11	VG3-10HME04-LST
12	VG3-15HME02-LSM
13	VG3-15HME03-LST

VG3 - Triple Pump Duty/Assist/Assist Selector

DUTY ASSIST ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	2.7	**1**	2	**2**	2.9	**2**	2.5	**2**	2.2	**2**	1.9	**3**	2.3	**3**	1.8	**4**	2.5
2	3.6	**2**	3.2	**3**	3.6	**3**	3.2	**3**	3	**3**	2.8	**4**	3.3	**4**	2.9	**5**	3.3
3	4.1	**3**	4	**6**	4.4	**4**	4	**4**	3.7	**4**	3.7	**5**	4	**5**	3.7	**7**	3.5
6	6	**6**	5.2	**7**	6.1	**6**	3.6	**7**	5	**7**	4.5	**7**	3.4	**8**	4.4		
7	7.6	**7**	6.8	**8**	7.5	**7**	5.5	**8**	6.4	**8**	6	**8**	5.2				
9	8.8	**8**	8	**10**	9.1	**8**	6.9	**10**	6.5	**11**	9.4	**11**	7.3				
10	12.1	**9**	7	**11**	12.5	**10**	7.7	**11**	10.4	**13**	7.7						
12	13.3	**10**	10.5	**13**	12.2	**11**	11.6	**13**	9.1								
13	16.5	**11**	13.4			**13**	10.4										
		12	10														
		13	13.3														

VG MODEL

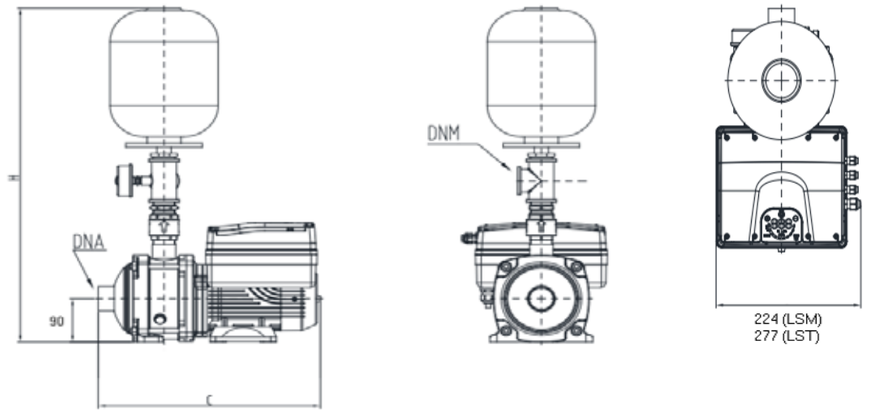
Ref	Model no.
1	VG3-1HME05-LSM
2	VG3-3HME05-LSM
3	VG3-3HME07-LSM
4	VG3-3HME09-LSM
5	VG3-3HME12-LSM
6	VG3-5HME04-LSM
7	VG3-5HME06-LSM
8	VG3-5HME08-LSM
9	VG3-10HME02-LSM
10	VG3-10HME03-LSM
11	VG3-10HME04-LST
12	VG3-15HME02-LSM
13	VG3-15HME03-LST

COLD WATER BOOSTER SETS
VG

VG1 Single Pump

DRAWINGS AND DIMENSIONS

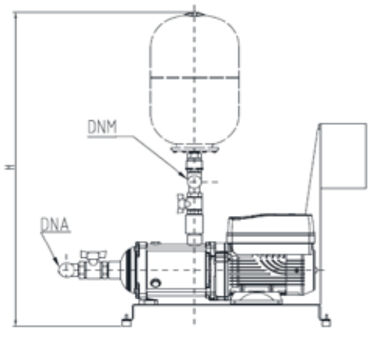
Model no.	Motor power (kW)	Supply voltage	Amps	Weight (kg)	Dimensions			
					C (mm)	H (mm)	DNA (inlet)	DNM (outlet)
VG1-1HME05-LSM	0.37	230/1/50	2.2	20	414	633	1" BSP (F)	1" BSP (F)
VG1-3HME05-LSM	0.55	230/1/50	3.1	20	414	633	1" BSP (F)	1" BSP (F)
VG1-3HME07-LSM	0.75	230/1/50	4.1	20	447	633	1" BSP (F)	1" BSP (F)
VG1-3HME09-LSM	1.1	230/1/50	5.9	25	487	633	1" BSP (F)	1" BSP (F)
VG1-3HME12-LSM	1.5	230/1/50	7.8	25	547	633	1" BSP (F)	1" BSP (F)
VG1-5HME04-LSM	0.75	230/1/50	4.1	20	416	693	1 ¼" BSP (F)	1" BSP (F)
VG1-5HME06-LSM	1.1	230/1/50	5.9	20	454	693	1 ¼" BSP (F)	1" BSP (F)
VG1-5HME08-LSM	1.5	230/1/50	7.8	25	504	693	1 ¼" BSP (F)	1" BSP (F)
VG1-5HME10-LST	2.2	400/3/50	5.9	28	554	693	1 ¼" BSP (F)	1" BSP (F)
VG1-10HME02-LSM	1.1	230/1/50	5.9	20	422	702	1 ½" BSP (F)	1 ¼" BSP (F)
VG1-10HME03-LSM	1.5	230/1/50	7.8	20	422	702	1 ½" BSP (F)	1 ¼" BSP (F)
VG1-10HME04-LST	2.2	400/3/50	5.9	26	454	702	1 ½" BSP (F)	1 ¼" BSP (F)
VG1-15HME02-LSM	1.5	230/1/50	7.8	20	457	702	2" BSP (F)	1 ½" BSP (F)
VG1-15HME03-LST	2.2	400/3/50	5.9	26	505	702	2" BSP (F)	1 ½" BSP (F)

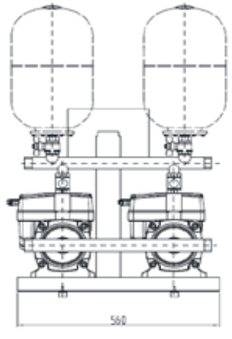


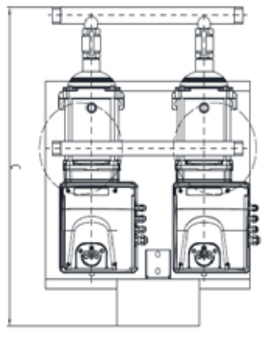
VG2 Twin Pump

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Amps	Weight (kg)	Dimensions			
					C (mm)	H (mm)	DNA (inlet)	DNM (outlet)
VG2-1HME05-LSM	0.37	230/1/50	4.5	75	776	1008	2" BSP (M)	2" BSP (M)
VG2-3HME05-LSM	0.55	230/1/50	6.1	85	776	1008	2" BSP (M)	2" BSP (M)
VG2-3HME07-LSM	0.75	230/1/50	8.1	90	810	1090	2" BSP (M)	2" BSP (M)
VG2-3HME09-LSM	1.1	230/1/50	11.7	95	850	1090	2" BSP (M)	2" BSP (M)
VG2-3HME12-LSM	1.5	230/1/50	15.6	100	910	1090	2" BSP (M)	2" BSP (M)
VG2-5HME04-LSM	0.75	230/1/50	8.1	80	797	1053	2" BSP (M)	2" BSP (M)
VG2-5HME06-LSM	1.1	230/1/50	11.7	90	836	1151	2" BSP (M)	2" BSP (M)
VG2-5HME08-LSM	1.5	230/1/50	15.6	100	836	1151	2" BSP (M)	2" BSP (M)
VG2-5HME10-LST	2.2	400/3/50	11.7	104	891	1151	2" BSP (M)	2" BSP (M)
VG2-10HME02-LSM	1.1	230/1/50	11.7	100	832	1211	2 ½" BSP (M)	2 ½" BSP (M)
VG2-10HME03-LSM	1.5	230/1/50	15.6	110	832	1211	2 ½" BSP (M)	2 ½" BSP (M)
VG2-10HME04-LST	2.2	400/3/50	11.7	114	819	1211	2 ½" BSP (M)	2 ½" BSP (M)
VG2-15HME02-LSM	1.5	230/1/50	15.6	110	915	1251	3" BSP (M)	3" BSP (M)
VG2-15HME03-LST	2.2	400/3/50	11.8	114	870	1251	3" BSP (M)	3" BSP (M)



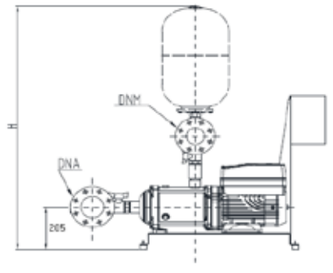


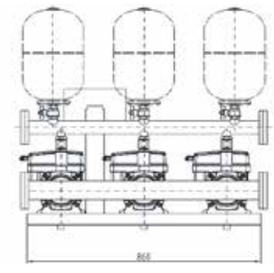


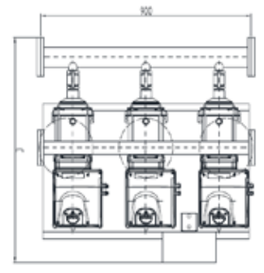
VG3 Triple Pump

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Amps	Weight (kg)	Dimensions			
					C (mm)	H (mm)	DNA (inlet)	DNM (outlet)
VG3-3HME03-LSM	0.37	230/1/50	6.7	110	737	1008	2" BSP (M)	2" BSP (M)
VG3-3HME05-LSM	0.55	230/1/50	9.2	125	777	1008	2" BSP (M)	2" BSP (M)
VG3-3HME07-LSM	0.75	230/1/50	12.2	130	810	1090	2" BSP (M)	2" BSP (M)
VG3-3HME09-LSM	1.1	230/1/50	17.6	140	850	1090	2" BSP (M)	2" BSP (M)
VG3-3HME12-LSM	1.5	230/1/50	23.4	145	910	1090	2" BSP (M)	2" BSP (M)
VG3-5HME04-LSM	0.75	230/1/50	12.2	115	798	1069	2" BSP (M)	2" BSP (M)
VG3-5HME06-LSM	1.1	230/1/50	17.6	120	836	1151	2" BSP (M)	2" BSP (M)
VG3-5HME08-LSM	1.5	230/1/50	23.5	130	886	1151	2" BSP (M)	2" BSP (M)
VG3-5HME10-LST	2.2	400/3/50	17.6	136	901	1151	2" BSP (M)	2" BSP (M)
VG3-10HME02-LSM	1.1	230/1/50	17.6	145	832	1211	2 ½" BSP (M)	2 ½" BSP (M)
VG3-10HME03-LSM	1.5	230/1/50	23.4	150	832	1211	2 ½" BSP (M)	2 ½" BSP (M)
VG3-10HME04-LST	2.2	400/3/50	17.6	156	829	1211	2 ½" BSP (M)	2 ½" BSP (M)
VG3-15HME02-LSM	1.5	230/1/50	23.4	175	910	1251	DN100	DN80
VG3-15HME03-LST	2.2	400/3/50	17.7	181	936	1251	DN100	DN80

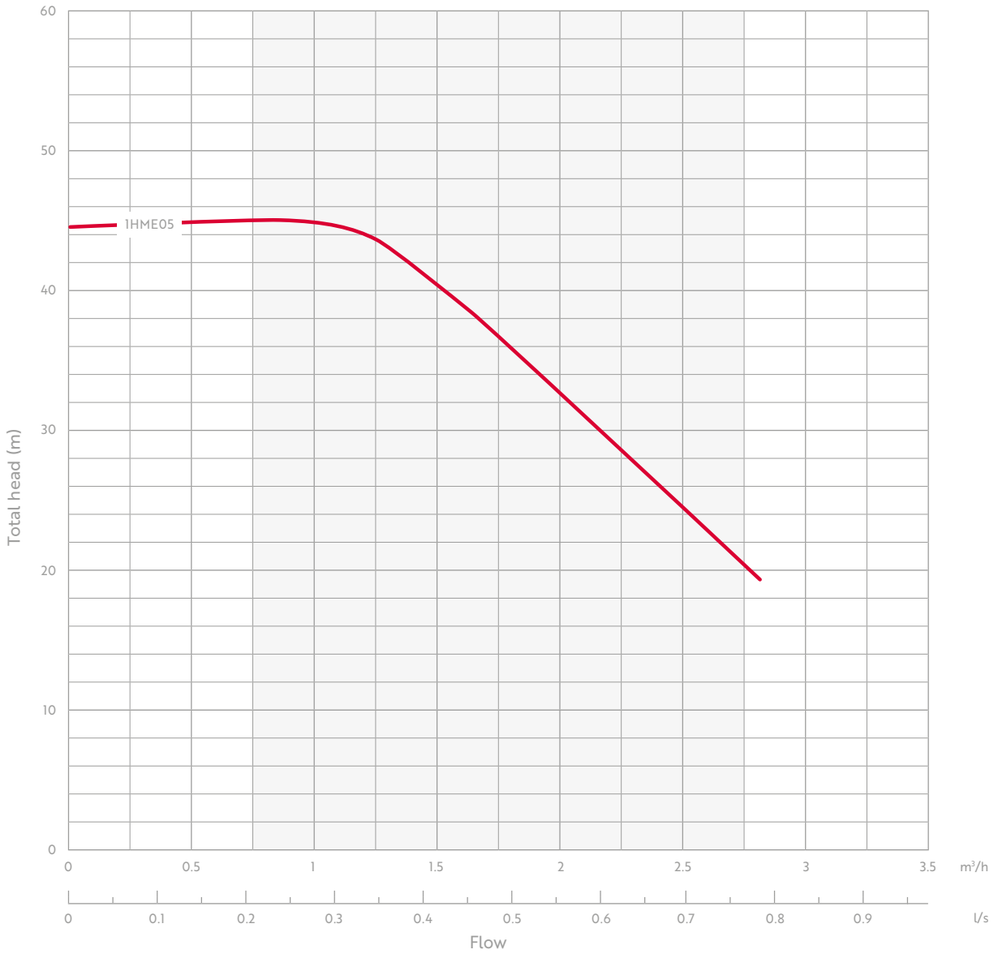






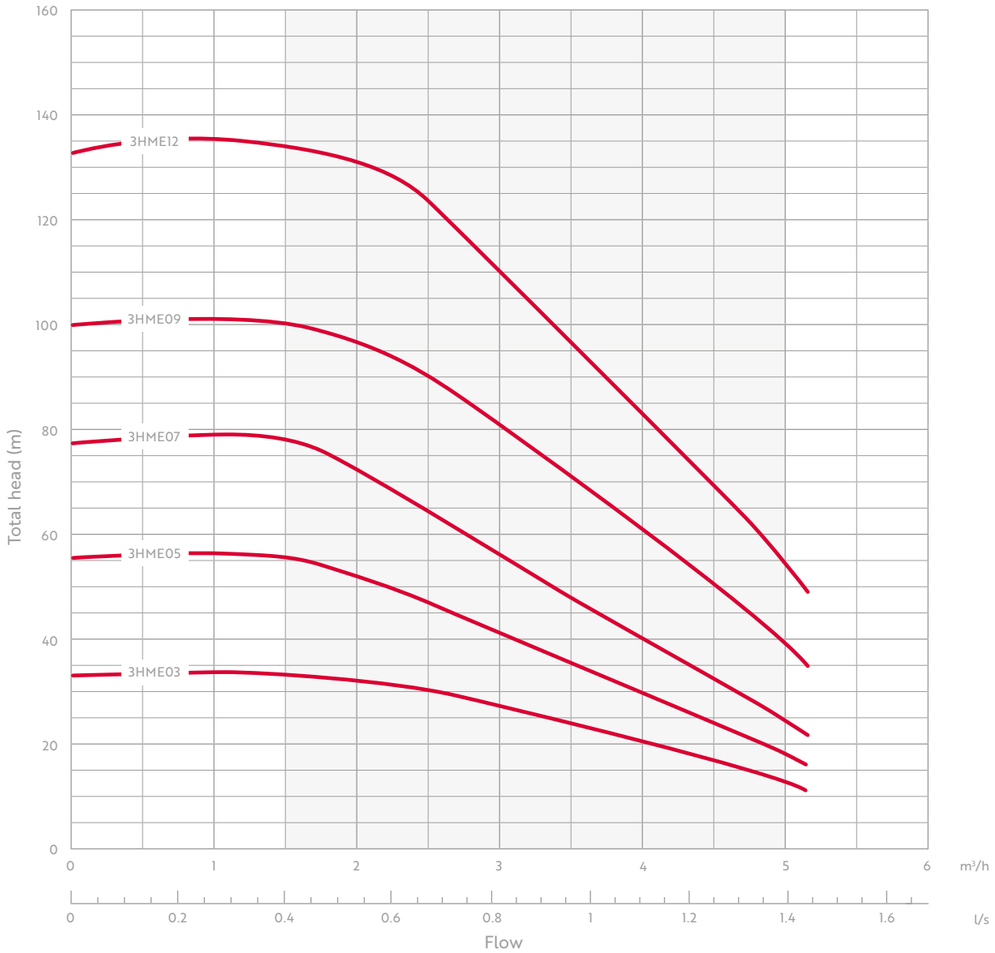
VGx-1HME

SINGLE PUMP CURVES



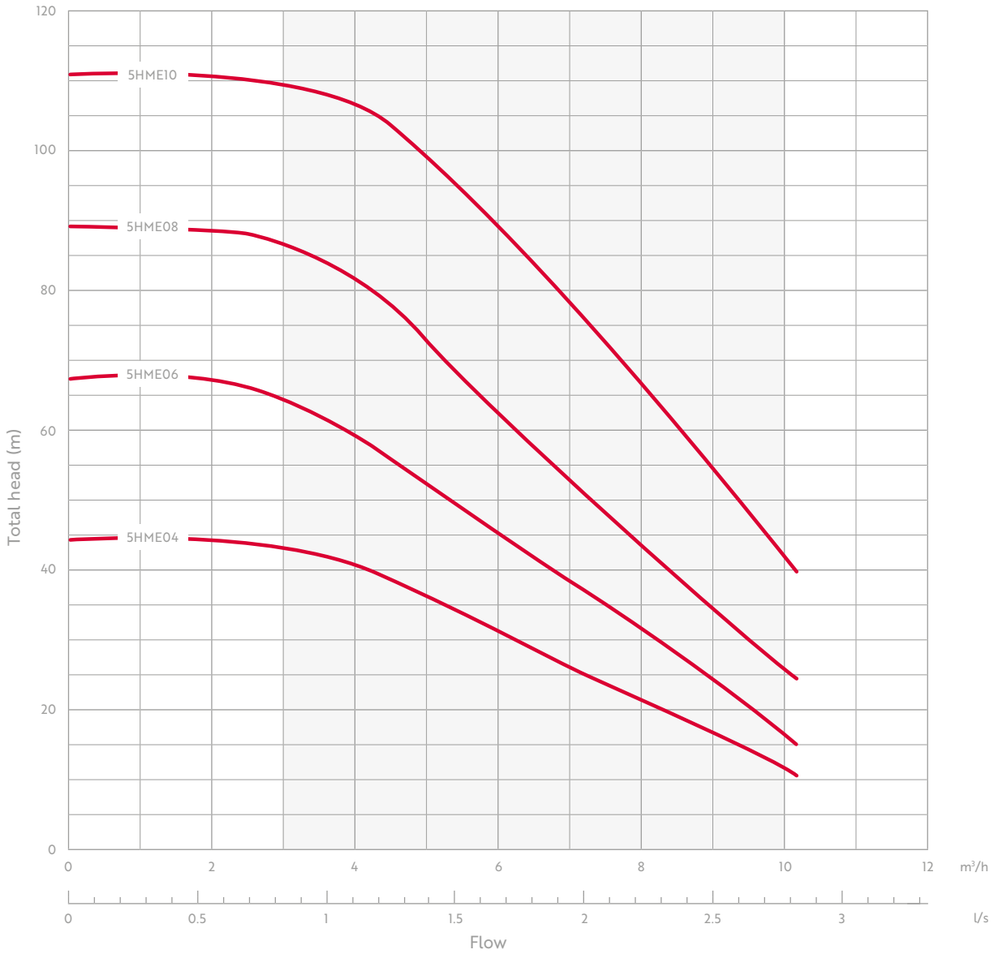
VGx-3HME

SINGLE PUMP CURVES



VGx-5HME

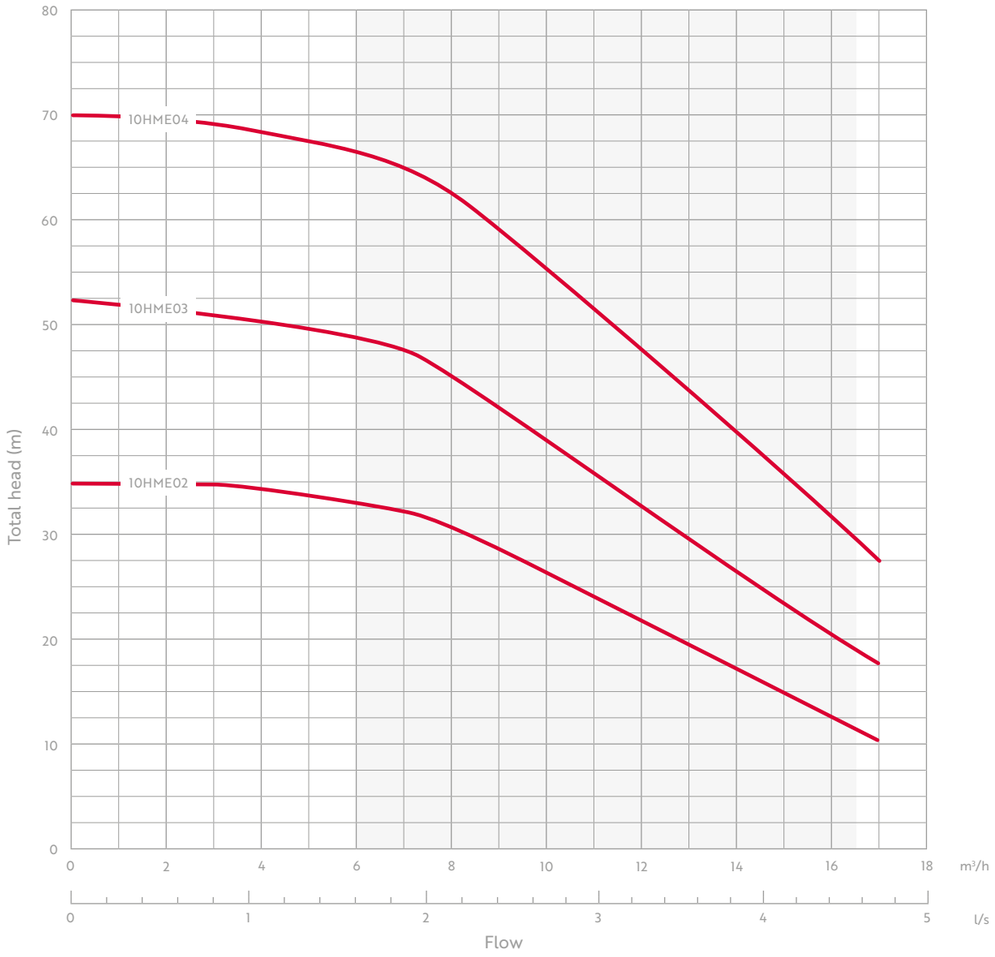
SINGLE PUMP CURVES



COLD WATER BOOSTER SETS
VG

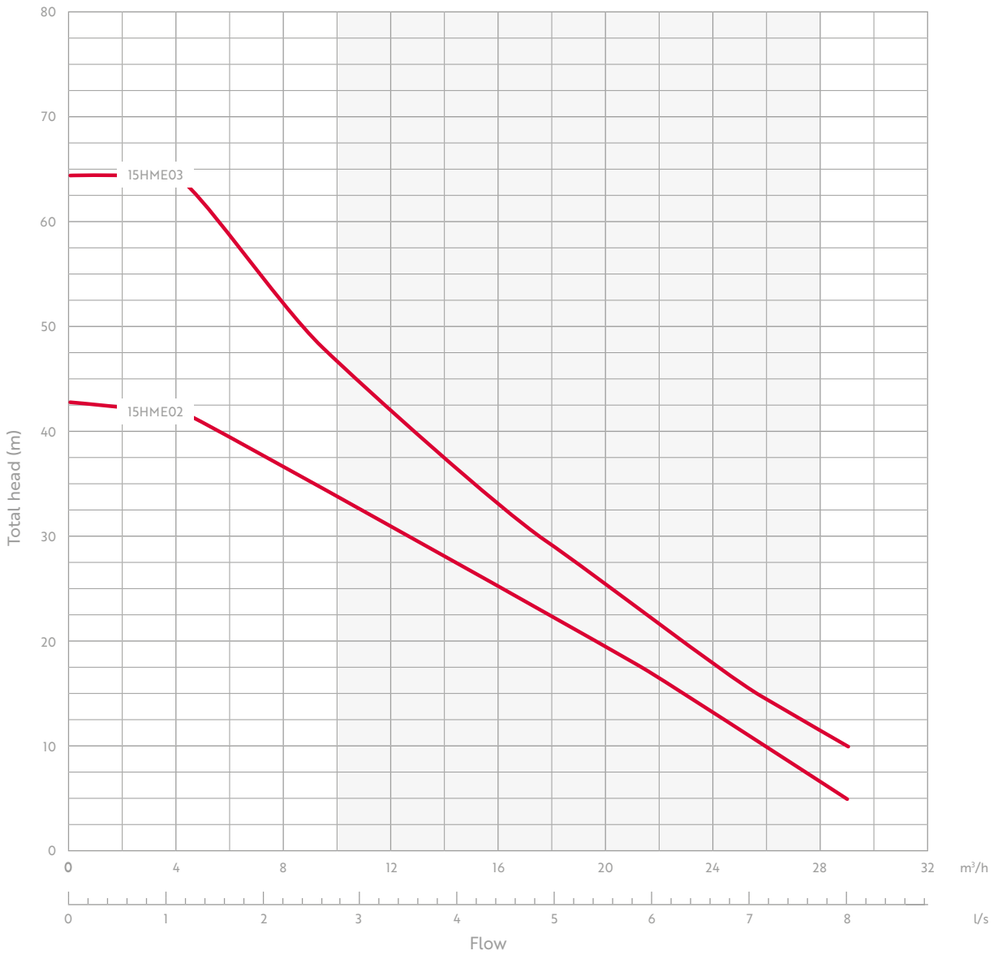
VGx-10HME

SINGLE PUMP CURVES



VGx-15HME

SINGLE PUMP CURVES



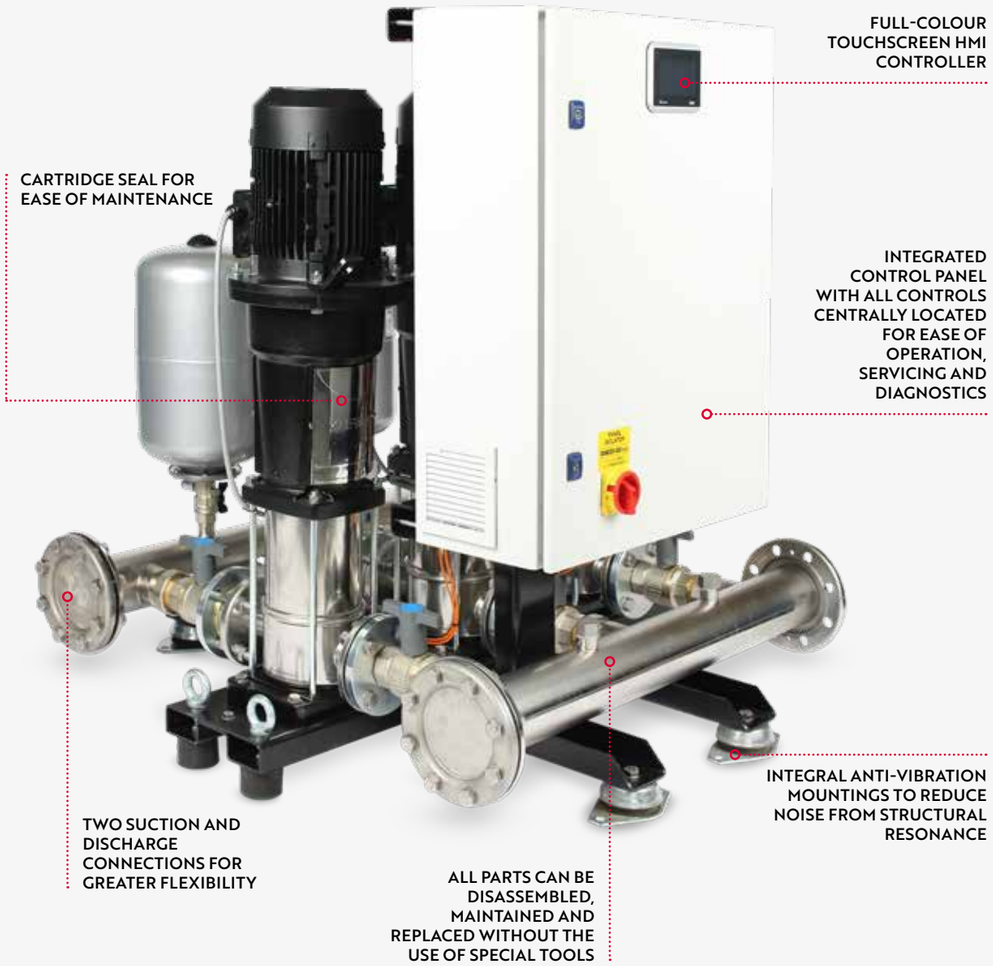
VT

Medium-duty, variable-speed cold water booster sets.

PRODUCT OVERVIEW

- Assembled with two or three multistage pumps
- Integrated control panel with all controls centrally located for ease of operation
- Interface with building management system (BMS)
- Upgrade for combined domestic cold water and fire sprinkler available
- Ease of installation and commissioning
- 24-hour delivery on popular models

Key Features



QUICK DELIVERY | HIRISE | BMS CONNECTABLE | FIRE SYSTEM UPGRADE

TRUESTANDBY™ | BURST PIPE TECHNOLOGY | ANTI-VIBRATION FITTED

Specification

The Dutypoint VT booster set range is competitive, simple to maintain over its lifespan and meets the high-quality engineered product standards that the Dutypoint ethos demands. We hold high volumes of these units in stock, so they are available quickly, making them the ideal solution for new and retrofit applications.

We've also designed the system to be user friendly with a full-colour touchscreen display and easily sourced standard parts.

PRODUCT OVERVIEW

- Multistage vertical pumps
- Low-water protection technology that deactivates the pumps if there is no water in the break tank, protecting against dry running
- Anti-vibration mounts reduce system noise
- Anti-seize technology during low or zero usage
- Burst pipe protection that constantly monitors the system for signs of major leakage
- Full-colour touchscreen display with clear error display and log
- IP55-rated control panel allows for simple and safe maintenance
- Cyclic duty changeover ensures even wear across pumps
- Common fault volt-free contact for connection to building management systems
- External start/stop contact for connection to external control systems
- RS485 connections for connection to Modbus

RANGE PERFORMANCE

Number of pumps	2 or 3
Flow range	0.75 - 23 l/s
Pressure range	2.5 - 10 bar
Max system pressure	15 bar
Controller type	Inverter integral to panel
Max system temperature	40°C
Noise data	Motor at 3600 rpm < 70LpA (dB +/-2)*

*More specific details available on request.

MATERIAL SPECIFICATION

Manifolds	AISI 304 stainless steel
Isolation valves	Nickel-plated brass
Non-return valves	AISI 304 stainless steel
Pressure transducers	AISI 304 stainless steel
Pump casing	AISI 304 stainless steel
Pump impellers	AISI 304 stainless steel
Mechanical seals	Silicon carbide, graphite, EPDM
Pressure vessels	WRAS approved
Base plate	Powder-coated mild steel

VT2 - Twin Pump Duty/Standby Selector

DUTY STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1.6	**2**	2.3	**2**	2.0	**2**	1.7	**3**	2.2	**3**	2.1	**3**	1.6	**4**	2	**4**	1.7	**4**	1.3
2	2.4	**7**	4.5	**3**	2.5	**3**	2.4	**7**	3.2	**4**	2.5	**4**	2.3	**5**	2.4	**5**	2.3	**5**	2.1
7	4.3	**13**	7.1	**7**	4.1	**7**	3.7	**8**	4.1	**8**	3.8	**8**	3	**9**	3.8	**9**	3.3	**9**	2.6
12	5.6	**17**	8.9	**8**	4.7	**8**	4.4	**13**	5.2	**9**	4.7	**9**	4.3	**10**	4.5	**10**	4.2	**10**	3.8
13	7.6			**13**	6.6	**13**	5.9	**14**	6.7	**14**	6.3	**14**	5.2						
16	8.1			**14**	7.5	**14**	7.1	**17**	7.2	**17**	6.4								
17	9.4			**17**	8.3	**17**	7.8												

VT MODEL

Ref	Model no.
1	VT2-05-007M/T
2	VT2-05-011M/T
3	VT2-05-015M/T
4	VT2-05-022M/T
5	VT2-05-030M/T
6	VT2-10-011M/T
7	VT2-10-022M/T
8	VT2-10-030M/T
9	VT2-10-040M/T
10	VT2-10-055T
11	VT2-15-015M/T
12	VT2-15-030M/T
13	VT2-15-040M/T
14	VT2-15-055T
15	VT2-20-022M/T
16	VT2-20-040M/T
17	VT2-20-055T

COLD WATER BOOSTER SETS
VT

VT2 - Twin Pump Duty/Assist Selector

DUTY ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	3.3	**2**	4.6	**2**	4.1	**2**	3.3	**3**	4.4	**3**	4.1	**3**	3.2	**4**	4.1	**4**	3.4	**4**	2.7
2	4.9	**7**	9	**3**	5	**3**	4.8	**7**	6.4	**4**	5	**4**	4.6	**5**	4.8	**5**	4.6	**5**	4.2
7	8.6	**13**	14.2	**7**	8.3	**7**	7.4	**8**	8.3	**8**	7.7	**8**	6.1	**9**	7.7	**9**	6.6	**9**	5.2
12	11.1	**17**	17.8	**8**	9.3	**8**	8.8	**13**	10.3	**9**	9.4	**9**	8.6	**10**	9	**10**	8.4	**10**	7.7
13	15.1			**13**	13.3	**13**	11.8	**14**	13.3	**14**	12.7	**14**	10.4						
16	16.1			**14**	15	**14**	14.2	**17**	14.4	**17**	12.9								
17	18.9			**17**	16.7	**17**	15.6												

VT MODEL

Ref	Model no.
1	VT2-05-007M/T
2	VT2-05-011M/T
3	VT2-05-015M/T
4	VT2-05-022M/T
5	VT2-05-030M/T
6	VT2-10-011M/T
7	VT2-10-022M/T
8	VT2-10-030M/T
9	VT2-10-040M/T
10	VT2-10-055T
11	VT2-15-015M/T
12	VT2-15-030M/T
13	VT2-15-040M/T
14	VT2-15-055T
15	VT2-20-022M/T
16	VT2-20-040M/T
17	VT2-20-055T

VT3 - Triple Pump Duty/Assist/Standby Selector

DUTY ASSIST STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	3.3	**2**	4.6	**2**	4.1	**2**	3.3	**3**	4.4	**3**	4.1	**3**	3.2	**4**	4.1	**4**	3.4	**4**	2.7
2	4.9	**7**	9	**3**	5	**3**	4.8	**7**	6.4	**4**	5	**4**	4.6	**5**	4.8	**5**	4.6	**5**	4.2
7	8.6	**14**	14.2	**7**	8.3	**7**	7.4	**8**	8.3	**8**	7.7	**8**	6.1	**9**	7.7	**9**	6.6	**9**	5.22
13	11.1	**19**	17.8	**8**	9.3	**8**	8.8	**14**	10.3	**9**	9.4	**9**	8.6	**10**	9	**10**	8.4	**10**	7.7
14	15.1			**14**	13.3	**14**	11.8	**15**	13.3	**15**	12.7	**15**	10.4	**16**	12.2	**11**	9	**11**	8.4
18	16.1			**15**	15	**15**	14.2	**19**	14.4	**16**	15.1	**16**	13.8	**20**	12.5	**16**	10	**16**	7.2
19	18.9			**19**	16.7	**19**	15.6	**20**	17.8	**19**	12.9	**20**	15.1						
						20	18.4			**20**	17.1								

VT MODEL

Ref	Model no.
1	VT3-05-007M/T
2	VT3-05-011M/T
3	VT3-05-015M/T
4	VT3-05-022M/T
5	VT3-05-030M/T
6	VT3-10-011M/T
7	VT3-10-022M/T
8	VT3-10-030M/T
9	VT3-10-040M/T
10	VT3-10-055T
11	VT3-10-075T
12	VT3-15-015M/T
13	VT3-15-030M/T
14	VT3-15-040M/T
15	VT3-15-055T
16	VT3-15-075T
17	VT3-20-022M/T
18	VT3-20-040M/T
19	VT3-20-055T
20	VT3-20-075T

COLD WATER BOOSTER SETS
VT

VT3 - Triple Pump Duty/Assist/Assist Selector

DUTY ASSIST ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	4.9	**2**	6.8	**2**	6.1	**2**	5	**3**	6.7	**3**	6.2	**3**	4.8	**4**	6.1	**4**	5.2	**4**	4
2	7.3	**7**	13.5	**3**	7.5	**3**	7.2	**7**	9.7	**4**	7.5	**4**	6.8	**5**	7.2	**5**	6.8	**5**	6.3
7	12.8	**14**	21.3	**7**	12.4	**7**	11.2	**8**	12.4	**8**	11.5	**8**	9.1	**9**	11.5	**9**	9.9	**9**	7.8
13	16.7	**19**	26.7	**8**	14	**8**	13.3	**14**	15.5	**9**	14.2	**9**	12.8	**10**	13.5	**10**	12.6	**10**	11.5
14	22.7			**14**	19.9	**14**	17.7	**15**	20	**15**	19	**15**	15.7	**16**	18.3	**11**	13.5	**11**	12.6
18	24.2			**15**	22.5	**15**	21.3	**19**	21.7	**16**	22.6	**16**	20.8	**20**	18.8	**16**	15	**16**	10.8
19	28.3			**19**	25	**19**	23.3	**20**	26.7	**19**	19.3	**20**	22.7						
						20	27.6			**20**	25.7								

VT MODEL

Ref	Model no.
1	VT3-05-007M/T
2	VT3-05-011M/T
3	VT3-05-015M/T
4	VT3-05-022M/T
5	VT3-05-030M/T
6	VT3-10-011M/T
7	VT3-10-022M/T
8	VT3-10-030M/T
9	VT3-10-040M/T
10	VT3-10-055T
11	VT3-10-075T
12	VT3-15-015M/T
13	VT3-15-030M/T
14	VT3-15-040M/T
15	VT3-15-055T
16	VT3-15-075T
17	VT3-20-022M/T
18	VT3-20-040M/T
19	VT3-20-055T
20	VT3-20-075T

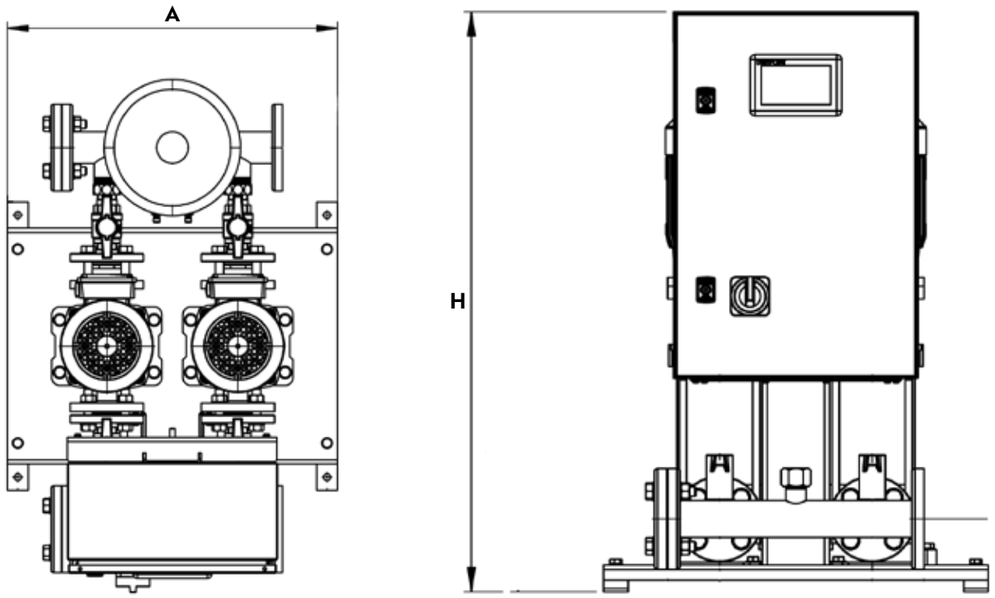
VT2 Series

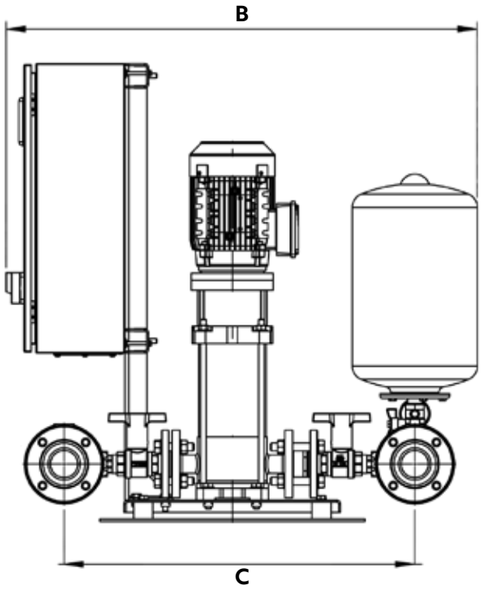
DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)				Suction	Discharge	Weight (kg)
			Per pump	Total	A	B	C	H			
VT2-05-005M	0.55	230/1/50	3.3	6.6	630	979	728	950	DN50	DN50	140
VT2-05-005T	0.55	400/3/50	1.9	3.8	630	979	728	950	DN50	DN50	140
VT2-05-007M	0.75	230/1/50	3.3	6.6	630	979	728	950	DN50	DN50	140
VT2-05-007T	0.75	400/3/50	1.9	3.8	630	979	728	950	DN50	DN50	140
VT2-05-011M	1.1	230/1/50	4.7	9.4	630	979	728	950	DN50	DN50	145
VT2-05-011T	1.1	400/3/50	2.7	5.4	630	979	728	950	DN50	DN50	145
VT2-05-015M	1.5	230/1/50	5.9	11.8	630	979	728	950	DN50	DN50	150
VT2-05-015T	1.5	400/3/50	3.4	6.8	630	979	728	950	DN50	DN50	150
VT2-05-022M	2.2	230/1/50	8	16	630	1029	728	1200	DN50	DN50	170
VT2-05-022T	2.2	400/3/50	4.6	9.2	630	1029	728	1200	DN50	DN50	170
VT2-05-030M	3.0	230/1/50	10.4	20.8	630	1029	728	1200	DN50	DN50	190
VT2-05-030T	3.0	400/3/50	6	12	630	1029	728	1200	DN50	DN50	190
VT2-10-011M	1.1	230/1/50	4.7	9.4	700	1023	813	950	DN65	DN65	220
VT2-10-011T	1.1	400/3/50	2.7	5.4	700	1023	813	950	DN65	DN65	220
VT2-10-022M	2.2	230/1/50	8	16	700	1073	813	1200	DN65	DN65	180
VT2-10-022T	2.2	400/3/50	4.6	9.2	700	1073	813	1200	DN65	DN65	180
VT2-10-030M	3.0	230/1/50	10.4	20.8	700	1073	813	1200	DN65	DN65	190
VT2-10-030T	3.0	400/3/50	6	12	700	1073	813	1200	DN65	DN65	190
VT2-10-040M	4.0	230/1/50	13.2	26.4	700	1073	813	1200	DN65	DN65	200
VT2-10-040T	4.0	400/3/50	7.6	15.2	700	1073	813	1200	DN65	DN65	200
VT2-10-055T	5.5	400/3/50	10.5	21	700	1073	813	1200	DN65	DN65	300
VT2-15-015M	1.5	230/1/50	5.9	11.8	700	1140	909	950	DN80	DN80	180
VT2-15-015T	1.5	400/3/50	3.4	6.8	700	1140	909	950	DN80	DN80	180
VT2-15-030M	3.0	230/1/50	10.4	20.8	700	1140	909	1200	DN80	DN80	210
VT2-15-030T	3.0	400/3/50	6	12	700	1140	909	1200	DN80	DN80	210
VT2-15-040M	4.0	230/1/50	13.2	26.4	700	1140	909	1200	DN80	DN80	230
VT2-15-040T	4.0	400/3/50	7.6	15.2	700	1140	909	1200	DN80	DN80	230
VT2-15-055T	5.5	400/3/50	10.5	21	700	1140	909	1200	DN80	DN80	350
VT2-20-022M	2.2	230/1/50	8	16	700	1141	910	1200	DN80	DN80	240
VT2-20-022T	2.2	400/3/50	4.6	9.2	700	1141	910	1200	DN80	DN80	240
VT2-20-040M	4.0	230/1/50	13.2	26.4	700	1141	910	1200	DN80	DN80	275
VT2-20-040T	4.0	400/3/50	7.6	15.2	700	1141	910	1200	DN80	DN80	275
VT2-20-055T	5.5	400/3/50	10.5	21	700	1141	910	1200	DN80	DN80	320

COLD WATER BOOSTER SETS
VT

VT2 Series





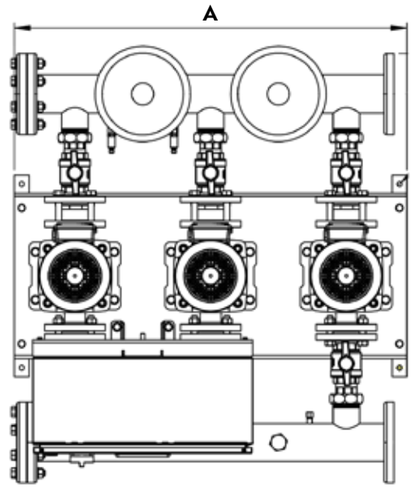
VT3 Series

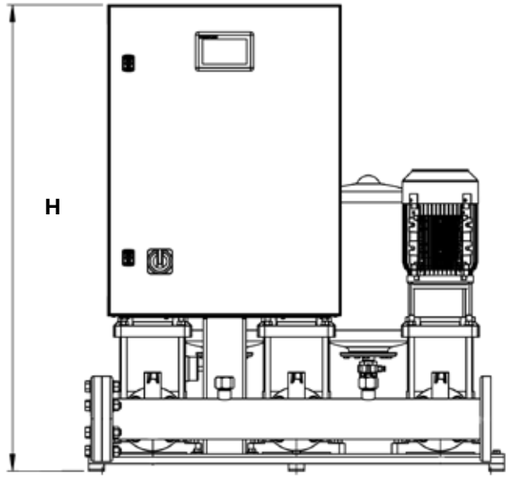
DRAWINGS AND DIMENSIONS

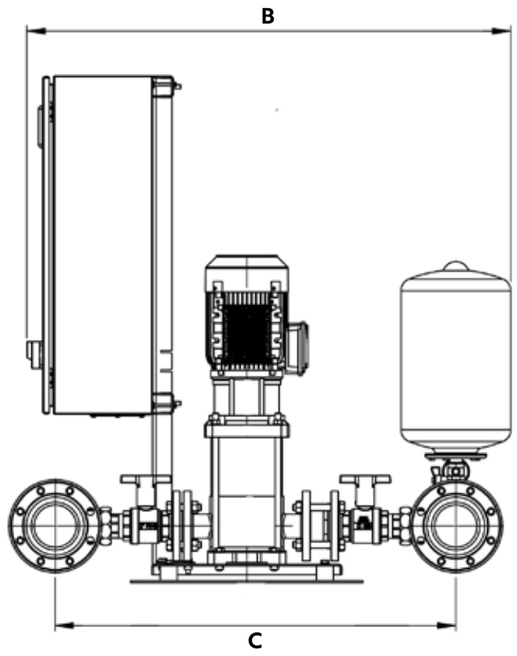
Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)						Weight (kg)
			Per pump	Total	A	B	C	H	Suction	Discharge	
VT3-05-005M	0.55	230/1/50	3.3	9.9	880	989	748	950	DN80	DN80	175
VT3-05-005T	0.55	400/3/50	1.9	5.7	880	989	748	950	DN80	DN80	175
VT3-05-007M	0.75	230/1/50	3.3	9.9	880	989	748	950	DN80	DN80	175
VT3-05-007T	0.75	400/3/50	1.9	5.7	880	989	748	950	DN80	DN80	175
VT3-05-011M	1.1	230/1/50	4.7	14.1	880	989	748	950	DN80	DN80	180
VT3-05-011T	1.1	400/3/50	2.7	8.1	880	989	748	950	DN80	DN80	180
VT3-05-015M	1.5	230/1/50	5.9	17.7	880	989	748	950	DN80	DN80	195
VT3-05-015T	1.5	400/3/50	3.4	10.2	880	989	748	950	DN80	DN80	195
VT3-05-022M	2.2	230/1/50	8	24	880	1039	748	1200	DN80	DN80	221
VT3-05-022T	2.2	400/3/50	4.6	13.8	880	1039	748	1200	DN80	DN80	221
VT3-05-030M	3.0	230/1/50	10.4	31.2	880	1039	748	1200	DN80	DN80	270
VT3-05-030T	3.0	400/3/50	6	18	880	1039	748	1200	DN80	DN80	270
VT3-10-011M	1.1	230/1/50	4.7	14.1	1000	1095	853	950	DN100	DN100	210
VT3-10-011T	1.1	400/3/50	2.7	8.1	1000	1095	853	950	DN100	DN100	210
VT3-10-022M	2.2	230/1/50	8	24	1000	1095	853	950	DN100	DN100	270
VT3-10-022T	2.2	400/3/50	4.6	13.8	1000	1095	853	950	DN100	DN100	270
VT3-10-030M	3.0	230/1/50	10.4	31.2	1000	1095	853	1200	DN100	DN100	290
VT3-10-030T	3.0	400/3/50	6	18	1000	1095	853	1200	DN100	DN100	290
VT3-10-040M	4.0	230/1/50	13.2	39.6	1000	1095	853	1200	DN100	DN100	320
VT3-10-040T	4.0	400/3/50	7.6	22.8	1000	1095	853	1200	DN100	DN100	320
VT3-10-055T	5.5	400/3/50	10.5	31.5	1000	1218	853	1255	DN100	DN100	490
VT3-10-075T	7.5	400/3/50	14.5	43.5	1000	1218	853	1255	DN100	DN100	525
VT3-15-015M	1.5	230/1/50	5.9	17.7	1070	1190	949	950	DN100	DN100	310
VT3-15-015T	1.5	400/3/50	3.4	10.2	1070	1190	949	950	DN100	DN100	310
VT3-15-030M	3.0	230/1/50	10.4	31.2	1070	1190	949	1200	DN100	DN100	350
VT3-15-030T	3.0	400/3/50	6	18	1070	1190	949	1200	DN100	DN100	350
VT3-15-040M	4.0	230/1/50	13.2	39.6	1200	1190	949	1200	DN100	DN100	350
VT3-15-040T	4.0	400/3/50	7.6	22.8	1200	1190	949	1200	DN100	DN100	350
VT3-15-055T	5.5	400/3/50	10.5	31.5	1200	1252	949	1255	DN100	DN100	470
VT3-15-075T	7.5	400/3/50	14.5	43.5	1200	1252	949	1255	DN100	DN100	490
VT3-20-022M	2.2	230/1/50	8	24	1070	1190	948	1200	DN100	DN100	400
VT3-20-022T	2.2	400/3/50	4.6	13.8	1070	1190	948	1200	DN100	DN100	400
VT3-20-040M	4.0	230/1/50	13.2	39.6	1070	1190	948	1200	DN100	DN100	370
VT3-20-040T	4.0	400/3/50	7.6	22.8	1070	1190	948	1200	DN100	DN100	370
VT3-20-055T	5.5	400/3/50	10.5	31.5	1200	1252	948	1255	DN100	DN100	490
VT3-20-075T	7.5	400/3/50	14.5	43.5	1200	1252	948	1255	DN100	DN100	510

