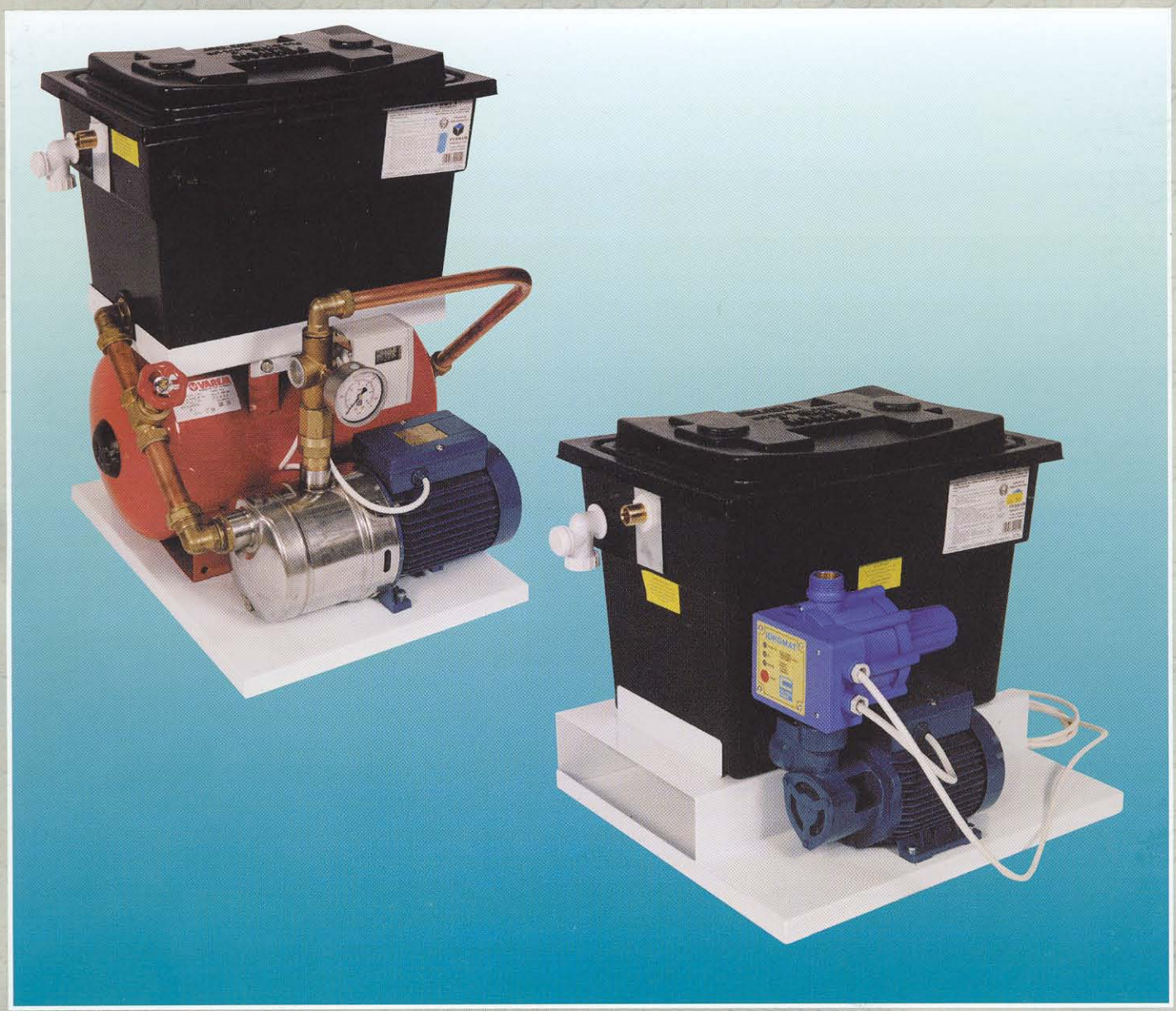
AGAP & MEDIGAP SYSTEMS



calpeda pumps

COMPLIANCE STATEMENT

Water Supply (Water Fittings) Regulations 1999

Ref: Calpeda Pump and Breaktank Units

Applications

Consisting of Bronze or Stainless Steel Pump with an automatic control system on a mild steel base with a cold water storage cistern. The unit is designed to prevent backflow of possible contaminated water into the mains water system, whilst maintaining a pressurised cold water supply to the network equipment.

Areas of Installation

The Calpeda AGAP and Medigap automatic pump system with cistern is designed to meet the requirements of the water supply (water fittings) regulations 1999 in respect of a type AB air gap at the point of use or discharge of 'quality non-domestic water'.

Construction

The cistern is designed to provide backflow prevention of potentially contaminated fluid within the cistern to the level of fluid category 5 which under the requirement of Regulation 4 (schedule 2) accepts protection via a type AB air gap. It is constructed to BS6281 Part 1:1992 and incorporates a lid, screened weir and warning pipe complying with Section 5.3 and 5.5 of British Standards 7181.

On larger systems with system capacities greater than 17.5 lts, an isolating valve is fitted between the pump and cistern to conserve water during maintenance.

