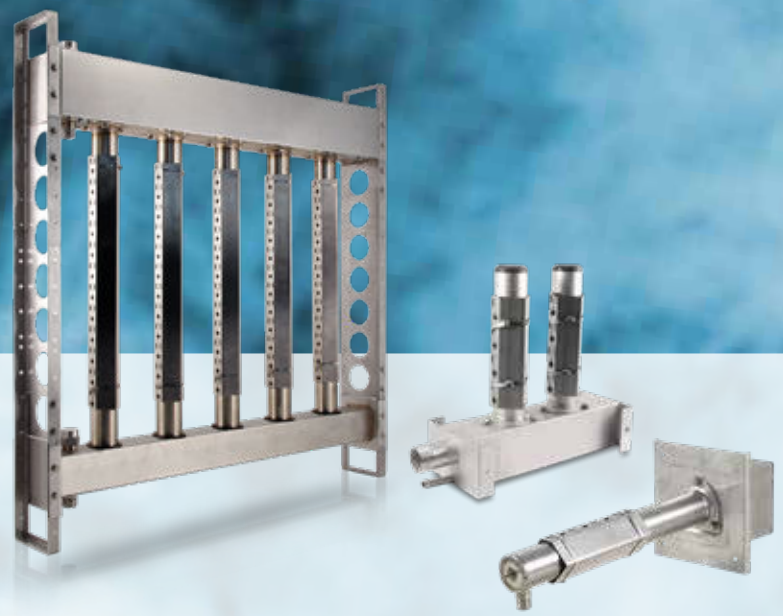


ultimateSAM

High-efficiency pressurised or atmospheric pressure steam distributors

Steam distributor for short absorption distances

Energy saving by minimising condensate formation and the amount of heat dispersed in the AHU or duct. Suitable for steam from both pressurised circuits and humidifiers.

- Fully aseptic, high precision humidification;
- minimum absorption distance (even below 0.2 m);
- suitable for steam flow-rates from 15 kg/h to 1110 kg/h and pressures from 0.01 barg to 4 barg;
- fully AISI 304 stainless steel structure.

step 76 mm step 152 mm step 304 mm

compact version - step 102 mm

single pipe

ultimateSam is a steam distributor designed to take in pressurised or atmospheric pressure steam and the deliver it dry directly into the duct or air handling unit.
Single- and multi-pipe distributors ensure the best solution for every need, in terms of both uniform steam distribution and the widest possible area covered.
The minimum absorption distance and reduced condensate formation are guaranteed even with high air speeds (> 4 m/sec).

Adaptability

ultimateSAM can be made to measure:

- multi-pipe versions from 450x600 mm to 3000x3100 mm with pipes spaced 76, 152 or 304 mm apart;
- horizontal single pipe versions with a total length from 503 mm to 2175 mm;
- ultimateSAM compact version with shorter pipes, spaced 102 mm apart for small air ducts;
- ultimateSAM version with pipes spaced 304 mm apart to optimise steam distribution in large ducts with low humidification loads;
- steam supply either from the top or the bottom.

Energy efficiency

Maximum energy savings. Insulated models reduce air heating and condensation.

Precision

Suitable for high-precision humidification thanks to uniform steam distribution in the AHU/duct and the valves with electrical operation for even more accurate modulation.

Hygiene and materials

Made from AISI 304, with PPS components (Ryton with a continuous operating temperature of 220°C/428°F). The gaskets in contact with the steam are made from silicone for high temperatures (150°C/300°F max) or EPDM for those not in contact with the steam.

Anti-condensate nozzles

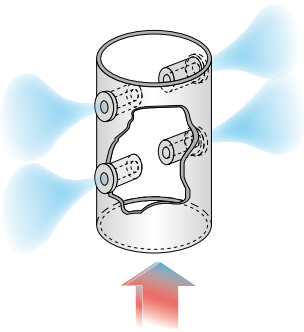
To ensure a very short absorption distance and have only dry steam injected into the AHU/duct, the pipes (AISI 304 steel) are equipped with nozzles (Ryton - PPS) that take the steam from the middle of the pipe, away from the walls where condensate may form.

