

Most Energy Efficient Emergency Shower With Hybrid Chiller Technology

Smith Applied Solutions develops green and energy-efficient emergency shower and eyewash solutions for extreme environments. ATEX-compliant Hybrid Tank Shower Chiller system uses patented technology to provide a cooling system that consumes only 1/5th of the power of conventional chillers.



Patented (US Patent)



80% Lower Power Consumption

This hybrid chiller combines passive cooling and active cooling to provide 80% less power than a typical chiller.

Zero Footprint

The compact hybrid chiller does not take up any space on the ground and is attached to the tank directly. This also saves additional civil work that is needed for a ground-based chiller.

Quick Installation

Unlike a typical chiller + shower system, the unit comes with the chiller integrated into the tank eliminating the need for the tank-to-chiller connection.

Highly Reliable

Reliability is improved by eliminating 60% of moving parts.

General Specifications

Capacity	1500 Liters
Supply Pressure	0.5 to 10 bar(g)
Supply Connection	1" NPT (or as per customer specification)
Shower Flow Rate	20 US Gallons per minute
Eyewash/Facewash	3 US Gallons per minute
Shower Operation	Pull rod (optional foot operated actuator)
Eyewash Operation	Hand operated (optional foot operated actuator)

Material of Construction

Water Tank Material	SS316L
Outer Cover Material	SS316L/GRP
Piping Material	SS316L
Frame Material	GI/SS316L (optional)
Eyewash and showerheads	Stainless Steel/ABS
Valves	SS316L
Pull Rod	SS316L
Accessories	SS Eyewash strainer, Overflow valve, Drain valve
Dimensions	1320 (Width) x 1320 (Depth) x 3900 (Height)

Hazardous Area Chiller Specifications

Hazardous Environment	Suitable for both Zone 1 and Zone 2
Classification	II 2G IIB T4
Ambient Limits	-5°C to +60°C
IP Classification	IP 66
Noise Level	< 45dB
System Safety Features	Compressor Motor Protection, HP and LP Safety Switch, Thermal Protection
Shower Water Temperature Setting	+25°C to +36°C
Refrigerant	R134a
Overall Dimensions (L x W x H)	1150 mm x 300 mm x 950 mm
Heat Exchangers	Copper/SS Tube/Aluminum fins
Power Supply	220 (± 30V) / 1 or 3 Ph / 50 or 60 Hz
Total Power Consumption	< 400 Watts
Warrantee	Three years from the date of delivery