Installation Notes

1. A servicing valve with a relevant BSI kite mark, CE mark or WRAS approval must be fitted in the cistern water supply pipe prior to the float operated valve in accordance with regulation 4 (schedule 2).

2. Regulation 5 advises that notification may be needed to the water undertaker if any pump or booster drawing more than 12 litres per minute is connected directly or indirectly to a supply pipe.

Medigap System (Legislation Up-date)

The 'Medigap' has been technically designed to feed water to up to three dentist chairs. The system incorporates a type AB air gap conforming to the above stated legislation and to date has been accepted by all water inspectors who have been involved with the unit and its installation.

One section of the current legislation deals with 'point of use'. As the manufacturer of the unit, this section is largely outside our jurisdiction. Some water inspectors have however interpreted this matter to mean that the potential for cross contamination between dentist chairs may exist, and that therefore each chair must have it's own Medigap unit and must not supply any other service.

We would suggest that you take up this matter with the inspector involved prior to installing the Medigap unit or ensure that each chair is fitted with it's own individual unit in every case.

For and behalf of Calpeda Limited

AGAP SYSTEMS

Materials

Pumps	Various according to pump model - please contact our technical office for details	
Cistern	Polypropylene	
Valve	Brass with Plastic Float	
Base	Powder Coated Mild Steel	
Fittings	Brass	
Idromat	Housing	Nylon
	Membrane	Nitrile
	Sensor	Brass

Electrical

Motor	2 - pole, TEFV
Single Phase	230V, 50hz
Three Phase	230/400V 50hz
Insulation	Class F
Protection	Min. IP54
Standards	IEC34
Safety	IEC335-1 (EN60 335-1)

Three phase units fully wired to control box - 4 wire 3ph incoming lead (by other)

Electrical Connection (fig.1)

Single Phase

Supply via fused spur (by other) to Idromat controller. (See instruction manual)

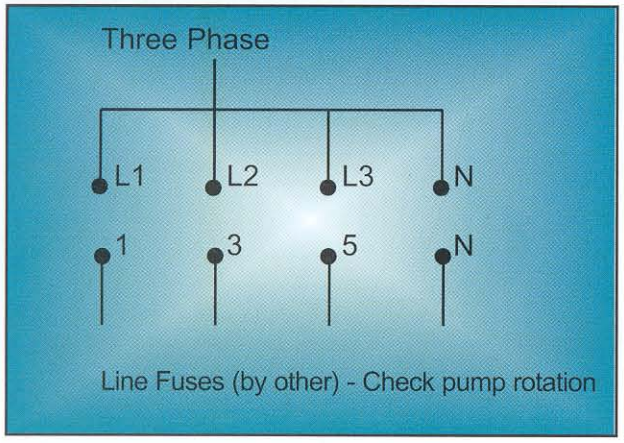
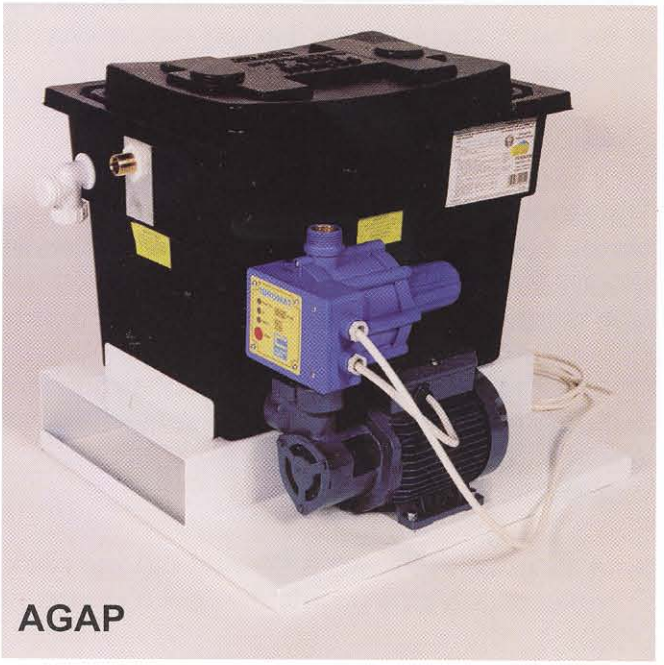


Fig 1



IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN

Three phase systems must be used in conjunction with our control box. The Idromat controller should only be connected to a 230V single phase supply. Max. FLC for Idromat is 10A, Max starting Current is 25A

Warranty
One year (as per our standard terms and conditions of sale).

