Thermo Cables

Mining Cable Solutions

Global Expert In Speciality Cables Manufacturing

Thermo Cables is a recognized and preferred brand across various industries including Oil & Gas, Railways, Navy, Defence, Renewable Energy, Nuclear Power, Process Industries, Power etc, exporting 60% of products. Established in 1990, it is a leading manufacturer of various types of speciality cables. Thermo Cables is a part of Thermo Group - a multi-product & multi-service organization with other group companies:

Thermopads: A specialist in Commercial, Domestic and Industrial Heating

Thermosystems: An EPC company in the field of Fuel Oil Handling Systems, Fire Detection Protection Systems etc.

Major Approvals

ADNOC - OFFSHORE
ADNOC - ONSHORE
ALBA
AP GENCO
AP TRANSCO
ARO DRILLING
AVANT GARDE
BALTIC CHEMICAL PLANT
BAPCO ENERGIES
BDL, BEL, BEML, BHEL, BLW
BOROUGE, BPCL
CLW, CMRL, CSL
DESEIN LTD, DGMS, DVC
DLW, DMDE & DMW
DLRL, DMRL & DMRC
DOLPHIN ENERGY
DRDO - ASL & DRDL
DUBAI WORLD
EGA
ENGINEERS INDIA LTD
ENOC
EXPRO
FICHTNER CONSULTING
GRSE, GSPC
GOA SHIPYARD
HALLIBURTON
HINDUSTAN SHIPYARD
HPCL, HAL, HMRL
INTERNATIONAL MARITIME INDUSTRIES
IOCL, ICF, ISRO
JACOB'S H & G
KNPC - KUWAIT
KOC - KUWAIT
LAMPRELL
L & T
MATERIAL ORGANISATION - KARWAR
MATERIAL ORGANISATION - MUMBAI
MATERIAL ORGANISATION - VIZAG
MECON, MCF
MN DASTUR & CO.
MAZGOAN DOCK LIMITED
MUMBAI PORT TRUST
NMDC ENERGY
NORTH OIL
NPCIL, NSTL, NTPC
ONGC
ORLEN
OXY
PDIL
PGCIL
PDO OMAN, PETRONAS
PETROPERU
QATAR ENERGY, QATAR PETROLEUM
RCF
SABIC
SAIL
SAIPEM
SAPURA ENERGY
SHELL, SONATRACH
TATA CONSULTING ENGINEERS
TECNIMONT ICB LTD
TOYO ENGINEERING INDIA LTD
THYSSENKRUPP

Stringent quality requirements, global standards of precision and increasingly demanding customers are the order of the day. Thermo Cables, sensitive to this reality, designs, manufactures and supplies a wide range of cables to satisfy customers' specifications and requirements.

Product Range

- Instrumentation Cables
- Power, Control & Earthing Cables
- Thermocouple Cables
- Fire Resistant Cables
- High Temperature Cables
- Foundation Fieldbus Cables
- Special Application (LFH) Cables
- Renewable Energy Cables
- Naval Application Cables
- Marine/Shipboard Cables
- Pressure Tight (PT) Cables
- Railway Cables
- Material Handling Cables
- Type-P Cables
- VFD Cables
- Co-Axial Cables (RG Series)
- ESP Cables
- Downhole (TEC) Cables
- Custom Wiring & Cable Harnesses
  - Railway
  - Defence
  - Wind
- IV Coupler & Jumper Cable Assembly
- Cable Systems

Why Us

- Leading & reputed manufacturer of Specialty Cables
- One stop solution for all Low Voltage Cables
- Serving satisfied customers since 30 years across 60+ countries
- In-house wire drawing, compounding, Electron beaming and testing facilities
- Quick response time and offer submission in less than 24 hours

Quality & Reliability

- An ISO 9001: 2015 certified company with proven track record of delivering quality products
- NABL accredited full-fledged in-house testing laboratory
- Environment, Occupational Health and Safety Systems adhering to ISO 14001:2015, 45001:2018
- 15% of power consumption sourced through in-house generated renewable energy

Standards

- Cables designed and manufactured conforming to various National and International Standards

General Cables: ANSI MC 96.1, BS-6346, BS-5467, BS-7629, BS-6387, BS-7846, BS-5308-I & II, BS- 50288-7, IEC-60502-I, IEC-60189-I & II, IEC-60228, IEC-60584-I & III, IEC-60331, IS-8784, IS-613, IS-694, IS-1554-I, IS-7098-I, BS 16246, BS 7211.

Railway Cables: ELRS-0019 REV-4, CLW-0458 ALT-E, CLW-0459 ALT-C, EDTS - 132 REV - C, EDPS - 179, EDPS - 304, EN - 50264 - 3 - 1 & 2, EN - 50306 - 1, 2, 3 & 4, EN - 50382 - 1 & 2, EN - 45545 - 2, IEC 61156 - 6.

Navy & Marine Cables: EED 50-12 REV-3, EED 50-13 REV-2, DEF STAN 61-12 PART 18, DEF STAN 61-12 PART 31, DEF STAN 02-526, DEF STAN 02-527, MIL - DTL-24640C, MIL - DTL 24643C, IEC 60092 - 350, 353, 376 & 360, BS 6883, BS 7917, IS 9968 Part - I, IS 6380, EN 50525 - 2- 11-12-21-22-41-42, EN 50618.

Mining Cables: IS 14494, **Co-Axial Cables:** MIL - DTL - 17H,

High Temperature / Aerospace Cables: JSS 51034, 51038, SAE-AS 22759 / 32A, 34B, 41B, 43B, 44A, 45A, 80D, 83E, 84E, 85E, 86E, 87E, 88E, 89E, 90D, 91D, 92D, ANSI / NEMA - WC - 27500

Valuable Assets

- Over 3,00,000 sq ft of infrastructure facilities with latest technology
- 1000+ dedicated & high performing workforce
- Experienced & professional leadership team
- Offers technical support in cable selection through SAP

Marine / Shipboard Cables

DEF STAN 02-526 (NES 526) and DEF STAN 02-527 (NES 527)

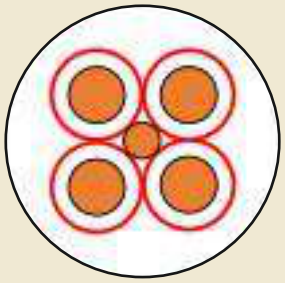
For use on onboard surface ships and crafts for power, control, lighting and communication and instrumentation circuits with or without fire survival characteristics.

Standards	:	NES 526 - Dual layer Insulated, Electron Beam Cross linked irradiated Electric cables NES 527 - Fire Survival, High Temperature, Fire Retardant Halogen Free Sheathed Electron Beam Cross Linked Irradiated Electric cables
Construction	:	Single Core, Multi Core, Multi Pair & Triad, Unscreened or Individually Screened or Collectively Screened.
Voltage Grade	:	440 V AC
Conductor	:	Circular Electroplated, Annealed Tinned Copper
Temperature Range	:	-30^0 C to $+105^0$ C
Insulation	:	Dual Layer Electron Beam Cross linked irradiated materials / Silicone Rubber
Screening	:	Annealed Tinned Copper Braid
Outer Sheath	:	Electron Beam Cross linked irradiated LFH Compound
Protective Barrier	:	Glass Braid/Lacquer, Mica Glass Tape to meet the fire performance applicable for DEF STAN 02-527 (NES 527) cables.

