

Installation, Operating, Maintenance and Safety Instructions for **MAXI-SYSTEM**

Pressurised water systems for boats

CW462	<i>Maxi-System 2.9+2</i>	<i>12 volt d.c.</i>
CW464	<i>Maxi-System 2.9+2</i>	<i>24 volt d.c.</i>
CW299A	<i>Maxi-System 3+2</i>	<i>12 volt d.c.</i>
CW300A	<i>Maxi-System 3+2</i>	<i>24 volt d.c.</i>
CW407	<i>Maxi-System 4+2</i>	<i>12 volt d.c.</i>
CW408	<i>Maxi-System 4+2</i>	<i>24 volt d.c.</i>
CW425	<i>Maxi-System 4+5</i>	<i>12 volt d.c.</i>
CW426	<i>Maxi-System 4+5</i>	<i>24 volt d.c.</i>



To obtain the best performance from your Maxi-System please read these instructions carefully



Failure to observe the recommended procedures may result in early and severe damage, and may also invalidate the supplier's guarantee.

APPLICATION

The Maxi System has been designed to simplify the installation of pressurised fresh water systems in small vessels. It is supplied complete and ready for installation. It incorporates a stainless steel base and all the components necessary for a reliable supply of hot and cold running water on board your vessel - at the turn of a tap.

INSTALLING YOUR MAXI-SYSTEM

1. Install the unit in a dry and accessible location in the engine compartment or elsewhere.
2. Keep the inlet pipe from the water supply tank as short as possible (2 metres maximum). The pump is self-priming, and may be mounted above the level of the water supply. Maximum vertical suction lift is 1 metre.
3. Fix the base plate firmly to a rigid surface. The pump may be mounted horizontally or vertically: if vertical, the pump head should be **BELOW** the motor.
4. The inlet pipe bore should be at least ½". Use rigid or reinforced pipe that will not deform or collapse under suction conditions.
5. Use the recommended Hep₂O fittings (see drawing) to connect the inlet and outlet pipework into your system.

Inlet: **CW193W** or **CW194W** 90° connector (not supplied)

Outlet: Hep₂O pipe (not supplied)

HEP₂O PUSH-FIT PIPEWORK IS STRONGLY RECOMMENDED

- ◆ light-proof to discourage growth of algae
- ◆ tough, flexible, ultra-simple to install
- ◆ joints remain fully watertight, even when rotated under pressure
- ◆ suitable for hot and cold water
- ◆ frost protected to -10°C
- ◆ quiet, non-reverberating
- ◆ low heat loss



6. Discharge pipe of at least ½" bore is recommended: a smaller bore will reduce the flow rate obtained at the outlets.
7. Make sure that the motor voltage corresponds to your supply voltage. Use cable of the recommended size:

Note: Cable length is for line and return i.e. twice the run distance. If in doubt use the next largest wire size.	Cable length, Metres		
	0 - 6	6 - 11	11 - 17
	Conductor cross-section area		
12 VOLT	2.5mm ²	4mm ²	6mm ²
24 VOLT	1.5mm ²	2.5mm ²	4mm ²

OPERATION

1. Check that the water supply tank is filled, and that the inlet pipe to the MAXI-SYSTEM is connected and airtight. The pressure in the accumulator tank has been pre-set and does not require adjustment.
2. Open all the taps and other outlets in the system. This allows the pump to self-prime easily. Follow the same procedure whenever the pump is restarted after running out of water.
3. Switch on the power at the master switch. The pump should start and prime itself, and water should flow from the open outlets within a short time.
4. Allow air to clear itself from each open outlet, then close it. The pump should run for a short period then stop automatically. The system is now operational.