COLD WATER BOOSTER SETS
VT

VT3 Series

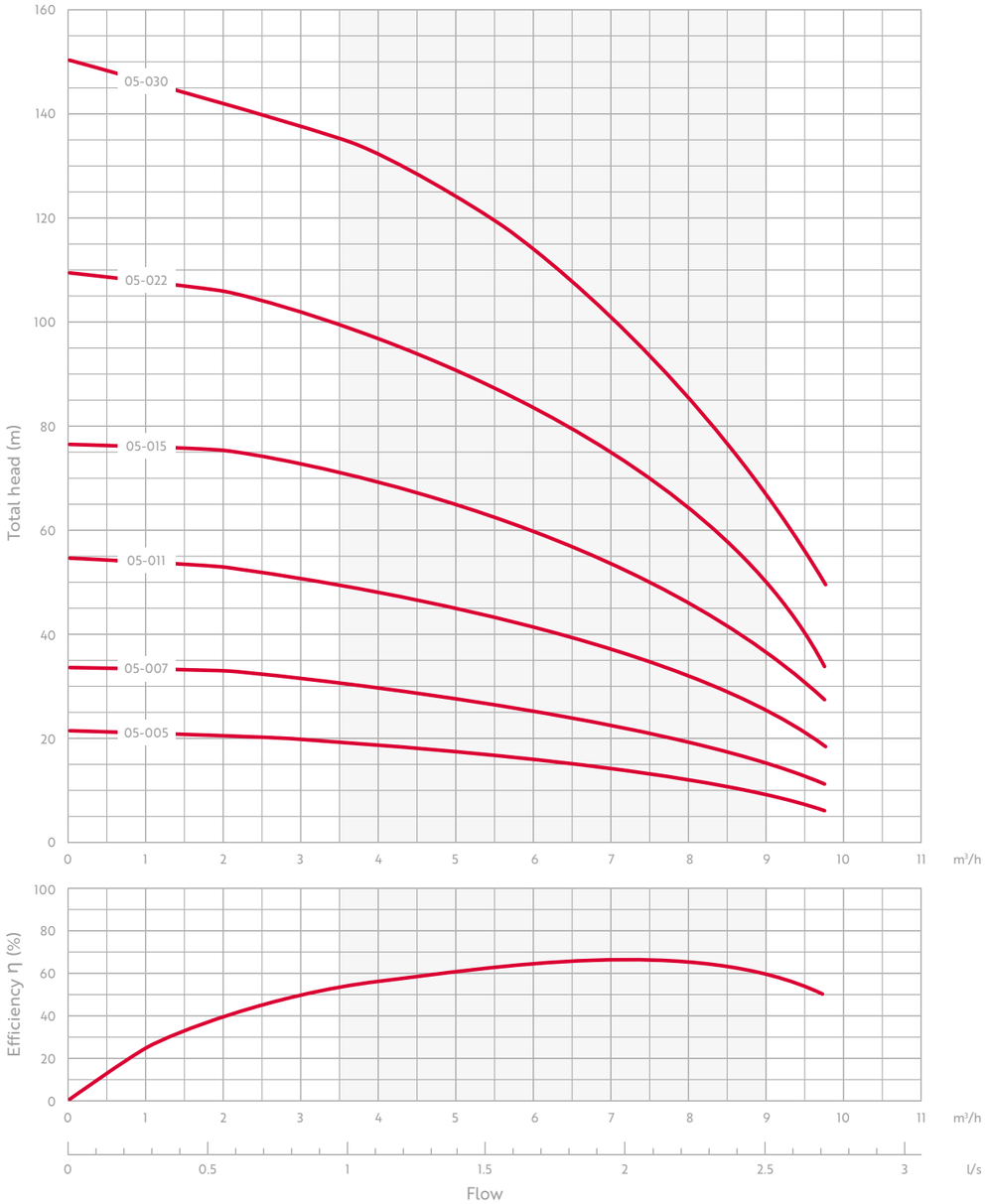






VTx-05 Series

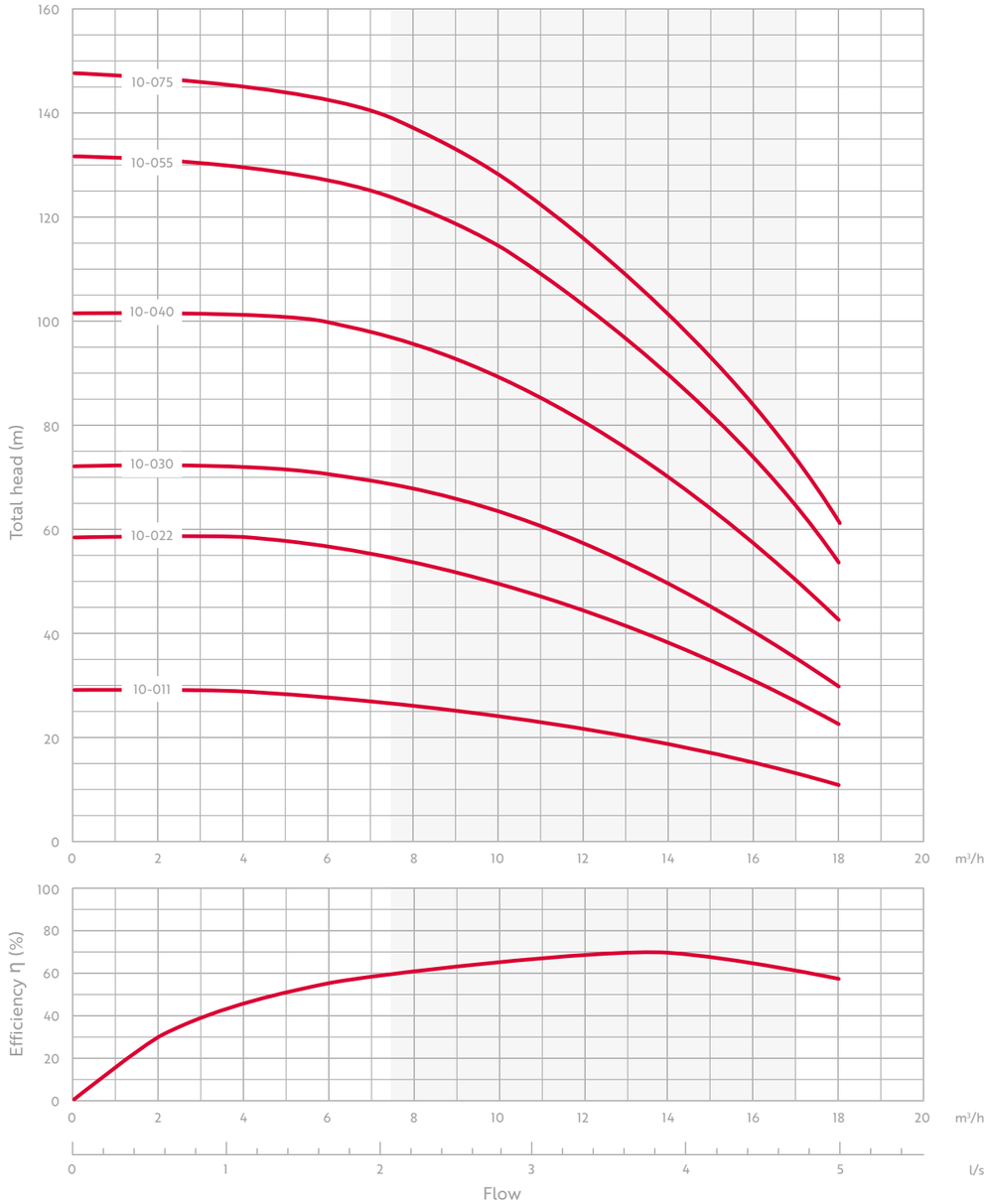
SINGLE PUMP CURVES



COLD WATER BOOSTER SETS
VT

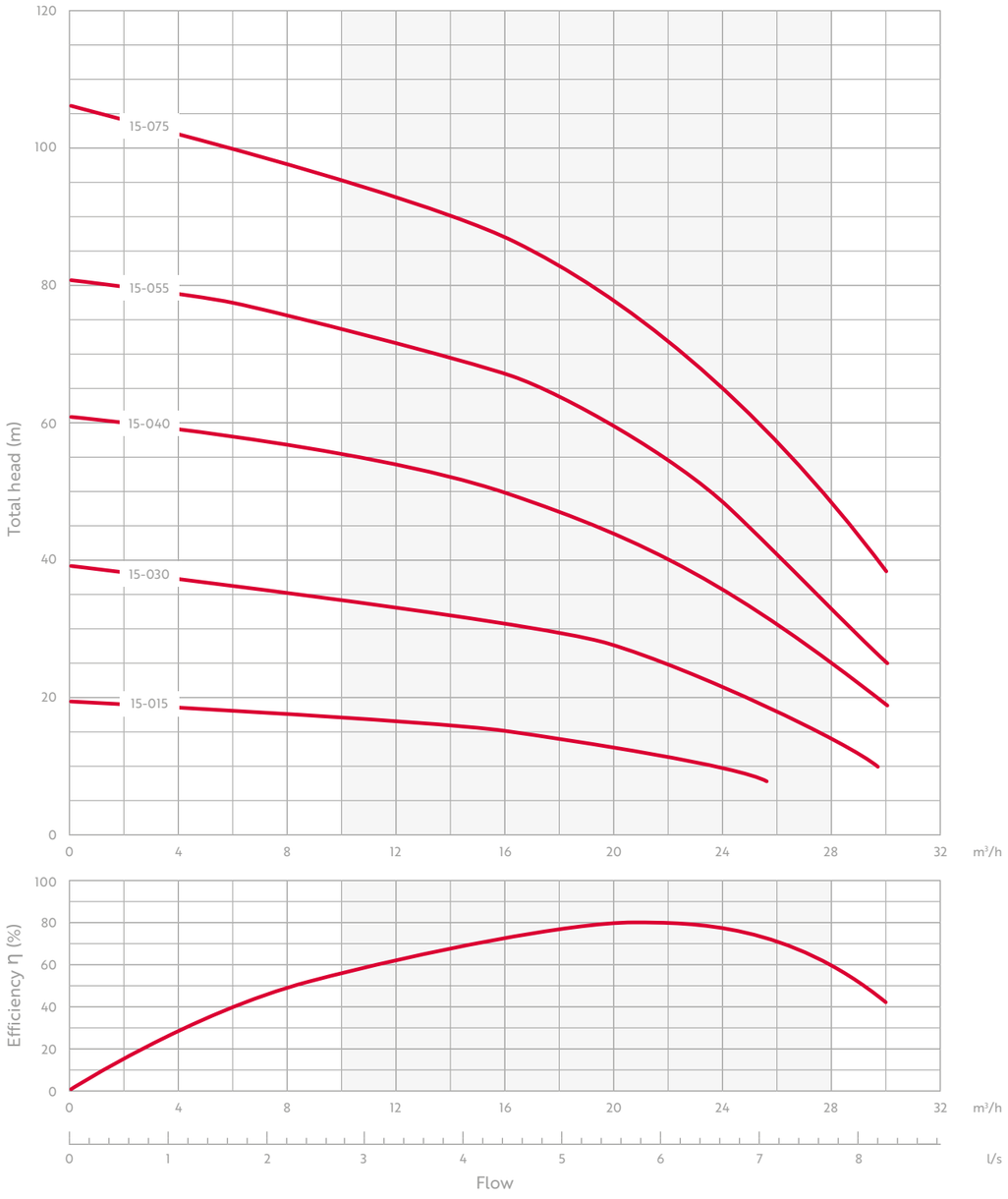
VTx-10 Series

SINGLE PUMP CURVES



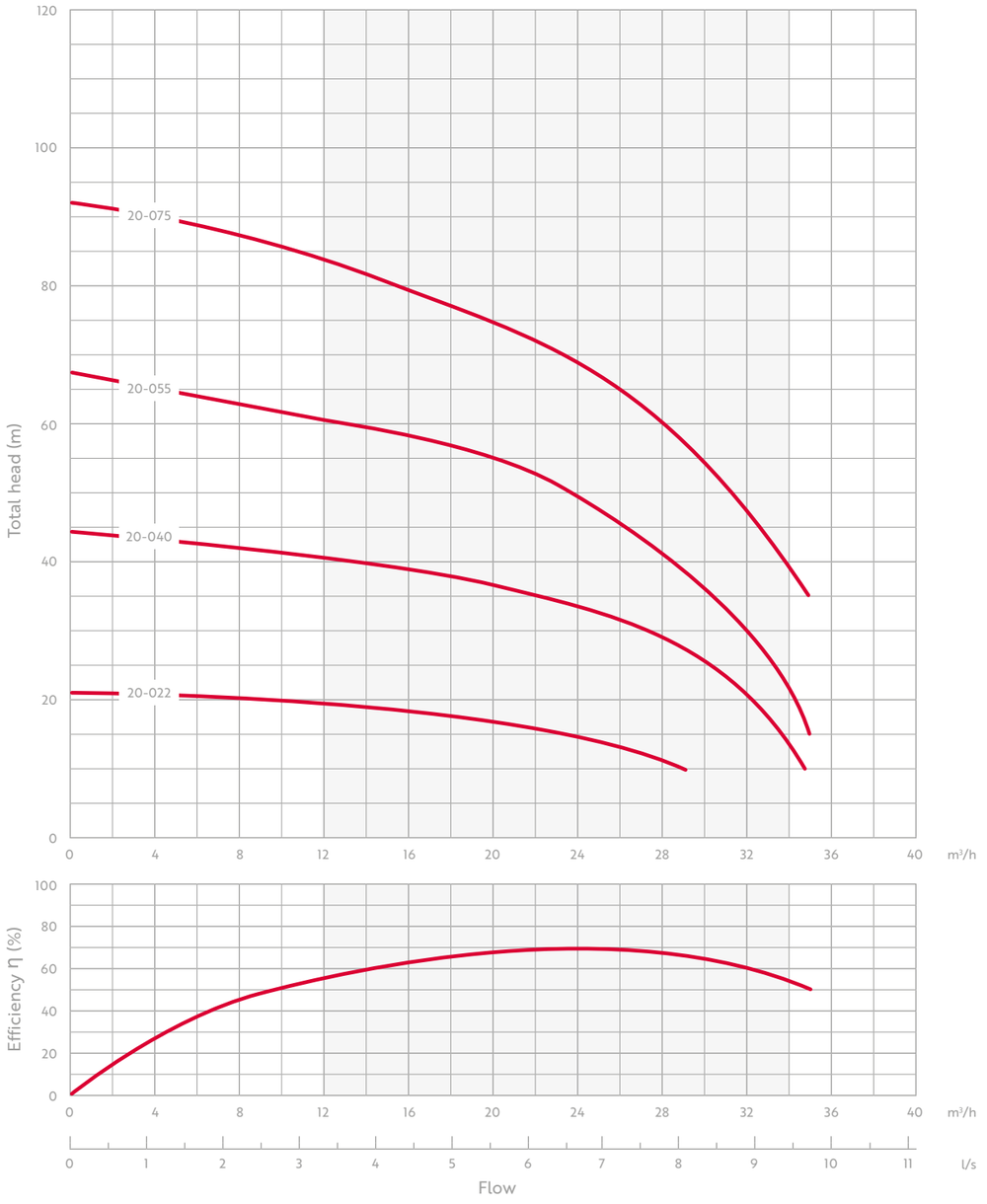
VTx-15 Series

SINGLE PUMP CURVES

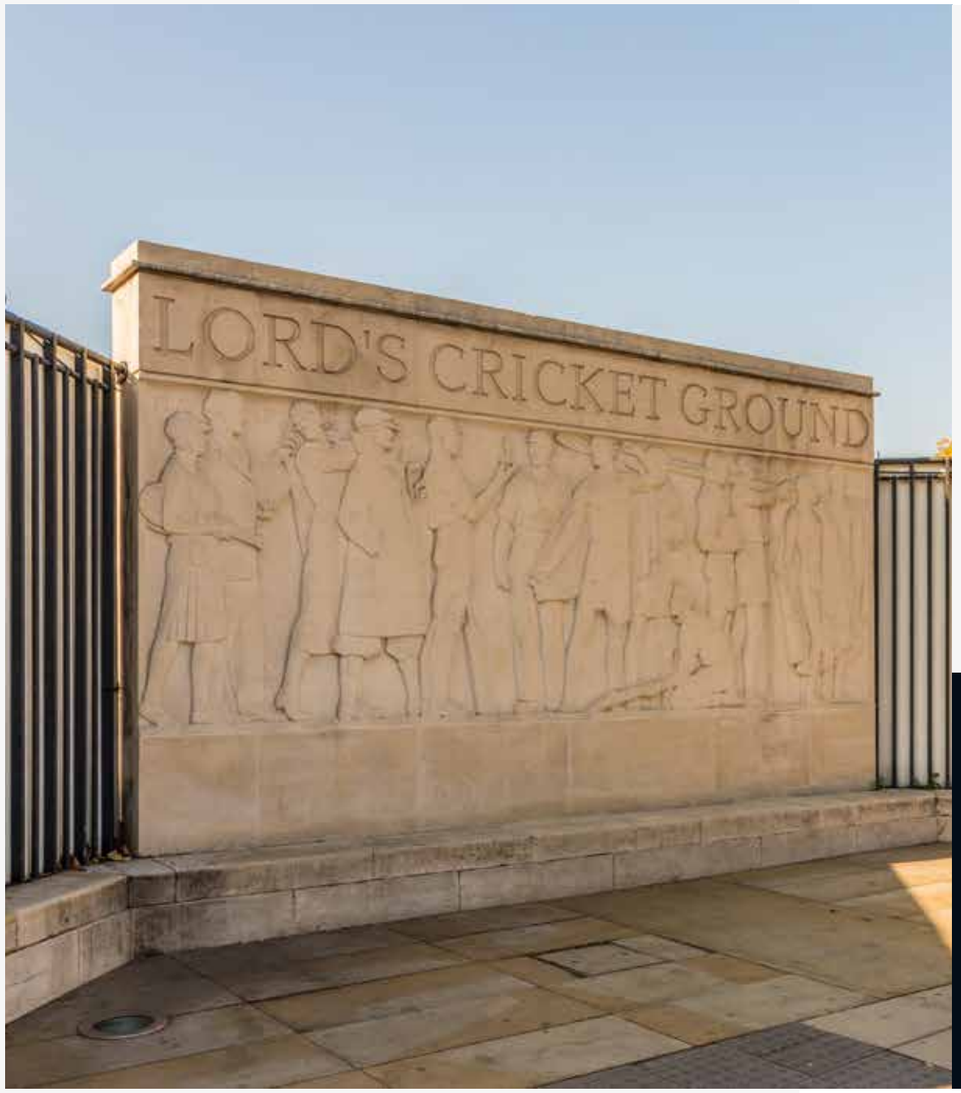


VTx-20 Series

SINGLE PUMP CURVES



Lord's Cricket Ground, St John's Wood



Dutypoint hits it out the park again at a world-famous cricket ground

PROJECT SUMMARY
Widely referred to as the 'Home of Cricket', Lord's Cricket Ground is a long-standing, world-famous sporting venue in central London. With a capacity of 30,000 cricket fans, many international fixtures, tests and championships have been held at the ground, resulting in significant demand for the pump system currently in operation. Pump systems are used widely throughout sports venues to ensure on-site functions are safe, comfortable and able to handle the demand of spectators using the facilities. So when the client working with Lord's needed a rapid solution, Dutypoint was prepared to meet their needs.

PROJECT CHALLENGE
A 'last-minute' addition to a cricket ground scheme meant two booster sets were required to meet a critical handover date. Our team needed to use their expert knowledge and the wide range of stock Dutypoint offers to provide the perfect project solution.

PROJECT SOLUTION
With an extensive range of booster sets and components in stock and a dedicated team behind the scenes, Dutypoint can assist our customers with fast deliveries. Dutypoint received the enquiry on the 23rd of July, and the order was officialised on the 26th. The VT booster sets were delivered to the site two days later on the 28th and installed to guarantee the handover date was met.

PROJECT DETAILS

Project name
Lord's Cricket Ground

Industry sector
Sport & Leisure

Project type
Sporting Venue

Main contractor
Buckingham Group

Products supplied
- 2 x VT booster sets

VR

Variable-speed twin and triple pump compact footprint booster set.

PRODUCT OVERVIEW

- Compact footprint – most models can fit through a standard door
- All major wetted parts manufactured in stainless steel
- Volt-free contact alarm signal for BMS connection
- Duty pump changeover timer to ensure consistent utilisation on all pumps
- Easy access to pumps for hassle-free maintenance
- Anti-vibration mounts included as standard to reduce noise transmission

Key Features

COMPLETE PRE-PACKAGED SOLUTION, INCLUDING VESSELS, INVERTERS AND CONTROL PANEL

TWO SUCTION AND DISCHARGE CONNECTIONS FOR GREATER FLEXIBILITY

AVAILABLE AS PN25 OPTION

INTEGRATED ANTI-VIBRATION MOUNTS

COMPACT DESIGN TAKES UP 40% LESS SPACE THAN CONVENTIONAL SYSTEMS AND MOST MODELS CAN FIT THROUGH A STANDARD DOOR

QUIKSWAP™ **HIRISE** **BMS CONNECTABLE** **FIRE SYSTEM UPGRADE**

TRUESTANDBY™ **BURST PIPE TECHNOLOGY** **ANTI-VIBRATION FITTED**

Specification

The Dutypoint VR booster range boasts a very compact footprint, designed to assist where plant room space or access is limited. The inlet and discharge manifold on the VR is located on the same side of the pump; these units can be installed in very confined spaces.

The VR is engineered to very high standards and was the first ever booster set to be fully WRAS approved.

PRODUCT OVERVIEW

- Multistage vertical pumps
- Low-water cut-out contacts in panel
- Anti-vibration mounts reduce system noise
- Pressure set point adjustment
- Hours run recorders
- Local electrical isolation and MCB protection
- IP55-rated control panel allows for simple and safe maintenance
- Cyclic duty changeover ensures even wear across pumps
- Common fault volt-free contact for connection to building management systems
- RS485 connections for connection to Modbus

RANGE PERFORMANCE

Number of pumps	2 or 3
Flow range	0.5 - 24 l/s
Pressure range	2 - 16 bar
Max system pressure	16 bar
Controller type	Motor-mounted inverter
Max system temperature	40°C
Noise data	Motor at 2900 rpm < 70LpA (dB +/-2)*

*More specific details available on request.

MATERIAL SPECIFICATION

Manifolds	AISI 304 stainless steel
Isolation valves	Nickel-plated brass
Non-return valves	AISI 304 stainless steel
Pressure transducers	AISI 304 stainless steel
Pump casing	AISI 304 stainless steel
Pump impellers	AISI 316L stainless steel
Mechanical seals	Silicon carbide, graphite, EPDM
Pressure vessels	Mild steel, WRAS approved
Base plate	Powder-coated mild steel

VR2 - Twin Pump Duty/Standby Selector

DUTY STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
5	2.9	**6**	3.2	**6**	2.7	**1**	2	**2**	2.1	**1**	1.7	**2**	1.7	**2**	1.2
6	3.6	**7**	3.8	**8**	3.8	**8**	3.6	**8**	3.3	**2**	2	**8**	2.1	**3**	1.5
16	4.7	**12**	5	**13**	5	**14**	6.2	**9**	3.8	**8**	3	**9**	3.3	**4**	2
12	5.8	**17**	6.1	**14**	6.6	**19**	7.2	**14**	5.8	**9**	3.7	**10**	3.6	**9**	2.8
17	7	**18**	7.4	**19**	7.6			**19**	6.6	**14**	5.3	**14**	3.9	**11**	3.6
18	7.9							**20**	7.9	**15**	6.5	**15**	6	**15**	5.4
										20	7.8	**20**	7.3	**20**	6.8

VR MODEL

Ref	Model no.
1	VR2-0509-LHM
2	VR2-0511-LHM
3	VR2-0512-LHT
4	VR2-0516-LHT
5	VR2-1003-LHT
6	VR2-1004-LHT
7	VR2-1005-LHT
8	VR2-1006-LHT
9	VR2-1008-LHT
10	VR2-1009-LHT
11	VR2-1011-LHT
12	VR2-1503-LHT
13	VR2-1504-LHT
14	VR2-1505-LHT
15	VR2-1507-LHT
16	VR2-2202-LHT
17	VR2-2203-LHT
18	VR2-2204-LHT
19	VR2-2205-LHT
20	VR2-2207-LHT

COLD WATER BOOSTER SETS
VR

VR2 - Twin Pump Duty/Assist Selector

DUTY ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
5	5.8	**6**	6.5	**6**	5.5	**6**	4.1	**7**	4.2	**1**	3.3	**2**	3.3	**2**	2.4
6	7.2	**7**	7.6	**8**	7.6	**8**	7.1	**8**	6.6	**2**	3.9	**8**	4.3	**3**	3.1
16	9.4	**12**	10	**12**	8.1	**14**	12.4	**9**	7.7	**8**	6	**9**	6.5	**4**	4
12	11.6	**17**	12.2	**13**	13.2	**19**	14.4	**13**	11.6	**9**	7.3	**10**	7.2	**9**	5.5
17	14	**18**	14.8	**19**	15.2			**19**	13.1	**13**	10.5	**13**	7.7	**11**	7.3
18	15.7							**20**	15.8	**20**	13	**15**	12	**15**	10.7
										20	15.9	**20**	14.6	**20**	13.6

VR MODEL

Ref	Model no.
1	VR2-0509-LHM
2	VR2-0511-LHM
3	VR2-0512-LHT
4	VR2-0516-LHT
5	VR2-1003-LHT
6	VR2-1004-LHT
7	VR2-1005-LHT
8	VR2-1006-LHT
9	VR2-1008-LHT
10	VR2-1009-LHT
11	VR2-1011-LHT
12	VR2-1503-LHT
13	VR2-1505-LHT
14	VR2-1506-LHT
15	VR2-1507-LHT
16	VR2-2202-LHT
17	VR2-2203-LHT
18	VR2-2204-LHT
19	VR2-2205-LHT
20	VR2-2207-LHT

VR3 - Triple Pump Duty/Assist/Standby Selector

DUTY ASSIST STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
5	5.8	**6**	6.5	**6**	5.5	**1**	4.1	**2**	4.2	**1**	3.3	**2**	3.3	**3**	3.1
6	7.2	**7**	7.6	**8**	7.6	**8**	7.1	**8**	6.6	**2**	3.9	**8**	4.3	**4**	4
15	9.4	**12**	10	**12**	8.1	**13**	12.4	**9**	7.7	**8**	6	**9**	6.5	**9**	5.5
12	11.6	**16**	12.2	**13**	13.2	**18**	14.4	**13**	11.6	**9**	7.3	**10**	7.2	**11**	7.3
16	14	**17**	14.8	**18**	15.2			**17**	13.1	**13**	10.5	**13**	7.7	**14**	10.7
17	15.7							**19**	15.8	**14**	13	**14**	12	**19**	13.6
										19	15.9	**19**	14.6		

VR MODEL

Ref	Model no.
1	VR3-0509-LHM
2	VR3-0511-LHM
3	VR3-0512-LHM
4	VR3-0516-LHM
5	VR3-1003-LHT
6	VR3-1004-LHT
7	VR3-1005-LHT
8	VR3-1006-LHT
9	VR3-1008-LHT
10	VR3-1009-LHT
11	VR3-1011-LHT
12	VR3-1503-LHT
13	VR3-1505-LHT
14	VR3-1507-LHT
15	VR3-2202-LHT
16	VR3-2203-LHT
17	VR3-2204-LHT
18	VR3-2205-LHT
19	VR3-2207-LHT

COLD WATER BOOSTER SETS
VR

VR3 - Triple Pump Duty/Assist/Assist Selector

DUTY ASSIST ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
6	9.6	**1**	6.6	**6**	8.2	**2**	6.1	**3**	6.3	**8**	8.9	**3**	5	**4**	4.6
6	10.9	**6**	9.7	**8**	11.4	**8**	10.7	**8**	9.9	**9**	11	**8**	6.4	**5**	6.1
15	14.1	**7**	11.4	**12**	12.1	**13**	18.6	**9**	11.5	**13**	15.8	**9**	9.8	**9**	8.3
12	17.4	**12**	15	**13**	19.8	**18**	21.7	**13**	17.3	**14**	19.5	**10**	10.8	**11**	10.9
16	21.1	**16**	18.3	**18**	22.8			**18**	19.7	**19**	23.9	**13**	11.6	**14**	16.1
17	23.6	**17**	22.3					**19**	23.6			**14**	18	**19**	20.4
												19	21.9		

VR MODEL

Ref	Model no.
1	VR3-0508-LHM
2	VR3-0509-LHM
3	VR3-0511-LHM
4	VR3-0512-LHM
5	VR3-0516-LHM
6	VR3-1004-LHT
7	VR3-1005-LHT
8	VR3-1006-LHT
9	VR3-1008-LHT
10	VR3-1009-LHT
11	VR3-1011-LHT
12	VR3-1503-LHT
13	VR3-1505-LHT
14	VR3-1507-LHT
15	VR3-2202-LHT
16	VR3-2203-LHT
17	VR3-2204-LHT
18	VR3-2205-LHT
19	VR3-2207-LHT

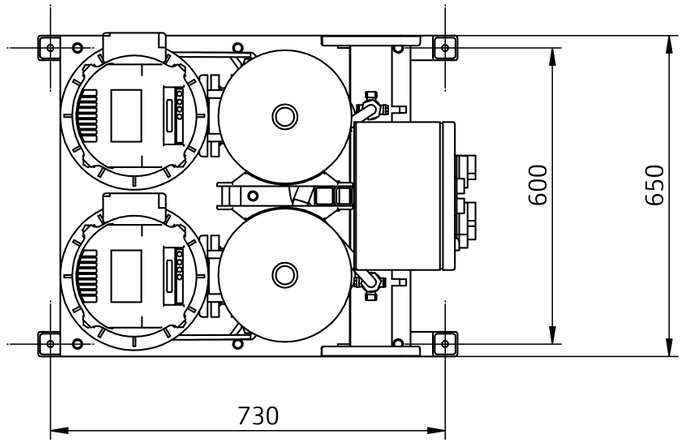
VR2-05/10 Series

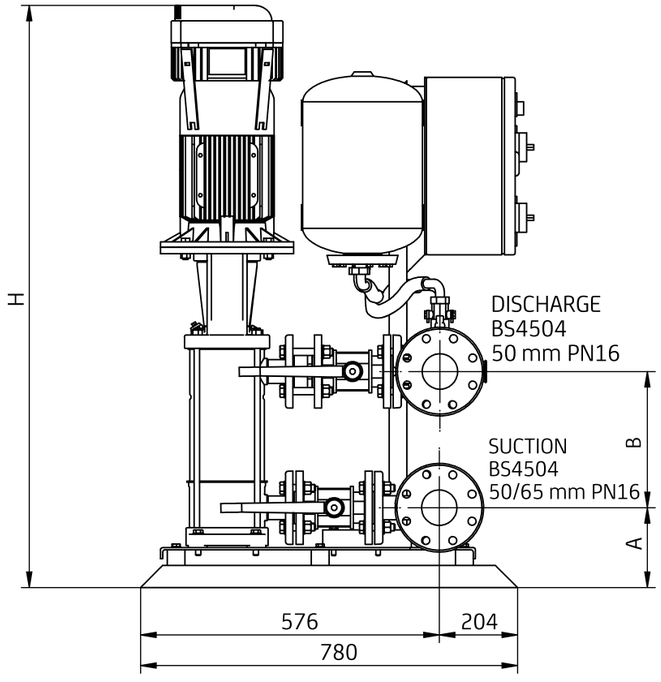
DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)					Weight (kg)
			Per pump	Total	A	B	H	Suction	Discharge	
VR2-0508-LHT	1.1	400/3/50	2.4	4.7	165	192	1063	50	50	135
VR2-0509-LHM	1.5	230/1/50	9.2	18.4	165	217	1063	50	50	148
VR2-0509-LHT	1.5	400/3/50	3	6	165	217	1063	50	50	148
VR2-0511-LHM	1.5	230/1/50	9.2	18.4	165	267	1075	50	50	149
VR2-0511-LHT	1.5	400/3/50	3	6	165	267	1075	50	50	149
VR2-0512-LHM	2.2	230/1/50	12.5	25	165	292	1100	50	50	150
VR2-0512-LHT	2.2	400/3/50	4.6	9.3	165	292	1100	50	50	150
VR2-0514-LHM	2.2	230/1/50	12.5	25	165	342	1121	50	50	156
VR2-0514-LHT	2.2	400/3/50	4.6	9.3	165	342	1121	50	50	156
VR2-0516-LHM	2.2	230/1/50	12.5	25	165	392	1171	50	50	160
VR2-0516-LHT	2.2	400/3/50	4.6	9.3	165	392	1171	50	50	160
VR2-0518-LHM	3	230/1/50	6.2	12.4	165	442	1251	50	50	168
VR2-0521-LHT	3	400/3/50	6.2	12.4	165	517	1326	50	50	172
VR2-1003-LHM	1.1	230/1/50	4.1	8.2	170	179	1063	65	50	161
VR2-1003-LHT	1.1	400/3/50	2.4	4.7	170	179	1063	65	50	161
VR2-1004-LHM	1.5	230/1/50	9.2	18.4	170	179	1063	65	50	171
VR2-1004-LHT	1.5	400/3/50	3	6	170	179	1063	65	50	171
VR2-1005-LHM	2.2	230/1/50	12.5	25	170	179	1063	65	50	177
VR2-1005-LHT	2.2	400/3/50	4.6	9.3	170	179	1063	65	50	177
VR2-1006-LHM	2.2	230/1/50	12.5	25	170	211	1063	65	50	179
VR2-1006-LHT	2.2	400/3/50	4.6	9.3	170	211	1063	65	50	179
VR2-1007-LHT	3	400/3/50	6.2	12.4	170	243	1099	65	50	188
VR2-1008-LHT	3	400/3/50	6.2	12.4	170	275	1131	65	50	190
VR2-1009-LHT	4	400/3/50	7.6	15.3	170	307	1184	65	50	197
VR2-1011-LHT	4	400/3/50	7.6	15.3	170	371	1248	65	50	207

COLD WATER BOOSTER SETS
VR

VR2-05/10 Series

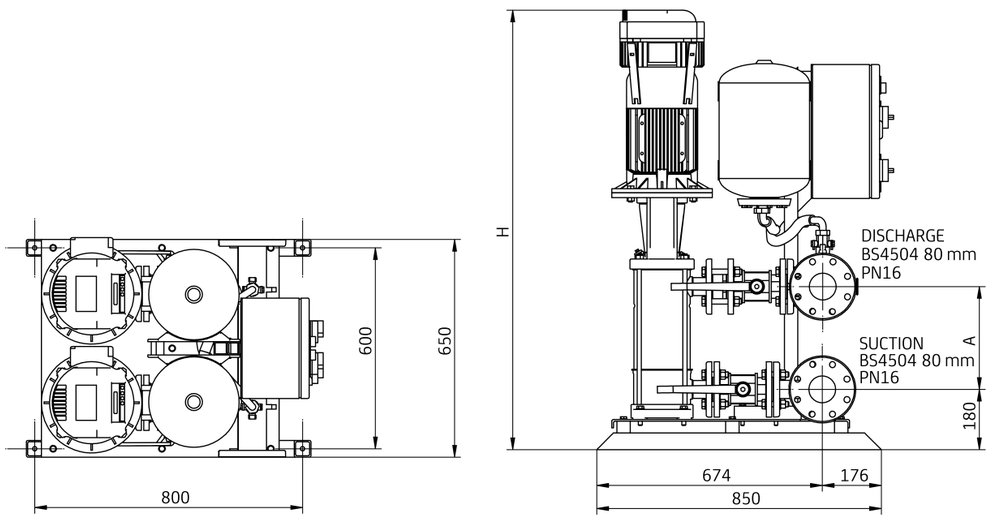




VR2-15/22 Series

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)				Weight (kg)
			Per pump	Total	A	H	Suction	Discharge	
VR2-1502-LHM	2.2	230/1/50	12.5	25	211	1098	80	80	192
VR2-1502-LHT	2.2	400/3/50	4.6	9.3	211	1098	80	80	192
VR2-1503-LHT	3	400/3/50	6.2	12.4	211	1098	80	80	199
VR2-1504-LHT	4	400/3/50	7.6	15.3	211	1098	80	80	213
VR2-1505-LHT	4	400/3/50	7.6	15.3	259	1146	80	80	215
VR2-1506-LHT	5.5	400/3/50	10.4	20.8	307	1312	80	80	261
VR2-1507-LHT	5.5	400/3/50	10.4	20.8	355	1360	80	80	263
VR2-1509-LHT	7.5	400/3/50	14	28	451	1448	80	80	307
VR2-2202-LHM	2.2	230/1/50	12.5	25	211	1098	80	80	197
VR2-2202-LHT	2.2	400/3/50	4.6	9.3	211	1098	80	80	197
VR2-2203-LHT	3	400/3/50	6.2	12.4	211	1098	80	80	199
VR2-2204-LHT	4	400/3/50	7.6	15.3	211	1098	80	80	213
VR2-2205-LHT	5.5	400/3/50	10.4	20.8	259	1145	80	80	215
VR2-2207-LHT	7.5	400/3/50	14	28	355	1360	80	80	263



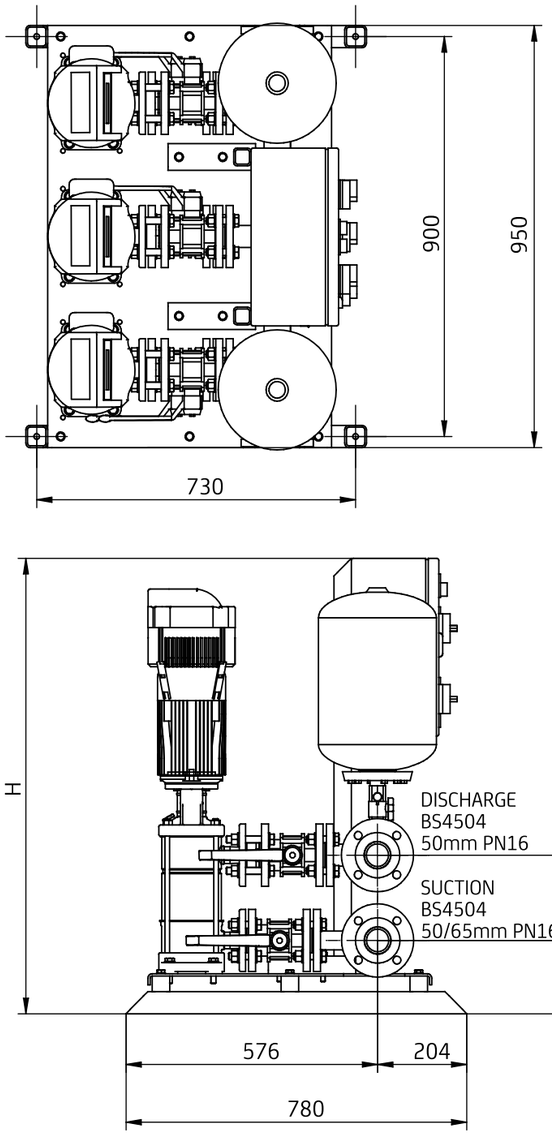
VR3-05/10 Series

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)						Weight (kg)
			Per pump	Total	A	B	H	Suction	Discharge		
VR3-0508-LHM	1.1	230/1/50	4.1	12.3	165	192	1025	50	50	175	
VR3-0508-LHT	1.1	400/3/50	2.4	7.1	165	192	1025	50	50	175	
VR3-0509-LHM	1.5	230/1/50	9.2	27.6	165	217	1025	50	50	194	
VR3-0509-LHT	1.5	400/3/50	3	9.1	165	217	1025	50	50	194	
VR3-0511-LHM	1.5	230/1/50	9.2	27.6	165	267	1075	50	50	197	
VR3-0511-LHT	1.5	400/3/50	3	9.1	165	267	1075	50	50	197	
VR3-0512-LHM	2.2	230/1/50	12.5	37.5	165	292	1100	50	50	199	
VR3-0512-LHT	2.2	400/3/50	4.6	13.9	165	292	110	50	50	199	
VR3-0514-LHM	2.2	230/1/50	12.5	37.5	165	342	1121	50	50	202	
VR3-0514-LHT	2.2	400/3/50	4.6	13.9	165	342	1121	50	50	202	
VR3-0516-LHM	2.2	230/1/50	12.5	37.5	165	392	1171	50	50	205	
VR3-0516-LHT	2.2	400/3/50	4.6	13.9	165	392	1171	50	50	205	
VR3-0518-LHT	3	400/3/50	6.2	18.6	165	442	1251	50	50	217	
VR3-0521-LHT	3	400/3/50	6.2	18.6	165	517	1326	50	50	217	
VR3-1003-LHM	1.1	230/1/50	4.1	12.3	170	179	1036	65	50	233	
VR3-1003-LHT	1.1	400/3/50	2.4	7.1	170	179	1036	65	50	233	
VR3-1004-LHM	1.5	230/1/50	9.2	27.6	170	179	1036	65	50	247	
VR3-1004-LHT	1.5	400/3/50	3	9.1	170	179	1036	65	50	247	
VR3-1005-LHM	2.2	230/1/50	12.5	37.5	170	179	1036	65	50	256	
VR3-1005-LHT	2.2	400/3/50	4.6	13.9	170	179	1036	65	50	256	
VR3-1006-LHM	2.2	230/1/50	12.5	37.5	170	211	1057	65	50	260	
VR3-1006-LHT	2.2	400/3/50	4.6	13.9	170	211	1057	65	50	260	
VR3-1007-LHT	3	400/3/50	6.2	18.6	170	243	1099	65	50	273	
VR3-1008-LHT	3	400/3/50	6.2	18.6	170	275	1131	65	50	276	
VR3-1009-LHT	4	400/3/50	7.6	22.9	170	307	1184	65	50	279	
VR3-1011-LHT	4	400/3/50	7.6	22.9	170	371	1284	65	50	302	

Refer to drawings on page 54.

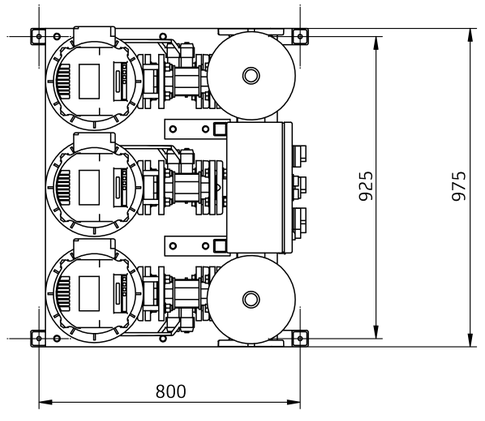
VR3-05/10 Series

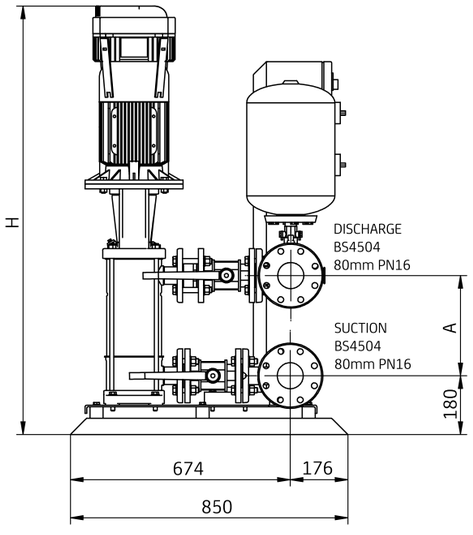


VR3-15/22 Series

DRAWINGS AND DIMENSIONS

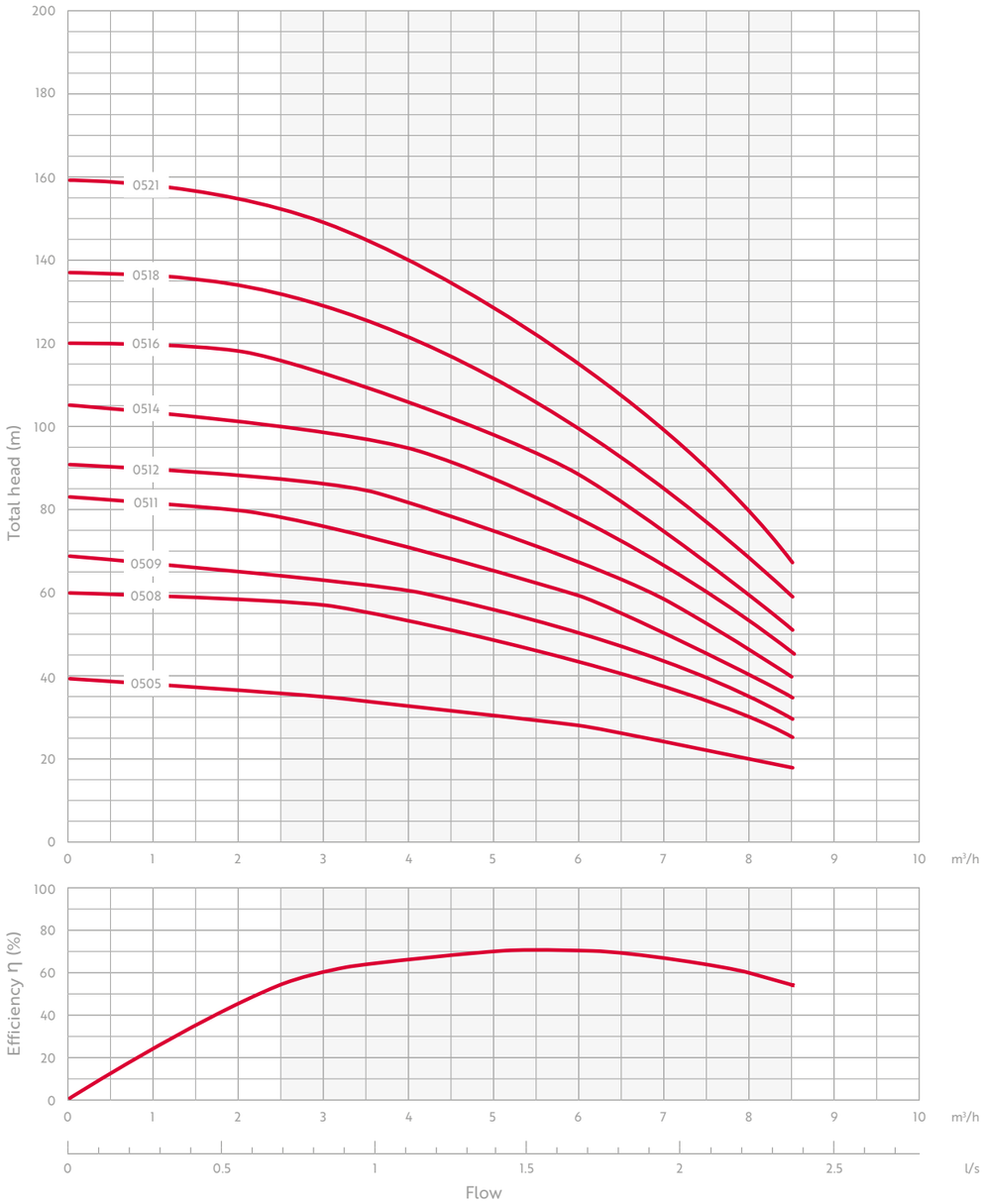
Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)				Weight (kg)
			Per pump	Total	A	H	Suction	Discharge	
VR3-1502-LHM	2.2	230/1/50	12.5	37.5	211	1098	80	80	271
VR3-1502-LHT	2.2	400/3/50	4.6	13.9	211	1098	80	80	271
VR3-1503-LHT	3	400/3/50	6.2	18.9	211	1098	80	80	273
VR3-1504-LHT	4	400/3/50	7.6	22.9	211	1098	80	80	293
VR3-1505-LHT	4	400/3/50	7.6	22.9	259	1146	80	80	297
VR3-1506-LHT	5.5	400/3/50	10.4	31.2	307	1312	80	80	365
VR3-1507-LHT	5.5	400/3/50	10.4	31.2	355	1360	80	80	368
VR3-1509-LHT	7.5	400/3/50	14	42	451	1448	80	80	434
VR3-2202-LHM	2.2	230/1/50	12.5	37.5	211	1098	80	80	273
VR3-2202-LHT	2.2	400/3/50	4.6	13.9	211	1098	80	80	273
VR3-2203-LHT	3	400/3/50	6.2	18.6	211	1098	80	80	274
VR3-2204-LHT	4	400/3/50	7.6	22.9	211	1098	80	80	293
VR3-2205-LHT	5.5	400/3/50	10.4	31.2	259	1146	80	80	297
VR3-2207-LHT	7.5	400/3/50	14	42	355	1312	80	80	356





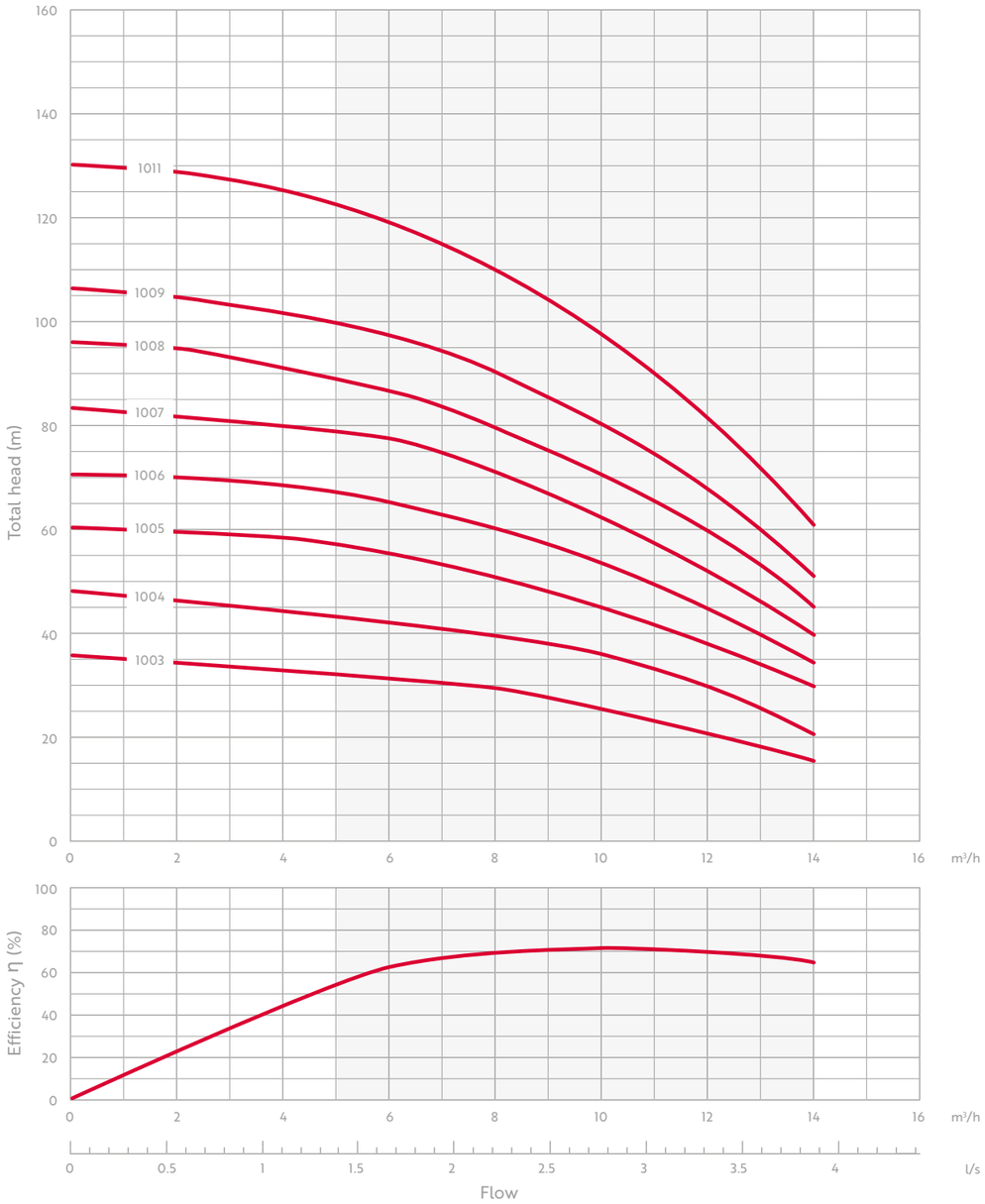
VR*x*-05 Series

SINGLE PUMP CURVES



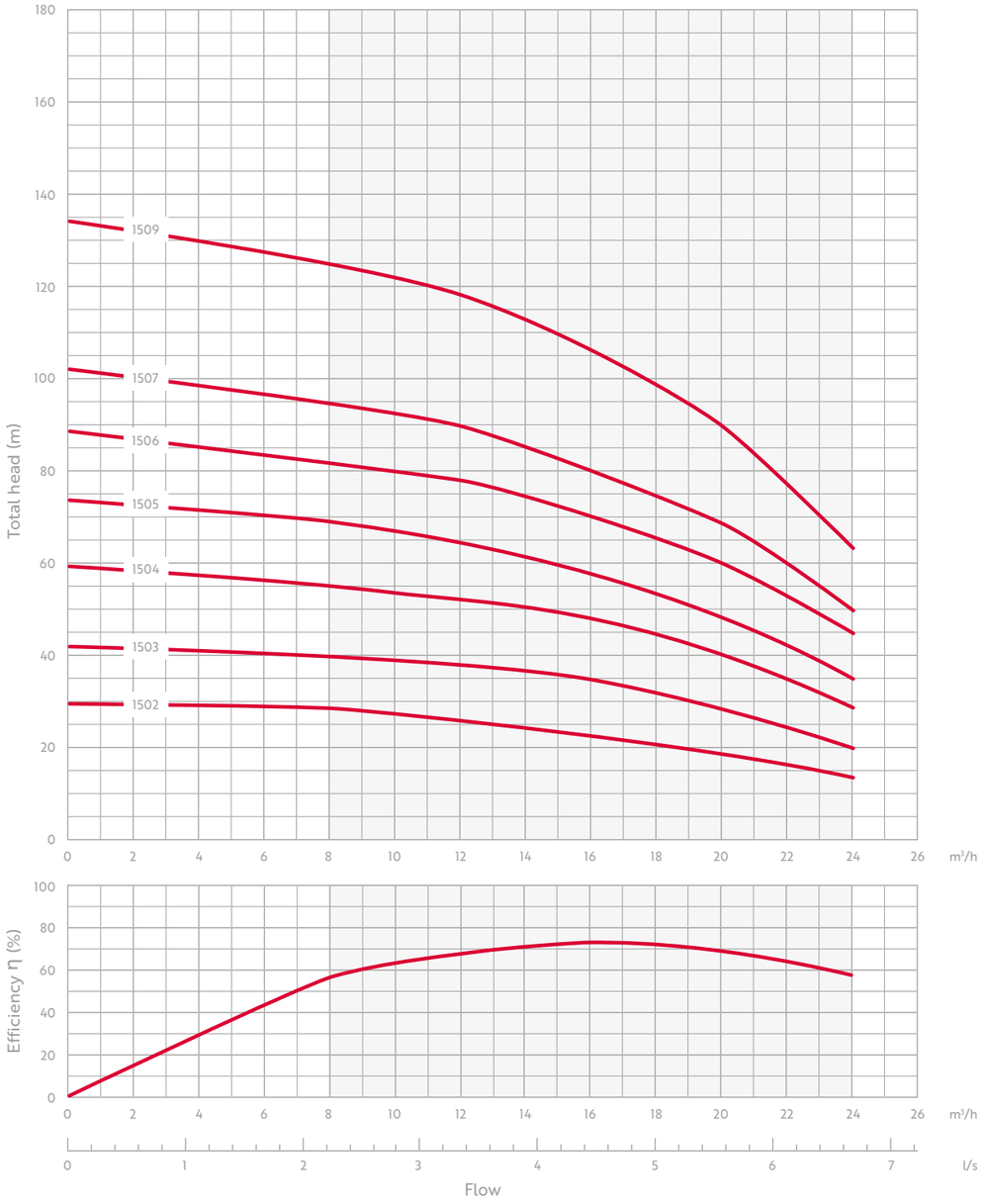
VR*x*-10 Series

SINGLE PUMP CURVES



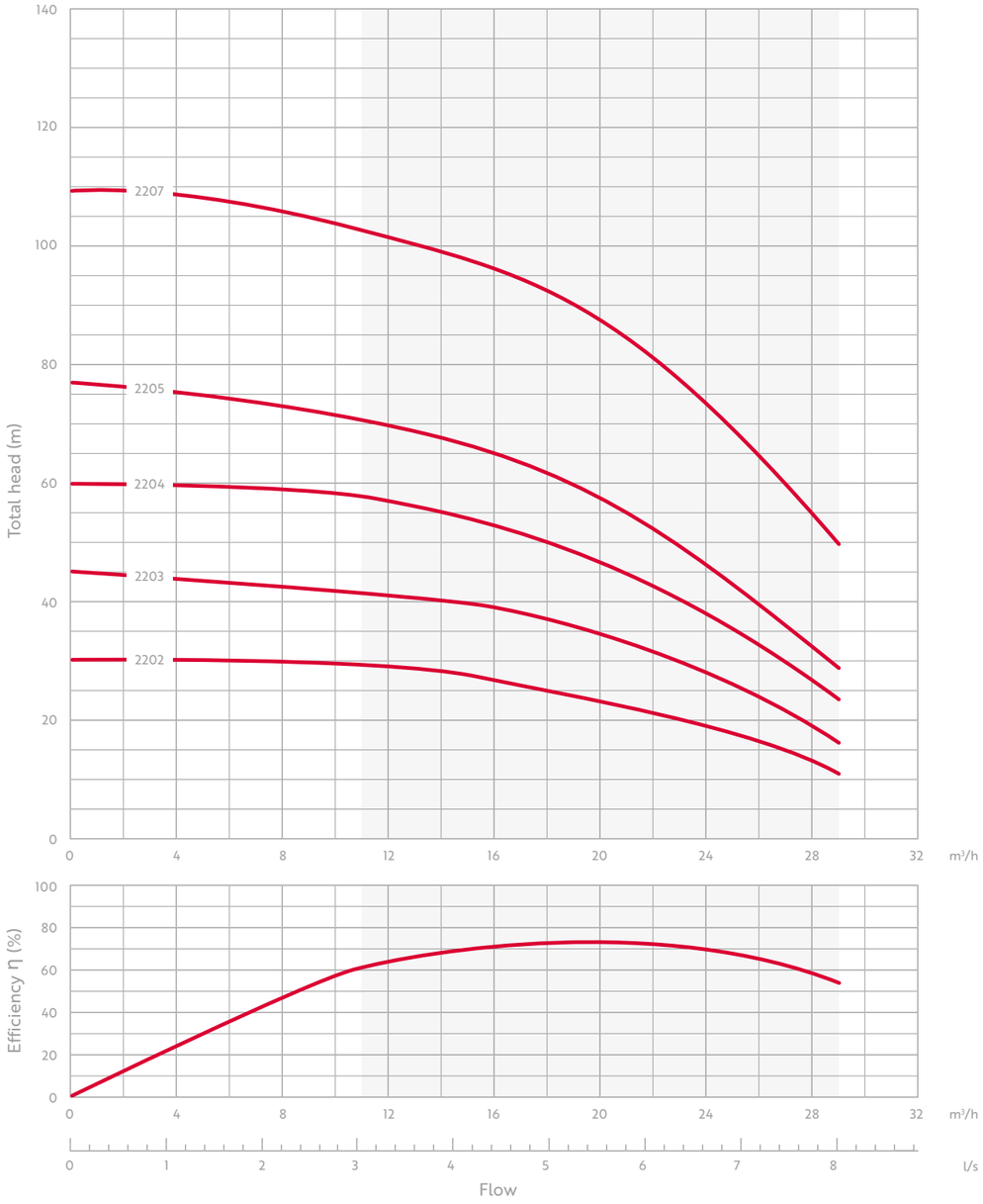
VR*x*-15 Series

SINGLE PUMP CURVES



VR*x*-22 Series

SINGLE PUMP CURVES



Variable-speed, high-performance booster sets with up to four pumps.

