



## Domestic Variable Speed Pumps and Systems

meta  
metatank



**THINK OUT OF THE BOX!**



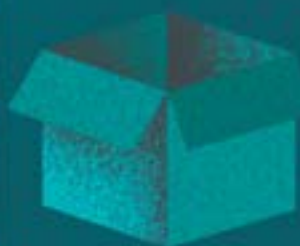
 calpeda®



think outside the box

 e-idos®  
products

mèta





### Construction

Self-priming booster set with built in frequency converter.

MÈTA is a plug and play solution, the pump is equipped with an integrated pressure transducer, an integrated check valve and a built-in pressure vessel.

The VSD controls the start and stop of the pump and allows to keep a constant pressure.

### Boosting sets with 2 pumps

Suction and delivery manifolds in stainless steel AISI 304. Connections are located on the delivery manifold for the installation of one vessel G1 connection.

### Applications

For water supply.  
For domestic use, for garden use and irrigation.

### Features

- integrated frequency converter
- built-in pressure vessel
- high efficiency asynchronous motor
- motor power control
- programmable re-start pressure
- no hydraulic losses due to the measuring devices
- voltage and current control
- monitoring of maximum starting current

### Protections

- dry-run protection
- detects the presence of air in the pump casing
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control
- detects small leakages in the system

### Operating conditions

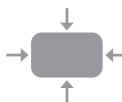
Liquid temperature: 0 °C to +35 °C.  
Ambient temperature up to +40 °C.  
Maximum permissible pressure in the pump casing: 8 bar.  
Continuous duty.



**EASY TO INSTALL**  
Plug And Play solution



**ECONOMIC SAVING**  
High efficiency asynchronous motor



**EASY TO USE**  
Equipped with a programmable software and, thanks to the analogic pressure sensor, the product allows to set the restart pressure.

### Materials

Component	Material
Pump casing	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Casing cover	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Pump Shaft	Cr-Ni steel 1.4305 EN 10088 (AISI 303)
Suction casing	PPO-GF20 (Noryl)
Stage casing	PPO-GF20 (Noryl)
Impeller	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Membrane	Butyl
Tank cover	POM - POLYACETAL
Membrane cap	POM - POLYACETAL
Non-return valve	POM - POLYACETAL
Plug	Cr-Ni steel 1.4305 EN 10088 (AISI 303)
Mechanical seal	Carbon - Ceramic - NBR

### Motor

2-pole induction motor.  
Nominal speed 4500 rpm (5800 rpm per MÈTA SMALL)  
Motor: variable speed  
Frequency: 50 Hz  
Single-phase 220-240V~50Hz/220V~60Hz, with thermal protector.  
Cable: H07RN8-F, 3G1,5 mm<sup>2</sup>, length 1,5 m, with plug CEIUNEL 47166.  
Insulation class F.  
Protection IP X4.  
Constructed in accordance with: EN 60034-1;  
EN 60335-1, EN 60335-2-41.

### Performance

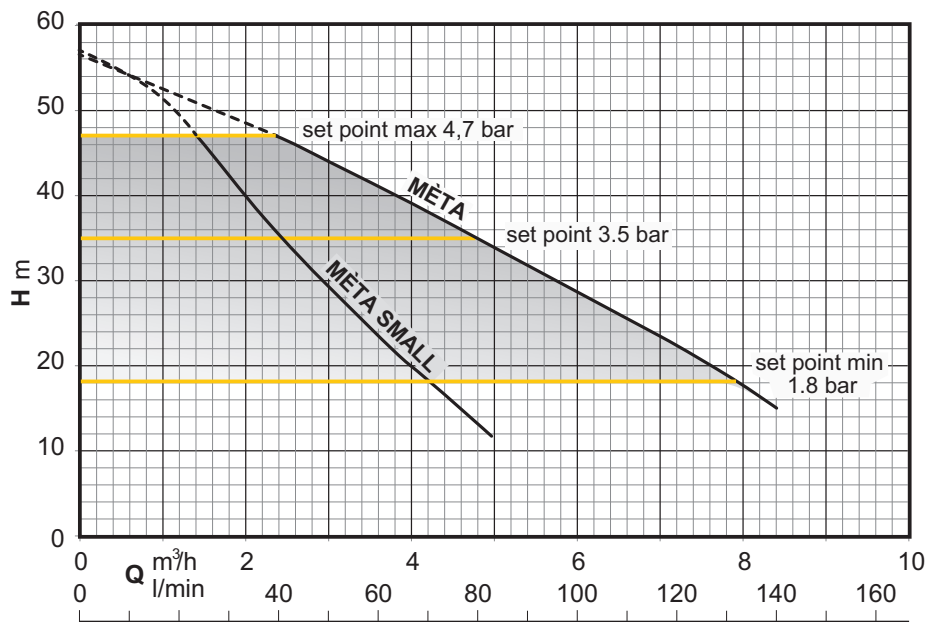
1~	230 V A	P <sub>1</sub> kW	Q m <sup>3</sup> /h l/min	0	1	2	3	4	5	6	6,5	7	8	8,4
				0	33,3	33,3	50	66,6	83,5	100	108,3	116	133	140
MÈTA SMALL	2,8	0,65	H m	57	51,5	39,7	29,1	19,7	11,3					
MÈTA	5,9	1,35		55		48	43,5	38,7	33,8	28,6	26	23,4	18,2	15

