







DHW STORAGE TANK

ENERGY EFFICIENCY CLASS A

Cooke Industries - Phone: +64 9 579 2185 Email: sales@cookeindustries.co.nz Web: www.cookeindustries.co.nz

DHW STORAGE TANK - ENERGY EFFICIENCY CLASS A

DHW storage tanks designed to satisfy the most rigorous energy requirements in the very latest generation of systems with limited heat loss. Used to increase the availability of DHW heated from external sources, increase the thermal inertia and considerably reduce the heat loss thanks to the insulation properties, at the top of its category.

The insulation of the new **Q** range, made of rigid injected polyurethane with oversized thickness, enables the strict conditions to fall within energy efficiency class A of the ErP standard to be fully satisfied.

The possibility of selecting between different operating pressure (up to 10 bar) and the availability of external cladding with PVC or aluminium finishing, makes this DHW storage tank range suitable for any kind of installation.

Available in CERAMFLON enamelled steel (TA-S Q) or Stainless Steel 316L (TA-X Q) to satisfy the most demanding quality requirements.

High performance insulation to achieve energy efficiency class A

CONSTRUCTION

TA-S Q TA-X Q TANK MATERIAL Carbon Steel Stainless Steel 316L INTERNAL SURFACE TREATMENT **CERAMFLON** enamel Pickling and passivation EXTERNAL SURFACE TREATMENT Anti-rust primer Pickling CAPACITY $200 \div 5000 L$ 200÷500 L VERSION Vertical Vertical CONNECTIONS TYPE Threaded Threaded INSULATION | 200-300 L Hard foam polyurethane injected 80 mm Hard foam polyurethane injected 80 mm INSULATION | 500 L Hard foam polyurethane injected 105 mm Hard foam polyurethane injected 105 mm • PVC Yellow RAL1023 PVC Yellow RAL1023 CLADDING • Aluminium Aluminium ANODE Magnesium STANDARD ACCESSORIES Thermometer Thermometer

PRODUCT FICHE - Reg. 812/2013 supplementing Directive 2010/30/EU & Reg 814/2013 implementing Directive 2009/125/EC						
			Capacity	200	300	500
	Energy class			A	А	Α
TA-S Q	Standing loss	S	W	40	48	54
	Storage volume	V	L	191	293	503
	Energy class			А	А	Α
TA-X Q	Standing loss	S	W	39	47	54
	Storage volume	V	L	192	294	504

WORKING CONDITIONS				
	Capacity	200	300	500
Tank operating pressure (enamelled steel version)	bar	ATM÷8	ATM÷8	ATM÷8
Tank operating pressre (Stainless Steel 316L version)	bar	ATM÷10	ATM÷10	ATM÷10
Tank operating temperature (enamelled steel version)	°C	AMB÷85	AMB÷85	$AMB \div 85$
Tank operating temperature (Stainless Steel 316L version	on) °C	AMB÷99	AMB÷99	AMB÷99

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ErP - Reg. 812/2013 e Reg. 814/2013 | CE

REGULATORY COMPLIANCE

European Pressure Equipment Directive (PED) 2014/68/UE | Sound Engineering Practice - excluded from CE marking - Art. 4.3

D.M. 174/04 | Suitable for contact with water for human consumption

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The proposed diagrams are purely by way of example.

		Capacity	200	300	500
DIMENS	IONS				
Diamete	r without insulation	mm	450	550	650
Diamete	r with insulation	mm	610	710	860
Overall h	neight	mm	1513	1554	1874
Overturn	ing height with without insulation	mm	1635	1710	2065
ATTACC	HI IDRAULICI				
Е	Cold water supply	mm Ø	353 1"1⁄2	369 1"1⁄2	384 1"1⁄2
U	DWH return	mm Ø	1513 1"1⁄2	1554 1"½	1874 1"1⁄2
RC	Recirculation	mm Ø	1003 1"1⁄2	1019 1"1⁄2	1259 1"1⁄2
R	Immersion electric heater	mm Ø	773 2"	789 2"	804 2"
А	Anode TA-S 🝳	mm Ø	853 1"1⁄4	870 1"1⁄4	884 1"1⁄4
А	Anode TA-X 🝳	mm Ø	853 ½"	870 ½"	884 ½"
Т	Thermometer	mm Ø	1253 ½"	1269 ½"	1534 ½"
P1	Sensor	mm Ø	473 ½"	490 ½"	504 1⁄2"
P2	Sensor	mm Ø	1253 ½"	1270 ½"	1534 ½"
AS1	Spare	mm Ø	353 1"1⁄4	370 1"1⁄4	384 1"1⁄4
AS2	Spare	mm Ø	1153 1"1⁄4	1170 1"1⁄4	1184 1"1⁄4
SC	Drain	mm Ø	118 1"1⁄4	109 1"1⁄4	99 1"1⁄4
EMPTY \	WEIGHT				
Empty w	eight TA-S Q TA-X Q	kg	55	65	100



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Note: All the measurements of the connections are considered "from the ground" - The threads are female GAS type (unless otherwise specified) The products higher than 2200mm will be packaged horizontally. In this case, should the cladding be Aluminium type, it will come disassembled to avoid transportation damages.

