2 Asbesco at a Glance
3 Executive Summary
4 Management
6 Our Global Presence
7 Manufacturing facilities
13 Products
14 Insulator Hardware
17 Spacer Dampers and Vibration Dampers
18 Conductor and Earthwire Accessories
19 Pole Line Hardware
20 Helically Formed Fittings
21 Design and Testing
22 Design and Development
23 Testing
25 EHV Testing
26 Certifications
27 Test Reports
28 Feats & Accomplishments
ASBESCO AT A GLANCE

Group Turnover : US $ 40 mn.
Land Area : 58,000 Sq. mtrs.
Covered Area : 40,000 Sq. mtrs.

Capacity :

Installed Capacity : 25,000 M.T.
Capacity Utilization : 15,000 M.T.
Installed Electricity : 1,800 KVA

Product Range :

- Transmission and Substation Insulator Hardware (11 kV to 1200 kV)
- Conductor Accessories
- Clamps and Connectors for Substation
- Pole Line & Distribution Hardware
- Earthwire & OPGW Accessories
- Preformed Products
- Distribution line fittings

Quality Certification :

ISO 9001: 2008

Achievement :

Export House Status from Ministry of Commerce & Industry, Govt. of India
Asbestos was founded by Mr. Prem Ratan Bagree in the year 1965 and was subsequently incorporated as a private limited company on 13th October 1980 with registered office in Kolkata, India. A ISO 9001:2008 certified manufacturer of Insulator Hardware Fittings, Conductor and earth wire accessories and Clamps and Connectors for Substation, the firm has two production units at Howrah (near Kolkata) in West Bengal & maintains high levels of customer satisfaction through quality products & services rendered to its international as well as domestic clientele.

Under the capable ownership of the “Bagree Family” and with the help of a dedicated group of young professional Managers, the Company has grown from a small & typical ownership company into a leading manufacturing company in its field in India. Today, more than three hundred families in India are banking on Asbestos. The company has clearly defined its management structure consisting of a Chairman & Directors who are making the policy decisions for the company to ensure continual growth & improvement.

Deregulation of Indian economy during the last decade created vast opportunities for the Indian Companies in the overseas markets. To capitalize on this, Asbestos became aggressive in the overseas markets. As a registered “Export House” today, Asbestos has ventured into various countries across the globe—namely Ethiopia, Algeria, Egypt, Ghana, Nigeria, Tanzania, Mali, Kenya, U.A.E, Oman, Jordan, Saudi Arabia, U.K, Malaysia, Sri Lanka, Nepal, Bangladesh etc.

Backed by an experience of three decades, Asbestos today is ready with an entire range of fittings & accessories ranging from 11KV to 1200 K V level. The manufacturing range covers six main product segments namely:

- Transmission, Substation Insulator Hardware
- Conductor Accessories
- Clamps & Connectors for Substation
- Pole line & Distribution line Hardware
- Earth wire & OPGW Accessories
- Preformed Products.

It is more than a decade now that Asbestos has completed successfully its first supply of 400KV line Hardware & Accessories to the Power Grid Corporation of India Limited. Today, a bunch of performance certificates received from various utilities and leading contractors clearly indicate the satisfactory performance of Asbestos products on line for decade.

Asbestos has reached a major milestone being a self-reliant manufacturer of Spacer Dampers for any Bundle Conductor and is capable of providing Line Vibration solutions independently using a licenced software, “ATTRE”.

Backed by a motivated team of qualified professionals and a brand new factory with state of the art machinery and huge capacity, Asbestos is geared up to claim its status of the leading manufacturer of fittings & accessories across the globe.
Mr. P. R. Bagree
Founder and Chairman
He has an experience of over 40 years in the Transmission Line industry.

Mr. K. K. Bagree
Director
He has an experience of over 30 years in the Transmission Line industry.

Mr. Aditya Bagree
Director
He has an experience of 15 years in the Transmission Line industry.

Mr. Samir Daga
Head of Purchase & Procurement
A Commerce Graduate with high expertise in procurement activities.

Dr. Techn Christian Bernauer
General Manager (Engg & QC)
An Electrotechnical Engineer and Ph.D. (Electrical Engg). Ex-Technical Director (Design & Development), Mosdorfer, Austria and ex-Manager (Engg, Mktg) of RIBE, Germany. He has an experience of 26 years in the industry.

Mr. S. N. Das
VP (Mktg & Business Development)
A Physics Graduate & Industrial Engineer with MBA (Mktg), took over as Head of Marketing in 2008. He has an experience of 18 years in the industry.
Mr. Sujit Kanti Biswas  
Senior Manager  
(International Trade)  
A Physics Hon. Graduate with Post Graduate Diploma in Marketing Management is the head of the international business since 2002. He has an experience of 25 years in the industry.

Mrs. Alka Bagree  
Manager (Controlling)  
MBA (Finance)  
with 10 years’ experience

Mr. Sumon Mitra  
Factory Manager (Unit-II)  
B.Tech (Electrical)  
with 10 years’ experience out of which 6 years’ overseas experience on automated production line.

