Contact Details

Please note that some of the contact details on this PDF document may not be current.

Please use the following details if you need to contact us:

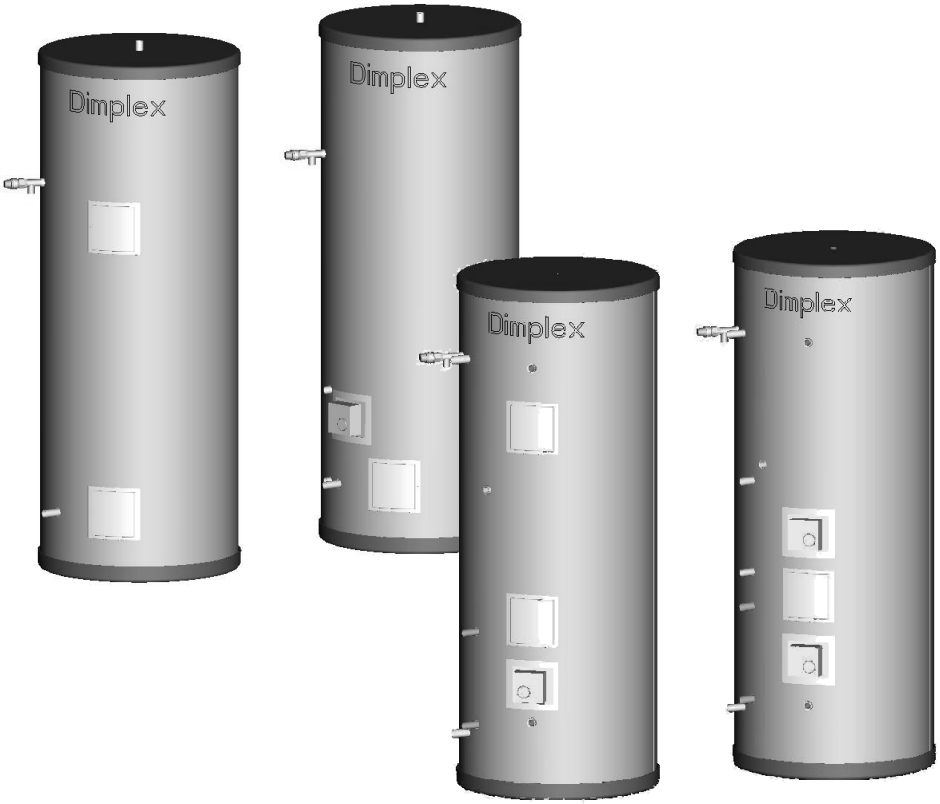
Telephone: 0844 879 3588
Email: customer.services@gdcgroup.co.uk

The customer support section of our website also features a wide range of information which may be of use to you and is available 24 hours a day. It includes:

- Operating and installation instructions
- Easy 'How to use' guides for storage heaters
- Service and repairs
- Where to buy our products
- Literature downloads
- Heating requirement calculator

Visit - www.dimplex.co.uk/support

Dimplex
WATER



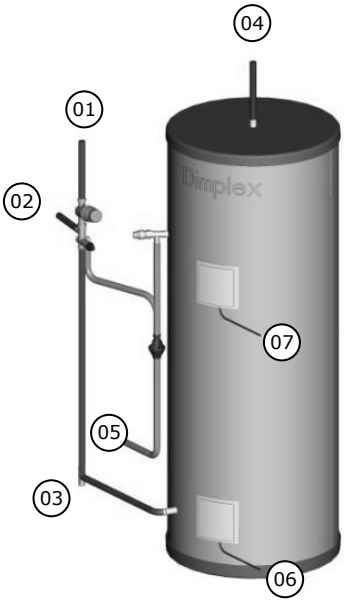
Unvented hot water cylinder – SCxn…d/i, SCxn…sd/si

Installation and operating instructions

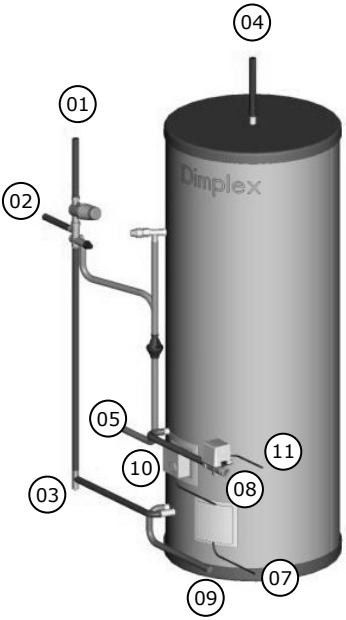
0 Overall view

SCxn80/130/150/175/215/255/305d

Standard SCxn cylinder



SCxn80/130/150/175/215/255/305i

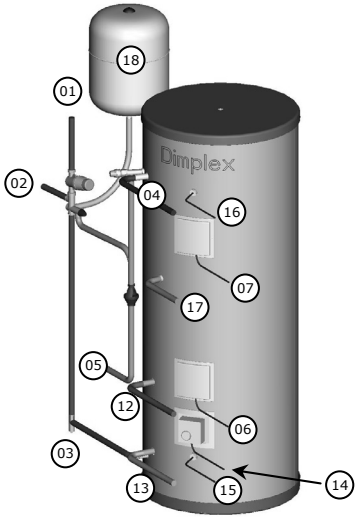


Reference	Description
1	Cold water mains supply
2	Balanced cold water supply
3	Cylinder drain point
4	Hot water supply
5	Discharge arrangement
6	Off peak immersion supply
7	Boost immersion supply
8	Indirect heating flow
9	Indirect heating return
10	Indirect heating twin thermostat
11	Indirect heating motorised two port valve

Figure 1 – Overall view of proposed installation sequence SCxn…d/i

SCxn175/215/255/305sd

Solar SCxn cylinder



Reference	Description
1	Cold water mains supply
2	Balanced cold water supply
3	Cylinder drain point
4	Hot water supply
5	Discharge arrangement
6	Off peak immersion supply
7	Boost immersion supply
8	Indirect heating flow
9	Indirect heating return
10	Indirect heating twin thermostat
11	Indirect heating motorised two port valve
12	Solar heating flow
13	Solar heating return
14	Solar heating twin thermostat
15	Solar cylinder sensor BOTTOM
16	Solar cylinder sensor TOP
17	Secondary return
18	Expansion vessel

SCxn175/215/255/305si

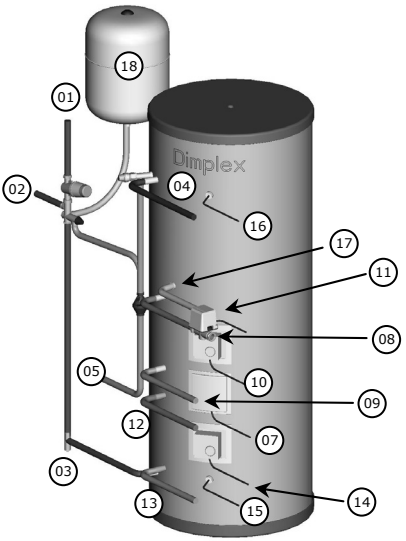


Figure 2 – Overall view of proposed installation sequence SCxn…sd/si

1 Contents

2 Before you start

General

Thank you for choosing a Dimplex product. We ensure you that every effort was made at design, manufacture and delivery stages of this product to meet your expectations. We ensure you of our best possible support throughout the product's lifespan.
As part of ongoing product development and improvement Dimplex reserves the right to undertake changes to the product without prior notice. Great care has been taken to ensure this manual was correct at the time of print. Should you however discover any issues with the information contained therein please do not hesitate to contact your vendor.
We strongly recommend you read the whole contents of this manual before commencing the work.

