



YOGIRAJ ENGINEERING COMPANY

Manufacturer of Bellows Expansion Joint,

Telescopic Expansion Joint, Non Metallic Expansion Joint,

Dismantling Joint, Strainer, Sight Flow Indicator, Sight Glass,

EOT Crane, Wire rope Hoist, Tank, Pipe Spool Fabrication and Flanges.



About Company

YEC is the Brand name of bellows and Strainer manufactured by Yogiraj Engineering Company. The company has been working in the Machining and fabrication business since 1995 under the name of Purnima engineering Works. We are Yogiraj Engineering Company pleased to introduce ourselves as one of the leading company for design and manufacturing of Metallic and Non-metallic Expansion Joint, hoses, Strainer, Sight flow Indicator and other fabrication equipment in V.U.Nagar, Anand, Gujarat – India, established in February 2018. Yogiraj Engineering Company is Partnership Firm. Yogiraj Engineering Company committed to his client for better 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.

Yogiraj Engineering Company has invested heavily in modern infrastructure, latest technology for Bellows Long Seam Welding and Bellows 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.

Certifications and Systems

Yogiraj Engineering Company Products is an ISO 9001:2015 certified company and is well supported by Software to maintain the documentation and the entire tracking from incoming raw material to dispatch. The company has been approved many MNC. We are one of the leading names in Fabricating, Exporting & supplying all sort of Expansion Bellows Joints, Strainers, Sight flow indicator and other fabrication.

Design and Manufacturing

The company has excellent capabilities in design and manufacturing of Expansion joints based on EJMA 10th Edition. The bellow design calculations are done by using competent software backed by rich experience of our designers. The designers use Autodesk fusion 360 CAD/CAM and have access to high end software's like Solid Works. The company understands the importance of having a well equipped tool and inspection facility to Support its production activities. Hence the company has invested in conventional and CNC machines .For the production activity the organisation has Focused on developing SPM's as it believes that SPM's will help in achieving consistency, reliability and speed of manufacturing.

Applications

- Power Generation
- Sugar Mill
- Infrastructure
- HVAC
- Cryogenic
- Steel Industries
- Measurement & Control Systems
- Pulp & Paper
- Oil & Gas
- Engine Exhaust
- Solar Technology
- Chemical Industries
- Instrument & Valve Industries
- Water/ Waste Water
- Nuclear Plant
- Automobile Industries

Testing Capabilities

- Hydrostatic Pressure and Leak Test
- Pneumatic Bubble Soap Leak Test
- Vacuum Test
- Dye Penetrant Test
- Visual Test
- Fatigue Test
- Squirm Test
- Spring Rate Test
- Radiography Test
(Through third party approved vendors)
- X-Ray Test
(Through third party approved vendors)
- Ultrasonic Test
(Through third party approved vendors)
- Helium Leak Detection Test
(Through third party approved vendors)

Material

Carbon Steel, Stainless steel series, Brass, Bronze, Beryllium copper and Nickel based alloys like, Inconel, Hastelloy etc.