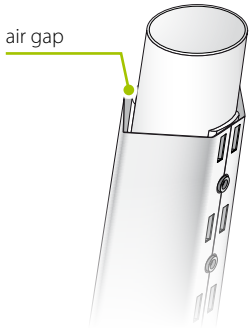
Pipe insulation

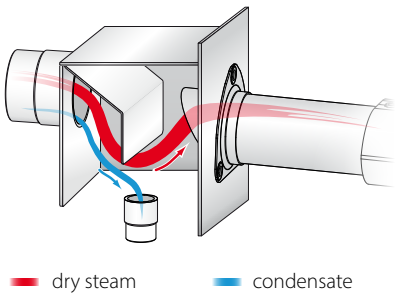
The pipes can be ordered with air gap insulation. An AISI 304 steel structure isolates the steam pipe from direct contact with the air in the AHU/duct, reducing condensate formation by 30%.

Condensate separator manifold for SA0* single pipe models

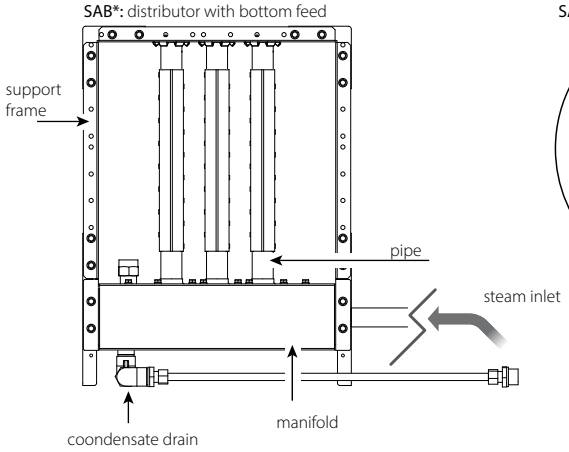
In the single pipe versions, the manifold acts as a condensate separator. Thanks to the deflector, the steam is forced to follow a path in which it is separated from any condensate drained through the discharge terminal. Only dry steam therefore enters the distributor pipe.

