



SPECIALIST MECHANICAL ENGINEERS

SINCE 1991



PC SERIES

**ADVANCED HVAC
SYSTEMS**

www.specmech.co.za | Pretoria RSA
www.specmech.hu | Dunakeszi Hungary



The background of the image is a dark, industrial scene. On the left, there is a large, dark, circular object, possibly a wheel or a part of a machine. In the center, a bright, glowing orange and yellow light emanates from a horizontal slot, suggesting molten metal being poured or processed. The overall atmosphere is one of intense heat and industrial activity. A thick red diagonal line runs from the top left corner towards the middle right. A dark blue diagonal line runs from the bottom right corner towards the middle left.

Engineering

Reliability is KEY.

Comprehensive Solutions in Mining & Industrial

World-Class Innovators

Founded in 1991, **Specialist Mechanical Engineers'** confidence, knowledge, and excellence are forged from more than three decades of industry experience.

SME specialises in engineering unique products and providing turnkey solutions to meet complex requirements, with a focus on HVAC & Complex Mechanical Systems. Our main production facilities originated in Pretoria, South Africa where our head office is based. We have expanded countrywide with strategic service and maintenance centres. Now also in Hungary with a key manufacturing and maintenance facility to best support our European and Asian clients.

We are passionately committed to providing clients with the highest standards, achieved through our risk-comfortable approach to boldly disrupt the industry through innovation.

Specialised

Our success and growth in the industry are a result of quality and innovative solutions.

Our core specialisations are:

- ▶ Specialised Heating, Ventilation & Air Conditioning (HVAC)
- ▶ Custom Design & Manufacturing
- ▶ Electrical & Control Products
- ▶ EPCM & Turnkey Solutions

PC Units (PanelCool Series)

The PanelCool series of compact air conditioning units has been specifically engineered for direct mounting onto electrical panels and enclosures, offering a powerful yet space-saving solution for thermal management in demanding industrial environments.

PanelCool Series: High-Efficiency Cooling for Extreme Environments

The PanelCooler Series delivers advanced cooling solutions with capacities ranging from 0.75 kW to 4.5 kW, engineered for exceptional performance in the most demanding conditions. These units are designed to operate reliably in ambient temperatures up to 65°C. Their robust construction and modular design ensure ease of maintenance and outstanding reliability, making them ideal for harsh industrial environments.

Durable Construction

Constructed from high-grade stainless steel and customizable with powder-coated finishes in any color, PanelCooler units are built to withstand challenging conditions.

Purpose-Built Controllers for Optimal Performance

Equipped with proprietary controllers, field-proven for over a decade, the PanelCool Series ensures accurate temperature regulation. These controllers support multiple communication protocols, enabling seamless remote monitoring and management of unit performance, enhancing operational efficiency and reliability.