Competence

Dimplex products have been designed and manufactured to the current relevant standards and under stringent quality control. It is therefore imperative that the product is only installed by a:
- trained and
- competent

person as defined in the relevant regulations. Dimplex does not accept any liability for damage done to persons or property resulting from undue handling and usage of this product.
All regulations current at the time of installation are to be considered alongside the content of this manual as they form the code of best practice.

The guarantee of this product is linked to the ability of proving that the product was installed, commissioned and maintained:
- by a competent person
- in accordance with Dimplex instructions and the current relevant regulations and legislation
- the product being registered with Dimplex at the time of installation using the form in the Dimplex On Site Guide
- records showing the date of maintenance in accordance with the maintenance schedule as detailed in the On Site Guide

Health and Safety

The installation of this product is subject to the Health and Safety at Work Act. It is your responsibility to ensure that the transport, storage, installation and operation of the product is carried out in a safe manner.
Dimplex will not accept any liability due to damage caused to people or property resulting from negligence or not adhering to the relevant Health and Safety practises.

Risk assessment

The compilation of a risk assessment is strongly recommended before installing the product. The following areas require particular consideration in addition to the information required by the Health and Safety at Work Act.

- scalding: where appropriate or required by law a thermostatic mixing valve is to be fitted to the hot water outlet of the cylinder
- explosion: the unit is fully equipped with all relevant safety equipment to comply with current regulations. The correct design and function has been verified by independent third party testing. The correct application thereof is the responsibility of the competent installer.
- water borne organisms (i.e. Legionella): if applicable a risk assessment should be carried out following the recommendations outlined in the Approved Code of Practise L8.
- the user preference must be considered when commissioning the system, in particular when adjusting the solar and auxiliary system temperature and timer settings.

3 Scope of delivery

Please check the contents and condition of your delivery before signing the delivery documentation. Contact your supplier immediately for any missing or damaged components. Claims for missing or damaged parts after signing for the delivery will not be accepted.

	SCxn 80/150/175/215/255/305		SCxn 175/215/255/305	
	d	**i**	**sd**	**si**
				
Unvented stainless steel cylinder including:				
- cold water inlet	x1	x1	x1	x1
- hot water outlet	x1	x1	x1	x1
- ½" sensor pockets	-	-	x2	x2
- ½" secondary return	-	-	x1	x1
- auxiliary heating coil	-	x1	-	x1
- solar coil	-	-	x1	x1
- twin thermostat	-	x1	x1	x2
- 3kW immersion	x1(SCxn80)/x2	x1	x2	x1
- T&P Valve	x1	x1	x1	x1

		SCxn…d	SCxn…i	SCxn…sd	SCxn…si
Expansion vessel: **18 l: 175 l, 215 l** **24 l: 255 l, 305 l**		- -	- -	x1	x1
Expansion vessel fixing kit		-	-	x1	x1
Inlet control group	 Pres. red. Pres. rel.	2bar 6bar	2bar 6bar	3bar 6bar	3bar 6bar
Tundish 15mm – 22mm		x1	x1	x1	x1
Two port motorised valve 22mm		-	x1	-	x1
Instructions		x1	x1	x1	x1
Benchmark card		x1	x1	x1	x1

Figure 3 – Scope of delivery

4 Product features and descriptions

The Dimplex® unvented stainless steel cylinder range incorporates many features to ensure the highest level of comfort in providing hot water while minimising energy requirements and environmental impact during manufacturing, operation and disposal.
The range covers storage volumes from 80 litres to 305 litres in various designs from direct electric heated units, indirect units to a range of units allowing the use of renewable energy sources such as solar thermal.
A complete list of features provided by the whole range of cylinders is given in Figure 4.

Feature	SCxn d 80 - 305	SCxn i 80	SCxn i 130	SCxn i 150	SCxn i 175	SCxn i 215	SCxn i 255	SCxn i 305	SCxn si 175 - 305	SCxn sd 175 - 305
Materials										
- inner cylinder	Duplex stainless steel									
- outer cylinder	Dove grey leather grain coated steel									
- inlet/outlet	Stainless steel									
- coils	Corrugated stainless steel									
- insulation	60mm PU foam (GWP=1, ODP=0)									
Maximum operating conditions										
- potable water temperature	70°C									
- heating water temperature	95°C									
- operating pressure	6bar									
Cold water supply										
- minimum dynamic pressure	1.5bar									
- maximum pressure	25bar									
- minimum flow rate	15 l/min									
Connections										
- cold water inlet	22mm stainless steel									
- hot water outlet	22mm stainless steel									
- secondary return	½"F BSP									
- coil flow and return	22mm stainless steel									
- sensor pocket	½"F BSP									
Coil specification										
- surface area [m²]	-	0.3	0.5		0.75				0.75/1.1	
- rating [kW]	-	7	14		17				17/-	
Immersion heater	1/2	1							1	2
Thermostatic control										
- direct input	- integral immersion heater thermostat and cut out									
- indirect input	- external twin thermostat and cut out									
Safety components										
- pressure reducing valve and strainer	2bar								3bar	
- expansion relief valve	6bar								6bar	
- temperature and pressure relief valve	7bar / 90°C								7bar / 90°C	
- factory pressure test	10bar								10bar	
Other features	Water inlet diffuser – prevents cold and hot water from mixing Water outlet sloped – improves stratification during draw off and reduces heat loss Light weight – easy handling No anode – reduced service requirements									
Approvals	KIWA BBA									
Guarantee										
- inner cylinder	25 years									
- immersion heaters	2 years – excluding the effects of lime scale									
- other components	5 years – excluding expansion vessel membrane pressure									

Figure 4 – Product features

5 Installation

5.1 General advice

Please read the following section carefully before commencing installation. If in any doubt, please call the appropriate help desk. Disregarding the instructions given in this manual in its entirety and any relevant regulations, standards and codes of practice will void the guarantee of this product.

Please note: the following instructions are structured in such a way that individual steps are described. Not all steps will apply to all products. Figure 5 shows which steps apply to which cylinder types.

