

ECO Line Thermo Tank



To predict the future is to invent it

Product: ECO Line Thermo Tank



SCOPE

The ECO Line Thermo Tanks are primarily used for immersing pipe samples in water at a accurately controlled temperature, during hydrostatic pressure test, but also for conditioning of any type of sample that requires controlled temperature immersion.

The Thermo tank is suitable for testing according to ISO 1167, ASTM D1598 and ASTM D1599



RANGE

The ECO Line Thermo Tank is available in 8 dimensions suitable for countless specimen configurations. The standard product program covers a range of internal dimension from 800x800x860 mm to 3500x1850x1850 mm (LxWxH), meaning a volume range of 0,5 -12 m³ water.



Construction

The ECO Line Thermo Tank is designed with focus on energy efficient operation, intuitiv & ergonomical use and cost efficient construction. The tank consists of an outer heavy duty frame in painted steel with easy removeable cover plates. An inner tank in stainless steel (Aisi 316 and others on request). The isolation of 100 mm rockwool reduces energyloss and eliminates the risk of hot outer surfaces. Lid is easily and safely operated by pneumatic cylinders.

Product: ECO Line Thermo Tank

Highlights

The ECO Line Thermo Tank offers you a lot of advantages, where some of them are listed below.

- Accurate PID temperature control
- Temperature setting $\pm 0,1^{\circ}$
- Low energy consumption
- Automatic water level control
- Large dimension range availability
- High quality parts
- **270° accessibility to tank**
- Easy access - service & maintenance
- Long lifetime construction
- Low noise level
- Full 3D documentation and easy identification of spare parts
- High-end industrial design feature
- Uniform constant temperature

Standards

The ECO Line Thermo tank enables you to test according to below standards:

- ISO 9967
- ASTM D1598
- ASTM D1599

The Thermo tank may very well enable you to test according to other standards beside the ones listed above. Please refer to technical specifications in the back of this brochure or contact SCITEQ A/S for more information.



Features

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270° Easy access

Due to the unique design of the lid opening system, the Thermo Tank is accessible from three sides, making it easy to access the tank, both by hand or by using crane.

Low energy consumption

The Thermo tanks are designed with a direct aim for reducing the energy consumption of the tanks. Therefore inner tank is fully isolated with 100 mm mineral wool to reduce heat loss and risk of hot surfaces. Along with the use of high end efficient, Grundfos circulation pump, JEVI electric heating elements and accurate PID Controlled temperature regulator makes sure energy consumption is kept at a very low level under operation.



Drip Edge

The Thermo Tanks are equipped with an inner tank produced with laser cut, bended, stainless steel plate. A unique feature of this construction is the drip edge, which makes sure that condensated water located on the lid, will be lead to the tank when opening the lid.

Connection points

SCITEQ is using TEMA 2510 couplings for quick and easy connection to the specimens. SCITEQ supplies hanging bars and hooks, for easy fixating of the specimens inside the tank. Other types of couplings, hooks, hoses etc. can be supplied, please see section Accessories. SCITEQ supplies hoses to connect pressure stations and tank as well as for use inside the tank. Hoses can be supplied in different lengths according to need.



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SCITEQ Automation and Software solutions

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Product: ECO Line Thermo Tank



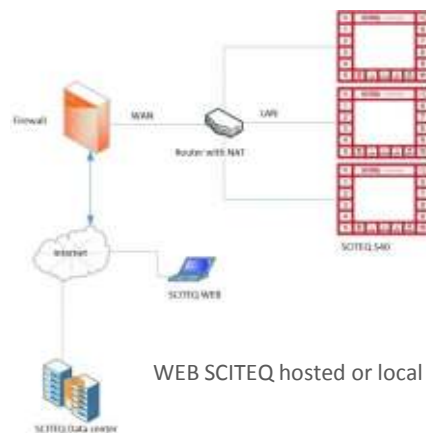
SCITEQ Laboratory saw



SCITEQ X-ACT Pressure



SCITEQ B50 impact tester



WEB SCITEQ hosted or local



SCITEQ ECO Line Thermo Tank

Temperature control cabinet

The ECO Line Thermo Tank comes with an external temperature control cabinet with integrated Yokogawa controller allowing an intuitive monitor and logging of PV's/data.