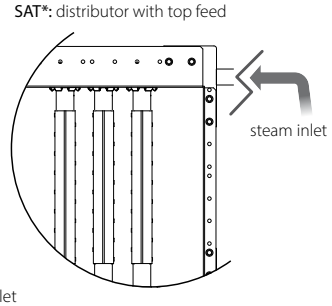


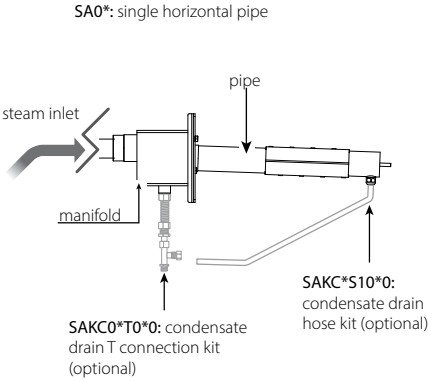


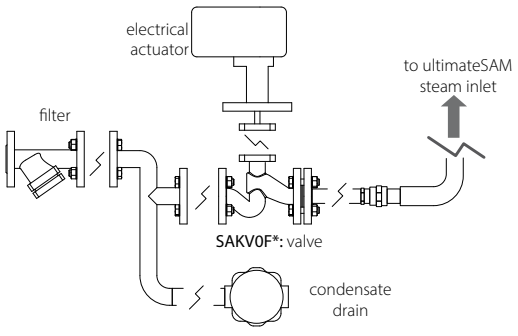


OVERVIEW DRAWING ultimateSAM

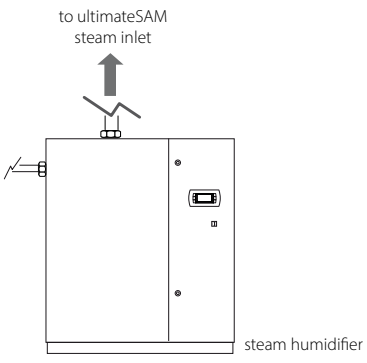






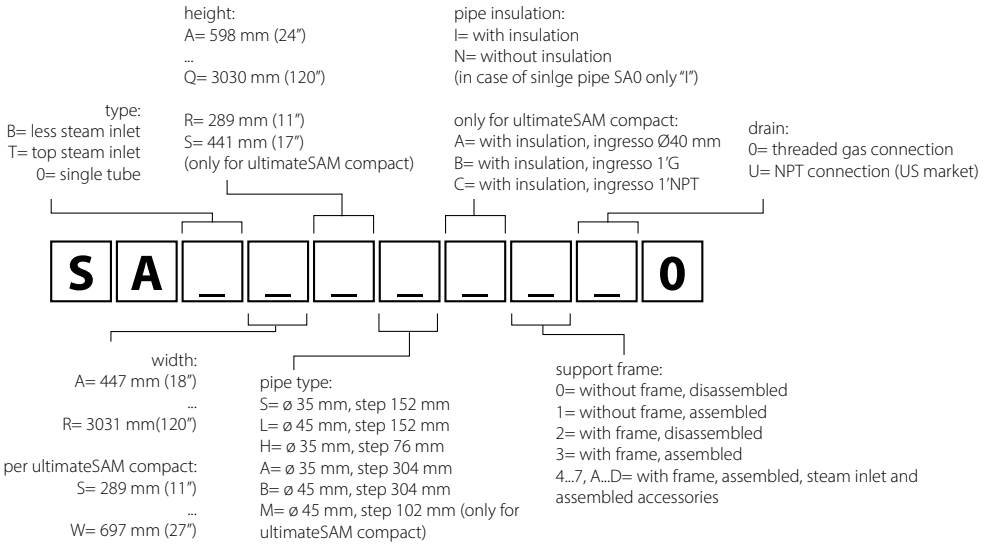


application with steam under pressure



application with steam at atmospheric pressure

Part number



Technical specifications

Models	Description	Maximum steam flow-rate at atmospheric pressure	Maximum pressurised steam flow-rate
SA0*	Single-pipe version	From 20 kg/h to 50 kg/h (44 lbs/h to 110 lbs/h)	From 20 kg/h to 140 kg/h - (44 lbs/h to 308 lbs/h)
SAB*	Multi-pipe version with steam supply from the bottom	From 15 kg/h to 370 kg/h (33 lbs/h to 814 lbs/h)	
SAT*	Multi-pipe version with steam supply from the top	From 60 kg/h to 1110 kg/h (132 lbs/h to 2447 lbs/h)	

Headquarters

CAREL INDUSTRIES HQs
Via dell'Industria, 11
35020 Brugine - Padova (Italy)
carel@carel.com

HygroMatik GmbH
Lise-Meitner-Straße 3
24558 Henstedt-Ulzburg - Germany
hy@hygromatik.de

RECUPERATOR
Via Valfurva 13
20027 Rescaldina (MI), Italy
customercare@recuperator.eu

ENGINIA S.r.l.
Viale Lombardia, 78
20056 Trezzo Sull'Adda (MI), Italy
commerciale@enginiasrl.com

For more information

CAREL Asia - www.carel.hk
CAREL Australia - www.carel.com.au
CAREL Central & Southern Europe - www.carel.com
CAREL Czech & Slovakia - www.carel.cz
CAREL spol. s.r.o.
CAREL Deutschland - www.carel.de
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CAREL France - www.carelfrance.fr
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