TROUBLE SHOOTING

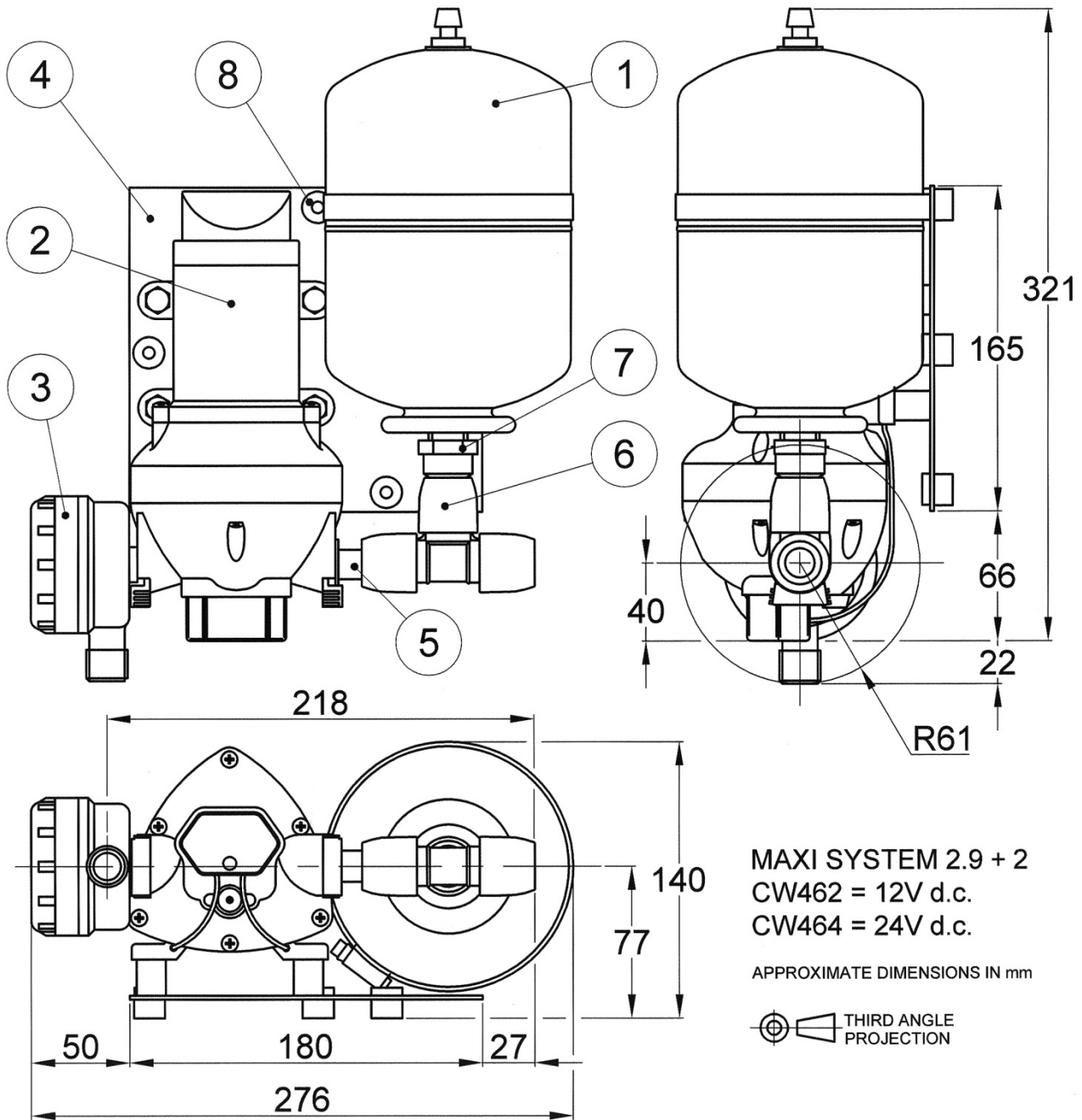
Problem	Possible cause	Action
<i>Pump does not prime: motor runs but no discharge</i>	Restricted or blocked inlet or discharge pipe. Air leak in inlet pipe Dirt under pump valves. Pump diaphragm leaking Supply tank empty	Check pipes Check for leaks Check valves Check diaphragm Fill tank
<i>Motor fails to start when switched on</i>	Loose wiring connection No power in pump circuit Blown fuse Failed pressure switch	Check wiring Check power source Check cause and replace Replace pressure switch
<i>Pump fails to turn off with all outlets closed</i>	Supply tank empty Inlet or discharge pipe leak Insufficient voltage at pump Failed pressure switch	Fill tank Check for leaks and repair Check supply voltage and cable size Replace pressure switch
<i>Pump runs intermittently with all outlets closed</i>	Dirt under valves allowing leakage to suction side of pump Leaking pipework on discharge side of pump	Check valves Check pipework

