

INDIA FLEX ENGINEERING

Professional Excellence
Unrivalled Quality

**MANUFACTURER OF EXPANSION JOINT
AND PRESSURE VESSEL EQUIPMENT**





We are India Flex Engineering pleased to introduce ourselves as one of the leading company for design and manufacturing of Metallic and Nonmetallic Expansion Joint, hoses and pressure vessel equipment in Ahmedabad-India, established in August 2010.

India Flex Engineering is Partnership Firm and annual turnover is more than 2 Crore. India Flex Engineering committed to his client for batter service and technical support. We believe that internal & external customer satisfaction is achieved through a better management, quality of products, technical knowledge, experience and services that needs to continuous improvement of the system.

India Flex Engineering has invested heavily in modern infrastructure, latest technology for Bellows Long Seam Welding and Hydro Forming, R & D and quality manpower that result in a product quality that more than meets the existing quality standards of national & international customer's, consultants and government sector.



- We are a passionate people, process driven local business succeeding globally through entrepreneurial business units, that values our internal and external customers and suppliers.
- We combine engineering and process of industry knowledge, service, integrity and urgency with efficient systems.
- We plan and communicate aggressive but achievable targets and turn them into actions. Our metrics are visible and monitored consistently at all levels with continues improvement.
- We provide our people with clear objectives and support them with the necessary resources, holding individuals accountable and recognizing success whilst also managing poor performance.
- We strive for zero harm amongst our people and those around our business, and act responsibly within our communities.



METALLIC EXPANSION JOINTS

METALLIC CIRCULAR EXPANSION JOINTS

Expansion joint setups are a creative alternate option for pipe and pipelines. These types of joints can easily be applied into the crude Oil & Gas, Paper & Pulps, Sugar plant, Chemical plant, Power sector and also Petrochemical sectors and also in several other fields.

Metal bellows are most often included in pipeline systems that link up pumps and vessels. The design of the creases in the metal bellow permits for increased axial, extensive, and angular movement. In order to improve the overall angular or lateral pass flexibility, ties, pivots and some other trimming is included in the metal bellow. The actual expected life of these kinds of devices is decided by the shape, material, degree to which the junction should be able to move, and of course, forces that are greater than the designed limits.

Metal expansion joints are beneficial portions for the pipeline system. They are utilized in order to compensate length changes, which normally happen in pipelines from temperature modifications. In addition to this, they are capable of reading and absorbing vibrations generated by pumps, motor, compressors or wind turbines. Dependent upon the situation, axial and/or lateral pass movement as well as angular movement can be compensated. Metal expansion joints offer a cost effective choice and enhance the beneficial organic phenomenon of a pipeline system. Manufactured to last as long as the system; metal bellows decrease waterproofing problems and the large space required with alternative expansion equipment.

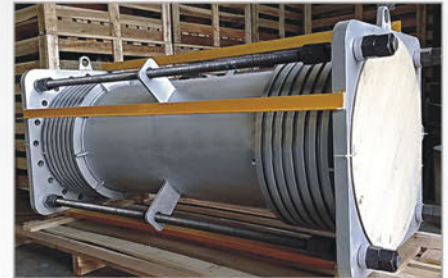
SINGLE EXPANSION JOINT (SEJ)

SEJ is the simplest metal expansion joint, of single bellows element make out from either a single plies or multiples constructions using both side Weld Ends, Flanges or one side Weld Ends other side Flanges assembly unit. Its can absorb axial movement from the pipe lines, duct and vibration from the equipment. All the SEJ needs fix anchor and intermediate anchor for smoothly work in the process.



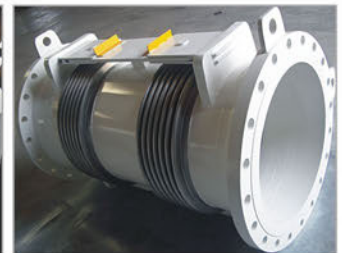
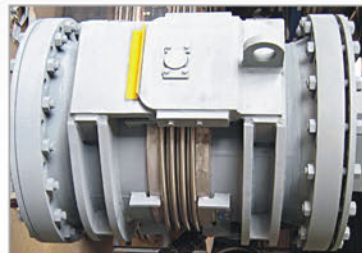
DUAL EXPANSION JOINT (DEJ)

The DEJ is consists of two SEJ by common pipe/duct connector for the purpose of absorbing any combination of three basic movement, axial expansion and compression, lateral deflection and angular rotation.



HINGE EXPANSION JOINT (SINGLE OR DUAL)

The HEJ is contains Single or Dual Expansion Joint and its can design to permit angular rotation and if UEJ than lateral movement in One plane only by using a pair of pins through hinge plate and its fix with end connection of expansion joint assembly. All the hinge pins and plate are design to restrain the thrust force due to internal pressure and extraneous force, wherever applicable.



TIED EXPANSION JOINT (SINGLE OR DUAL)

The TEJ is contains Single or Dual Expansion Joint and its can design to permit axial, lateral (One plane or two plane) and angular movement. The devices called tie rods or bars, attached with end connection of expansion joint assembly whose primary function is to distribute the equal movement between the single or deal bellows, restrain the trust force during internal pressure.



GIMBAL EXPANSION JOINT (SINGLE OR DUAL)

The GEJ is design to permit angular motion in all planes. The incorporation includes a pair of hinges connected to a floating Gimbals ring which has very special advantages to absorb thrust force due to internal pressure, supporting the dead weight of the system, prevention of torsion force & reduction of forces on system.



