

HEAT TRACE™

SETTING THE STANDARDS LEADING THE WAY

The Heat Tracing Authority™

HEAT TRACE™

SETTING THE STANDARDS LEADING THE WAY

AN INTRODUCTION



1974 - 2014



THE QUEEN'S AWARDS
FOR ENTERPRISE:
INNOVATION
2014

Worldwide Representation

Corporate HQ & Primary Manufacturing Plant - Helsby, England
Technology & Innovation Centre - Bredbury, Stockport, England

AFFILIATES

KOREA

Heat Trace Korea - Korea

CHINA

Heat Trace Asia - P.R.China

SOUTH AMERICA

Heat Trace Argentina - Argentina

INDIA

Heat Trace India Pvt Ltd - India

EASTERN EUROPE

Heat Trace Eastern Europe - Germany

MIDDLE EAST

Heat Trace Middle East - UAE

Represented around the world in over 50 countries

HEAT TRACE™

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United States Representation

Neptech Inc.

Manufacturer of *FLEXOTHERM*™ Products

FLEXOTHERM™

A Neptech Inc. Company

Neptech Inc. is the primary distributor of Heat Trace Products for the United States of America.

Headquarters: 2000 East Highland Road, Highland, MI 48357

Phone: 810.225.2222

Fax: 810.225.1155

Websites: www.neptechinc.com | www.flexotherm.net



A Quality Company



**Quality Assured for
Design, Manufacture & Supply**

Standards & Approvals

Heat Trace takes an active role in the development and implementation of electric heat tracing industry standards. All of Heat Trace's products conform to several International Standards, some of which are listed below:



ATEX EN60079-0; IEC60079-31 & IEC62086-0



IECEX IEC60079-0 & IEC60079-1



FM ANSI/IEEE Std 515



VDE 114665 DIN VDE 0254



CSA C22.2 Nos. 130.1; 130.2; & C22.2 No. 138



Lloyds EN50014, EN50019, BS6351, IEEE Std 515



GOST R POCC GB.ГБ05.В02364 GOST R 51330.0-99
(МЭК 60079-0-98) GOST R 51330.8-99

Research & Development

On average, engineering/manufacturing companies invest about 2 to 4% of turnover in Research & Development

Funding for R&D is critical if we are to grow to meet the changing needs of customers ahead of the competition

Heat Trace invests over 15% of turnover in R&D

Innovation led technology and a strong global marketing strategy, means new and lucrative markets become available, ensuring continued growth and success

GENERAL OVERVIEW OF HEAT TRACE'S PRODUCT RANGE

Full Range of Heating Cables

... the most complete range of heating cables available from one source!

... with longest circuit lengths and highest withstand temperatures!

... all self-regulating cables incorporate Inherently Temperature Safe technology

Self-Regulating Heating Cables

Freezstop Low & Medium Temperature Range

FREEZSTOP MICRO - FSM

Withstand temperatures 65°C ON/85°C OFF Outputs 11 - 17W/m

FREEZSTOP LITE FSLe

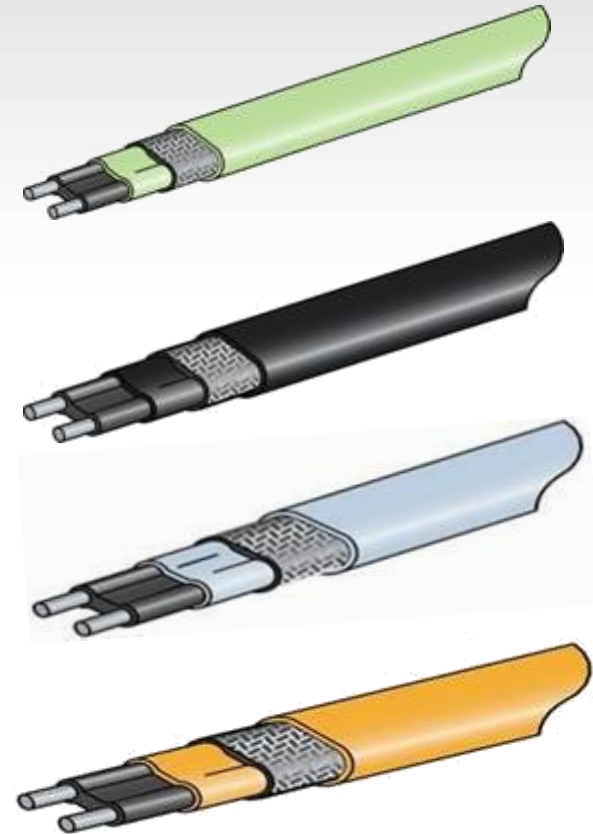
Withstand temperatures 85°C ON or OFF Outputs 12 - 31W/m