PRODUCT OVERVIEW

- PN16 and PN25 options available
- Factory programmed and tested
- Dry run protection
- Available in eight pump models upon request

Key Features

HIRISE | BMS CONNECTABLE | FIRE SYSTEM UPGRADE | TRUESTANDBY™

ANTI-VIBRATION FITTED

Specification

The Dutypoint VMV booster set range is designed for larger applications with higher flow rates and pressure ranges. System includes adequate pressure vessels and anti-vibration fittings as standard.

Made to order and available with bespoke adaptations, including 25 bar rating and custom pipework.

PRODUCT OVERVIEW

- Multistage vertical pumps
- Low-water cut-out contacts in panel
- Anti-vibration mounts reduce system noise
- Pressure set point adjustment
- Hours run recorders
- Local electrical isolation and MCB protection
- IP55-rated control panel allows for simple and safe maintenance
- Cyclic duty changeover ensures even wear across pumps
- Common fault volt-free contact for connection to building management systems
- RS485 connections for connection to Modbus

OPTIONS

- PN25 option available
- Motor anti-condensation heaters
- Control panel specification upgrades

RANGE PERFORMANCE

Number of pumps	2, 3 or 4
Flow range	5 - 64 l/s
Pressure range	2.5 - 16 bar
Max system pressure	16 bar
Controller type	Motor-mounted inverter
Max system temperature	40°C*
Noise data	Motor at 2900 rpm < 70LpA (dB +/-2)**

*Available for higher temperature if required. **More specific details available on request.

MATERIAL SPECIFICATION

Manifolds	AISI 304 stainless steel
Isolation valves	Nickel-plated brass
Non-return valves	AISI 304 stainless steel
Pressure transducers	AISI 304 stainless steel
Pump casing	AISI 304 stainless steel/cast iron (in certain selections)
Pump impellers	AISI 304 stainless steel
Mechanical seals	Silicon carbide, graphite, EPDM
Pressure vessels	WRAS approved
Base plate	Powder-coated mild steel

VMV2 - Twin Pump Duty/Standby Selector

DUTY STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar		10.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
3	9.7	**3**	8.6	**3**	6.4	**4**	9.2	**4**	7.5	**4**	6.3	**2**	9.4	**1**	7.8	**1**	7.3	**1**	6.8	**1**	6.3
		7	15.3	**4**	10.1	**7**	11.3	**8**	15.6	**5**	10.3	**8**	11.8	**2**	9	**2**	8.5	**2**	7.9	**2**	7.2
				7	13.6	**8**	16.4	**9**	18.1	**8**	14.8			**6**	10.8	**6**	9.9	**6**	8.3		
						9	20.6														

VMV MODEL

Ref	Model no.
1	VMV2-05-6V110D02
2	VMV2-07-6V110D02
3	VMV2-10-5V040L02
4	VMV2-10-5V055L02
5	VMV2-10-5V075L03
6	VMV2-10-5V110L04
7	VMV2-15-5V075L01
8	VMV2-15-5V110L02
9	VMV2-20-5V110L02

COLD WATER BOOSTER SETS
VMV

VMV2 - Twin Pump Duty/Assist Selector

DUTY ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar		10.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
3	19.4	**3**	17.2	**3**	12.8	**4**	18.3	**4**	15	**4**	12.5	**2**	18.9	**1**	15.6	**1**	14.6	**1**	13.7	**1**	12.6
		7	30.6	**4**	20.3	**7**	22.6	**8**	31.1	**5**	20.6	**8**	23.6	**2**	18	**2**	16.9	**2**	15.7	**2**	14.3
				7	27.2	**8**	32.8	**9**	36.1	**8**	29.6			**6**	21.7	**6**	19.8	**6**	16.7		
						9	41.1														

VMV MODEL

Ref	Model no.
1	VMV2-05-6V110D02
2	VMV2-07-6V110D02
3	VMV2-10-5V040L02
4	VMV2-10-5V055L02
5	VMV2-10-5V075L03
6	VMV2-10-5V110L04
7	VMV2-15-5V075L01
8	VMV2-15-5V110L02
9	VMV2-20-5V110L02

VMV3 - Triple Pump Duty/Assist/Standby Selector

DUTY ASSIST STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar		10.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
4	19.4	**4**	17.2	**4**	27.2	**5**	22.6	**5**	31.1	**5**	29.6	**2**	18.9	**1**	15.6	**1**	14.6	**1**	13.7	**1**	12.6
9	26.1	**9**	22.2	**5**	27.2	**10**	22.6	**11**	31.1	**6**	29.6	**11**	23.6	**2**	17.9	**2**	16.9	**2**	15.7	**2**	14.3
		10	30.6	**10**	27.2	**11**	32.8			**11**	29.6	**12**	32.2	**3**	18.9	**3**	18.1	**7**	16.7	**8**	21.7
														7	21.7	**7**	19.8	**12**	20.3	**13**	25.8
														12	29.2	**12**	25	**13**	28.9	**14**	28.4
																13	31.4	**14**	30.7		
																14	32				

VMV MODEL

Ref	Model no.
1	VMV3-05-6V110D02
2	VMV3-07-6V110D02
3	VMV3-07-6V150D01
4	VMV3-10-5V040L02
5	VMV3-10-5V055L02
6	VMV3-10-5V075L03
7	VMV3-10-5V110L04
8	VMV3-10-5V150L05
9	VMV3-15-5V055L01
10	VMV3-15-5V075L01
11	VMV3-15-5V110L02
12	VMV3-15-5V150L02
13	VMV3-15-5H185L02
14	VMV3-15-5H220L02

COLD WATER BOOSTER SETS
VMV

VMV3 - Triple Pump Duty/Assist/Assist Selector

DUTY ASSIST ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar		10.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
4	29.2	**4**	25.8	**4**	19.2	**5**	27.5	**5**	22.5	**5**	18.8	**2**	28.3	**1**	84	**1**	21.9	**1**	21	**1**	18.9
9	39.2	**9**	33.3	**5**	30.4	**10**	33.9	**11**	46.7	**6**	30.8	**11**	35.4	**2**	97	**2**	25.4	**2**	23.6	**2**	22
		10	45.8	**10**	40.8	**11**	49.2			**11**	44.3	**12**	48.3	**3**	102	**3**	27.2	**7**	25	**8**	33
														7	117	**7**	29.7	**12**	30.4	**13**	38.8
														12	158	**12**	38	**13**	43.3	**14**	42.7
																13	47.1	**14**	46		
																14	48				

VMV MODEL

Ref	Model no.
1	VMV3-05-6V110D02
2	VMV3-07-6V110D02
3	VMV3-07-6V150D01
4	VMV3-10-5V040L02
5	VMV3-10-5V055L02
6	VMV3-10-5V075L03
7	VMV3-10-5V110L04
8	VMV3-10-5V150L05
9	VMV3-15-5V055L01
10	VMV3-15-5V075L01
11	VMV3-15-5V110L02
12	VMV3-15-5V150L02
13	VMV3-15-5H185L02
14	VMV3-15-5H220L02

VMV4 - Quad Pump Duty/Assist/Assist /Standby Selector

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar		10.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	16.7	**2**	21.3	**2**	19.9	**2**	17.7	**2**	16	**3**	19	**3**	15.7	**4**	18.3	**4**	15	**4**	10.8	**5**	18.9
2	22.7	**6**	26.7	**3**	23	**3**	21.3	**3**	20	**4**	22.6	**4**	20.8	**5**	23.3	**5**	21.9	**5**	21	**8**	22
6	28.3			**6**	25	**6**	23.3	**6**	21.7	**6**	19.3	**7**	22.7	**8**	26.9	**8**	25.4	**8**	23.6	**13**	33
				10	30.4	**7**	27.6	**7**	26.7	**7**	25.7	**8**	28.3	**9**	28.3	**9**	27.2	**12**	25	**16**	38.8
						14	49.2	**14**	46.7	**11**	30.8	**14**	35.4	**12**	33	**12**	29.7	**15**	30.4	**17**	42.7
										14	44.3	**15**	48.3	**15**	43.8	**15**	38	**16**	43.3		
																16	47.1	**17**	46		
																17	48				

VMV MODEL

Ref	Model no.
1	VMV4-05-6V030D01
2	VMV4-05-6V040D01
3	VMV4-05-6V055D01
4	VMV4-05-6V075D01
5	VMV4-05-6V110D02
6	VMV4-07-6V055D01
7	VMV4-07-6V075D01
8	VMV4-07-6V110D02
9	VMV4-07-6V150D01
10	VMV4-10-5V055L02
11	VMV4-10-5V075L03
12	VMV4-10-5V110L04
13	VMV4-10-5V150L05
14	VMV4-15-5V110L02
15	VMV4-15-5V150L02
16	VMV4-15-5H185L02
17	VMV4-15-5H220L02

COLD WATER BOOSTER SETS
VMV

VMV4 - Quad Pump Duty/Assist/Assist /Assist Selector

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar		10.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	22.2	**2**	28.4	**2**	26.6	**2**	23.6	**2**	20.7	**3**	25.3	**3**	20.9	**4**	24.4	**4**	20	**4**	14.4	**5**	25.2
2	30.2	**6**	35.6	**3**	30	**3**	28.3	**3**	26.7	**4**	30.1	**4**	27.7	**5**	31.1	**5**	29.2	**5**	27.3	**8**	28.7
6	37.8			**6**	33.3	**6**	31.1	**6**	28.9	**6**	25.8	**7**	30.2	**8**	35.9	**8**	33.9	**8**	31.4	**13**	43.3
				10	40.6	**7**	36.8	**7**	35.6	**7**	34.2	**8**	37.8	**9**	37.8	**9**	36.2	**12**	33.3	**16**	51.7
						14	65.6	**14**	62.2	**11**	41.1	**14**	47.2	**12**	43.3	**12**	39.6	**15**	40.6	**17**	56.9
										14	59.1	**15**	64.4	**15**	58.3	**15**	50	**16**	57.8		
																16	62.8	**17**	61.3		
																17	64				

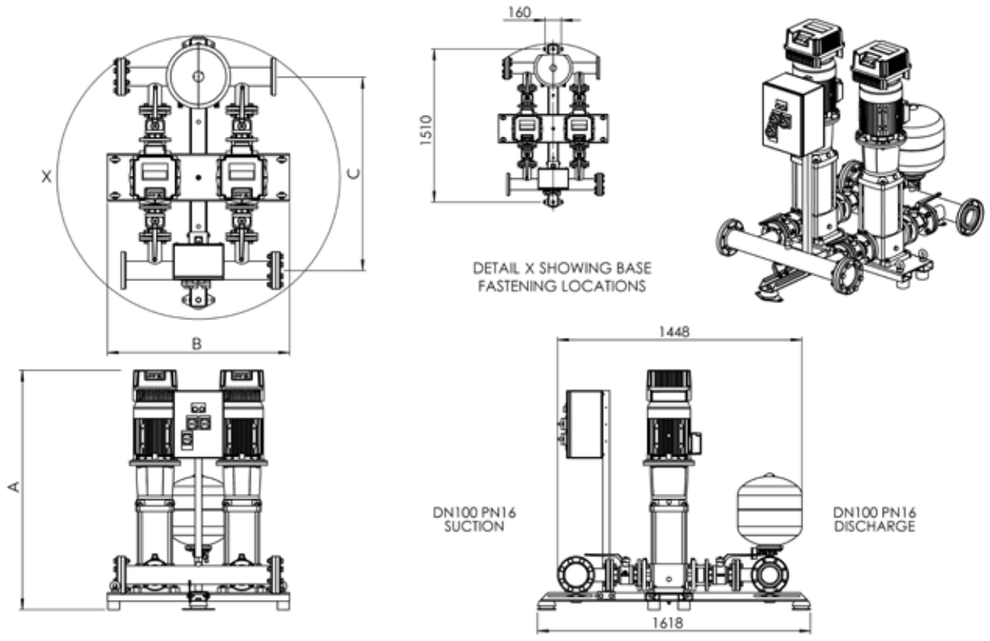
VMV MODEL

Ref	Model no.
1	VMV4-05-6V030D01
2	VMV4-05-6V040D01
3	VMV4-05-6V055D01
4	VMV4-05-6V075D01
5	VMV4-05-6V110D02
6	VMV4-07-6V055D01
7	VMV4-07-6V075D01
8	VMV4-07-6V110D02
9	VMV4-07-6V150D01
10	VMV4-10-5V055L02
11	VMV4-10-5V075L03
12	VMV4-10-5V110L04
13	VMV4-10-5V150L05
14	VMV4-15-5V110L02
15	VMV4-15-5V150L02
16	VMV4-15-5H185L02
17	VMV4-15-5H220L02

VMV2 Series

DRAWINGS AND DIMENSIONS

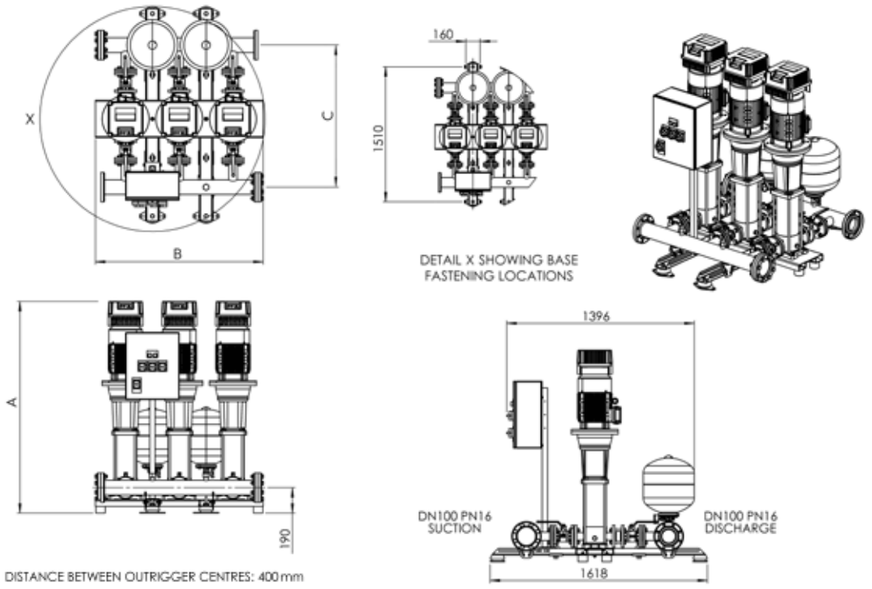
Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)					Weight (kg)
			Per pump	Total	A	B	C	Suction	Discharge	
VMV2-05-6V110D02	11	400/3/50	20	40	1578	850	1042	DN 80	DN 80	490
VMV2-07-6V110D02	11	400/3/50	20	40	1530	850	1042	DN 80	DN 80	490
VMV2-10-5V040L02	4	400/3/50	8	16	1297	1080	1148	DN 100	DN 100	430
VMV2-10-5V055L02	5.5	400/3/50	10	20	1362	1080	1148	DN 100	DN 100	500
VMV2-10-5V075L03	7.5	400/3/50	14	28	1417	1080	1148	DN 100	DN 100	560
VMV2-10-5V110L04	11	400/3/50	20	40	1553	1080	1148	DN 100	DN 100	630
VMV2-15-5V075L01	7.5	400/3/50	14	28	1297	1080	1293	DN 150	DN 150	600
VMV2-15-5V110L02	11	400/3/50	20	40	1443	1080	1293	DN 150	DN 150	660
VMV2-20-5V110L02	11	400/3/50	20	40	1408	1080	1393	DN 150	DN 150	720



VMV3 Series

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)					Weight (kg)
			Per pump	Total	A	B	C	Suction	Discharge	
VMV3-05-6V110D02	11	400/3/50	20	60	1578	1250	1060	DN 100	DN 100	740
VMV3-07-6V110D02	11	400/3/50	20	60	1530	1250	1060	DN 100	DN 100	740
VMV3-07-6V150D01	15	400/3/50	27	81	1629	1250	1060	DN 100	DN 100	770
VMV3-10-5V040L02	4	400/3/50	8	24	1347	1595	1198	DN 150	DN 150	660
VMV3-10-5V055L02	5.5	400/3/50	10	30	1362	1595	1198	DN 150	DN 150	760
VMV3-10-5V075L03	7.5	400/3/50	14	42	1417	1595	1198	DN 150	DN 150	860
VMV3-10-5V110L04	11	400/3/50	20	60	1553	1595	1198	DN 150	DN 150	950
VMV3-10-5V150L05	15	400/3/50	27	81	1769	1595	1198	DN 150	DN 150	1120
VMV3-15-5H185L02	18.5	400/3/50	33	99	1678	1595	1293	DN 150	DN 150	1220
VMV3-15-5H220L02	22	400/3/50	42	126	1753	1595	1293	DN 150	DN 150	1290
VMV3-15-5V055L01	5.5	400/3/50	10	30	1347	1595	1293	DN 150	DN 150	800
VMV3-15-5V075L01	7.5	400/3/50	14	42	1347	1595	1293	DN 150	DN 150	880
VMV3-15-5V110L02	11	400/3/50	20	60	1443	1595	1293	DN 150	DN 150	970
VMV3-15-5V150L02	15	400/3/50	27	81	1584	1595	1293	DN 150	DN 150	1130



DISTANCE BETWEEN OUTRIGGER CENTRES: 400mm

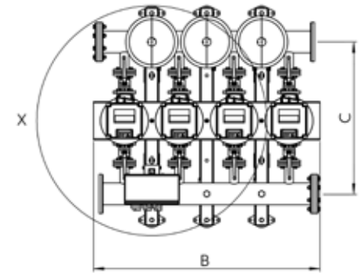
VMV4 Series

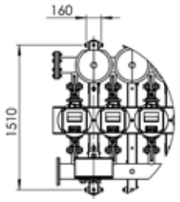
DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)					Weight (kg)
			Per pump	Total	A	B	C	Suction	Discharge	
VMV4-05-6V030D01	3	400/3/50	6	24	1347	1650	1060	DN 100	DN 100	550
VMV4-05-6V040D01	4	400/3/50	8	28	1347	1650	1060	DN 100	DN 100	590
VMV4-05-6V055D01	5.5	400/3/50	11	44	1364	1650	1060	DN 100	DN 100	800
VMV4-05-6V075D01	7.5	400/3/50	15	60	1387	1650	1060	DN 100	DN 100	820
VMV4-05-6V110D02	11	400/3/50	20	80	1578	1650	1060	DN 100	DN 100	980
VMV4-07-6V055D01	5.5	400/3/50	11	44	1347	1650	1110	DN 150	DN 150	810
VMV4-07-6V075D01	7.5	400/3/50	15	60	1347	1650	1110	DN 150	DN 150	830
VMV4-07-6V110D02	11	400/3/50	20	80	1530	1650	1110	DN 150	DN 150	990
VMV4-07-6V150D01	15	400/3/50	27	108	1629	1650	1110	DN 150	DN 150	1030
VMV4-10-5V055L02	5.5	400/3/50	10	40	1362	2110	1198	DN 150	DN 150	1000
VMV4-10-5V075L03	7.5	400/3/50	14	56	1417	2110	1198	DN 150	DN 150	1130
VMV4-10-5V110L04	11	400/3/50	20	80	1553	2110	1198	DN 150	DN 150	1250
VMV4-10-5V150L05	15	400/3/50	27	108	1769	2110	1198	DN 150	DN 150	1480
VMV4-15-5H185L02	18.5	400/3/50	33	132	1678	2110	1293	DN 150	DN 150	1610
VMV4-15-5H220L02	22	400/3/50	42	168	1753	2110	1293	DN 150	DN 150	1700
VMV4-15-5V110L02	11	400/3/50	20	80	1443	2110	1293	DN 150	DN 150	1280
VMV4-15-5V150L02	15	400/3/50	27	108	1584	2110	1293	DN 150	DN 150	1490

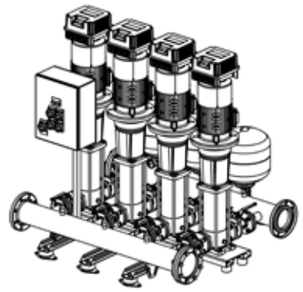
COLD WATER BOOSTER SETS
VMV

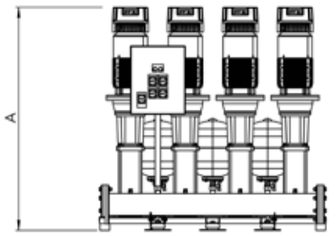
VMV4 Series



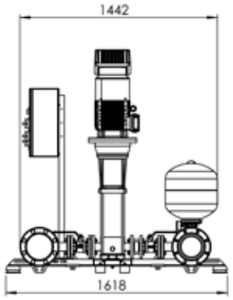


DETAIL X SHOWING BASE FASTENING LOCATIONS





DISTANCE BETWEEN OUTRIGGER CENTRES: 400mm

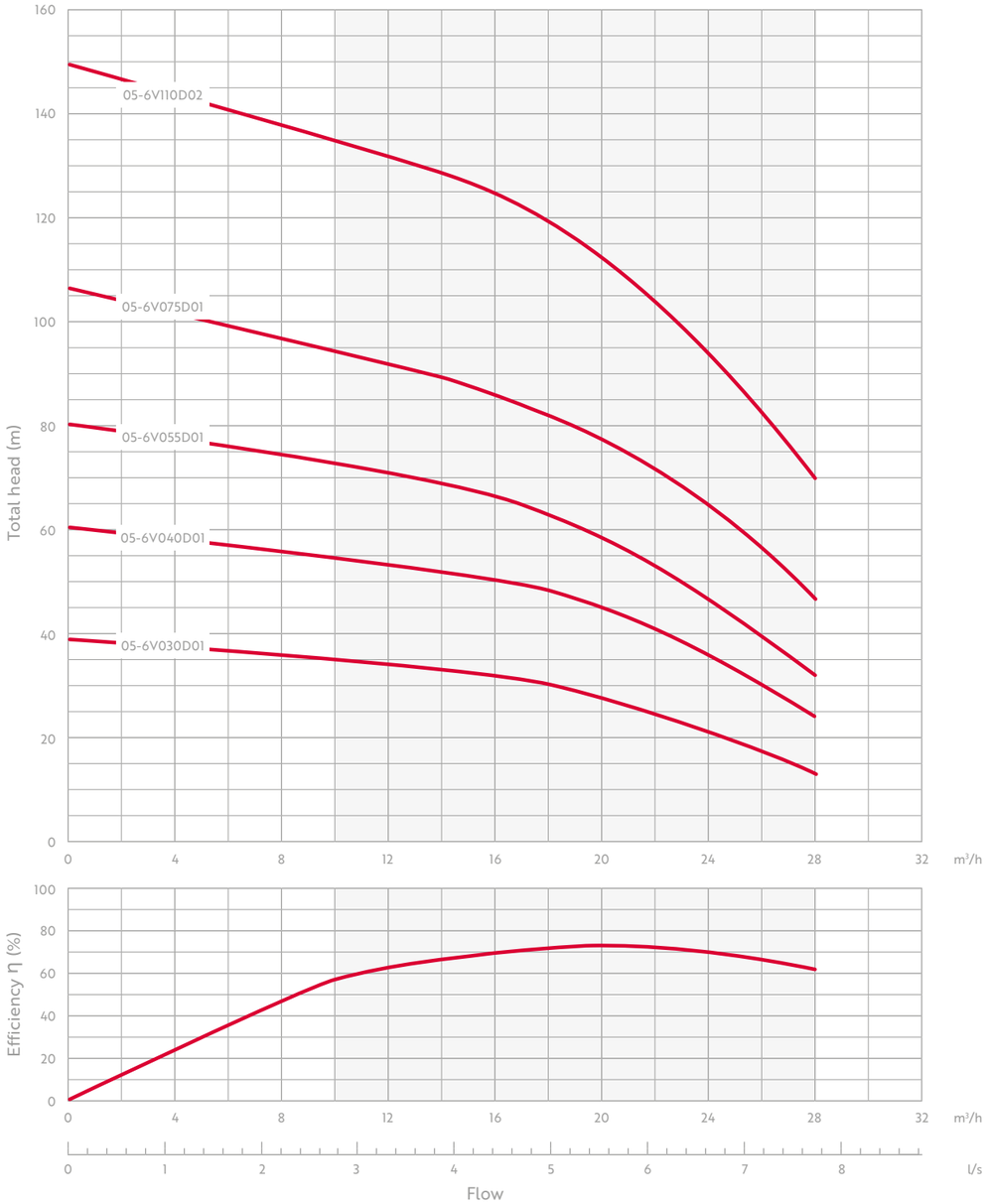


DN150 PN16 SUCTION

DN150 PN16 DISCHARGE

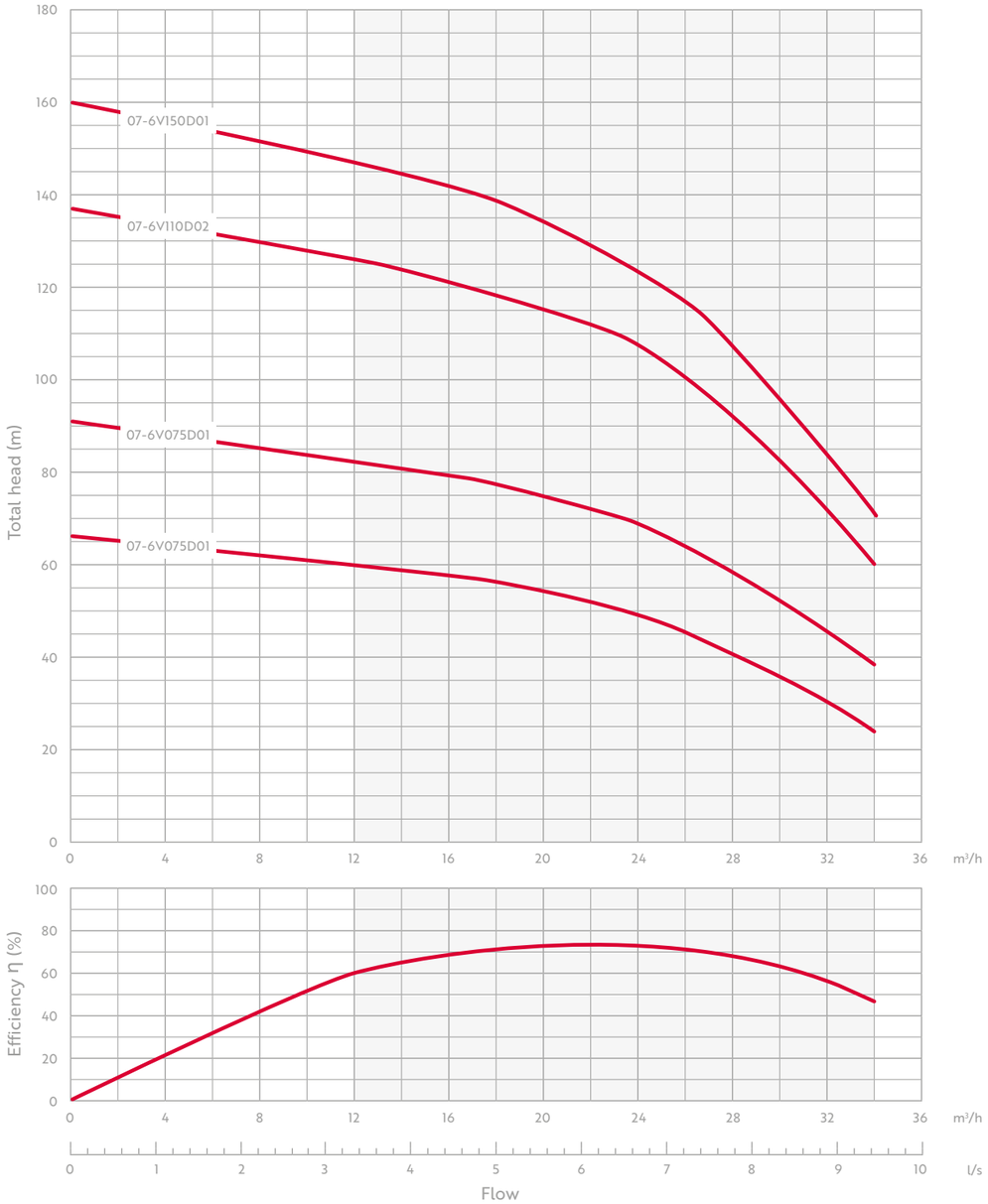
VMV*x*-05 Series

SINGLE PUMP CURVES



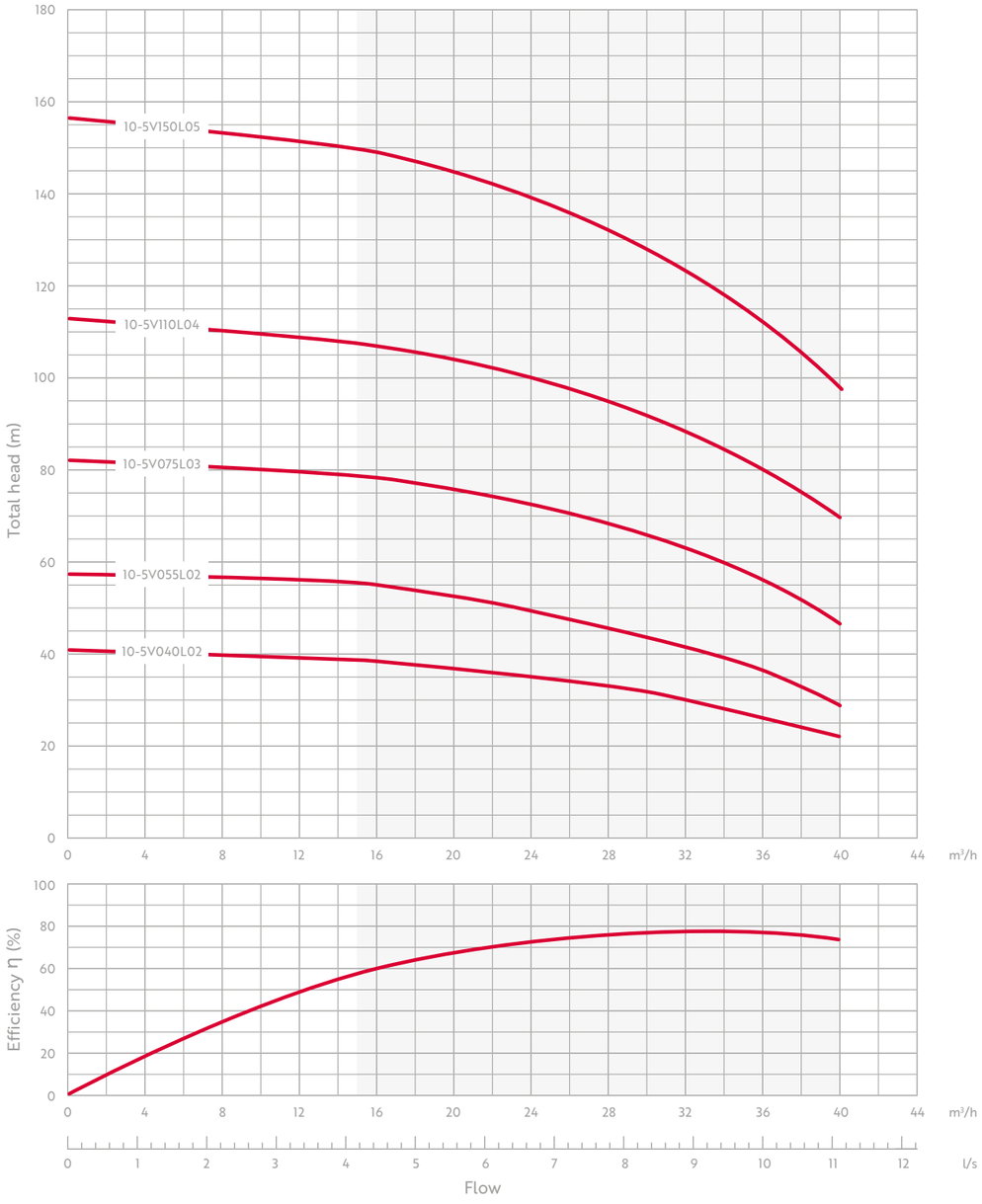
VMV*x*-07 Series

SINGLE PUMP CURVES



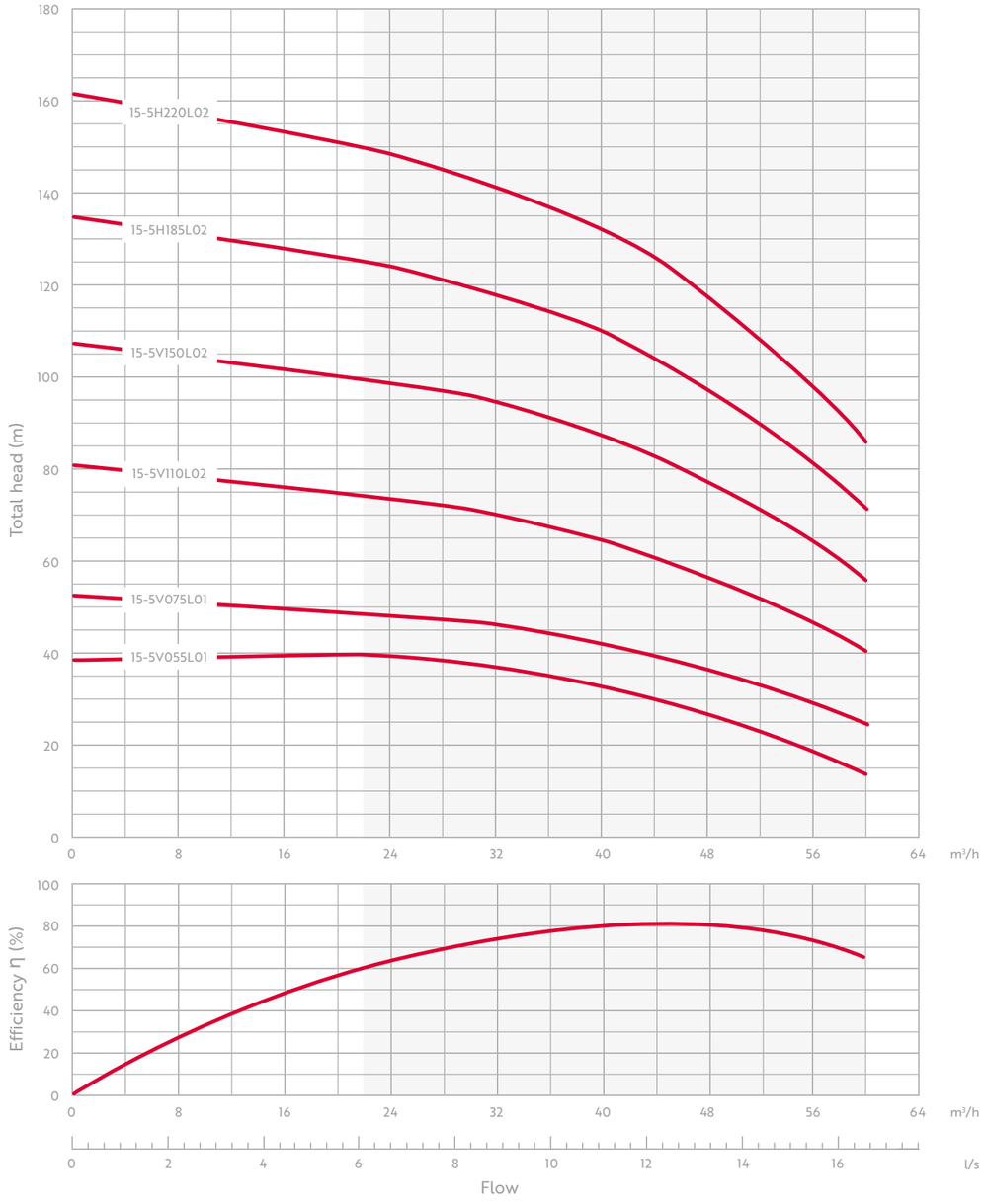
VMV*x*-10 Series

SINGLE PUMP CURVES



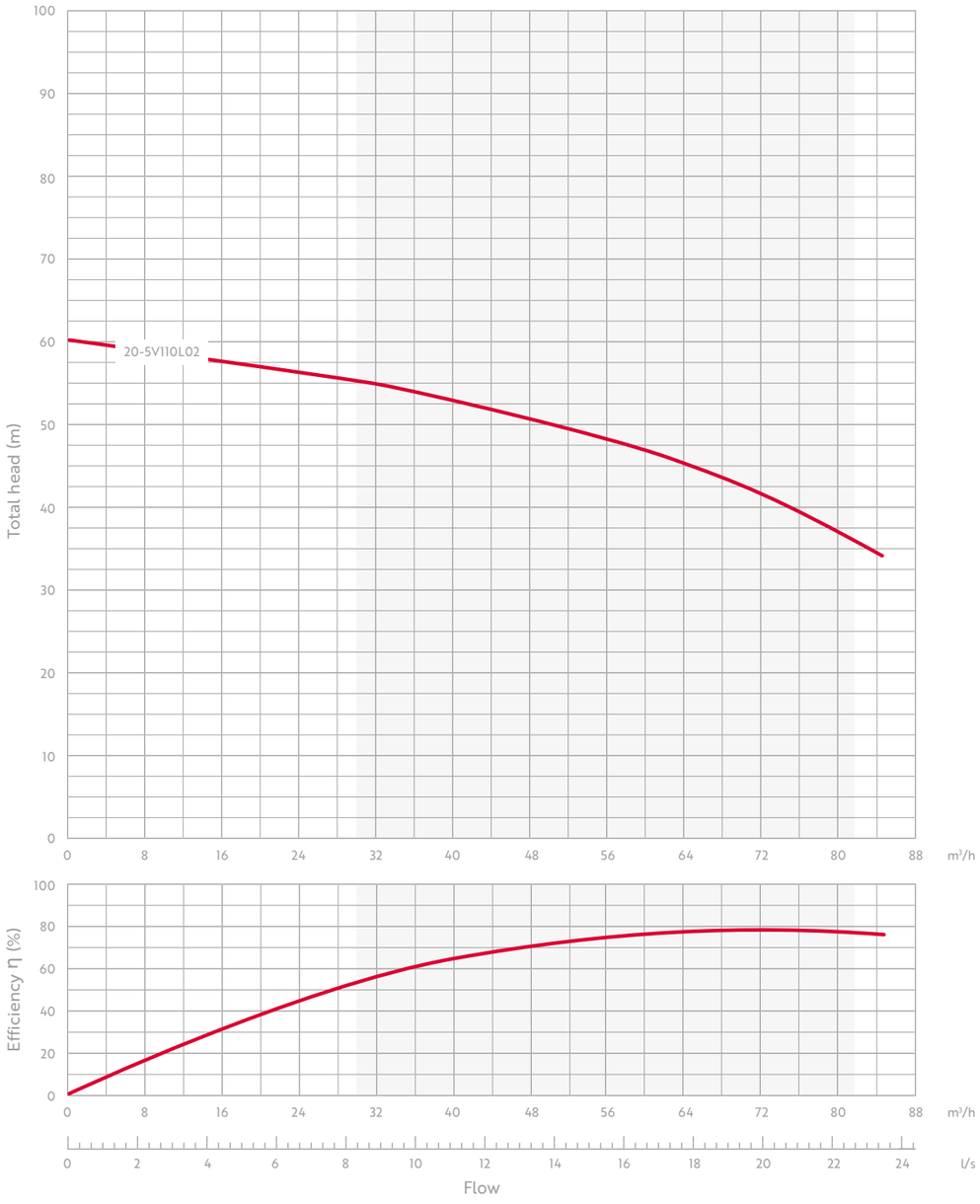
VMV*x*-15 Series

SINGLE PUMP CURVES



VMV*x*-20 Series

SINGLE PUMP CURVES



Slimline

Ultra-compact cold-water booster set to assist in plant rooms that lack space.

PRODUCT OVERVIEW

- Ultra-compact footprint
- Easy to maintain
- Digital interface
- Twin or triple-pump versions available

Key Features

QUIKSWAP™ **HIRISE** **BMS CONNECTABLE** **FIRE SYSTEM UPGRADE**

TRUESTANDBY™ **BURST PIPE TECHNOLOGY** **ANTI-VIBRATION FITTED**

COLD WATER BOOSTER SETS
SLIMLINE

Specification

The Slimline is a next-generation, ultra-compact and high-performance commercial and industrial cold-water booster set. This booster set offers optimum performance at a fraction of the footprint.

Slimline supports the ever-increasing demands for plant room space, giving the most compact design available.

PRODUCT OVERVIEW

- WRAS-approved variable-speed stainless steel pump(s)
- Low-water protection technology deactivates the pumps if there is no water in the break tank, protecting against dry running
- Integral anti-vibration
- Anti-seize technology during low or zero usage
- Burst pipe protection constantly monitors the system for signs of major leakage
- Full-colour touchscreen display with clear error display and log
- Individual isolation valves and drain-down valves
- Victaulic connections for ultra-easy pump removal
- IP55-rated control panel allows for simple and safe maintenance
- Cyclic duty changeover ensures even wear across pumps
- Common fault volt-free contact for connection to building management systems
- Hand/off/auto standard
- RS485 connections for connection to Modbus
- Other configurations available on request

RANGE PERFORMANCE

Number of pumps	2 or 3
Flow range	0.75 - 23 l/s
Pressure range	2.5 - 10 bar
Max system pressure	15 bar
Controller type	Inverter integral to panel
Max system temperature	40°C
Noise data	Motor at 2900 rpm < 70LpA (dB +/-2)*

*More specific details available on request.