Performance Data

3-	230	400	1-	230		Q											
	A	A		A	kW	m^3/hr	0.38	0.48	0.6	0.75	1	1.2	1.5	1.89	2.4	3	3.6
BT61E	1.9	1.1	BTm61E	2.5	0.33	H(m)	38	36	34	31	28	24	19	12	5		
BT70E	3.7	2.2	BTm70E	6	0.75			59	57	55	51	48	43	38	30	22	10

Performance curves available from our technical sales office

Performance Data (continued)

3-	230	400	1-	230	P1	P2		Q									
	A	A		A	kW	kW	HP	m^3/hr	0	1	1.5	2	2.5	3	3.5	4	4.25
MXH203E	2.4	1.4	MXHm203E	3	0.65	0.45	0.6		33	31	29	27	24	21	18	14	12
MXH204E	2.8	1.6	MXHm204E	4.2	0.9	0.55	0.75	H(m)	45	42	40	37	34	30	25	21	18
MXH205E	3.5	2	MXHm205E	5.4	1.2	0.75	1		57	53	50	47	43	38	32	26	23

Performance Curves available from our technical sales office

Installation Data

All electrical connections should be made as per fig.1. DO NOT SWITCH ON POWER SUPPLY UNTIL INSTALLATION PIPE-WORK IS MADE AND CISTERN IS FULL OF WATER.

Fig.2 refers

A Water outlet 1" BSPm

B Cistern Water Supply

C Warning Pipe - 22mm compression. Note the purpose of this connection is to warn of a potential cistern overflow condition. We therefore advise that the pipe-work from the overflow should be located so as to visually alert personnel should overflow occur.

D Optional wall mount brackets. We advise the brackets be fixed to the wall with 6mm wall bolts. Mark holes as per template. The AGAP system is then attached to the brackets with 4 x M6 bolts via the holes and hank bushes provided. Wall mount brackets are only available for BT61EAGAP118 and BT61EAGAP318 systems

IMPORTANT - The main weir E is provided to meet with the type AB air gap requirements. It is important that this overflow is never restricted. It is also important to consider the implications of water spilling through the weir/s - keep away from electrical installations or other sensitive areas

IDROMAT OPERATION - The Idromat flow and pressure controller is fitted to operate the pump automatically on demand. Once installation is complete, switch on the power supply. Assuming the discharge line is closed the pump will run for a short period to fill the system. Open the discharge line slowly to establish flow and release air. If flow is not quickly established depress the reset button F for a few seconds, if still no flow is present you may need to prime the pump (see pump instructions). Remove plug G, release air, reconnect the power and repeat above procedure.

Note: The Idromat will provide dry running protection should the cistern empty. Do not restart the Idromat until the cistern is full. You may need to press the reset button F.

System Status

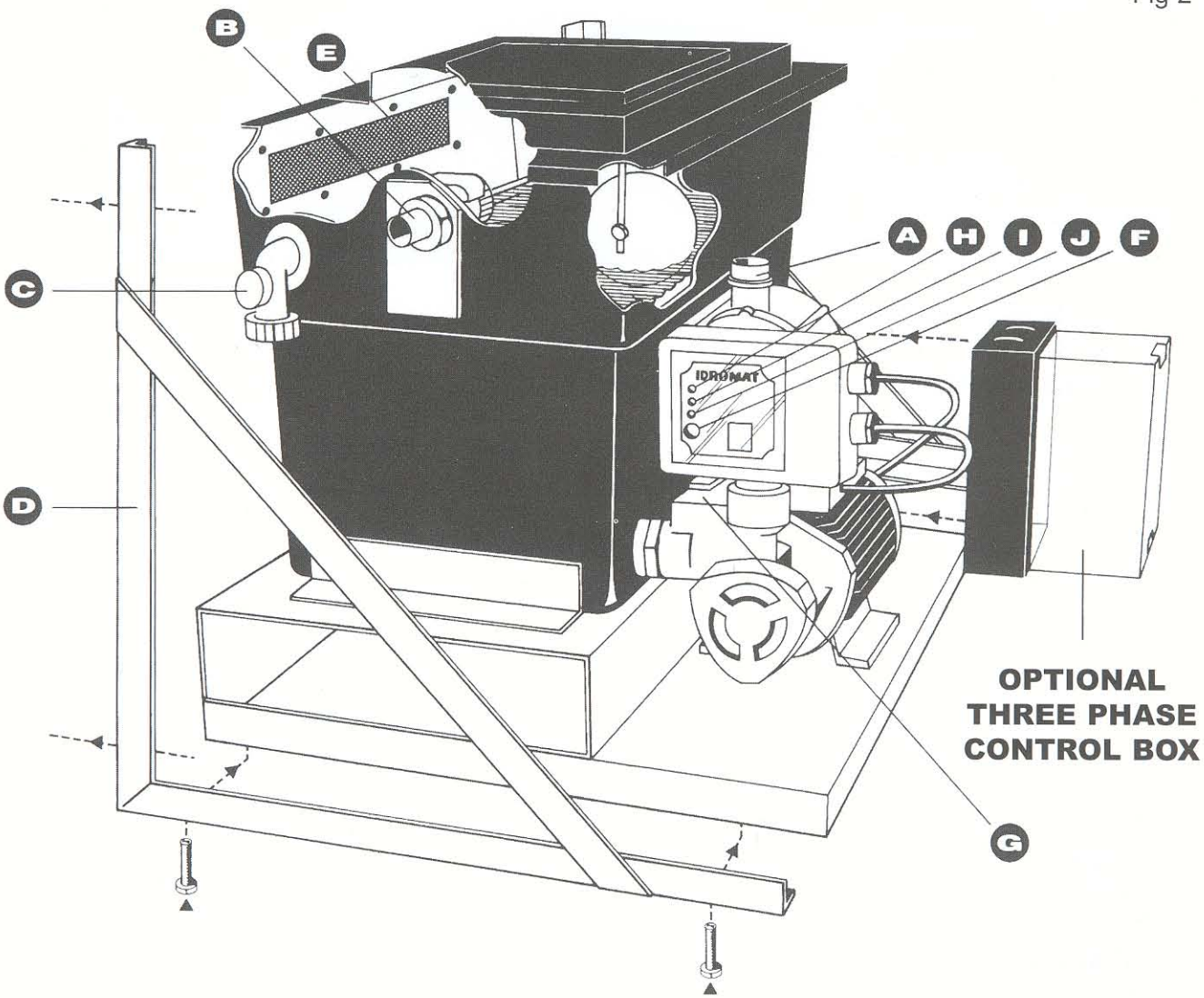
H Power On (Green Light) - Discharge line closed, pump idle, system pressurised.