P<sub>1</sub> Max. power input.

Test results with clean cold water, without gas content.

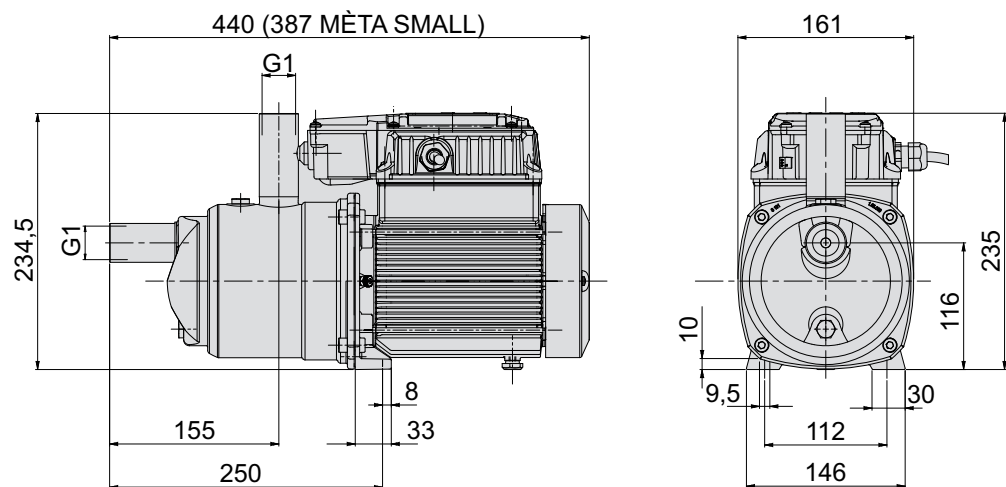
Tolerances according to UNI EN ISO 9906:2012

### Characteristic curves



### Dimensions and weights

Net weight  
 MÈTA 12,7 kg  
 MÈTA SMALL 10 kg  
 With cable length: 1,5 m



### Performance $n \approx 4500$ rpm

1 ~	230 V	P <sub>1</sub>	Q	0	4	6	8	10	12	13	14	16	16,8
				m <sup>3</sup> /h	l/min	0	66,6	100	133,2	166,6	200	216,6	233,3
<b>BSM2V 2MÉTA</b>	5,9x2	1,35x2	<b>H m</b>	55	48	43,5	38,7	33,8	28,6	26	23,4	18,2	15