Versatile Applications

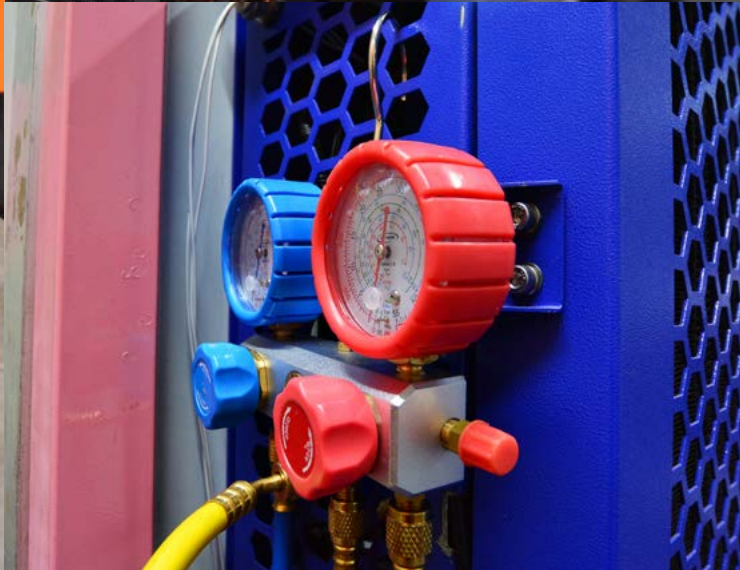
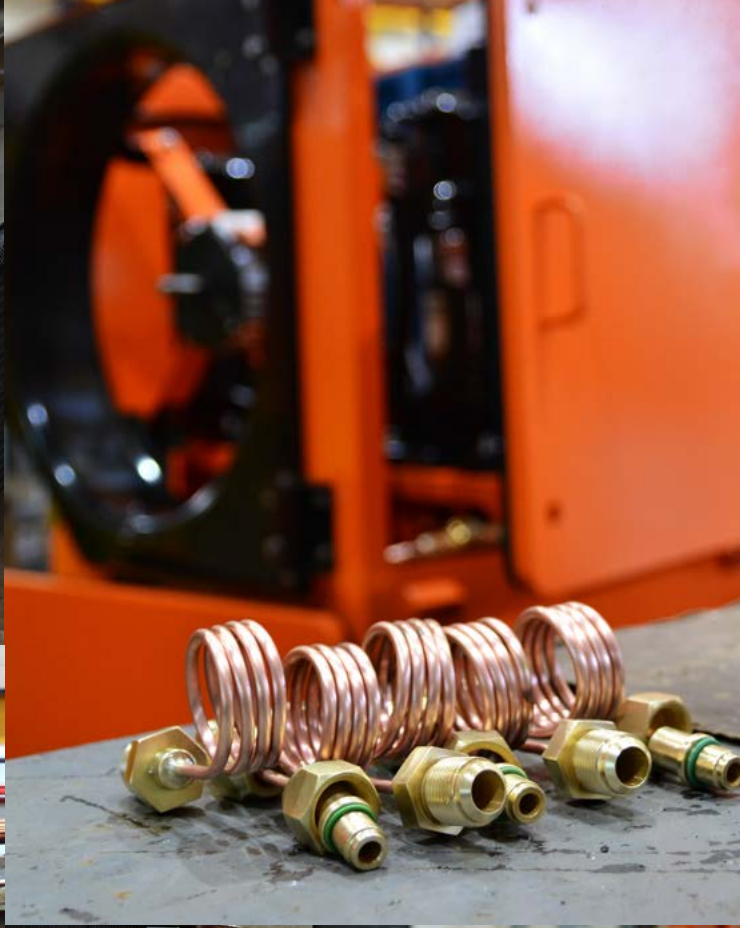
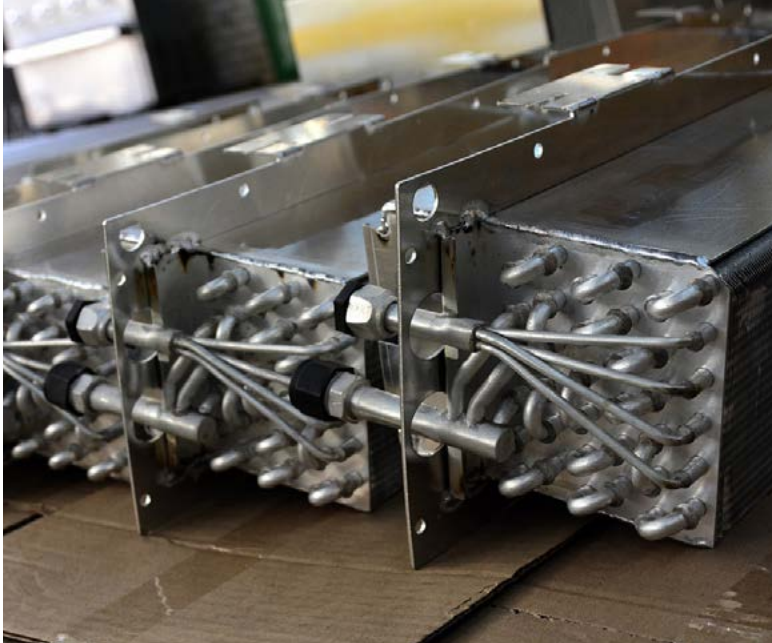
The PanelCool Series is designed for high-temperature industrial settings with significant dust and chemical exposure. Typical applications include cooling switchgear PLCs, variable speed motor drives and electronics (typically mounted inside electrical panels) ensuring equipment longevity.

Comprehensive OEM Support

As a dedicated Original Equipment Manufacturer (OEM), we provide end-to-end support throughout the product lifecycle. This includes professional installation, routine maintenance, comprehensive training, readily available spare parts, and proactive obsolescence management, ensuring uninterrupted operation and long-term reliability.

Compact Alternatives: MK-Series

For applications requiring higher cooling capacities (5 kW to 20 kW), our MK-Series offers integrated solutions that incorporate many of the same proven features as the PanelCooler Series, delivering reliable performance in a compact form factor.



HVAC FOR MINING & INDUSTRIAL

PC 075



SPECIFICATIONS

Model: PC075

Electrical supply	230V $\pm$ 10%, 50Hz
Cooling Capacity	0.75kW
Maximum Ambient	65°C
Refrigerant	R134a
Max Input Current @ 400V	3A
Fresh Air Airflow	No Fresh Air
Recirculating Airflow	144m ³ /h
Dimensions	453 x 265 x 818 mm (L x W x H)
Weight	52kg
Enclosure	3CR12 or Stainless Steel
Compressors	Single Rotary Compressor

SPECIAL FEATURES

Dust Filtration	None, but can be added as additional module
Secondary Filter	None, but can be added as additional module
Interface Types	Rear, but other variants are possible