I On (Yellow Light) - Discharge line open, pump running

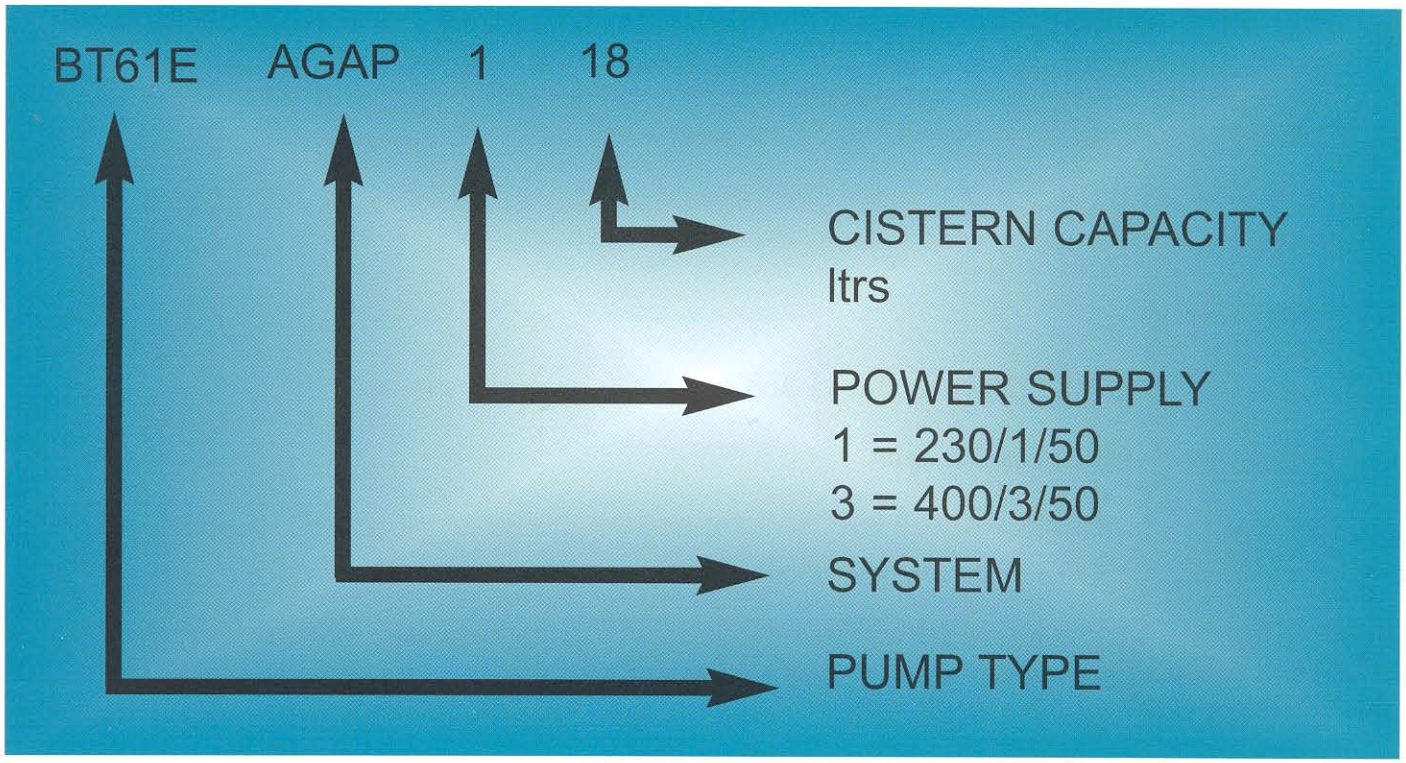
J Failure (Red Light) - If no flow within 8 secs following start-up, idromat will recognise lack of water or closed discharge and stop pump. Reset F may be required

NOTES - For cold water use only. We advise the installation of a throttling valve after the Idromat discharge to facilitate control. It is important that the outgoing flow from the pump does not exceed the incoming flow to the cistern.