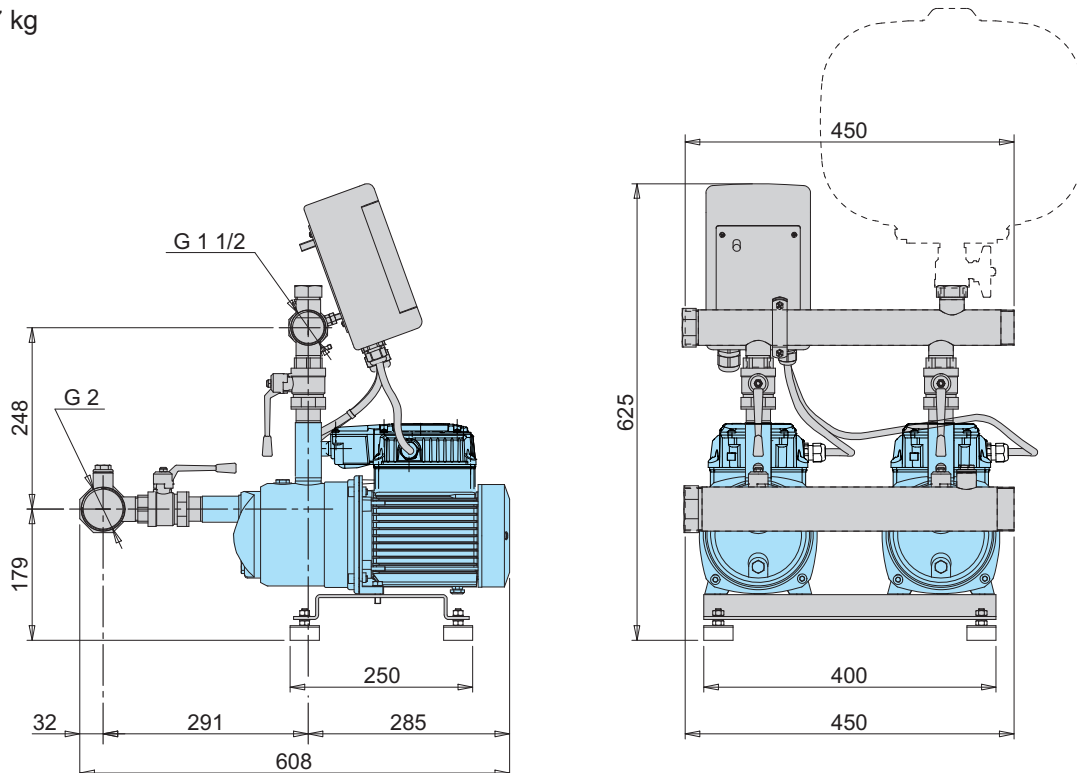
P<sub>1</sub> Max. power input.

Test results with clean cold water, without gas content.

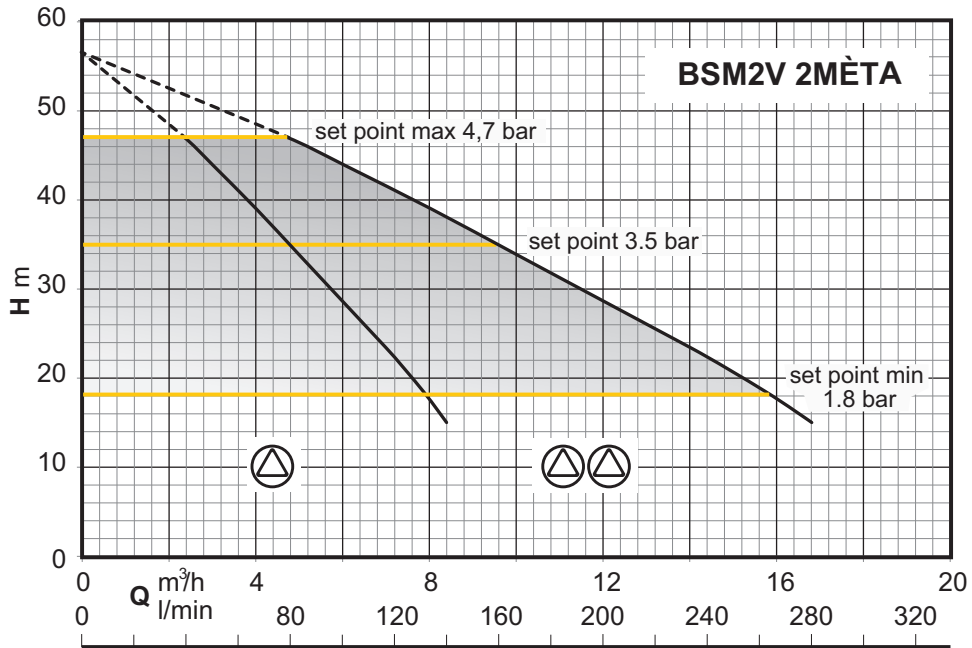
Tolerances according to UNI EN ISO 9906:2012

