Installation and utilisation directions

HOT WATER STORAGE TANK

Z30 ESD
Z50 ESD
Z75 ESD
Z100 ESD
Z150 ESTD
Z200 ESTD

Z100 ESD-H
Z150 ESD-H
Z200 ESD-H

CE

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OPERATION

The hot water storage tank is suitable for supplying hot water to several drawing points in households and institutions.
The water received is equally suitable for washing and eating purposes.

The water temperature in the storage tank is 65 C . The polyurethane heat insulation round the inner tank prevents the water from cooling down, thus hot water can be drawn from the tank for a long time. The tank construction is such that the hot water is discharged without mixing.
The inner tank is constructed from steel sheet protected against corrosion. Besides the special fire-enamel coating, an active anode protects the steel sheet against corrosion. The fire-enamel finish also ensures long-life even in the case of aggressive (hard) water.

Installation of the vertical tank (Fig.1)

Prior to installation the wall structure must be inspected by a building specialist.
Installation of the hot water storage tank must be carried out by a specialist.

We recommend the following solutions for the various types:

1 For stone, brick and concrete walls with 100-150 mm thickness: hex head through-bolts (M12), washer for timber joint (M 12).
Reinforced vertically on the backside by installing 50x5 flat steel bar.

2. For very thin walls: hex head through-bolts: M12, washer for timber joint (M 12).
Reinforced vertically on the backside by installing 2 pcs 60x40x3 steel U-section.

Vertical models: **ESD, ESTD**

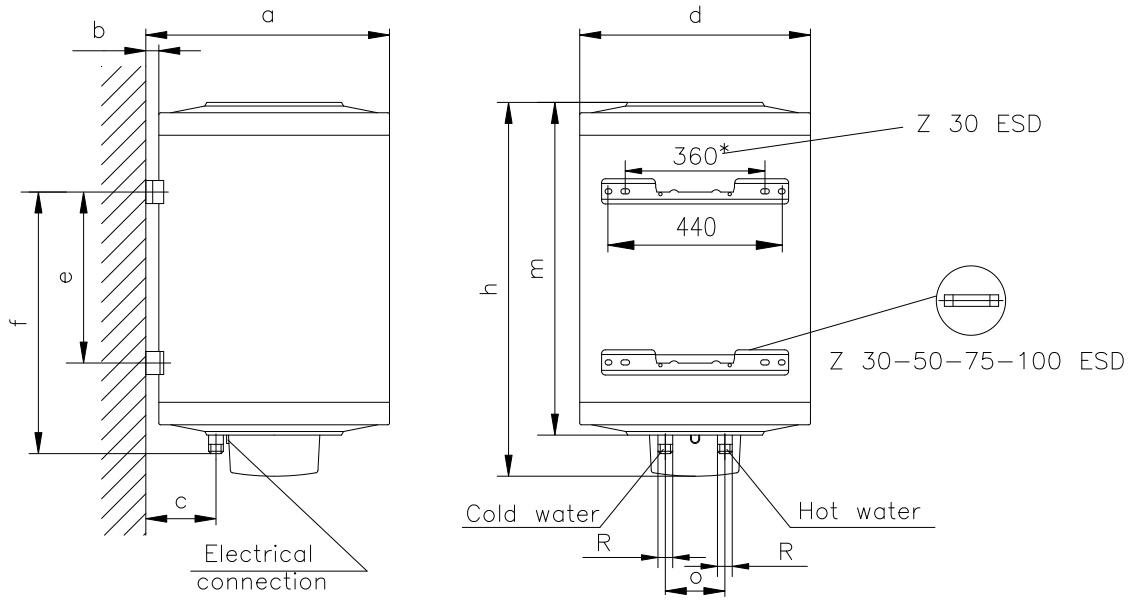

Fig1.

TECHNICAL DATA												
Type	Volume (litre)	Net weight (kg)	a	b	c	d	e	f	h	m	o	R
Z30 ESD	30	19	423	13	100	410	-	350	518	493	100	½”
Z50 ESD	50	28	528	13	120	515	-	340	545	500	160	½”
Z75 ESD	75	33	528	13	175	515	-	500	715	670	230	¾”
Z100 ESD	100	38	528	13	175	515	-	570	865	820	230	¾”
Z150 ESTD	150	51	528	13	175	515	800	1050	1215	1170	230	¾”
Z200 ESTD Erp	200	61	608	13	197	595	800	1050	1344	1260	230	¾”