MATERIAL SPECIFICATION

Manifolds	AISI 304 stainless steel
Isolation valves	Nickel-plated brass
Non-return valves	AISI 304 stainless steel
Pressure transducers	AISI 304 stainless steel
Pump casing	AISI 304 stainless steel
Pump impellers	AISI 304 stainless steel
Mechanical seals	Carbon, ceramic, NBR
Pressure vessels	WRAS approved
Frame	Steel

Slimline - Twin Pump Duty/Standby Selector

DUTY STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1	**1**	0.9	**1**	0.6	**2**	0.9	**2**	0.8	**2**	0.7	**3**	0.8	**3**	0.6	**4**	0.7	**4**	0.6
2	1.2	**2**	1.1	**2**	1	**3**	1.1	**3**	1	**3**	0.9	**4**	1	**4**	0.9	**8**	1.4	**8**	1
5	1.8	**5**	1.5	**3**	1.2	**5**	0.7	**4**	1.2	**4**	1.2	**7**	1.5	**7**	1.2	**12**	2.2	**12**	1.4
9	3.3	**9**	3	**5**	1.2	**6**	1.7	**6**	1.5	**6**	1.3	**8**	1.8	**8**	1.6				
10	3.7	**10**	3.6	**6**	1.8	**9**	1.9	**7**	1.9	**7**	1.8	**11**	2.5	**12**	2.7				
11	3.8	**11**	3.7	**9**	2.6	**10**	3.1	**10**	2.9	**10**	2.6	**12**	3						
		12	3.9	**10**	3.3	**11**	3.4	**11**	3.2	**11**	3								
				11	3.5	**12**	3.6	**12**	3.4	**12**	3.3								
				12	3.7														

SLIMLINE MODEL

Ref	Model no.
1	VS2-3040-005M/T
2	VS2-3060-007M/T
3	VS2-3080-011M/T
4	VS2-3100-015M/T
5	VS2-5040-007M/T
6	VS2-5060-011M/T
7	VS2-5080-015M/T
8	VS2-5100-022M/T
9	VS2-9040-015M/T
10	VS2-9060-022M/T
11	VS2-9070-030T
12	VS2-9090-030T

COLD WATER BOOSTER SETS
SLIMLINE

Slimline - Twin Pump Duty/Assist Selector

DUTY ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	2	**1**	1.7	**1**	1.2	**2**	1.8	**2**	1.5	**2**	1.3	**3**	1.6	**3**	1.2	**4**	1.5	**4**	1.2
2	2.4	**2**	2.3	**2**	2.1	**3**	2.3	**3**	2.1	**3**	1.9	**4**	2.1	**4**	1.8	**8**	2.7	**8**	2.1
5	3.6	**5**	3.1	**3**	2.4	**5**	1.4	**4**	2.4	**4**	2.3	**7**	3.1	**7**	2.4	**12**	4.3	**12**	2.8
9	6.8	**9**	6	**5**	2.3	**6**	3.3	**6**	2.9	**6**	2.5	**8**	3.7	**8**	3.2				
10	7.4	**10**	7	**6**	3.7	**9**	3.7	**7**	3.2	**7**	3.6	**11**	5	**12**	5.3				
11	7.7	**11**	7.3	**9**	5.1	**10**	6.2	**10**	5.7	**10**	5.2	**12**	6						
		12	7.6	**10**	6.7	**11**	6.7	**11**	6.4	**11**	5.9								
				11	7.1	**12**	7.1	**12**	6.8	**12**	6.6								
				12	7.3														

SLIMLINE MODEL

Ref	Model no.
1	VS2-3040-005M/T
2	VS2-3060-007M/T
3	VS2-3080-011M/T
4	VS2-3100-015M/T
5	VS2-5040-007M/T
6	VS2-5060-011M/T
7	VS2-5080-015M/T
8	VS2-5100-022M/T
9	VS2-9040-015M/T
10	VS2-9060-022M/T
11	VS2-9070-030T
12	VS2-9090-030T

Slimline - Triple Pump Duty/Assist/Standby Selector

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	2	**1**	1.7	**1**	1.2	**2**	1.8	**2**	1.5	**2**	1.3	**3**	1.6	**3**	1.2	**4**	1.5	**4**	1.2
2	2.4	**2**	2.3	**2**	2.1	**3**	2.3	**3**	2.1	**3**	1.9	**4**	2.1	**4**	1.8	**8**	2.7	**8**	2.1
5	3.6	**5**	3.1	**3**	2.4	**5**	1.4	**4**	2.4	**4**	2.3	**7**	3.1	**7**	2.4	**12**	4.3	**12**	2.8
9	6.7	**9**	5.9	**5**	2.3	**6**	3.3	**6**	2.9	**6**	2.5	**8**	3.7	**8**	3.2				
10	7.4	**10**	7	**6**	3.7	**9**	3.7	**7**	3.7	**7**	3.6	**11**	5	**12**	5.3				
11	7.7	**11**	7.3	**9**	5.1	**10**	6.2	**10**	5.7	**10**	5.2	**12**	6						
		12	7.6	**10**	6.7	**11**	6.7	**11**	6.4	**11**	5.9								
				11	3.5	**12**	7.1	**12**	3.4	**12**	6.6								
				12	3.7														

SLIMLINE MODEL

Ref	Model no.
1	VS3-3040-005M/T
2	VS3-3060-007M/T
3	VS3-3080-011M/T
4	VS3-3100-015M/T
5	VS3-5040-007M/T
6	VS3-5060-011M/T
7	VS3-5080-015M/T
8	VS3-5100-022M/T
9	VS3-9040-015M/T
10	VS3-9060-022M/T
11	VS3-9070-030T
12	VS3-9090-030T

COLD WATER BOOSTER SETS
SLIMLINE

Slimline - Triple Pump Duty/Assist/Assist Selector

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar		7.0 bar		8.0 bar		9.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	3	**1**	2.5	**1**	1.8	**2**	2.8	**2**	2.3	**2**	2	**3**	2.3	**3**	1.8	**4**	2.2	**4**	1.8
2	3.7	**2**	3.4	**2**	3.1	**3**	3.4	**3**	3.1	**3**	2.8	**4**	3.1	**4**	2.7	**8**	4.1	**8**	3.1
5	5.4	**5**	4.6	**3**	3.6	**5**	2.1	**4**	3.6	**4**	3.5	**7**	4.6	**7**	3.6	**12**	6.5	**12**	4.3
9	10	**9**	8.9	**5**	3.5	**6**	5	**6**	4.4	**6**	3.8	**8**	5.5	**8**	4.8				
10	11.1	**10**	10.5	**6**	5.5	**9**	5.6	**7**	5.6	**7**	5.3	**11**	7.5	**12**	8				
11	11.5	**11**	11	**9**	7.7	**10**	9.3	**10**	8.6	**10**	7.8	**12**	9						
		12	11.3	**10**	10	**11**	10.1	**11**	9.6	**11**	8.9								
						12	10.7			**12**	9.9								

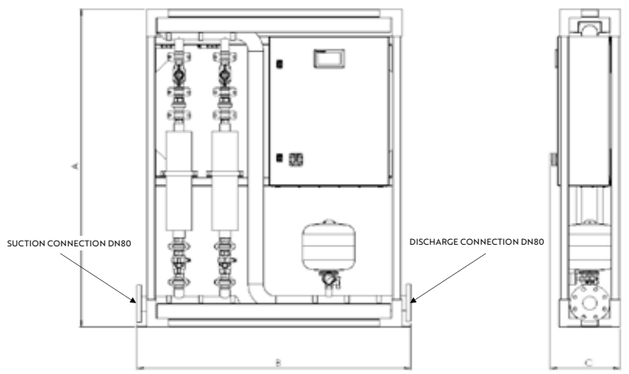
SLIMLINE MODEL

Ref	Model no.
1	VS3-3040-005M/T
2	VS3-3060-007M/T
3	VS3-3080-011M/T
4	VS3-3100-015M/T
5	VS3-5040-007M/T
6	VS3-5060-011M/T
7	VS3-5080-015M/T
8	VS3-5100-022M/T
9	VS3-9040-015M/T
10	VS3-9060-022M/T
11	VS3-9070-030T
12	VS3-9090-030T

VS2 Series

DRAWINGS AND DIMENSIONS

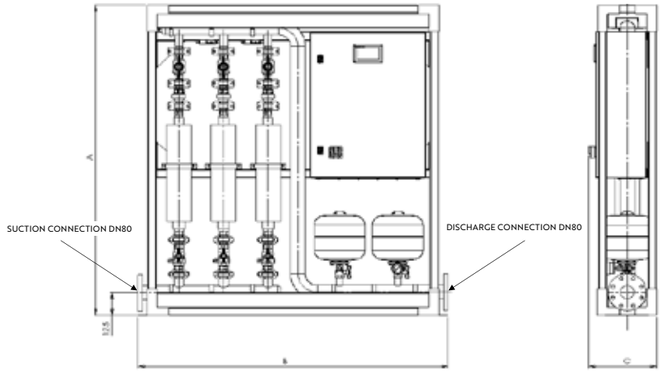
Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)		
			Per pump	Total	A	B	C
VS2-3040-005M	0.55	230/1/50	3.5	7	1655	1270	355
VS2-3040-005T	0.55	400/3/50	2	4	1655	1270	355
VS2-3060-007M	0.75	230/1/50	4	8	1700	1270	355
VS2-3060-007T	0.75	400/3/50	2.3	4.6	1700	1270	355
VS2-3080-011M	1.1	230/1/50	4.7	9.4	1750	1270	355
VS2-3080-011T	1.1	400/3/50	2.7	5.4	1750	1270	355
VS2-3100-015M	1.5	230/1/50	5.5	11	1850	1270	355
VS2-3100-015T	1.5	400/3/50	3.2	6.4	1850	1270	355
VS2-5040-007M	0.75	230/1/50	3.8	7.6	1655	1270	355
VS2-5040-007T	0.75	400/3/50	2.2	4.4	1655	1270	355
VS2-5060-011M	1.1	230/1/50	4.8	9.6	1700	1270	355
VS2-5060-011T	1.1	400/3/50	2.8	5.6	1700	1270	355
VS2-5080-015M	1.5	230/1/50	6.1	12.2	1800	1270	355
VS2-5080-015T	1.5	400/3/50	3.5	7	1800	1270	355
VS2-5100-022M	2.2	230/1/50	9	18	1850	1270	355
VS2-5100-022T	2.2	400/3/50	5.2	10.4	1850	1270	355
VS2-9040-015M	1.5	230/1/50	5.5	11	1760	1270	355
VS2-9040-015T	1.5	400/3/50	3.2	6.4	1760	1270	355
VS2-9060-022M	2.2	230/1/50	9.2	18.4	1825	1270	355
VS2-9060-022T	2.2	400/3/50	5.3	10.6	1825	1270	355
VS2-9070-030T	3	400/3/50	5.9	11.8	1850	1270	355
VS2-9090-030T	3	400/3/50	6.8	13.6	1880	1270	355



VS3 Series

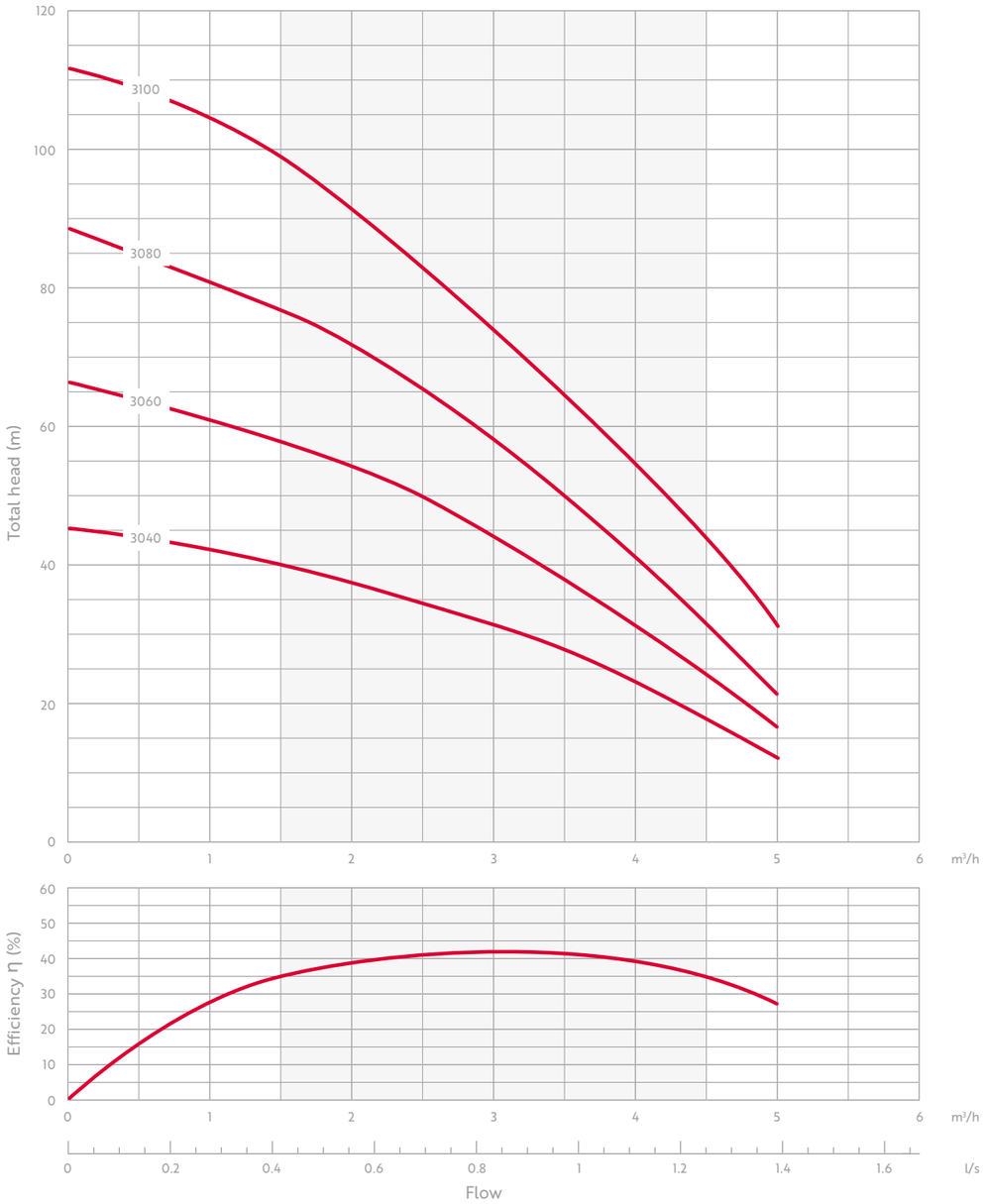
DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	Full load current (A)		Dimensions (mm)		
			Per pump	Total	A	B	C
VS3-3040-005M	0.55	230/1/50	3.5	10.5	1655	1500	355
VS3-3040-005T	0.55	400/3/50	2	6	1655	1500	355
VS3-3060-007M	0.75	230/1/50	4	12	1700	1500	355
VS3-3060-007T	0.75	400/3/50	2.3	6.9	1700	1500	355
VS3-3080-011M	1.1	230/1/50	4.7	14.1	1750	1500	355
VS3-3080-011T	1.1	400/3/50	2.7	8.1	1750	1500	355
VS3-3100-015M	1.5	230/1/50	5.5	16.5	1850	1500	355
VS3-3100-015T	1.5	400/3/50	3.2	9.6	1850	1500	355
VS3-5040-007M	0.75	230/1/50	3.8	11.4	1655	1500	355
VS3-5040-007T	0.75	400/3/50	2.2	6.6	1655	1500	355
VS3-5060-011M	1.1	230/1/50	4.8	14.4	1700	1500	355
VS3-5060-011T	1.1	400/3/50	2.8	8.4	1700	1500	355
VS3-5080-015M	1.5	230/1/50	6.1	18.3	1800	1500	355
VS3-5080-015T	1.5	400/3/50	3.5	10.5	1800	1500	355
VS3-5100-022M	2.2	230/1/50	9	27	1850	1600	355
VS3-5100-022T	2.2	400/3/50	5.2	15.6	1850	1600	355
VS3-9040-015M	1.5	230/1/50	5.5	16.5	1760	1500	355
VS3-9040-015T	1.5	400/3/50	3.2	9.6	1760	1500	355
VS3-9060-022M	2.2	230/1/50	9.2	27.6	1825	1600	355
VS3-9060-022T	2.2	400/3/50	5.3	15.9	1825	1600	355
VS3-9070-030T	3	400/3/50	5.9	17.7	1850	1600	355
VS3-9090-030T	3	400/3/50	6.8	20.4	1880	1600	355



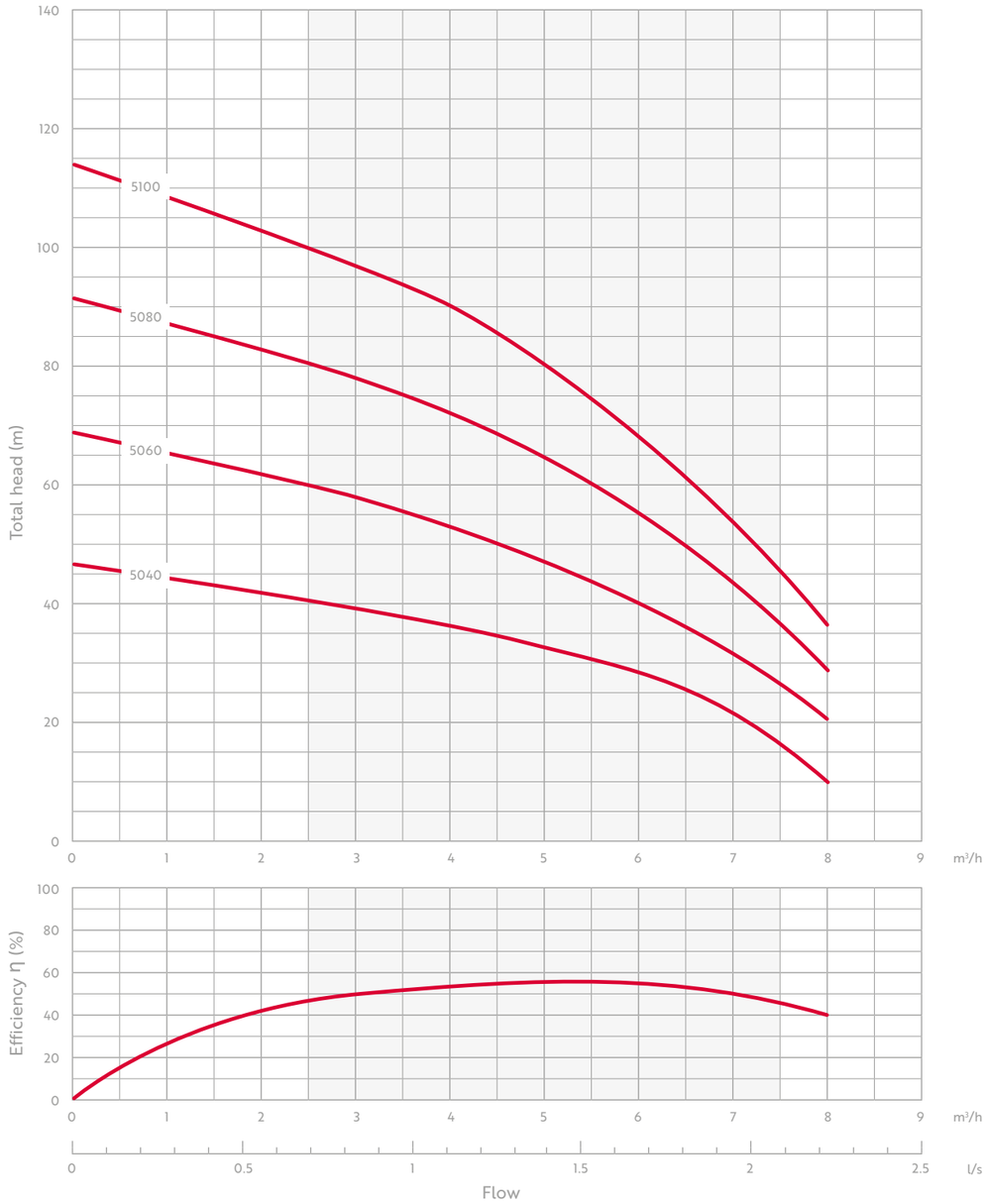
VS*x*-30 Series

SINGLE PUMP CURVES



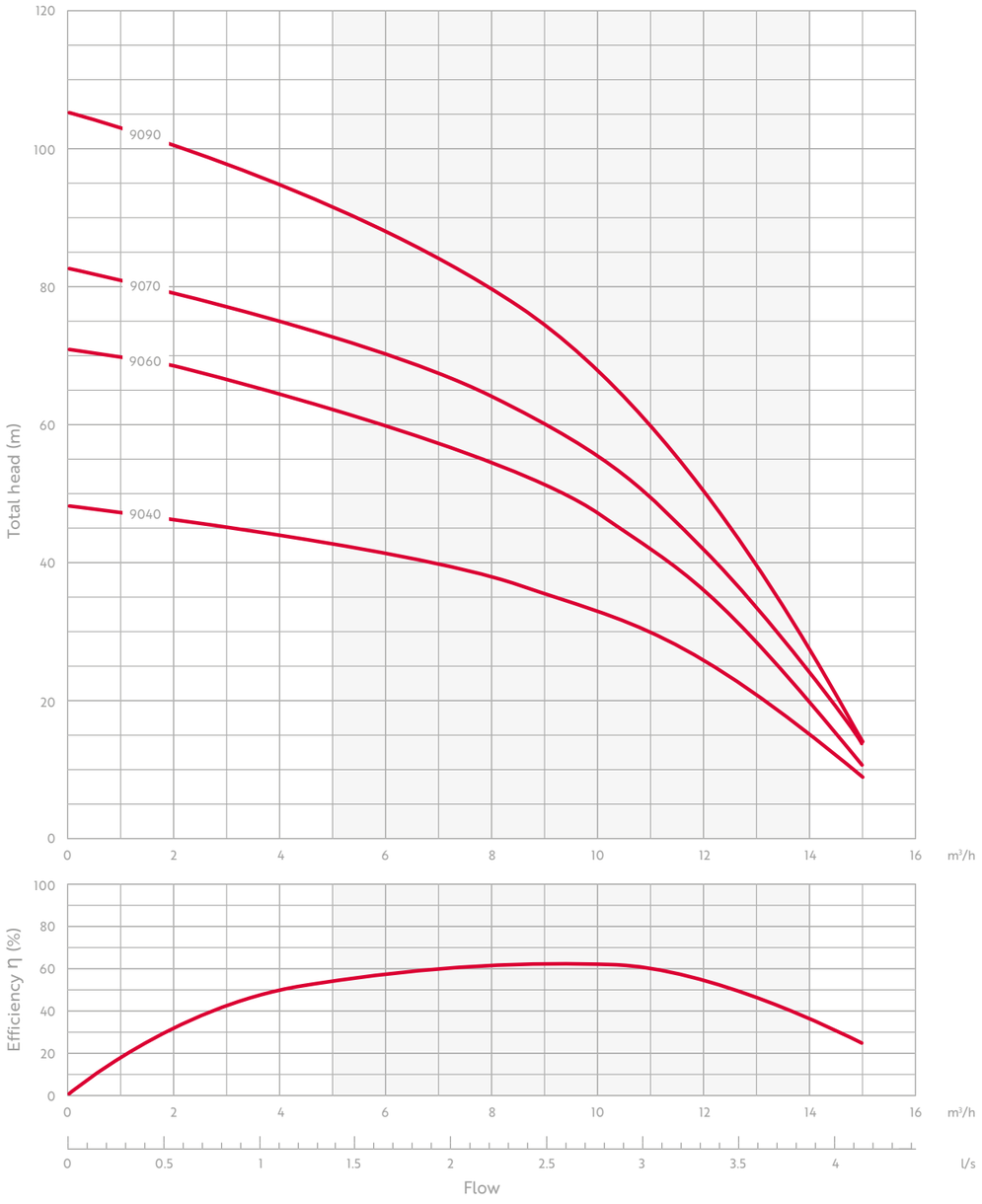
VS*x*-50 Series

SINGLE PUMP CURVES



VSx-90 Series

SINGLE PUMP CURVES



Integrated Pump and Tank Systems

Packaged potable water storage units for internal or external installation.

CONTENTS

It's small, powerful and keeps well hidden

To discuss the ScubaTANK®, call us now on 01452 300110 or email enquiries@dutypoint.com

ScubaTANK®

The original all-in-one pump and tank system to minimise plant space and reduce install time.

PRODUCT OVERVIEW

- Tanks from 175 litres to 2,250 litres as standard
- Intelligent electronic fill system to maximise tank capacity and optimise recovery time
- Upgrade for combined domestic cold water and fire sprinkler available
- 24-hour delivery on popular models

Key Features

FACTORY PROGRAMMED AND TESTED

INTELLIGENT ELECTRONIC FILL SYSTEM TO MAXIMISE TANK CAPACITY AND OPTIMISE RECOVERY TIME

INSULATED TANK TO ENSURE WATER QUALITY IS MAINTAINED

HORIZONTAL SPLIT TANK AVAILABLE AS OPTION

CAT 5 OPTION AVAILABLE

WIDE RANGE OF STANDARD CAPACITIES FROM 175 TO 2,250 LITRES

COMPLETE PACKAGED SYSTEM FOR QUICK AND EASY INSTALLATION

QUICK DELIVERY

HIRISE

BMS CONNECTABLE

FIRE SYSTEM UPGRADE

TRUESTANDBY™

Specification

The ScubaTANK® is the original fully WRAS-approved booster set and tank system and maximises water storage within a minimal footprint. Pumps are installed inside the insulated tank, resulting in extremely quiet operation.

Variable-speed pumps ensure a low level of energy consumption. In addition, smaller models fit through a standard door, making the ScubaTANK® ideal for retrofit applications. The range comprises the single-pump WX1 and the twin pump WX2 models, available in duty/assist and duty/standby configurations. Tanks are available with actual capacity from 175 to 2,250 litres as standard. All tanks come with a 2-year warranty*.

*Terms apply.

PRODUCT OVERVIEW

- GRP-insulated water storage tank
- Stainless steel submersible pumps
- High-flow inlet solenoid valve
- Low-water level pump protection device
- Digital system status display
- Fused isolation switch

OPTIONS

- Remote alarm panel
- Common alarm volt-free contact
- Weatherproof housing for external installations
- Bespoke tank sizes for specific site requirements
- Horizontal split tank to enable access
- High-temperature water alarm and emergency purge

RANGE PERFORMANCE

Number of pumps	1 or 2
Flow range	0.4 - 7.8 l/s
Pressure range	1.8 - 6.1 bar
Max system pressure	10 bar
Controller type	Intelligent invertor
Max system temperature	23°C
Noise data	Motor at 2900 rpm < 70LpA (dB +/-2)*

*More specific details available on request.

MATERIAL SPECIFICATION

Tank	25 mm insulated GRP
Manifolds	AISI 304 stainless steel
Isolation valves	Nickel-plated brass
Non-return valves	AISI 304 stainless steel
Pressure transducers	AISI 304 stainless steel
Pump casing	AISI 304 stainless steel
Pump impellers	AISI 304 stainless steel
Mechanical seals	Carbon, ceramic, NBR
Pressure vessels	WRAS approved

How to Use the ScubaTANK® Selector

3 steps to select the best booster set for your project

EXAMPLE

Configuration required	Duty/assist
Pressure required	4.0 bar
Flow rate required	1.1 litres/second
Tank capacity	800 litres

Step 1

Identify the configuration required and find the relevant chart.

A	DUTY	**Duty:** Single pump set where one pump will cover the required duty	Page 101
B	DUTY + STANDBY	**Duty/standby:** Twin pump set where either pump will run to cover the duty	Page 102
C	DUTY + ASSIST	**Duty/assist:** Twin pump set where both pumps run to cover the duty	Page 103

Step 2

On the relevant selector chart, identify the column that matches or exceeds the discharge head required. In this column, select the box that matches or exceeds the total flow rate required (litres/second).

2.5 bar		3.0 bar		3.5 bar		4.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1	**1**	0.9	**1**	0.8	**1**	0.8
3	2.2	**3**	2	**3**	1	**2**	1.3
5	2.6	**4**	4.7	**4**	4.6	**3**	3.6
		5	7.4	**5**	6.9	**4**	4.4
				6	7.7	**5**	6.3
						6	7.4

Step 3

Use the number in the grey box to select the corresponding row in the tank capacity options table. Finally, within the designated row on the tank capacity table, select the cell directly beneath the required tank capacity.

Ref	Actual tank capacity options		
	650 litres	**750 litres**	**800 litres**
2	WX1-3040-650	WX1-3040-750	WX1-3040-800
3	WX1-3060-650	WX1-3060-750	WX1-3060-800
4	WX1-3080-650	WX1-3080-750	WX1-5040-800
5	WX1-5060-650	WX1-5060-750	WX1-5060-800
6	WX1-5080-650	WX1-5080-750	WX1-5080-800
7	WX1-9040-650	WX1-9040-750	WX1-9040-800

Single Pump Duty Selector

DUTY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.0 bar		2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1.2	**1**	1	**1**	0.8	**1**	0.6	**2**	0.9	**2**	0.8	**2**	0.7	**3**	0.8
4	2	**2**	1.2	**2**	1.1	**2**	1	**3**	1.1	**3**	1	**3**	0.9	**6**	1.5
7	3.6	**4**	1.8	**4**	1.5	**3**	1.2	**4**	0.7	**5**	1.5	**5**	1.3		
8	3.9	**7**	3.3	**7**	3	**4**	1.1	**5**	1.7	**6**	1.9	**6**	1.8		
		8	3.7	**8**	3.5	**5**	1.8	**7**	1.9	**8**	2.9	**8**	2.6		
						7	2.6	**8**	3.1						
						8	3.3								

ACTUAL TANK CAPACITY OPTIONS

Ref	175 litres	300 litres	375 litres	440 litres	490 litres	575 litres	650 litres
1	WX1-3040-175	WX1-3040-300	WX1-3040-375	WX1-3040-440	WX1-3040-490	WX1-3040-575	WX1-3040-650
2	WX1-3060-175	WX1-3060-300	WX1-3060-375	WX1-3060-440	WX1-3060-490	WX1-3060-575	WX1-3060-650
3	WX1-3080-175	WX1-3080-300	WX1-3080-375	WX1-3080-440	WX1-3080-490	WX1-3080-575	WX1-3080-650
4	WX1-5040-175	WX1-5040-300	WX1-5040-375	WX1-5040-440	WX1-5040-490	WX1-5040-575	WX1-5040-650
5	WX1-5060-175	WX1-5060-300	WX1-5060-375	WX1-5060-440	WX1-5060-490	WX1-5060-575	WX1-5060-650
6	WX1-5080-175	WX1-5080-300	WX1-5080-375	WX1-5080-440	WX1-5080-490	WX1-5080-575	WX1-5080-650
7	-	-	WX1-9040-375	WX1-9040-440	WX1-9040-490	WX1-9040-575	WX1-9040-650
8	-	-	WX1-9060-375	WX1-9060-440	WX1-9060-490	WX1-9060-575	WX1-9060-650

ACTUAL TANK CAPACITY OPTIONS

Ref	750 litres	800 litres	1050 litres	1250 litres	1650 litres	2250 litres
1	WX1-3040-750	WX1-3040-800	WX1-3040-1050	WX1-3040-1250	WX1-3040-1650	WX1-3040-2250
2	WX1-3060-750	WX1-3060-800	WX1-3060-1050	WX1-3060-1250	WX1-3060-1650	WX1-3060-2250
3	WX1-3080-750	WX1-3080-800	WX1-3080-1050	WX1-3080-1250	WX1-3080-1650	WX1-3080-2250
4	WX1-5040-750	WX1-5040-800	WX1-5040-1050	WX1-5040-1250	WX1-5040-1650	WX1-5040-2250
5	WX1-5060-750	WX1-5060-800	WX1-5060-1050	WX1-5060-1250	WX1-5060-1650	WX1-5060-2250
6	WX1-5080-750	WX1-5080-800	WX1-5080-1050	WX1-5080-1250	WX1-5080-1650	WX1-5080-2250
7	WX1-9040-750	WX1-9040-800	WX1-9040-1050	WX1-9040-1250	WX1-9040-1650	WX1-9040-2250
8	WX1-9060-750	WX1-9060-800	WX1-9060-1050	WX1-9060-1250	WX1-9060-1650	WX1-9060-2250

Twin Pump Duty/ Standby Selector

DUTY STANDBY

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.0 bar		2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	1.2	**1**	1	**1**	0.8	**1**	0.6	**2**	0.9	**2**	0.8	**2**	0.7	**3**	0.8
4	2	**2**	1.2	**2**	1.1	**2**	1	**3**	1.1	**3**	1	**3**	0.9	**6**	1.5
7	3.6	**4**	1.8	**4**	1.5	**3**	1.2	**4**	0.7	**5**	1.5	**5**	1.3		
8	3.9	**7**	3.3	**7**	3	**4**	1.1	**5**	1.7	**6**	1.9	**6**	1.8		
		8	3.7	**8**	3.5	**5**	1.8	**7**	1.9	**8**	2.9	**8**	2.6		
						7	2.6	**8**	3.1						
						8	3.3								

ACTUAL TANK CAPACITY OPTIONS

Ref	375 litres	440 litres	490 litres	575 litres	650 litres	750 litres
1	WX2-3040-375	WX2-3040-440	WX2-3040-490	WX2-3040-575	WX2-3040-650	WX2-3040-750
2	WX2-3060-375	WX2-3060-440	WX2-3060-490	WX2-3060-575	WX2-3060-650	WX2-3060-750
3	WX2-3080-375	WX2-3080-440	WX2-3080-490	WX2-3080-575	WX2-3080-650	WX2-3080-750
4	WX2-5040-375	WX2-5040-440	WX2-5040-490	WX2-5040-575	WX2-5040-650	WX2-5040-750
5	WX2-5060-375	WX2-5060-440	WX2-5060-490	WX2-5060-575	WX2-5060-650	WX2-5060-750
6	WX2-5080-375	WX2-5080-440	WX2-5080-490	WX2-5080-575	WX2-5080-650	WX2-5080-750
7	WX2-9040-375	WX2-9040-440	WX2-9040-490	WX2-9040-575	WX2-9040-650	WX2-9040-750
8	WX2-9060-375	WX2-9060-440	WX2-9060-490	WX2-9060-575	WX2-9060-650	WX2-9060-750

ACTUAL TANK CAPACITY OPTIONS

Ref	800 litres	1050 litres	1250 litres	1650 litres	2250 litres
1	WX2-3040-800	WX2-3040-1050	WX2-3040-1250	WX2-3040-1650	WX2-3040-2250
2	WX2-3060-800	WX2-3060-1050	WX2-3060-1250	WX2-3060-1650	WX2-3060-2250
3	WX2-3080-800	WX2-3080-1050	WX2-3080-1250	WX2-3080-1650	WX2-3080-2250
4	WX2-5040-800	WX2-5040-1050	WX2-5040-1250	WX2-5040-1650	WX2-5040-2250
5	WX2-5060-800	WX2-5060-1050	WX2-5060-1250	WX2-5060-1650	WX2-5060-2250
6	WX2-5080-800	WX2-5080-1050	WX2-5080-1250	WX2-5080-1650	WX2-5080-2250
7	WX2-9040-800	WX2-9040-1050	WX2-9040-1250	WX2-9040-1650	WX2-9040-2250
8	WX2-9060-800	WX2-9060-1050	WX2-9060-1250	WX2-9060-1650	WX2-9060-2250

INTEGRATED PUMP AND TANK SYSTEMS
SCUBATANK®

Twin Pump Duty/ Assist Selector

DUTY ASSIST

PRESSURE REQUIRED (UNITS DISPLAYED IN LITRES PER SECOND)

2.0 bar		2.5 bar		3.0 bar		3.5 bar		4.0 bar		4.5 bar		5.0 bar		6.0 bar	
Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate	Ref	Flow rate
1	2.4	**1**	2	**1**	1.7	**1**	1.2	**2**	1.8	**2**	1.5	**2**	1.3	**3**	1.6
4	4	**2**	2.4	**2**	2.3	**2**	2.1	**3**	2.3	**3**	2.1	**3**	1.9	**6**	3.1
7	7.3	**4**	3.6	**4**	3.1	**3**	2.4	**4**	1.4	**5**	2.9	**5**	2.5		
8	7.8	**7**	6.7	**7**	5.9	**4**	2.3	**5**	3.3	**6**	3.7	**6**	3.6		
		8	7.4	**8**	7	**5**	3.7	**7**	3.7	**8**	5.7	**8**	5.2		
						7	5.1	**8**	6.2						
						8	6.7								

ACTUAL TANK CAPACITY OPTIONS

Ref	375 litres	440 litres	490 litres	575 litres	650 litres	750 litres
1	WX2-3040-375	WX2-3040-440	WX2-3040-490	WX2-3040-575	WX2-3040-650	WX2-3040-750
2	WX2-3060-375	WX2-3060-440	WX2-3060-490	WX2-3060-575	WX2-3060-650	WX2-3060-750
3	WX2-3080-375	WX2-3080-440	WX2-3080-490	WX2-3080-575	WX2-3080-650	WX2-3080-750
4	WX2-5040-375	WX2-5040-440	WX2-5040-490	WX2-5040-575	WX2-5040-650	WX2-5040-750
5	WX2-5060-375	WX2-5060-440	WX2-5060-490	WX2-5060-575	WX2-5060-650	WX2-5060-750
6	WX2-5080-375	WX2-5080-440	WX2-5080-490	WX2-5080-575	WX2-5080-650	WX2-5080-750
7	WX2-9040-375	WX2-9040-440	WX2-9040-490	WX2-9040-575	WX2-9040-650	WX2-9040-750
8	WX2-9060-375	WX2-9060-440	WX2-9060-490	WX2-9060-575	WX2-9060-650	WX2-9060-750

ACTUAL TANK CAPACITY OPTIONS

Ref	800 litres	1050 litres	1250 litres	1650 litres	2250 litres
1	WX2-3040-800	WX2-3040-1050	WX2-3040-1250	WX2-3040-1650	WX2-3040-2250
2	WX2-3060-800	WX2-3060-1050	WX2-3060-1250	WX2-3060-1650	WX2-3060-2250
3	WX2-3080-800	WX2-3080-1050	WX2-3080-1250	WX2-3080-1650	WX2-3080-2250
4	WX2-5040-800	WX2-5040-1050	WX2-5040-1250	WX2-5040-1650	WX2-5040-2250
5	WX2-5060-800	WX2-5060-1050	WX2-5060-1250	WX2-5060-1650	WX2-5060-2250
6	WX2-5080-800	WX2-5080-1050	WX2-5080-1250	WX2-5080-1650	WX2-5080-2250
7	WX2-9040-800	WX2-9040-1050	WX2-9040-1250	WX2-9040-1650	WX2-9040-2250
8	WX2-9060-800	WX2-9060-1050	WX2-9060-1250	WX2-9060-1650	WX2-9060-2250

WX1-3000

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	FLC (A)	Actual tank capacity (litres)	Dimensions (mm)				Dry weight (kg)
					A	B	H (int.)	H (ext.)	
WX1-3040-175	0.55	230/1/50	4.1	175	600	600	1015	1390	51
WX1-3040-300	0.55	230/1/50	4.1	300	600	600	1500	1875	66
WX1-3040-375	0.55	230/1/50	4.1	375	600	950	1220	1619	69
WX1-3040-440	0.55	230/1/50	4.1	440	600	950	1500	1875	74
WX1-3040-490	0.55	230/1/50	4.1	490	750	950	1220	1595	77
WX1-3040-575	0.55	230/1/50	4.1	575	750	950	1500	1875	83
WX1-3040-650	0.55	230/1/50	4.1	650	750	1200	1220	1595	101
WX1-3040-750	0.55	230/1/50	4.1	750	750	1200	1500	1875	108
WX1-3040-800	0.55	230/1/50	4.1	800	1160	1160	1020	1400	115
WX1-3040-1050	0.55	230/1/50	4.1	1050	800	1500	1520	1919	120
WX1-3040-1250	0.55	230/1/50	4.1	1250	1160	1160	1520	1919	143
WX1-3040-1650	0.55	230/1/50	4.1	1650	1160	1500	1520	1919	161
WX1-3040-2250	0.55	230/1/50	4.1	2250	1160	2000	1520	1919	168
WX1-3060-175	0.75	230/1/50	5.2	175	600	600	1015	1390	54
WX1-3060-300	0.75	230/1/50	5.2	300	600	600	1500	1875	66
WX1-3060-375	0.75	230/1/50	5.2	375	600	950	1220	1619	73
WX1-3060-440	0.75	230/1/50	5.2	440	600	950	1500	1875	77
WX1-3060-490	0.75	230/1/50	5.2	490	750	950	1220	1595	80
WX1-3060-575	0.75	230/1/50	5.2	575	750	950	1500	1875	88
WX1-3060-650	0.75	230/1/50	5.2	650	750	1200	1220	1595	104
WX1-3060-750	0.75	230/1/50	5.2	750	750	1200	1500	1875	113
WX1-3060-800	0.75	230/1/50	5.2	800	1160	1160	1020	1400	118
WX1-3060-1050	0.75	230/1/50	5.2	1050	800	1500	1520	1919	123
WX1-3060-1250	0.75	230/1/50	5.2	1250	1160	1160	1520	1919	147
WX1-3060-1650	0.75	230/1/50	5.2	1650	1160	1500	1520	1919	164
WX1-3060-2250	0.75	230/1/50	5.2	2250	1160	2000	1520	1919	171
WX1-3080-175	1.1	230/1/50	7.4	175	600	600	1015	1390	56
WX1-3080-300	1.1	230/1/50	7.4	300	600	600	1500	1875	61
WX1-3080-375	1.1	230/1/50	7.4	375	600	950	1220	1619	75
WX1-3080-440	1.1	230/1/50	7.4	440	600	950	1500	1875	78
WX1-3080-490	1.1	230/1/50	7.4	490	750	950	1220	1595	82
WX1-3080-575	1.1	230/1/50	7.4	575	750	950	1500	1875	93
WX1-3080-650	1.1	230/1/50	7.4	650	750	1200	1220	1595	106
WX1-3080-750	1.1	230/1/50	7.4	750	750	1200	1500	1875	116
WX1-3080-800	1.1	230/1/50	7.4	800	1160	1160	1020	1400	120
WX1-3080-1050	1.1	230/1/50	7.4	1050	800	1500	1520	1919	125
WX1-3080-1250	1.1	230/1/50	7.4	1250	1160	1160	1520	1919	149
WX1-3080-1650	1.1	230/1/50	7.4	1650	1160	1500	1520	1919	166
WX1-3080-2250	1.1	230/1/50	7.4	2250	1160	2000	1520	1919	173

Refer to drawings on page 107.

INTEGRATED PUMP AND TANK SYSTEMS
SCUBATANK®

WX1-5000

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	FLC (A)	Actual tank capacity (litres)	Dimensions (mm)				Dry weight (kg)
					A	B	H (int.)	H (ext.)	
WX1-5040-175	0.75	230/1/50	5	175	600	600	1015	1390	53
WX1-5040-300	0.75	230/1/50	5	300	600	600	1500	1875	64
WX1-5040-375	0.75	230/1/50	5	375	600	950	1220	1619	72
WX1-5040-440	0.75	230/1/50	5	440	600	950	1500	1875	76
WX1-5040-490	0.75	230/1/50	5	490	750	950	1220	1595	79
WX1-5040-575	0.75	230/1/50	5	575	750	950	1500	1875	88
WX1-5040-650	0.75	230/1/50	5	650	750	1200	1020	1595	103
WX1-5040-750	0.75	230/1/50	5	750	750	1200	1500	1875	109
WX1-5040-800	0.75	230/1/50	5	800	1160	1160	1020	1400	117
WX1-5040-1050	0.75	230/1/50	5	1050	800	1500	1520	1919	122
WX1-5040-1250	0.75	230/1/50	5	1250	1160	1160	1520	1919	146
WX1-5040-1650	0.75	230/1/50	5	1650	1160	1500	1520	1919	163
WX1-5040-2250	0.75	230/1/50	5	2250	1160	2000	1520	1919	170
WX1-5060-175	1.1	230/1/50	7.4	175	600	600	1015	1390	55
WX1-5060-300	1.1	230/1/50	7.4	300	600	600	1500	1875	66
WX1-5060-375	1.1	230/1/50	7.4	375	600	950	1220	1619	74
WX1-5060-440	1.1	230/1/50	7.4	440	600	950	1500	1875	78
WX1-5060-490	1.1	230/1/50	7.4	490	750	950	1220	1595	81
WX1-5060-575	1.1	230/1/50	7.4	575	750	950	1500	1875	95
WX1-5060-650	1.1	230/1/50	7.4	650	750	1200	1220	1595	105
WX1-5060-750	1.1	230/1/50	7.4	750	750	1200	1500	1875	113
WX1-5060-800	1.1	230/1/50	7.4	800	1160	1160	1020	1400	119
WX1-5060-1050	1.1	230/1/50	7.4	1050	800	1500	1520	1919	124
WX1-5060-1250	1.1	230/1/50	7.4	1250	1160	1160	1520	1919	148
WX1-5060-1650	1.1	230/1/50	7.4	1650	1160	1500	1520	1919	165
WX1-5060-2250	1.1	230/1/50	7.4	2250	1160	2000	1520	1919	172
WX1-5080-175	1.5	230/1/50	10.5	175	600	600	1015	1390	58
WX1-5080-300	1.5	230/1/50	10.5	300	600	600	1500	1875	68
WX1-5080-375	1.5	230/1/50	10.5	375	600	950	1220	1619	77
WX1-5080-440	1.5	230/1/50	10.5	440	600	950	1500	1875	81
WX1-5080-490	1.5	230/1/50	10.5	490	750	950	1220	1595	84
WX1-5080-575	1.5	230/1/50	10.5	575	750	950	1500	1875	91
WX1-5080-650	1.5	230/1/50	10.5	650	750	1200	1220	1595	108
WX1-5080-750	1.5	230/1/50	10.5	750	750	1200	1500	1875	116
WX1-5080-800	1.5	230/1/50	10.5	800	1160	1160	1020	1400	122
WX1-5080-1050	1.5	230/1/50	10.5	1050	800	1500	1520	1919	127
WX1-5080-1250	1.5	230/1/50	10.5	1250	1160	1160	1520	1919	151
WX1-5080-1650	1.5	230/1/50	10.5	1650	1160	1500	1520	1919	168
WX1-5080-2250	1.5	230/1/50	10.5	2250	1160	2000	1520	1919	175

Refer to drawings on page 107.

WX1-9000

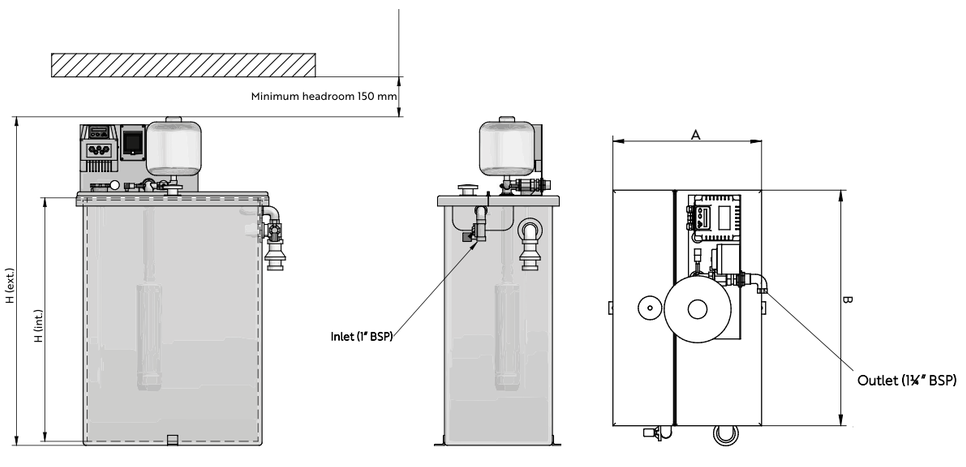
DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	FLC (A)	Actual tank capacity (litres)	Dimensions (mm)				Dry weight (kg)
					A	B	H (int.)	H (ext.)	
WX1-9040-375	1.5	230/1/50	10.5	375	600	600	1120	1619	76
WX1-9040-440	1.5	230/1/50	10.5	440	600	600	1500	1875	80
WX1-9040-490	1.5	230/1/50	10.5	490	750	950	1220	1619	83
WX1-9040-575	1.5	230/1/50	10.5	575	750	950	1500	1875	90
WX1-9040-650	1.5	230/1/50	10.5	650	750	1200	1220	1595	107
WX1-9040-750	1.5	230/1/50	10.5	750	750	1200	1500	1875	113
WX1-9040-800	1.5	230/1/50	10.5	800	1160	1160	1020	1396	121
WX1-9040-1050	1.5	230/1/50	10.5	1050	800	1500	1520	1895	126
WX1-9040-1250	1.5	230/1/50	10.5	1250	1160	1160	1520	1895	150
WX1-9040-1650	1.5	230/1/50	10.5	1650	1160	1500	1520	1895	167
WX1-9040-2250	1.5	230/1/50	10.5	2250	1160	2000	1520	1895	174
WX1-9060-375	2.2	230/1/50	11.9	375	600	1500	1220	1919	79
WX1-9060-440	2.2	230/1/50	11.9	440	600	2000	1500	1875	84
WX1-9060-490	2.2	230/1/50	11.9	490	750	600	1220	1619	86
WX1-9060-575	2.2	230/1/50	11.9	575	750	600	1500	1875	88
WX1-9060-650	2.2	230/1/50	11.9	650	750	1200	1220	1595	110
WX1-9060-750	2.2	230/1/50	11.9	750	750	1200	1500	1875	118
WX1-9060-800	2.2	230/1/50	11.9	800	1160	1160	1020	1396	124
WX1-9060-1050	2.2	230/1/50	11.9	1050	800	1500	1520	1895	129
WX1-9060-1250	2.2	230/1/50	11.9	1250	1160	1200	1520	1895	153
WX1-9060-1650	2.2	230/1/50	11.9	1650	1160	1500	1520	1895	170
WX1-9060-2250	2.2	230/1/50	11.9	2250	1160	2000	1520	1895	179

Refer to drawings on page 107.

INTEGRATED PUMP AND TANK SYSTEMS
SCUBATANK®

WX1-3000/ 5000/9000



WX2-3000

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	FLC per pump (A)	FLC total (A)	Actual tank capacity (litres)	Dimensions (mm)				Dry weight (kg)
						A	B	H (int.)	H (ext.)	
WX2-3040-375	0.55	230/1/50	4.1	8.2	375	600	950	1200	1618	103
WX2-3040-440	0.55	230/1/50	4.1	8.2	440	600	950	1500	1895	126
WX2-3040-490	0.55	230/1/50	4.1	8.2	490	750	950	1200	1613	110
WX2-3040-575	0.55	230/1/50	4.1	8.2	575	750	950	1500	1895	135
WX2-3040-650	0.55	230/1/50	4.1	8.2	650	750	1200	1200	1618	134
WX2-3040-750	0.55	230/1/50	4.1	8.2	750	750	1200	1500	1895	130
WX2-3040-800	0.55	230/1/50	4.1	8.2	800	1160	1160	1000	1418	148
WX2-3040-1050	0.55	230/1/50	4.1	8.2	1050	800	1500	1500	1918	153
WX2-3040-1250	0.55	230/1/50	4.1	8.2	1250	1160	1160	1500	1918	177
WX2-3040-1650	0.55	230/1/50	4.1	8.2	1650	1160	1500	1500	1918	194
WX2-3040-2250	0.55	230/1/50	4.1	8.2	2250	1160	2000	1520	1914	201
WX2-3060-375	0.75	230/1/50	5.2	10.4	375	600	950	1500	1618	108
WX2-3060-440	0.75	230/1/50	5.2	10.4	440	600	950	1200	1895	112
WX2-3060-490	0.75	230/1/50	5.2	10.4	490	750	950	1500	1613	115
WX2-3060-575	0.75	230/1/50	5.2	10.4	575	750	950	1500	1895	123
WX2-3060-650	0.75	230/1/50	5.2	10.4	650	750	1200	1200	1618	139
WX2-3060-750	0.75	230/1/50	5.2	10.4	750	750	1200	1500	1895	148
WX2-3060-800	0.75	230/1/50	5.2	10.4	800	1160	1160	1500	1418	153
WX2-3060-1050	0.75	230/1/50	5.2	10.4	1050	800	1500	1500	1918	158
WX2-3060-1250	0.75	230/1/50	5.2	10.4	1250	1160	1160	1500	1918	182
WX2-3060-1650	0.75	230/1/50	5.2	10.4	1650	1160	1500	1500	1914	199
WX2-3060-2250	0.75	230/1/50	5.2	10.4	2250	1160	2000	1500	1618	206
WX2-3080-375	1.1	230/1/50	7.4	14.8	375	600	950	1200	1618	112
WX2-3080-440	1.1	230/1/50	7.4	14.8	440	600	950	1500	1895	115
WX2-3080-490	1.1	230/1/50	7.4	14.8	490	750	950	1200	1618	119
WX2-3080-575	1.1	230/1/50	7.4	14.8	575	750	950	1500	1613	130
WX2-3080-650	1.1	230/1/50	7.4	14.8	650	750	1200	1200	1618	143
WX2-3080-750	1.1	230/1/50	7.4	14.8	750	750	1200	1500	1895	153
WX2-3080-800	1.1	230/1/50	7.4	14.8	800	1160	1160	1000	1418	157
WX2-3080-1050	1.1	230/1/50	7.4	14.8	1050	800	1500	1500	1918	162
WX2-3080-1250	1.1	230/1/50	7.4	14.8	1250	1160	1160	1500	1918	186
WX2-3080-1650	1.1	230/1/50	7.4	14.8	1650	1160	1500	1500	1918	203
WX2-3080-2250	1.1	230/1/50	7.4	14.8	2250	1160	2000	1500	1914	210

Refer to drawings on page 111.

INTEGRATED PUMP AND TANK SYSTEMS
SCUBATANK®

WX2-5000

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	FLC per pump (A)	FLC total (A)	Actual tank capacity (litres)	Dimensions (mm)				Dry weight (kg)
						A	B	H (int.)	H (ext.)	
WX2-5040-375	0.75	230/1/50	5	10	375	600	950	1200	1618	106
WX2-5040-440	0.75	230/1/50	5	10	440	600	950	1500	1895	110
WX2-5040-490	0.75	230/1/50	5	10	490	750	950	1200	1613	113
WX2-5040-575	0.75	230/1/50	5	10	575	750	950	1500	1895	122
WX2-5040-650	0.75	230/1/50	5	10	650	750	1200	1200	1618	137
WX2-5040-750	0.75	230/1/50	5	10	750	750	1200	1500	1895	143
WX2-5040-800	0.75	230/1/50	5	10	800	1160	1160	1000	1418	151
WX2-5040-1050	0.75	230/1/50	5	10	1050	800	1500	1500	1918	156
WX2-5040-1250	0.75	230/1/50	5	10	1250	1160	1160	1500	1918	180
WX2-5040-1650	0.75	230/1/50	5	10	1650	1160	1500	1500	1918	197
WX2-5040-2250	0.75	230/1/50	5	10	2250	1160	2000	1520	1914	203
WX2-5060-375	1.1	230/1/50	7.4	14.8	375	600	950	1500	1618	110
WX2-5060-440	1.1	230/1/50	7.4	14.8	440	600	950	1200	1895	114
WX2-5060-490	1.1	230/1/50	7.4	14.8	490	750	950	1500	1613	117
WX2-5060-575	1.1	230/1/50	7.4	14.8	575	750	950	1500	1895	131
WX2-5060-650	1.1	230/1/50	7.4	14.8	650	750	1200	1200	1618	141
WX2-5060-750	1.1	230/1/50	7.4	14.8	750	750	1200	1500	1895	149
WX2-5060-800	1.1	230/1/50	7.4	14.8	800	1160	1160	1500	1418	155
WX2-5060-1050	1.1	230/1/50	7.4	14.8	1050	800	1500	1500	1918	160
WX2-5060-1250	1.1	230/1/50	7.4	14.8	1250	1160	1160	1500	1918	184
WX2-5060-1650	1.1	230/1/50	7.4	14.8	1650	1160	1500	1500	1914	201
WX2-5060-2250	1.1	230/1/50	7.4	14.8	2250	1160	2000	1500	1618	208
WX2-5080-375	1.5	230/1/50	10.5	21	375	600	950	1200	1618	117
WX2-5080-440	1.5	230/1/50	10.5	21	440	600	950	1500	1895	121
WX2-5080-490	1.5	230/1/50	10.5	21	490	750	950	1200	1618	124
WX2-5080-575	1.5	230/1/50	10.5	21	575	750	950	1500	1613	131
WX2-5080-650	1.5	230/1/50	10.5	21	650	750	1200	1200	1618	148
WX2-5080-750	1.5	230/1/50	10.5	21	750	750	1200	1500	1895	156
WX2-5080-800	1.5	230/1/50	10.5	21	800	1160	1160	1000	1418	162
WX2-5080-1050	1.5	230/1/50	10.5	21	1050	800	1500	1500	1918	167
WX2-5080-1250	1.5	230/1/50	10.5	21	1250	1160	1160	1500	1918	191
WX2-5080-1650	1.5	230/1/50	10.5	21	1650	1160	1500	1500	1918	208
WX2-5080-2250	1.5	230/1/50	10.5	21	2250	1160	2000	1500	1914	215

Refer to drawings on page 111.

WX2-9000

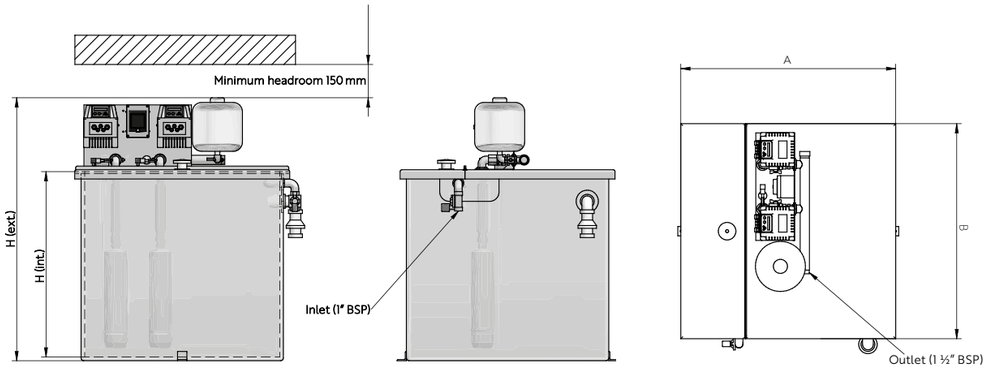
DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Supply voltage	FLC per pump (A)	FLC totaL (A)	Actual tank capacity (litres)	Dimensions (mm)				Dry weight (kg)
						A	B	H (int.)	H (ext.)	
WX2-9040-650	1.5	230/1/50	10.5	21	650	750	1200	1220	1618	145
WX2-9040-750	1.5	230/1/50	10.5	21	750	750	1200	1500	1875	151
WX2-9040-800	1.5	230/1/50	10.5	21	800	1160	1160	1020	1395	159
WX2-9040-1050	1.5	230/1/50	10.5	21	1050	800	1500	1520	1895	164
WX2-9040-1250	1.5	230/1/50	10.5	21	1250	1160	1160	1520	1895	188
WX2-9040-1650	1.5	230/1/50	10.5	21	1650	1160	1500	1520	1895	205
WX2-9040-2250	1.5	230/1/50	10.5	21	2250	1160	2000	1520	1919	212
WX2-9060-650	2.2	230/1/50	11.9	23.8	650	750	1200	1220	1619	150
WX2-9060-750	2.2	230/1/50	11.9	23.8	750	750	1200	1500	1875	159
WX2-9060-800	2.2	230/1/50	11.9	23.8	800	1160	1160	1020	1419	165
WX2-9060-1050	2.2	230/1/50	11.9	23.8	1050	800	1500	1520	1918	170
WX2-9060-1250	2.2	230/1/50	11.9	23.8	1250	1160	1160	1520	1895	194
WX2-9060-1650	2.2	230/1/50	11.9	23.8	1650	1160	1500	1520	1895	211
WX2-9060-2250	2.2	230/1/50	11.9	23.8	2250	1160	2000	1520	1914	218

Refer to drawings on page 111.