IEC 60092-350, 353, 360 & 376, BS-6883, BS-7917

For use in shipboard & offshore application at marine environment and use for Power, Control, Instrumentation and Communication with or without fire survival characteristics.

Standards	:	IEC 60092-350 - Construction & Test methods of Power, Control and Instrumentation cables. IEC 60092-353 - Power Cables for rated voltage of 0.6 / 1 KV, 1.8 / 3 KV. IEC 60092-376 - Control & Instrumentation Cables for rated voltage of 150 V / 250 V. IEC 60092-360 - Insulating and sheathing properties materials for shipboard and offshore cables. BS 6883 - Elastomeric insulated Cables for fixed wiring in ships & offshore units. BS 7917 - Elastomeric insulated fire resistant (Limited Circuit Integrity) Cables for fixed wiring in ships & offshore units.
Construction	:	Single Core, Multi Core, Single Pair, Multi Pair, Multi Triad and Quad Screened & Unscreened, Armoured & Unarmoured
Voltage Grade	:	150 V / 250 V AC, 0.6 / 1.0 KV and 1.8 / 3.0 KV AC
Conductor	:	Electroplated Annealed Bare / Tinned Copper of various classes
Temperature Range	:	-15^0 C to 95^0 C
Insulation	:	XLPE / EPR / HEPR, HF 90 / S 95
Screening	:	Al-Mylar Tape along with Drain Wire / ABC or ATC Braiding
Inner Sheath	:	SHF1 / SHF2 / SH / SF / SE
Braid Armour	:	Copper (Bare or Tinned) / Copper alloy / GI Wire Braid with >90% coverage.
Outer Sheath	:	SHF1 / SHF2 / SH / SF / SE



Mining Trailing Cable – FT-7

Elastomer Insulated Flexible Cable for Underground Mining Equipment

Specifies the technical requirements for Type FT-7 elastomer-insulated flexible trailing cables, primarily for use with reeling/unreeling machinery such as SDLs (Side Discharge Loaders) and LHDs (Load Haul Dumpers) in underground coal mines.

General Specifications

Standard	: IS 14494:2019 (with latest amendments).
Voltage Grade	: 1.1 kV (1100 Volts).
Application	: Heavy reeling duty in underground coal mines.
Conductor Material	: Power Cores, Pilot Core and Earth Core are Annealed tinned copper wires, conforming to Class 5 flexibility of IS 8130.
Core Identification	: Power cores identified by colored proofed tapes (Red, Yellow, Blue); Pilot core identified by colored proofed tape (Black).
BIS Marking & DGMS Approval	: Cables must be BIS marked and comply with relevant Directorate General of Mines Safety (DGMS) circulars.

Construction Details

The typical construction for a 5-core, FT-7 cable is as follows:

Power Cores	: 3 Cores
Pilot Core	: 1 Core
Earth Core	: 1 tinned copper conductor
Insulation	: Elastomer compound conforming to Type IE2 of IS 6380.
Core Screen	: Metallic screen (composite braid of tinned copper wires and synthetic cord/yarn) applied over insulation of each power and pilot core insulation.
Laidup	: As per IS 14494 (2019).
Sheath (Inner & Outer)	: Elastomer compound, Type SE3 & Heavy duty elastomeric compound, Type SE4 of IS 6380.
Reinforcement Tape (Over Inner Sheath)	: Reinforcement is permissible in the outer sheath.

Performance & Testing

Flexibility	: Designed for repeated, heavy reeling and un-reeling operations.
Tests	: The cable is subjected to various type and routine tests as per IS 14494 and DGMSguidelines, including physical, electrical, and mechanical tests (e.g., bending, insulation resistance, high voltage(Dielectric Strength)).
Marking	: The outer sheath shall have the manufacturer's name/trademark, voltage grade, type (FT-7), size, and year of manufacture printed or embossed at regular intervals.

THERMO CABLES LIMITED, TECHNICAL PARTICULARS

Sr. No.	Description	3C x 25 mm² + 1C x 25 mm² + 1C x 16 mm²
1	**Trade Name**	THERMO CABLES
2	**Voltage Grade**	1100 Volts
3	**Reference Standard**	IS : 14494/2019
4	**Cable Type**	FT7
5	**Conductor**	
	a) Material to IS : 8130/1984	Annealed Tinned Copper
	b) Nom. Cross Sectional Area (mm²)	
	i) Power Cores	25
	ii) Pilot Core	25
	iii) Earth Conductor	16
	c) Flexibility Class as per IS : 8130/84	Class 5
	d) Max. DC. Resistance at 20 °C (Ohm/Km)	
	i) Power Cores	0.795
	ii) Pilot Core	0.795
	iii) Earth Conductor	1.24
6	**Insulation of Power & Pilot Core**	
	a) Material to IS : 6380/84	Elastomer Compound Type IE-2
	b) Nominal / Minimum Thickness (mm.)	1.4/1.16
	c) A layer of coloured proofed tape applied over insulation	Yes {Please refer Sl.No. 7 below}
7	**Identification of Power & Pilot Core**	
	i) Screened Power Cores	By coloured proofed tape having colours Red, Yellow & Blue applied over insulation
	ii) Screened Pilot Core	By coloured proofed tape Black applied over insulation
8	**Individual Core Screening of Power & Pilot Core**	
	a) Material	Composite Braid of ATC Wires Bunches & Nylon Yarns
	b) Nom. Diameter of ATC Braid Wires (mm.)	0.3
	c) Conductance of Screen	The conductance of each screen shall not be less than 25 percent of that of the main conductor.
		However, the combined dc resistance of all screens at 20°C shall not be more than 1.15 miliohms per metre.
9	**Laying Up**	Three Screened Power Cores & One Screened Pilot Core laidup around a Bare Earth Conductor
10	**Number of Cores**	
	i) Screened Power Cores	3
	ii) Screened Pilot Core	1
	iii) Bare Earth Conductor	1
11	**Sheath (Inner & Outer)**	
	a) Material to IS : 6380/84	Elastomer Compound Type SE-3 & HD Elastomer Compound Type SE-4
	b) Colour	Black
	b) Inner / Outer Minimum Thickness (mm.)	2.0 / 2.20
12	**Reinforcement Tape (Over Inner Sheath)**	Reinforcement is permissible in the Outer Sheath
13	Overall Diameter(mm)	Max. 48.5

Note :

1) Following details shall be provided by printing on the outer sheath. The printing shall be provided at max. one metre interval throughout the cable length.

a) Voltage Grade i.e. 1.1 KV,

b) Year of Manufacturing,

c) Type of the Cable i.e. "FT-7"

d) Word "MINING" & "ELECTRIC",

e) BIS Certification Mark

2) Sequential length marking shall be provided by printing on the outer sheath.

3) Please note that we have offered FT7 Type cable as per IS: 14494/2019.