Horizontal models:**Z100-200 ESD-H**

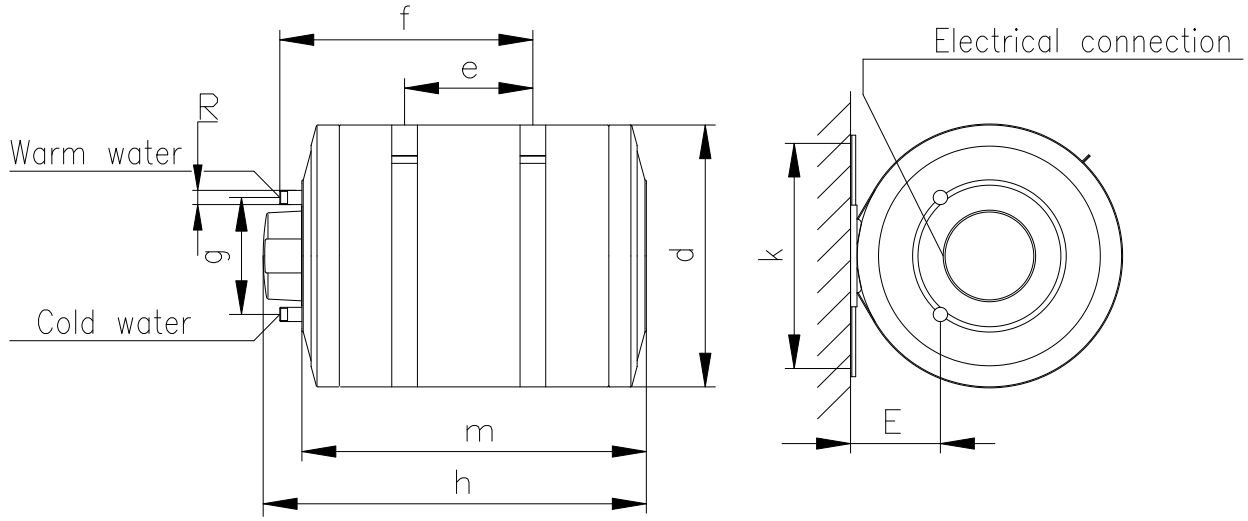

Fig2.

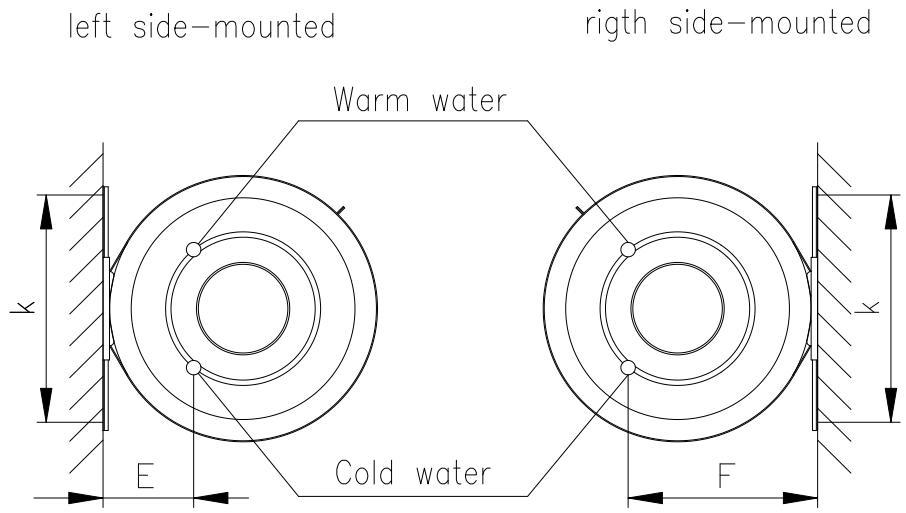

Fig3.