		Cylinder type SCxn			
Chapter	**Content**	**d**	**i**	**sd**	**si**
5.1	General advice	✓			
5.2	Siting considerations	✓			
5.3	Cold water supply and discharge pipe work	✓			
5.4	Hot water outlet	✓			
5.5	Immersion heater	✓			
5.6	Indirect heating loop	×	✓	×	✓
5.7	Solar loop	×		✓	
5.8	Secondary return	×		✓	
5.9	Charging of internal expansion bubble	✓		×	×
5.10	Installation expansion vessel	optional		✓	
5.11	Wiring schematic auxilairy loop	×	✓	×	✓
5.12	Wiring schematic solar loop	×		✓	
5.13	Solar sensor installation	×		✓	

Figure 5 – Chapter reference

Handling – depending on the size of the unit and access to its installation location consideration must be given to the handling of the unit. Please note that handling, installation and use of this product is subject to the Health and Safety at Work Act.
If the unit is not installed immediately, it should remain in its protective packaging with all pipe protectors/end caps applied to prevent damage and dirt deposit inside the cylinder and the coils.

Pipe work – the pipe runs should be executed as short as possible, unused pipe work should be removed and all remaining pipe work should be lagged in accordance with regulatory requirements to prevent heat loss and the formation of condensation.

Taps and fittings – all taps and fittings incorporated in the unvented system should have a rated operating pressure of 6 bar or above.

5.2 Siting considerations

When choosing a suitable location for the cylinder the following aspects should be considered:
- structural integrity
- access for installation, operation, maintenance and replacement
- routing of discharge pipe work
- access to water mains supply, hot and cold water distribution pipe work
- access to suitable electricity supply
- location in relation to remaining system components such as auxiliary and solar heating system
- frost protection

The Dimplex SCxn cylinder range is designed to be floor standing, vertically mounted, indoors and in a frost free environment. The cylinder may be located on any flat and level surface, provided it is sufficiently robust to support the weight of the cylinder when full of water (see chapter 10).

The position and orientation of the cylinder should be such that easy access is provided for servicing the controls and replacing the immersion heater should the need arise. Ensure that no pipe work hinders any work to be carried out on the various cylinder components.
Particular care must be taken when placing the cylinder in a garage or outbuilding. All exposed pipe work must be correctly insulated to avoid frost damage. If required the occurrence of frost has to be avoided by means of heating the space in which the cylinder is located.

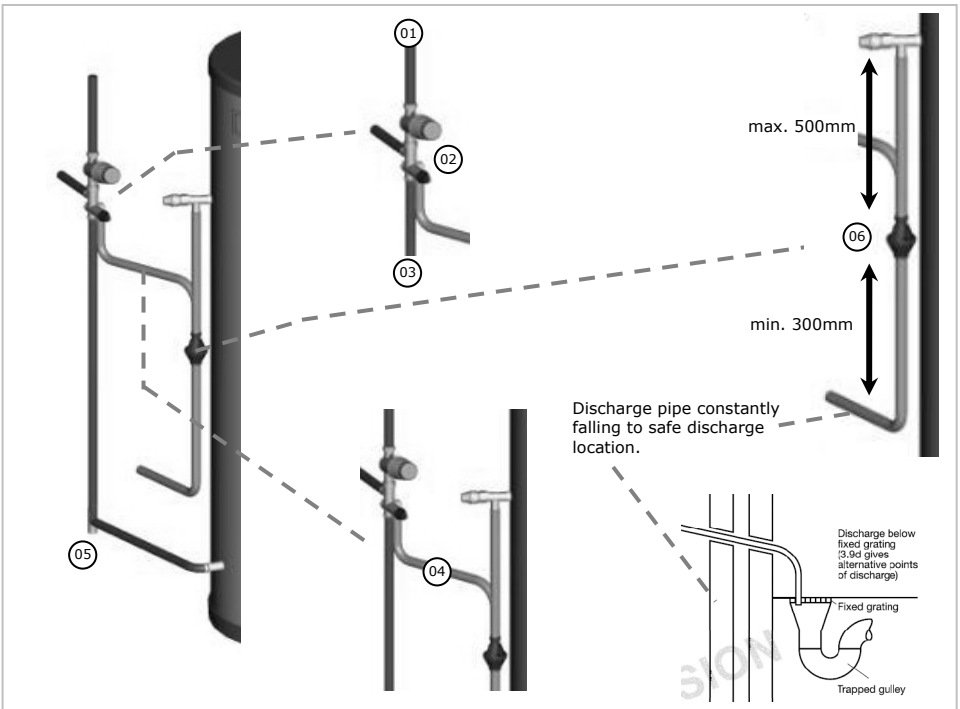
5.3 Cold water supply and discharge pipe work

The required operating conditions of the Dimplex SCxn cylinder range are summarised in Figure 4. The following instructions have to be followed when installing the cold water mains supply to the cylinder.

1 The cold water supply to the cylinder must come directly from the cold water mains after the mains stop valve to the property.
2 The inlet group supplied with the cylinder contains a line strainer, pressure reducing valve, pressure relief valve, check valves, balanced cold water supply port and a connection point for the expansion vessel (required for SCxn solar only).
3 The cold water inlet pipe work should have at least an inside diameter of 19mm and meeting the requirements of the water regulations for the supply of wholesome water.
4 The discharge pipe work from the expansion relief valve must be installed constantly falling to an open point of discharge. It is recommended to combine it with the discharge of the temperature and pressure relief valve as illustrated in Figure 6.
When completing the installation of the discharge pipe work ensure the valve itself is secured by tightening the screw on the side of the assembly. Loosening the screw allows the best possible orientation of the valve.

5 It is recommended to install a drain valve in the lowest point of the cold water feed to the cylinder. This allows the cylinder to be drained in a controlled manner should this become necessary.
Note: Between the inlet group and the cold water inlet on the cylinder **NO** isolating device should be fitted as by doing so important safety devices could be isolated!

6 The temperature and pressure relief valve must be discharged into the tundish. The sizing of the discharge pipe work is regulated through building regulation G3. An extract is shown in Figure 6.



Valve outlet size	Minimum size of discharge pipe before tundish	Minimum size of discharge pipe after tundish	Maximum allowed length of pipe after tundish	Length to be substracted for each elbow or bend
[-]	[mm]	[mm]	[m]	[m]
G1/2 (Dimplex SCx temperature and pressure relief valve)	15	22	9	0.8
		28	18	1.0
		35	27	1.4
G3/4	22	28	9	1.0
		35	18	1.4
		42	27	1.7
G1	28	35	9	1.4
		42	18	1.7
		54	27	2.3

Figure 6 – Cold water supply and discharge pipe work installation

5.4 Hot water outlet

The hot water pipe work is to be directly connected to the how water outlet connections of the cylinder as indicated in Figures 1 and 2.

Should a thermostatic mixing valve be required the valve is to be installed following the manufacturers instructions. When fitting the thermostatic mixing valve ensure that none of the safety relevant devices of the unit can be isolated (see 5.3).