MAINTENANCE

Your MAXI-SYSTEM is designed to operate without frequent maintenance, but the following procedures will help to ensure that the system gives you lengthy and trouble free service.

1. Check the inlet strainer periodically, and clean if necessary.
2. Every 6 months, check the pressure in the accumulator tank. Disconnect the electrical supply, open a tap until flow ceases and unscrew the end cap from the accumulator tank to expose the air valve. Use a car tyre pressure gauge to check the pressure in the tank. It should be approximately 8lb/in² (0.55bar). Air may be pumped in to raise the pressure if necessary, using a suitable foot or hand pump. Restart the system as detailed above.

MAXI SYSTEMS PARTS/REFERENCE – MAXI SYSTEM 2.9 + 2



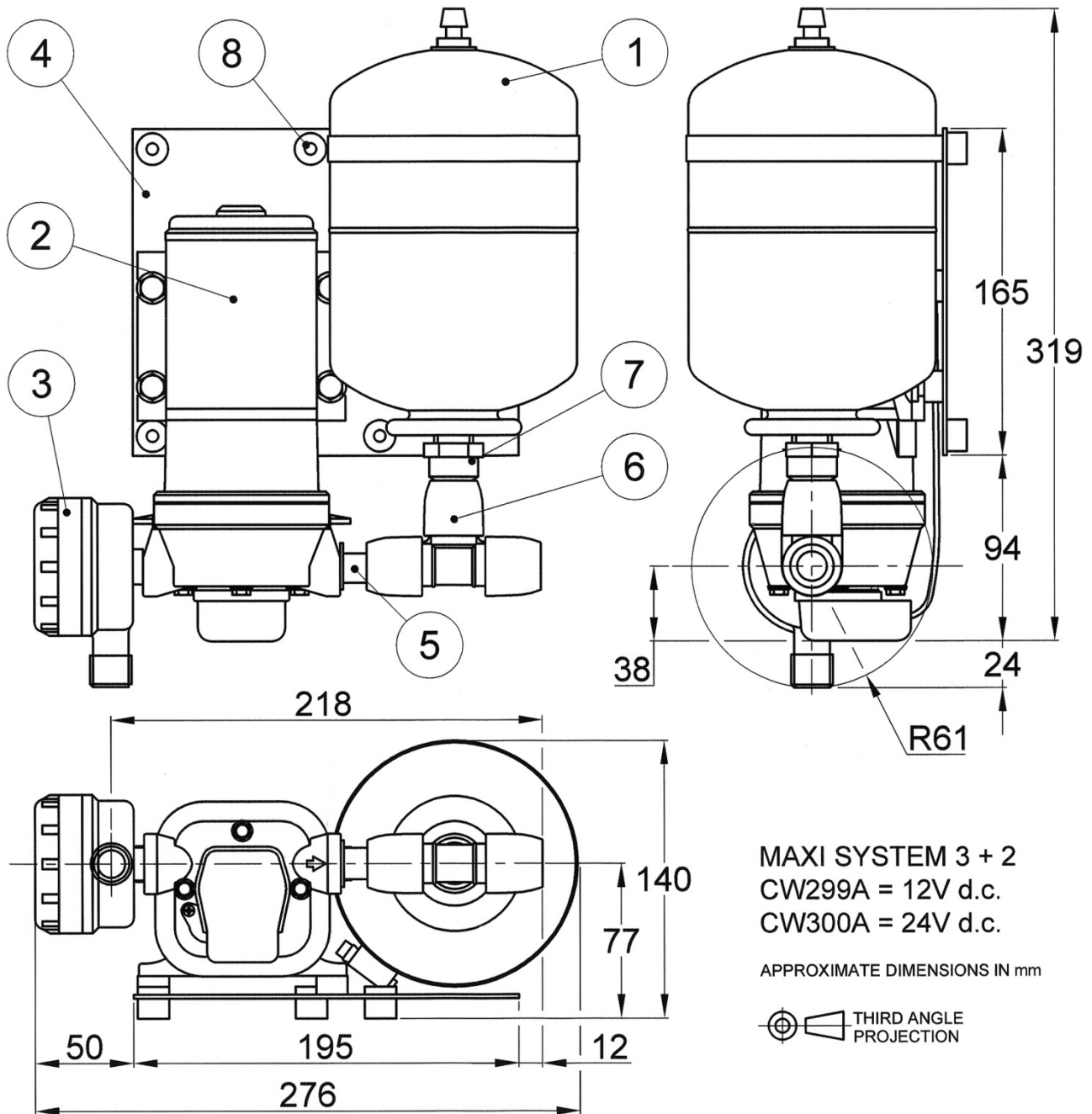
MAXI SYSTEM 2.9 + 2
 CW462 = 12V d.c.
 CW464 = 24V d.c.