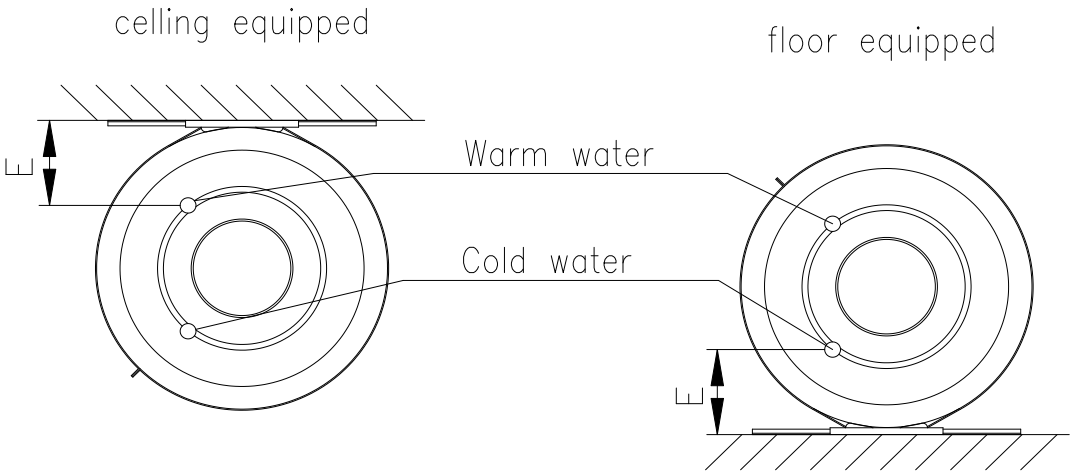

Fig4.

TECHNICAL DATA												
Type	Volume (litre)	Net weight (kg)	d	e	E	f	F	g	h	k	m	R
Z100 ESD-H	100	51	515	320	156	570	366	230	865	440	820	3/4”
Z150 ESD-H	150	67	515	800	156	1050	366	230	1215	440	1170	3/4”
Z200 ESD-H	200	85	544	800	175	1050	400	230	1290	440	1245	3/4”

Installation of the horizontal tank(Fig.2-4)

The horizontal tanks are produced in „left-side mounted" version. (see Figure 2).

Check the position of the hanging elements. If this position is acceptable than the appliance has to be mounted on the screws fixed into the wall and to fix by washer and nut. Before mounting check the tightness of the hanging straps and if necessary, tighten the screws fixing the straps, on the front side of the appliance.

If the distance of the screws in the wall is not fit to the distance of hangers on the appliance, than:
1. Loosen the screws fixing the straps (on the front side of the appliance) and move the hanger parts to the right distance. Pay attention to the position of the support sheet: is should be under the hanging part after adjusting the hanging part to its right position.
Secure the screws aln lay down the water heater to a flat floor, together with the hanging parts.
3. Check the plane position of the hanging parts. If you see that the hanging parts are not in plane than loosen one of the screws. When the hanging parts are in plane than tighten the screw.
4. Mount the water heater to the wall as described above.

The horizontal water heaters can be assembled from the „left-side mounted" version to „right-side mounted", „ceiling" or „floor" version.
For this follow the steps as follow:

1. Loosen the screws clamping the straps (on the front of the water heater) and turn the hanging parts, together with the straps, to the required position, as shown on the Figure. Pay attention to the position of the support sheet: is should be under the hanging part after adjusting the hanging part to its right position.

Follow the point 2., 3., 4. above.

CONNECTION TO THE WATER MAINS

Galvanised steel pipe, plastic pipe and copper pipe may equally be utilised for cold and hot water pipelines. **When connecting copper water pipes to the water mains, the use of insulating fitting pieces is obligatory!**

One fitting piece must be fitted directly to the tank's hot water pipe, and the other must be fitted between the fittings previously fitted to the cold water pipe and the copper pipe water network. **In the case of installation without fitting pieces we cannot undertake a warranty for faults due to corrosion on the tank's threaded pipe ends, or responsibility for damage due to this.**

ELECTRICAL CONNECTION

1. Mains current may only be wired to the storage tank through a two-pole connection, with at least 3 mm distance between the contacts.

2.WIRING:

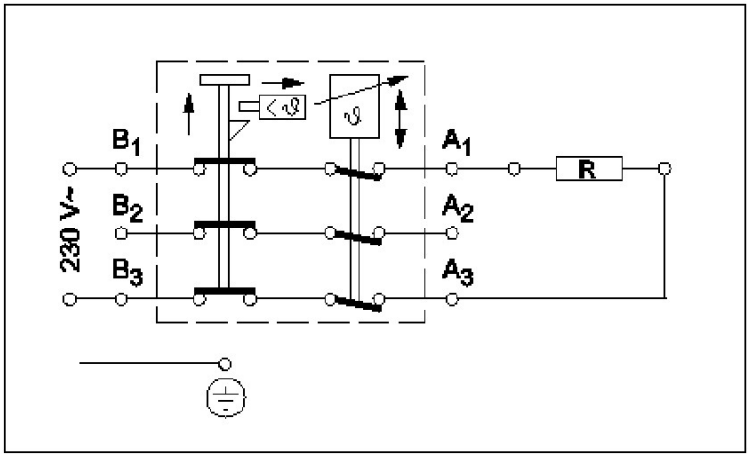

Fig 4: Z150 ESTD, Z200 ESTD

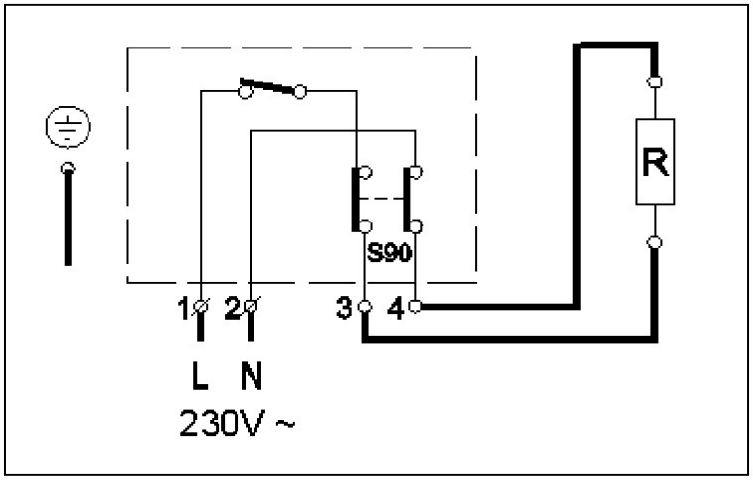

Fig 5: Z30..100 ESD, 100..200 ESD-H:

3. The connecting leads must be connected into the terminal block. The green-yellow wire must be connected to the earthing screw fitted to the closing lid. The bare wire end is positioned under the earthing washer and fixed with a spring washer and nut. The hot water storage tank-wiring diagram is seen in Fig. 4-5.

4. Operating the hot water storage tank without protective earthing is forbidden!

5. After connecting the connecting leads must be free from tension by fixing the bottom plate.

PUTTING INTO OPERATION

After installation the storage tank can be put into operation. When heating up for the first time, have the operation checked by a specialist.

1. Open the shut-off valve and the hot water tap, however the other shut-off valves must be closed. After the water flow starts, leave it flowing for a few minutes for rinsing purposes, then shut it off.

2. Connect the appliance to the electrical mains with the mains switch. The signal lamp lights during heating.

3. During the heating up period the expanding water should drip through the drain spout on the combined safety valve.

4. At the end of the heating up period, when the water reaches the set temperature, the lamp switches off.
After draining off about 15% of the water the lamp should automatically switch on again

OPERATION AND MAINTENANCE

If water leakage from inside the storage tank or other anomaly is observed, immediately disconnect from the water and electricity mains, with the shut-off valve and the main switch. **Dripping of the hot water tap can cause damaging overheating.** It is in your interest to repair the tap.

1. Thermal cut-out

In the case of faulty operation or inefficient operation of the thermostat, the heating circuit is broken before the water temperature exceeds 90±7 °C.

2. Heater

In the case of break down of the heating element, its replacement is possible if disconnected from the mains and with removal of the screws from the flange plate with the storage tank drained from water.
Have the repair carried out by a specialist.

3. Active anode

The hot water storage tank is also protected against corrosion by an active anode. The working life of the active anode is dependent on the water and operating conditions. The condition of the anode should be inspected at intermittent maintenance measures carried out for removal of scaling, but **at least every two years**.

The date for the repeat inspection is to be determined by the service expert. If the diameter of the anode has reduced to about 10 mm the anode must be replaced.
After replacement of the active anode the earthing must be restored to match its original condition.
A good metallic contact between the anode and the earthing screw is extremely important.

IF THE ABOVE ARE NOT OBSERVED AND DUE TO THIS THE APPLIANCE'S SAFETY AND UTILISATION CHARACTERISTICS ARE IMPAIRED, YOU WILL LOOSE YOUR GUARANTEE AND WARRANTY RIGHTS.

6. Removal of scale

Scale is deposited on the heater and the tank dependent on the water quality. **The layer of scale deposited on the heater increases the probability of fault in the heater; therefore its cleaning is necessary every 2 years.**

Examination of the electrical connections must be carried out at the same time, because of disconnection of the electrical fittings.

In the case of carrying out breaking of electrical connections on connecting plates of the thermostat, it is necessary to replace the connecting sleeve or the connecting lead, together with inspecting the condition of the thermostat.

THE INSPECTION MAY ONLY BE CARRIED OUT BY A SPECIALIST SERVICE EXPERT.

The necessity of cleaning the inner tank must be examined when removing the mounted closing cover.

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