

# Hazardous Area Scroll Compressors

'Ex' Certified Scroll Compressors For Operation In Hazardous Gas Areas



Innovative safety driven IECEx / ATEX certified hazardous area cooling solutions

# Hazardous Area Scroll Compressors



## APPLICATIONS

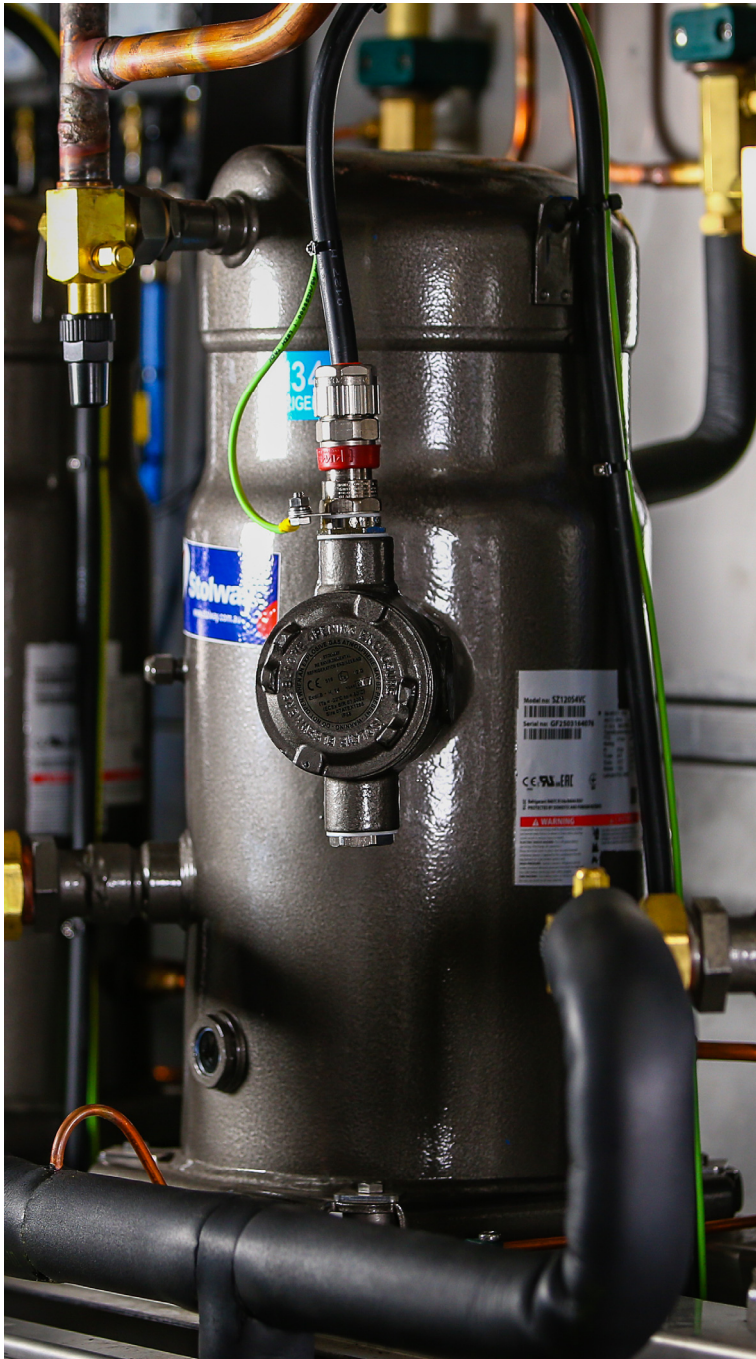
- Hazardous Area HVAC, chiller and refrigeration packages.
- For installation in Stolway equipment or as a suitable solution for OEM, spares, replacement or other packages.
- Robust solution for Safe Area applications (e.g. industrial, desert/remote location, marine) with IP66 ingress protection and durable epoxy paint coating

## TYPICAL DESIGN FEATURES

- Dual IECEx and ATEX certification for Zone 1 Group IIC T3 hazardous areas
- Rated for ambient temperatures up to and including 60°C
- Suitable for outdoor installation featuring IP66 ingress protection.
- Available for use with a range of power supplies (50 Hz or 60Hz, single or 3 phase) and refrigerants.
- Single point power connection
- Compressor model can be either nominated by customer or selected/engineered by Stolway



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## TYPICAL CONSTRUCTION FEATURES


- Fully hermetic Ex d certified compressors for maximum reliability and minimum maintenance
- Available with brazed or Rotalock type connections.
- Epoxy coating providing corrosion protection and long service life in oil, gas and marine applications

## OPTIONS

- Project compliant paint systems & colours
- T4 temperature rating
- Available in “tandem” configuration – compressors installed in parallel in order to: meet capacity requirements, provide redundancy or to provide staged cooling
- Ex rated sump heater accessory for low ambient applications, or as required by project/site specifications
- Site Survey/Service/Installation
- Engineering or supply of other HVAC components

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## Typical Specifications/Features

(Optional Configurations Available)		
Power Supplies. Nom	220-240V/1Ø/50Hz   220-230V/1Ø/60Hz 380-415V/3Ø/50Hz   440-480V/3Ø/60Hz	
Operating Amb. Range. Nom	-20°C to 60°C	
IP Rating	66	
Paint Coating	Durable epoxy coating suitable for extreme environmental conditions (other coating systems available on request)	
Refrigerant	R134a / R407C / R410a / R404a (others available on request)	
Electrical Entry	M25 or M20 (please specify requirement with inquiry)	
Ex Marking	<b>IECEX:</b> Ex db IIB+H2 T3   <b>ATEX:</b> II (1) 2 G Ex db IIB+H2 T3 (IIC and T4 available as separate options)	
Certification		IECEX SIR 11.0155X, Sira 11ATEX1356X
Australian Refrigeration Council Ltd. Certificate	Authorisation No: AU07408	
Scroll Compressor Specifics	Exd Hermetic Scroll Compressors Hermetically sealed unit – no shaft seal to leak. Small, compact footprint. Unloaded starting is inherent to design. No ancillary oil equipment required. High tolerance to liquid feedback – no more liquid slugging failures. Sealed for life construction – No maintenance	
Noise & Vibration	The simple design means lower operating sound and vibration levels than reciprocating compressors. No suction valves to achieve efficient compression. The smooth operation results in quieter operation with less vibration. Greater flexibility when it comes to system design and placement to satisfy the requirements of the most demanding operating conditions.	
Reliability – Few Moving Parts	Fewer parts than a Reciprocating designs (hermetic or semi-hermetic) - eliminates many failure modes. Scroll compression simplifies the compression process to 2 parts: a fixed and an orbiting scroll. There are no suction reeds to break. The parts that are most susceptible to high temperature (wrist pins, connecting rods) are removed.	
Reliability – No Seals	Scroll elements are precision machined to microns of an inch in length, providing a metal-to-metal sealing surface that polishes itself in over time.	