Fig 2

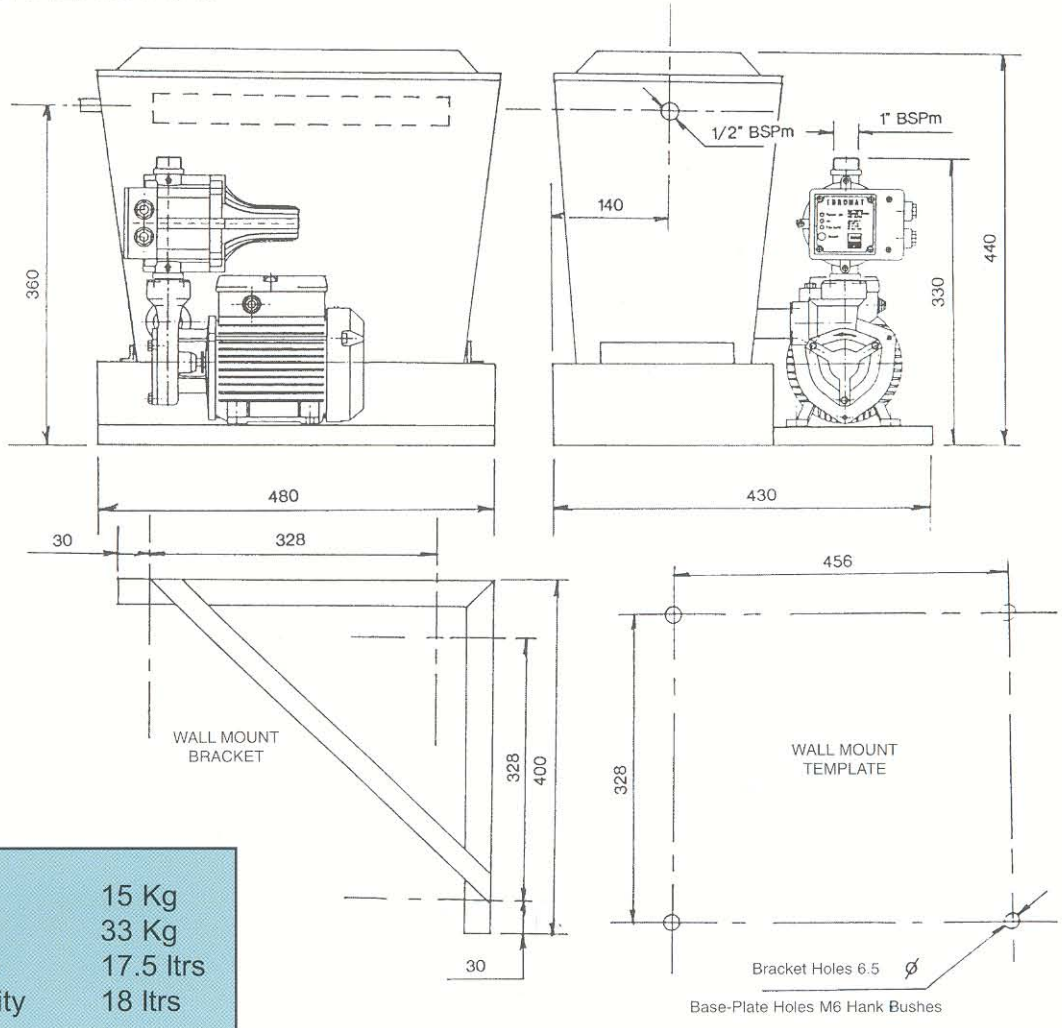


Designation



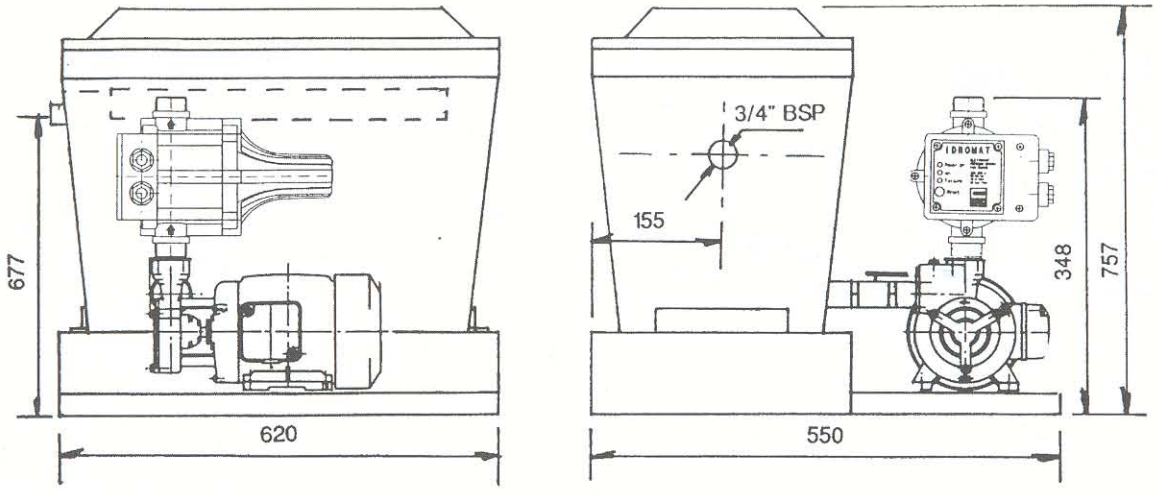
DIMENSIONS

BT61EAGAP118 and BT61EAGAP318



Net Weight	15 Kg
Gross Weight	33 Kg
Actual Cistern Capacity	17.5 ltrs
Nominal Cistern Capacity	18 ltrs