Product Certifications

DNV

CERTIFICATE OF CONFORMITY

Certificate No.: Current Issue: Validity:

This is to certify that the product(s)

Power, Control, Instrumentation & Thermocouple Cables

with name and / or type designation(s)
as detailed in page 2

manufactured by,

THERMO CABLES LTD.

Site(s):
1) D-44, 45, 48, 49 & 50, Phase -V, IDA, Jeedimetla, Hyderabad – 500 055. Telangana
2) Plot No. G-1, G-2 (A & B), G-9 (A&B) & G-10, Green Industrial Park, Jadcherla- 509 301, Mahaboobnagar District, Telangana.

have been assessed with respect to the requirements laid down in points 2 of Annex III of Council directive 2014/35/EU on electrical safety and found to comply.
Further details of product and application/limitations, the certificate to be read in full.
Reference to the part of this certificate which may lead to misinterpretation is not permissible.

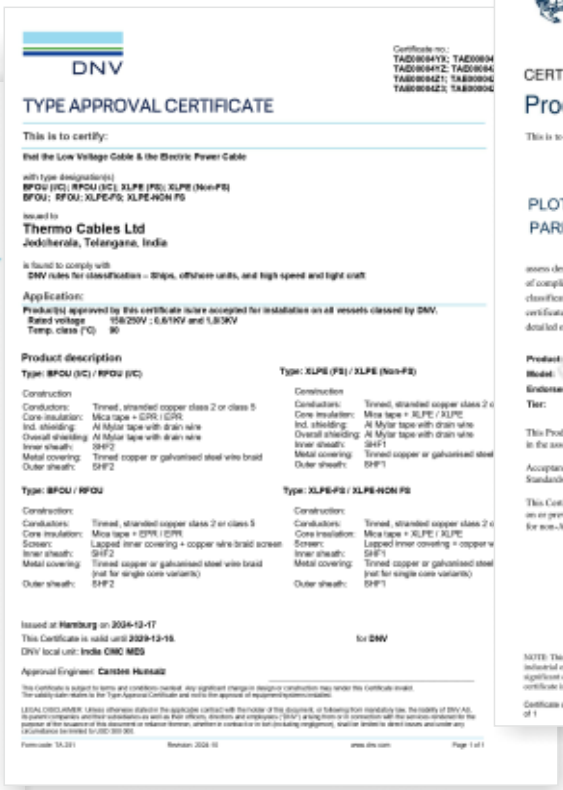
Place and date: Chennai[06.09.2025]

For the issuing office: DNV Business Assurance India Pvt. Ltd.

Iyer, Hariharan Sundareswara

Hariharan Sundareswara
Manager – Product Assurance

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
DNV Business Assurance India Pvt. Ltd., 'RIVAL', 10 GST Road, Chennai – 600 016, India.Tel.: +91 44 43981 900 Fax: +91 44 43981 810
www.dnv.com



DNV

Certificate no.:
TAE00004Y9; TAE00004
TAE00004Y2; TAE00004
TAE00004Z1; TAE00004
TAE00004Z3; TAE00004

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Low Voltage Cable & the Electric Power Cable

with type designation(s):
BFOU (IC); RFOU (IC); XLPE (FS); XLPE (Non-FS)
BFOU; RFOU; XLPE-FS; XLPE-NON FS

issued to
Thermo Cables Ltd
Jedcherla, Telangana, India

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.
Rated voltage 150/250V ; 0.6/1KV and 1.8/3KV
Temp. class (°C) 90

Product description

Type: BFOU (IC) / RFOU (IC)

Construction
Conductors: Tinned, stranded copper class 2 or class 5
Core insulation: Mica tape + EPR / EPR
Ind. shielding: Al Mylar tape with drain wire
Overall shielding: Al Mylar tape with drain wire
Inner sheath: SHF2
Metal covering: Tinned copper or galvanised steel wire braid
Outer sheath: SHF2

Type: XLPE (FS) / XLPE (Non-FS)

Construction
Conductors: Tinned, stranded copper class 2 o
Core insulation: Mica tape + XLPE / XLPE
Ind. shielding: Al Mylar tape with drain wire
Overall shielding: Al Mylar tape with drain wire
Inner sheath: SHF1
Metal covering: Tinned copper or galvanised steel
Outer sheath: SHF1

Type: BFOU / RFOU

Construction:
Conductors: Tinned, stranded copper class 2 or class 5
Core insulation: Mica tape + EPR / EPR
Screen: Lapped inner covering + copper wire braid screen
Inner sheath: SHF2
Metal covering: Tinned copper or galvanised steel wire braid (not for single core variants)
Outer sheath: SHF2

Type: XLPE-FS / XLPE-NON FS

Construction:
Conductors: Tinned, stranded copper class 2 o
Core insulation: Mica tape + XLPE / XLPE
Screen: Lapped inner covering + copper w
Inner sheath: SHF1
Metal covering: Tinned copper or galvanised steel
(not for single core variants)
Outer sheath: SHF1

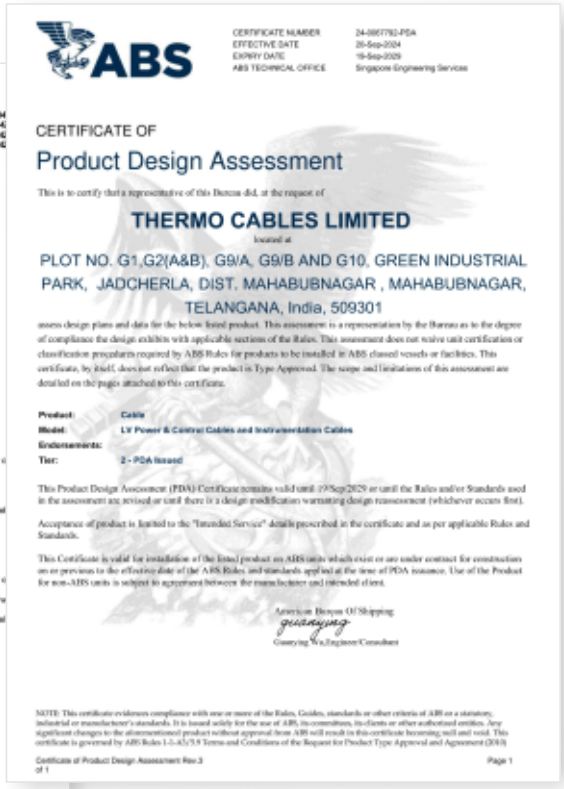
Issued at Hamburg on 2024-12-17
This Certificate is valid until 2029-12-16.
DNV local unit: India CMC MDS
for DNV

Approval Engineer: Carsten Hunsdiz

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or tolerated by non-mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstances be limited to 300 000 000.