It is recommended to insulate the hot water pipe work from the cylinder to the outlets to reduce the energy requirements for providing hot water.

5.5 Immersion heater

The immersion heater has to be connected in accordance with IEE Wiring Regulations and the installer carrying out the work has to be suitably qualified. It must be connected through a double pole isolating switch or suitable controller which must have a contact separation of at least 3mm in all poles. The wiring diagram for the immersion heater is shown in Figure 7. For further details please see instructions provided with immersion heater.

The immersion heater incorporates an independent non-self resetting over temperature cut-out. Should the over temperature cut-out operate, the rest pin will be pushed upwards, and become level or slightly proud of the cover at the position marked "Safety". Use a suitable sized implement to reset the pin by pushing it hard into its original position.

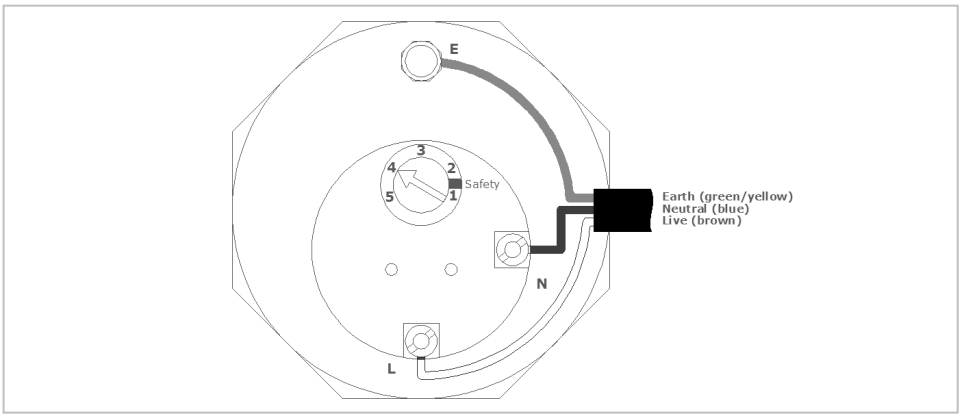


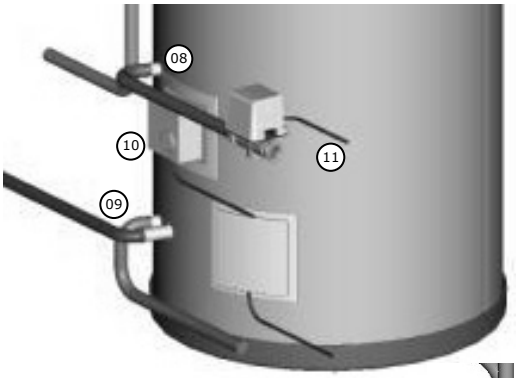
Figure 7 – Wiring diagram immersion heater

Note: The cylinder must be filled with water before switching on the immersion heater. Failure to do so will damage the element and void any guarantee on the product.

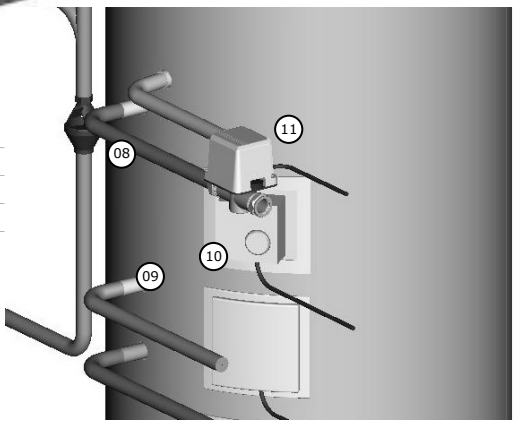
5.6 Indirect heating loop

The indirect heating source can be connected to the cylinder in various ways as described by the chosen control system supplier. The wiring and installation principles for two typical integration methods are detailed in chapter 5.11.

SCxn…**i**



SCxn…**si**



Reference	Description
8	Indirect heating flow
9	Indirect heating return
10	Indirect heating twin thermostat
11	Indirect heating motorised two port valve

Figure 8 – indirect heating loop installation

To conform with building regulations it is imperative that the motorised two port valve is installed in the indirect heating loop and connected into the control circuit as required.

The port connections for the indirect heating flow and return are identified in Figure 1 for the SCxn…**i** range and in Figure 2 for the SCxn…**si** range.
Should the flow connection be the highest point in the indirect heating loop an adequate device for de-aeration has to be installed. Equally, should the return connection be the lowest point in the indirect heating loop, a suitable drain device should be installed in the lowest point.

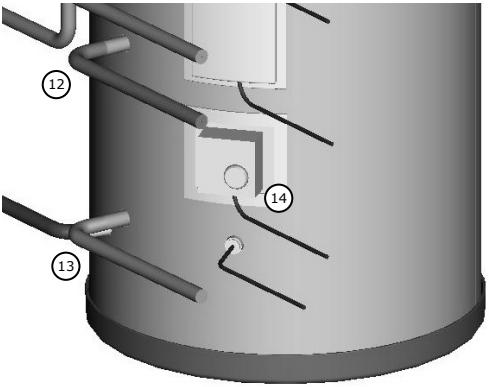
When installing the motorised two port valve ensure the direction of flow is adhered to as marked on the body of the device. Connecting the control loop ensure the correct thermostat on the cylinder is chosen for the respective loop.

The fittings used to connect to the cylinder must be suitable for stainless steel. Not all push fit fittings can be used – please check with your supplier. Should compression fittings be used ensure that the connection is not being over-tightened, always countering the force with a second spanner.

5.7 Solar loop

The solar loop has to be completely installed:
- in metal pipe work
- insulated with high temperature insulation
- connected with compression fittings only (or other means which are suitable for solar)

SCxn…s**d** / SCxn…**si**



Reference	Description
12	Solar heating flow
13	Solar heating return
14	Solar heating twin thermostat

Figure 9 – Solar loop installation

The wiring schematic for the solar loop is detailed in chapter 5.12. Please note: the solar loop does not require a motorised two port valve as long as:
- the Dimplex SOLPU1/2 pump unit is being used (non return valves in flow and return)
- the cylinder is located lower than the solar panels
- all other connection requirements in this manual are being adhered to

To conform with building regulations it is imperative that the solar circulation pump is installed in the solar loop through the twin thermostat and not directly from the solar control unit.

The port connections for the solar flow and return connections are identified in Figure 2 for the SCxn…**sd** and **the** SCxn…**si** range.
Should the flow connection be the highest point in the solar loop an adequate device for de-aeration has to be installed should the system not be commissioned using a flush a fill pump. Equally, should the return connection be the lowest point in the solar loop, a suitable drain device should be installed in the lowest point.