APPROXIMATE DIMENSIONS IN mm

 THIRD ANGLE PROJECTION

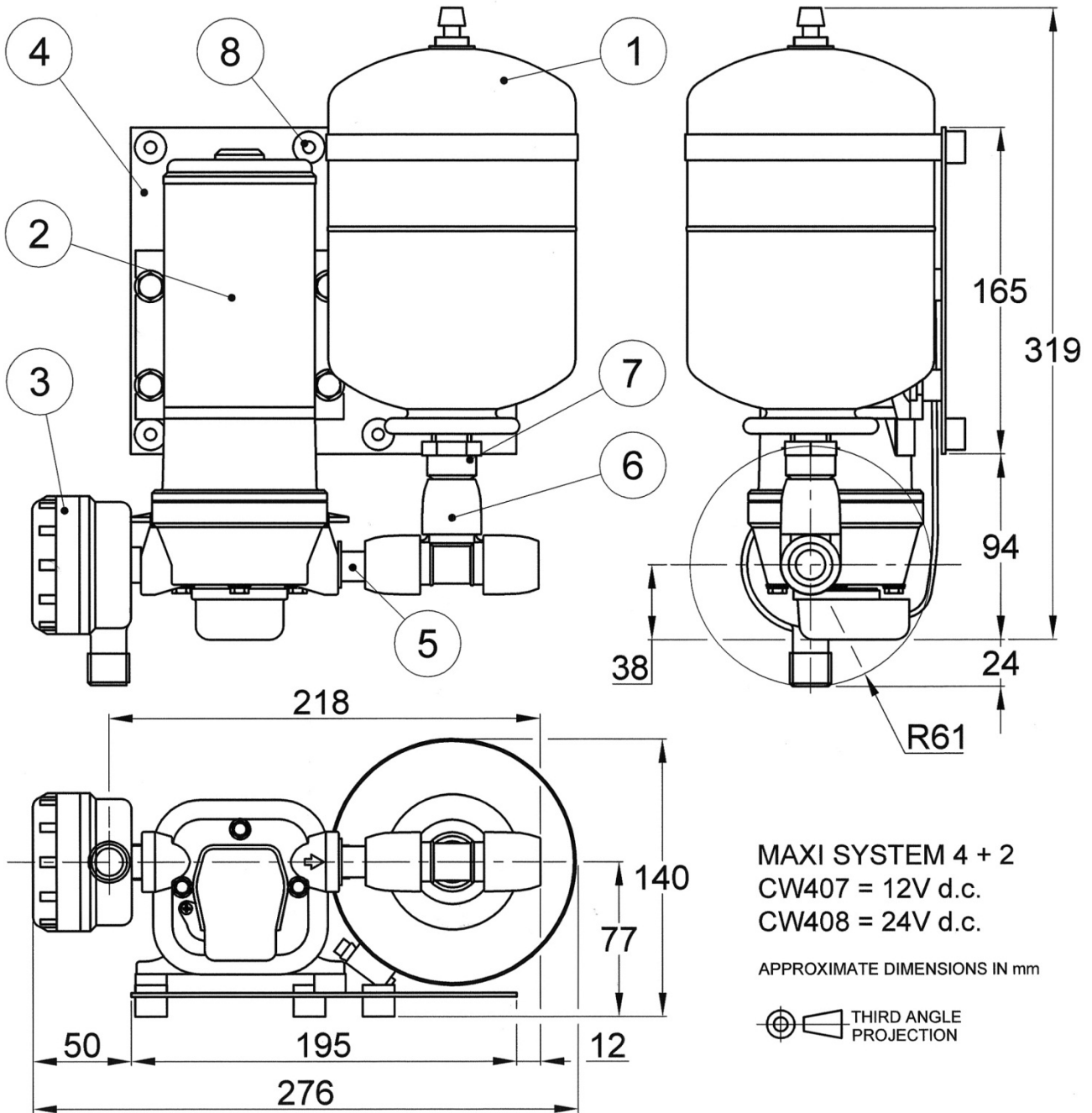
ITEM	DESCRIPTION	QTY	PART NUMBER	ITEM	DESCRIPTION	QTY	PART NUMBER
1	Accumulator tank	1	CW269	5	Adaptor – Hep ₂ O/par long	1	Z/D10884
2	Par-Max 2.9 pump	1	31395-0292 -12v	6	Hep ₂ O equal Tee	1	HD10/15W
			31395-0294 -24v				
3	Strainer	1	46400-0014	7	Hep ₂ O female 15mm to ½" bsp skt adaptor	1	HX30/15
4	Stainless steel base	1	Z/CW463	8	Feet	3	SP2900-0380