Form code: TA 251 Revision: 2024-10 www.dnv.com Page 1 of 1



ABS

CERTIFICATE NUMBER 24-0957782-PDA
EFFECTIVE DATE 26-Sep-2024
EXPIRY DATE 19-Sep-2029
ABS TECHNICAL OFFICE Singapore Engineering Services

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

THERMO CABLES LIMITED

located at

PLOT NO. G1,G2(A&B), G9/A, G9/B AND G10, GREEN INDUSTRIAL PARK, JADCHERLA, DIST. MAHABUBNAGAR , MAHABUBNAGAR, TELANGANA, India, 509301

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Cable
Model: LV Power & Control Cables and Instrumentation Cables
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 19Sep2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping
Guanyang Wu,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2018)

Certificate of Product Design Assessment Rev.3 Page 1 of 1

Lloyd's Register

Page 1 of 1
Certificate No.: 19222023019A
Issue Date: 16/01/2023
Expiry Date: 15/01/2027

Type Approval Certificate

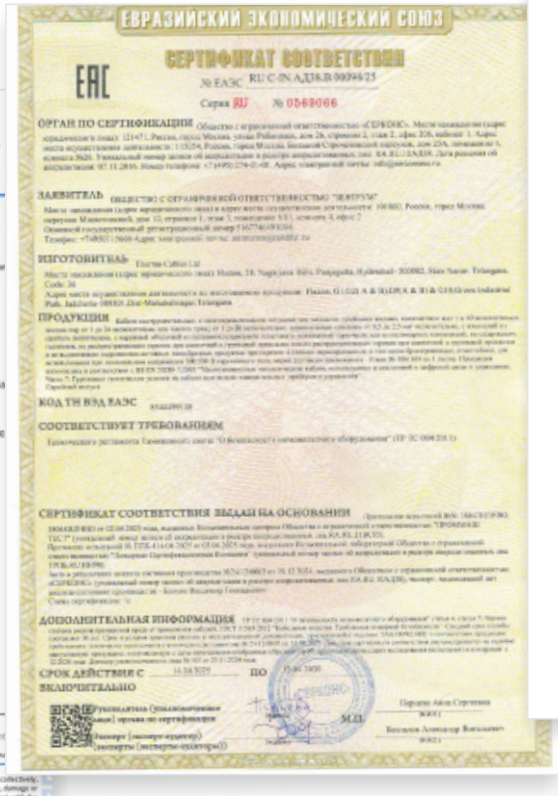
This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance w the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**Thermo Cables Limited**
Address	26, Nagarjuna Hills, Punjagutta, Hyderabad, Telangana, 500082, India
Place of Production	Thermo Cables Limited D-44,45,48,49 & 50 Phase -V, IDA, Jeedimetla, Hyderabad, Telangana, 500055 India
Place of Production	Thermo Cables Limited G1, G2, (A&B), Green Industrial Park, Jadcherla, Mahaboobnagar Dist., 509301 India
Type	Marine Cable
Description	XLPE Insulated Shipboard Cables
Trade Name	Refer to the Appendix for details
Application	Fixed wiring on ships and offshore installations
Specified Standard	Manufacturer's specification, IEC 60092-350, IEC 60092-353, IEC 60092-360, IEC 60092-376, IEC 60228, IEC 60332-1-2, IEC 60332-3-22, IEC 60754-1/2, IEC 61034

Ping Yuan Qi
Senior Specialist - Technical Support
Lloyd's Register Singapore Pte Ltd
A member of the Lloyd's Register group

9 North Buona Vista Drive, #02-01, Metropolis Tower 1, 138588, Singapore

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

EAC

СЕРТИФИКАТ СООТВЕТСТВИЯ

№ EAEC RU C-IN.АД38.В.00394/25

Серия RU № 0569066

ОРГАН ПО СЕРТИФИКАЦИИ

ЗАЯВИТЕЛЬ

ИЗГОТОВИТЕЛЬ

ПРОДУКЦИЯ

КОД ТН ВЭД ЕАЭС

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ

СЕРТИФИКАТ СООТВЕТСТВИЯ ВЫДАН НА ОСНОВАНИИ

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

СРОК ДЕЙСТВИЯ С 16.04.2025 ПО ВКЛЮЧИТЕЛЬНО

UL

Kamiko Caldwell
THERMO CABLES LTD
GREEN INDUSTRIAL PARK
MEHABUBNAGAR DIST
JEDCHERLA TELANGANA 509301 INDIA

Date: 2017/04/06
Subscribers: None
Partyfiles:
File No:
Service Request No: 3753638
Project Number: 17083753636
PO No: 17025482
PO Number:

Subject: Multiple Listing Correlation Sheet

Dear Kamiko Caldwell,
Enclosed is a copy of your completed Multiple Listing Correlation Sheet covering the Basic File listed below. The following documents were added (new) or revised on 04/06/2017.

Basic File	Vol	ML File	Pages	Revised	New
E323284	1	8875003	ML Correlation Report		

Please review this material and report any inaccuracies to UL's Customer Service Professionals. Contact information for all of UL's global offices can be found at http://ul.com/aboutul/locations.
If you'd like to receive updated materials FASTER, UL offers electronic access and/or delivery of this material. For more details, contact UL's Customer Service Professionals as shown above, referring to the above Service Request number.
This material is provided on behalf of UL LLC(UL) or any authorized licensee of UL.
END File

UL India Private Limited
Kalyani Platina, Block I, 3rd Floor, No.24, ITPF Zone, Phase II, Whitefield, Bangalore - 560066, India
T: 91.80.40184000 / F: 91.80.28521158 / W: UL.com

International Approvals


شركة البترول الوطنية الكويتية
KNPC

VENDORS & CONTRACTORS EVALUATION COMMITTEE

M/S. THERMO CABLES LTD.
PLOT NO.G1, G2 (A) GREEN INDUSTREAL PARK
JADCHERLA, DIST-MAHABOOBNAGAR - 509301
INDIA

DATE: 19th May 2021
REF: COM-ECB(N2)-21-0
FILE NO: V 4790

SUBJECT: VENDOR APPROVAL – RE-QUALIFICATION

GENTLEMEN,

REFERENCE TO YOUR PREVIOUS APPROVAL LETTER DATED 29/05/2016, YOUR COMPANY RE-QUALIFIED AS A VENDOR EFFECTIVE 19/05/2021 FOR THE SUPPLY OF THE FOLLOWING PRODUCT(S) FOR K.N.P.C. REFINERIES:

PRODUCT	DESCRIPTION
TS 40	CABLE, INSTRUMENTS (INCLUDING THERMOCOUPLE WIRE & CABLE)

THE COMPANY (VENDOR) CODE ALLOCATED TO YOUR COMPANY IS 177128.

PLEASE ENSURE TO QUOTE THIS CODE AND ABOVE FILE NO. ON ALL YOUR FUTURE CORRESPONDENCE.