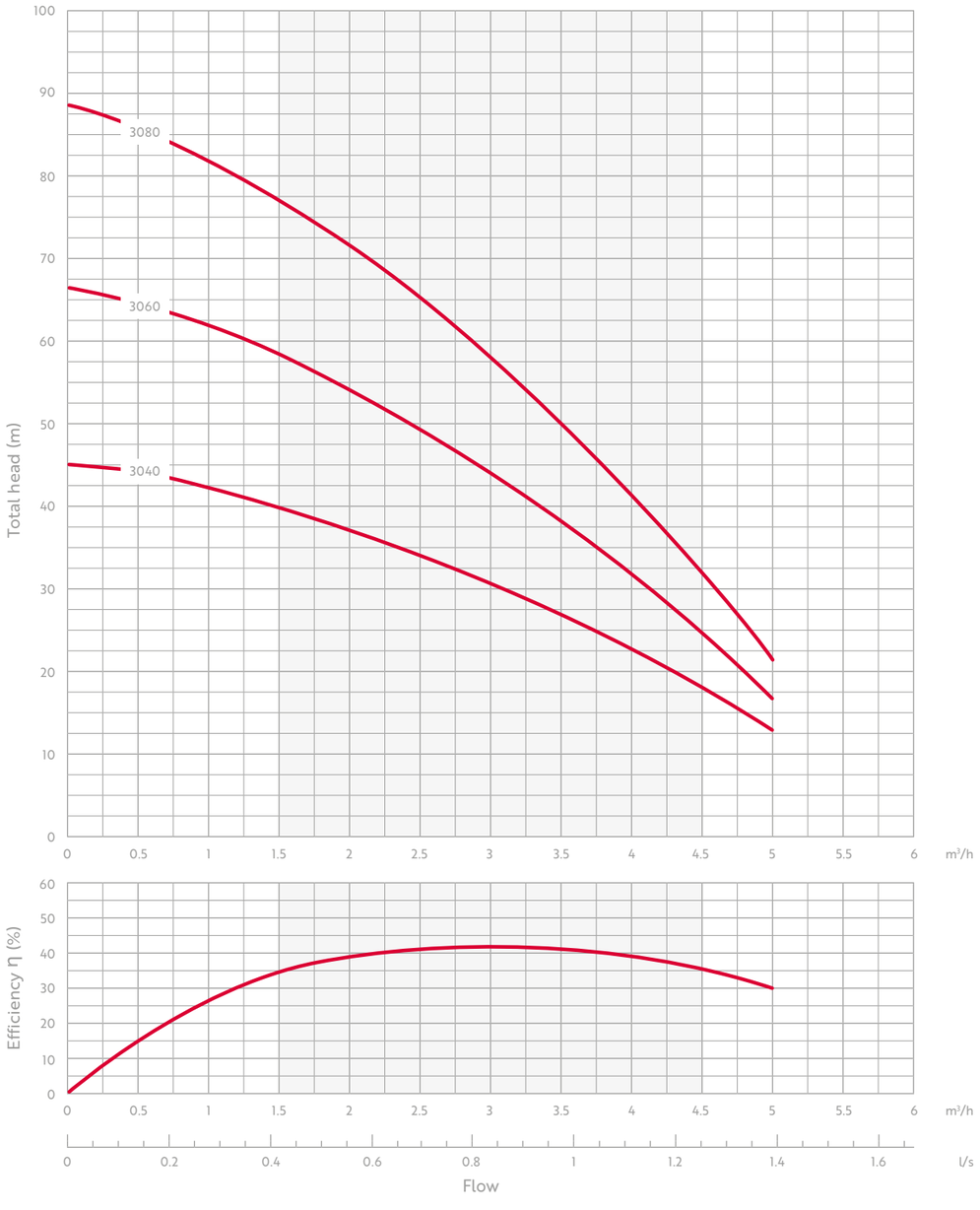
INTEGRATED PUMP AND TANK SYSTEMS
SCUBATANK®

WX2-3000/ 5000/9000



WX Series
WXx-3000

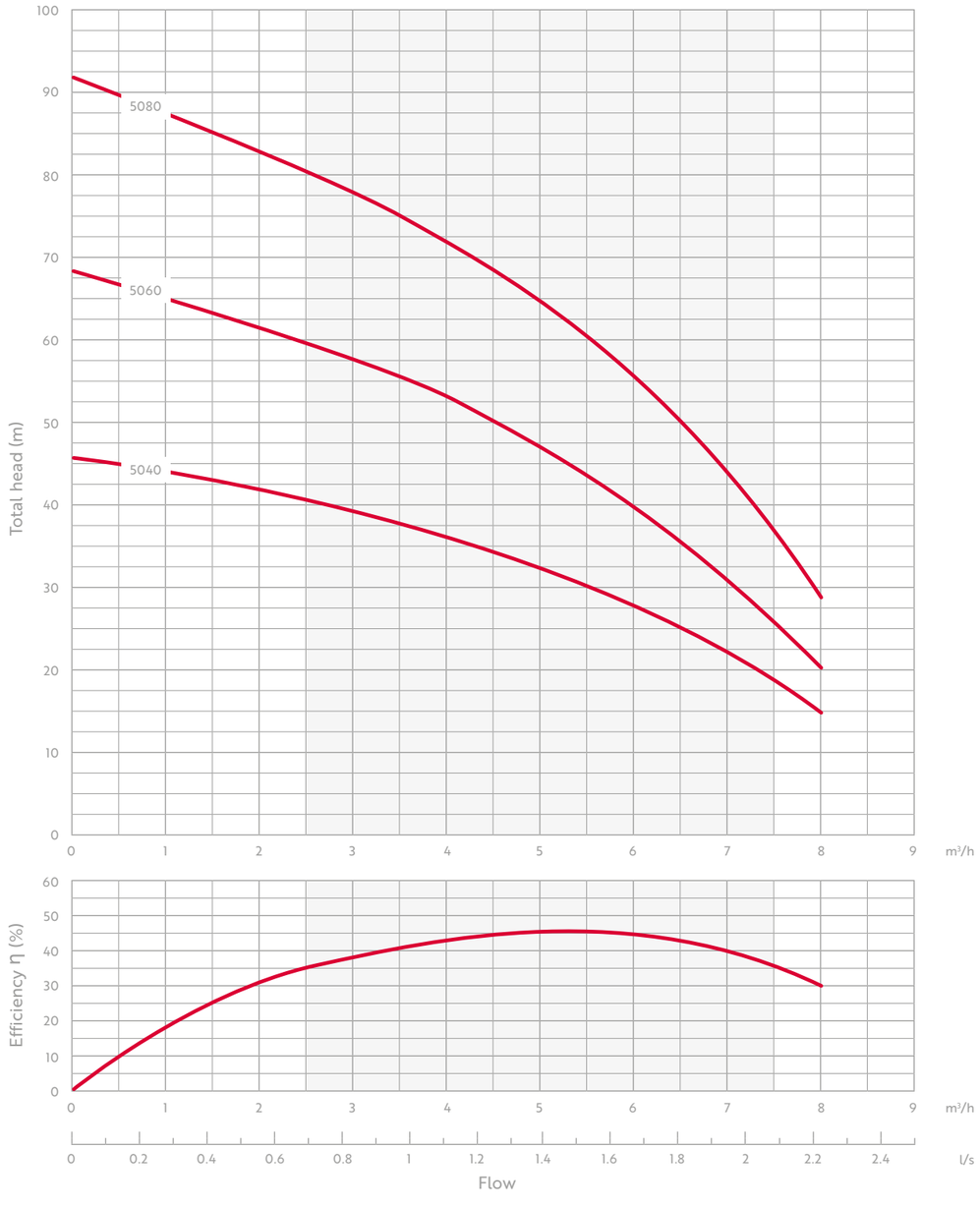
SINGLE PUMP CURVES



INTEGRATED PUMP AND TANK SYSTEMS
SCUBATANK®

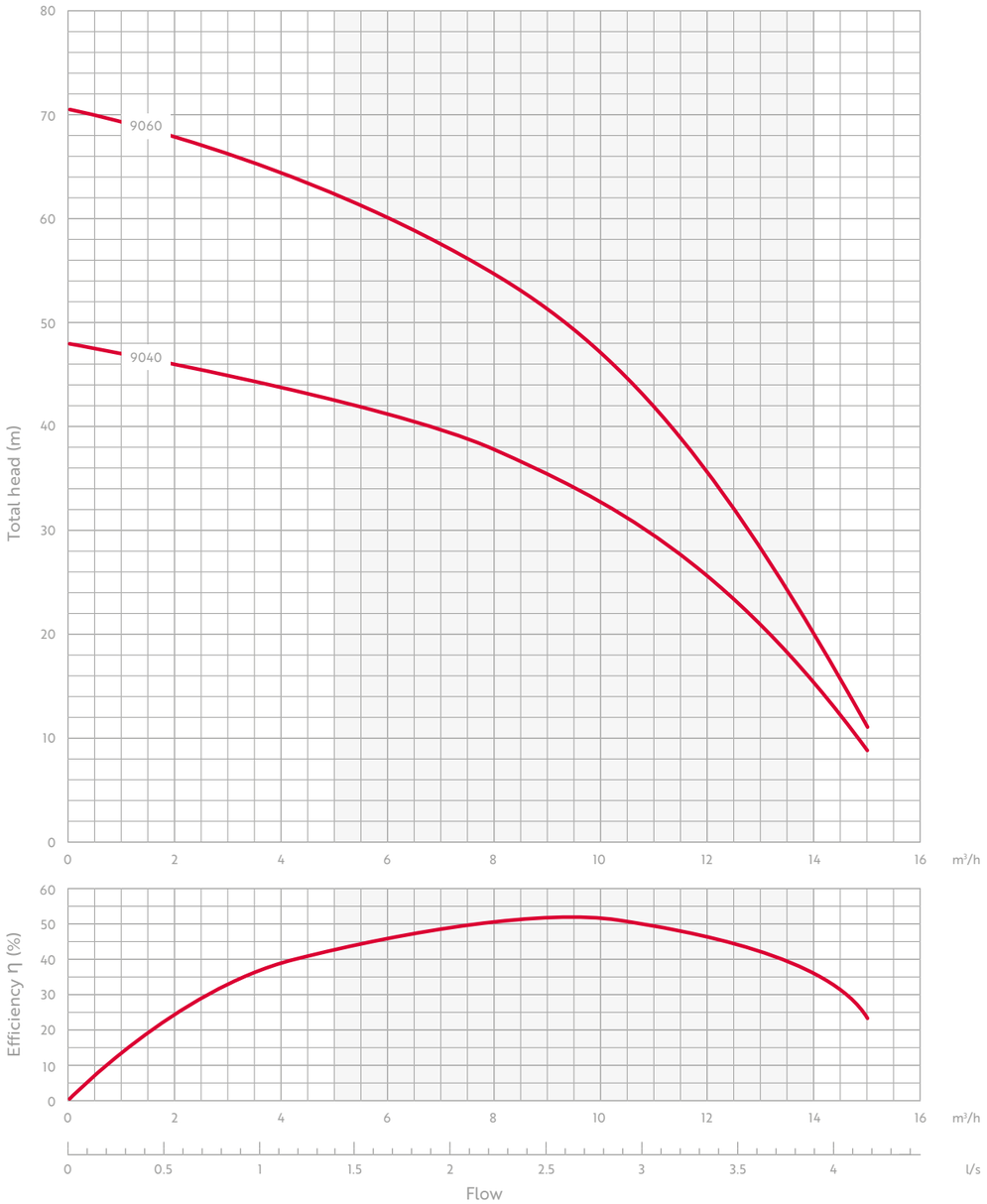
WX Series
WXx-5000

SINGLE PUMP CURVES



WX Series
WXx-9000

SINGLE PUMP CURVES



139 Kensington High Street

Luxury residential property needed a pressure boost.

PROJECT DETAILS

Project name
139 Kensington High Street

Industry sector
Construction

Project type
Residential

Product supplied
- ScubaTANK®

PROJECT SUMMARY

The refurbishment of the exclusive property at 139 Kensington High Street, London, involved the internal fit-out of nine luxury apartments, including the installation of the communal plumbing, heating and ventilation systems completed by the client.

PROJECT CHALLENGE

Typical for a property of this size, the low water pressure from the mains supply was insufficient to meet the demands of multiple bathrooms and appliances and required a boosted water system.

PROJECT SOLUTION

Dutypoint worked closely with the client to identify the requirements of the project and specified our unique ScubaTANK® all-in-one tank and pump solution to meet the needs of all the buildings occupants, even at the busiest times of day.

MiniBreak™

Single-pump, compact, easy-to-install unit to provide fluid category 5 backflow protection.

PRODUCT OVERVIEW

- Stainless steel housing
- 18-litre break tank
- Suitable for wall or floor mounting

Key Features

QUICK DELIVERY **BMS CONNECTABLE**

Specification

The MiniBreak™ single-pump packaged tank and booster set has been designed to be compact and provide fluid category 5 backflow protection via an AB air gap that complies with the Water Supply (Water Fittings) Regulations 1999.

The pump control is provided by a well-proven intuitive controller, which will start the pump on falling pressure and stop the pump when flow ceases.

PRODUCT OVERVIEW

- Volt-free contact for pump running
- IP65-rated controller
- Lockable enclosure
- Low-water protection device
- Wall or floor mountable
- Single phase

RANGE PERFORMANCE

Number of pumps	1
Typical duty	0.25 l/s @ 2.5 bar
Break tank capacity	18 litres
Controller type	Intuitive controller
Noise data	Motor at < 70 LpA (dB +/-2)*

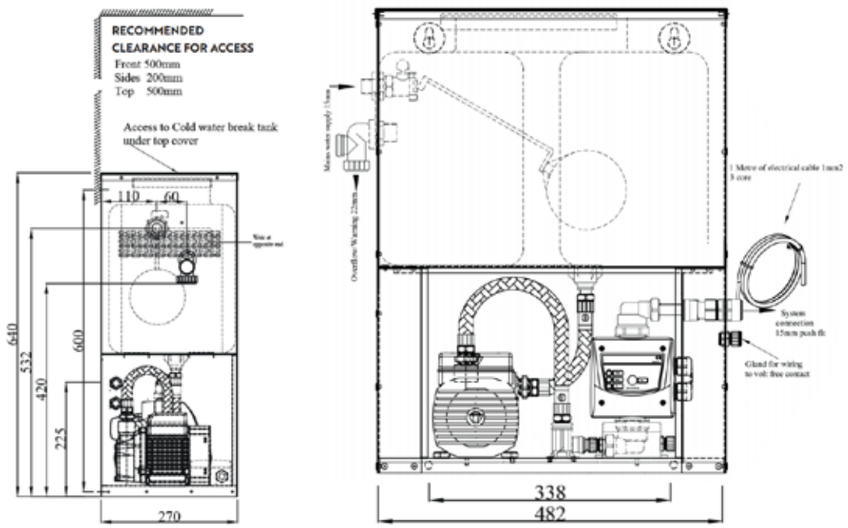
*More specific details available on request.

MATERIAL SPECIFICATION

Housing	Stainless steel
Inlet valve	Brass ball valve
Pump body	Ryton
Pipework and fittings	Copper, brass, stainless steel

MINIBREAK™ MODEL

MB1-35M	MiniBreak™ cat 5 booster system
MB1-FPKIT	MiniBreak™ frost protection kit



Are your systems cat 5 compliant?

Our range of tanks and booster sets are specially designed with the requirements of the category 5 legislation at the forefront

AB ScubaTANK®
Designed to maximise water storage with minimum footprint.

UniBreak™ variable speed
Combined cat 5 break tank and end-suction variable speed booster pump for improved efficiency.

MiniBreak™
A single-pump packaged tank and booster set designed to be compact.

UniBreak™
A cost-effective combined break tank and end-suction booster pump system.

To discuss our cat 5 products, call us now on 01452 300110 or email enquiries@dutypoint.com

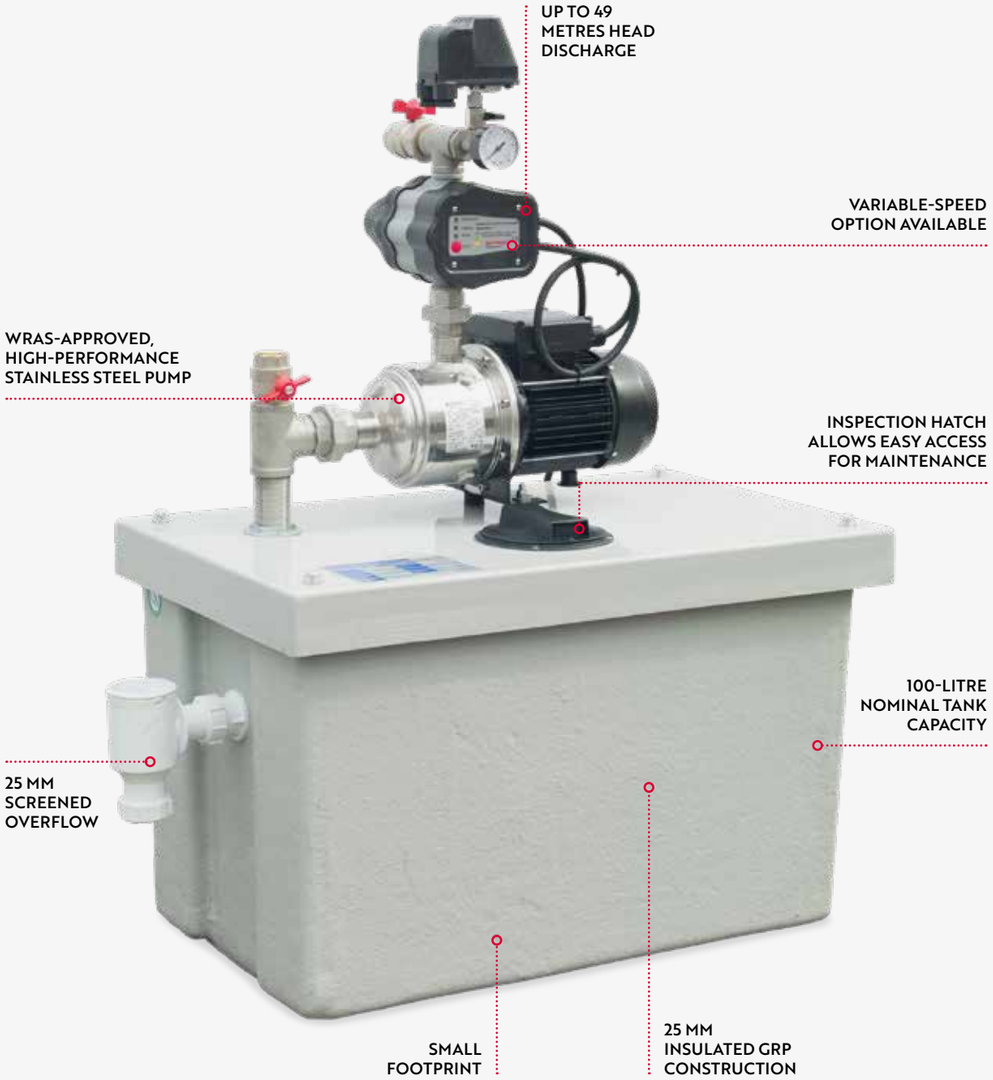
UniBreak™

UniBreak™ is a combined break tank and end suction booster pump system designed for category 5 backwash protection applications.

PRODUCT OVERVIEW

- 100-litre tank
- Insulated tank
- WRAS-approved pump
- Low-level protection
- Available in fixed-speed or variable-speed options

Key Features



QUICK DELIVERY **BMS CONNECTABLE**

Specification

UniBreak™ is a combined break tank and end-suction booster pump system designed for category 5 backwash protection applications.

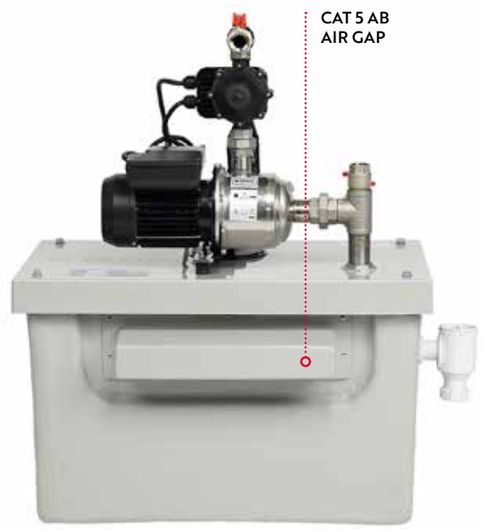
The set is a free-standing, quiet-running unit with an integrated electronic pressure controller mounted on top of the tank. The tank is constructed from 25 mm insulated GRP with a cat 5 AB air gap and ½" equilibrium inlet float valve. The unit also features low-level protection.

PRODUCT OVERVIEW

- Cat 5 AB air gap
- 100-litre nominal capacity
- MA15 controller
- WRAS-approved stainless steel end-suction booster pump
- Common fault volt-free contact
- Electronic pressure controller
- IP55 rated
- GRP insulated tank
- Low-level protection

RANGE PERFORMANCE

Flow range	0.14 - 1.25 l/s
Discharge head range	10 - 55 metres
Maximum system pressure	10 bar
Tank capacity (nominal)	100 litres
Power supply	230/1/150
IP rating	IP55
Inlet connection	½" BSP
Outlet connection	1" BSP
Tank construction	GRP 25 mm insulated
Float valve	½" equilibrium
Dimensions	770 mm (L) x 460 mm (W) x 810 mm (H)



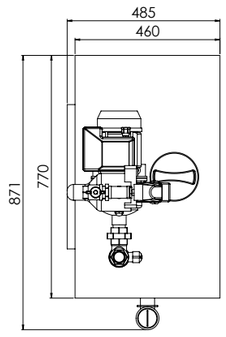
UniBreak™ Dimensions

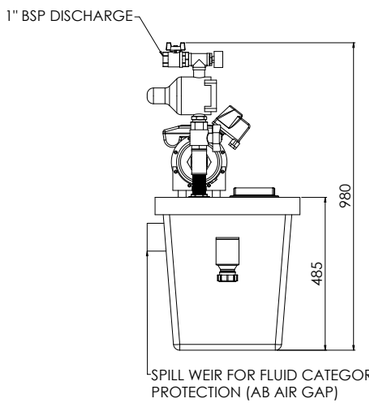
UNIBREAK™ FP (FIXED-SPEED VERSION)

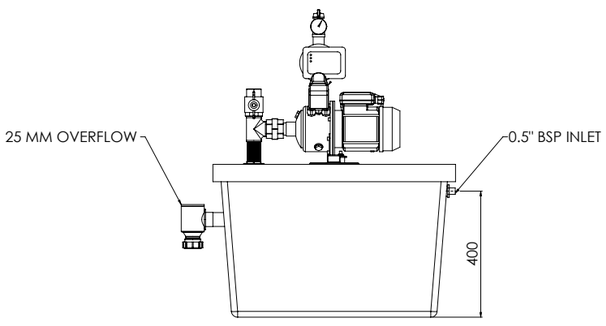
Model no.	Max flow rate (l/s)	Max head (m)	Motor power (kW)	Full load current (A)
FP1-30M	1.25	33.5	0.45	3
FP1-40M	1.25	44.5	0.55	3.7
FP1-45M	1.25	55	0.75	4.3

UNIBREAK™ VP (VARIABLE-SPEED VERSION)

Model no.	Max flow rate (l/s)	Max head (m)	Motor power (kW)	Full load current (A)
VP1-30M	1.25	33.5	0.45	3
VP1-40M	1.25	44.5	0.55	3.7
VP1-45M	1.25	55	0.75	4.3



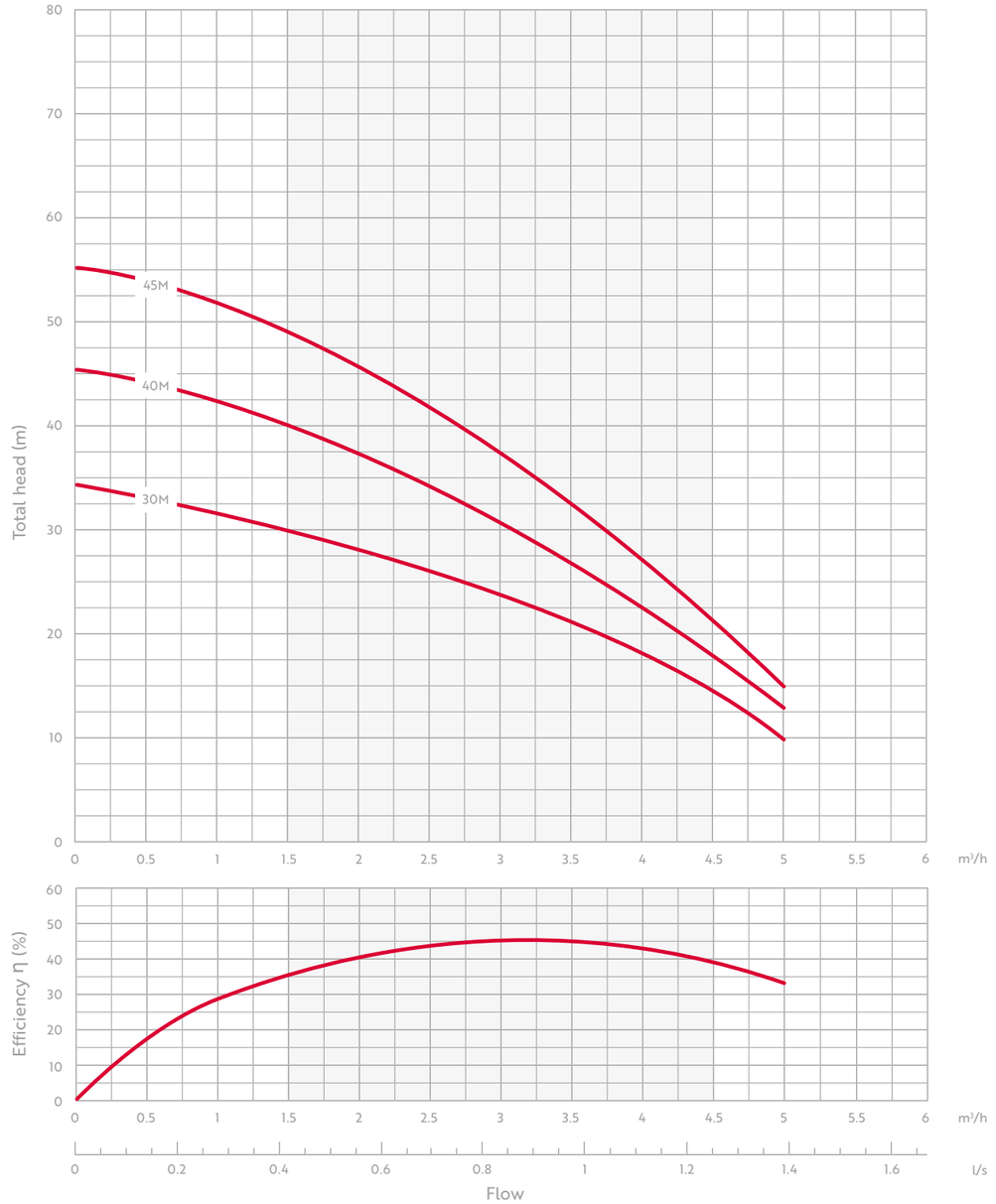




INTEGRATED PUMP AND TANK SYSTEMS
UNIBREAK™

UniBreak™ Pump Curves

SINGLE PUMP CURVES



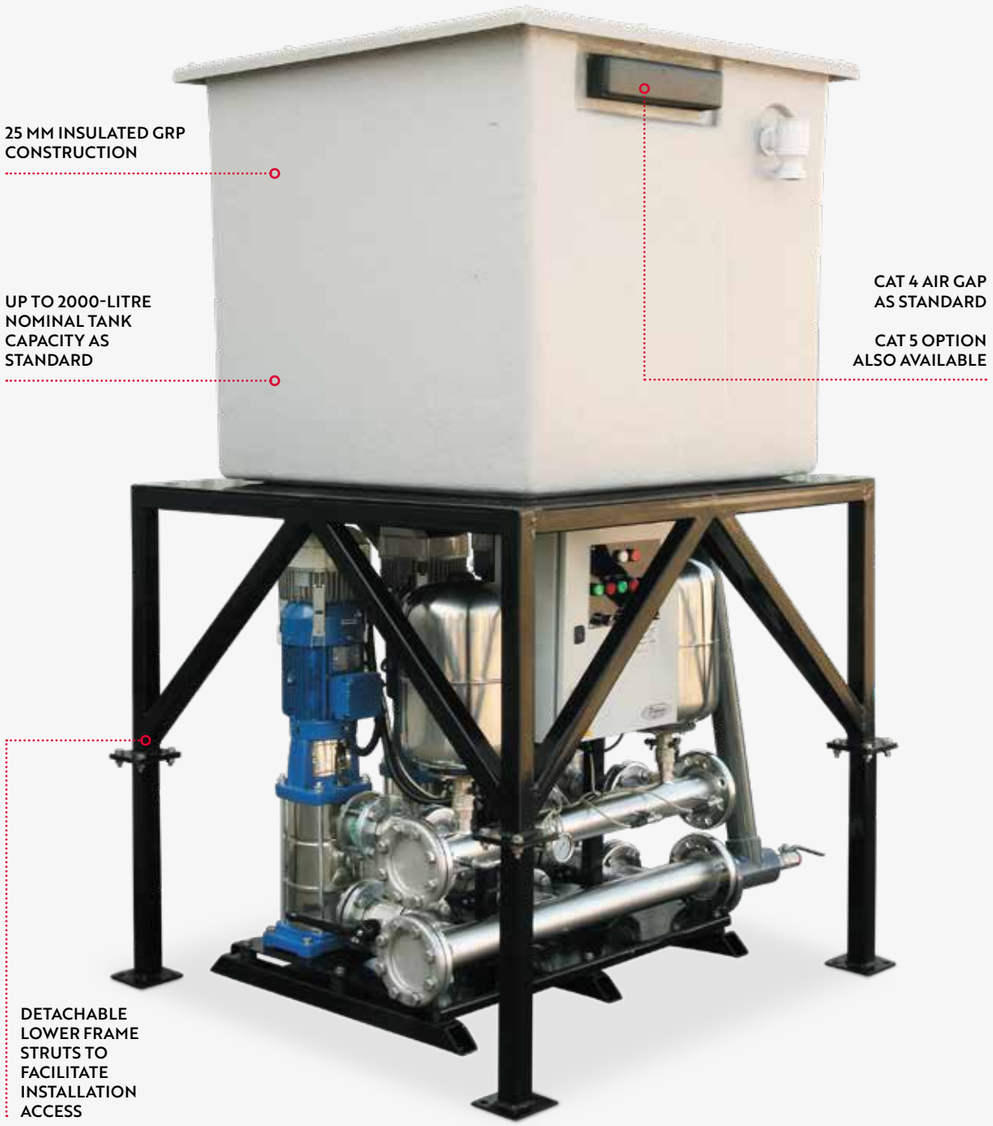
ElevaTANK™

The more traditional method of saving plant room space. The ElevaTANK™ option has the booster set installed under the tank.

PRODUCT OVERVIEW

- GRP tank (WRAS approved)
- 25 mm insulation (HCFC and CFC free)
- Equilibrium float valve
- 600 mm × 600 mm manway access
- Available as category 5 AB air gap

Key Features



BMS CONNECTABLE **FIRE SYSTEM UPGRADE**

INTEGRATED PUMP AND TANK SYSTEMS
ELEVATANK™

Specification

The ElevaTANK™ range is a more traditional-style booster set that's placed underneath the water storage tank to reduce footprint size. Our standard range includes 1000-litre and 2000-litre nominal tank capacity with category 4 type AF air gap.

Bespoke larger tanks or category 5 type AB air gap are available on request.

PRODUCT OVERVIEW

- GRP construction (WRAS approved)
- 25 mm insulation (HCFC and CFC free)
- Reinforced base (encapsulated multi-ply board)
- ½", ¾" and 1" equilibrium float valve options
- 600 mm x 600 mm manway access

OPTIONS

- Remote alarm panel
- High/low-water level pump protection device
- Screened spill weir, category 5 AB air gap

SPECIFICATION - ½" FLOAT VALVE

ET12/1000	720-litre tank capacity
ET12/2000	1440-litre tank capacity

SPECIFICATION - ¾" FLOAT VALVE

ET12/1000	710-litre tank capacity
ET12/2000	1420-litre tank capacity

SPECIFICATION - 1" FLOAT VALVE

ET12/1000	690-litre tank capacity
ET12/2000	1380-litre tank capacity

QuadraTANK™

The perfect solution to a lack of plant room space for commercial and industrial pressure boosting applications.

PRODUCT OVERVIEW

- Complete packaged solution, saving valuable plant room space - ideal for retrofit applications
- Suitable to install most Dutypoint booster sets
- From 800 litres to 100,000 litres
- Range of standard or bespoke options available

Key Features

Packaged booster set and GRP tank system suitable for outdoor installation.

BMS CONNECTABLE **FIRE SYSTEM UPGRADE**

Specification

The perfect solution to a lack of plant room space; each QuadraTANK™ has an integrated water storage tank and booster set housed in a kiosk, all within weatherproof housing.

The unit is available in a huge range of sizes and is delivered to the site set up and ready, leading to savings in space and on-site installation time. In addition, most booster sets from the Dutypoint range can be installed within a QuadraTANK™.

PRODUCT OVERVIEW

- Insulated GRP construction
- 50 mm insulation (HCFC and CFC free)
- Reinforced base (encapsulated multi-ply board)
- Screened spill weir
- Category 4 (AF) or 5 (AB) air gap
- Equilibrium float valve options (½" to 2" depending on model)
- Lockable manway access hatch
- Hinged lockable door(s) with stay
- High and low-level vermin-screened louvre vents
- Thermostatically controlled housing heater
- Internal lighting
- Electrical distribution board
- Sparge pipe

SPECIFICATION

Maximum tank capacity	100,000 litres*
Kiosk heater rating	60 W
Light rating	100 W

*Tanks up to 12,951-litre capacity are detailed in this manual. For larger sizes, please contact Dutypoint sales on 01452 300110.

OPTIONS

- External alarm beacon
- Non-standard colours
- Thermostatically controlled tank immersion heater
- Access ladder (internal and external)
- High-level alarm
- Wash-down/irrigation hose reel
- Dual tank compartments
- BREEAM water metering system
- Integrated Dutypoint EC electromagnetic water conditioner
- Integrated UV filtration
- Remote monitoring and management
- Bespoke control systems/BMS integration
- Larger capacities up to 100,000 litres*

MODEL NUMBER KEY

E.g.: IQ1200B-S5-VG2-3HME05-LSM

IQ1200 **B** - **S** **5** - VG2-3HME05-LSM

Tank size

Tank inlet size:
A = ¾"
B = 1"
C = 1 ¼"
D = 2"

S = Single compartment
T = Twin compartment

4 = Category 4 (AF air gap)
5 = Category 5 (AB air gap)

Booster set model

QuadraTANK™ vs Booster Set Compatibility

DRAWINGS AND DIMENSIONS

Booster set options							QuadraTANK™ size			
Model no.	No. of pumps	kW per pump	Total system FLC (A)* 230/1/50	Total system FLC (A)* 400/3/50	Discharge connection	Dry weight (kg)	HQ	IQ	JQ**	KQ
VG1-3HME03	1	0.37	5.2	-	1" BSP	20	✓	✓	✓	✓
VG1-3HME05	1	0.55	6.1	-	1" BSP	20	✓	✓	✓	✓
VG1-3HME07	1	0.75	7.1	-	1" BSP	20	✓	✓	✓	✓
VG1-3HME09	1	1.1	8.9	-	1" BSP	25	✓	✓	✓	✓
VG1-3HME12	1	1.5	10.8	-	1" BSP	25	✓	✓	✓	✓
VG1-5HME04	1	0.8	7.1	-	1" BSP	20	✓	✓	✓	✓
VG1-5HME06	1	1.1	8.9	-	1" BSP	20	✓	✓	✓	✓
VG1-5HME08	1	1.5	10.8	-	1" BSP	25	✓	✓	✓	✓
VG1-10HME02	1	1.1	8.9	-	1 ¼" BSP	20	✓	✓	✓	✓
VG1-10HME03	1	1.5	10.8	-	1 ¼" BSP	20	✓	✓	✓	✓
VG1-10HME04	1	2.2	-	8.9	1 ¼" BSP	26	✓	✓	✓	✓
VG1-15HME02	1	1.5	10.8	-	1 ½" BSP	20	✓	✓	✓	✓
VG1-15HME03	1	2.2	-	8.8	1 ½" BSP	26	✓	✓	✓	✓
VG2-1HME05	2	0.37	7.5	-	2" BSP	75	✓	✓	✓	✓
VG2-3HME05	2	0.55	9.1	-	2" BSP	85	✓	✓	✓	✓
VG2-3HME07	2	0.75	11.1	-	2" BSP	90	✓	✓	✓	✓
VG2-3HME09	2	1.1	14.7	-	2" BSP	95	✓	✓	✓	✓
VG2-3HME12	2	1.5	18.6	-	2" BSP	100	-	✓	✓	✓
VG2-5HME04	2	0.8	11.1	-	2" BSP	80	✓	✓	✓	✓
VG2-5HME06	2	1.1	14.7	-	2" BSP	90	✓	✓	✓	✓
VG2-5HME08	2	1.5	18.6	-	2" BSP	100	-	✓	✓	✓
VG2-10HME02	2	1.1	14.7	-	2 ½" BSP	100	-	✓	✓	✓
VG2-10HME03	2	1.5	18.6	-	2 ½" BSP	110	-	✓	✓	✓
VG2-10HME04	2	2.2	-	14.6	2 ½" BSP	114	-	✓	✓	✓
VG2-15HME02	2	1.5	18.7	-	3" BSP	110	-	✓	✓	✓
VG2-15HME03	2	2.2	-	14.6	3" BSP	114	-	✓	✓	✓
VG3-3HME03	3	0.37	9.7	-	2" BSP	110	-	-	-	✓
VG3-3HME05	3	0.55	12.21	-	2" BSP	125	-	-	-	✓
VG3-3HME07	3	0.75	15.	-	2" BSP	130	-	-	-	✓
VG3-3HME09	3	1.1	20.6	-	2" BSP	140	-	-	-	✓

Continued on next page.

INTEGRATED PUMP AND TANK SYSTEMS
QUADRATANK™

QuadraTANK™ vs Booster Set Compatibility

DRAWINGS AND DIMENSIONS

Booster set options							QuadraTANK™ size			
Model no.	No. of pumps	kW per pump	Total system FLC (A)* 230/1/50	Total system FLC (A)* 400/3/50	Discharge connection	Dry weight (kg)	HQ	IQ	JQ**	KQ
VG3-3HME12	3	1.5	26.4	-	2" BSP	145	-	-	-	✓
VG3-5HME04	3	0.75	15.18	-	2" BSP	115	-	-	-	✓
VG3-5HME06	3	1.1	20.55	-	2" BSP	120	-	-	-	✓
VG3-5HME08	3	1.5	26.4	-	2" BSP	130	-	-	-	✓
VG3-10HME02	3	1.1	20.55	-	2 ½" BSP	145	-	-	-	✓
VG3-10HME03	3	1.5	26.4	-	2 ½" BSP	150	-	-	-	✓
VG3-10HME04	3	2.2	-	20.6	2 ½" BSP	156	-	-	-	✓
VG3-15HME02	3	1.5	26.55	-	DN80 PN16	175	-	-	-	✓
VG3-15HME03	3	2.2	-	20.4	DN80 PN16	181	-	-	-	✓
VR2-0508	2	1.1	11.2	6.8	DN50 PN16	135	-	-	-	✓
VR2-0511	2	1.5	21.4	8	DN50 PN16	149	-	✓	✓	✓
VR2-0516	2	2.2	28	11.2	DN50 PN16	160	-	✓	✓	✓
VR2-0518	2	3	-	14.4	DN50 PN16	168	-	✓	✓	✓
VR2-0521	2	3	-	14.4	DN50 PN16	172	-	✓	✓	✓
VR2-1003	2	1.1	11.2	6.8	DN50 PN16	161	-	✓	✓	✓
VR2-1004	2	1.5	21.4	8	DN50 PN16	171	-	✓	✓	✓
VR2-1006	2	2.2	28	11.2	DN50 PN16	179	-	✓	✓	✓
VR2-1008	2	3	-	14.4	DN50 PN16	190	-	✓	✓	✓
VR2-1011	2	4	-	17.2	DN50 PN16	207	-	✓	✓	✓
VR2-1502	2	2.2	28	11.2	DN80 PN16	192	-	✓	✓	✓
VR2-1503	2	3	-	14.4	DN80 PN16	199	-	✓	✓	✓
VR2-1505	2	4	-	17.2	DN80 PN16	215	-	✓	✓	✓
VR2-1507	2	5.5	-	22.8	DN80 PN16	263	-	✓	✓	✓
VR2-1509	2	7.5	-	30	DN80 PN16	307	-	✓	✓	✓
VR2-2202	2	2.2	28	11.2	DN80 PN16	197	-	✓	✓	✓
VR2-2203	2	3	-	14.4	DN80 PN16	199	-	✓	✓	✓
VR2-2204	2	4	-	17.2	DN80 PN16	213	-	✓	✓	✓
VR2-2205	2	5.5	-	22.8	DN80 PN16	215	-	✓	✓	✓
VR2-2207	2	7.5	-	30	DN80 PN16	263	-	✓	✓	✓

*Estimated full load current, including all pumps, light and heater. **JQ twin-compartment tank option not available with VT3 triple pump booster.

QuadraTANK™ vs Booster Set Compatibility

DRAWINGS AND DIMENSIONS

Booster set options							QuadraTANK™ size			
Model no.	No. of pumps	kW per pump	Total system FLC (A)*		Discharge connection	Dry weight (kg)	HQ	IQ	JQ**	KQ
			230/1/50	400/3/50						
VR3-0508	3	1.1	15.3	9.2	DN50 PN16	175	-	✓	✓	✓
VR3-0511	3	1.5	30.6	11	DN50 PN16	197	-	✓	✓	✓
VR3-0516	3	2.2	40.5	15.8	DN50 PN16	205	-	✓	✓	✓
VR3-0518	3	3	-	20.6	DN50 PN16	217	-	✓	✓	✓
VR3-0521	3	3	-	20.6	DN50 PN16	217	-	✓	✓	✓
VR3-1003	3	1.1	15.3	9.2	DN50 PN16	233	-	✓	✓	✓
VR3-1004	3	1.5	30.6	11	DN50 PN16	247	-	✓	✓	✓
VR3-1006	3	2.2	40.5	15.8	DN50 PN16	260	-	✓	✓	✓
VR3-1008	3	3	-	20.6	DN50 PN16	276	-	✓	✓	✓
VR3-1011	3	4	-	24.8	DN50 PN16	302	-	✓	✓	✓
VR3-1502	3	2.2	40.5	15.8	DN80 PN16	271	-	-	✓	✓
VR3-1503	3	3	-	20.6	DN80 PN16	273	-	-	✓	✓
VR3-1505	3	4	-	24.8	DN80 PN16	297	-	-	✓	✓
VR3-1507	3	5.5	-	33.2	DN80 PN16	368	-	-	✓	✓
VR3-1509	3	7.5	-	44	DN80 PN16	434	-	-	✓	✓
VR3-2202	3	2.2	40.5	15.8	DN80 PN16	273	-	-	✓	✓
VR3-2203	3	3	-	20.6	DN80 PN16	274	-	-	✓	✓
VR3-2204	3	4	-	24.8	DN80 PN16	293	-	-	✓	✓
VR3-2205	3	5.5	-	33.2	DN80 PN16	297	-	-	✓	✓
VR3-2207	3	7.5	-	44	DN80 PN16	356	-	-	✓	✓
VT2-05-005	2	0.6	11	5.4	DN50 PN16	150	-	-	✓	✓
VT2-05-007	2	0.8	11.6	5.8	DN50 PN16	150	-	-	✓	✓
VT2-05-011	2	1.1	14.4	7.4	DN50 PN16	150	-	-	✓	✓
VT2-05-015	2	1.5	16.8	8.8	DN50 PN16	150	-	-	✓	✓
VT2-05-022	2	2.2	21	11.2	DN50 PN16	170	-	-	✓	✓
VT2-10-011	2	1.1	14.4	7.4	DN65 PN16	180	-	-	✓	✓
VT2-10-022	2	2.2	21	11.2	DN65 PN16	180	-	-	✓	✓
VT2-10-030	2	3	25.8	14	DN65 PN16	190	-	-	✓	✓
VT2-10-040	2	4	31.4	17.2	DN65 PN16	205	-	-	✓	✓

Continued on next page.

INTEGRATED PUMP AND TANK SYSTEMS
QUADRATANK™

QuadraTANK™ vs Booster Set Compatibility

DRAWINGS AND DIMENSIONS

Booster set options							QuadraTANK™ size			
Model no.	No. of pumps	kW per pump	Total system FLC (A)*		Discharge connection	Dry weight (kg)	HQ	IQ	JQ**	KQ
			230/1/50	400/3/50						
VT2-10-055	2	5.5	-	23	DN65 PN16	217	-	-	✓	✓
VT2-15-015	2	1.5	16.8	8.8	DN80 PN16	180	-	-	✓	✓
VT2-15-030	2	3	25.8	14	DN80 PN16	190	-	-	✓	✓
VT2-15-040	2	4	31.4	17.2	DN80 PN16	275	-	-	✓	✓
VT2-15-055	2	5.5	-	23	DN80 PN16	350	-	-	✓	✓
VT2-20-022	2	2.2	21	11.2	DN80 PN16	190	-	-	✓	✓
VT2-20-040	2	4	31.4	17.2	DN80 PN16	205	-	-	✓	✓
VT2-20-055	2	5.5	-	23	DN80 PN16	357	-	-	✓	✓
VT3-05-005	3	0.6	14	7.1	DN80 PN16	220	-	-	✓	✓
VT3-05-007	3	0.8	14.9	7.7	DN80 PN16	220	-	-	✓	✓
VT3-05-011	3	1.1	19.1	10.1	DN80 PN16	220	-	-	✓	✓
VT3-05-015	3	1.5	22.7	12.2	DN80 PN16	220	-	-	✓	✓
VT3-05-022	3	2.2	29	15.8	DN80 PN16	250	-	-	✓	✓
VT3-05-030	3	3	36.2	20	DN80 PN16	290	-	-	-	✓
VT3-10-011	3	1.1	19.1	10.1	DN100 PN16	270	-	-	-	✓
VT3-10-022	3	2.2	29	15.8	DN100 PN16	270	-	-	-	✓
VT3-10-030	3	3	36.2	20	DN100 PN16	290	-	-	-	✓
VT3-10-040	3	4	44.6	24.8	DN100 PN16	350	-	-	-	✓
VT3-10-055	3	5.5	-	33.5	DN100 PN16	350	-	-	-	✓
VT3-10-075	3	7.5	-	45.5	DN100 PN16	350	-	-	-	✓
VT3-15-015	3	1.5	22.7	12.2	DN100 PN16	350	-	-	-	✓
VT3-15-030	3	3	36.2	20	DN100 PN16	350	-	-	-	✓
VT3-15-040	3	4	44.6	24.8	DN100 PN16	350	-	-	-	✓
VT3-15-055	3	5.5	-	33.5	DN100 PN16	470	-	-	-	✓
VT3-15-075	3	7.5	-	45.5	DN100 PN16	490	-	-	-	✓
VT3-20-022	3	2.2	29	15.8	DN150 PN16	538	-	-	-	✓
VT3-20-040	3	4	44.6	24.8	DN150 PN16	547	-	-	-	✓
VT3-20-055	3	5.5	-	33.5	DN150 PN16	552	-	-	-	✓
VT3-20-075	3	7.5	-	45.5	DN150 PN16	563	-	-	-	✓

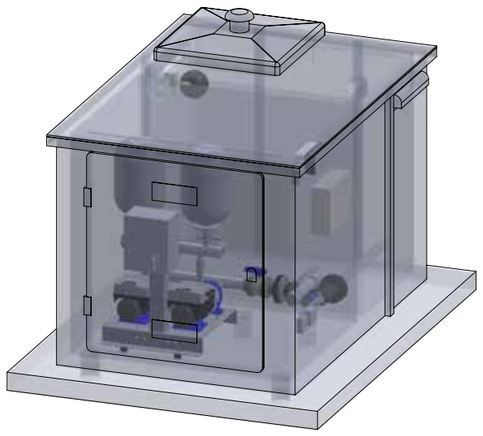
*Estimated full load current, including all pumps, light and heater. **JQ twin-compartment tank option not available with VT3 triple pump booster.

QuadraTANK™ HQ Series

HQ QUADRATANK™ OPTIONS

Model no.	Inlet size	Overflow size	Actual capacity (L)		Dry weight (kg)*	Length (mm)	T (mm)
			Cat 4 air gap	Cat 5 air gap			
HQ800A	¾"	1 ½"	940	854	300	2020	735
HQ800B	1"	2"	929	853	300	2020	735
HQ1100A	¾"	1 ½"	1321	1200	325	2320	1050
HQ1100B	1"	2"	1306	1185	325	2320	1050

*Approximate weight excludes booster set (see pages 134-137).

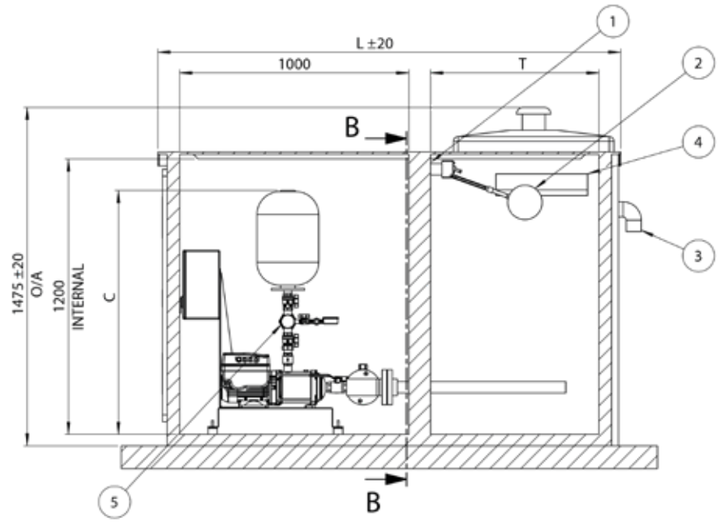


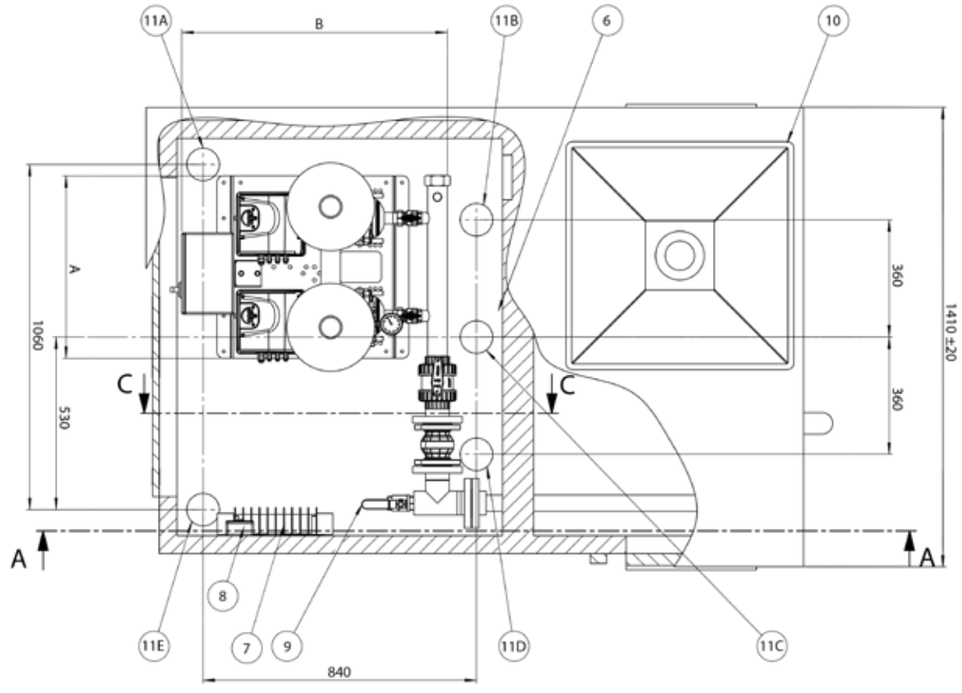
DRAWING REFERENCES

1	Tank inlet connection
2	Equilibrium inlet float valve
3	Overflow
4	Tank weir (category 5 units only)
5	Booster set discharge connection
6	Kiosk light
7	Kiosk heater c/w frost thermostat
8	Electrical distribution board
9	Drain valve
10	Tank access hatch
11	100 mm base cut-outs for service ducts

INTEGRATED PUMP AND TANK SYSTEMS
QUADRATANK™

QuadraTANK™ HQ Series





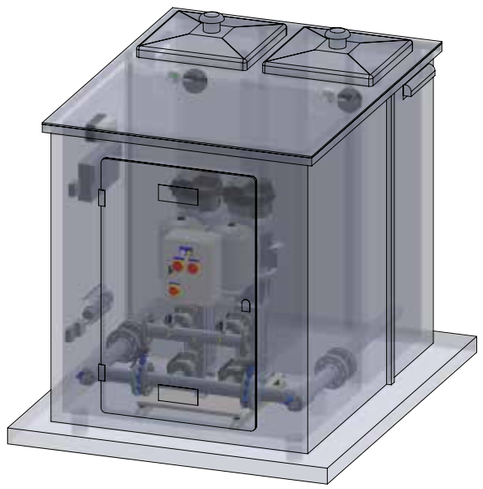
PLAN VIEW

QuadraTANK™ IQ Series

IQ QUADRATANK™ OPTIONS

Model no.	Inlet size	Overflow size	Actual capacity (L)		Dry weight (kg)*	Length (mm)	T (mm)
			Cat 4 air gap	Cat 5 air gap			
IQ1200C	1 ¼"	2 ½"	998	939	440	1690	405
IQ1200D	2"	4"	947	848	440	1690	405
IQ2000C	1 ¼"	2 ½"	2216	2084	520	2190	905
IQ2000D	2"	4"	2102	1881	520	2190	905
IQ3000C	1 ¼"	2 ½"	3433	3230	600	2690	1405
IQ3000D	2"	4"	3258	2915	600	2690	1405
IQ4000C	1 ¼"	2 ½"	4651	4375	680	3190	1905
IQ4000D	2"	4"	4413	3948	680	3190	1905
IQ5000C	1 ¼"	2 ½"	5865	5520	760	3690	2405
IQ5000D	2"	4"	5568	4982	760	3690	2405

*Approximate weight excludes booster set (see pages 134-137).

