3D TRASAR™ TU8550 Series

Water treatment instrumentation for pasteurizer applications

- Maximize production capacity and minimize water intake by managing microbiology.
- Maximize product quality by managing corrosion.
- Minimize maintenance with automated sensors cleaning.
- Maximize performance with remote communications.

NALCO Water
An Ecolab Company

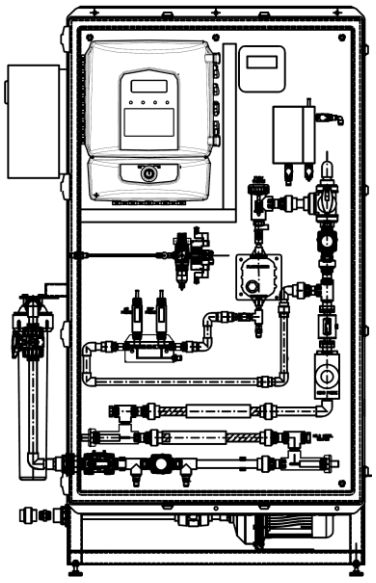
Pasteurizers in the beverage industry are dynamic systems and consist of several semi-independent zones at different temperatures. The cold zones are susceptible to microbiological contamination; the warm zones will cause corrosion of cans or bottle crown corks. Due to the dynamics in the pasteurizer, close monitoring and control of treatment chemistry is vital.

A fouled pasteurizer requires boil-outs and refilling with clean water. Lowering boil-out frequencies with 3D TRASAR technology reduces water and energy usage, and increases production capacity. 3D TRASAR technology contributes to product quality and the lifetime of conveyor belt, pasteurizer and pumps. It impacts total cost of operation, i.e. cost of water, energy, production, off-spec and repairs.

3D TRASAR technology consists of water knowledge, chemical services, automation and data analytics. The 3D TRASAR TU8550 series with advanced automated microbiology control is the instrumentation part of the technology. It is based on a reliable, accurate, self-cleaning, low maintenance oxidant sensor that responds quickly to changes in oxidizing biocide concentrations. Other sensors can also be cleaned automatically with compressed air. Corrosion inhibition is checked continuously by monitoring inhibitor concentrations and corrosion trends. Remote connectivity allows us to inform you when manual intervention is required, analyze performance and determine improvement opportunities.

Ordering Information

Part No.	Description
3DT-TU8550.88	3D TRASAR instrumentation for pasteurizers, 240Vac
3DT-TU8551.88	As previous, but 120Vac