### Dimensions and weights

Net weight 37 kg



Characteristic curves  $n \approx 4500$  rpm



## Control Panel

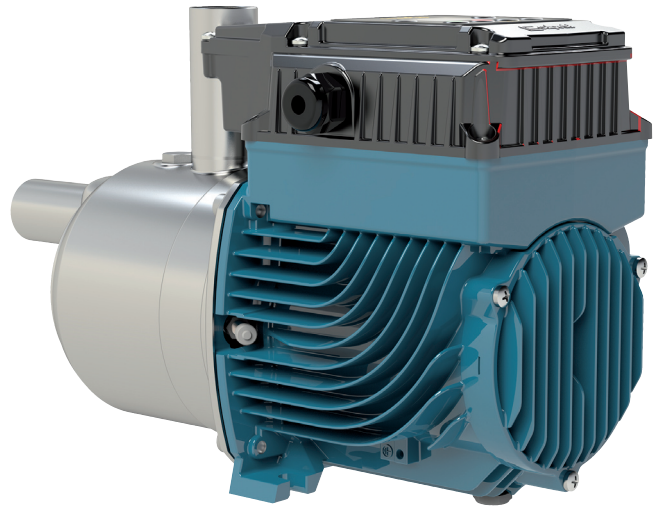


They allow to visualize:

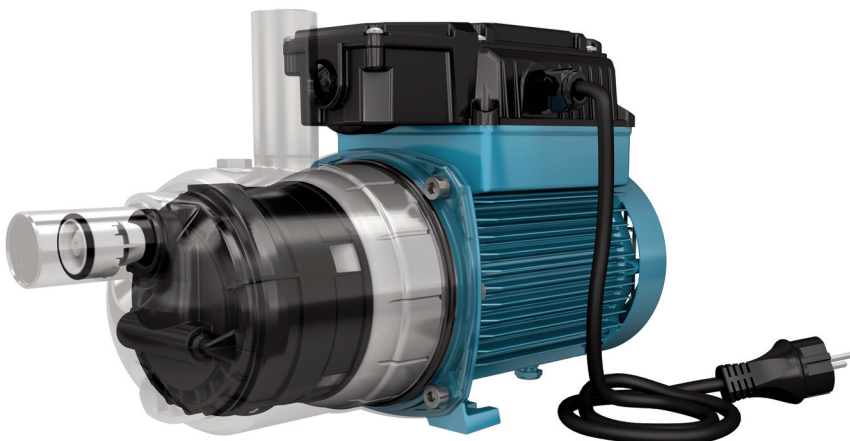
- Initial screen (rUn, OFF, StB, Err)
- Motor Operating Frequency
- Delivery pressure measured by the transducer
- Supply current input
- Supply electrical power input
- Supply voltage