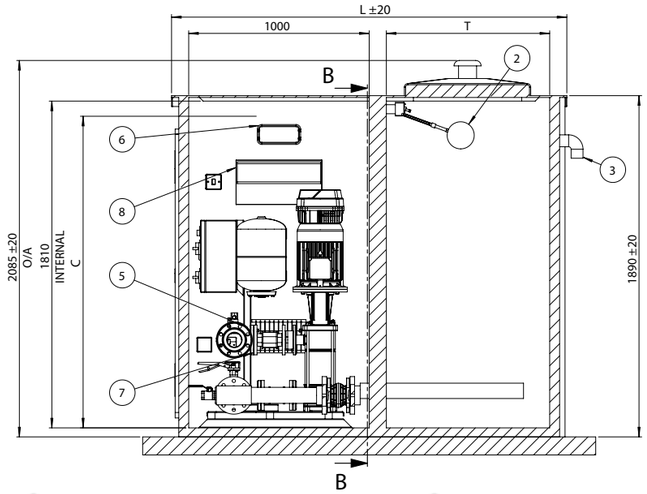


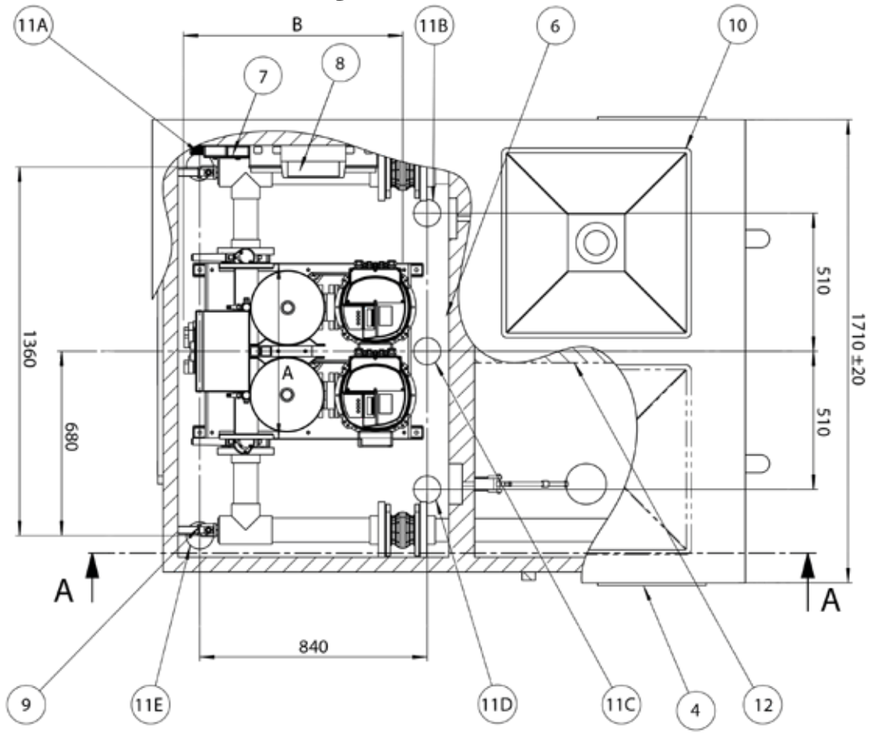
DRAWING REFERENCES

1	Tank inlet connection
2	Equilibrium inlet float valve
3	Overflow
4	Tank weir (category 5 units only)
5	Booster set discharge connection
6	Kiosk light
7	Kiosk heater c/w frost thermostat
8	Electrical distribution board
9	Drain valve
10	Tank access hatch
11	100 mm base cut-outs for service ducts
12	Optional central tank division for twin compartment

INTEGRATED PUMP AND TANK SYSTEMS
QUADRATANK™

QuadraTANK™ IQ Series





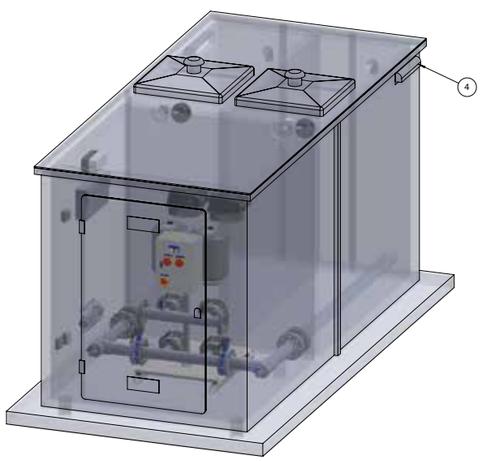
PLAN VIEW

QuadraTANK™ JQ Series

JQ QUADRATANK™ OPTIONS

Model no.	Inlet size	Overflow size	Actual capacity (L)		Dry weight (kg)*	Length (mm)	T (mm)
			Cat 4 air gap	Cat 5 air gap			
JQ1500C	1 ¼"	2 ½"	998	939	545	2190	405
JQ1500D	2"	4"	947	848	545	2190	405
JQ2500C	1 ¼"	2 ½"	2216	2084	525	2690	905
JQ2500D	2"	4"	2102	1881	625	2690	905
JQ3500C	1 ¼"	2 ½"	3433	3230	705	3190	1405
JQ3500D	2"	4"	3258	2915	705	3190	1405
JQ4500C	1 ¼"	2 ½"	4651	4375	785	3690	1905
JQ4500D	2"	4"	4413	3948	785	3690	1905

*Approximate weight excludes booster set (see pages 134-137).

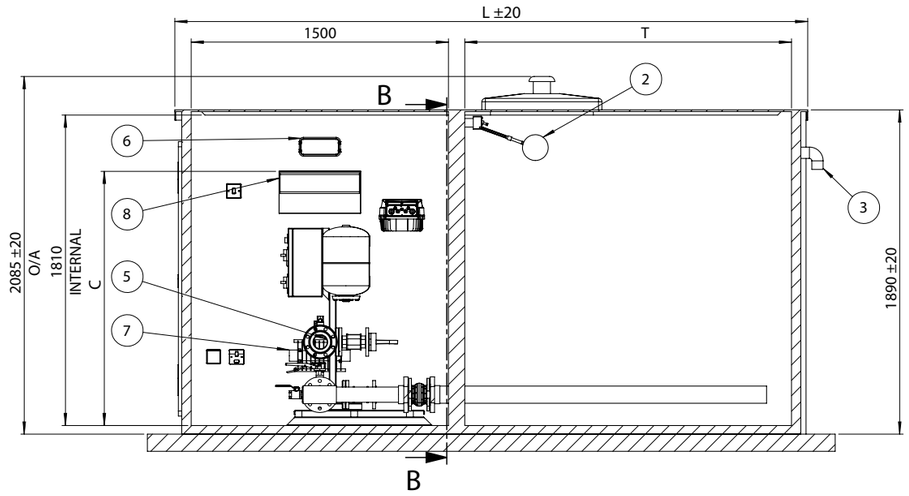


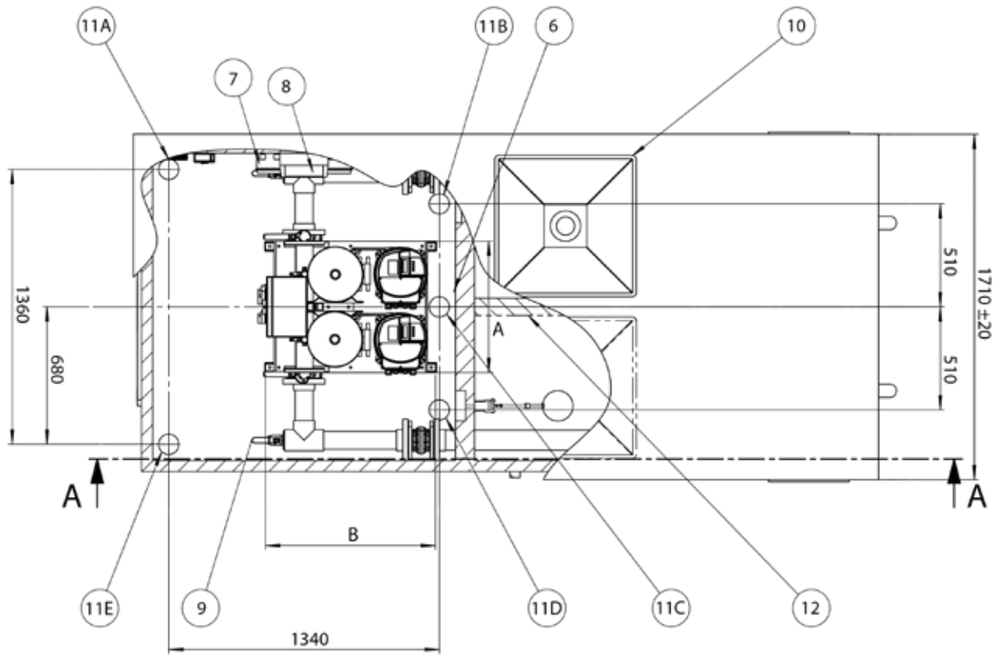
DRAWING REFERENCES

1	Tank inlet connection
2	Equilibrium inlet float valve
3	Overflow
4	Tank weir (category 5 units only)
5	Booster set discharge connection
6	Kiosk light
7	Kiosk heater c/w frost thermostat
8	Electrical distribution board
9	Drain valve
10	Tank access hatch
11	100 mm base cut-outs for service ducts
12	Optional central tank division for twin compartment

INTEGRATED PUMP AND TANK SYSTEMS
QUADRATANK™

QuadraTANK™ JQ Series





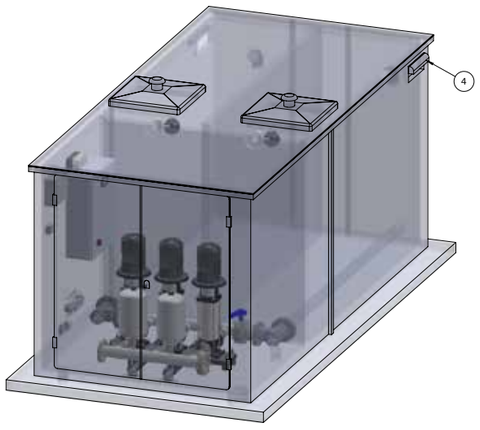
PLAN VIEW

QuadraTANK™ KQ Series

KQ QUADRATANK™ OPTIONS

Model no.	Inlet size	Overflow size	Actual capacity (L)		Dry weight (kg)*	Length (mm)	T (mm)
			Cat 4 air gap	Cat 5 air gap			
KQ3000C	1 ¼"	2 ½"	3257	3083	910	2690	905
KQ3000D	2'	4"	3107	2812	910	2690	905
KQ4000C	1 ¼"	2 ½"	5047	4776	1025	3190	1405
KQ4000D	2	4"	4813	4358	1025	3190	1405
KQ5500C	1 ¼"	2 ½"	6837	6470	1135	3690	1905
KQ5500D	2"	4"	6520	5903	1135	3690	1905
KQ7000C	1 ¼"	2 ½"	8626	8164	1250	4190	2405
KQ7000D	2"	4"	8227	7448	1250	4190	2405
KQ8500C	1 ¼"	2 ½"	10416	9858	1365	4690	2905
KQ8500D	2"	4"	9934	8994	1365	4690	2905
KQ10000C	1 ¼"	2 ½"	12206	11552	1480	5190	3405
KQ10000D	2"	4"	11641	10539	1480	5190	3405
KQ11000C	1 ¼"	2 ½"	13996	13245	1545	5690	3905
KQ11000D	2"	4"	13348	12084	1545	5690	3905
KQ13000C	1 ¼"	2 ½"	15785	14939	1660	6190	4405
KQ13000D	2"	4"	15055	13630	1660	6190	4405

*Approximate weight excludes booster set (see pages 134-137).

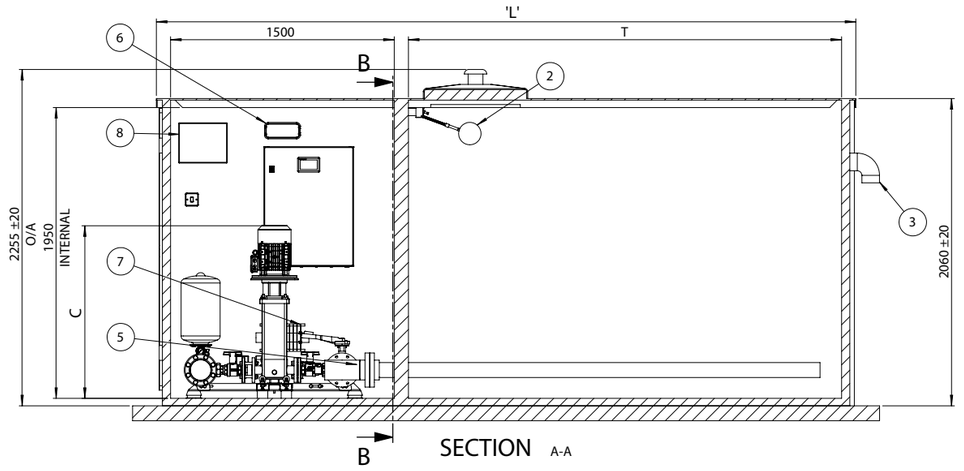


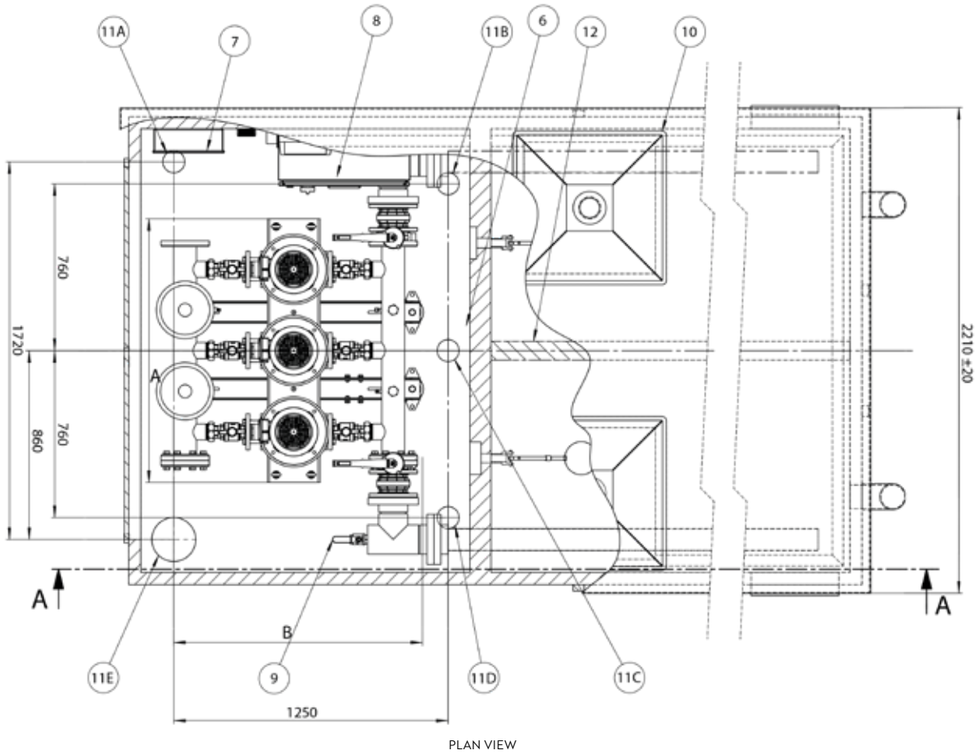
DRAWING REFERENCES

1	Tank inlet connection
2	Equilibrium inlet float valve
3	Overflow
4	Tank weir (category 5 units only)
5	Booster set discharge connection
6	Kiosk light
7	Kiosk heater c/w frost thermostat
8	Electrical distribution board
9	Drain valve
10	Tank access hatch
11	100 mm base cut-outs for service ducts
12	Optional central tank division for twin compartment

INTEGRATED PUMP AND TANK SYSTEMS
QUADRATANK™

QuadraTANK™ KQ Series





HS2 Rail Project

PROJECT DETAILS

Project name
HS2 Rail Project

Industry sector
Infrastructure

Project type
Domestic and category 5 water supply to construction compounds

Client
Kier

Products supplied
- QuadraTANK™ for domestic water system
- QuadraTANK™ for cat 5 water system

PROJECT SUMMARY

Contractors set up bases along various HS2 new rail line sections consisting of office blocks and concrete batching plants.

PROJECT CHALLENGE

The HS2 project started just before the country went into lockdown, so programme times were pushed. Contractors wanted quick and easy options to get their compounds up and running.

PROJECT SOLUTION

The Dutypoint team worked alongside the client's design team to develop domestic supply options, ensuring the offices and facilities had adequate water on tap. Our team also selected systems with category 5 backflow prevention for the concrete batching plants so the sites didn't contaminate the network.

PRODUCT OFFERING

The QuadraTANK™ was the perfect solution, giving an off-site solution that was manufactured, set up and tested in our facility in Gloucester and delivered to various sites along the rail line.

Reduce installation times and costs with QuadraTANK™

QuadraTANK™ design options

- Form 2 or 4 panels
- Hose reel sets
- Single or twin pumps
- Multiple tank sizes and filters

To discuss the QuadraTANK™, call us now on 01452 300110 or email enquiries@dutypoint.com

Harton POD by Dutypoint

The Harton POD provides a compact, cost-effective solution for underground plant room space.

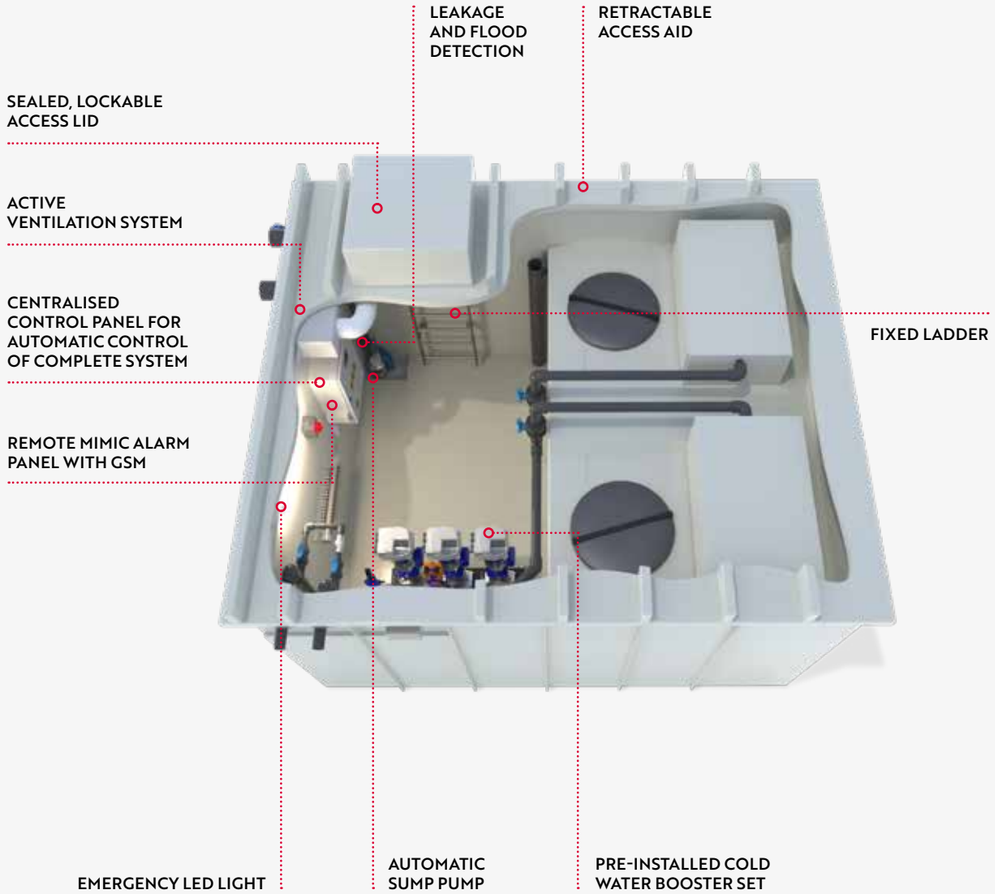
PRODUCT OVERVIEW

- Wide range of sizes and options to suit various applications
- Factory-assembled, fully-sealed unit to reduce on-site labour
- Available as cold-water booster and tank only or including water treatment and/or optional segregated cat 5 system
- Access to plant room through 700 mm x 700 mm manway
- Fixed internal ladder access with retractable access aid post
- The complete system is made of WRAS-approved components

WRAS APPROVED PRODUCT

UK CA

Key Features



QUIKSWAP™ **HIRISE** **BMS CONNECTABLE** **FIRE SYSTEM UPGRADE**

TRUESTANDBY™ **BURST PIPE TECHNOLOGY**

INTEGRATED PUMP AND TANK SYSTEMS
HARTON POD BY DUTYPOINT

Specification

The Harton POD by Dutypoint is a prefabricated, fully sealed, below-ground cold-water storage tank and booster set plant room made from durable GRP. The Harton POD is a compact and cost-effective solution for plant space. Dutypoint has built on the Harton legacy product design by introducing additional features and re-sourcing key components to deliver a more robust and easily maintained system.

FULLY SEALED UNIT

The single-piece GRP outer shell and neoprene sealed lockable access hatch provide a robust barrier from water ingress. All service connections are pre-glanded through the POD wall for external connection by the installation contractor, meaning that the entire installation process can be carried out without entering the POD.

PLUG AND PLAY

As soon as the power supply is connected to the cable tail supplied, the plant room leakage detection system, sump pump and ventilation systems are automatically activated, providing immediate protection from condensation or the unlikely event of water ingress or leakage. The booster set and associated plant require an engineer commissioning visit after installation.

FAILSAFE MAINS INLET CONTROL

The carefully designed control system includes a failsafe mains inlet valve linked to various leakage detection devices. This inlet valve will close in the event of detection of tank inlet failure, water leakage on the plant room floor or mains power failure.

REMOTE MONITORING SYSTEM

A remote mimic alarm panel is included as standard. This alarm provides visual system status indication without entering the pod. The mimic panel also incorporates a GSM alarm system to enable the transmission of any alerts via text or email to selected contacts.

HIGH-QUALITY VR BOOSTER SET

The Harton POD by Dutypoint is fitted with our flagship VR variable-speed booster set system as standard, offering class-leading quality and reliability. In addition, the Harton POD provides premium features, including HiRISE technology, TrueStandby™, QuikSWAP™ and burst pipe protection. The booster set is also available with an optional upgrade pack for compliance with fire standards for combined domestic water and sprinkler applications.

RANGE PERFORMANCE

Max system pressure	10 bar
Max liquid temperature	23°C

MATERIAL SPECIFICATION

Insulation thickness	40 mm
Booster skid	Powder-coated mild steel
Booster manifolds	AISI 304 stainless steel
Pressure vessels	AISI 304/Butyl PED97/23/C certified
Pump isolation valves	PTFE/EN12165/12164
Non-return valves	CF8M/AISI 316/AISI 304
Fasteners	BS EN ISO 3506/A2.70/BS 3643
Gaskets	WRAS-approved fibre
Pumps	WRAS approved
Pump casings	AISI 304 stainless steel
Pump impellers	AISI 304 stainless steel
Water conditioner body	Nickel-plated cast iron
Water conditioner flow rings	Polyethylene
Water conditioner O-rings	EPDM

Options

OPTIONAL EC ELECTROMAGNETIC WATER CONDITIONERS

Our highly efficient, WRAS-approved EC conditioners are also available as an optional feature within the standard range and can be fitted to the main cold-water booster and the optional separate cat 5 system. With high build quality and a 10-year guarantee, EC conditioners offer optimum system protection from excessive scale build-up without any corrosive elements being added to the water.

OPTIONAL CAT 5 SYSTEM

Our standard range includes the option for a segregated cat 5 tank and booster package, offering further space savings to the site plant room.

MODEL NUMBER KEY

E.g.: POD5000	POD5000	T	L	C	4	2	1504	T	E2	C12	E1

POD base size

Number of tank compartments:
S = Single compartment
T = Twin compartment

Plant area size:
0 = Standard
L = Large

Tank inlet size:
A = 1″
B = 1 ¼″
C = 1 ½″
D = 2″

Tank fluid air gap category:
4 = Cat 4 (AF)
5 = Cat 5 (AB)

No. of pumps on cold-water booster set

Booster pump model (e.g.1504 = VR[X]-1504)
See pages 43 to 59 for further info on VR booster sets

System voltage (M = 1 phase, T = 3 phase)

Main EC water conditioner:
00 = No EC
E1 = EC100
E2 = EC25
E3 = EC32
E4 = EC40
E5 = EC50
E6 = EC65
E8 = EC80
See pages 176 to 183 for further info on EC water conditioners

Cat 5 set (see page 156)

Cat 5 EC (see pages 176 to 183 for further info)

INTEGRATED PUMP AND TANK SYSTEMS
HARTON POD BY DUTYPOINT

POD Range

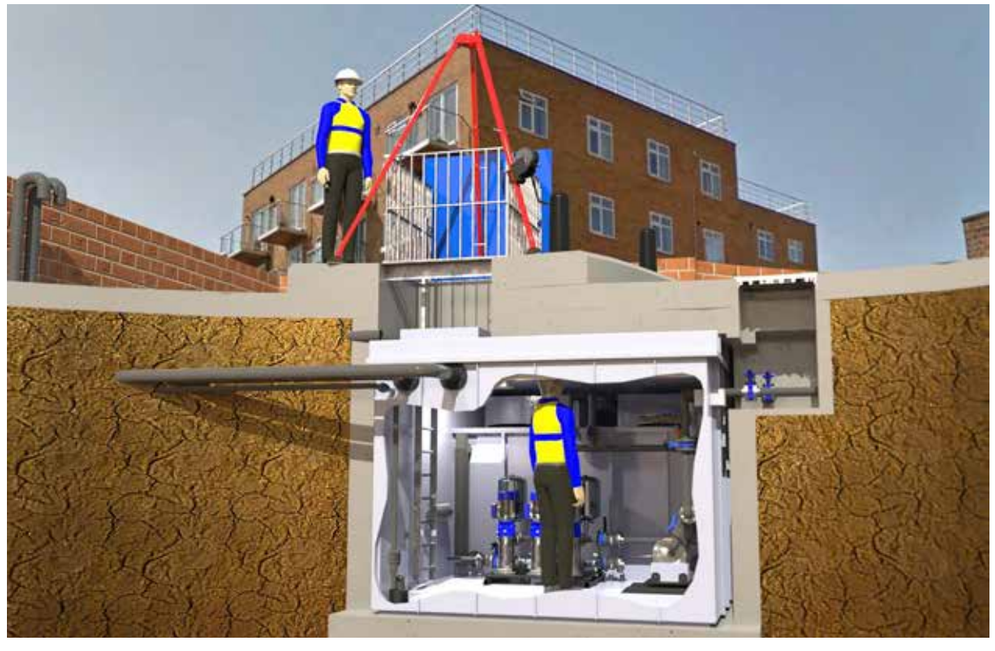
BOOSTER SET RANGE

- WRAS approved (Dutypoint VR range)
- Variable-speed pumps
- Cyclic duty changeover that ensures even wear across all pumps in the system
- Low-water protection (via conductivity probes)
- HiRISE technology that protects the building's pipework by ensuring the pumps start slowly during the initial fill process to prevent surge
- TrueStandby™ technology ensures that every key component in the booster set has a backup to keep the system operational in the rare occurrence of a component failure
- Burst pipe protection constantly monitors the system for signs of major leakage. If detected, an alarm is activated, followed by a full system deactivation if the required duty is still not met

BOOSTER SET RANGE PERFORMANCE

No. of pumps	Twin or triple
Motor kW	1.1 kW to 7.5 kW
Duty flow rate	1 to 20 l/sec
Duty pressure	0 to 10 bar

See pages 43 to 59 for further info on VR booster sets.



POD Range

DRAWINGS AND DIMENSIONS

Model no.	Tank compartments	Tank fluid category	Actual capacity (based on inlet)				Ball valve housing	Tank access hatch size	Weight (kg)*
			1" (B)	1 ¼" (B)	1 ½" (C)	2" (D)			
POD1100S[X]-[X]4	Single	4 (AF)	1640	1600	1560	1490	No	450 Ø	1270
POD1100S[X]-[X]5	Single	5 (AB)	1520	1480	1440	1290	No	450 Ø	1270
POD2600S[X]-[X]4	Single	4 (AF)	3290	3200	3130	2990	No	600 Ø	1470
POD2600S[X]-[X]5	Single	5 (AB)	3050	2960	2890	2590	No	600 Ø	1470
POD5000S[X]-[X]4	Single	4 (AF)	5410	5320	5250	5130	Yes	600 Ø	1680
POD5000S[X]-[X]5	Single	5 (AB)	5410	5320	5250	5130	Yes	600 Ø	1680
POD7500S[X]-[X]4	Single	4 (AF)	7970	7840	7740	7560	Yes	600 Ø	1960
POD7500S[X]-[X]5	Single	5 (AB)	7970	7840	7740	7560	Yes	600 Ø	1960
POD10000S[X]-[X]4	Single	4 (AF)	10530	10360	10240	10000	Yes	600 Ø	2230
POD10000S[X]-[X]5	Single	5 (AB)	10530	10360	10240	10000	Yes	600 Ø	2230
POD1100T[X]-[X]4	Twin	4 (AF)	1590	1550	1510	1440	No	450 Ø	1450
POD1100T[X]-[X]5	Twin	5 (AB)	1470	N/A	N/A	N/A	No	450 Ø	1450
POD2600T[X]-[X]4	Twin	4 (AF)	3240	3150	2890	2940	No	600 Ø	1640
POD2600T[X]-[X]5	Twin	5 (AB)	3000	N/A	N/A	N/A	No	600 Ø	1640
POD5000T[X]-[X]4	Twin	4 (AF)	5280	5200	5140	5010	Yes	600 Ø	1810
POD5000T[X]-[X]5	Twin	5 (AB)	5280	5200	5140	5010	Yes	600 Ø	1810
POD7500T[X]-[X]4	Twin	4 (AF)	7920	7790	7700	7510	Yes	600 Ø	2080
POD7500T[X]-[X]5	Twin	5 (AB)	7920	7790	7700	7510	Yes	600 Ø	2080
POD10000T[X]-[X]4	Twin	4 (AF)	10480	10310	10270	9950	Yes	600 Ø	2350
POD10000T[X]-[X]5	Twin	5 (AB)	10480	10310	10270	9950	Yes	600 Ø	2350

Model no.	External dimensions		
	L**	W	A
POD1100S[X]-[X]4	2420	2320	2390
POD1100S[X]-[X]5	2420	2320	2390
POD2600S[X]-[X]4	3020	2320	2390
POD2600S[X]-[X]5	3020	2320	2390
POD5000S[X]-[X]4	3720	2320	2390
POD5000S[X]-[X]5	3720	2320	2390
POD7500S[X]-[X]4	4620	2320	2390
POD7500S[X]-[X]5	4620	2320	2390
POD10000S[X]-[X]4	5520	2320	2390
POD10000S[X]-[X]5	5520	2320	2390

Model no.	External dimensions		
	L**	W	A
POD1100T[X]-[X]4	2320	2820	2390
POD1100T[X]-[X]5	2320	2820	2390
POD2600T[X]-[X]4	2820	2820	2390
POD2600T[X]-[X]5	2820	2820	2390
POD5000T[X]-[X]4	3320	2820	2390
POD5000T[X]-[X]5	3320	2820	2390
POD7500T[X]-[X]4	4070	2820	2390
POD7500T[X]-[X]5	4070	2820	2390
POD10000T[X]-[X]4	4820	2820	2390
POD10000T[X]-[X]5	4820	2820	2390

*Weight is for standard version bare POD. May increase where optional extra plant is required. Please check with sales office. **Length may increase where cat 5 and/or EC water conditioners are required in addition to the main cold-water booster set. Refer to the table on the following page.

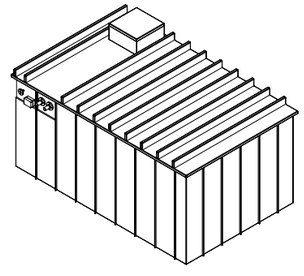
INTEGRATED PUMP AND TANK SYSTEMS
HARTON POD BY DUTYPOINT

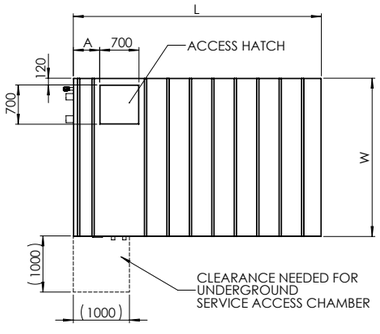
POD Range

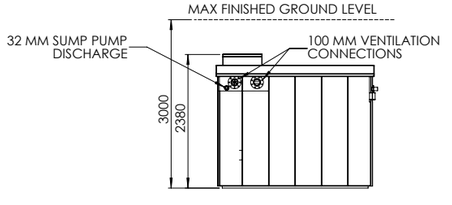
DRAWINGS AND DIMENSIONS

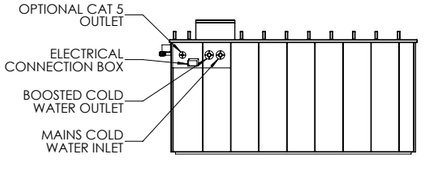
Compartments	Main CWB EC	Cat 5	Cat 5 EC	Kiosk version	Length adder*
Single	No	No	No	Standard	-
Single	Yes	No	No	Large	500
Single	No	Yes	No	Large	500
Single	Yes	Yes	No	Large	500
Single	No	Yes	Yes	Large	500
Single	Yes	Yes	Yes	Large	500
Twin	No	No	No	Standard	-
Twin	Yes	No	No	Standard	-
Twin	No	Yes	No	Large	350
Twin	Yes	Yes	No	Large	350
Twin	No	Yes	Yes	Large	350
Twin	Yes	Yes	Yes	Large	350

*Length may increase where cat 5 and/or EC water conditioners are required in addition to the main cold-water booster set.









POD Range

OPTIONAL CAT 5 SYSTEM RANGE

Model no.	Code	Nom. capacity (L)	Tank inlet size	Variable speed	kW	FLC (A)
MB1-35M	C01	18	15 mm	No	0.4	2.5
FP1-45M	C02	100	½"	No	0.8	4.7
VP1-45M	C03	100	½"	Yes	0.8	4.7
WX1-3040-175-AB	C11	240	¾"	Yes	0.6	4.1
WX1-3060-175-AB	C12	240	¾"	Yes	0.8	5.2
WX1-3080-175-AB	C13	240	¾"	Yes	1.1	7.4
WX1-5040-175-AB	C14	240	¾"	Yes	0.8	5
WX1-5060-175-AB	C15	240	¾"	Yes	1.1	7.4
WX1-5080-175-AB	C16	240	¾"	Yes	1.5	10.5
C5-306-300	C21	300	¾"	Yes	0.6	2.7
C5-308-300	C22	300	¾"	Yes	0.8	3.1
C5-312-300	C23	300	¾"	Yes	1.1	4.1
C5-505-300	C24	300	¾"	Yes	0.8	3.1
C5-508-300	C25	300	¾"	Yes	1.1	4.1
C5-511-300	C26	300	¾"	Yes	1.5	9.2

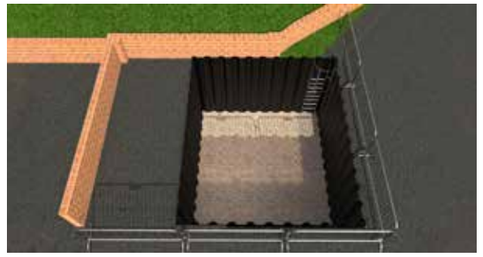
Model no.	Nominal duty*		Final discharge connection	Dry weight (kg)	POD compatibility**	
	Flow	Head			Single	Twin
MB1-35M	0.3 l/s	2 bar	DN25	19	✓	✓
FP1-45M	1.0 l/s	3 bar	DN25	65	✓	✓
VP1-45M	1.0 l/s	3 bar	DN25	65	✓	✓
WX1-3040-175-AB	0.8 l/s	3 bar	DN32	51	✓	-
WX1-3060-175-AB	0.8 l/s	4.4 bar	DN32	54	✓	-
WX1-3080-175-AB	0.8 l/s	5.8 bar	DN32	56	✓	-
WX1-5040-175-AB	1.4 l/s	3.2 bar	DN32	53	✓	-
WX1-5060-175-AB	1.4 l/s	4.7 bar	DN32	55	✓	-
WX1-5080-175-AB	1.4 l/s	6.5 bar	DN32	58	✓	-
C5-306-300	0.8 l/s	3.4 bar	DN32	100	-	✓
C5-308-300	0.8 l/s	4.8 bar	DN32	106	-	✓
C5-312-300	0.8 l/s	7.9 bar	DN32	111	-	✓
C5-505-300	1.6 l/s	3.8 bar	DN32	105	-	✓
C5-508-300	1.6 l/s	4.4 bar	DN32	109	-	✓
C5-511-300	1.6 l/s	6 bar	DN32	113	-	✓

*Nominal duty is the mid-curve duty point, so the pump will be capable of achieving a higher flow at a lower pressure or a higher pressure at a lower flow than the nominal duty stated. Full pump curves available on request. **The cat 5 system types available are dependent on whether the POD selected is a twin-compartment or single-compartment tank version.

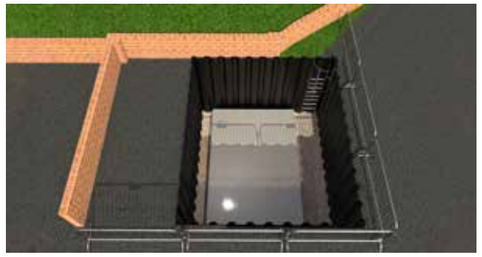
INTEGRATED PUMP AND TANK SYSTEMS
HARTON POD BY DUTYPOINT

Installation Process

EXCAVATION



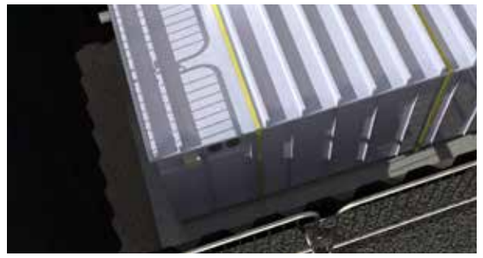
CONCRETE BASE



LIFT INTO POSITION

PLACE INTO POSITION

SECURE DOWN WITH STRAPS



BACKFILL AND CONNECT SERVICES

INSTALL ACCESS COVER

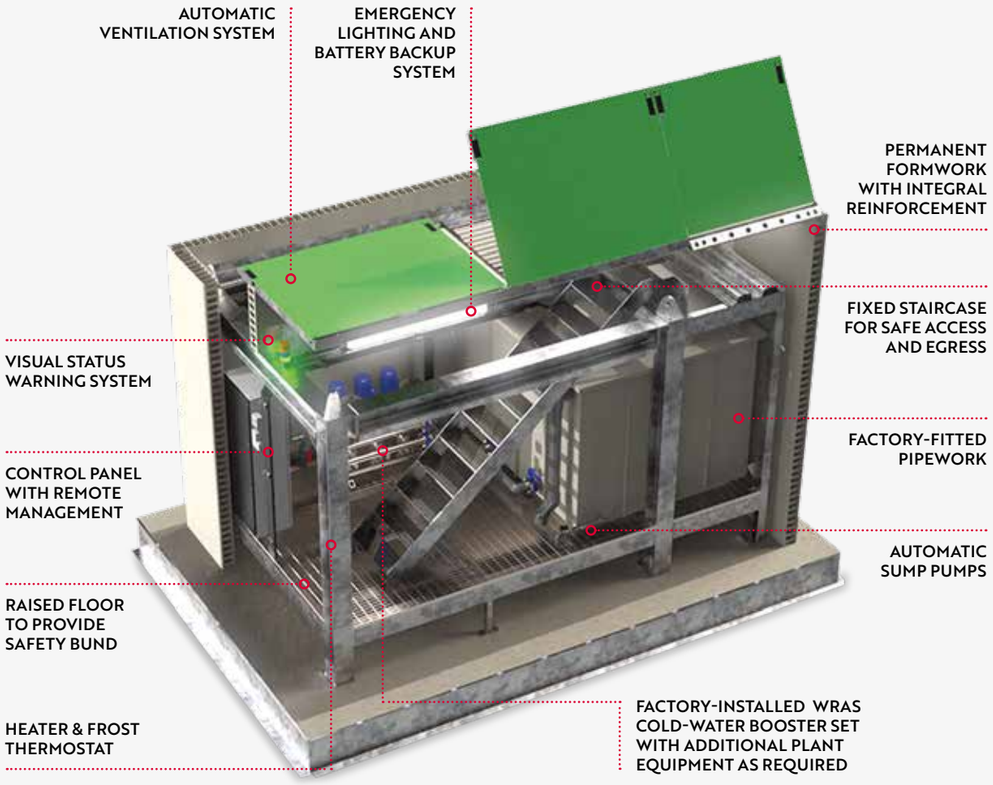
Optimise™

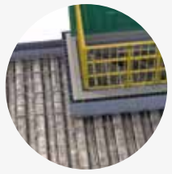
Optimise™ provides a cost-effective, safe and efficient solution to plant room space.

PRODUCT OVERVIEW

- Structural stability to enable installation in heavy loading areas
- Pre-installed shuttering system to minimise volume of concrete required to install
- Full-size staircase for easy access once installed
- Highly configurable
- Fast and safe installation
- Suitable to contain a large range of plant room equipment
- Self-contained structural design
- Air monitoring with visual warning system to ensure safe entry

Key Features

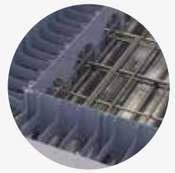




CON-FLOOR STYLE PANELS TO ENABLE CONCRETE TO BE INSTALLED ON TOP OF UNIT

LARGE PROTECTED ACCESS AREA

FULL-SIZED STAIRCASE FOR EASY ACCESS



FACTORY-FITTED SHUTTERING TO MINIMISE CONCRETE USE AND INSTALLATION TIMES

QUIKSWAP™ **HIRISE** **BMS CONNECTABLE** **FIRE SYSTEM UPGRADE**

TRUESTANDBY™ **BURST PIPE TECHNOLOGY** **ANTI-VIBRATION FITTED**

INTEGRATED PUMP AND TANK SYSTEMS
OPTIMISE™

Specification

The Dutypoint Optimise™ packaged plant room provides a cost-effective, safe and efficient solution to plant room space and for installing water systems underground. By combining industry-leading technologies, Dutypoint can offer a system that overcomes many of the challenges associated with underground plant rooms, with lower overall costs, unique safety features and ease of maintenance.

The unit is delivered in a huge range of sizes and is delivered to site set-up and ready, leading to savings in space and on-site installation time. Most Dutypoint booster sets can be installed within an Optimise™.

HIGHLY CONFIGURABLE

Dutypoint offers the flexibility to install almost any cold water booster set as well as additional equipment in the Optimise™, such as:

- Electromagnetic water conditioners to prevent scale build-up in pipework and other plant equipment
- Ultra-violet disinfection and filtration equipment
- Boilers, air handling, CHP plants, generators and other equipment
- Modular system for larger installations where additional capacity is required
- Fire pump systems

FAST AND SAFE INSTALLATION

The Dutypoint Optimise™ can be installed in a fraction of the time of a conventional underground chamber thanks to the pre-fitted concrete shuttering system. The shuttering system allows the concrete work to be completed in only two pours. As a result, it vastly reduces overall pour time, lowering the number of entries into the excavation and cutting the working hours required to complete the installation.

SAFE ACCESS FOR MAINTENANCE PERSONNEL

Unlike other systems on the market, this system does not require two maintenance personnel, personal lifting gear or breathing apparatus (subject to site conditions). This is due to a combination of features:

- A full-size staircase and over-sized access cover allows ease of entry and exit
- A mechanical ventilation system ensures the environment is always safe without the need to carry respiratory equipment
- An underfloor flood bund area ensures that, in the unlikely event that the water cistern is accidentally emptied into the plant room, the risk of drowning is greatly reduced
- Twin independently controlled sump pumps in the bund area ensure that any excess water is quickly removed
- Integrated air quality monitoring system with audible and visual alarm system

ADDITIONAL FEATURES

- By utilising a pre-fitted concrete shuttering system, the Dutypoint Optimise™ can be installed in a fraction of the time of a conventional underground chamber
- Compatible with boilers, air handling CHP plants, generators and other plant

Specification

PRODUCT OVERVIEW

- Space to install plant equipment, such as:
  - Variable-speed cold-water booster set complete with pumps, valves, pressure vessels, pressure sensors and pipework
  - GRP-insulated cold-water break tank with AF or AB air gap, overflow and level controls
  - Electromagnetic water conditioner
  - UV disinfection equipment
  - Controls and HMI devices
- Reinforced concrete and steel frame allows installation in high water table areas and heavily loaded areas
- Integrated concrete shuttering system for fast, safe and economical installation, saving concrete and reducing personnel entries into excavated area
- Supplied complete with aluminium access cover, available in a choice of colours
- Full-sized, fixed staircase for safe entry and egress with access cover operable by a single person
- Underfloor bund to prevent the risk of flooding in the unlikely event of tank or pipe failure
- Underfloor sump pumps to remove any excess water from the bund area
- Actuated inlet valve with automatic shut-off in case of water overflow with battery backup
- Mechanical ventilation air handling unit for constant replenishment of fresh air and temperature control
- Full interior lighting with emergency battery backup
- Entry warning light system to give a visual signal of any hazards prior to entry
- Heater and frost thermostat to maintain a safe temperature
- Closed-cell foam-insulated interior roof to protect from condensation
- Remote management and monitoring system

OPTIONS

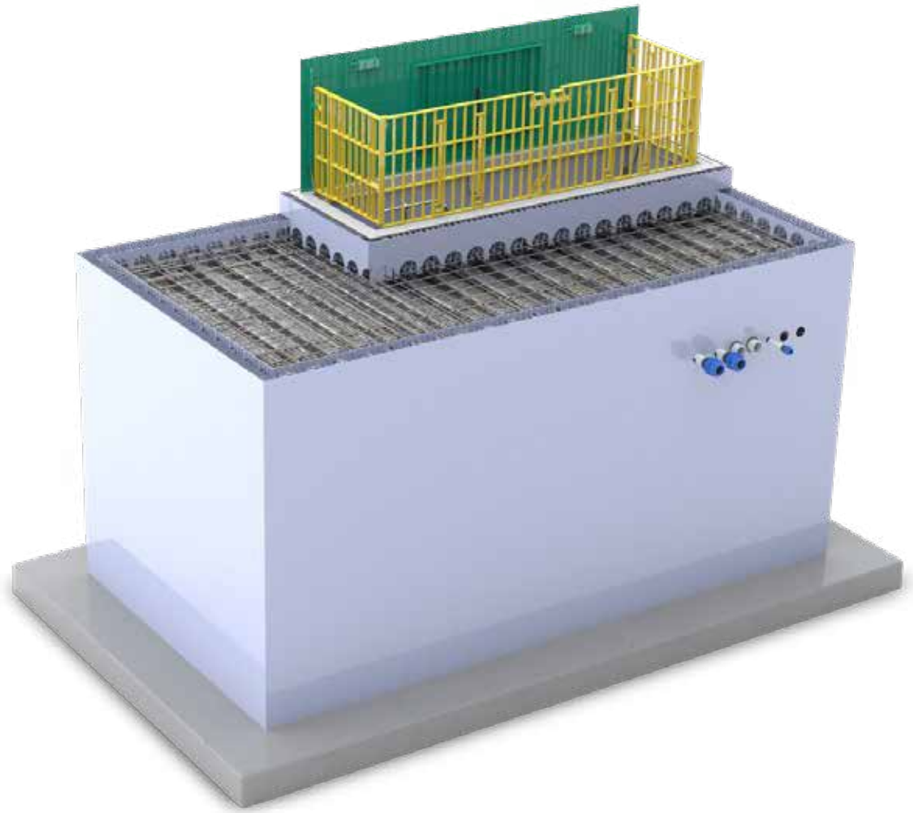
- Non-standard sizes
- Increased loading factors
- Air quality monitoring

Optimise™ Underground Packaged Plant Room Range

DRAWINGS AND DIMENSIONS

Model no.	External width (mm)	External height* (mm)	External length (mm)	Total available plant space, including tank (m^2)	Max actual break tank capacity (L)
UPPR-304	3470	3600	4470	9	4200
UPPR-305	3470	3600	5470	12	7500
UPPR-306	3470	3600	6470	15	11,100
UPPR-307	3470	3600	7470	18	14,600
UPPR-308	3470	3600	8470	21	18,100
UPPR-309	3470	3600	9470	24	21,600
UPPR-310	3470	3600	10,470	27	25,200
UPPR-311	3470	3600	11,470	30	28,700

***Please note:** Non-standard dimensions and alternate-handed stair options available on request. Max actual capacities stated are based on optimum combination of plant versus tank space and may not be achievable in combination with some larger booster sets. If in doubt, please ask.



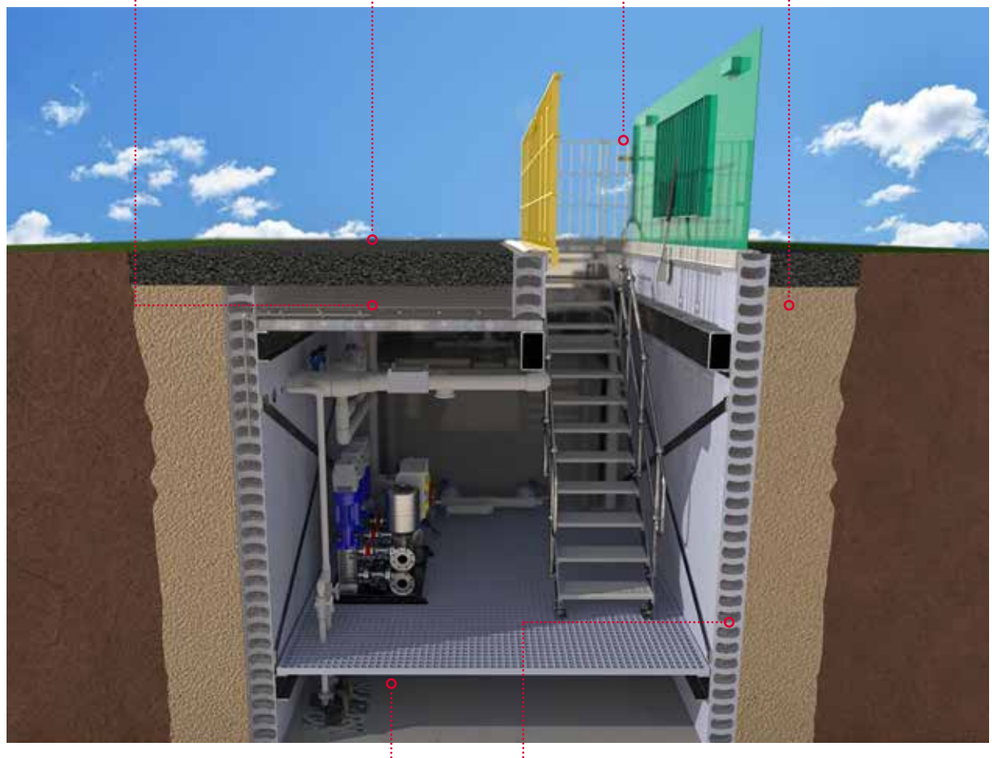
Optimise™ Typical Civils Details

FINISHED LEVEL
MINIMUM 200 MM MAKE-UP OVER CONCRETE ROOF SLAB

ACCESS COVER
SUPPLIED BY DUTYPOINT, INSTALLED BY CLIENT. DUTYPOINT WILL PROVIDE FULL INSTALLATION DETAILS

RC ROOF SLAB
MINIMUM 300 MM DEPTH PRE-INSTALLED WITH REBAR

RETAINED GROUND
BACKFILLED WITH PERMEABLE MATERIAL. FULL DEPTH OF EXCAVATION: 800 MM WIDE



CONCRETE BASE SLAB
CONSTRUCTED, DESIGNED AND INSTALLED BY THE CLIENT, INCLUDING FLOATATION RESISTANCE. DUTYPOINT WILL PROVIDE LOADING INFORMATION IMPOSED FROM THE PLANT ROOM

RC SHUTTERED WALLS
THE SHUTTERED WALLS WILL BE SUPPLIED WITH REBAR PRE-INSTALLED. STAGED CONCRETE POURS WILL BE REQUIRED TO A MAXIMUM DEPTH OF 1.5 M PER POUR. DUTYPOINT WILL PROVIDE THE CONCRETE SPECIFICATION AND PRODUCT-SPECIFIC INSTALLATION REQUIREMENTS. THE CLIENT WILL BE RESPONSIBLE FOR SITE-SPECIFIC GEOTECHNICAL CONSIDERATIONS

INTEGRATED PUMP AND TANK SYSTEMS
OPTIMISE™

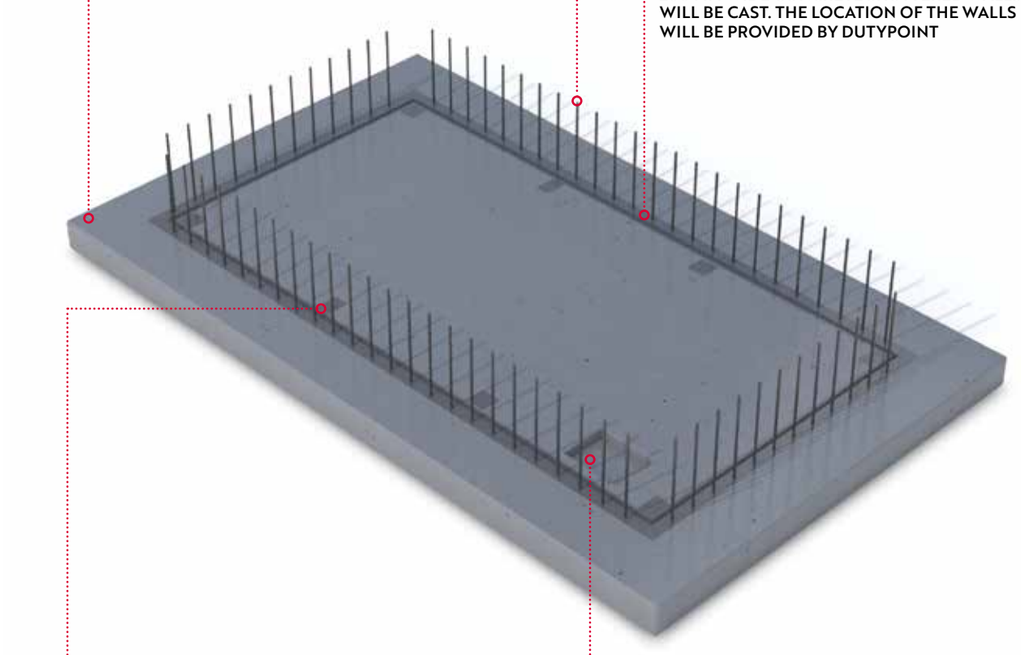
Optimise™ Base Slab Requirements

Structural design and construction of the base slab is the responsibility of the installer.