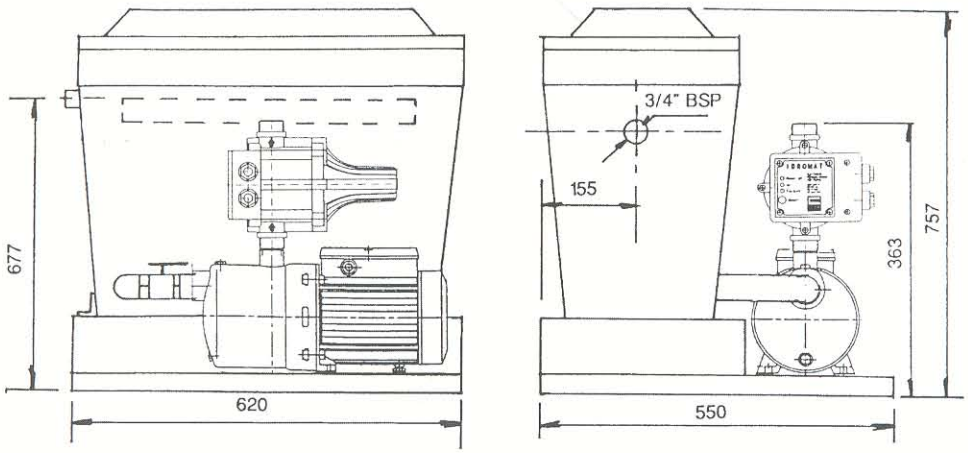
BT70EAGAP168 and BT70EAGAP368



Net Weight	23 Kg
Gross Weight	68 Kg
Actual Cistern Capacity	45 ltrs
Nominal Cistern Capacity	68 ltrs

Dimensions (continued)

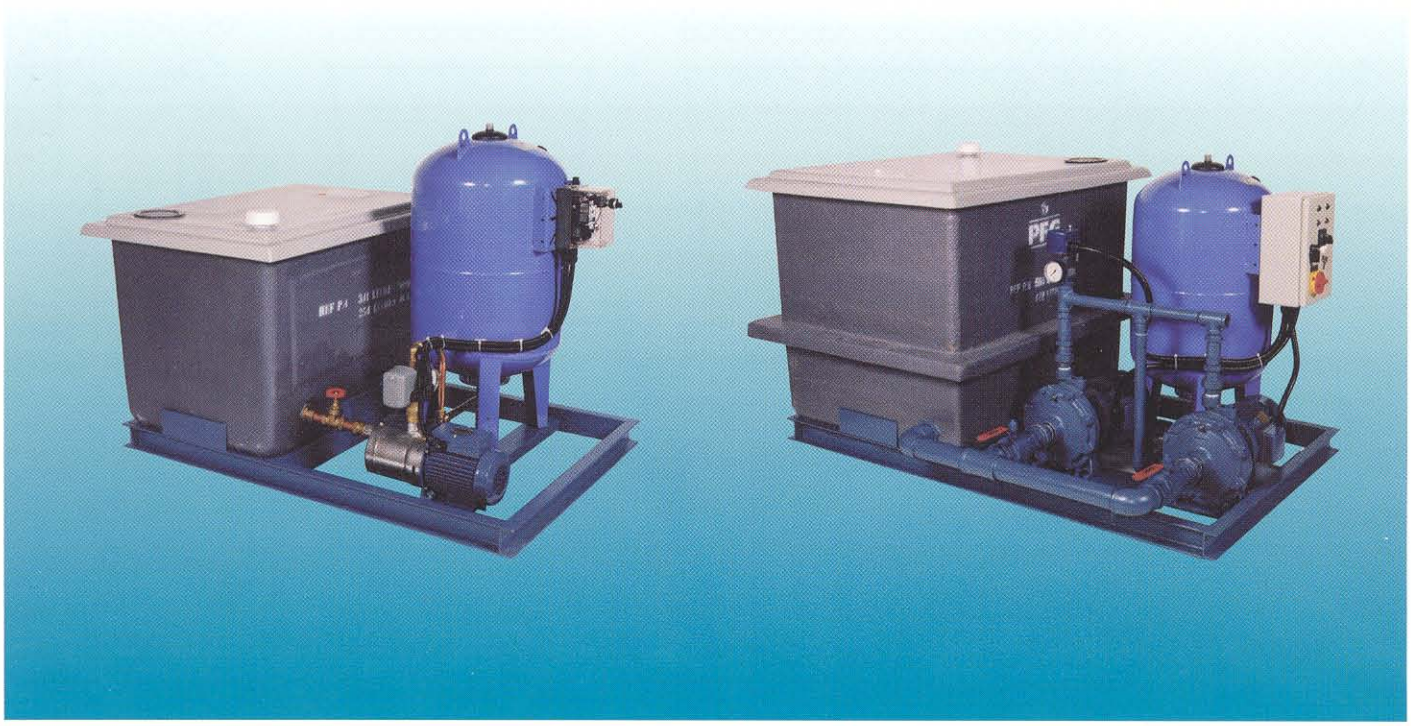
MXH203EAGAP168 and MXH203EAGAP368
MXH204EAGAP168 and MXH204EAGAP368
MXH205EAGAP168 and MXH205EAGAP368



