



ELECTRICAL HEATING AND COOLING SOLUTIONS FOR THE NUCLEAR INDUSTRY

www.vulcanic.com



Vulcanic

The Vulcanic group has been designing and manufacturing safe and hazardous area electrical process heating and temperature control solutions since 1973. Employing 500 people across 8 manufacturing locations, Vulcanic currently services 30 000 customers in 100 different countries across the globe and is an ISO 9001 v 2008 accredited company.



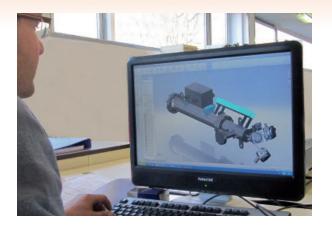
Engineered Projects

Our engineering projects division is a world leader in the design and manufacture of electrical process heating and temperature control solutions, to meet the requirements of varying customer specifications and international standards. Our extensive experience spans many industries and extreme environments in both on and offshore locations.

Design Expertise

Vulcanic design teams support our partners from conceptual design and feasibility study throughout the life cycle of the equipment. Our design capabilities include:

- Process heater design
- Electrical design
- Mechanic design
- Hazardous area certification
- Thermal design
- Electronic design (hardware and software)
- Temperature Control design













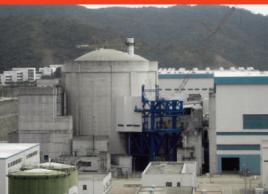
Main Applications:

- Heating, ventilation, air conditioning (HVAC)
- Heating of pressurizers
- Boron injection tank (BIT) heating
- Primary effluent treatment (TEP), waste water treatment (TEU)









Equipment operating in over 100 reactors worldwide

Engineering companies & Integrators:

- ALSTOM POWER
- AREVA DONGFANG NUCLEAR COOLANT PUMP
- AREVA NP (former Framatome, former Jeumont)
- AXIMA
- CNPEC
- COFELY
- DONGFANG BOILER GROUP
- GEA KESTNER
- JSPM
- NANFANG VENTILATOR
- SHANGHAI ELECTRIC NUCLEAR POWER EQUIPMENT
- SOFINEL
- TUNZINI

End Users:

- AREVA (SGN, Technicatome, Eurodif)
- CGNPC
- COMMISSARIAT ENERGIE ATOMIQUE
- DCN
- EDF
- ELECTRABEL
- ELETRONUCLEAR
- ESKOM
- KHIC / KEPCO
- RWE
- TVO



SOME CUSTOMISED SOLUTIONS



- Air heaters Air convectors Fan air heaters (HVAC)
- Over 150 different types
- Power: 0,1 up to 300 kW



- Safety level: K3, K3ad
- Seismic class S1, S2, S3
 Design codes: RCC-M, RCC-E
 Certification: K3, K3 ad, KTA, IAEA



Pressurizers heatersSafety level: K1

· Design codes : RCC-M, RCC-E



• Heaters for boron injection tanks (BIT)



- In line heaters and their associated probes and power control cabinets for Waste water treatment (TEU) and Primary Effluent Treatment (TEP)
- Power: up to 2,7 MW
- Design codes : RCC-M, RCC-E

Manufacturing

Vulcanic offers the benefits of integrated "in house" manufacturing processes, using "state of the art" equipment to manufacture the electric elements and virtually all other components utilised within our product ranges. With only minimal dependence upon subcontractors for certain specialist requirements, we remain in full control of all production schedules throughout the contract execution process.



In House Capabilities



Heating element manufacturing



CNC machining



Sheet metal cutting and bending



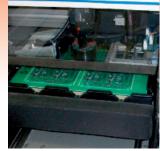
Sensor manufacturing

Testing

- NDT: DPI, MPI, X-Ray, Ultrasonic, PMI
- Hydrostatic
- Helium leak test
- Insulation resistance
- High voltage dielectric
- Harmonic test
- Waveform test
- Load test (power controls)
- Functional



Welding



Converter and controller manufacturing



Cabinet wiring



Wiring

Complete Supply

- · In house manufacturing
- Technical design support
- Dedicated project teams
- After sales support services
- · On site commissioning and start up assistance

Vulcanic is the proven partner to meet your expectations.



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Your dedicated contact

ALL IN ONE SOLUTIONS