TU8550 / TU8551

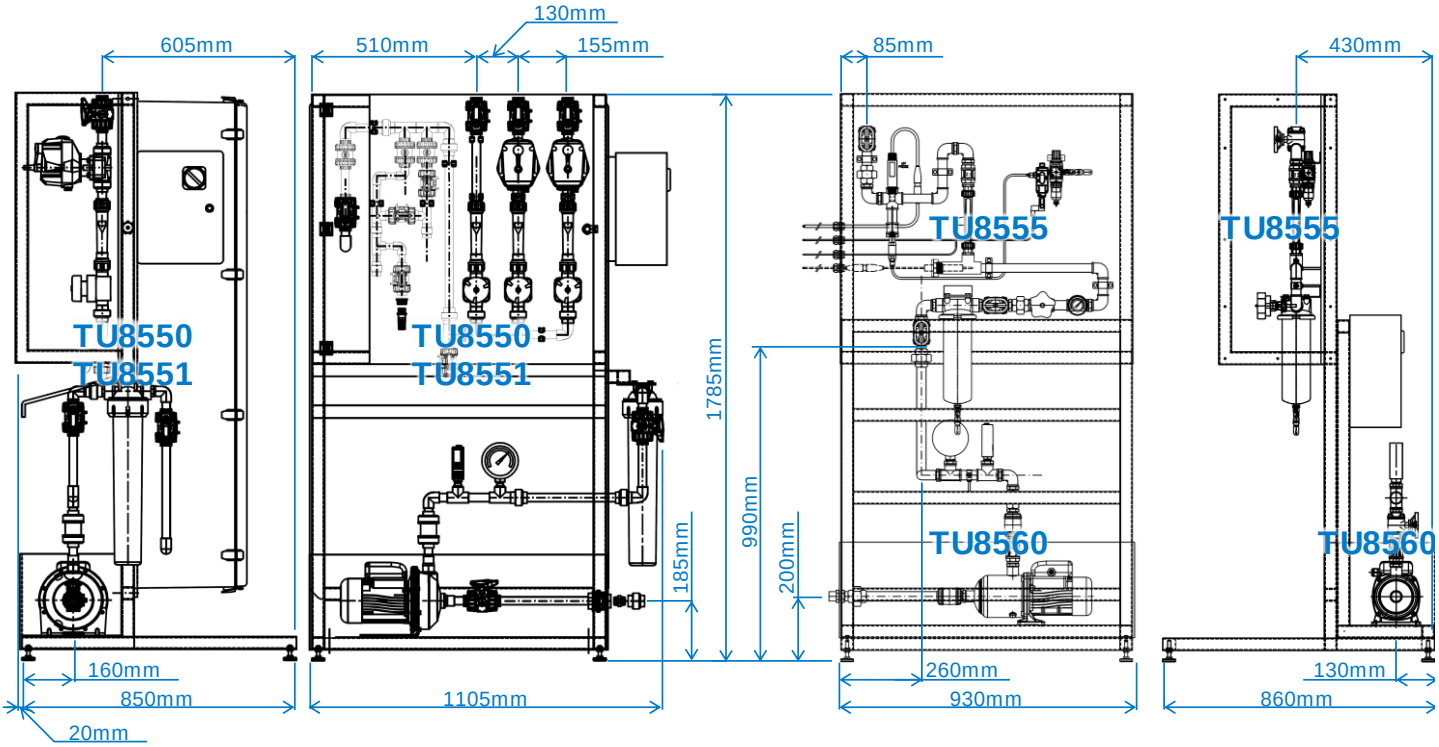
Accessories

Part No.	Description
3DT-NCMA1100.88	NCM corrosion sensor, aluminium AI1100
3DT-NCMA6061.88	NCM corrosion sensor, aluminium AI6061
3DT-TU8555.88	Hot zone monitoring for pH sensor and aluminium corrosion sensor. Select one of aluminium sensors above (not included)
3DT-TU8560.88	Booster pump for 3DT-TU8555.88, 240Vac
6065523	Motorized valve, 240Vac, temperature sensor and strap to block sample water to 3DT-TU8550.88 during boil-outs
6065531	As previous, but 120Vac

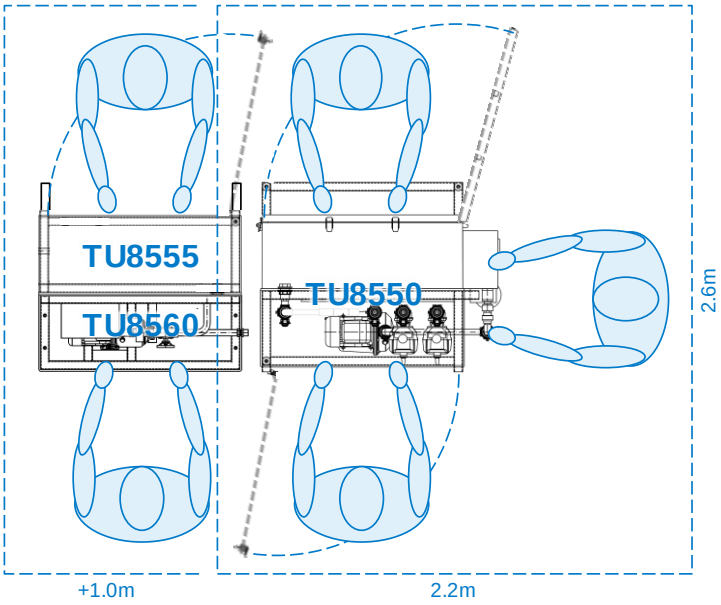
Consumables

Part No.	Description	Maintenance	Startup
3DT-NCMMS1.88	Replacement NCM corrosion sensor, steel 1018	●	-
3DT-PHPRB1.88	Replacement pH sensor	●	-
3DT-ORPPRB1.88	Replacement ORP sensor	●	-
060-TR5226.88	Replacement desiccant/indicator kit for fluorometer	●	-
460-S0940.75	Calibration solution, 3D TRASAR	●	●
460-S0407.75	Calibration solution, pH 7	●	●
460-S0406.75	Calibration solution, pH 4	●	●
460-S0297.75	Calibration solution, conductivity, 3000uS/cm	●	●
460-S0298.75	Calibration solution, conductivity, 600uS/cm	●	●
500-P2817.88	Cleaning brush for fluorometer	●	●
500-P0120.88	Beaker, 0.5L, plastic, disposable	●	●
500-P2147.88	Syringe, 60ml, plastic, with Luer-lok connection for fluorometer	●	●
6061575	Preventative maintenance package, for 12 months, with oxidant sensor, diaphragm, springs, valve pin, o-rings, batteries	●	-