MAXI SYSTEMS PARTS/REFERENCE – MAXI SYSTEM 3 + 2



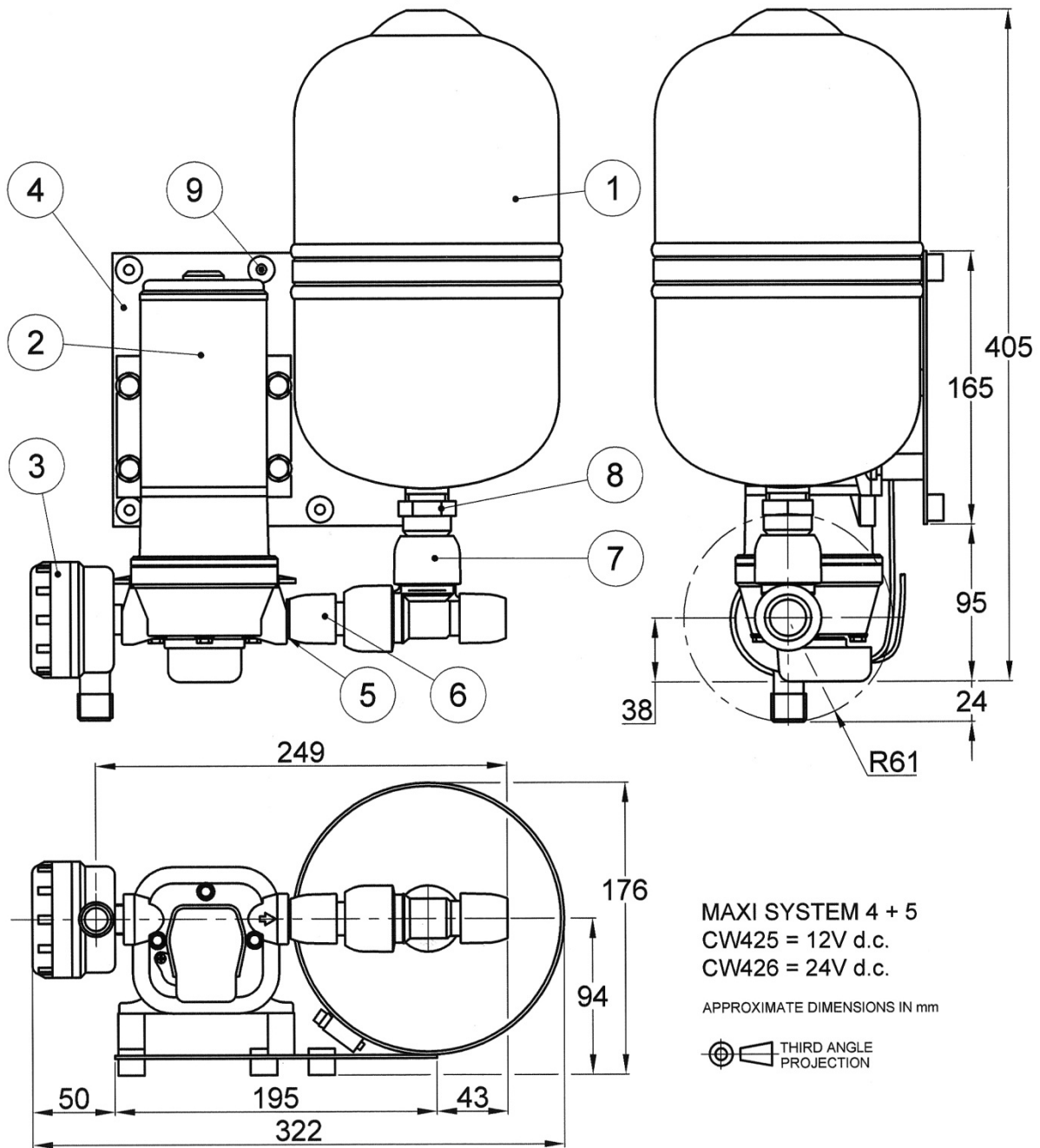
ITEM	DESCRIPTION	QTY	PART NUMBER	ITEM	DESCRIPTION	QTY	PART NUMBER
1	2 litre accumulator tank	1	CW269	5	Adaptor – Hep ₂ O/par long	1	Z/D10884
2	Par-Max 3 pump	1	31600-0292 -12v 31600-0294 -24v	6	Hep ₂ O equal Tee	1	HD10/15W
3	Strainer	1	46400-0014	7	Hep ₂ O female 15mm to ½" bsp skt adaptor	1	HX30/15
4	Stainless steel base	1	Z/CW301A	8	Feet	4	SP2900-0380

MAXI SYSTEMS PARTS/REFERENCE – MAXI SYSTEM 4 + 2



ITEM	DESCRIPTION	QTY	PART NUMBER	ITEM	DESCRIPTION	QTY	PART NUMBER
1	2 litre accumulator tank	1	CW269	5	Adaptor – Hep ₂ O/par long	1	Z/D10884
2	Par-Max 4 pump	1	31620-0292 -12v	6	Hep ₂ O equal Tee	1	HD10/15W
			31620-0294 -24v				
3	Strainer	1	46400-0014	7	Hep ₂ O female 15mm to ½" bsp skt adaptor	1	HX30/15
4	Stainless steel base	1	Z/CW301A	8	Feet	4	SP2900-0380

MAXI SYSTEMS PARTS/REFERENCE – MAXI SYSTEM 4 + 5



ITEM	DESCRIPTION	QTY	PART NUMBER	ITEM	DESCRIPTION	QTY	PART NUMBER
1	5 litre accumulator tank	1	CW385	5	Adaptor – Hep ₂ O/par short	1	Z/D10417
2	Par-Max 4 pump	1	31620-0292 -12v	6	Socket reducer	1	HD2/22W
			31620-0294 -24v	7	End reduced tee	1	HD12/22W
3	Strainer	1	46400-0014	8	Hep ₂ O female 22mm 3/4" bsp skt adaptor	1	HX30/22
4	Stainless steel base	1	Z/CW418	9	Feet	4	SP2900-0380