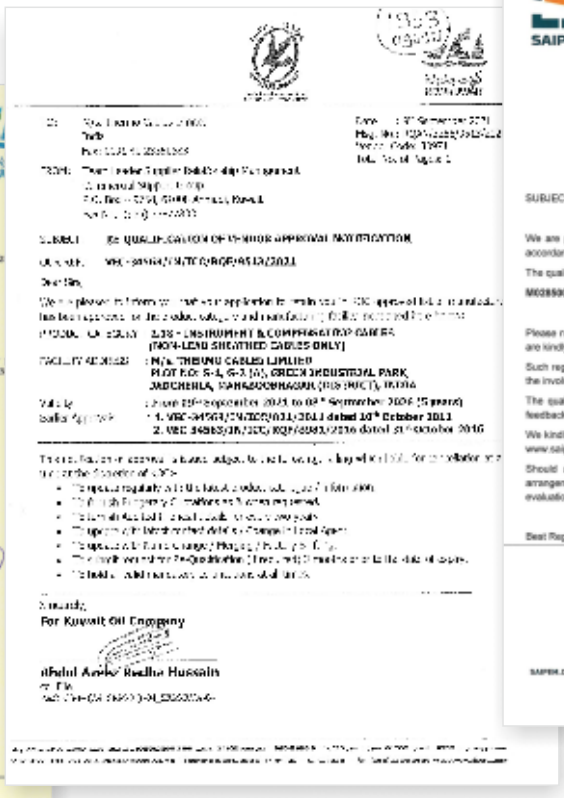
VERY TRULY YOURS,

BANDAR M. AL-QAHTANI
CHAIRMAN V & CEC

THIS LETTER SUPERSEDES OUR LETTER DATED 29TH MAY 2016

NOTE: APPROVAL VALIDITY IS UP TO 28TH MAY 2026 (APPROVED SINCE 29TH MAY 2011)
RFL #12078

PLEASE REFER OVERLEAF FOR INSTRUCTIONS


For Kuwait Oil Company

Abdul Aadar Radha Hussain


SAIPEM

SUBJECT: Qualification process for inclusion in Saipem Vendor List

We are pleased to inform you that your Company has successfully completed the qualification process in accordance with Saipem procedures.

The qualification stands for the supply of goods and/or services for the following commodity:

M02850020 - INSTRUMENT CABLES (ARMOURED AND UNARMOURED)

Please note that you have been registered in our Vendor Management Data Base with code 109023 that you are kindly requested to mention in all communication with Saipem.

Such registration shall not create or impose any obligation or liability on Saipem as well as it shall not ensure the involvement of your Company in future bids launched by Saipem.

The qualification has a 36 (thirty-six) month validity, and this qualification status will be monitored through feedback analysis and, if required, audit visits at your offices and/or premises.

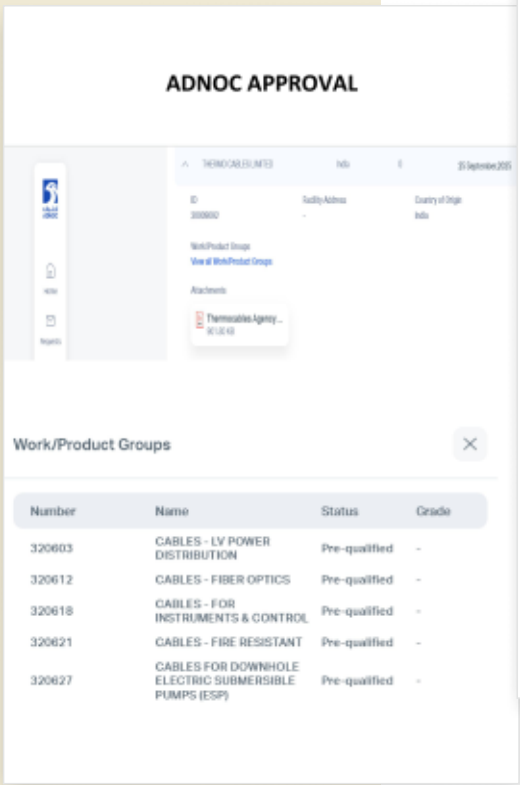
We kindly ask you to promptly inform us of any change of your Company organization by joining our website www.saipem.com and selecting "Qualification Management" area.

Should any serious facts concerning management, organization and assets occur (i.e. composition or arrangement of creditors, winding up orders, bankruptcy, etc.), the given qualification, subject to Saipem evaluation, could be revoked at any time since the date of the said event.

Best Regards.

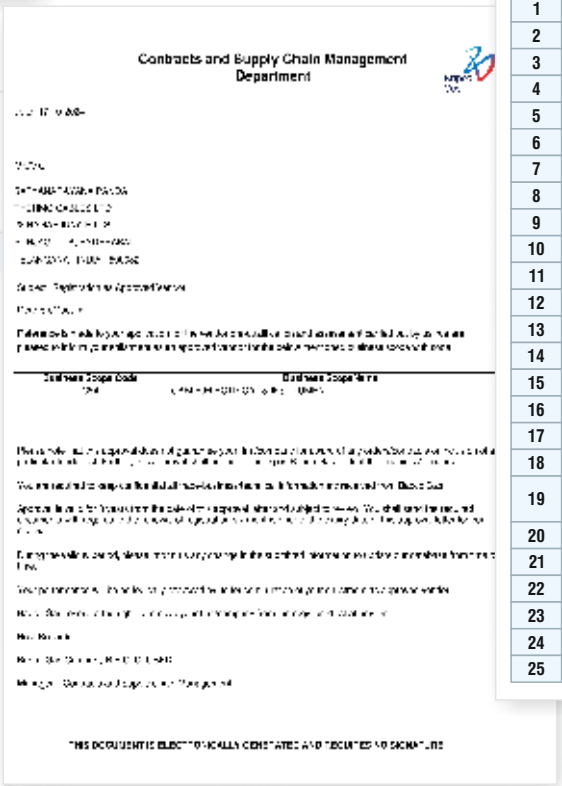
SAIPEM S.P.A.
Procurement and Global Order Services
Manager

SAIPEM.COM


ADNOC APPROVAL

Work/Product Groups

Number	Name	Status	Grade
320603	CABLES - LV POWER DISTRIBUTION	Pre-qualified	-
320612	CABLES - FIBER OPTICS	Pre-qualified	-
320618	CABLES - FOR INSTRUMENTS & CONTROL	Pre-qualified	-
320621	CABLES - FIRE RESISTANT	Pre-qualified	-
320627	CABLES FOR DOWNHOLE ELECTRIC SUBMERSIBLE PUMPS (ESP)	Pre-qualified	-


Contracts and Supply Chain Management Department

THIS DOCUMENT IS ELECTRONICALLY GENERATED AND REQUIRES NO SIGNATURE

S.No	Customer	Vendor Code
1	ADNOC	20009092
2	Advance Petrochemical	201463
3	Aluminium Bahrain B.S.C. (ALBA)	7791
4	Borogue	000003394
5	Dolphin Energy Ltd	112792
6	Dry Docks	99393
7	Emirates National Oil Company (ENOC)	1001101538
8	ExxonMobil	PC-2024.091753
9	FARABI	9000403
10	GE	SQ-076734.2
11	KOCH Engineered Solutions	SPS000472
12	Kuwait National Petroleum Company (KNPC)	177128
13	Kuwait Oil Company (KOC)	30971
14	MAADEN	20230002
15	NEOM	S10764408
16	National Water Company (NWC)	40317
17	Petroleum Development Oman (PDO)	104158
18	Petronas	1125426A
19	PTT Exploration and Production Public Company Limited (PTTEP)	309104
20	Qatar Energy	309104
21	Qatar Fuel Additives Company Limited (QAFAC)	106712
22	Saudi Arabian Railway (SAR)	4895
23	Saudi Electricity Company	2012054
24	SIBUR	61293
25	TASNEE	S11312730