5.8 Secondary return

A ½" boss is provided on the SCxn…sd/si cylinder range to connect a secondary return loop to avoid:
- stagnant water in long pipe runs
- long waiting times at draw off point for hot water
- undue water wastage

To minimise the energy consumption of the secondary return circuit and to ensure reliable operation it is important to consider:
- the control of the circulation pump to be time and temperature controlled
- the secondary return circuit pipe work to be insulated
- the secondary return pump to be of suitable material

The location of the secondary return connection on the cylinder is highlighted in Figure 2.

5.10 Installation expansion vessel

Optional for standard SCxn d/i cylinders, mandatory for solar SCxn d/I cylinders.

The expansion vessel can be connected directly to the cold water inlet group utilising the flexible hose supplied with the vessel. It is important not to install any isolating devices between the vessel and the cold water inlet group.

Further it is recommended to mount the vessel higher than the cylinder to avoid having to drain the cylinder when maintaining and replacing the expansion vessel. The connection of the expansion vessel to the inlet group is shown in Figure 10.

Figure 10 – Installation expansion vessel
(optional for standard SCxn d/i cylinders, mandatory for solar SCxn d/I cylinders)

It is important to check the pre-charge pressure of the expansion vessel membrane before filling the cylinder. The pre-charge should be >2bar.

5.11 Wiring schematic auxiliary loop

The auxiliary heating system can be interfaced with the Dimplex SCxn cylinder in various. Two common examples are given in Figures 11 and 12.

Before adapting one of the proposed systems ensure the system is compatible with the remaining control equipment installed in the system.