## mèta small

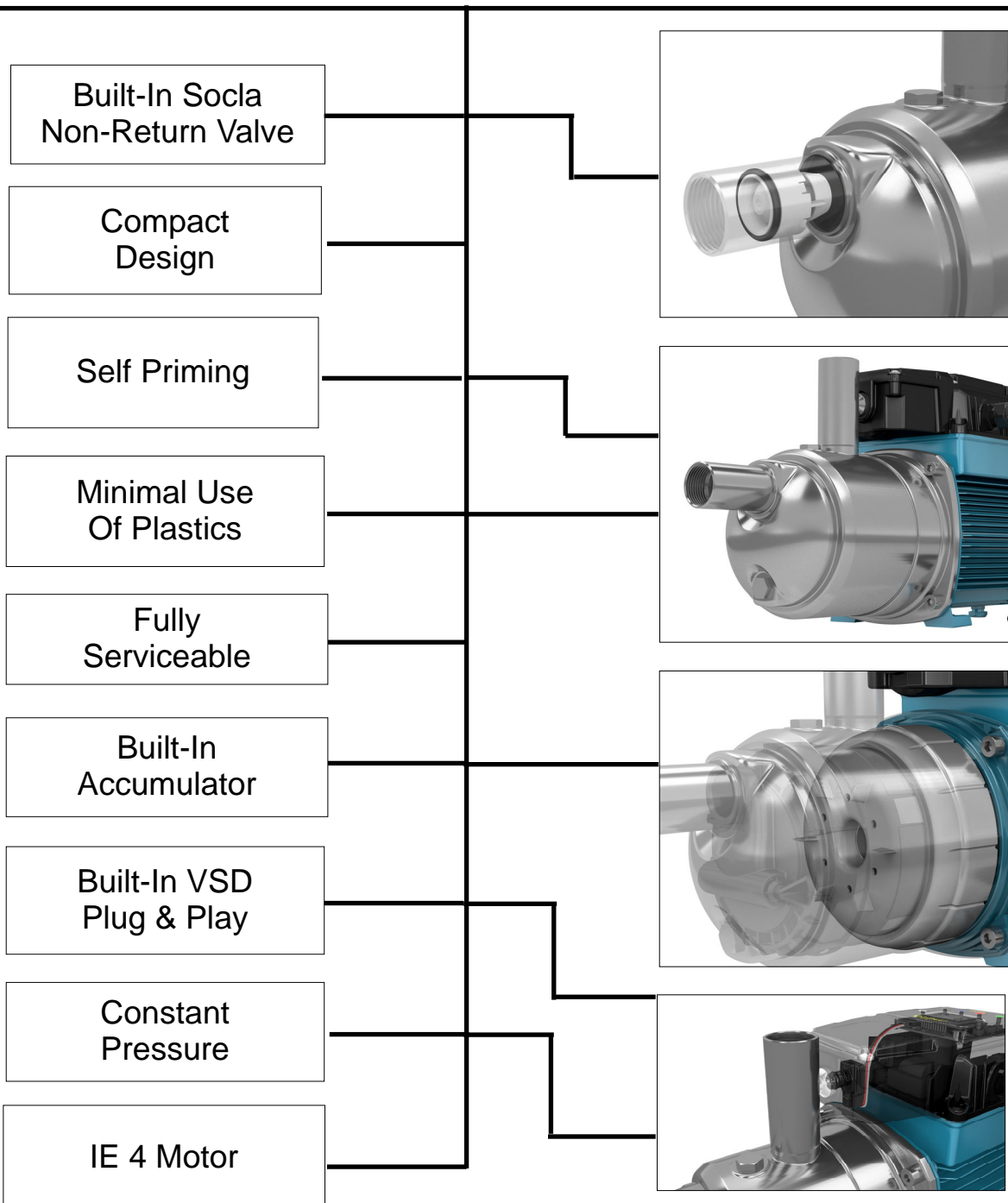
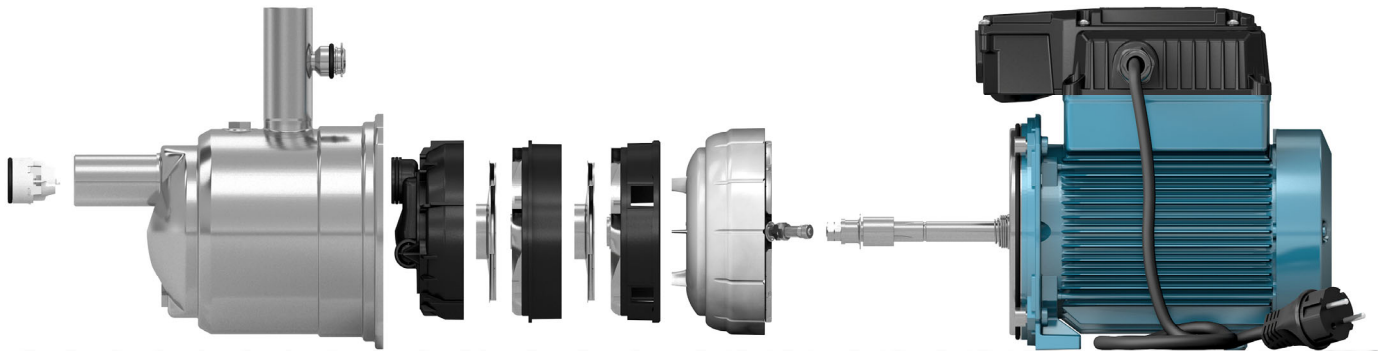
new design without cooling fan



**think outside the box**



# mèta features



simple &  
intuitive

visualise

initial screen rUn OFF Stb Err  
operation frequency  
delivery pressure  
current input  
power input  
supply voltage

protect

dry run  
self-prime detect  
air in casing  
leakage  
starts per hour  
pump locked  
supply control