FREEZSTOP REGULAR FSR

Withstand temperatures 85°C ON or OFF Outputs 10 - 40W/m

FREEZSTOP EXTRA FSE

Withstand temperatures 100°C ON or OFF Outputs 17 - 60W/m



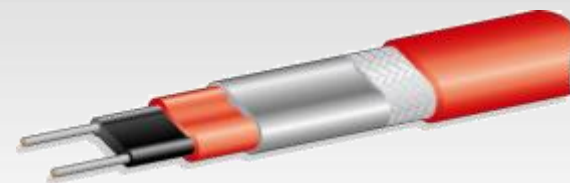
Please note: All HTL heater withstand temperatures are NOT restricted by cumulative operating hours

Self-Regulating Heating Cables

FailSafe High Temperature Range

FAILSAFE PLUS FS+

Withstand temperatures 225°C ON or OFF Outputs 15 - 60W/m
Silicone rubber primary insulation. Option for braid or continuous metal jacket. Optional corrosion resistant outer jacket



FAILSAFE SUPER FSS

Withstand temperatures 225°C ON or OFF Outputs 15 - 75W/m
Fluoropolymer primary insulation. Option for braid or continuous metal jacket. Optional corrosion resistant outer jacket



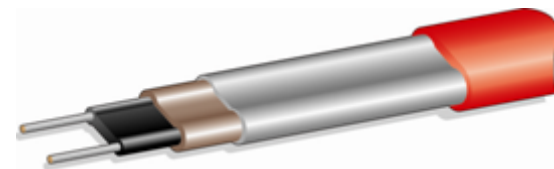
FAILSAFE ULTIMO FSU

Withstand temperatures 250°C ON or OFF
Outputs 15 - 100W/m



FAILSAFE ALUMINIUM AFS

Withstand temperatures 300°C ON or OFF Outputs 15 - 150W/m
Mineral primary insulation. Continuous metal jacket. Optional corrosion resistant outer jacket



Please note: All HTL heater withstand temperatures are NOT restricted by cumulative operating hours

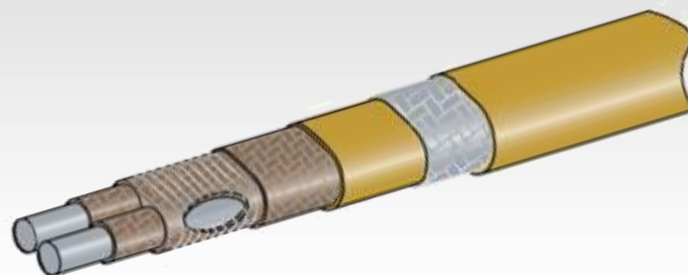
Parallel Constant Power Heating Cables

High Temperature Range

Heat Tracer PHT

withstand temperatures 285°C

Outputs 10 - 70W/m

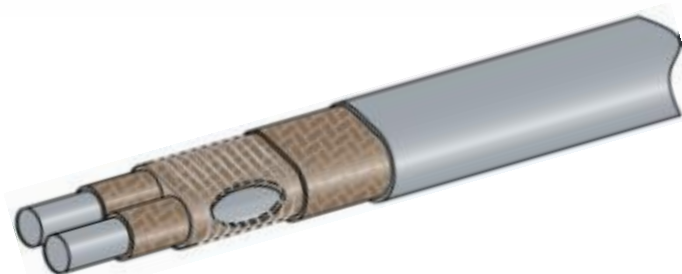


Heat Tracer AHT

withstand temperatures 425°C

Outputs 10 - 150W/m

NO COMPETITION!!



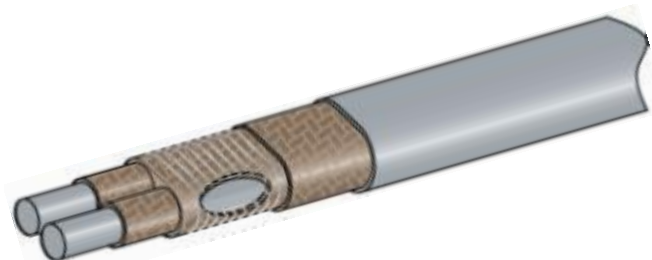
Heat Tracer RHT

withstand temperatures 425°C

Outputs 50 - 200W/m

(Rail heating applications)

NO COMPETITION!!