Net Weight	23KG
Gross Weight	68KG
Actual Cistern Capacity	45 ltrs
Nominal Cistern Capacity	68 ltrs

Special Systems

In addition to the standard range AGAP systems shown we can also provide special packages to specification, incorporating other pumps or booster set packages from our production. Units are complete with control systems and one-piece or modular storage tanks to current legislation. Please contact our technical sales office for further details.



Medigap System

Application

For non-domestic quality water, to prevent backflow contamination of mains water supply whilst maintaining flow and pressure. Specifically designed for use in conjunction with dentist chairs.

Materials

Pump	All stainless steel
Cistern	Polypropylene
Valves	Brass
Base	Mild steel - Powder coated
Fittings	Brass
Accumulator	Mild steelwith butyl membrane and stainless flange

Electrical

Motor	2-pole TEFV
	230/1/50
	Class F insulation
	IP54 protection
Standards	IEC34
	IEC38
	IEC335-1, EN60335-1
	IEC335-2-41
	EN60335-2-41
	IEC529, EN60529

Wiring (Single Phase)

Wiring to pressure switch via fused spur 10A @240V - (by other)
See instruction manual for wiring details.

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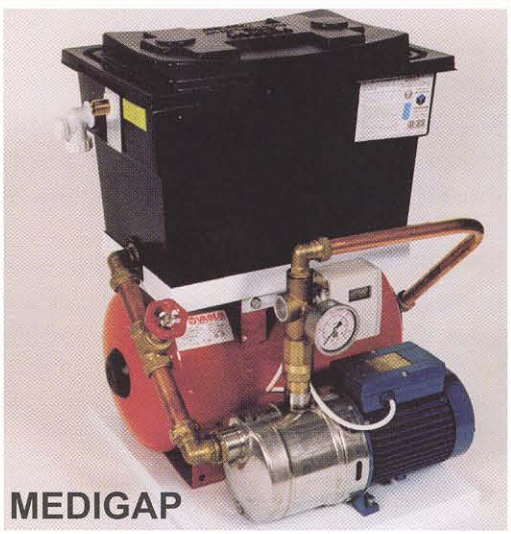
Warranty
One year (as per our standard terms and conditions of sale)



Performance Data

3-	230	400	1-	230	P1	P2		Q									
	A	A		A	kW	kW	HP	m^3/hr	0	1	1.5	2	2.5	3	3.5	4	4.25
MXH204E	2.8	1.6	MXHm204E	4.2	0.9	0.55	0.75	H(m)	45	42	40	37	34	30	25	21	18

Performance curves are available from our technical sales office

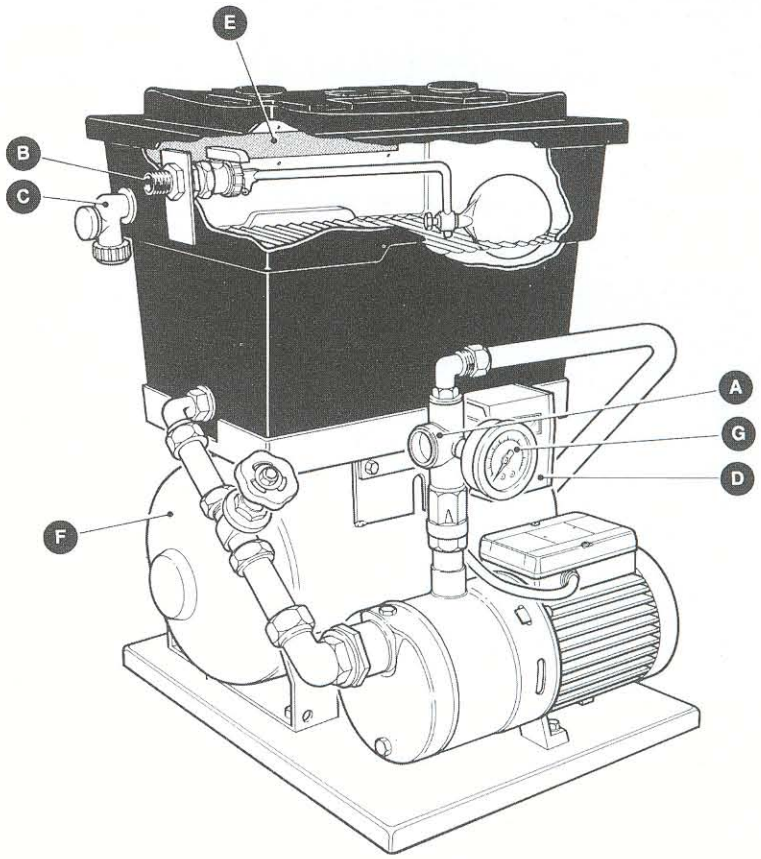
Installation Data

Please refer to the instruction sheet provided with the system. The unit is designed to operate automatically via a pressure switch D and accumulator F. The pressure switch is pre-set to cut-in at 3.0 bar and cut-out at 4.0 bar. For most applications this should not require adjustment. Should the settings need changing refer to the instruction sheet.