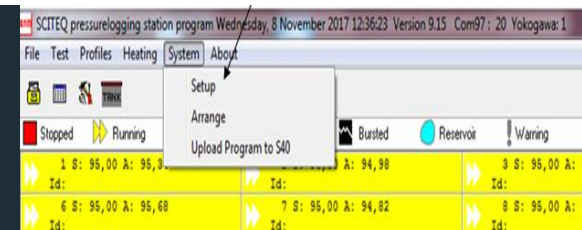
WEB SCITEQ SOFTWARE

WEB SCITEQ SOFTWARE offers cloud based optimized control, monitoring, logging and analyzing of ongoing test in real time. Monitor your test from any device; laptop, tablet, smartphone etc.



PC-SCITEQ

The PC-SCITEQ is an alternative to the WEB SCITEQ Software, with mainly same functions, but installed on a local PC where test is logged and monitored.



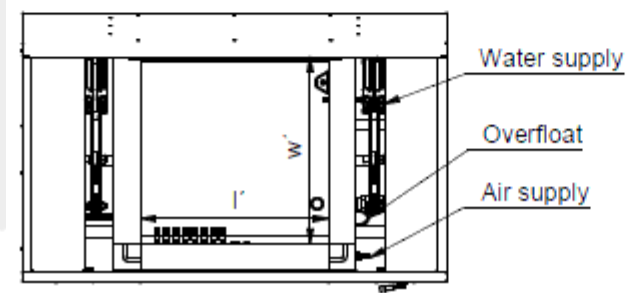
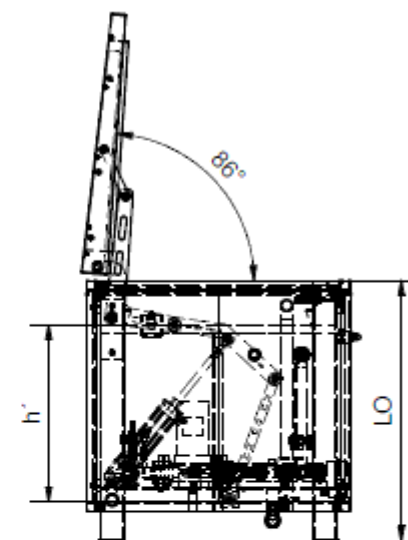
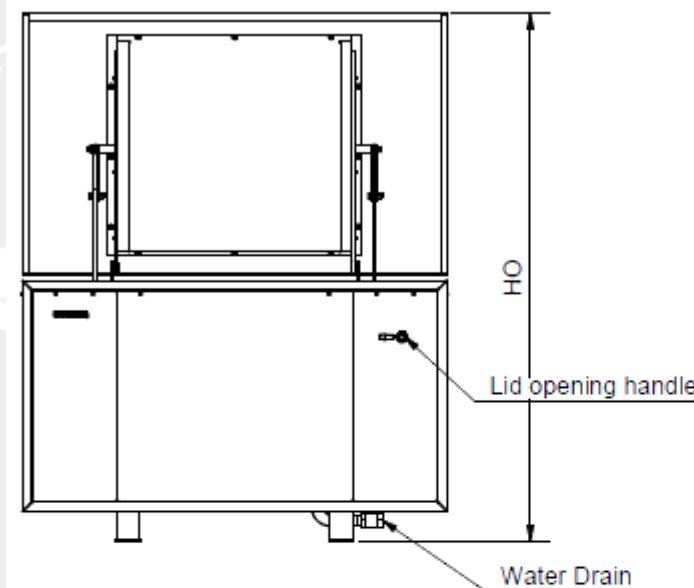
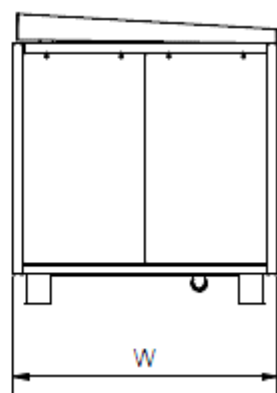
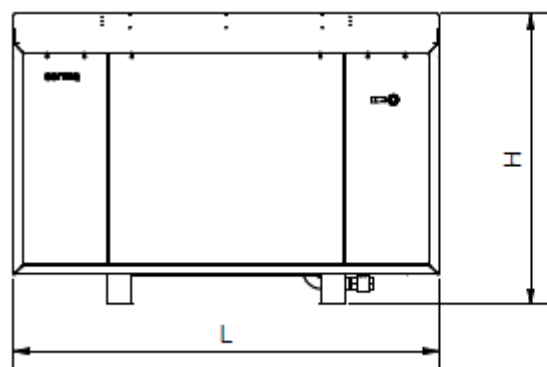
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Dimensions

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NOTE! Please refer to table on following page for dimensions according to above drawings.