# mètà tank

Metatank: Model 1L-250

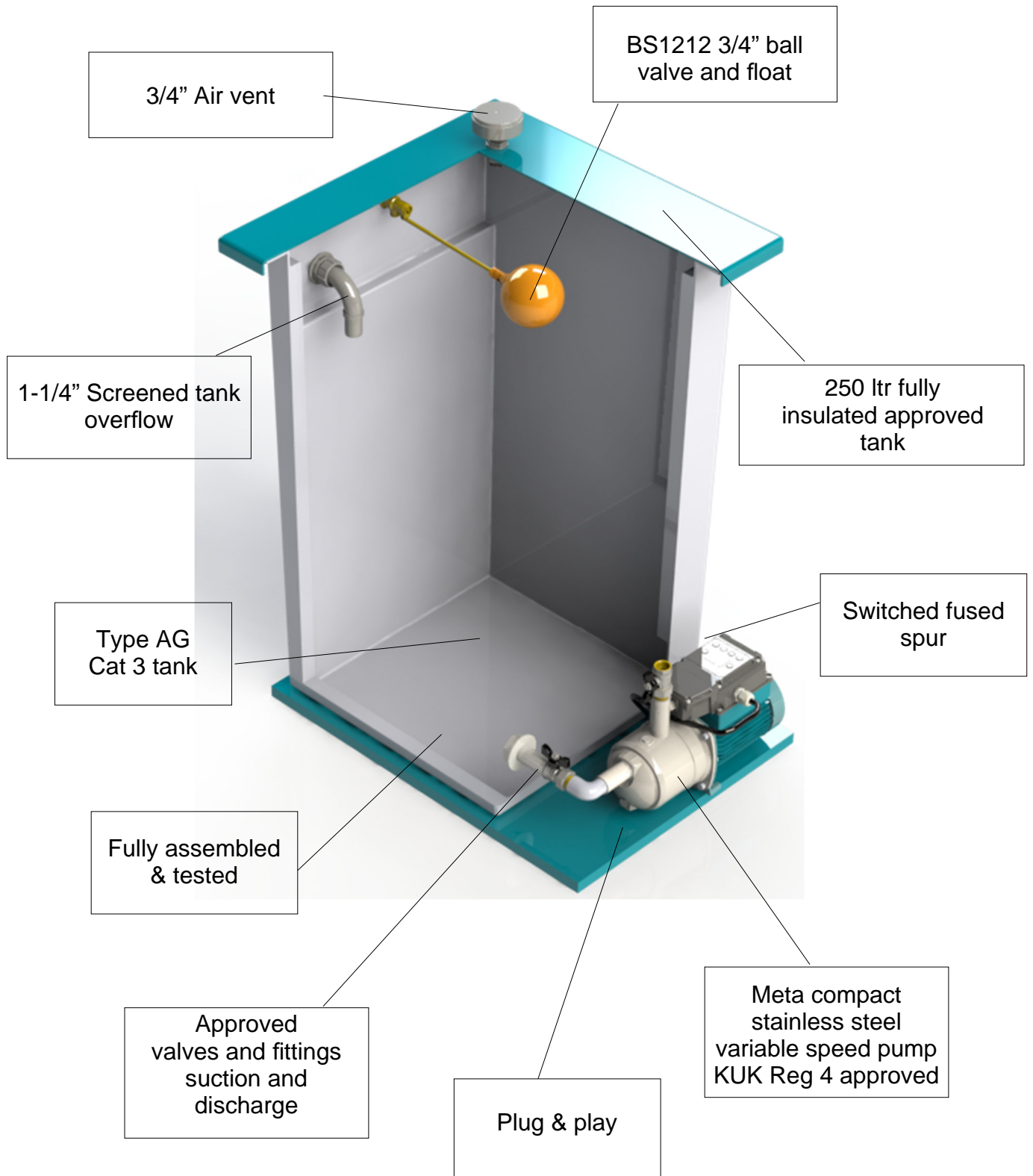
Metatank is a great new concept in domestic water supply. Based around the Meta range of super efficient multistage, self priming pumps, the packaged 250 ltr pump and tank set raises the bar in constant pressure, variable speed pumping. The tank is fully compliant with potable water, being fully insulated, type AG category 3. The sets are delivered fully assembled and tested saving on valuable site installation time and are fully wired to a switched fused spur, so just three on-site connections are required, water in to the 3/4" ball/float valve, water out from the 1" isolating valve to the system and a single phase power connection to the pre-installed spur. We pre-program the sets to the pump characteristics but re-programming is easy and fast.

These very competitively priced sets save time, money and energy, they are compact, completely serviceable and feature a 3 year guarantee.