PC 150



SPECIFICATIONS

Model: PC150

Electrical supply	230V $\pm$ 10%, 50Hz
Cooling Capacity	1.5kW
Maximum Ambient	65°C
Refrigerant	R134a
Max Input Current @ 400V	6A
Fresh Air Airflow	No Fresh Air
Recirculating Airflow	216m ³ /h
Dimensions	460 x 941 x 265 mm (L x W x H)
Weight	65kg
Enclosure	3CR12 or Stainless Steel
Compressors	Single Rotary Compressor

SPECIAL FEATURES

Dust Filtration	None, but can be added as additional module
Secondary Filter	None, but can be added as additional module
Interface Types	Rear, but other variants are possible

HVAC FOR MINING & INDUSTRIAL

PC 300



SPECIFICATIONS

Model: PC300

Electrical supply	230V $\pm$ 10%, 50Hz
Cooling Capacity	3.0kW
Maximum Ambient	65°C
Refrigerant	R134a
Max Input Current @ 400V	12A
Fresh Air Airflow	No Fresh Air
Recirculating Airflow	540m ³ /h
Dimensions	660 x 371 x 962 mm (L x W x H)
Weight	71kg
Enclosure	3CR12 or Stainless Steel
Compressors	Single Rotary Compressor

SPECIAL FEATURES

Dust Filtration	None, but can be added as additional module
Secondary Filter	None, but can be added as additional module
Interface Types	Rear, but other variants are possible

PC 500



SPECIFICATIONS

Model: PC500

Electrical supply	230V $\pm$ 10%, 50Hz
Cooling Capacity	5.0kW
Maximum Ambient	65°C
Refrigerant	R134a
Max Input Current @ 400V	19A
Fresh Air Airflow	Fresh Air Optional
Recirculating Airflow	750m ³ /h
Dimensions	760 x 483 x 1162 mm (L x W x H)
Weight	110kg
Enclosure	3CR12 or Stainless Steel
Compressors	Single Rotary Compressor

SPECIAL FEATURES

Dust Filtration	None, but can be added as additional module
Secondary Filter	None, but can be added as additional module
Interface Types	Rear, but other variants are possible



Built to *Trust!*



SME GROUP OVERVIEW

SME INFRATECH (PTY) LTD

- Integrated HVAC & Mechanical Systems

SME ENGINEERING (PTY) LTD

- Comprehensive Manufacturing

SME SPECIALIST MECHANICAL ENGINEERS

- Analysis, Design & Development
- Technical Support

SME EXPORTS (PTY) LTD

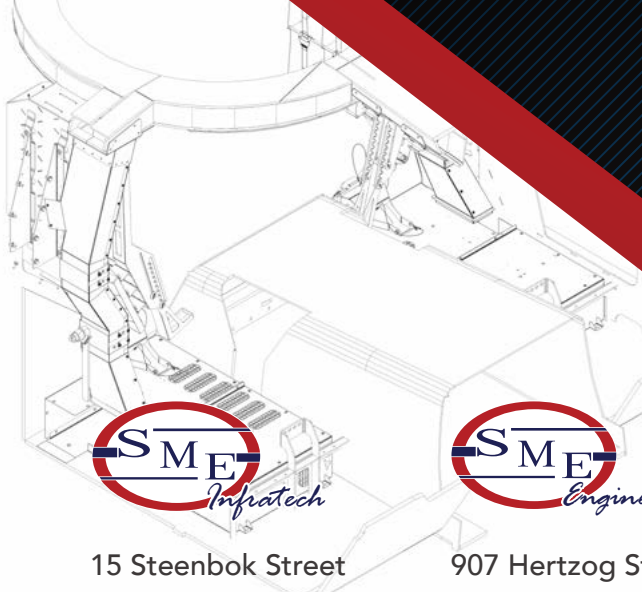
- Comprehensive Global Supply & Support

SME RICHARDS BAY

- HVAC Projects
- Mechanical Systems
- Maintenance & Support

EME ENGENHEIROS MECÂNICOS ESPECIALIZADOS LIMITADA

- HVAC Projects
- Mechanical Systems
- Maintenance & Support



15 Steenbok Street
Koedoespoort 0186
Pretoria RSA
Tel: +27 87 943 5494



907 Hertzog Street
Rietfontein 0084
Pretoria RSA
Tel: +27 12 331 3882 / 83



907 Hertzog Street
Rietfontein 0084
Pretoria RSA
Tel: +27 12 331 3882 / 83



Tőzegtavi u. hrsz.: 7301/3
Dunakeszi
Hungary 2120
Tel: +36 70 214 8821



Estrada Nacional (EN4)
Nº859
Matola
Moçambique
Tel: +258 21 724 476



Unit 1 Rhino Park
Ceramic Curve No 81
Alton 3900
Richards Bay RSA
Tel: +27 35 751 2247



Unit 10 Engine Park
Engine Avenue
Montague Gardens
Western Cape RSA
Tel: +27 87 756 7518



www.specmech.co.za
business@specmech.co.za