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Technical Specification

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Product: ECO Line Thermo Tank

	Standard models -dimensions for Inner tank, l' x w' x h' [mm]							
	800x800x860	1000x1000x1100	1500x1000x1300	2000x1500x1100	2000x1500x1700	2500x1500x1500	3500x1850x1850	4000x2000x2200
External dimensions LxWxH [mm]	1805 x 1163 x 1231	2010 x 1325 x 1475	2520 x 1330 x 1670	3010 x 1830 x 1480	3010 x 1830 x 2070	3510 x 1830 x 1870	4510 x 2180 x 2225	5010 x 2330 x 2570
Water mirror height WH [mm]	Approx: 690	Approx: 940	Approx: 1140	Approx: 940	Approx: 1540	Approx: 1390	Approx: 1680	Approx: 2040
Loading height LH [mm]	1176	1345	1550	1345	1945	1750	2100	2450
Height with open lid HO [mm]	2460	2680	2890	3155	3770	3580	4250	4770
Volume [m3]	Approx: 0,445	Approx: 0,94	Approx: 1,71	Approx: 2,82	Approx: 4,62	Approx: 5,22	Approx: 10,88	Approx: 16,32
Weight, empty [kg]	Approx: 620	Approx: 800	Approx: 1020	Approx: 1120	Approx: 1500	Approx: 1590	Approx: 2600	Approx: 3200
Weight with water [kg]	Approx: 1065	Approx: 2060	Approx: 2730	Approx: 3940	Approx: 6120	Approx: 6810	Approx: 13400	Approx: 19520
Material: piping and inner tank and lid	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
Material: frame and coverplates	S235JR (Powder coated)	S235JR (Powder coated)	S235JR (Powder coated)	S235JR (Powder coated)	S235JR (Powder coated)	S235JR (Powder coated)	S235JR (Powder coated)	S235JR (Powder coated)
Power supply	3x 400 V, 50/60 HZ	3x 400 V, 50/60 HZ	3x 400 V, 50/60 HZ	3x 400 V, 50/60 HZ	3x 400 V, 50/60 HZ	3x 400 V, 50/60 HZ	3x 400 V, 50/60 HZ	3x 400 V, 50/60 HZ
Power consumption (Heating mode)	Approx: 5 KW, 7,3 A	Approx: 5 KW, 7,3 A	Approx: 10 KW, 14,6 A	Approx: 19 KW, 27,5 A	Approx: 19 KW, 27,5 A	Approx: 19 KW, 27,5 A	Approx: 28.5 KW, 42 A	Approx: 40 KW, 58 A
Approx: Heating time (6-95 °C)	12 Hours	26 Hours	24 Hours	24 Hours	31 Hours	35 Hours	48 Hours	48 Hours

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	800x800x860	1000x1000x1100	1500x1000x1300	2000x1500x1100	2000x1500x1700	2500x1500x1500	3500x1850x1850	4000x2000x2200
Ambient operation temperature	2 – 28 °C	2 – 28 °C	2 – 28 °C	2 – 28 °C	2 – 28 °C	2 – 28 °C	2 – 28 °C	2 – 28 °C
Water temp. range at 22 °C ambient*	22 – 95 °C	22 – 95 °C	22 – 95 °C	22 – 95 °C	22 – 95 °C	22 – 95 °C	22 – 95 °C	22 – 95 °C
Additional Cooling availability (0-20 °C)**	√	√	√	√	√	√	√	√
Power consumption (Cooling mode)	Approx: 7 KW, 10,2 A	Approx: 7 KW, 10,2 A	Approx: 7 KW, 10,2 A	Approx: 7 KW, 10,2 A	Approx: 7 KW, 10,2 A	Approx:12 KW, 17,5 A	Ask for info	Ask for info
Air supply	4-8 bar	4-8 bar	4-8 bar	4-8 bar	4-8 bar	4-8 bar	4-8 bar	4-8 bar
Water supply	Normal tap 2-6 bar	Normal tap 2-6 bar	Normal tap 2-6 bar	Normal tap 2-6 bar	Normal tap 2-6 bar	Normal tap 2-6 bar	Normal tap 2-6 bar	Normal tap 2-6 bar
Max. recommended no. of inlets	40 pcs	50 pcs	70 pcs	100 pcs	100 pcs	130 pcs	200 pcs	250 pcs
Temperature control accuracy***	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C
WEB SCITEQ Software availability	√	√	√	√	√	√	√	√
Calibration certificate	√	√	√	√	√	√	√	√
CE Approval	√	√	√	√	√	√	√	√

*Chiller Is required if temperature needed is below ambient.