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ACCESSORIES & SPARE PARTS

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L	L	L	P	v	

	PART NO.			
THERMOMETER Ø65 mm L=150 mm (0÷120)°C	TERMOMETRO-D65_L			
PROBE SOCKET ؽ" L=150 mm Ø _{Int} 10 mm	POZZETTO_L			
THERMOSTAT Ø1⁄2" (0÷90)°C	TERMOSTATO	THERMOMETER	PROBE SOCKET	THERMOSTAT
MAGNESIUM ANODE (TA-S Q)	KIT-ANOD_02			
MAGNESIUM ANODE WITH TESTER (TA-S Q)	KIT-ANOD-TESTER_01		-	
MAGNESIUM ROD FOR TESTER ANODE (TA-S Q)	KIT-ANOD-T_01	and the second s		
ELECTRONIC ANODE KIT	ANODE012X380_P	MAGNESIUM ANODE	TESTER ANODE	ELECTRONIC ANODE

1-3 PHASE IMMERSION ELECTRIC HEATER - STAINLESS STEEL 316L / INCOLOY TUBES Threaded plug 2" | Aluminium box IP55 | V230/400

	•				
Capacity	Capacity/L matching	Length	1-THERMOSTAT Temperature adjusting only	2-THERMOSTAT Temperature adj. & overheating protection	
Watt	L	тт	PART NO.	PART NO.	
2000	$200 \div 500$	280	RES020-200-L280-6-M	RES020-200-L280-6-B	
3000	$200 \div 500$	380	RES030-200-L380-6-M	RES030-200-L380-6-B	
5000	$200 \div 500$	500	RES050-200-L500-6-M	RES050-200-L500-6-B	
6000	300-500	600	RES060-200-L600-6-M	RES060-200-L600-6-B	44 - 1
9000	500	680	RES090-200-L680-I-M	RES090-200-L680-I-B	44
10000	500	680	RES100-200-L680-I-M	RES100-200-L680-I-B	



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PROTECTIVE TREATMENTS FOR CARBON STEEL TANKS

CERAMFLON enamelling

The "CERAMFLON" anti-corrosion treatment is an innovative system for the protection of the metallic walls which has been introduced by the recent developments in the studies on resins, guaranteeing hygiene and many other qualities:

- it is inert and insensitive corrosion thanks to its considerable resistance to ageing;
- it is water-repellent and impermeable to steam and moisture;
- it has a practically zero absorption of humidity and the stability is maintained both at high and low temperatures, so they can withstand even very high thermal excursions;
- it has a high impact resistance and a very low friction coefficient, which avoids large and hazardous adherence phenomena which, in the majority of cases, can be attributed to limescale;
- it has a low dielectric constant which is maintained at variations in operating temperatures.

The application of the resins using triboelectric guns, carried out after careful cleaning of the support, is consolidated on the product after baking in an oven at 200°C.

PROTECTIVE TREATMENTS FOR STAINLESS STEEL TANKS

Pickling and passivation

DHW storage tanks made of Stainless Steel 316L are treated with full immersion pickling procedures and subsequent passivation to ensure the highest hygiene standards.

CATHODIC PROTECTION

The corrosion of a metal structure occurs mainly in areas in which there is the passage of current (oxidation-

Cathodic protection by means of magnesium anodes.

The application of sacrificial magnesium anodes is a simple and economic method to obtain a cathodic protection.

The sacrificial anode creates a situation similar to an electric battery, where the electrodes are represented by the anode and the metal structure to be protected.

Since the magnesium has a dissolution voltage which is much higher than that of other metals, the corrosion will only affect the anode, which will dissolve slowly, to the advantage of the metal structure to be protected.

Given the importance of the protection of the metal against corrosion, the wear of the anode is systematically controlled and it is immediately replaced if consumed.

Cathodic protection by means of electronic impressed current system.

As an alternative to the galvanic system (coupling of materials with different potentials) there is a protection method which consists in applying an equal and opposite continuous current to the metallic structure to be protected, neutralising the voltages formed inside the tank.

Thanks to the modern techniques there is an innovative electronic system of cathodic protection with continuous impressed current. The main advantages are:

- active protection by means of impressed currents from the outside;
- excellent flexibility of operation in order to adhere to the changeable internal coating conditions and the mass of water;
- reduction of maintenance costs due to the permanent protection of the system.

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I	NSULATIONS						
	Insulating material	Removable	Thickness	Density	Thermal conductivity	Operating temperature	Fire reaction class Euroclass EN13501-1
Н	lard foam polyurethane injected	X	80 - 105 mm	40÷42 kg/m ³	$\lambda = 0,019$ W/mK	-10°C / +99°C	F

Rigid Polyurethane

Thermal and anti-condensation insulation made of hard closed cell polyurethane foam (PU), free from CFC and HCFC.

It is available in various thickness and can be injected directly to the shell of the tank to prevent it from condensation and provide the lower thermal dispersion.

The extremely low thermal conductivity coefficient allows it to perfectly fulfil the limits stated by the ErP directive.

CLADDINGS



PVC External cladding made of coloured PVC with hinge closing, suitable for installations in locations protected against adverse weather conditions. The standard colours of each product are indicated in their construction characteristics, but different colours can be requested for each model as shown in the following table.

	PART NO.
PVC CLADDING YERLLOW RAL1023	COVER-RAL1023
PVC CLADDING OREANGE RAL2004	COVER-RAL2004
PVC CLADDING RED RAL3000	COVER-RAL3000
PVC CLADDING BLUE RAL5015	COVER-RAL5015
PVC CLADDING WHITE RAL9016	COVER-RAL9016
PVC CLADDING LIGHT GREY RAL7035	COVER-RAL7035
PVC CLADDING DARK GREY RAL7024	COVER-RAL7024
PVC CLADDING BLACK RAL9004	COVER-RAL9004



<u>ALUMINIUM</u>

ITEM

External cladding made of embossed aluminium sheeting suitable also for outdoor installations. The insulations made with this type of cladding consist of panels joined together by means of rivets and extruded aluminium slats with an exclusive design, specifically designed to facilitate assembly even directly at the installation site. The coverings and flange covers made of same material securely anchored to the insulation guarantee the same levels of quality in terms of duration and outside appearance and do not risk being damaged by the wind and adverse weather conditions.





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