Mr. Sujit Kumar Bhattacharyya  
Manager (Corporate & Marketing),  
Asbesco-SubCon Pvt. Ltd.  
(a JV company of Asbesco & RIBE SubCon, Austria)  
MSc (Physics), MBA (Marketing), PGDCA (Computer Application)  
with 16 years experience in Instrumentation and Extra High Voltage Substation Clamps and Connectors.

“Our People, Our Strength”
GLOBAL PRESENCE

Since deregulation of the Indian economy, vast opportunities for Indian companies opened up in overseas markets. To capitalise on this, Asbesco has intensified its activities into new export markets. Previously, the company was active only in domestic and neighboring markets like Bangladesh, Nepal, Sri Lanka, Mauritius. Over the last three years, Asbesco has been successful in tapping the vast opportunities existing internationally.

Today Asbesco has focused on the huge existing opportunities in various African countries like Ethiopia, Kenya, Mali, Sudan, Algeria etc. Asbesco aims at increasing its presence in the international market and simultaneously consolidating its market share in the large Indian domestic market.

Following is a list of Asbesco’s major existing customers:

A. Domestic Market

- Power Grid Corporation of India
- Indian State Owned Electricity Boards
- K.E.C. International
- Tata Projects
- Kalpataaru Power Transmission
- Gammon
- INABENSA
- Jyoti Structures
- SPIC
- Adani Power
- Lanco Infratech
- L & T
- ABB
- AREVA
- ICOMM Tele
- Skipper
- ASTER Teleservices
- BAJAJ Electricals
- Shyama Power
- Gayatri Projects

B. Major International Markets

- CAMEG - Algeria
- EEPCO - Ethiopia
- PDO - Oman
- SEC - Saudi Arabia
- JEPCO - Jordan
- IRBID - Jordan
- PHCN - Nigeria
- MDM - Mali
- NEC - Sudan
- MEC - Myanmar
- WAPCOS - Afghanistan
- T&T EC - Trinidad & Tobago
- KPLC - Kenya
- KETRACO - Kenya
- MOE - Ghana
- TANESCO - Tanzania
- CEB - Sri Lanka
- BPDB - Bangladesh
- NEPA - Nigeria
- SUBCON - Austria
- NEA - Nepal
- PGCB - Bangladesh
MANUFACTURING

Aluminium Die Casting Unit
MANUFACTURING

Armour Rod Forming Unit

Robotic Welding Machine

CNC Plate Cutting

CNC Pipe Bending
MANUFACTURING

Manual Welding Unit

Machining Unit

Vibration Damper Assembly Unit
INSULATOR HARDWARE

Quad Bundle Double 'I' Suspension String for Asymmetric ACSR Moose
INSULATOR HARDWARE

- Quadruple Tension String for Quadruple Bundle Conductor
- Double Suspension String for Twin Bundle Conductor
- Quadruple Tension String for Hexagonal Bundle Conductor

ASBESCO (INDIA) PVT. LTD.
± 800 kV HVDC Six
Bundle Tension String for ACSR Lapwing

Double Suspension for Triple Bundle Conductor
SPACER DAMPERS & VIBRATION DAMPERS
POLE LINE HARDWARE

Low Voltage
Cable Accessories

Distribution
Line Accessories

Low Voltage Cable Accessories

Pole Line Hardware
DESIGN & TESTING
DESIGN & DEVELOPMENT

Modelling Software

In-house Die Making unit (VMC)

Stress Analysis using Solid works

Design Development using AutoCAD
Vibration Analysis of Damper simulating line conditions

Line Vibration analysis through "ATTRA"

Microstructure Analysis

MPI test to detect cracks
TESTING

36 mtr. long conductor span for fatigue test

Compression Tension Test on Quad Spacer Damper

Spectrometer for Chemical Analysis

Magnetic Power Loss Test

1500 KN capacity
Horizontal
Tensile testing machine
EHV TESTING
at international laboratories

Corona / RIV Test on Quad Bundle Spacer Damper at TUD, Germany

Corona Test of 400KV DT String Quad Lark with Composite Insulator at Bazet, France

Asbesco's products have been tested at:

- STRI, Sweden
- CEPRI, China
- Hydro Quebec, Canada
- ZKU, Czech Republic
- Seves Bazet, France
- University of Dresden, Germany
- State Grid Research Lab, China
- Nanjing Lab, China
- CPRI, India
- IISc, India

Dielectric test on 765kV Double 'V' Suspension fittings for Quad Bundle Conductor at Bazet, France

Dielectric Test at Technical University of Dresden.

Dielectric test on 400kV Single Suspension fittings at Wuhan, China
CERTIFICATIONS

Certificate of Compliance
INTEGRATED QUALITY CERTIFICATION PVT. LTD.