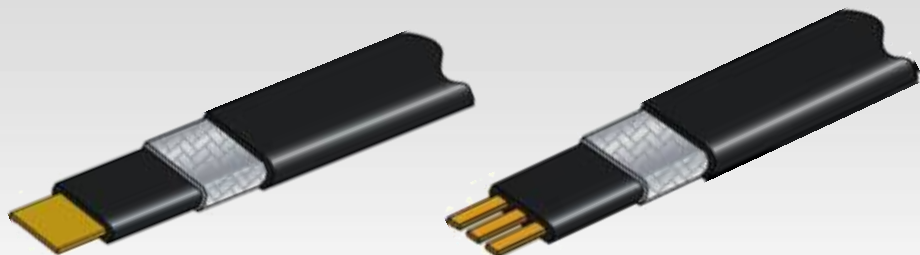


Series Constant Power Cables

Longline HTP1 & 3F

1F up to 5km; 3F up to 2km between supply points

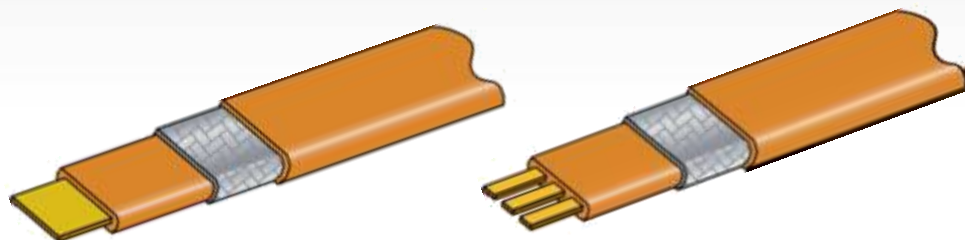
Withstand temperatures 105°C



Longline HTS1 & 3F

1F up to 5km; 3F up to 2km between supply points

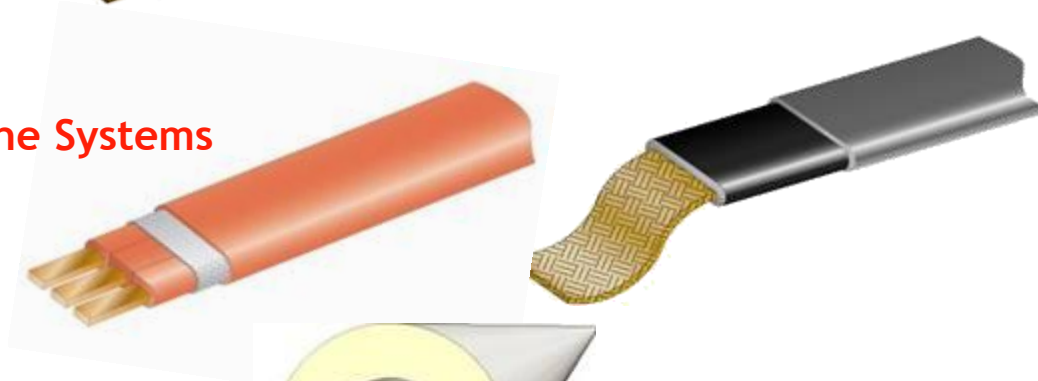
Withstand temperatures 230°C



Longline_{sp} & Duoflex Very Long Pipeline Systems

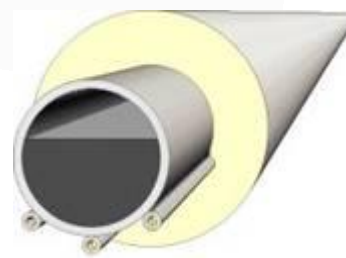
Up to 20km between supply points
withstand temperatures up to 230°C

NO COMPETITION!!



SkinTrace

Up to 30km between supply points
withstand temperatures 230°C



Control & Monitoring Systems



Mechanical & Digital Thermostats

Ambient or surface sensing capillary or digital thermostats suitable for safe and/or hazardous areas, with a variety of temperature and current ranges

Microprocessor-Based Systems

Computer assisted energy management and auditing system for critical and/or large heat tracing installations, offering multiple circuit control, including:

- Temperature monitoring
- Heating cable monitoring
- Energy efficiency
- Remote control and data acquisition
- Integration with plant DCS/SCADA systems



PowerMatch Micro+ Controller

PowerMatch Micro+ (PMM+)