**Cooling requires additional chiller system, and maybe some changes in automation and piping also.

*** Accuracy is both for Chiller and heating mode.

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Inlets 1 in/1 out (1 in 2-20 out)

ECO Line Thermo Tank inlet/outlets can be configured in various ways. Number of quick connectors for pressure supply acc. to as many samples per station as needed.



Couplings

ECO Line Thermo Tank is standard couplings are Tema 2510 quick connectors. Other systems can be supplied e.g. Tema 1100, 1300, 1800, etc.



Hoses from pressure to tank

SCITEQ is supplier of hoses to connect pressure stations to the Tank. Supplied in different lengths according to need.



Hoses inside tank

SCITEQ is supplying hoses for use inside the Tank. These are made with inner material suitable for the heat and pressure and protected with stainless outer hose.



Chiller for Cooling

In order to keep temperature of the tank below ambient you may need a chiller solution. Let SCITEQ supply the chiller systems according to your needs.



Hang bar and hooks

SCITEQ's custom-made hanging bars and hooks makes it easy to fixate test samples inside the tank. Made in AISI 304 to withstand the environment.

Essential & Associated Equipment

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Essential Equipment



SCITEQ End closures

SCITEQ is supplier of various ranges of end closure suitable for almost any purpose. Within a range of $\varnothing 8$ - $\varnothing 1600$ mm, with or without tie-bars.



X-ACT Pressure Test Equipment

The SCITEQ X-ACT Pressure Test Equipment is the obvious choice to pressure test your sample. Equipment suitable for testing within a range of 1-400 bar, 2-100 l/min.

Associated Equipment



SCITEQ Heating Oven

SCITEQ offers a large range of heating ovens for temperature up to 250 °C.



SCITEQ Conditioning Chamber

SCITEQ supplies customized conditioning chambers for a temperature range of (-)25 -20 °C. Easy to configure and scale according to your needs.

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Service & Support around the Globe



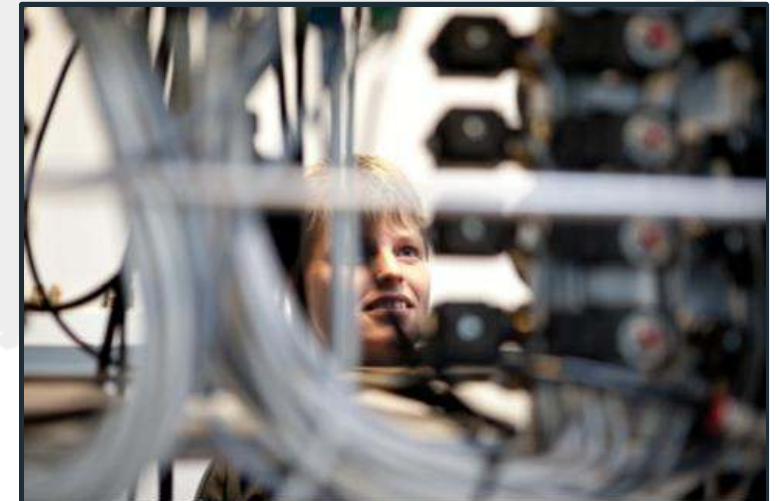
Installation & Training

SCITEQ's trained service technicians perform onsite installation of your new SCITEQ equipment as well as onsite or remote training of your operating personnel who will be using the equipment.



Service agreements

With a SCITEQ service agreement you can rest assured your equipment will perform 100% all the time. Specialized service engineers will visit you annually to perform the best service and calibration of your equipment. You can always liaise with your SCITEQ service technician when in need of advice, looking for new solutions or trying out new equipment.



Support online & on-site

SCITEQ offers online and on-site support on all SCITEQ products, for fast and effective problem solving, training, setup, etc. If you have an unforeseen challenge or you need advise asap, you can contact service@sciteq.com or call us for urgent support.