



## SVALBARD-H

- Available in 1200mm to 3000mm lengths
- Adjustable pressure/air flow rate
- Adjustable flow pattern
- Dimensioning program Auracool - H on our website

## APPLICATION

Svalbard-H is a hydronic cooling, heating and ventilation system for use in offices, shops, schools etc. The system is designed to provide excellent cooling effect, and a high induction level ensures a draft-free environment in the occupied zone. Svalbard-H is made for corner installation, i.e. between wall and ceiling.

### Design

- Nozzle configuration for the chilled beam, i.e. desired air supply and pressure, is specified at time of order.
- Svalbard-H comes with integrated air flow rate measuring point.
- The front panel can be folded down for inspection and cleaning.
- Svalbard-H is available in installation lengths of 1200, 1800, 2400 and 3000 mm.
- Coil types: SKB = standard cooling coil or VKB heating and cooling coil.
- Dispersion type: unidirectional
- Connection to air: Ø125 mm (spigot dimension).
- Connection to air and water on same side
- Connection to water, cooling and heating: Cu Ø15x1.0 mm
- Changeable flowpattern via Jet Split lamellae in the beams outlet.
- Blind cover can be provided for adaptation to the wall. See Figure 9.

## DESCRIPTION

Material and surfaces

Frame and casing in galvanised steel. Delivered in a powdered painted finish (white RAL 9003 - gloss 30) as standard. Copper tube coils with aluminium lamellae. Adjustable lamellae are in a plastic design.

INSTALLATION



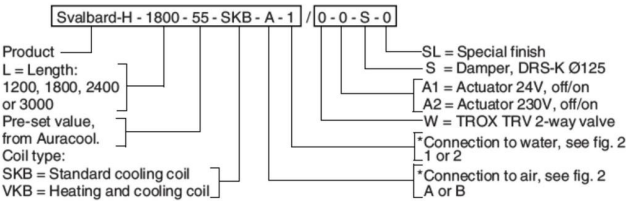
SVALBARD-H

Svalbard-H is supplied with a mounting bar for attachment to wall, and to which the chilled beam is then attached. Detailed installation instructions is to be found on our website: [www.trox.no](http://www.trox.no)

WATER VALVE

The water valve is to be installed on the return (chilled water out), and with the water-valve arrow pointing away from the cooling coil (the various connection options are shown in fig. 8).

TECHNICAL INFORMATION



Example:  
Svalbard-H-1800-55-SKB-A-1/0-0-S-0  
Explanation:  
Svalbard-H, corner beam, length 1800 w/ pre-set value 55 and standard cooling coil  
Connection to air A and water 1.  
Commissioning damper DRS-K Ø125 supplied separately.  
Connection to air and water on same side as standard, A-1or B-2.

Svalbard-H-1200 mm									
Δt <sub>a</sub> [°C]	6		8		10		L <sub>a</sub> dB(A)		
Total pressure in duct [Pa]	40	80	40	80	40	80	40Pa	80 Pa	
Air flow rate [m³/h]	40	110	130	150	170	190	210	23	32
	50	120	140	160	190	200	230	27	33
	60	120	150	170	200	210	240	30	35
	70	130	150	180	200	220	250	32	36
	80	140	160	190	210	230	260	34	38
	100	160	180	210	230	260	300	38	42

Table 2: Cooling effects at 0.06 litres of water per sec

Svalbard-H-1800 mm									
Δt <sub>a</sub> [°C]	6		8		10		L <sub>a</sub> dB(A)		
Total pressure in duct [Pa]	40	80	40	80	40	80	40Pa	80 Pa	
Air flow rate [m³/h]	40	150	180	200	220	240	270	21	29
	60	170	190	220	250	270	310	26	32
	80	180	210	250	290	310	360	29	34
	100	200	230	270	310	330	380	32	37
	120	210	240	280	320	350	400	34	40
	140	220	250	290	330	360	420	36	42

Table 3: Cooling effects at 0.06 litres of water per sec

Svalbard-H-2400 mm									
Δt <sub>a</sub> [°C]	6		8		10		L <sub>a</sub> dB(A)		
Total pressure in duct [Pa]	40	80	40	80	40	80	40Pa	80 Pa	
Air flow rate [m³/h]	60	200	230	270	300	340	370	22	29
	80	220	250	295	330	370	410	26	32
	100	240	270	320	360	400	450	29	35
	120	250	290	335	385	420	480	31	37
	140	260	300	350	400	440	500	33	39
	160	270	310	360	410	450	520	35	41

Table 4: Cooling effects at 0.06 litres of water per sec

Svalbard-H-3000 mm									
Δt <sub>a</sub> [°C]	6		8		10		L <sub>a</sub> dB(A)		
Total pressure in duct [Pa]	40	80	40	80	40	80	40Pa	80 Pa	
Air flow rate [m³/h]	60	230	240	310	330	390	420	21	29
	80	250	270	340	380	430	480	23	31
	100	270	310	370	420	460	520	26	34
	130	300	340	400	450	500	560	30	37
	160	320	360	430	480	530	600	33	39
	180	340	380	450	500	550	620	35	41

Table 5: Cooling effects at 0.06 litres of water per sec

Air is supplied via nozzles, and indoor air is extracted and fed through the coil. Effective mixing of indoor air and supply air, i.e. induction, minimises the risk of draft in the occupied zone. When Svalbard is utilised for heating, the same technique is used for dispersion of heat along the ceiling. The indoor air is extracted through the perforated area on the unit's front-panel in order to avoid dirt accumulation on the ceiling.