STRUCTURAL BASE SLAB
A BASE SLAB WILL BE REQUIRED TO PROVIDE A FOUNDATION FOR THE PLANT ROOM. THE SIZE OF SLAB WILL VARY DEPENDING ON THE DESIGN. THE DESIGN AND INSTALLATION OF THE SLAB IS THE RESPONSIBILITY OF THE CLIENT. DUTYPOINT WILL PROVIDE LOADING INFORMATION ON COMPLETION OF THE FULL DESIGN

STARTER BARS CAST INTO CONCRETE BASE
H25 STARTER BARS AT 250 MM CENTRES WILL BE REQUIRED IN SPECIFIC LOCATIONS WITHIN THE SLAB. DETAILS OF ANCHORAGE REQUIREMENTS WILL BE PROVIDED BY DUTYPOINT

FOOTPRINT OF SHUTTERED CONCRETE WALLS
AN ADEQUATE KEY OF THE BASE SLAB WILL BE REQUIRED WHERE THE FOOTPRINT OF THE 200 MM WIDE CONCRETE SHUTTERED WALLS WILL BE CAST. THE LOCATION OF THE WALLS WILL BE PROVIDED BY DUTYPOINT



LOCATION OF STEEL FRAME BASE PLATES
THE BASE SLAB WILL NEED TO BE DESIGNED TO ACCOMMODATE SPECIFIC LOADING SEEN FROM THE PLANT ROOMS STRUCTURAL STEEL FRAME BEARING LOCATIONS. THE LOADING INFORMATION WILL BE PROVIDED BY DUTYPOINT ON COMPLETION OF THE FULL DESIGN

SUMP FORMED IN CONCRETE BASE
A 600 MM X 450 MM RECESS CAST INTO CONCRETE BASE WILL BE REQUIRED TO FORM A SUMP. THE LOCATION WILL BE PROVIDED BY DUTYPOINT

Crow Lane: Optimise™ Underground Packaged Plant Room

Putting your plant room below ground saves you space inside your property, giving you extra space for more profitable areas of the development.

PROJECT SUMMARY

Dutypoint was asked to design a bespoke underground packaged plant room for a brand-new mixed residential housing development being developed by Hollybrook Homes in Crow Lane, Romford, Essex.

PROJECT CHALLENGE

Dutypoint was given the challenge of designing, building and manufacturing a packaged plant room solution that would mitigate the limited space allocated within the main residential block for a plant room/plant room equipment. The only solution was to go underground.

PROJECT DETAILS

Project name
Crow Lane

Industry sector
Residential

Project type
New build

Main contractor
Hollybrook Homes

Product supplied
- Underground packaged plant room

PROJECT SOLUTION

Dutypoint supplied the Optimise™: a prefabricated, underground packaged plant room that utilises an innovative pre-fitted concrete shuttering system. The shuttering system allows the concrete work to be completed in just two pours, vastly reducing overall pour time. It also reduces the number of entries into the excavation and, therefore, reduces the number of working hours required to complete the installation.

THE DUTYPOINT UNDERGROUND PACKAGED PLANT ROOM (U.P.P.R)

Optimise™ is highly configurable, so the team were able to pre-fit it with the specific plant equipment required for this project. Equipment included a triple pump, WRAS-approved Dutypoint booster set, a twin-compartment GRP storage tank, an electromagnetic water conditioner and a UV filter.

Packaged plant rooms

Tailored to suit your project

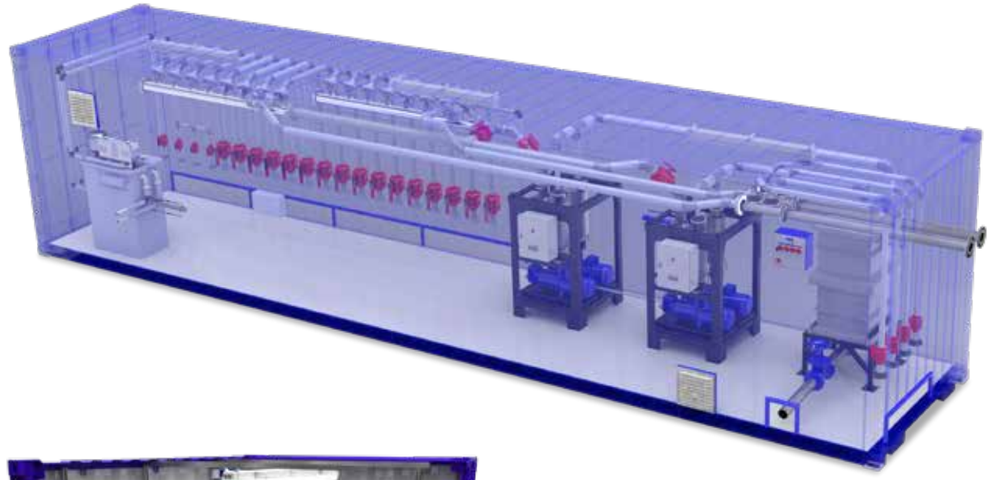
- Complete design and off-site build
- Extensive range of options available
- Full electrical and mechanical testing ahead of delivery

To discuss bespoke packaged units, call us now on 01452 300110 or email enquiries@dutypoint.com

Bespoke Packaged Units

Dutypoint offers a wide range of bespoke prefabricated solutions, working with clients from design to commissioning. These systems are designed specifically project by project, and we can include booster sets, storage tanks, hot-water generation and category 5 systems.

We offer a complete internal design and manufacture, enabling us to install, test and pre-set parameters of the full system off site and ready to drop into place on your project. In addition, we collaborate with you to provide a seamless solution to the challenges your projects face, reducing hassle, time and costs on site.



Boosted Cold Water System Accessories

A wide range of accessories to ensure maximum performance from your cold-water system.

CONTENTS

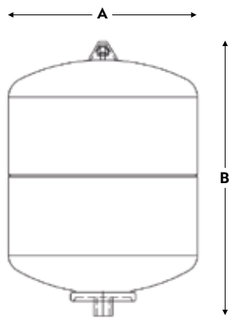
WRAS-Approved Pressure Vessels

The Dutypoint range of pressure vessels is available in horizontal and vertical versions and covers a wide range of project requirements. These vessels provide pressure storage for water up to 70°C (higher temperature options available on request) and are widely used with water pressure booster sets and pressurisation units.

Sizes range from 5 litres to 5000 litres.

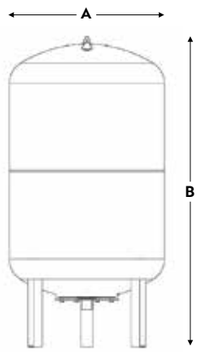
SPECIFICATION

Vessel body	Carbon steel/stainless steel
Flange	Stainless steel (WRAS approved)
Membrane	Butyl (WRAS approved)
Mounting feet	Powder-coated steel
Valves	Plated bronze
Fittings	Stainless steel/plated bronze



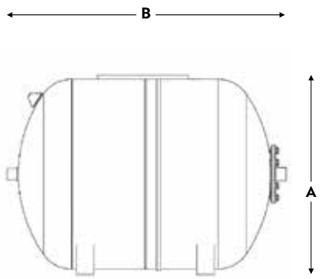
PIPEWORK

Fixed diaphragm series



VERTICAL

Vertical interchangeable diaphragm series



HORIZONTAL

Horizontal interchangeable diaphragm series

BOOSTED COLD WATER SYSTEM ACCESSORIES
PRESSURE VESSELS

WRAS-Approved Pressure Vessels

DRAWINGS AND DIMENSIONS

Code	Capacity (litres)	Max working pressure	Connection (inches)	Dimensions (mm)		Mounting
				A	B	
Vertical mild steel pressure vessels - up to 10 bar						
Z5LV	5	10	¾" BSP	160	316	Pipework
Z8LV	8	10	¾" BSP	200	326	Pipework
Z18LV	18	10	1" BSP	270	395	Pipework
Z24LV	24	10	1" BSP	270	485	Pipework
Z50LV	50	10	1" BSP	380	580	Pipework
Z60LV	60	10	1" BSP	380	880	Floor-standing
Z80LV	80	10	1" BSP	450	850	Floor-standing
Z100LV	100	10	1" BSP	450	950	Floor-standing
Z200LV	200	10	1 ½" BSP	550	1285	Floor-standing
Z300LV	300	10	1 ½" BSP	630	1415	Floor-standing
Z500LV	500	10	1 ½" BSP	750	1610	Floor-standing
Z750LV	750	10	2" BSP	750	2125	Floor-standing
Z1000LV	1000	10	2" BSP	850	2150	Floor-standing
Z1500LV	1500	10	2" BSP	1200	1991	Floor-standing
Z2000LV	2000	10	2" BSP	1200	2451	Floor-standing
Z3000LV	3000	10	2 ½" BSP	1500	2531	Floor-standing
Z4000LV	4000	10	3" BSP	1500	3080	Floor-standing
Z5000LV	5000	10	3" BSP	1500	3645	Floor-standing
Vertical mild steel pressure vessels - up to 16 bar						
Z24LV-HP	24	16	1" BSP	270	485	Pipework
Z100LV-HP	100	16	1" BSP	450	950	Floor-standing
Z200LV-HP	200	16	1 ½" BSP	550	1285	Floor-standing
Z300LV-HP	300	16	1 ½" BSP	630	1415	Floor-standing
Z500LV-HP	500	16	1 ½" BSP	750	1610	Floor-standing
Z750LV-HP	750	16	1 ½" BSP	750	2125	Floor-standing
Z1000LV-HP	1000	16	1 ½" BSP	850	2150	Floor-standing
Horizontal mild steel pressure vessels - up to 10 bar						
Z24LH	24	10	1" BSP	290	481	Wall-mounted
Z50LH	50	10	1" BSP	410	580	Wall-mounted
Z60LH	60	10	1" BSP	410	690	Wall-mounted
Z80LH	80	10	1" BSP	480	690	Wall-mounted
Z100LH	100	10	1" BSP	480	797	Wall-mounted
Z200LH	200	10	1 ½" BSP	580	1075	Wall-mounted
Z300LH	300	10	1 ½" BSP	660	1230	Wall-mounted

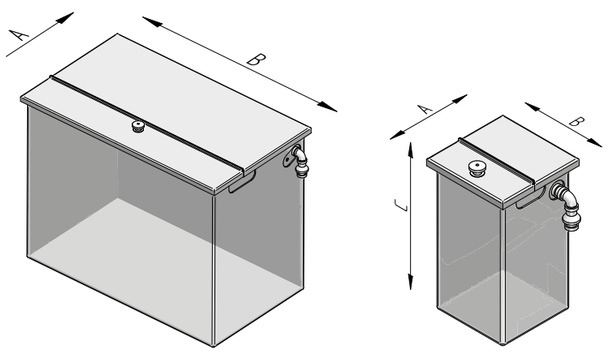
GRP Potable Water Storage Tanks

WRAS-approved GRP water storage tanks.

The Dutypoint range of insulated GRP tanks is designed as a break tank for booster sets. The range is available in capacities of 175 litres to 2,250 litres. GRP potable water storage tanks are supplied with category 4 AF air gaps but can be manufactured with category 5 AB air gaps as a bespoke option. Overflow connection and vent supplied as standard. Various outlet sizes are available.

If you require a bespoke-sized tank or have any other requirements, please get in touch. Our team will be more than happy to help you.

Actual capacity (litres)	Dimensions (mm)			Category 4 AF air gap		Category 5 AB air gap	
	A	B	C	One-piece version	Horizontal split version	One-piece version	Horizontal split version
175	600	600	1015	SC175-AF	SC175-AF-HS	SC175-AB	SC175-AB-HS
300	600	600	1500	SC300-AF	SC300-AF-HS	SC300-AB	SC300-AB-HS
375	600	950	1220	SC375-AF	SC375-AF-HS	SC375-AB	SC375-AB-HS
440	600	950	1500	SC440-AF	SC440-AF-HS	SC440-AB	SC440-AB-HS
490	750	950	1220	SC490-AF	SC490-AF-HS	SC490-AB	SC490-AB-HS
575	750	950	1500	SC575-AF	SC575-AF-HS	SC575-AB	SC575-AB-HS
650	750	1200	1220	SC650-AF	SC650-AF-HS	SC650-AB	SC650-AB-HS
750	750	1200	1500	SC750-AF	SC750-AF-HS	SC750-AB	SC750-AB-HS
800	1160	1160	1220	SC800-AF	SC800-AF-HS	SC800-AB	SC800-AB-HS
1050	800	1500	1520	SC1050-AF	SC1050-AF-HS	SC1050-AB	SC1050-AB-HS
1250	1160	1160	1520	SC1250-AF	SC1250-AF-HS	SC1250-AB	SC1250-AB-HS
1650	1160	1500	1520	SC1650-AF	SC1650-AF-HS	SC1650-AB	SC1650-AB-HS
2250	1160	2000	1520	SC2250-AF	SC2250-AF-HS	SC2250-AB	SC2250-AB-HS



Sectional Tanks

The Dutypoint range of WRAS-approved sectional cold water tanks is suitable for installations that require more storage than can be achieved with one- or two-piece tanks. The tanks are delivered to site in sections to be assembled in-situ. Combining one of these tanks with our class-leading cold-water booster sets simplifies the procurement process. It allows efficient coordination of delivery, installation, commissioning and maintenance of the entire system throughout its life cycle.

STANDARD TECHNICAL FEATURES

- WRAS approved. Suitable for potable water
- Insulation to maintain the water temperature
- Fully weatherproof construction
- AISI 316 stainless steel internal bolts (galvanised steel external bolts)
- Access hatch for maintenance and access
- Screened vent for ventilation to protect against stagnation
- On-site assembly is included
- Externally flanged sides with internally flanged base, hot press moulded construction for cost-effective installation on a fully supporting flat surface
- Externally flanged base allows easy access to bolts for maintenance and full tank draining
- Internally flanged construction of sides and/or the base for installations where space is restricted (note: 500 mm clearance required on all sides)
- Totally internally flanged (TIF) construction allows the tank to be positioned against a wall on two perpendicular sides to save additional space compared to the standard internally flanged design
- Installation of sectional tanks carried out by trained installers

TIF tank - totally internally flanged option shown

SPECIFICATION

Capacity	Up to 112,000 litres
Height	Up to 4 m
Standards	WRAS, BS EN 13280:2001

OPTIONS

- Raised float valve housing allows the float valve to be mounted at a higher level, increasing the actual storage capacity of the tank
- Internal division to allow half of the tank to remain operational while the other is out of service for maintenance purposes
- Internal and external access ladders (recommended when the tank is 1.5 m or higher)
- Condensation trays (available with internally flanged base)
- Many options for connections
- Side-access hatch when height restrictions make top access difficult
- AISI 316 stainless steel external bolts
- Choice of metric or imperial section sizes
- L-shaped tanks
- LPCB-approved fire suppression tanks
- Rainwater harvesting tanks

Electromagnetic Water Conditioners

QUICK DELIVERY **BMS CONNECTABLE**

BOOSTED COLD WATER SYSTEM ACCESSORIES
ELECTROMAGNETIC WATER CONDITIONERS

Why Electromagnetic Water Conditioners?

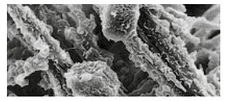
WHY IS THERE A NEED FOR ELECTROMAGNETIC WATER CONDITIONERS?

It is widely known that calcareous scale build-up in domestic and industrial plant can cause damage to pipework, cause leakages and lead to inefficiency of boilers, heat exchangers and cooling equipment used in refrigeration. Electromagnetic water conditioners help reduce scale build-up.

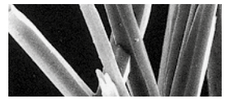
WHAT CAUSES SCALE TO BUILD UP?

Water from the mains supply and natural sources (such as boreholes) contains minerals that are vitally important contributors to good health and wellbeing. However, one of these elements is calcium bicarbonate, which, along with magnesium and other dissolved salts, contributes to the level of water hardness.

As water temperature is increased, the inherent calcium bicarbonate releases carbon dioxide, leaving calcium carbonate (the cause of limescale build-up).



Calcite crystal – high level of aggregation and adhesion.



Aragonite crystal – low level of aggregation and adhesion.

WHAT IS AN ELECTROMAGNETIC WATER CONDITIONER AND HOW DOES IT WORK?

Electromagnetic water conditioners distribute electromagnetic forces and ensure that calcium carbonate in the water only forms as aragonite crystals, rather than calcite crystals; aragonite has a low level of adhesion, resulting in less scale build-up, reduced energy consumption and the extended life of industrial plant.

HOW IS AN ELECTROMAGNETIC WATER CONDITIONER DIFFERENT FROM A WATER SOFTENER?

Treating hard water with an electromagnetic water conditioner as opposed to a water softener doesn't involve introducing any harmful chemicals or additives. It ensures that the quality of the water is maintained as none of the essential minerals present in potable drinking water are removed through the treatment. This process means that there is no requirement for a separate 'softened' water supply and no on-cost due to chemical replenishment.

Specification

Dutypoint EC WRAS-approved electromagnetic water conditioners are the ecological solution to increased lifecycle costs associated with the build-up of hard limescale. The Dutypoint EC reduces energy consumption and extends the life of plant equipment by eliminating the build-up of hard calcareous limescale without introducing harmful chemicals or additives.

As the EC is a physical water conditioner, water quality is maintained. None of the essential minerals present in potable drinking water are removed through the treatment. The unit is totally maintenance free, incorporating a simple control box with power-on lamp. The versatile Dutypoint EC operates at up to 16 bar pressure and 23°C and is available in a range of sizes.

STANDARD TECHNICAL FEATURES

- WRAS approved for potable water
- High build quality and 10-year guarantee
- Effect of treatment lasts for at least seven days
- No corrosive elements added to the water
- Low power consumption
- No regeneration process required
- No chemicals to top up. No routine maintenance required
- Economical installation – no separate mains supply required for water
- No straight pipework required either side of unit
- Unit is pre-wired with wall-mountable control box
- Versatile installation

OPTIONS

- Water meter
- Mounting bracket
- Isolation valves
- Bypass assembly
- Particle filtration
- Flanged connections
- Duplex connection kits
- Common fault volt-free contact

PERFORMANCE

Maximum flow rate	18.3 litres/second*
Maximum working pressure	16 bar
Maximum working temperature	23°C
Power supply	230/1/50
Approvals	WRAS, CE
Pressure loss across the unit	Available on request

*If higher flow rate is required, as many units as necessary can be connected in parallel.

SPECIFICATION

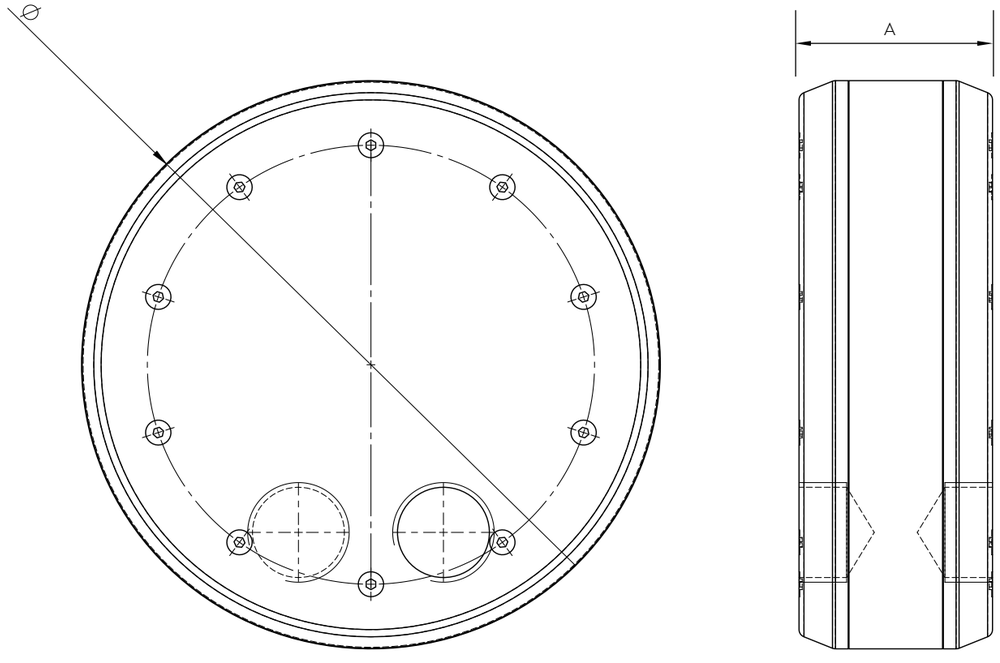
Body	Nickel-plated cast iron
Flow rings	Polyethylene
O-rings	EPDM
Connections	¾" - 4"

BOOSTED COLD WATER SYSTEM ACCESSORIES
ELECTROMAGNETIC WATER CONDITIONERS

Dutypoint EC Variants

DRAWINGS AND DIMENSIONS

Model no.	Max flow rate (l/s)	Power (W)	Dimensions (mm)		Connection size	Weight (kg)
			Ø (mm)	A (mm)		
EC15	0.2	4	130	50	½"	5
EC20-150	0.3	4	155	50	¾"	7
EC20-180	0.6	6	176	55	¾"	9
EC20-200	0.8	9	200	65	¾"	13
EC25	1.2	12	230	75	1"	20
EC32	1.7	15	260	85	1 ¼'	26
EC40	2.7	20	280	90	1 ½'	31
EC50	5	30	310	106	2"	42
EC65	8.3	35	365	120	2 ½"	61
EC80	10.8	40	420	125	3"	80
EC100	18.3	80	550	142	4"	157



VR Booster Set with Integrated Electromagnetic Water Conditioner

Combining two innovative products into one packaged system manufactured off site.

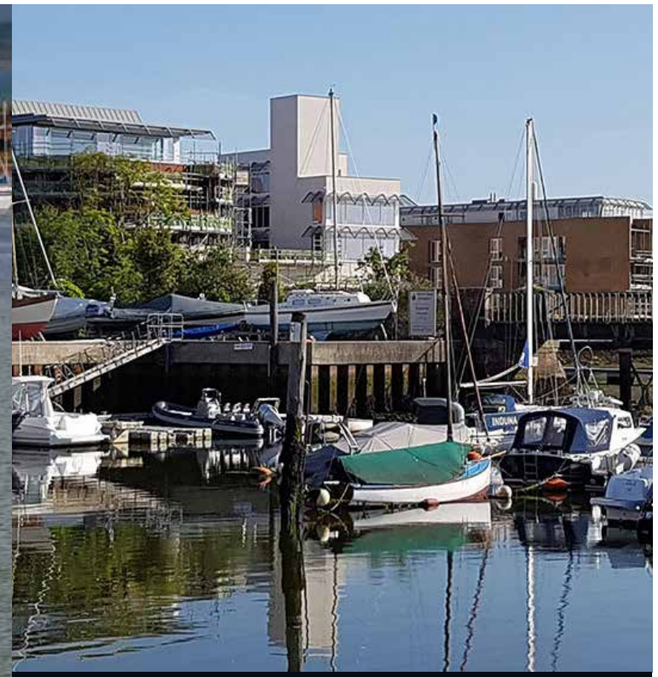
Dutypoint offers a range of fully WRAS-approved booster sets from two to eight pump units. The system is built to an impressive specification with extensive use of stainless steel throughout. The VR booster set contains the pumps, pressure vessels, manifolds, valves and control panel. The standard features are BMS volt-free contacts, soft-start, low-level protection and surge protection. Versatility and compact footprint are always foremost in the design.

The Dutypoint EC water conditioner reduces energy consumption and extends the life of plant equipment by eliminating the build-up of hard calcareous limescale without introducing harmful chemicals or additives.

As the Dutypoint EC is a physical water conditioner, water quality is maintained; none of the essential minerals present in potable water are removed through the treatment.

The unit is totally maintenance-free and incorporates a simple control box with a power-on lamp and volt-free contact for BMS connection. The versatile Dutypoint EC operates at up to 16 bar pressure and 23°C and is available in a range of sizes.

Lymington Shores Development, Hampshire



The luxury development.
The confined space.
The compact solution.

We rise to it.

PROJECT DETAILS

Project name
Lymington Shores

Industry sector
Luxury residential

Project type
Construction

Main Contractor
Redrow PLC

Product supplied
- VR unit with EC built in

PROJECT SUMMARY

Luxury housing development situated on the banks of the Lymington River in Hampshire comprising a series of prestigious luxury villas, three to five-bed waterfront penthouses, an underground car park and a private dock.

PROJECT CHALLENGE

Design a complete water boosting system with water conditioners to fit into restricted spaces.

PROJECT SOLUTION

Dutypoint collaborated with the developer to adapt the site plans to incorporate six compact VR booster sets with integrated electromagnetic water conditioner sets situated throughout the development.

Our unique design saves significant space compared with alternative systems as there is no requirement for 600 mm of additional straight pipework on each side of the conditioner. The complete booster sets were pre-built and mounted on skids to save space and installation time on site. Ideal for small plant rooms or spaces.

ProtectoRiSE

QUICK DELIVERY

BOOSTED COLD WATER SYSTEM ACCESSORIES
PROTECTORISE

Specification

Surge relief valve

The ProtectoRiSE is a highly recommended system component that is fitted at the top of the riser to prevent airlocks and sudden pressure changes due to power surges and other causes.

This triple-function, double-orifice air valve efficiently releases air to prevent pressure build-up and allows the ingress of air to prevent vacuum in the pipework. The ProtectoRiSE also provides a controlled bleed of air to maintain system stability.

STANDARD TECHNICAL FEATURES

- Patented small orifice configuration
- Lightweight, compact single-chamber design
- Directly acting solid cylindrical float
- Excellent flow capacity
- WRAS approved
- PN16 rated
- Drain valve
- Corrosion-resistant construction
- Tapped cowl
- Surge alleviation mechanism
- Insect mesh

OPTIONS

- Isolating valve
- PN25 or PN40 rating

RANGE PERFORMANCE

Standard	BS EN 17-4:2000
Connection size	1" BSP
Maximum working pressure	16 bar (25 or 40 bar available on request)
Minimum working pressure	0.3 bar
Hydrostatic pressure tests	Seal: 1.1 × PN Body: 1.5 × PN
Temperature range	Up to a maximum of 60°C
Coating	Fusion-bonded epoxy

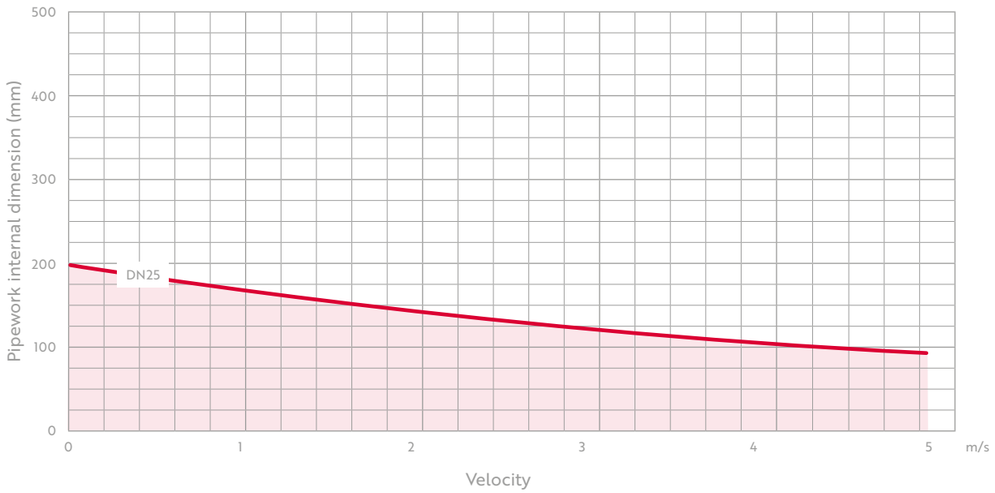
MATERIAL SPECIFICATION

Body	Ductile iron
Size	113 mm (W) x 205 mm (H)
Drain valve	Nickel-plated brass
Diffuser plate	Stainless steel
Lower float	Polypropylene
Small orifice seal	Stainless steel/EPDM
Upper float	Polypropylene
Large orifice seal	EPDM
O-ring	EPDM
Seat holder	Stainless steel
Cowl	Ductile iron
Fasteners	Stainless steel

ProtectoRiSE

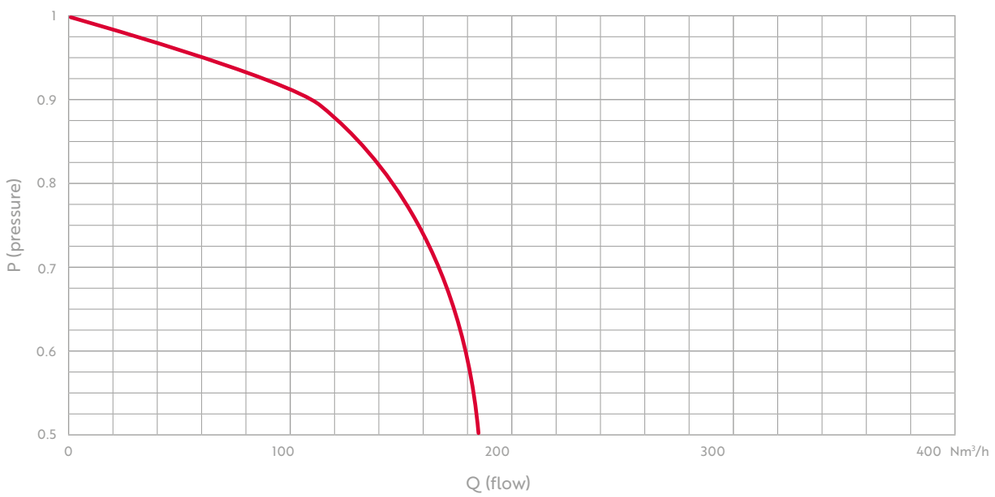
AIR VALVE SELECTION

Range of application of the air valve as a function of pipeline internal diameter and fluid flow velocity expressed in m/s.



AIRFLOW PERFORMANCE

Air entrance during pipe draining.



Accessories

Equilibrium float valves c/w float

The Dutypoint range of equilibrium float valves are available from ½" to 2" bore. They are supplied as a kit, including a valve and float. A drop arm can be supplied if required.

Code	Size (inches)
EQFV12P	½" BSP
EQFV19P	¾" BSP
EQFV25P	1" BSP
EQFV32P	1 ¼" BSP
EQFV40P	1 ½" BSP
EQFV50P	2" BSP

WRAS-approved butterfly valves

The Dutypoint range of WRAS-approved butterfly valve is designed for use in domestic, industrial and commercial applications. These valves are manufactured from high-quality materials, ensuring trouble-free usage.

Code	Size (DN)
73200	50
73201	65
73202	80
73203	100
73205	150
73206	200

BOOSTED COLD WATER SYSTEM ACCESSORIES
ACCESSORIES

Accessories

WRAS-approved dual-action float switches

Dutypoint dual-action float switches are fully WRAS approved. These float switches are suitable for any potable water application, and the neoprene cable ensures extra durability and a long life. Available in 5 m and 10 m cable options.

Code	Cable length (m)
FS5-WRAS	5
FS10-WRAS	10

WRAS-approved flexible bellows – PN16 flanged

The Dutypoint range of WRAS-approved flexible bellows provides necessary protection from vibration and water hammer, facilitating a quieter system overall. Fitted with PN16 flange. Sizes from 32 mm - 150 mm applications. These valves are manufactured from high-quality materials, ensuring trouble-free usage.

Code	Size (mm)
FRB32	32
FRB40	40
FRB50	50
FRB65	65
FRB80	80
FRB100	100
FRB125	125
FRB150	150

Accessories

Mating flange kits

The Dutypoint range of mating flange kits enables you to connect equipment to your system with ease. A standard kit consists of one BSPF-threaded stainless steel flange, one WRAS-approved gasket and the correct quantity of stainless steel nuts, bolts and washers.

Other sizes and connections are available on request. Please call for details.

Code	Flange type	Size (DN)
MFK50	PN16 flanged	50
MFK65		65
MFK80		80
MFK100		100

Stainless steel flexible connectors

The Dutypoint range of stainless steel connectors are manufactured from AISI 321 tubing, AISI 304 over braid and AISI 304 fittings/flanges. Flanged versions are manufactured with PN16 drilled flanges.

Code	Size (inches)	Length (mm)
Stainless steel BSP-threaded male/male connectors		
SSFC19	¾″	300
SSFC25	1″	
SSFC32	1 ¼″	
SSFC40	1 ½″	
SSFC50	2″	
SSFC65	2 ½″	

Code	Size (DN)	Length (mm)
Stainless steel flanged connectors		
SSFC50F	50	300
SSFC65F	65	
SSFC80F	80	
SSFC100F	100	
SSFC150F	150	

Heating and Domestic Hot Water

High-pressure, high-flow and energy-efficient hot water solutions.

CONTENTS

Hot Water Cylinders

The Element ultra-high performance range has been specifically developed for properties that have a greater demand of high pressure and high flow.

PRODUCT OVERVIEW

- High-performance insulation
- Duplex stainless steel construction
- 25-year guarantee on internal cylinder
- Quick delivery

WRAS APPROVED PRODUCT

UK CA

Key Features

WIDE RANGE OF CAPACITIES FROM 80 TO 500 LITRES

½" HOT-WATER SECONDARY RETURN

HIGH-GRADE DUPLEX STAINLESS STEEL

TWIN THERMOSTAT WITH INDEPENDENT RESET (30-70°C)

FACTORY-FITTED PRESSURE AND TEMPERATURE RELIEF VALVE

4.5 AND 6 BAR OPTIONS FOR HIGH-PRESSURE DEMANDS

28 MM INLET AND OUTLET CONNECTIONS ALLOWING HIGH FLOW FOR FAST-FILLING BATHS

QUICK DELIVERY

Specification

Every Dutypoint cylinder has 28 mm inlet and outlet connections and is available in a wide variety of capacities to suit the demands of the property.

STANDARD TECHNICAL FEATURES

- 28 mm connections for high flow rates
- 4.5 bar and 6.0 bar versions for high-pressure installations
- WRAS approved for potable water
- Expansion vessel and two-port motorised zone valve included
- 3 kW electric immersion heater in addition to the primary coil
- ½" hot-water secondary return as standard
- High-performance insulation minimises energy loss
- High-grade duplex stainless steel construction for excellent durability
- 22 mm or 28 mm diameter stainless steel heating coil for fast reheating times
- Durable plastisol casing
- Factory-fitted pressure and temperature relief valve

APPROVALS

- Building Standards: BS 853-1-1996 & BS-12-897
- Building Regulations: Part G & L

GUARANTEE

- Internal cylinder: 25 years
- Ancillary components: 1 year

OPTIONS

- Additional coil for secondary heat sources, e.g. solar panels or air/ground source heat pumps
- Uprated primary coil for faster recovery times (available on 175-litre and larger models)
- 6 kW immersion heater (standard on Pro versions)
- Twin immersion heaters
- 1" hot-water secondary return
- Non-standard sizes
- Direct cylinders (immersion heater only)

PERFORMANCE

Flow rate	Up to 77 litres/minute
Inlet and outlet size	28 mm
Immersion heater kW	3 kW or 6 kW
Operating pressure	4.5 bar or 6.0 bar
Relief valve pressure	6.0 bar or 8.0 bar

ELEMENT PRO

For installations requiring faster recovery times, the Element Pro range features an up-rated primary coil and 6 kW immersion heater. Reheat times for this range are as fast as seven minutes.

ELEMENT DIRECT

Where no external heat source is available, the Element Direct range features a 2 x 3 kW immersion heater as standard.

ELEMENT SOLAR

With an additional secondary coil, the Element Solar range is ideal for renewable energy sources, including solar panels.

HORIZONTAL VERSION

Element

Model no.	Capacity (litres)	Max operating pressure (bar)	Expansion vessel (litres)	Coil rating (kW)*	Heat loss (kWh/24hrs @65°C)	Reheat time (mins)**	Height (mm)	Width (mm)	ERP rating	Dry weight (kg)
Element vertical cylinders (4.5 bar)										
EUHPC08045V	80	4.5	18	14	0.9	14	665	576	B	30
EUHPC15045V	150	4.5	24	20	1.3	18	1085	576	B	40
EUHPC17545V	175	4.5	24	20	1.5	21	1242	576	C	45
EUHPC21545V	215	4.5	35	20	1.6	26	1484	576	C	50
EUHPC25045V	250	4.5	35	20	1.8	30	1752	576	C	55
EUHPC30045V	300	4.5	50	20	2	36	2028	576	C	60
EUHPC40045V	400	4.5	80	30	1.7	32	1690	756	B	78
EUHPC50045V	500	4.5	100	30	2	40	2020	756	B	90
Element vertical cylinders (6 bar)										
EUHPC08060V	80	6	18	14	0.9	14	665	576	B	30
EUHPC15060V	150	6	24	20	1.3	18	1085	576	B	40
EUHPC17560V	175	6	35	20	1.5	21	1242	576	C	45
EUHPC21560V	215	6	35	20	1.6	26	1484	576	C	50
EUHPC25060V	250	6	50	20	1.8	30	1752	576	C	55
EUHPC30060V	300	6	50	20	2	36	2028	576	C	60
EUHPC40060V	400	6	80	30	1.7	32	1690	756	B	78
EUHPC50060V	500	6	100	30	2	40	2020	756	B	90
Element vertical cylinders - reduced height (4.5 bar)										
EUHPC30045V-RH	300	4.5	50	20	1.6	36	1320	756	B	57
EUHPC40045V-RH	400	4.5	80	30	2.5	32	1405	756	C	68
EUHPC50045V-RH	500	4.5	100	30	2.8	40	1690	756	C	78
Element vertical cylinders - reduced height (6 bar)										
EUHPC30060V-RH	300	6	50	20	1.6	36	1320	756	B	57
EUHPC40060V-RH	400	6	80	30	2.5	32	1405	756	C	68
EUHPC50060V-RH	500	6	100	30	2.8	40	1690	756	C	78
Element horizontal cylinders (4.5 bar)										
EUHPC15045H	150	4.5	24	20	1.3	18	725	1085	B	40
EUHPC17545H	175	4.5	24	20	1.5	21	725	1242	B	40
EUHPC21545H	215	4.5	35	20	1.6	26	725	1484	C	50
EUHPC25045H	255	4.5	35	20	1.8	30	725	1752	C	55
EUHPC30045H	305	4.5	50	20	2	36	725	2028	C	60
EUHPC40045H	400	4.5	80	30	1.7	32	905	1690	B	78
EUHPC50045H	500	4.5	100	30	2	40	905	2020	B	90
Element horizontal cylinders (6 bar)										
EUHPC15060H	150	6	24	20	1.3	18	725	1085	B	40
EUHPC17560H	175	6	35	20	1.5	21	725	1242	C	45
EUHPC21560H	215	6	35	20	1.6	26	725	1484	C	50
EUHPC25060H	255	6	50	20	1.8	30	725	1752	C	55
EUHPC30060H	305	6	50	20	2	36	725	2028	C	60
EUHPC40060H	400	6	80	30	1.7	32	905	1690	B	78
EUHPC50060H	500	6	100	30	2	40	905	2020	B	90

*Based on primary flow/return temp. of 80/60°C. **Based on 70% draw-off. △T 45°C

HEATING AND DOMESTIC HOT WATER
HOT WATER CYLINDERS

Element Pro

Model no.	Capacity (litres)	Max operating pressure (bar)	Expansion vessel (litres)	Coil rating (kW)*	Heat loss (kWh/24hrs @65°C)	Reheat time (mins)**	Height (mm)	Width (mm)	ERP rating	Dry weight (kg)
Element Pro fast recovery vertical cylinders (4.5 bar)										
EUHPC17545V-FR	175	4.5	24	54	1.5	8	1242	576	C	45
EUHPC21545V-FR	215	4.5	35	54	1.6	9	1484	576	C	50
EUHPC25045V-FR	250	4.5	35	54	1.8	11	1752	576	C	55
EUHPC30045V-FR	300	4.5	50	54	2	13	2028	576	C	60
EUHPC40045V-FR	400	4.5	80	54	1.7	18	1690	756	B	78
EUHPC50045V-FR	500	4.5	100	54	2	22	2020	756	B	90
Element Pro fast recovery vertical cylinders (6 bar)										
EUHPC17560V-FR	175	6	35	54	1.5	8	1242	576	C	45
EUHPC21560V-FR	215	6	35	54	1.6	9	1484	576	C	50
EUHPC25060V-FR	250	6	50	54	1.8	11	1752	576	C	55
EUHPC30060V-FR	300	6	50	54	2	13	2028	576	C	60
EUHPC40060V-FR	400	6	80	54	1.7	18	1690	756	B	78
EUHPC50060V-FR	500	6	100	54	2	22	2020	756	B	90
Element Pro fast recovery vertical cylinders - reduced height (4.5 bar)										
EUHPC30045V-FR-RH	300	4.5	50	54	1.6	13	1320	756	B	57
EUHPC40045V-FR-RH	400	4.5	80	54	2.5	18	1405	756	C	68
EUHPC50045V-FR-RH	500	4.5	100	54	2.8	22	1690	756	C	78
Element Pro fast recovery vertical cylinders - reduced height (6 bar)										
EUHPC30060V-FR-RH	300	6	50	54	1.6	13	1320	756	B	57
EUHPC40060V-FR-RH	400	6	80	54	2.5	18	1405	756	C	68
EUHPC50060V-FR-RH	500	6	100	54	2.8	22	1690	756	C	78

*Based on primary flow/return temp. of 80/60°C. **Based on 70% draw-off. △T 45°C

COIL RESISTANCE INFORMATION

Coil data is based on a maximum primary flow temperature of 80°C and return temperature of 60°C

Recommended flow rates through coil (l/sec)	Coil pressure drop at recommended flow (kPa)	Maximum coil output (kW)	Coil diameter	Approximate coil surface area (m^2)	Approximate coil volume (litres)
0.40	30	14	DN20	0.54	2
0.32	30	20	DN20	0.75	3
0.28	30	30	DN20	1.1	4
0.47	30	54	DN25	2	9.5

Element Direct

Model no.	Capacity (litres)	Max operating pressure (bar)	Expansion vessel (litres)	Immersion heater (kW)	Heat loss (kWh/24hrs @65°C)	Reheat time (mins)*	Height (mm)	Width (mm)	ERP rating	Dry weight (kg)
Element Direct vertical cylinders (4.5 bar)										
EUHPC08045V-DR	80	4.5	18	1 x 3	0.9	63	665	576	B	25
EUHPC15045V-DR	150	4.5	24	2 x 3	1.2	60	1085	576	B	35
EUHPC17545V-DR	175	4.5	24	2 x 3	1.5	70	1242	576	C	40
EUHPC21545V-DR	215	4.5	35	2 x 3	1.6	85	1484	576	C	45
EUHPC25045V-DR	250	4.5	35	2 x 3	1.8	99	1752	576	C	50
EUHPC30045V-DR	300	4.5	50	2 x 3	2	119	2028	576	C	55
EUHPC40045V-DR	400	4.5	80	2 x 3	1.7	159	1690	756	C	78
EUHPC50045V-DR	500	4.5	100	2 x 3	2	199	2020	756	C	90
Element Direct vertical cylinders (6 bar)										
EUHPC08060V-DR	80	6	18	1 x 3	0.9	63	665	576	B	25
EUHPC15060V-DR	150	6	24	2 x 3	1.3	60	1085	576	B	35
EUHPC17560V-DR	175	6	35	2 x 3	1.5	70	1242	576	C	40
EUHPC21560V-DR	215	6	35	2 x 3	1.6	85	1484	576	C	45
EUHPC25060V-DR	250	6	50	2 x 3	1.8	99	1752	576	C	50
EUHPC30060V-DR	300	6	50	2 x 3	2	119	2028	576	C	55
EUHPC40060V-DR	400	6	80	2 x 3	1.7	159	1690	756	C	78
EUHPC50060V-DR	500	6	100	2 x 3	2	199	2020	756	C	90

*Based on 70% draw-off. △T 45°C

Automatic Air Replenishment Cylinders

PRODUCT DESCRIPTION

This device is a key part of a new and revolutionary approach to unvented water heating installations.

Manufactured in accordance with BS 7206: 1990 to accommodate the water's expansion as it is heated inside the water tank; an external pressurised expansion vessel is coupled to the tank. The expansion vessel will lose its charge and have to be repressurised over time.

An alternative to fitting an expansion vessel is to provide a volume of air above the water level inside the water heater (internal expansion). This process will eliminate the need for the external expansion vessel and reduce installation time.

However, the air is absorbed by the water with internal expansion. When this happens, a procedure needs to be carried out to replace the air in the vessel manually; this means regular recharging.

The revolutionary new technology incorporated into the Dutypoint automatic expansion range automatically recharges the air in the vessel every time water is drawn off by the user, creating a low-maintenance, fully automated and self-sustaining system.

HEATING AND DOMESTIC HOT WATER
HOT WATER CYLINDERS

Element Auto - Automatic Expansion Cylinder

Model no.	Capacity (litres)	Max operating pressure (bar)	Coil rating (kW)*	Heat loss (kWh/24hrs @65°C)	Reheat time (mins)**	Height (mm)	Outer width (mm)	ERP rating	Dry weight (kg)
Element Auto - automatic expansion cylinder - indirect (3 bar)									
EUHPC08030V-AE	80	3	14	0.8	14	703	576	A	30
EUHPC15030V-AE	150	3	14	1.1	26	1235	576	B	40
EUHPC17530V-AE	175	3	20	1.2	21	1370	576	B	45
EUHPC21530V-AE	215	3	20	1.4	26	1666	576	B	50
EUHPC25030V-AE	250	3	20	1.5	30	1884	576	B	55
EUHPC30030V-AE	300	3	20	1.8	36	2150	576	C	60
EUHPC40030V-AE	400	3	30	2.4	32	1522	750	C	68
EUHPC50030V-AE	500	3	30	2.7	40	1896	750	C	78
Element Auto - automatic expansion cylinder - direct (3 bar)									
EUHPC08030V-DR-AE	80	3	3	0.8	64	703	576	C	25
EUHPC15030V-DR-AE	150	3	6	1.1	60	1235	576	C	35
EUHPC17530V-DR-AE	175	3	6	1.2	70	1370	576	C	40
EUHPC21530V-DR-AE	215	3	6	1.4	85	1666	576	C	45
EUHPC25030V-DR-AE	250	3	6	1.5	99	1884	576	C	50
EUHPC30030V-DR-AE	300	3	6	1.8	119	2150	576	C	55
EUHPC40030V-DR-AE	400	3	6	2.4	159	1522	750	C	65
EUHPC50030V-DR-AE	500	3	6	2.7	199	1896	750	C	75

*Based on primary flow/return temp. of 80/60°C. **Based on 70% draw-off. △T 45°C - Upper coil operation

Phillimore Gardens, Kensington
Luxury Residential

PROJECT DETAILS

Project name
Phillimore Gardens

Industry sector
Luxury residential

Project type
Large townhouse

Refurbished with
Basement Dig

Products supplied
- Twin-pump ScubaTANK®
- 6.0 bar element unvented hot water cylinder
- 2 x boilers
- Heating pumps
- Low-loss header and plate heat exchanger

PROJECT SUMMARY
As part of an extensive refurbishment of a large townhouse in Kensington, high-pressure water was required over seven floors with seven bathrooms, a swimming pool, multiple showers and a 12 m deep basement development.

PROJECT CHALLENGE
After a full site survey, Dutypoint provided a complete, tailored packaged solution incorporating a ScubaTANK® all-in-one tank and pump booster, a 6.0 bar Element ultra-high performance cylinder, two boilers, a pressurisation set, heating pumps and a plate heat exchanger.

PROJECT SOLUTION
The installation was a success, and the system boosts consistent and reliable high water pressure over 22 m to the top floor and every part of the house, even at times of maximum demand.

The complete booster sets were pre-built and mounted on skids to save space and installation time on site — ideal for small plant rooms or confined spaces.

Quantum Range

The Quantum range of pressurisation units features the latest innovations in sealed system maintenance.

PRODUCT OVERVIEW

- Intelligent control system with LCD display
- System leak detection
- System fill mode
- BMS integration

Key Features

FULL BMS INTEGRATION FOR STRAIGHTFORWARD SYSTEM MANAGEMENT

CHOICE OF SIZES TO SUIT THE SYSTEM, RESULTING IN A MORE ENERGY-EFFICIENT SOLUTION

SPACE-SAVING WALL MOUNTING OPTION

DUAL SYSTEM MODEL AVAILABLE TO MANAGE BOTH HEATING AND COOLING SYSTEMS

QUICK DELIVERY **BMS CONNECTABLE**

HEATING AND DOMESTIC HOT WATER
QUANTUM PRESSURISATION UNITS

Specification

With intelligent microprocessor control, full BMS integration capabilities and a choice of units to suit the installation, the Quantum range provides for the needs of any system.

STANDARD TECHNICAL FEATURES

- Floor-mounted steel enclosure
- Pump inlet strainer
- Pump non-return valve
- WRAS-approved float valve
- AB air gap (BS 13077 compliant)
- Pressure transducer control
- Intelligent control system with LCD display
- System fill mode
- System leak detection
- Adjustable differential pressure setting
- Volt-free contacts

QUANTUM TWIN SYSTEM

The Quantum twin-system model is capable of managing two independent heating and chilled water systems. It features the same advanced feature set as the Quantum with intelligent control and BMS integration.

OPTIONS

- Two pump duty/standby configuration on QP-35 and above
- High water alarm
- Wall mounting kit
- Choice of expansion vessels (see page 172)

PERFORMANCE

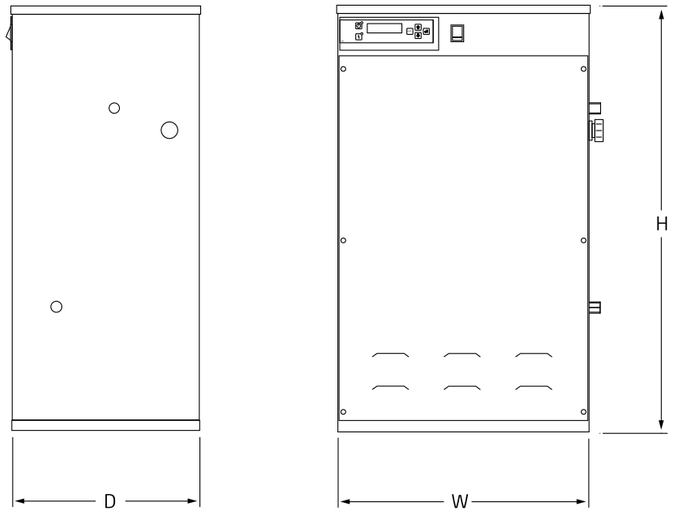
Pumps	Horizontal peripheral pumps with cast iron volute and brass impeller
Tank	18-litre polyethylene water tank with 22 mm overflow and AB air gap
Valves	WRAS-approved equilibrium ball float valve
Non-return valve	Spring loaded, brass
Pipework	½" brass and braided flexible hoses, ¼" brass and nylon tubing
Power supply	230/1/50
Volt-free contact	Max 5 A at 230 V AC

CALL US TO DISCUSS YOUR REQUIREMENTS! FURTHER OPTIONS AVAILABLE
01452 300110

Quantum Pressurisation Units

DRAWINGS AND DIMENSIONS

Model no.	Motor power (kW)	Max cold fill pressure (bar)	Full load current (A)	Number of pumps	Inlet size (inches)	Outlet size (inches)	PN rating (bar)	Weight (kg)	Dimensions (mm)		
									W	D	H
Quantum pressurisation unit											
Q-35	0.37	3.5	2.5	1	½"	½"	10	24	530	360	785
QHP-60	0.55	6	3.1	1	½"	½"	10	29	530	360	785
QHP-80	0.75	8	5.6	1	½"	½"	10	32	530	360	785
QP-35	0.37	3.5	2.5	2	½"	½"	10	29	530	360	785
QPHP-60	0.55	6	3.1	2	½"	½"	10	39	530	360	785
QPHP-80	0.75	8	5.6	2	½"	½"	10	45	530	360	785
Quantum twin system – dual system pressurisation unit											
QTS-35	0.37	3.5	5	1	½"	½" x 2	10	31	530	360	785
QTSHP-60	0.55	6	6.2	1	½"	½" x 2	10	41	530	360	785
QTSHP-80	0.75	8	11.2	1	½"	½"	10	47	530	360	785



CX Range

Designed to automatically remove dirt and air from heating, cooling and process systems.