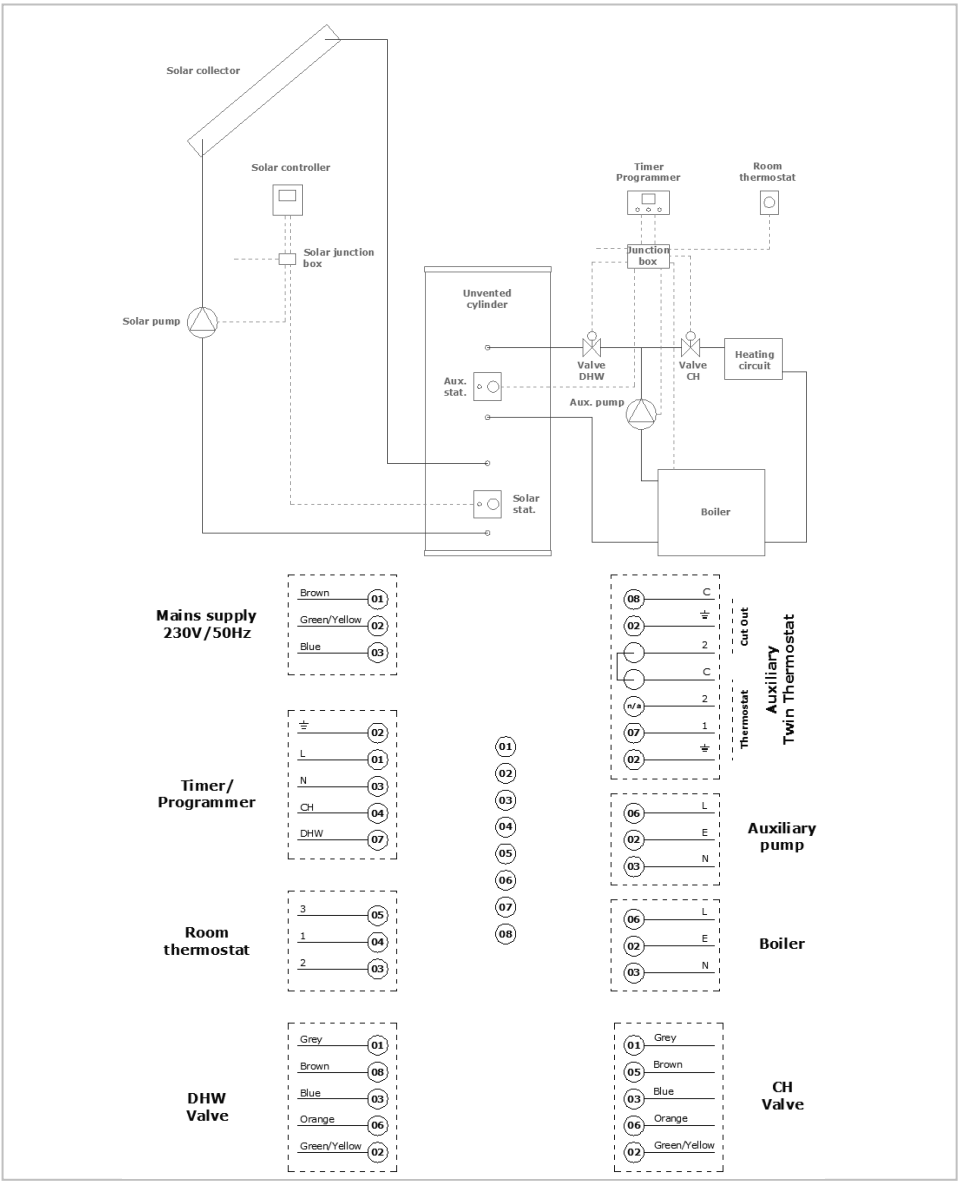


Figure 11 – Auxiliary loop integration 2x motorised two port valve

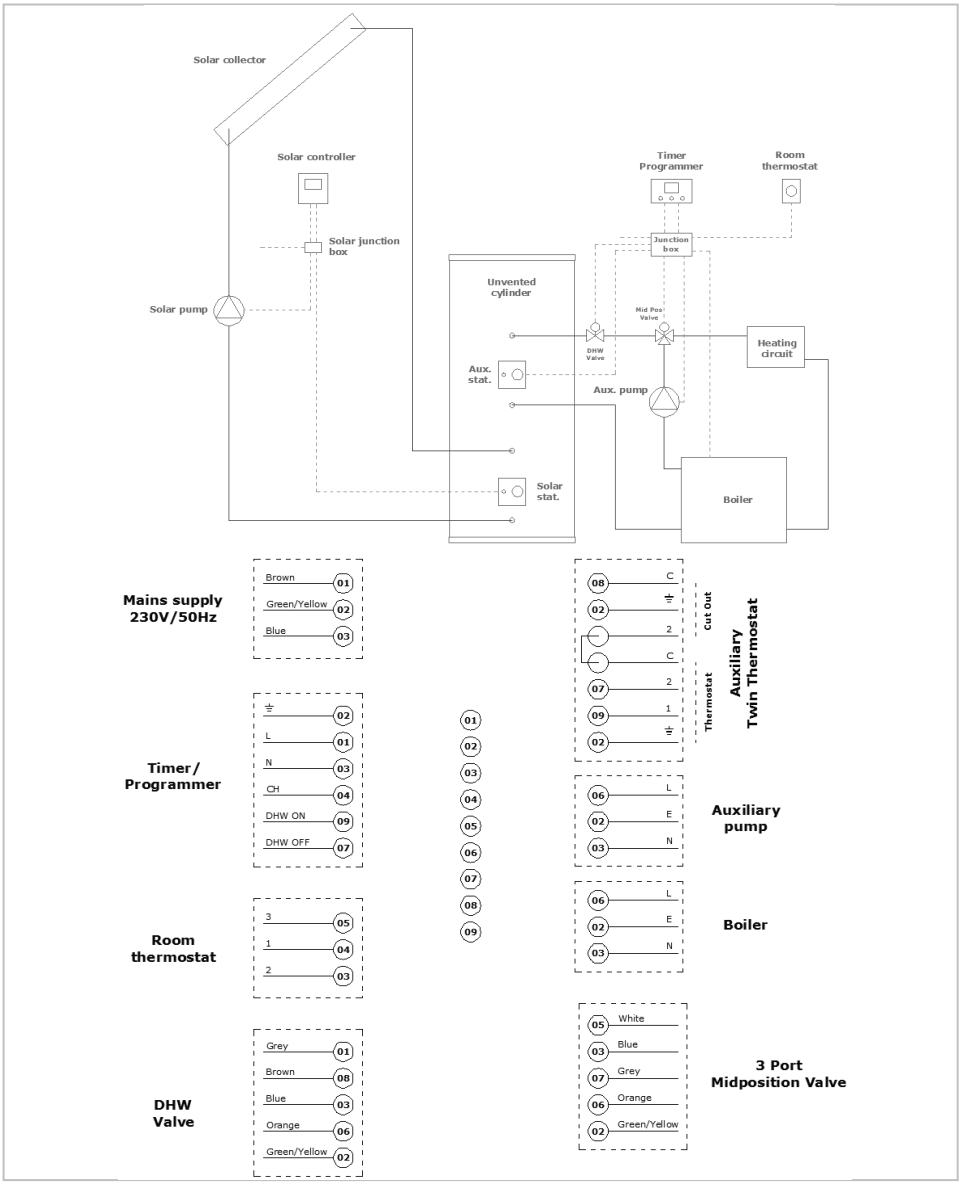


Figure 12 - Auxiliary loop integration 1x motorised two port valve and mid-position valve

5.12 Wiring schematic solar loop

The integration of the Dimplex solar SCxn cylinder is shown in Figures 11 and 12. The wiring schematic for the solar loop is shown in Figure 13.

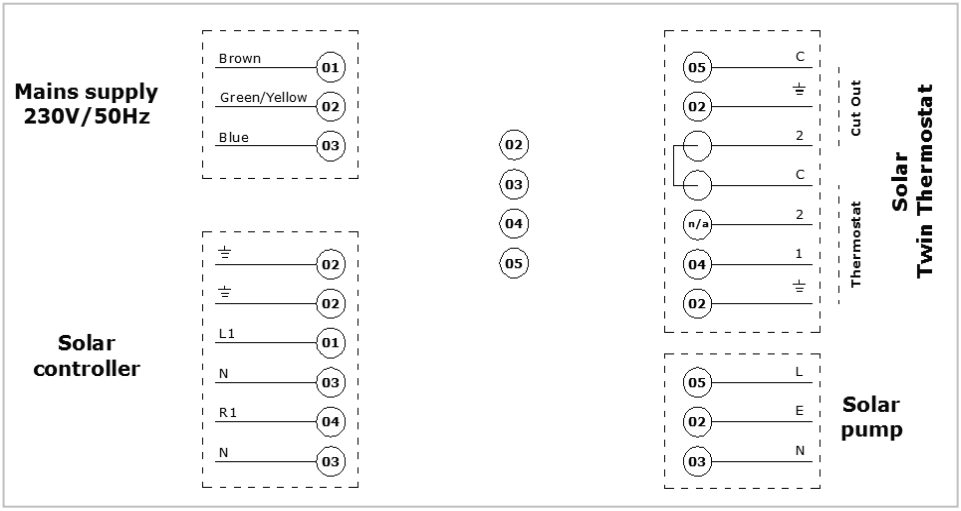


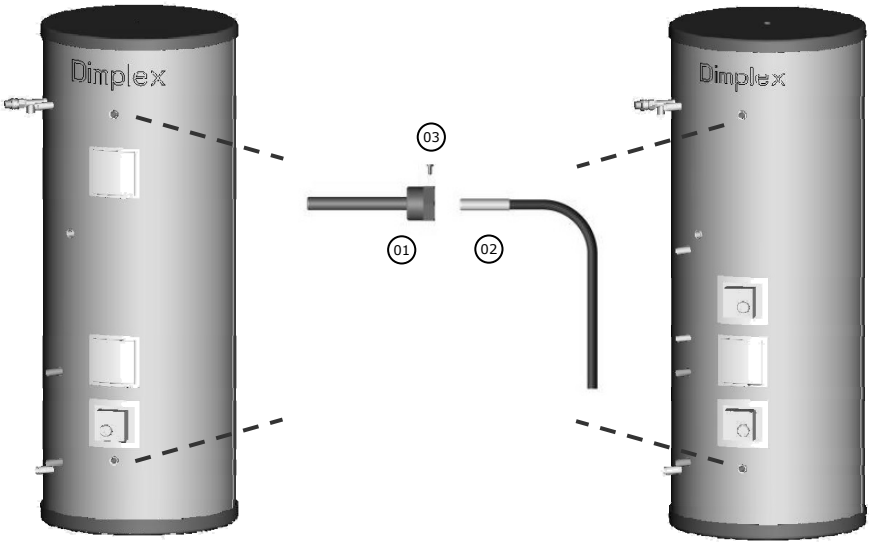
Figure 13 – Solar loop integration

5.13 Solar sensor installation

The Dimplex solar SCxn range cylinders allow for the installation of two sensors. The lower sensor is required to control the solar circulation pump. The upper sensor is for information only to indicate the actual available hot water temperature.

Two ½" sensor pockets are supplied with the pump unit. The sensor pockets are to be used to install the sensors in the cylinders.

The location of the sensor bosses is indicated in Figure 14, also showing the methodology of installing the sensor into the sensor pocket. A suitable sealant is to be used such as Loctite 577.



Step	Description
01	Install sensor pocket into cylinder using suitable sealant
02	Insert sensor fully into sensor pocket
03	Gently tighten screw onto sensor cable to retain sensor

Figure 14 – Solar sensor boss positions and sensor installation

6 Commissioning

The following commissioning procedure only details the required steps to be taken for the potable water loop and not for the direct heating, auxiliary or solar loops. Please refer to relevant manuals for these operations.