All electrical connections should be made as per fig.1. Do not switch on the power supply until installation pipe-work is complete and the cistern is full of water.

Installation Drawing

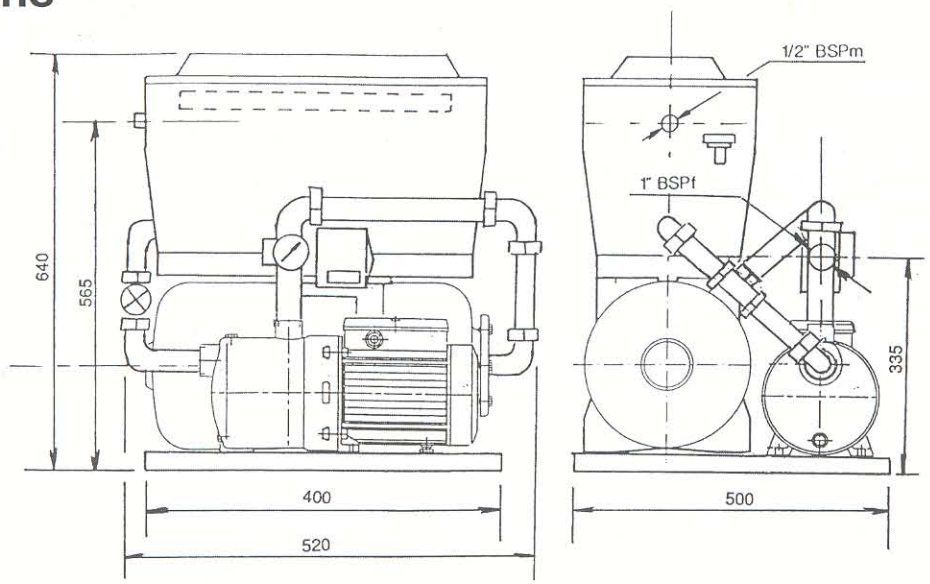
A Water out-let 1" BSPf
B Cistern mains water 1/2" BSPm
C Warning Pipe - 22mm compression
D Pressure Switch
E Main weir
F Accumulator
G Pressure gauge



NOTES - For cold water use only. Specifically designed for use in conjunction with the installation of dentist chairs. Fit a servicing valve at point B in accordance with regulations. We advise the installation of a throttling valve at point A to regulate the pump out-put.

IMPORTANT - The main weir E is provided to meet with type AB air gap requirements. It is important at point of installation to consider problems which may result in the event that water should spill over the weir. Keep away from electrical installations and other sensitive areas.

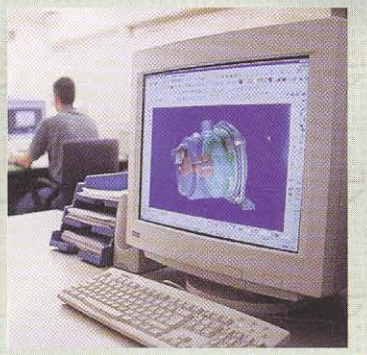
Dimensions

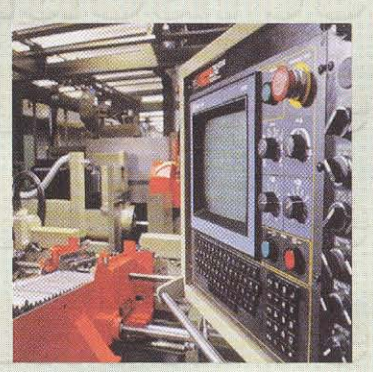


Net Weight	30 Kg
Gross Weight	48 Kg
Actual Cistern Capacity	17.5 ltrs
Nominal Cistern Capacity	18 ltrs

Products and Services

Calpeda Limited is a division of Calpeda S.p.A. a major European pump manufacturer. We provide technical sales, service and distribution facilities to industrial, commercial, agricultural and domestic markets throughout the UK and Ireland. In addition to the AGAP systems Calpeda manufacture an extensive range of pumps at our own advanced production unit in northern Italy. In the UK we produce specialist pump systems; including a range of standard production and specialist booster sets for the building services, industrial and water supply sectors. Further Information on our products and services can be found on our website www.calpeda.co.uk or from our technical sales office at the address below.





Distributed By

Calpeda Limited
Wedgwood Road Industrial Estate, Bicester, Oxfordshire OX26 4UL
Telephone: 01869 241441 Facsimile: 01869 240681
email: pumps@calpeda.co.uk website: www.calpeda.co.uk

calpeda pumps