PRODUCT OVERVIEW

- We offer six different standard configurations in a multitude of sizes from DN50 to DN300 as standard

Key Features

RANGE OF CONFIGURATIONS AND SIZES TO MEET SPECIFIC APPLICATION REQUIREMENTS

HIGH-EFFICIENCY STAINLESS STEEL INTERNAL STRAINER

HIGH-QUALITY CARBON STEEL CONSTRUCTION

QUICK DELIVERY

HEATING AND DOMESTIC HOT WATER
CX RANGE

Specification

The Dutypoint CX range of separators automatically removes dirt and air from heating, cooling and process systems, ensuring optimum performance of your equipment at all times. These should be installed in all new buildings and can be retrofitted into existing systems to provide economic and environmental benefits. In addition, separators should be installed in any sizeable open or closed-loop system, including chilled water systems, condenser water systems and process water systems.

We offer six different standard configurations in a multitude of sizes to ensure we can provide the best solution for your application.

CXC DIRT AND AIR SEPARATOR

- Combined units used in pipelines to efficiently remove air, microbubbles and particles. See pages 212 and 213

CXC-RE DIRT AND AIR SEPARATOR WITH REMOVABLE ELEMENT

- Same as the CXC but includes a removable flange to facilitate easy cleaning and maintenance. See pages 212 and 213

CXP DIRT SEPARATOR

- Used in pipelines to remove impurities and particles. See pages 214 and 215

CXP-RE DIRT SEPARATOR WITH REMOVABLE ELEMENT

- Same as the CXP but with a removable flange to facilitate easy cleaning and maintenance. See pages 214 and 215

CXA AIR SEPARATOR

- Used in pipelines to remove air and microbubbles. See pages 216 and 217

CXX BALANCING TANK WITH DIRT AND AIR SEPARATOR

- A combination of the above units, plus facilitating proper mixing to keep the flow in the boiler and distribution circuits the same, providing optimum hydronic balance. See pages 218 and 219

SEPARATOR SPECIFICATION

Body	Carbon steel – ST 37
Max system pressure	10 bar
Max system temperature	110°C
Internal element	AISI 304 stainless steel

AUTOMATIC AIR VENT SPECIFICATION

Body	Brass
Connections	Screwed
Max system pressure	10 bar
Max system temperature	110°C
Float	Polypropylene

All units are designed and manufactured in accordance with Pressure Equipment Directive 97/23/EC, 1997. Larger units up to DN600 are available to order.

CXC - Combined Dirt and Air Separators

Dutypoint CXC combined dirt and air separators can be used instead of individual deaerators and dirt separators.

These combined units are very efficient and extremely cost effective, becoming the preferred standard option throughout the industry. In heating systems, the units should be installed in the flow loop, situated immediately after the boiler and prior to the pump. In a chilled water system, the unit must be located in the return loop close to the chiller.

The efficiency of the unit will be reduced if the system static head exceeds 15 m and system flow velocity exceeds 3 m/s.

STANDARD TECHNICAL FEATURES

- Efficient removal of air and microbubbles in pipework
- Effective removal of impurities and particles
- Stainless steel element
- Designed and manufactured in accordance with the Pressure Equipment Directive 97/23/EC

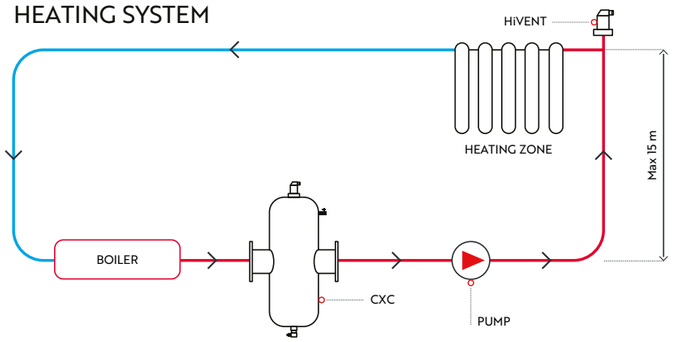
OPTIONS

- Removable element (CXC-RE)
- Larger units up to DN600 available on request
- Non-standard connections

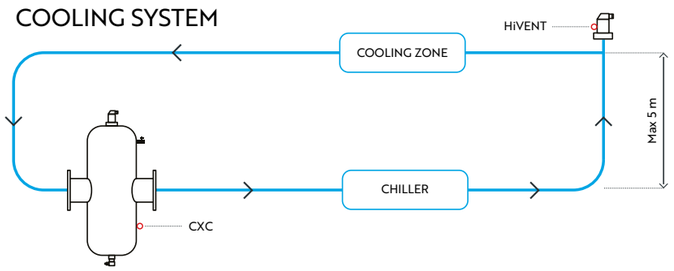
NOTE

- The static head must not exceed 15 m for a heating system and 5 m for a cooling system

HEATING SYSTEM



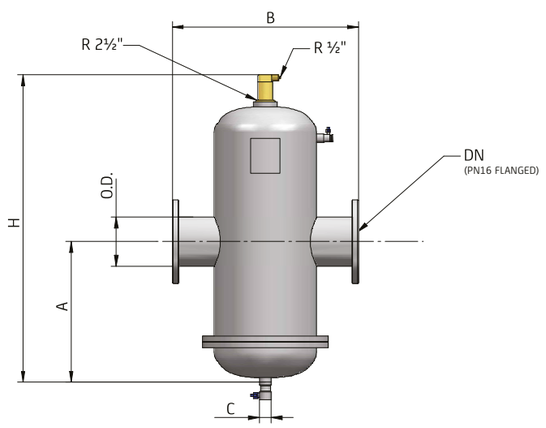
COOLING SYSTEM



CXC/CXC-RE

DRAWINGS AND DIMENSIONS

Model no.	Flow rate (m^3/h)	Volume (litres)	Weight (kg)	Dimensions					
				DN (mm)	OD (mm)	A (mm)	B (mm)	C (inches)	H (mm)
CXC combined dirt and air separators									
CX50C	8	7	17	50	60	265	350	1"	632
CX65C	15	7	18	65	76	265	350	1"	632
CX80C	20	25	38	80	88	345	470	1"	791
CX100C	30	25	40	100	114	345	475	1"	791
CX125C	50	75	62	125	139	480	635	1"	1064
CX150C	75	75	67	150	168	480	635	1"	1064
CX200C	125	150	150	200	219	615	775	1"	1307
CX250C	200	300	300	250	273	815	890	2"	1568
CX300C	275	500	545	300	323	970	1005	2"	1892
CXC-RE combined dirt and air separators with removable element									
CX50C-RE	8	7	37	50	60	265	350	1"	632
CX65C-RE	15	7	38	65	76	265	350	1"	632
CX80C-RE	20	25	61	80	88	345	470	1"	791
CX100C-RE	30	25	63	100	114	345	475	1"	791
CX125C-RE	50	75	102	125	139	480	635	1"	1064
CX150C-RE	75	75	107	150	168	480	635	1"	1064
CX200C-RE	125	150	207	200	219	615	775	1"	1307
CX250C-RE	200	300	373	250	273	815	890	2"	1568
CX300C-RE	275	500	624	300	323	970	1005	2"	1892



CXP - Dirt Separators

Dutypoint CXP dirt separators are designed to remove impurities and particles.

These units should always be installed in systems before equipment that requires protection from dirt and sludge, such as boilers, chillers, control valves and pumps. In heating systems, this should be in the return loop close to the boiler. In a chilled water system, the unit should be located in the return loop close to the chiller. Periodic draining of the CXP will keep the system free of impurities, prolonging the life of other installed equipment.

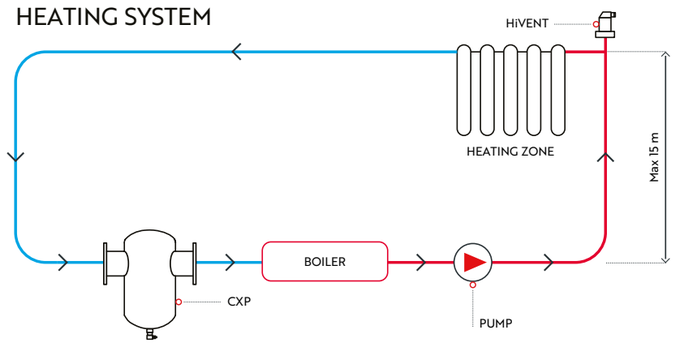
STANDARD TECHNICAL FEATURES

- Efficient removal of particles in pipework
- Stainless steel element
- Designed and manufactured in accordance with the Pressure Equipment Directive 97/23/EC

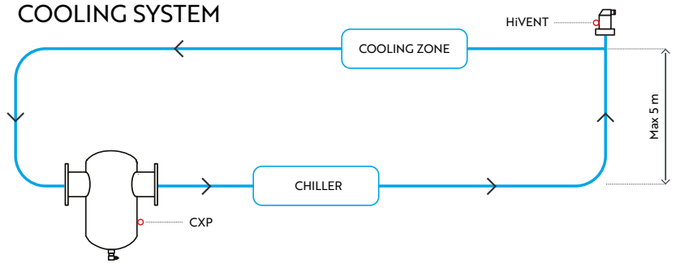
OPTIONS

- Removable element (-RE models)
- Larger units up to DN600 available on request
- Non-standard connections

HEATING SYSTEM



COOLING SYSTEM

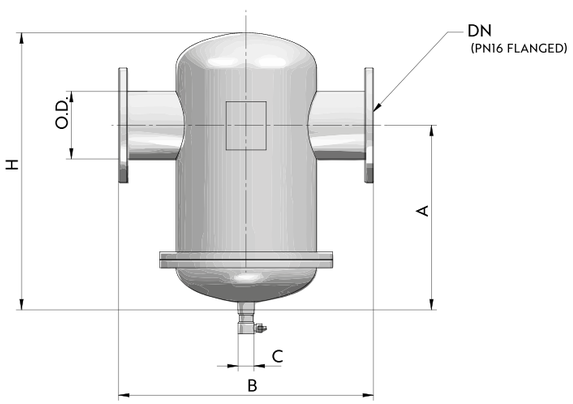


HEATING AND DOMESTIC HOT WATER
CX RANGE

CXP/CXP-RE

DRAWINGS AND DIMENSIONS

Model no.	Flow rate (m^3/h)	Volume (litres)	Weight (kg)	Dimensions					
				DN (mm)	OD (mm)	A (mm)	B (mm)	C (inches)	H (mm)
CXP dirt separators									
CX50P	8	5	15	50	60	267	350	1″	385
CX65P	15	5	16	65	76	265	350	1″	385
CX80P	20	17	28	80	88	390	470	1″	570
CX100P	30	17	30	100	114	353	475	1″	570
CX125P	50	50	62	125	139	454	635	1″	701
CX150P	75	50	65	150	168	454	635	1″	701
CX200P	125	100	120	200	219	623	775	1″	900
CX250P	200	200	230	250	273	840	890	2″	1130
CX300P	275	363	400	300	323	655	1005	2″	1150
CXP-RE dirt separators with removable element									
CX50P-RE	8	5	35	50	60	267	350	1″	385
CX65P-RE	15	5	36	65	76	265	350	1″	385
CX80P-RE	20	17	51	80	88	390	470	1″	570
CX100P-RE	30	17	53	100	114	353	475	1″	570
CX125P-RE	50	50	102	125	139	454	635	1″	701
CX150P-RE	75	50	105	150	168	454	635	1″	701
CX200P-RE	125	100	177	200	219	623	775	1″	900
CX250P-RE	200	200	303	250	273	840	890	2″	1130
CX300P-RE	275	363	479	300	323	655	1005	2″	1150



CXA - Air Separators

Dutypoint CXA air separator units are installed to efficiently remove air and microbubbles from the system.

In heating systems, an air separator should be installed in the flow loop where the system experiences the highest temperature (next to the heat source) and lowest pressure. Air separators should ideally be installed immediately after the boiler and prior to the pump suction port as this is where the formation of microbubbles is greatest. In a chilled water system, the unit must be located in the return loop just prior to the chiller.

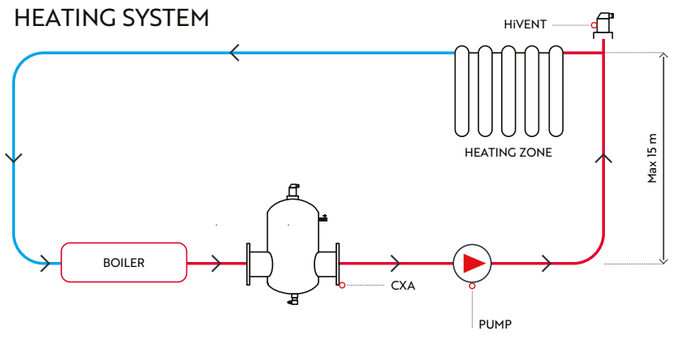
STANDARD TECHNICAL FEATURES

- Efficient removal of air and microbubbles in pipework
- Stainless steel element
- Designed and manufactured in accordance with the Pressure Equipment Directive 97/23/EC

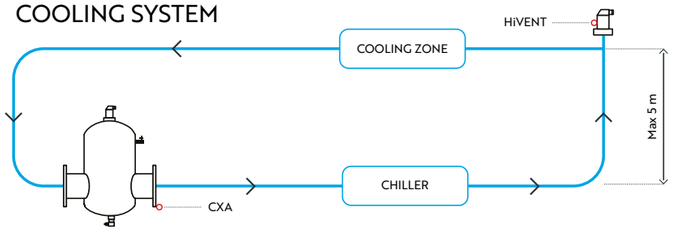
OPTIONS

- Larger units up to DN600 available on request
- Non-standard connections

HEATING SYSTEM



COOLING SYSTEM

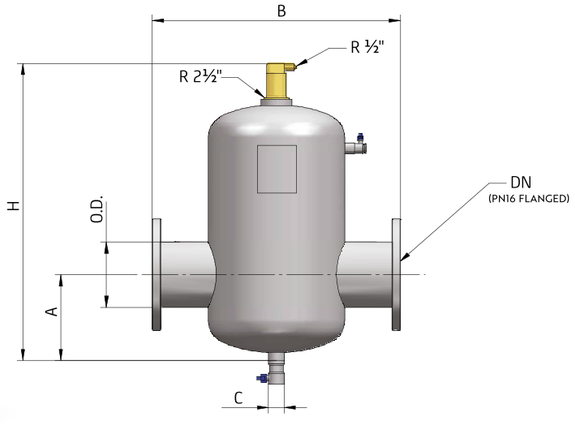


HEATING AND DOMESTIC HOT WATER
CX RANGE

CXA - Air Separators

DRAWINGS AND DIMENSIONS

Model no.	Flow rate (m^3/h)	Volume (litres)	Weight (kg)	Dimensions					
				DN (mm)	OD (mm)	A (mm)	B (mm)	C (inches)	H (mm)
CXA air separators									
CX50A	8	5	15	50	60	138	350	½"	482
CX65A	15	5	16	65	76	138	350	½"	482
CX80A	20	17	28	80	88	177	470	½"	607
CX100A	30	17	30	100	114	177	475	½"	607
CX125A	50	50	62	125	139	267	635	½"	797
CX150A	75	50	65	150	168	267	635	½"	797
CX200A	125	100	120	200	219	297	775	1"	996
CX250A	200	210	230	250	273	347	890	1"	1227
CX300A	275	360	400	300	323	385	1005	1"	1247



CXX - Combined Dirt/Air Separator and Balancing Tank

The Dutypoint CXX combines the benefits of a deaerator, a dirt separator and a hydronic balancing tank in one unit.

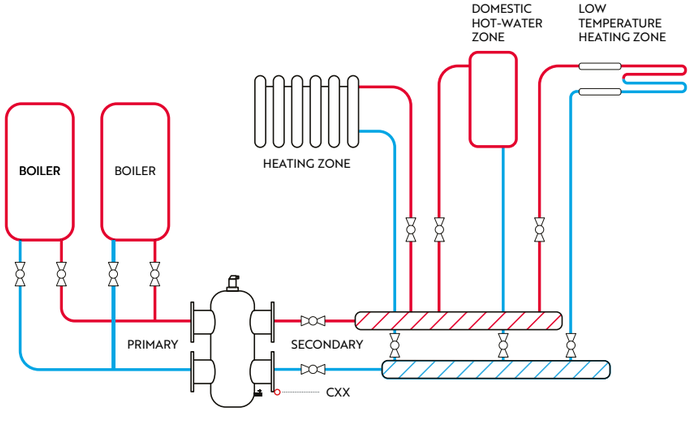
This system can be used instead of an individual deaerator and dirt separator, with the added advantage of creating a perfect hydraulic balance between the primary and secondary circuits. The importance of having a well-balanced system cannot be overemphasised, as this dramatically reduces energy consumption and increases boiler or chiller efficiency. In addition, it is vastly more cost effective to purchase this combined unit rather than individual items, saving both initial cost and installation time.

STANDARD TECHNICAL FEATURES

- Efficient removal of air and microbubbles in pipework
- Effective removal of impurities and particles
- Stainless steel element
- Designed and manufactured in accordance with the Pressure Equipment Directive 97/23/EC
- Enables perfect hydraulic balance between primary and secondary circuits

OPTIONS

- Non-standard connections
- Larger units up to DN600 available on request

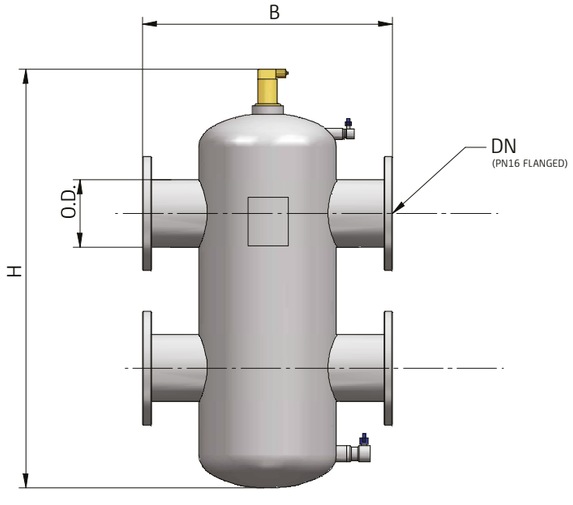


HEATING AND DOMESTIC HOT WATER
CX RANGE

CXX

DRAWINGS AND DIMENSIONS

Model no.	Flow rate (m^3/h)	Volume (litres)	Weight (kg)	Dimensions			
				DN (mm)	OD (mm)	B (mm)	H (mm)
CXX combined dirt and air separator and balancing tank							
CX50X	8	7	17	50	60	350	630
CX65X	15	7	18	65	76	350	630
CX80X	20	25	38	80	88	470	790
CX100X	30	25	40	100	114	475	790
CX125X	50	75	62	125	139	635	1050
CX150X	75	75	67	150	168	638	1050
CX200X	125	150	150	200	219	775	1320
CX250X	200	300	300	250	273	890	1720
CX300X	275	500	545	300	323	1005	2020



Chemical Dosing Pots

Providing a safe, controlled method of dosing chemicals into heating and chilled water systems with no interruption to the system.

PRODUCT OVERVIEW

- Extra-large tundish for safe and easy dosing
- Available in five sizes to cover all project requirements: 3.5 litres, 5 litres, 10 litres, 15 litres, and 25 litres
- Designed and manufactured in accordance with the Pressure Equipment Directive 97/23/EC
- Top-mounted manual air vent to minimise air ingress into the system

Key Features

EXTRA-LARGE TUNDISH FOR SAFE AND EASY DOSING

AVAILABLE IN FIVE SIZES TO COVER ALL PROJECT REQUIREMENTS: 3.5 LITRES, 5 LITRES, 10 LITRES, 15 LITRES AND 25 LITRES

DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE PRESSURE EQUIPMENT DIRECTIVE 97/23/EC

QUICK DELIVERY

Specification

Dutypoint dosing pots are supplied as a complete package with all valves and tundish fitted to minimise on-site installation times. These cost-effective, easy-to-install units facilitate simple, regular ongoing maintenance of your heating or chilled water system.

Dutypoint dosing pots feature a top-mounted, manual air vent that can be opened during the filling operation to minimise air ingress into the system.

For your safety, each Dutypoint dosing pot is fitted with an integral safety valve that prevents fluid from escaping under pressure if the top entry valve is opened before the flow and return valves are closed. Also, each unit is individually hydrostatically tested to 16 bar prior to despatch for your peace of mind.

The standard Dutypoint range includes five different unit sizes to cover all your requirements: 3.5 litres, 5 litres, 10 litres, 15 litres and 25 litres.

SIZING

The size of the dosing pot installed in a system is not critical as multiple doses of chemicals can be put into the system to reach the correct concentration. A smaller unit is easier to handle physically and allows for more accurate dosing. However, the time on site for performing multiple doses has to be considered; this factor should influence your decision when selecting dosing pots.

Note: Chilled water systems often require large volumes of glycol to be dosed into the system; a larger dosing pot may be required for chilled water systems.

The formula below can be used as a guide to help you in your selection:

Boiler power (kW) x 12 litres/kW x 0.01 (based on 1% concentration*) = volume of chemical required

Example: Boiler power 250 kW x 12 litres x 0.01 = 30 litres of chemical.

You could use any of the following dosing pots for this installation:

- 5 litre – dose six times
- 10 litre – dose three times
- 15 litre – dose two times

*Confirm the required concentration level for the chemical being used.

SPECIFICATION

Vessel	Mild steel
Tundish	Mild steel
Flow/return isolation valves	1" BSP, brass (plated)
Drain valve	1" BSP, brass (plated)
Air vent	Brass (plated)
Finish	Powder coated

OPERATING PARAMETERS

Max system pressure	10 bar
Max system temperature	110°C
Test pressure	16 bar

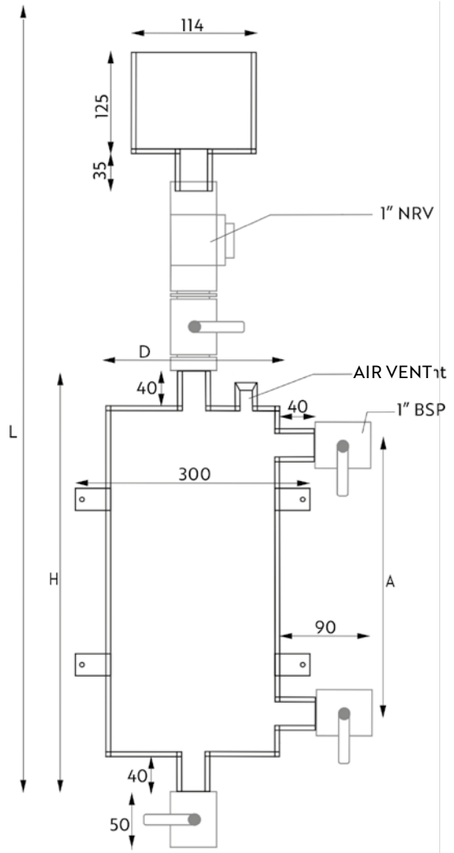
APPROVALS

Designed and manufactured in accordance with the Pressure Equipment Directive 97/23/EC.

Chemical Dosing Pots

DRAWINGS AND DIMENSIONS

Code	Capacity (litres)	Dimensions (mm)			
		L	H	A	D
DP3.5	3.5	545	250	117	154
DP5	5.0	625	330	198	154
DP10	10.0	635	340	207	219
DP15	15.0	805	510	310	219
DP25	25.0	1133	718	558	219



PUR™ — Packaged Utility Rooms

PUR™ — the packaged utility room from Dutypoint — takes the packaged utility concept to a whole new level where aesthetic appeal, space efficiency and technical competence are expertly blended.

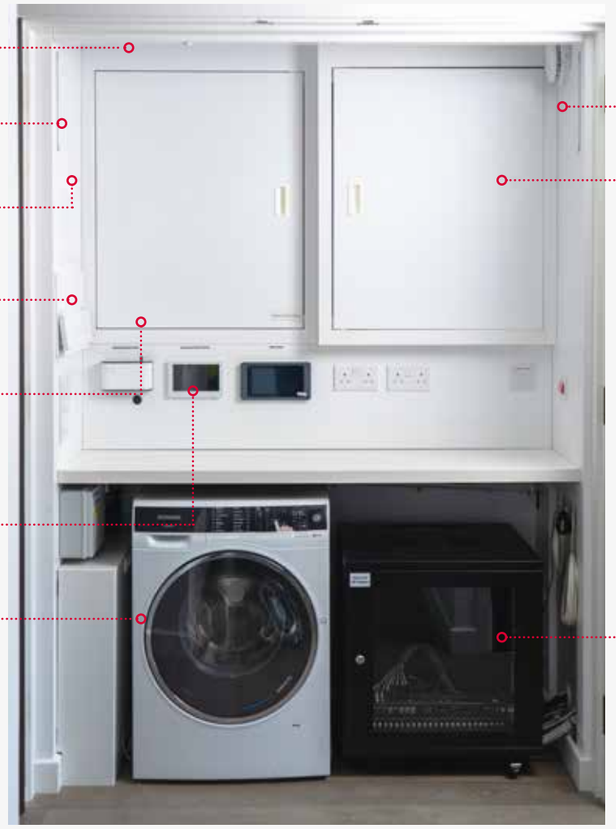
PRODUCT OVERVIEW

- Compact footprint releases usable living space
- Unique design creates the look and feel of a kitchen rather than a plant room
- Configurable to exactly match the site requirements
- Numerous features are combined to maximise practicality for the designer, installer and end-users

Key Features

PUR™ - packaged utility rooms allow developers to reduce costs, designers to save floor space and contractors to save time on site.

PUR™ PACKAGED UTILITY ROOM.



Specification

TYPICAL CONFIGURATIONS INCLUDE:

- Heat interface unit (HIU)
- Mechanical ventilation and heat recovery unit (MVHR)
- Heat metering
- Water metering
- Stop cock
- Ventilation
- LED lighting
- Electrical distribution
- Interfaces with alarm systems
- Sockets
- Data connections

OPTIONS

- Water meter
- Remote data logging and billing system
- Sink with draining board
- Underfloor heating manifold and controls
- Sprinkler valve

STANDARD ELECTRICAL FEATURES

- Electrical consumer unit
- Control centre with up to 36 grid switches
- LED lighting with motion sensor
- Electrical socket for washing machine
- Electrical sockets for additional equipment
- Telephone/data cabling/termination point

OPTIONS

- Room thermostat and heating system timer
- Connections for other equipment as required
- Interface with alarm systems

One Thames City, Nine Elms

PROJECT DETAILS

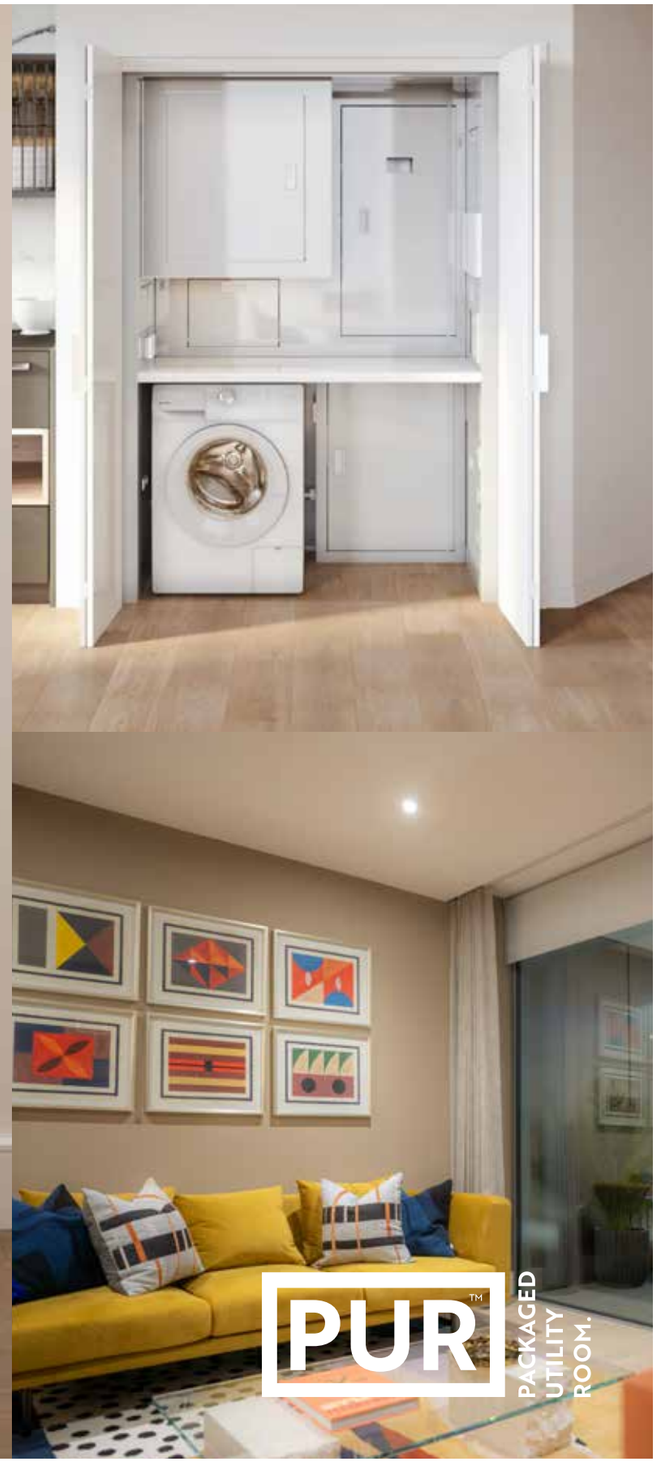
Project name
One Thames City

Main contractor
Midgard

Developer
R&F Properties

Number of units
518

Prince of Wales Drive, Battersea



PROJECT DETAILS

Project name
Prince of Wales Drive

Main contractor
Berkeley Homes

Developer
St Williams

Number of units
394

Know-How

A significant bank of knowledge and experience has been accumulated over the many years of trading. Our team is always keen to put this at the disposal of our clients.

A Dutypoint expert is always available to discuss concepts or projects where pump systems are involved.

The ‘Know-How’ section includes a small amount of useful information about various applications that we hope you find useful.

Check out the ‘Knowledge Point’ on our website for tools and resources, including break tank and peak flow rate calculators and informative articles.

Flow Rate Guide

The table below is intended as a guide to assist in the process of specifying a booster set.

As so many factors affect the required flow rate, professional confirmation is necessary. To calculate the likely peak demand, the table below shows actual flow requirements for each appliance and the likely simultaneous demand in low usage applications, normal domestic situations and higher usage. A suggested design flow rate can be established by multiplying the number of appliances by the flow figure in the relevant column.

It is important to note that there are instances where a different column must be used for a particular appliance. A sports club, for example, may need all of the showers running at once, so the figure used would be the actual flow requirement multiplied by the number of showers installed.

LOW USAGE
Care home for elderly persons, offices.

DOMESTIC USAGE
Individual private residences, infant schools.

COMMERCIAL USAGE
Hotels, student accommodation, apartments.

CALCULATING FLOW RATE DESIGN DUTY

Number of appliances × **Flow figure** (Low/domestic/commercial) = **Flow rate design duty**

Quantity	Appliance	Actual flow requirement (l/s)	Low frequency usage (l/s)	Domestic frequency usage (l/s)	Commercial frequency usage (l/s)	Peak flow rate design duty (l/s)
	Basin (H&C)	0.15	0.005	0.008	0.017	
	Sink (H&C)	0.20	0.010	0.020	0.040	
	Bath (H&C)	0.30	0.020	0.030	0.070	
	WC	0.10	0.005	0.010	0.020	
	Shower (standard)	0.15	0.010	0.020	0.030	
	Shower (high flow)	0.50	0.040	0.065	0.030	
	Urinal	0.01	0.003	0.003	0.005	
	Bidet	0.08	0.002	0.003	0.004	
	Cleaner's sink (H&C)	0.30	0.003	0.005	0.006	
	Domestic washing machine	0.20	0.007	0.008	0.010	
	Commercial washing machine	0.30	0.020	0.030	0.060	
					Total (l/s)	

IMPORTANT NOTE
When calculating the pressure required, it is critical to allow for the static head and outlet pressure requirements in your calculations.

Know-How

How to read a pump curve.

Reading your curve.

Reading and understanding pump curves is an essential skill for anyone involved in specifying any sort of pump. This article provides a 'quick-start' guide to getting your head around these important pieces of data.

As with any standard line graph, a pump curve has two axes: a horizontal **("X")** and a vertical **("Y")**. On a pump curve, the horizontal **("X")** axis shows the flow rate through the pump and the vertical **("Y")** axis shows the head, which is sometimes referred to as 'pressure'.

The curve indicates the pump's maximum flow rate for any given head value or vice versa. Once you have worked out the maximum flow rate and head required in your application, you will be able to determine whether the pump you are looking at will be capable of satisfying your requirements.

You need to plot two lines: a horizontal line across from your required head value and a vertical line up from your required flow rate value. The point at which these lines intersect is called the **duty point**. Provided that the duty point is below the curve, as in the example above, you can be sure that the pump can satisfy your requirements.

OUR KNOWLEDGE POINT OFFERS MORE ONLINE RESOURCES

dutypoint.com/knowledge-point

Know-How

Net-positive suction head.

The minimum operating values that can be reached at the pump suction end are limited by the onset of cavitation. Cavitation is the formation of vapour-filled cavities within liquids where the pressure is locally reduced to a critical value or where the local pressure is equal to or just below the vapour pressure of the liquid. The vapour-filled cavities flow with the current, and when they reach a higher pressure area, the vapour contained in the cavities condenses.

The cavities collide, generating pressure waves that are transmitted to the walls. These, being subjected to stress cycles, gradually become deformed and yield due to fatigue. This phenomenon, characterised by a metallic noise produced by the hammering on the pipe walls, is called incipient cavitation.

The damage caused by cavitation may be magnified by electrochemical corrosion and a local rise in temperature due to the plastic deformation of the walls. The materials that offer the highest resistance to heat and corrosion are alloy steels, especially austenitic steel. The conditions that trigger cavitation may be assessed by calculating the total net suction head, referred to in technical literature with the code NPSH (Net-Positive Suction Head).

The NPSH represents the total energy (expressed in metres) of the liquid measured at suction under conditions of incipient cavitation, excluding the vapour pressure (expressed in metres) that the liquid has at the pump inlet.

To find the static height h_z at which to install the machine under safe conditions, the following formula must be verified:

$$h_p + h_z \geq (NPSHr + 0.5) + h_f + h_{pv}$$

Where:

h_p is the absolute pressure applied to the free liquid surface in the suction tank, expressed in metres of liquid; h_p is the quotient between the barometric pressure and the specific weight of the liquid.

h_z is the difference in height between the pump axis and the free liquid surface in the suction tank, expressed in metres; h_z is negative when the liquid level is lower than the pump axis.

h_f is the friction loss in the suction line and its accessories, such as fittings, foot valve, gate valve, elbows, etc.

h_{pv} is the vapour pressure of the liquid at the operating temperature expressed in metres of liquid. h_{pv} is the quotient between the p_v vapour pressure and the liquid's specific weight. 0.5 is the safety factor.

KNOW-HOW
NET-POSITIVE SUCTION HEAD

Know-How

The maximum possible suction head for installation depends on the value of the atmospheric pressure (i.e. the elevation above sea level at which the pump is installed) and the temperature of the liquid.

To help the user understand the influence of water temperature and elevation, the following tables show the drop in hydraulic pressure head in relation to the elevation above sea level and the suction loss in relation to temperature.

Water temp. °C	20	30	40	50	60	70	80	90	100
Suction loss (m)	0.1	1.0	2.3	3.6	6.3	10.5	15.5	23	33.5

Elevation above sea level (m)	500	1000	1500	2000	2500	3000
Suction loss (m)	0.55	1.1	1.65	2.2	2.75	3.3

Friction loss must be calculated using a recognised formula. To reduce it to a minimum, especially in cases of high suction head (over 4-5 m) or within the operating limits with high delivery values, we recommend using a suction line with a larger diameter than that of the pump's suction inlet.

It is always good to position the pump as close as possible to the liquid to be pumped.

Make the following calculation:

Liquid: Water at ~ 15°C, g = 1 kg/dm³

Delivery required: 30 m³/h

Head for required delivery: 43 m

Suction difference in height: 3.5 m

The selection is a FHE 40-200/75 pump whose NPSH required value is, at 30 m³/h, 2.5 m.

For water at 15°C the h_{pv} term is p_v = 0.174 m (0.01701 bar).

e h = Pa / g = 10.33 m

The h_f friction loss in the suction line with foot vales is 1.2 m.

By substituting the parameters in the formula with the numeric values above, we have:

10.33 + (-3.5) ≥ (2.5 + 0.5) + 1.2 + 0.17

from which we have 6.8 > 4.4.

The relationship is therefore verified.

Know-How

Booster set operating limits (standard versions).

Type of pumped liquids	Water with no gas or aggressive substances
Maximum pumped liquid temperature	+35°C for domestic uses (EN 60335-2-41)
Minimum pumped liquid temperature	1°C to avoid icing
Operating ambient temperature	+5°C at 40°C
Relative humidity	Max 50% at 40°C
Air impurities	The air must be clean and free of acid vapours, corrosive gases and excessive amounts of dust.
Storage temperature	+5°C to 40°C
Suction conditions	Minimum positive pressure 0.1 bar. Max. 0.5 bar

Conversion factors.

FLOW RATE

l/min ÷ 60 = l/sec
m^3/hour ÷ 3.6 = l/sec
GPM ÷ 13.2 = l/sec
kg/sec = l/sec

PRESSURE

m Hd ÷ 10.2 = bar
PSI ÷ 14.47 = bar
kPa ÷ 100 = bar
kg/cm^2 ÷ 10.2 = bar

Figures are given for clean cold water.

Variable-speed flow, head and power calculations.

FLOW RATE

$$\text{Flow rate at reduced speed} = \frac{\text{Reduced speed}}{\text{Full speed}} \times \text{Flow rate at full speed}$$

HEAD

$$\text{Head at reduced speed} = \left(\frac{\text{Reduced speed}}{\text{Full speed}}\right)^2 \times \text{Head at full speed}$$

POWER

$$\text{Power at reduced speed} = \left(\frac{\text{Reduced speed}}{\text{Full speed}}\right)^3 \times \text{Power at full speed}$$

PERFORM UNIT CONVERSIONS INSTANTLY ONLINE.

dutypoint.com/knowledge-point

Know-How

Conversions.

TO CONVERT TO LITRES/SEC

iGPM	x 0.0757
m^3/hr	x 0.278
m^3/min	x 16.68
Metric tonnes/hr	x 0.278 ÷ S.G.
Litres/min	x 0.0167
Kilogrammes/hr	x 0.000278 ÷ S.G.
USGPM	x 0.063
Cubic feet/sec	x 28.3
Cubic feet/min	x 0.47
British tons/hr	x 0.282 ÷ S.G.
British barrels/hr	x 0.453

TO CONVERT TO M^3/HR

iGPM	x 0.273
Litres/sec	x 3.6
Litres/min	x 0.06
Metric tonnes/hr	x 1 ÷ S.G.
m^3/min	x 60
Kilogrammes/hr	x 0.001 ÷ S.G.
Kilogrammes/sec	x 3.6 ÷ S.G.
USGPM	x 0.227
Cubic feet/sec	x 102
Cubic feet/min	x 1.7
British tons/hr	x 1.015 ÷ S.G.
British barrels/hr	x 0.163

Pumping head conversions.

TO CONVERT TO METRES

Feet	x 0.305
kg/cm^2	x 10 ÷ S.G.
PSI	x 0.704 ÷ S.G.
Inches Hg	x 0.345 ÷ S.G.
cm Hg	x 0.1362 ÷ S.G.
Atmospheres	x 10.35 ÷ S.G.
KN/m2 (KPa)	x 0.102 ÷ S.G.
Bar	x 10.2 ÷ S.G.

Power conversions.

TO CONVERT TO KILOWATTS

Horsepower	x 0.746

TO CONVERT TO HP

Kilowatts	÷ 0.746

$$\text{KW} = \frac{m^3/hr \times \text{total head in metres} \times \text{S.G.}}{367.87 \times \text{pump efficiency}}$$

$$\text{BHP} = \frac{\text{IMP.GPM} \times \text{total head in ft} \times \text{S.G.} \times 10}{33{,}000 \times \text{pump efficiency}}$$

Know-How

How to size a cold-water break tank.

Introduction: When should you use a break tank?

Break tanks are used in pressure boosting water systems to supply sufficient net-positive suction head (NPSH) to a pump in situations where mains water pressure is not sufficient to supply the requirements of the system. Break tanks typically feature an air gap between the inlet and maximum water level to prevent backflow.

Please note that some of the guidance in this article is based on BS EN 806 Part 2. Any further recommendations are for guidance only and should always be checked by a qualified mechanical, public health or building services engineer, as the requirements of different projects can vary greatly.

There are two primary considerations in determining the size of a break tank. Firstly, the use and occupancy of the building should be considered. For example, a hotel requires more water storage per bed space than a hostel.

1. Building type and use

The table shows the recommended minimum storage levels for each type of premises.

The likely peak occupancy of the building should be considered when making this calculation. When sizing for a domestic building, a standard property should be sized as a hostel; storage of 90 litres per person is sufficient for most installations. High-end properties may require additional storage.

Step 2 continued on next page.

Type of building	Minimum storage (L)
Hostel	90 per bed space
Hotel	200 per bed space
Office with canteen	45 per employee
Office without canteen	40 per employee
Restaurant	7 per meal
Day school (nursery/primary)	15 per pupil
Day school (secondary/technical)	20 per pupil
Boarding school	90 per pupil
Children's home/residential nursery	135 per bed space
Nurse's home	120 per bed space
Nursing or convalescent home	35 per bed space

KNOW-HOW
HOW TO SIZE A COLD WATER BREAK TANK

Know-How

2. Timed storage

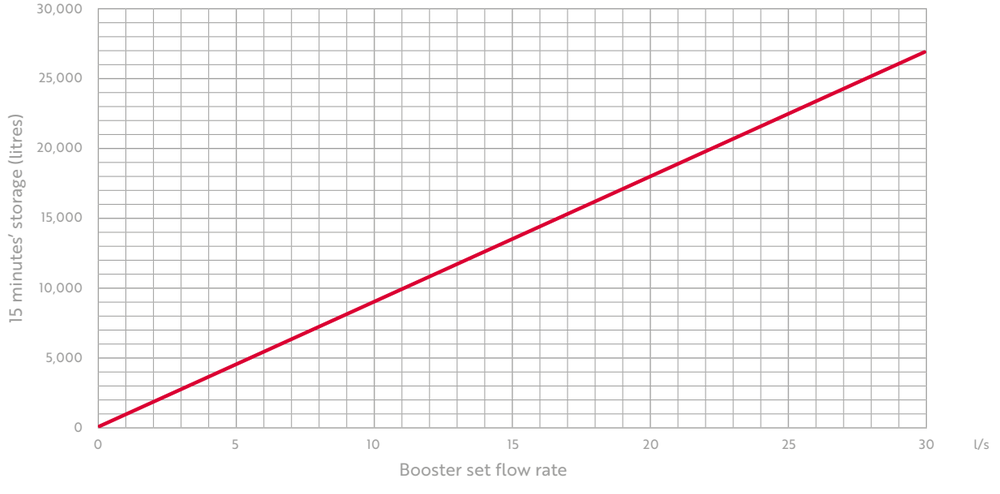
Secondly, the expected peak flow rate of the premises should be considered. The peak flow is calculated when sizing the booster set. In determining the peak flow rate, we must consider how much water storage must be provided to facilitate this flow rate.

Dutypoint recommends that a minimum of 15 minutes' storage, according to the peak flow rate of the booster set, should be provided in a booster set break tank within a commercial installation. For example, a booster set with a peak design flow rate of 1.1 litres/second or 66 litres/minute requires a break tank with a capacity of at least 990 litres.

Other factors such as the tank inlet flow rate and the usage patterns of the building should be taken into account; buildings with a poor rate of mains water supply will require greater storage. The siting of the break tank will also influence this. A tank on the ground floor of a building will fill at a higher rate than a tank on an upper floor or in the roof space. Siting a tank in the roof space of a building is likely to necessitate a larger storage volume.

The following graph shows the minimum storage required for a range of booster set peak flow rates:

Dutypoint recommends that a minimum of 15 minutes' storage, according to the peak flow rate of the booster set, should be provided in a cold-water break tank.



Know-How

Flange tables.

Flanges are used to connect valves into pipework, making maintenance and removal easier. Their standards vary worldwide and can not always be interchangeable. The tables below show PN flange dimensions to help you identify the standards that you have.

FLANGE DIMENSIONS

Nominal pressure	Flange diameter (mm)	PCD (mm)	No. of bolt holes	Diameter of bolts	Diameter of holes (mm)	Diameter of raised face (mm)	Height of raised face (mm)
½" nominal bore (DN15)							
PN6	80	55	4	M10	11	40	2
PN10	95	65	4	M12	14	45	2
PN16	95	65	4	M12	14	45	2
PN25	95	65	4	M12	14	45	2
¾" nominal bore (DN20)							
PN6	90	65	4	M10	11	50	2
PN10	105	75	4	M12	14	58	2
PN16	105	75	4	M12	14	58	2
PN25	105	75	4	M12	14	58	2
1" nominal bore (DN25)							
PN6	100	75	4	M10	11	60	2
PN10	115	85	4	M12	14	68	2
PN16	115	85	4	M12	14	68	2
PN25	115	85	4	M12	14	68	2
1 ¼" nominal bore (DN32)							
PN6	120	90	4	M12	14	70	2
PN10	140	100	4	M16	18	78	2
PN16	140	100	4	M16	18	78	2
PN25	140	100	4	M16	18	78	2
1 ½" nominal bore (DN40)							
PN6	130	100	4	M12	14	80	3
PN10	150	110	4	M16	18	88	3
PN16	150	110	4	M16	18	88	3
PN25	150	110	4	M16	18	88	3
2" nominal bore (DN50)							
PN6	140	110	4	M12	14	90	3
PN10	165	125	4	M16	18	102	3
PN16	165	125	4	M16	18	102	3
PN25	165	125	4	M16	18	102	3

Continued on next page.

KNOW-HOW
FLANGE TABLES

Know-How

FLANGE DIMENSIONS

Nominal pressure	Flange diameter (mm)	PCD (mm)	No. of bolt holes	Diameter of bolts	Diameter of holes (mm)	Diameter of raised face (mm)	Height of raised face (mm)
2 ½" nominal bore (DN65)							
PN6	160	130	4	M14	14	110	3
PN10	185	145	4	M18	18	122	3
PN16	185	145	4	M18	18	122	3
PN25	185	145	8	M18	18	122	3
3" nominal bore (DN80)							
PN6	190	150	4	M16	18	128	3
PN10	200	160	8	M16	18	138	3
PN16	200	160	8	M16	18	138	3
PN25	200	160	8	M16	18	138	3
4" nominal bore (DN100)							
PN6	210	170	4	M16	18	148	3
PN10	220	180	8	M16	18	158	3
PN16	220	180	8	M16	18	158	3
PN25	235	190	8	M20	22	162	3

Our CIBSE-accredited CPD seminars

- Cold-Water Boosting – Sizing & Selection
- Packaged Utility Rooms – Design & Specification
- Modern Underground Packaged Plant Rooms

To discuss our CPD seminars, call us now on 01452 300110 or email enquiries@dutypoint.com

Commissioning, Warranty and Service

Packages for superior performance and absolute peace of mind.

The excellence of our after-sales care sets us apart. We understand the need for expert and reliable support 24/7. This section showcases our innovative commissioning, warranty and service offerings.

CONTENTS

Commissioning & Preventative Servicing

Dutypoint offers a range of packages to ensure that your units are installed correctly and certified before handover of your project.

We have a number of trained engineers who cover all parts of the UK mainland. To arrange a commissioning visit, please email **service@dutypoint.com**

We also offer a range of service packages to cover the routine service requirements of our units. For further information, please contact us on **01452 300110** or email **service@dutypoint.com**

Packaged Pump Stations

Planned preventative maintenance programme.

Our maintenance packages are developed for facilities managers, building owners and occupiers and provide a comprehensive on-site service.

SERVICE VISITS

Equipment must be regularly serviced to ensure a long life.

EVERY SERVICE INCLUDES:

- Visual check of mechanical parts for leaks or other operating issues
- Control system functional check
- Minor adjustments if required
- A full inspection of all mechanical components and controller settings
- Necessary adjustments to the operating parameters to ensure performance and efficiency is optimised
- Provision of a comprehensive service report detailing completed works and recommending remedial works
- Small remedial works if necessary

Planned preventative maintenance for packaged pump stations.

INCLUDED IN EVERY PACKAGE IS:

Planned preventative maintenance
You will receive a major and minor service each year to give you peace of mind that your equipment is running at peak efficiency. 24/7, even when you're not available.

24/7 emergency helpline
Call 24 hours a day, seven days a week for help with any emergency situation or technical query you may have.

Technical support
Access to phone technical support and assistance from qualified engineers.

Package includes	Level of cover		
	Bronze	Silver	Gold
Contract cover	POA	POA	POA
No. of planned service visits	1 per year	2 per year	2 per year
No. of non-planned call-outs	0	0	1
Targeted response time	5 working days	3 working days	24 hours
24/7 emergency helpline	No	Yes	Yes
Parts discount applied	No	10%	20%
Additional non-planned call-outs	POA	POA	POA

PLEASE NOTE

Prices quoted are based on a single pump station that is accessible and serviceable by one engineer (with consideration for safe working practices); larger pump stations will require two engineers at a proportionally higher cost.

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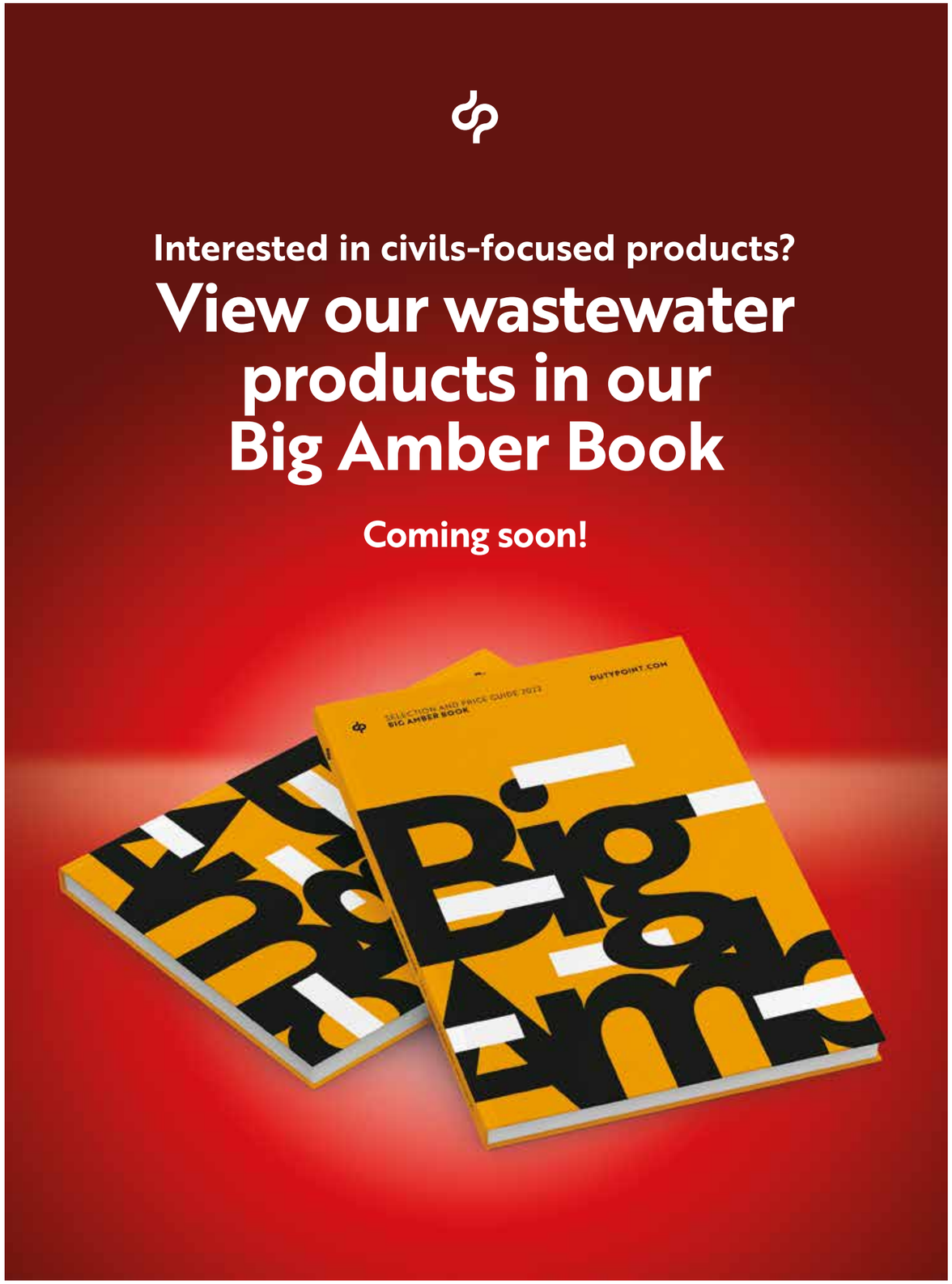

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