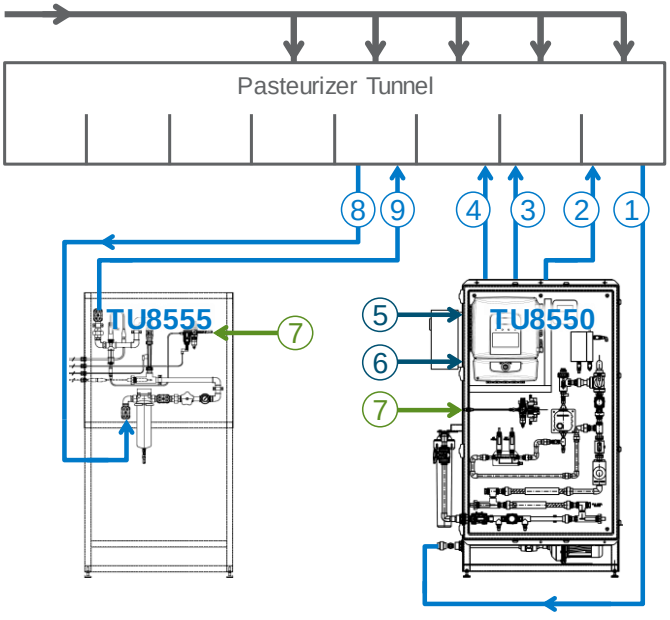
Dimensions



Installation space



Installation example



1 Cold sample water
2 Sample water return with or without biocide
3 Sample water return with biocide
4 Sample water return with biocide
5 Biocide
6 Biocide or dispersant
7 Compressed air for sensor cleaning
8 Hot sample water
9 Sample water return

Specifications

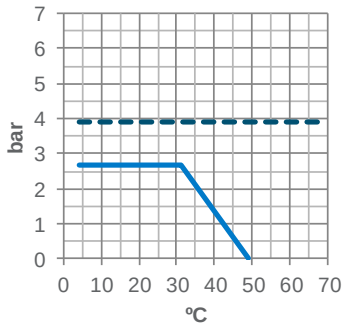
Electrical	TU8550 / TU8551
Power	TU8550: 240Vac, 50Hz, 13A@240Vac TU8551: 120Vac, 50Hz, 6.5A@120Vac
Analog inputs	8, non-isolated, 4...20mA or 0...10V. For voltage inputs, the input impedance is 240Ω for mA and 110KΩ for V.
Digital inputs	16 (3 in use): 8: e.g. flow switch, remote start/stop (interlock) 4: 0...100Hz, e.g. water meter pulse 4: 0...1000Hz, e.g. flow meter
Modbus connections	6 total, 1 in use
Control relay outputs	8 (5 in use), NO/NC, mechanical, max. 250Vac, max. 12A for all 8 relays combined. Each relay fused at 4A, powered or contact operation.
Alarm relay output	2, NO/NC, mechanical, max. 250Vac, fused at 4A, contact operation.
Analog outputs	8, non-isolated, self-powered, 4...20mA.

Electrical	TU8555
Power	240Vac, 50Hz, 4A@240Vac
Digital inputs	1: remote start/stop (interlock)

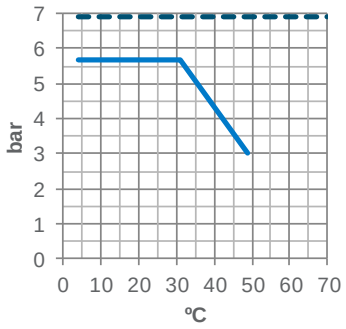
Installation	TU8550 / TU8551	TU8555	TU8560
Protection	IP55	IP65	IP55
Ambient temp.	4...50°C		
Relative humidity	5...80% humidity @ 31°C (linear to 50% at 40°C)		
Weight	182kg	25kg	
Regulatory	CE		
Location	Indoor		

Water supply	TU8550 / TU8551	TU8555	TU8560
Wetted materials	uPVC, FKM (Viton), brass, SS, PVDF, EPDM, PTFE	SS316, PTFE	
Flow	1000...1800L/h	100...200L/h	
Pressure	Inlet: 0...2.7bar, after booster pump: 0...5.7bar	1...6.9bar	0...3.9bar
Pressure loss	< 0.8bar		
Temperature	4...49°C	5...70°C	

TU8550 / TU8551 ——— TU8555 / TU8560 - - - - -



Inlet water



After/without booster pump

Air supply	TU8550 / TU8551	TU8555
Pressure	1.4...2.1bar above sample water pressure after booster pump. The air pressure plus sample water pressure may not exceed the sample water pressure limits.	
Required flow	8...10m³/h, flow is required for 1 minute per 3 hours	
Air quality	Clean (without oil)	

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