Accolades

L&T Hydrocarbon Engineering

L&T Hydrocarbon Engineering Limited
Mid & Downstream Projects
L&T Knowledge City, West Block I
N.H. No. 8, Waghodia, Vadodara – 390 019
Gujarat, INDIA

Date: 19.03.2014

TO WHOM SO EVER MAY CONCERN

This is to certify that, M/s. Thermo Cables Ltd, having its Corporate Office at 28, Nagarjuna Hills,Punjagutta, Hyderabad-500082,Andhra Pradesh, INDIA has Manufactured and supplied us Foundation Fieldbus, Instrumentation & Control as follows:

PO NO	PROJECT	CABLE TYPE	SUPPLIED QTY
PDOLGFD/INST/FFCABLE/MG-054	LGFD PDO- OMAN	Foundation Fieldbus	51.33 km
PDOLGFD/INST/Instrument /MG-080	LGFD PDO- OMAN	Instrumentation & Control	137.2 km
HMDI-I/78000-04934/RN(AMD NO.003)	SRDC 2 PDO –OMAN	Instrumentation & Control	188.0 Km

The Supplies were made on time and the Performance of the cables has so far been Satisfactory.

We appreciate the sincere effort and services rendered by the entire Thermo Cable Team during Execution in accomplishing the project requirements satisfactorily.

For L&T HYDROCARBON ENGINEERING LTD - OMAN BRANCH

Authorized Signatory

Tel: +91 265 245 1000 / 1007 Fax: +91 265 245 1253 www.lntenc.com
Registered Office: L&T House, N. M. Marg, Ballard Estate, Mumbai – 400 001, INDIA
A wholly owned subsidiary of Larsen & Toubro Limited

Chennai Metro Rail Limited
(A Joint Venture of Govt. of India and Govt. of Tamil Nadu)

Date : 11.03.2024

TO Whomsoever It May Concern

This is to certify that **M/s. Thermo Cables Ltd - Hyderabad** has supplied Fire Survival/Flame Retardant Power & Control Cables To **M/s. Chennai Metro Rail Limited** project through **M/s.Voltas Limited for Phase 1 and Phase 1 Extension of Elevated Stations** for vide below referred purchase orders.

Sl. No	Purchase Order	PO Date	Value in INR	Cable Type	Project	Approx. supplied Qty.(M)	Year of Completion/ Installation
1	1100031477	20.08.13	4,46,73,607	FR/LS/FS Cables	MAE 10 – Elevated	41026	May 2020
2	1100033453	25.03.20	4,10,935	FRLS Cables	MAE 10 – Elevated	3900	December 2020
3	1100044204	23.09.21	2,72,80,665	FRLS / FS Cables	MAE 12 – MHQ	26154	February 2022
4	1100044795	28.08.21	37,90,651	FS Cables	MAE 12 – MHQ	5030	February 2022
5	1100044201	15.07.21	25,64,808	FS Cables	MAE 12 – MHQ	19985	December 2022

M/s. Thermo Cables have supported in meeting our project schedules by supplying Cables within the stipulated delivery period. The Cables are in operation for more than 2 years and the Performance of the Cables is found to be Satisfactory.

Thanking you,

For Chennai Metro Rail Ltd

Authorised Signatory

METROS, Anna Salai, Nandanam, Chennai - 600 035.
Email: chennaimetrorail@gmail.in / Website: www.chennaimetrorail.org
CIN : U60100TN2007SGC065596

SIMBA CEMENT

NATIONAL CEMENT COMPANY LTD
Building The Nation

Dated: 25.02.2018

TO WHOM SO EVER IT MAY CONCERN

This is to certify that M/s.Thermo Cables Ltd., Hyderabad have supplied LT Power, Control, Signal, Thermocouple and Composite Cables to our **3000 TPD Clinkerisation Unit at Merueshi, Emali-Loitoktok Road, Kajiado County, KENYA vide our PO No.NCCL/PROJ/EML-E&I/044/2014-2015 dated 9th November, 2015.**
This PO contains supply of 13000 Mtrs. of 3.5 C X 300 Sq.mm alongside other type of Cables.
We appreciate Thermo Cables efforts in executing this Order with quick deliveries to meet our Project Schedules. The Cables are in operation for more than 1 Years and the performance is found to be satisfactory.

for NATIONAL CEMENT COMPANY LTD.,

Name: Lokesh kumar
Designation: Commercial Director
Seal:

MANUFACTURES OF ALL TYPES OF QUALITY PPC AND OPC CEMENT INCLUDING 32.5N & 42.5N AND SIMBA PAVING BLOCK.

CPP
CHINA PETROLEUM PIPELINE ENGINEERING CO.,LTD MIDDLE EAST

Date: 24 June 2025

To Whomsoever It May Concern

Subject: Performance Letter for Supply of Cables

This is to certify that **Thermo Cables Limited**, having its registered office at 28, Nagarjuna Hills Punjagutta, Hyderabad, Telangana, India – 500082 has successfully supplied cables for our various projects over the past years.

Details of the major supply orders executed are as follows:

Project Name	Purchase Order No.	Year of Supply	Quantity Supplied	Description of Material Supplied
RAS MARKAZ CRUDE OIL PARK PROJECT - OTTCO	CPP-RM-PO-0137	2020-2023	305.51 KM	Instrumentation and Control Cables

Thermo Cables Limited has met all the technical and delivery requirements of the above projects and has demonstrated good performance in terms of quality, timely delivery, and support for Smooth Execution of the project.

We acknowledge their contribution and professionalism and wish them all the best in their future endeavors.

For and on behalf of

China Petroleum Pipeline Engineering Company Limited - Middle East

Luis Yin/尹党辉
Head of Procurement CPP MDE

Address: 49th Floor, Addax Tower, Al Reem Island, Abu Dhabi, UAE

Alkhorayef Group

Date: 19.03.2014

TO WHOM SO EVER MAY CONCERN

This is to certify that, M/s. Thermo Cables Ltd, having its Corporate Office at 28, Nagarjuna Hills, Punjagutta, Hyderabad-500082,Andhra Pradesh, INDIA has Manufactured and supplied us Foundation Fieldbus, FS Instrumentation & Control of 400 Km against our Purchase order PO/GC-16/058 For Kuwait oil Company NEW GC 16 Project.

The Supplies were made on time and the Performance of the cables has so far been Satisfactory.

We appreciate the sincere effort and services rendered by the entire Thermo Cable Team during Execution in accomplishing the project requirements satisfactorily.

For Alkhorayef Group Company

Authorized Signatory

www.alkhorayefpetroleum.com

HITACHI
Inspire the Next

Date :- 20/03/2024

Subject: Letter of Appreciation to Thermo Cables Limited.

To, Thermo Cables Limited
Hyderabad.