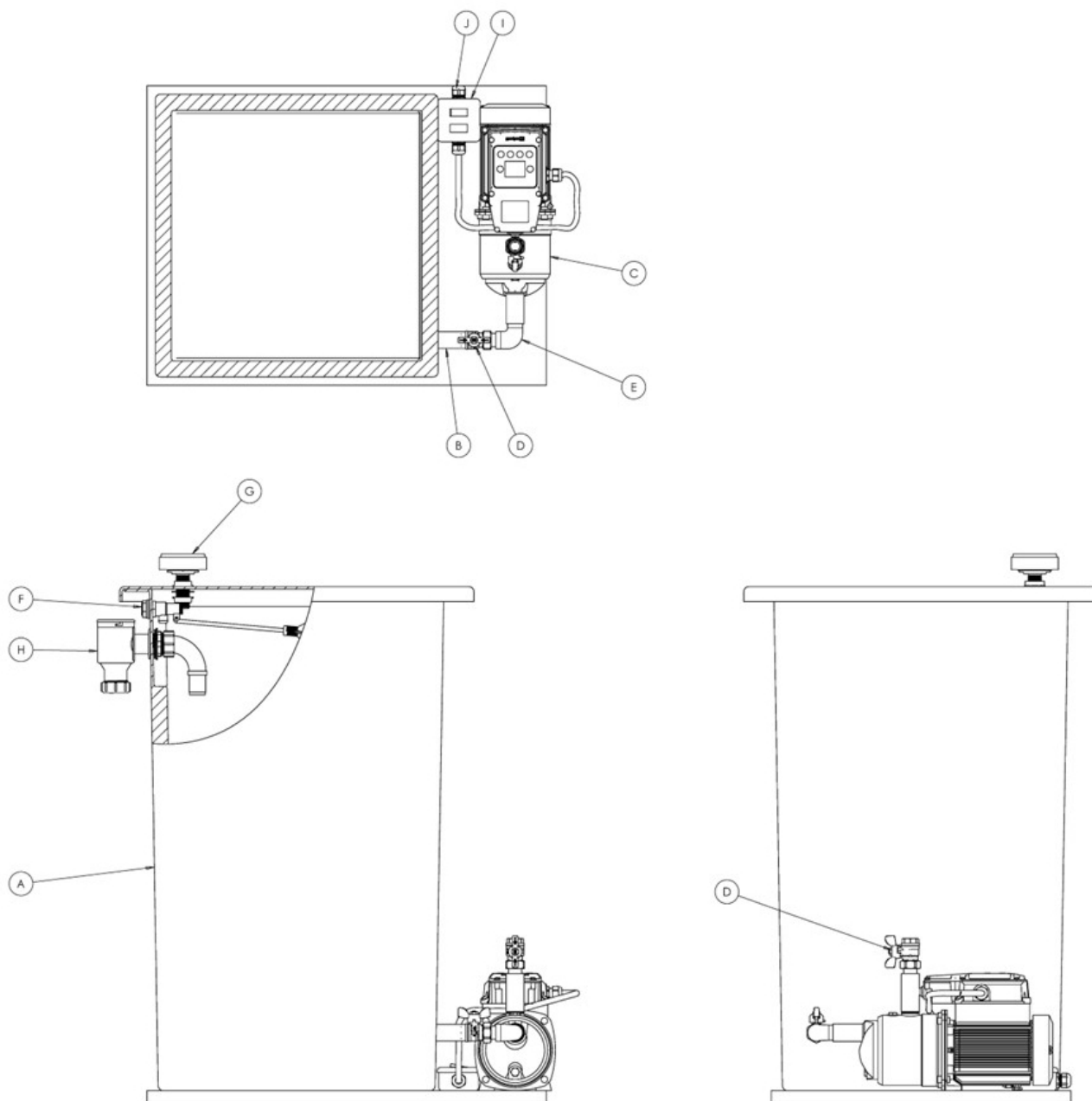
The Meta L set is capable of supplying water to a typical 3 or 4 bedroom house with constant water pressure of 3 bar.

*Installation, commissioning and servicing should be carried out as per with the manufacturers guidelines, by qualified personnel, in-line with local regulations.*

# meta tank



# metatank



Item	Qty	Part/Description
A	1	250 Ltr (Nominal) Tank, Base & Lid
B	1	Hansen Nylon Tank Connector
C	1	Meta L 230/1/50 Pump, Motor and Drive
D	1	1" BSP Union Ball Valve
E	1	1" BSP M/F Stainless Steel Elbow
F	1	1" 3/4" Ball/Float Valve
G	1	3/4" McAlpine R31 Tank Breather
H	1	1-1/4" McAlpine R40 Screened Tank Overflow
I	1	13A Fused Spur with Switch

# mètà tank