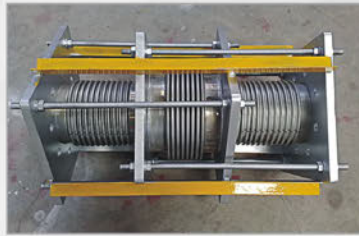
PRESSURE BALANCE EXPANSION JOINT

The PBEJ is design in single or Dual Expansion Joint and its can absorb axial and lateral movement. Single or Double line bellows assembly connected with the balancing bellows using devices call tie rods or bars to restraining the axial and compressive thrust force due to internal pressure and its can allow free to move for lateral movement. Also supporting the dead weight of the balancing bellows and blind flange or dished ends. Each bellows set is designed to absorb the axial movement and usually the line bellows absorb lateral deflection.



IN-LINE PRESSURE BALANCE EXPANSION JOINT

The IPBEJ is design in a two type of construction, either using a Tie rods or using a connected spool piece with line bellows and balancing bellows. Its can absorb large axial movement and minor lateral movement. This type of the expansion joint is design only for a straight run of pipe, where axial movements are large.



EXTERNALLY PRESSURIZED EXPANSION JOINT

The EPEJ is design for absorb a large axial movement and minor lateral movement. This type of the expansion joint is design only for a straight run of pipe, using shoes type fix support on the bottom side of outer shell to divide the equally moment on both bellows element if dual bellows design.



TOROIDAL EXPANSION JOINT

The Toroidal Expansion Joints are mainly design for high-pressure application where needs small amounts of movement. The majority of these joints are designed for Heat Exchanger in accordance with ASME Sec VIII, Div-1, Appendix 26 and also as per EJMA for other application. The natural stability of a circle under internal pressure is allows the thin walled toroid element to withstand pressures that a apparently more stable multy ply, reinforced bellows could not. The advantage of this design are its easy to manufacture with low material cost of bellows element and the stability of the expansion joint even at pressures well beyond the design conditions. The only drawback is the small amount of movement the joints can absorb, which when dealing with heat exchanger designs, is all that is required.



METALLIC RECTANGULAR OR SQUARE EXPANSION JOINTS

Square and Rectangular Bellows: Any size with any shape and corner Rectangular Bellows especially used in low pressure ducting to absorb thermal expansion of duct and vibration from equipment. Rectangular Expansion Joint have a single, miter, camera and rounded corner design to absorb axial and lateral movement due to thermal expansion of system.



METALLIC THICK WALL AND COLD SPUN EXPANSION JOINTS

Thick wall Expansion Joint especially design for Heat Exchanger application. Due to dissimilar material, pressure or temperature of shell side and tube side there are differential thermal growth between shell and tube, to absorb this thermal growth or expansion, need the expansion joint. This expansion joint design as per ASME Code-Div VIII-Appendix 5 or 26 and TEMA-Section-V RCB-8.



NON METALLIC EXPANSION JOINTS

NON METALLIC FABRIC EXPANSION JOINTS

These are used when large movement over a relatively short installation is required. Their use in large ducting system in place of metallic expansion joints reduce cost and weight, enabling fast and simple replacement at the same time. Indiaflex manufactures and supplies a wide range of sizes and applications with or without frames. These frames can be designed to suit your application in carbon steel or stainless steel. We can supply this with either CS or SS steel work, refractory or no refractory as required by the customer.



NON METALLIC COMPOSITE TYPE EXPANSION JOINTS

This is made up of inner layer, insulation layer pressure seal and outer layer. There is an insulation pillow for high temperature application. This comes with different coating to suit the medium and the environment.



NON METALLIC ELASTOMERIC TYPE EXPANSION JOINTS

This comes as a single layer of Hypalon, EPDM, Vitron, Teflon and combination of Viton and Teflon. We follow this latest International trend due to its effective and durable solution of handling low to medium temperature gasses, associated dew point condensate and flue gas.



NON METALLIC RUBBER EXPANSION JOINTS

These expansion joints are often used in water and chemical applications where lateral movement, misalignment or vibration is evident in the piping system. Our rubber expansion joints come in single and double spherical style arch type in EPDM, Neoprene, Nitrile, Hypalon Viton & Teflon lined.



FLEXIBLE HOSES

This hose is ideal for absorbing vibration, misalignment, piping expansion or contraction and equipment motion. We supply these hoses in corrugated stainless steel or PTFE with smooth or corrugated bore, single or double braided for high pressure and temperature application.

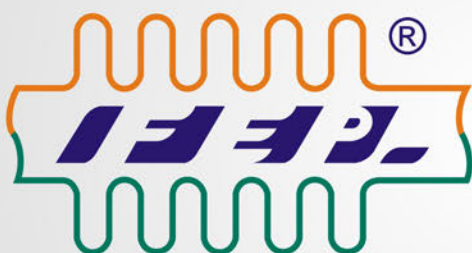


PRESSURE VESSELS

We manufacture vertical and horizontal pressure vessels, piping spools and pig launcher/receivers. Our manufacturing facilities can handle shell diameters to 3meters, overall lengths to approximately 12meters, carbon steel, stainless steel and chrome alloy steels, other materials on request. Manufacturing as per ASME 2015/EN codes. Custom design and fabrication is our speciality.



CLIENT NAME- GREEN ENERGY GROUP AS.
PO. NO. - P4185 D. 16/12/2014.
PROJECT AND KSS CODE- OLK11-OLB110
INSPECTION BY- AKER POWERGAS PVT.LTD.
EMPTY WEIGHT- 15.10 TON
DIMENSION- 11350L X 2180 W X 2350 H
MFG. BY- INDIA FLEX ENGINEERING
(www.indiaflex.com)



INDIA FLEX ENGINEERING

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