Dear Thermo Cables Team,

We extend our sincere gratitude for the exceptional support provided during the period of 2023-2024. As a key partner, Thermo Cables Limited has played a pivotal role in the success of Hitachi Energy India Ltd, particularly in the manufacturing of different type of cables for GIS at our Vadodara facility.
Hitachi Energy India Limited is a global leader in power technologies, providing the most comprehensive grid portfolio across the entire value chain. Hitachi provides compact, reliable Gas Insulated Switchgear (GIS) with high end technology for which Thermo Cables is also an important stakeholder for the supplies of Control, Instrumentation braided GIS cables.
Your commitment to excellence, the consistent quality of your products and on-time supply has significantly contributed to the smooth functioning of our manufacturing processes. Thermo Cables Limited's dedication to delivering top-notch solutions aligns seamlessly with our standards at Hitachi.
As we reflect on the successes of the past year, we eagerly anticipate continuing and strengthening this successful partnership in the years ahead.

In recognition of Thermo Cables Limited's substantial contributions, we present this letter of appreciation.

Best wishes to Thermo Cables Limited for continued success.

Regards

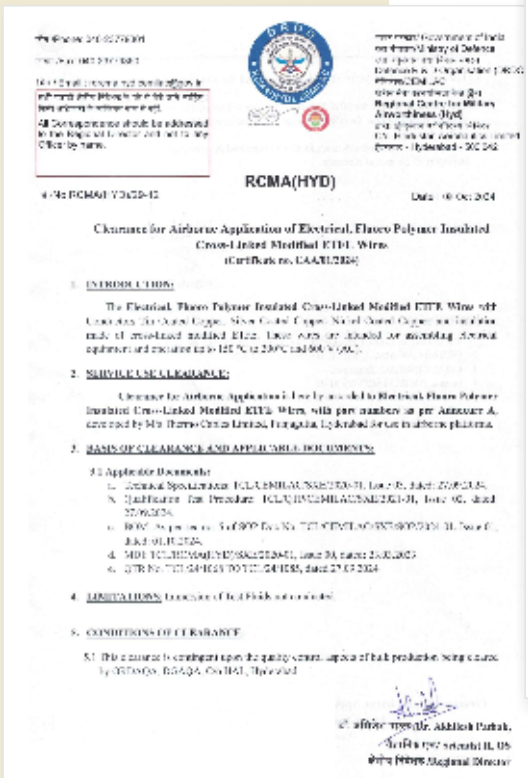
For Hitachi Energy India Limited, Vadodara
Formerly known as ABB Power Products and Systems India Ltd.,

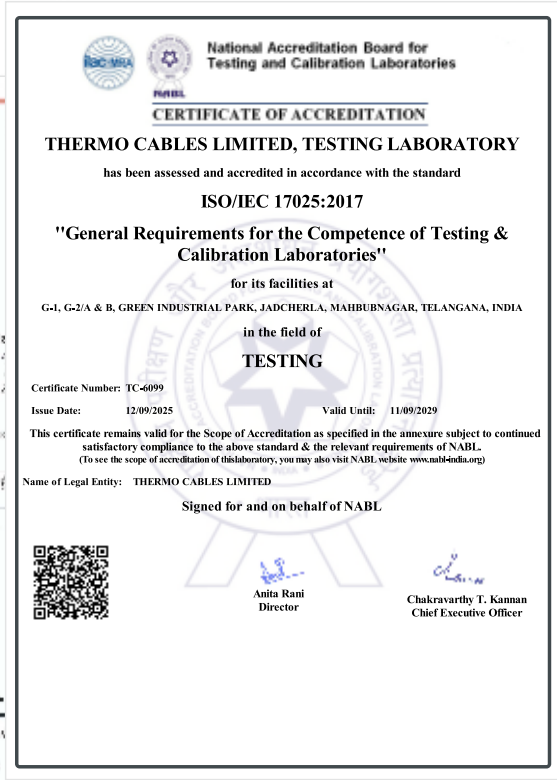
Category Manager

Hitachi Energy India Limited
Formerly known as ABB Power Products and Systems India Limited

Hitachi Energy

System Cerfications





Infrastructure

Machinery

Name of the Machine	Name of the Machine
Rod Break Down Machine (9 Die)	HOIST 'E' - 19 B Laying - 2 Nos
Rod Break Down Machine (11 Die)	HOIST 'G' - 30 Armouring - 2 Nos
Rod Break Down Machine (13 Die)	HOIST 'G' - 30 B Armouring
Skip Stranding Machine - 2 Nos	HOIST 'F' - 37 Laying
Electroplating Tinning Machine - 2 Nos	HOIST 'F' - 37 B Laying - 2 Nos
Multi Wire Drawing Machine 30 mm	HOIST 'K' - 40 Armouring
Multi Wire Drawing Machine 8 Wire - 2 Nos	HOIST 'H' - 48 Armouring - 2 Nos
Fine Wire Drawing Machine - 4 Nos	HOIST 'H' - 48 B Armouring - 2 Nos
Mixing Machine 75 mm - 3 Nos	HOIST 'J' - 72 B Armouring
Kneader Line - 2 Nos	HOIST 'F' - 96 Armouring
75 L Kneader	HOIST 'K' - HV Area
Ring Marker	HOIST 'L' - Drum Twister Area
High Speed Core Rewinding - 4 Nos	HOIST 'O' - RBD Area
Taping Machine - 7 Nos	HOIST 'I' - Despatch - 2 Nos
Vertical Taping Machine - 6 Nos	Chain Hoist 'A' - G I Rewinding - 2 Nos
Horizontal Taping Machine - 12 Nos	Chain Hoist 'C' - Simon Taping - 4 Nos
Single Twist Bunching Machine	High Speed Bunching Machine - 10 Nos
400 Single Twist Bunching Machine	Chiller - 2 Nos
Tandem Extrusion Line (Ø50 + 65/35 mm)	Chiller 5 TR
Tandem Extruder Line (Ø80+ Ø100/Ø35)	Chiller 10 TR - 2 Nos
Tandem Extruder Line (Ø35+ Ø50/Ø35)	Chiller 20 TR
Extruder Machine 20 mm Bi Color	PVC Mixer
Extruder Machine 45 mm	High Speed Mixer 60 kg
Extruder Machine 45 mm Bi Color	High Speed Mixer 120 kg
Extruder Machine 65 mm - 9 Nos	High Speed Mixer 200 kg
Extruder Machine 70 mm	16 A High Speed Braiding - 3 Nos
Extruder Machine 70/35 mm	16 F High Speed Braiding - 2 Nos
Extruder Machine 75 mm - 3 Nos	24 High Speed Braiding - 2 Nos
Extruder Machine 80 mm - 4 Nos	24 A High Speed Braiding - 5 Nos
Extruder Machine 100 mm	24 E High Speed Braiding - 4 Nos
Core Rewinding Machine - 7 Nos	24 F High Speed Braiding
Cooling Tower - 6 Nos	48 High Speed Braiding
GI Rewinding Machine - 20 Nos	3 HP Air Compressor
Ceramic Butt Welding Machine	10 HP Air Compressor - 3 Nos
Butt Welding Machine - 15 Nos	15 HP Air Compressor
Electron Beam Accelerator - 2 Nos	20 HP Air Compressor - 2 Nos
Pairing Machine - 4 Nos	25 HP Air Compressor
Pairing Back Twist Machine	100 HP Air Compressor - 3 Nos
Laying Machine (7 Bobbins)	Brazing Machine - 4 Nos
Laying Machine (7 Bobbins) - Single Twist	H V Testing - 3 Nos
Laying Machine (13 Bobbins)	Drum Twister Machine
Laying Machine (19 Bobbins) - 4 Nos	630 Single Twister Machine 7 Bobbin
Laying Machine (37 Bobbins) - 3 Nos	800 Single Twister Machine 12 Bobbin
Laying (42 Bobbin)	1250 Single Twister Machine 19 Bobbin
Armouring Machine (30 Bobbin) - 2 Nos	DT 500 Buncher Machine
Armouring Machine (40 Bobbin)	Scissor Lift 2 ton
Armouring Machine (48 Bobbin) - 4 Nos	Steam Boiler
Armouring Machine (72 Bobbin)	PVC Grinder
Armouring Machine (96 Bobbin)	Hydraulic Press
Extruder Sheathing Machine 80 mm - 2 Nos	PT Stranding & Taping Machine
Extruder Sheathing Machine 100 mm	Silicone Rubber Mixing Machine
Cable Rewinding Machine - 5 Nos	65/150 Two Stage Extruder (Compounding Line)
GI Rewinding Strip Machine - 2 Nos	60 KVA UPS
Off Line Annealer	80 KVA UPS - 2 Nos
Nickel Plating - 2 Nos	100 KVA UPS
Pointing Machine - 2 Nos	120 KVA UPS
Fork Lift - 2 Nos	160 KVA UPS
Auto Clave	200 KVA UPS
HOIST 'A' - Skip	250 KVA UPS - 2 Nos
HOIST 'B' - 54 Stranding	320 KVA DG Set
HOIST 'P' - Stores	365 KVA DG Set
HOIST 'C' - 7 B Laying	600 KVA DG Set
HOIST 'E' - 13 Laying	Inkjet Printers - 36 Nos
HOIST 'E' - 19 Laying - 2 Nos	Laser Printers - 4 Nos