APPLICATIONS

Freeze protection

Process Heating

BENEFITS

Significant energy savings

Fewer controls

1 unit controls multiple circuits

Reduced overall system cost

Optimises system safety

Remote alarm facility

NICHE MARKET APPLICATIONS

Long Cross Country Pipelines

Subsea Pipeline Heating Systems

Helicopter Platform Heating

Downhole Heating Systems

Transportation Systems

Long Cross Country Pipelines

Pre-Insulated Heated Piping Systems



Subsea Pipeline Heating Systems

2011 - World's 1st Electrically Trace Heated Reeled P-i-P



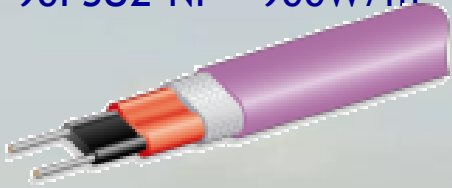
DuoFlex & LongLine_(SP) ETHPiP ... Developed in partnership with

Technip

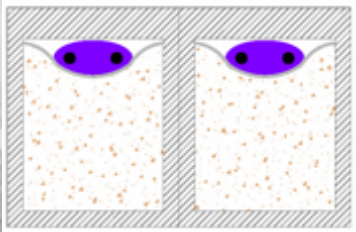
Helicopter Platform Heating

World's 1st Polar Class Deepsea Drill Ship

90FSU2-NF - 900W/m²



ATEX Approved (T-Class: T2)