6.1 SCxn … d/i range

- ☐ 1 Check all connections and joints to ensure they have been tightened and secured correctly.
- ☐ 2 Before turning on the mains supply to the cylinder a hot water tap should be opened, preferable on the same floor or the floor below where the cylinder is located.
- ☐ 3 Turn on the supply to the cylinder and fill until water runs from the open hot water tap.
- ☐ 4 Turn off the mains supply to the cylinder and wait for the water to stop running from the hot water tap.
- ☐ 5 Operate the temperature and pressure relief valve until water stops flowing.
- ☐ 6 Close the hot water tap and temperature and pressure relief valve.
- ☐ 7 Connect an air pump to the Schrader valve (valve with blue cap) located on the pressure reducing valve (inlet group).
- ☐ 8 Pump air into the Schrader valve until a pressure of 1 bar is reached.
- ☐ 9 Remove the pump and replace the blue cap.
- ☐ 10 Turn the mains supply back on and bring the cylinder up to working pressure.
- ☐ 11 Check all joints for leaks, even those not having been altered especially when replacing a vented cylinder.
- ☐ 12 Open temperature and pressure relief valve to ensure proper discharge and check after closing that valve is not dripping.
- ☐ 13 Open pressure relief valve to ensure proper discharge and check after closing that valve is not dripping.
- ☐ 14 Check all shower outlets, toilet cisterns and other draw off points for leaks or dripping (especially when replacing a vented unit).
- ☐ 15 Open all water outlets to purge air from pipe work and ensure proper operation.
- ☐ 16 Adjust timer programmer and cylinder thermostat settings in accordance with client requirements.
- ☐ 17 Instruct user in the operation of the unit and hand over manuals and benchmark card, advising the owner of annual service requirement.

6.2 SCxn … sd/si range

- ☐ 1 Check all connections and joints to ensure they have been tightened and secured correctly.
- ☐ 2 Before turning on the mains supply to the cylinder a hot water tap should be opened, preferable on the same floor or the floor below where the cylinder is located.
- ☐ 3 Check the pre-charge in the expansion vessel and ensure it is at least 2bar. Note actual pressure on label on expansion vessel.

☐ 4 Turn on the supply to the cylinder and fill until water runs from the open hot water tap.
☐ 5 Close the hot water tap.
☐ 6 Check all joints for leaks, even those not having been altered especially when replacing a vented cylinder.
☐ 7 Open temperature and pressure relief valve to ensure proper discharge and check after closing that valve is not dripping.
☐ 8 Open pressure relief valve to ensure proper discharge and check after closing that valve is not dripping.
☐ 9 Check all shower outlets, toiler cisterns and other draw off points for leaks or dripping (especially when replacing a vented unit).
☐ 10 Open all water outlets to purge air from pipe work and ensure proper operation.
☐ 11 Adjust timer programmer and cylinder thermostat settings in accordance with client requirements.
☐ 12 Instruct user in the operation of the unit and hand over manuals and benchmark card, advising the owner of annual service requirement.

7 Operation

Once the system has been fully commissioned, no user interference should be required to fully enjoy the comfort and benefits of the Dimplex SCxn hot water cylinder.
The hot water temperature can be set to various requirements. Ideally it should be around 60°C. Higher temperature can cause tripping of the high limit thermostat, introduces more heat loss from the unit and increases the risk of scalding significantly.

When turning on a hot tap for the first time after a heat up period there might be a short surge of water. This is normal in unvented systems and does not constitute a fault. Sometimes the water may appear milky – this is due to very fine air bubbles in the water which will clear quickly.

7.1 Water temperature direct electric heating

Before removing the cover from immersion heater isolate appliance on isolating switch! Danger of electrical shock! Never enter immersion heater housing with blank metal objects!

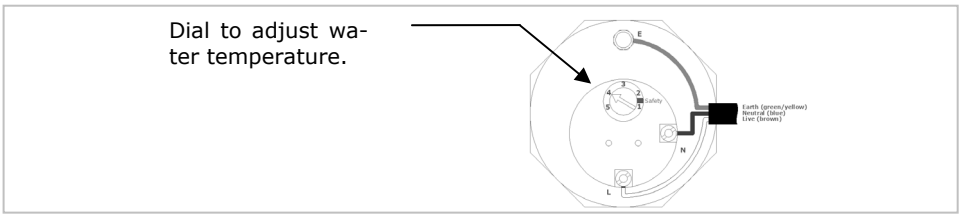


Figure 15 – Adjustment water temperature direct electric heating element

The hot water temperature achieved by the direct electric heating element can be adjusted by removing the cover from the immersion heater and adjusting the dial up or down as indicated in Figure 15.

7.2 Water temperature auxiliary heating

The water temperature achieved by the auxiliary heating system depends on the setting of the thermostat on:
- the cylinder AND
- the auxiliary heating source.

The adjustment at the cylinder is being carried out on the twin thermostat fitted to the cylinder as shown in Figure 16. The manual high limit re-set is behind the black screw.

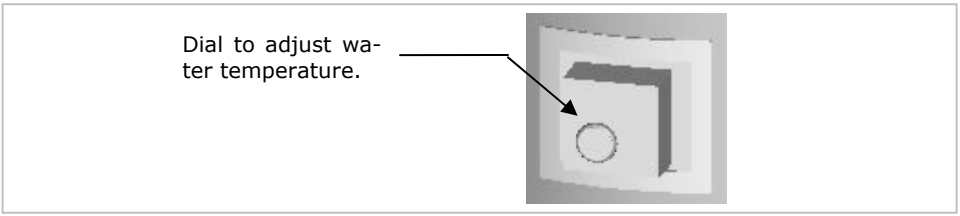


Figure 16 – Adjustment water temperature auxiliary source

8 Maintenance

The maintenance of this appliance must be carried out by a suitably qualified person only.
Isolate all electrical supplies from the unit before commencing work. Danger of electrical shock!

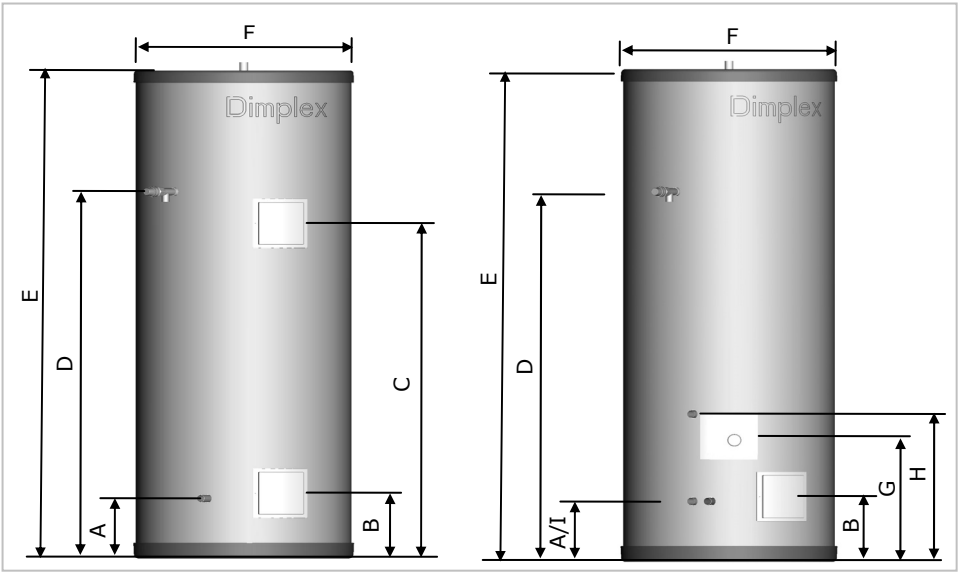
- ☐ 1 Draw some water from cold water tap and retain in container.
- ☐ 2 Isolate cold water mains supply from cylinder.
- ☐ 3 Briefly open temperature and pressure relief valve, assure safe discharge and check that valve is not dripping when closed.
- ☐ 4 Briefly open pressure relief valve, assure safe discharge and check that valve is not dripping when closed.
- ☐ 5 Open hot water tap and release remaining pressure from unit.
- ☐ 6 Note the set pressure of pressure reducing valve. Remove cartridge and clean strainer in water provided in container. Re-assemble pressure reducing valve ensuring the correct pressure is set.
- ☐ 7 Periodically the immersion heaters should be removed, cleaned and the unit flushed out. The immersion heater seal should be replaced when fitting the element to the cylinder.
- ☐ 8 Check electrical wiring connections and the condition of the cable of the immersion heater and the thermostat.
- ☐ 9 Re-commission unit.