Testing Equipment

Name of the Machine - Range/LC
Fourier Transmission infrared Spectrometer (FTIR)
Profile Projector
Digital Thermometer With Sensor - 2 Nos
Hot Air Ageing Oven 6 Nos - Up to 250° C & 300° C
Hot Set Oven
Ozone Resistance Test Equipment
Smoke Density Apparatus - 3 Nos
Oxygen & Temperature index Apparatus - 2 Nos
Flammability Tester - 3 Nos
Cold Chamber Bend Cold Impact Test Set - 2 Nos 20° C to +25° C
Hot Set Test Apparatus - 3 Nos
Toxicity Index Test Equipment
Halogen Acid Gas Emission Test Apparatus
pH & Conductivity Test Equipment - 2 Nos - 0 to 14 pH
Abrasion Resistatnce Tester - 2 Nos
Electronic Tensile Tester - 3 Nos - 0 to 1000 N
Dielectric Breakdown Tester & Leakage Current Tester
High Frequency Spark Tester - 8 Nos - 0 to 15 KV AC
Main Frequency Spark Tester - 2 Nos - 0 to 15 KV AC
Digital Micro Ohm Meter 5 Nos - 1 mΩ to 19.999 kΩ (2 Nos.) & 1 mΩ to 1.9999 kΩ (1 No.)
H V Tester 4 Nos - 0-5 / 10 KV
Million Mega Ohm Meter 6 Nos - 1 MΩ to 100 GΩ, 1 MΩ to 50 TΩ & 2 MΩ to 20 GΩ
Digital L C R Q Meter
Thermal E M F Error Test Apparatus - 0 to 200 mV DC
Digital M V Source Cum Meter - 0 to 199.9° C
Digimatic Caliper - 0 to 300 mm
Acid Gas Generation Apparatus 2 Nos
Swedish Chimney Test Equipment
Water Immersion Test Equipment - Up to 100° C
4 Cell Ageing Oven with Data Scanning Logger 2 Nos - 16 Channels
Heating Oven - Up to 200° C
Thermal Stability Test Apparatus
Water Absorption Test Apparatus Gravimetric
Electronic Balance Weighing Machine - 3 Nos 0 to 180 gms & 10 gms to 3 kgs
Kelvin Bridge - 0-11 Ω
Torsion Testing Machine (Digital Control Meter - Up to 99999 Count)
Fire Survival Test Equipment
Static Noise Rejection Ratio Meter - 60 to 100 dB
H V Break Down Tester - 0 to 2.5 KV DC
Transfer Impedance Tester
Steel Rule & Test Mandrel Set 0 to 1 Metre
Condition Chamber 2 Nos - 20° C to 40° C (Temp.) & 40 to 80 RH
Insulation Resistance Tester - 0 to 1000 MΩ / 500 V
Hydro Meter 4 Nos - 0.700 - 1.000 g / ml
Digital Stop Watch 5 Nos - 0 - 24 hrs
Mutual Capacitance Meter - 1.999 nF - 1999.9 nF
Length Counter Meter - Up to 99999 mtr
Tear Resistance Die
Coating Thickness Measurement Meter
Digital Multimeter 4 Nos - MΩ
Inductance Decade Box - 10 mH - 10 H
Capacitance Decade Box - 10 pF - 10 μF
Wet & Dry Thermometer 2 Nos - 40° C to +50° C
Glass Thermometer 05 Nos - 10° C to + 110° C & - 10° C to 250° C
Thermometer 02 Nos - 195° C to 205° C
Digital Anemo Meter - 0 - 45 m/s
Digital Thermo Hygrometer 02 Nos - 0 to 95° C / 20 to 99% RH
Senior Double Kelvin Bridge
UV Radiation Test Apparatus
Notch Propagation Tester (Analog)
Water Bath (Size 120 cm X 90 cm X 60 cm)
H V Probe Milimeter
Abrasion Resistance Tester
Dynamic Cut Through Tester
Cable Analyzer
Universal Testing Machine
PC Based Crosstalk Attentuation & Impedance Meter Attenuation 0.1 to 20 dB, Cross talk (- 40 to 100 dB), Impedance 199.9Ω to 1.999kΩ Network Analyzer (AESA)
Fluke - DSX - 8000
Toxity Index Tester as per EN 45545-2
Step Load Tester
Bending Torsion Tester
Vibration Tester

OUR CUSTOMERS

Thermo Cables Ltd

An ISO 9001, 14001 & 45001 Certified Company

28, Nagarjuna Hills, Punjagutta, Hyderabad - 500 082
Telangana, India +91 40 44429292 +91 40 23350583

info@thermocables.com; exports@thermocables.com

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Germany	+49 (0) 15124124557	exports@thermocables.com

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D - 44, 45, 48, 49 & 50
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Plant - II
G 1, G 2 (A & B), G 9 (A & B) & G 10
Green Industrial Park
Jadcherla, Mahabubnagar - 509 301
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www.thermocables.com

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