Hereby Certifies that the Quality Management Systems of
Asbesco (India) Private Limited

Unit-1: Viveknanda Industrial Estate, Howrah - Amra Road,
Balukuri, Howrah - 711 113, West Bengal, INDIA.
Unit-2: Village - Sankaradhah, Mouza - Sanjira, P.S. Dabulia,
Howrah - 711 411, West Bengal, INDIA.

Office: 1A, K.R.R. Complex, & Ho-Chi Minh Sarani,
Kolkata - 700 071, West Bengal, INDIA,

has been assessed and conforms to the
Quality Management Systems Standard
ISO 9001 - 2008

Scope: Design, Manufacture and Supply of Insulator Hardware Fittings
and Conductor Accessories for Transmission Lines, Substations
& Pole Lines, Earthing & Optical Ground Wire (OOGW) Accessories.

This certificate is valid subject to periodic surveillance audits of the quality management
systems. The certificate is issued for a period of 3 years from the date of issuance.

Corporate Office: P / No. 01, 1st Floor, Sector No. 40, Salt Lake City, Kolkata - 700 064.

MINISTRY OF COMMERCE & INDUSTRY
GOVERNMENT OF INDIA

Certificate of Registration
EXPORT LICENSE (NO. 01/95/1998-99)

AMOSCO (INDIA) PVT. LTD. 1A, K.R.R. COMPLEX,

Nسياب اضرام يشريحة: 2009-2014

This Certificate is valid for a period of 3 years from the date of issuance.

Certificate: 01/95/1998-99

AMOSCO (INDIA) PVT. LTD.

Joint Director General of Foreign Trade

Kolkata - 700 071, West Bengal, INDIA

Signature: [Signature]

Date: 1st April, 2009

[Stamp: Joint Director General of Foreign Trade]
TEST REPORTS

Report

Performance test on hexa spacer dampers for a bundle of six ACSR Zebra

J-4972 / LMT 2012-03-21-25

March 20th to April 17th, 2012

Customer: Asbesco India Private Ltd.

Laboratoire mécanique et thermomécanique
FEATS & ACCOMPLISHMENTS

- Started as a small manufacturing unit in the year of 1965.
- Registered as a private limited company in 1980.
- Successfully supplied low & medium voltage fittings to various state electricity boards for distribution & transmission lines in the initial years.
- Started manufacturing & testing high & extra high voltage fittings & accessories.
- Obtained Power Grid approval for supply of EHV fittings.
- Started supplying to overseas customers since 1991.
- Became one of the few Hardware manufacturing companies in the world who are capable to undertake Line Vibration Analysis independently using acclaimed Simulation Software (developed by CIGRE working group member on Aeolian vibration) and thereby becoming a solution provider for line vibration with justification of optimum placement of vibration damper / spacer damper for up to eight bundle conductor system.
- Became the FIRST INDIAN COMPANY to successfully manufacture and supply OPGW fittings.
- Obtained approval from overseas utilities like CAMEG-Algeria, PDO-Oman, Mew-Oman, JEPCO-Jordan, EEPCO-Ethiopia, PGCG-Bangladesh, MDM-Mali, SEC-Saudi Arabia, PHCN-Nigeria, KETRACO-Kenya, etc.
- Successfully supplied to various major 400kV & 765 kV transmission line projects of Power Grid Corporation of India Limited.
- Became FIRST Company to successfully design, test, manufacture and supply fittings and accessories for the FIRST 400kV ASYMMETRICAL QUAD BUNDLED TRANSMISSION LINE (Kaithal-Meerut) with high surge impedance.
- Successfully developed fittings & accessories for high temperature low sag (HTLS) conductors and supplied to domestic as well as international customers.
- Partnering the Power Grid Corporation of India Limited for indigenous development of 1200kV UHVAC fittings and accessories.
- Received contract for 800kV HVDC Projects in India from PGCIL.
- Successfully designed, manufactured and tested 800kV HVDC fittings.
- Started supplying for 400kV projects outside India to establish itself as a leading international manufacturer.
- Formed a Joint Venture with Subcon, Austria to manufacturer EHV substation clamps & connectors for the Indian market.
- Awarded Contracts for supply of 765 kV substation connectors by ABB for Power Grid Projects.
- New Plant established in 2011 with backward integration of a Forging Unit with all major equipment imported from Germany, Italy and China, and a Galvanising Plant from SIRIO, Italy.
Our State-of-the-Art New Plant (Unit-II)
ASBESCO (INDIA) PVT. LTD.

Head Office:
1A, KBR Complex, 1st floor
4, Ho-Chi-Minh Sarani, Kolkata - 700 071, India.
Phone : +91-33-2282 2518 / 2519
Fax : +91-33-2282 2517, E-mail : info@asbescoindia.com
Website : www.asbesco.in

Factory (Unit-I):
Vivekananda Industrial Estate
Howrah Amto Road, Belikuri, Howrah - 711 113, India.
Phone : +91-33-2653 1275 / 4547, Fax : +91-33-2653 2895

Factory (Unit-II):
Mouza Baneri, Sankharidaha, PS Domjur, Howrah - 711 411, India
Phone : +91-33-26700087 / 158