Heaters in aluminium deck structure c/w thermal insulation



Downhole Heating Systems

Downhole Heating Systems - Ongoing Developments

BENEFITS

Maintains oil at correct temperature

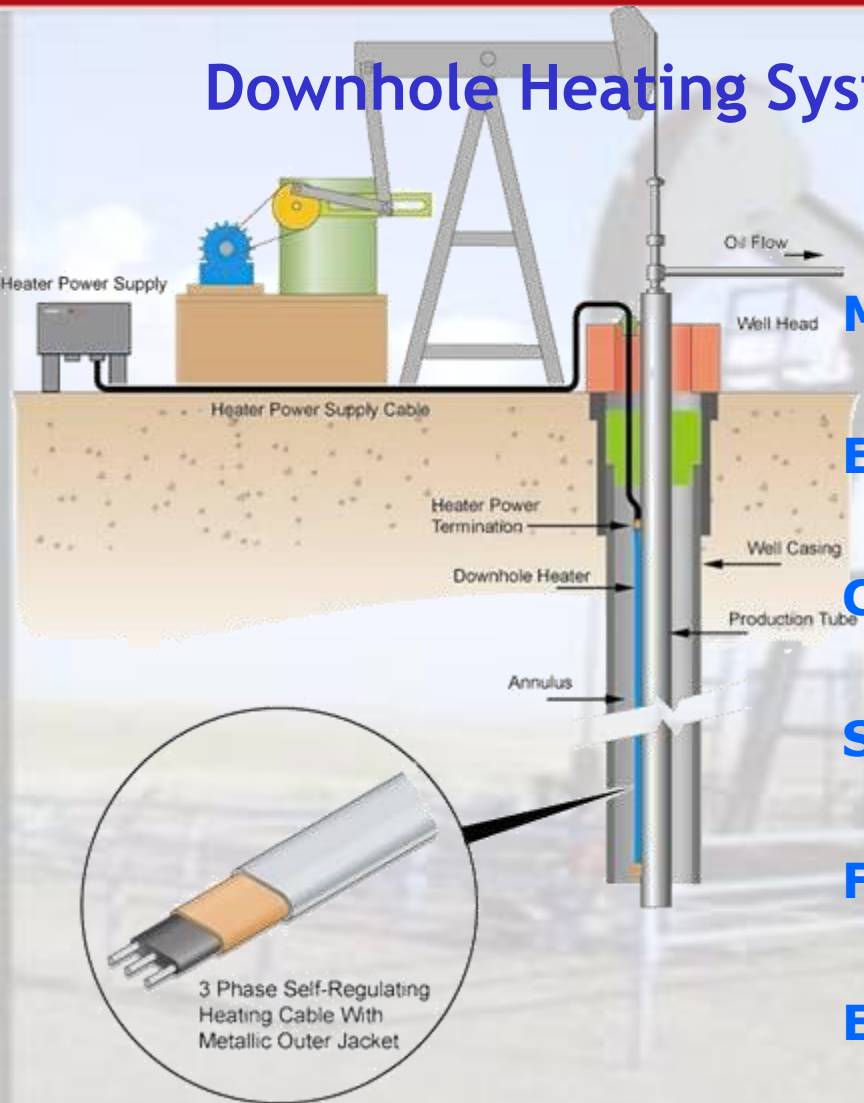
Eliminates hydrates & wax deposits

Cut-to-length capability

Self-regulating output

Flexible with high mechanical strength

Eliminates high temp at upper levels



Transportation Systems

Transportation Systems - Ongoing Developments

Network Rail, UK



Chicago Transit Authority, USA



LIVE / 3rd RAIL HEATING

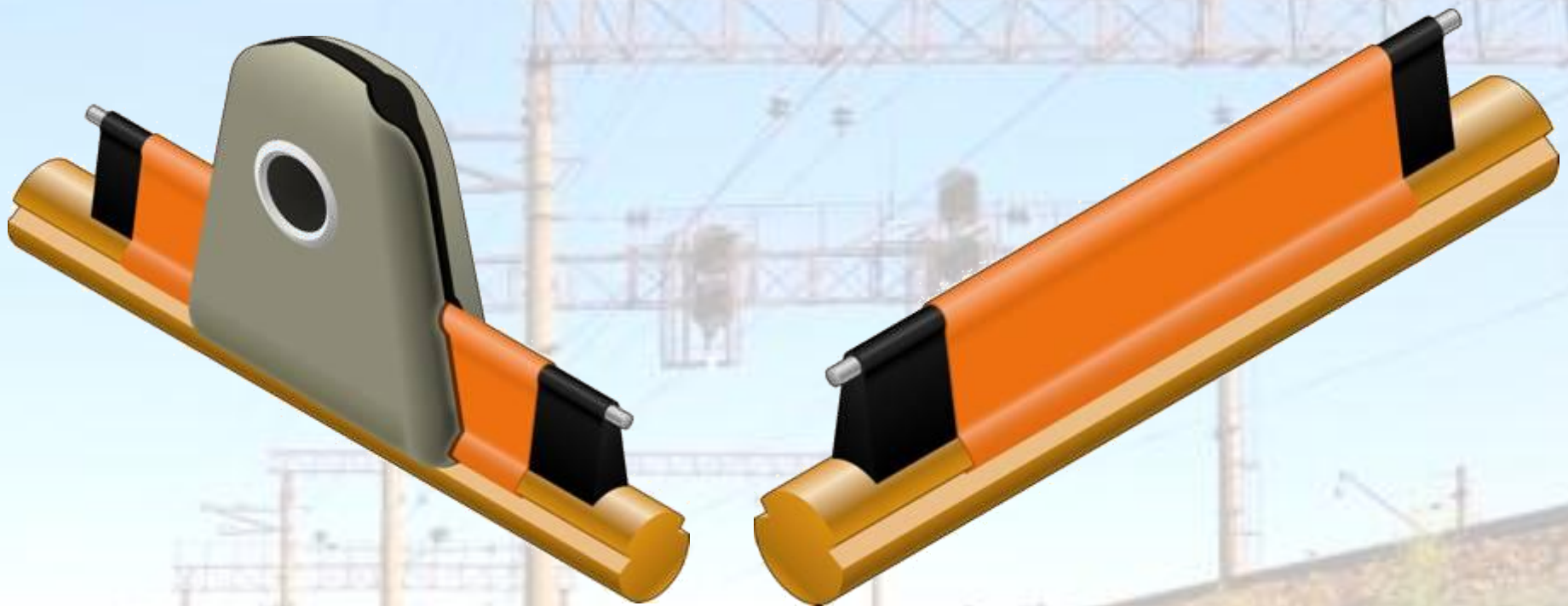
Transportation Systems

PANTOGRAPH SHOES HEATER



Transportation Systems

Transportation Systems Ongoing Developments



SELF-REGULATING CATENARY WIRE HEATER

HEAT TRACE™

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The Heat Tracing Authority™

HEAT TRACE™

SETTING THE STANDARDS LEADING THE WAY

Heat Trace Limited

... continues to be a company ...

... Globally recognized as

... Setting the Standards & Leading the Way



1974 - 2014



THE QUEEN'S AWARDS
FOR ENTERPRISE:
INNOVATION
2014

Neptech Inc. Manufacturers Flexotherm™ Heated Products:

- Heated Sample Lines
- Custom Insulated / Heated Blankets
- Heated Vinyl Blankets
- Heated Transfer and Dispense Hose
- Stack Testing Lines
- 275 / 330 Gallon Tote Blankets
- Heated Multiplexers
- Heated Filter Housings
- Temperature Control Modules
- Dual Rinse Cleaning Carts
- Heated Sample Probes