9 Troubleshooting

Fault	Cause	Solution
A No water from hot water taps	A.1 Stop valve closed A.2 Strainer blocked A.3 Pressure reducing valve fitted against flow	A.1 Open stop valve A.2 Turn water supply off, clean strainer and re-commission A.3 Re-fit with arrow showing in direction of flow
B No hot water	B.1 Timer/Programmer not set correctly B.2 Auxiliary heating mal function B.3 Direct heating mal function B.4 Auxiliary/direct heating high limit thermostat has tripped	B.1 Set timer/programmer correctly B.2 Consult auxiliary heating system instructions B.3 Call for qualified person to check immersion heater B.4 Reset limit thermostat(s)
C Intermittent water discharge through tundish on warm-up	C.1 Bubble depleted C.2 Expansion vessel lost charge	C.1 See commissioning for creation of bubble C.2 Check expansion vessel (see commissioning/maintenance), top up or replace
D Continuous discharge	D.1 Pressure reducing valve not working D.2 Pressure relief or T&P valve not seating correctly D.3 Mal function of high limit thermostat or appliance	D.1 Check pressure after valve and replace if faulty D.2 Manually lift valve once or twice to clear debris, otherwise replace D.3 Check function of thermostats and appliances
E Leakage from casing	E.1 Compression/threaded joints not formed correctly	E.1 Re-seal joints with care
F Hot water from cold tap	F.1 Hot pipe work being routed adjacent to cold pipe work F.2 Leaking seal in mixer tap	F.1 Insulate hot pipe work or re-route F.2 Replace seals in mixer tap
G Metallic noise from system	G.1 Pipe work not sufficiently supported	G.1 Add extra pipe work fixings

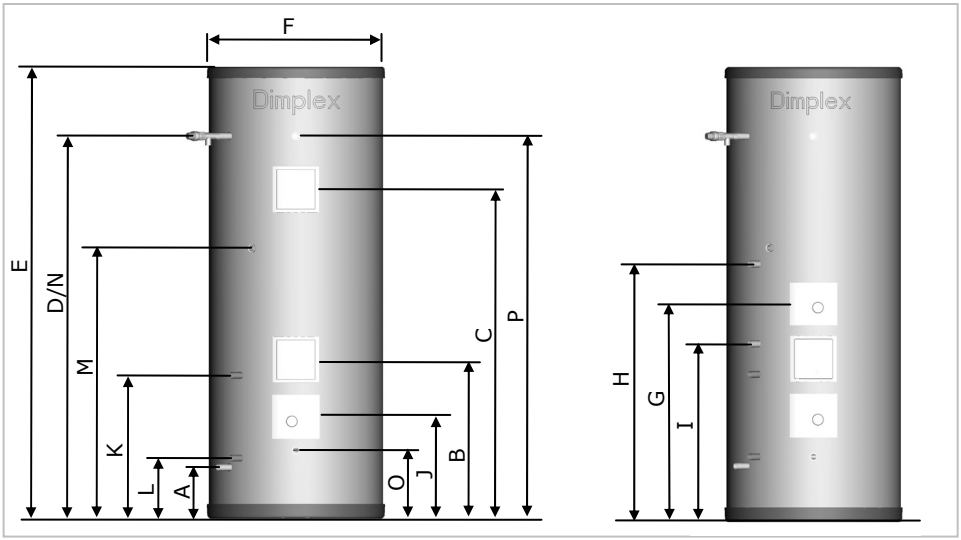
10 Technical data

10.1 SCxn … d/i



		SCxn						
Capacity		**80**	**130**	**150**	**175**	**215**	**255**	**305**
Weight	d	27	30	32	37	43	50	59
[kg]	i	29	32	35	40	48	55	65
Heat loss [kWh]	d/i	1.12	1.50	1.82	2.10	2.59	2.73	2.88
Heat up	d	64	115	138	167	212	263	313
[mns]	i	33	28	33	27	35	42	50
Re-heat	d	53	90	104	124	153	184	220
[mns]	i	23	21	24	24	30	35	42
A [mm]	d/i	182						
B [mm]	d/i	196						
C [mm]	d	-	570	648	753	821	1269	1526
D [mm]	d/i	356	626	745	891	1116	1365	1620
E [mm]	d/i	645	958	1086	1243	1485	1753	2029
F [mm]	d/i	574						
G [mm]	i	339			380			369
H [mm]	i	445						
I [mm]	i	182						

10.2 SCxn … sd/si



		SCxn			
Capacity		**175**	**215**	**255**	**305**
Weight [kg]	sd	44	52	59	69
	si	48	56	63	73
Heat loss [kWh]	sd/si	1.78	2.19	2.31	2.51
Heat up [mns]	sd	20	24	29	34
	si	18	22	25	30
Re-heat [mns]	sd	14	17	20	24
	si	13	18	19	22
A [mm]	sd/si	182			
B [mm]	sd/si	531/589			
C [mm]	sd	846	1087	1355	1631
D/N/P [mm]	sd/si	1017	1259	1527	1804
E [mm]	sd/si	1243	1485	1753	2029
F [mm]	sd/si	574			
G [mm]	si	711			
H [mm]	si	842			
I [mm]	si	580			
J [mm]	sd/si	346			
K [mm]	sd/si	480			
L/0 [mm]	sd/si	213			
M [mm]	sd	803	879	1057	1196
	si	774	1116	1029	1167
Aux. vol. [l]	sd	90	130	170	220
	si	80	120	160	210

Dimplex UK Limited
Millbrook House Grange Drive, Hedge End, Southampton SO30 2DF
Te.: 01489 773 052, Fax.: 01489 773 061
e-mail: customer.services@dimplex.co.uk
www.dimplex.co.uk