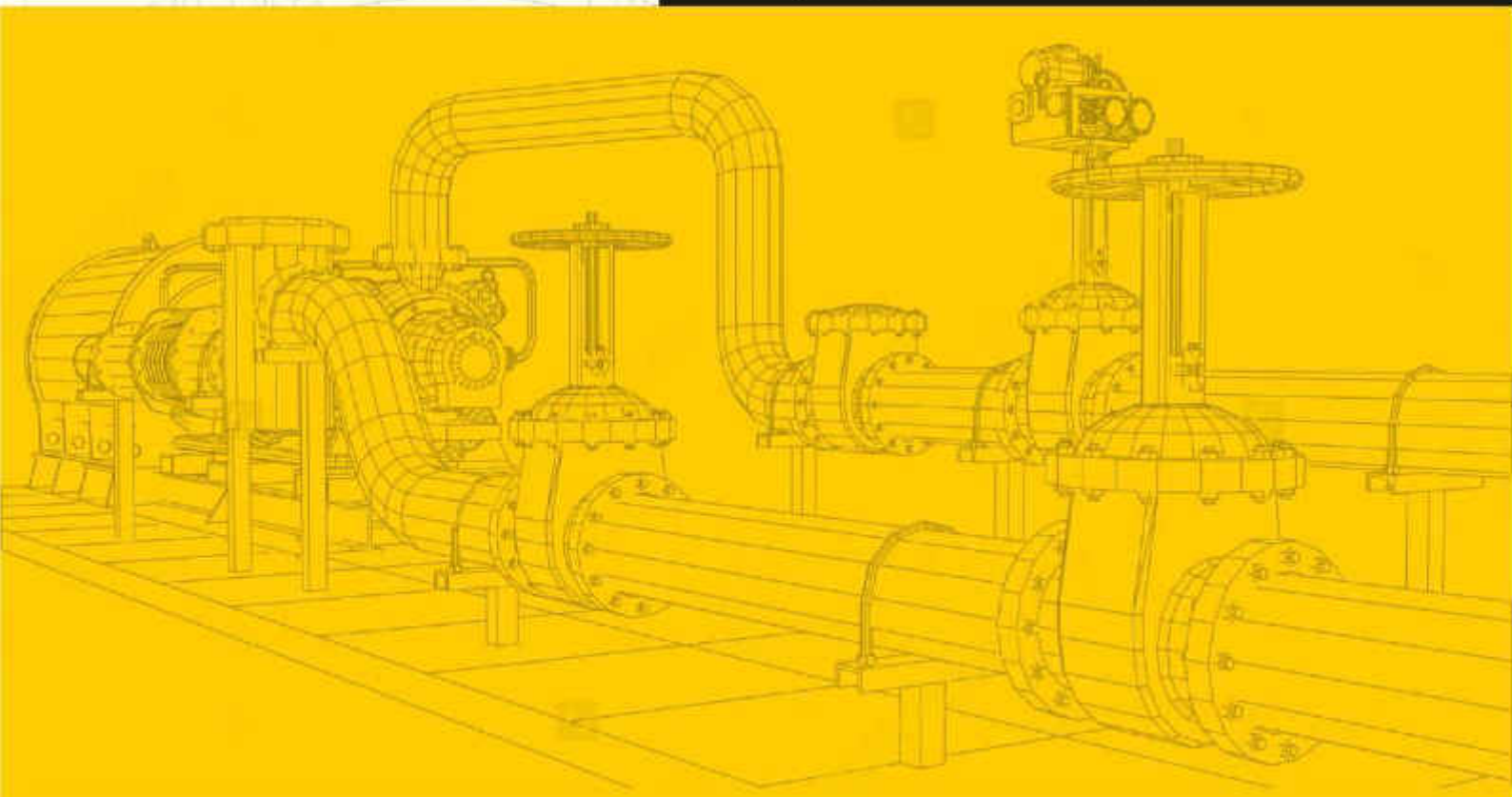
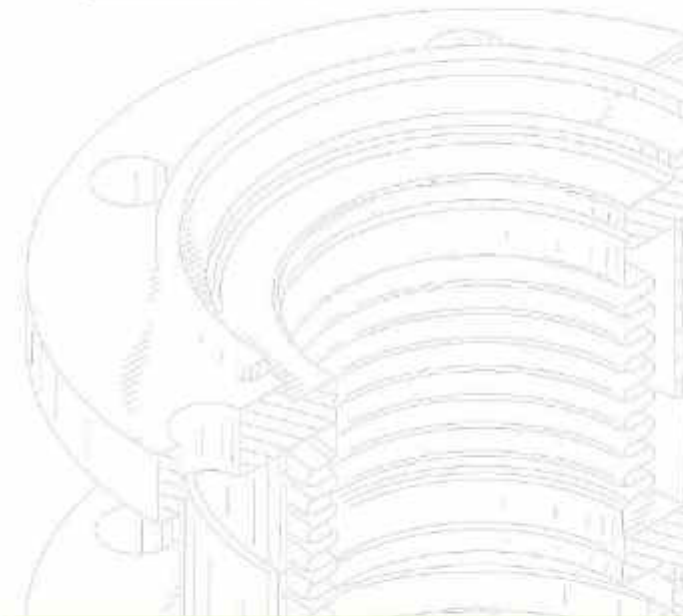
Size Range 15 NB –4000 NB (Bigger size on special request)

Pressure Range -Up to 90 Bar (Higher pressure on special request)

Temperature Range -Cryogenic to 1200 oC

Shapes Circular, Rectangular or other shapes on special request

No. of Ply -Single Ply, Heavy wall Single Ply, Multiply



YOGIRAJ ENGINEERING COMPANY PRODUCTS

(A) Metallic Expansion Joints

Metal expansion joints are designed to absorb axial, Lateral and angular movements in any combination. They are divided in different families for different

Working conditions:

- Axial expansion joints
- Angular expansion joints
- Lateral expansion joints
- Universal expansion joints

Metal expansion joints can be provided with round or Rectangular section

- Size available – 15 NB to 4000 NB
- Material – ASTM 304 ,ASTM 316,ASTM 321, INCO ALLOYS & CUSTOMIZE

Single Expansion Bellows

YEC Single Expansion Bellows are specially designed to take care of these kind of movements and also capable to absorb duct or pipe misalignment in all three directions viz Axial, Lateral & Angular or combination of all three.

YEC has very unique range Single Expansion Joint.

Absorbs small amounts of axial, lateral, and angular movements

- Deflect in any direction
- Most economical
- Must be guided
- Requires main and directional anchors



Double Expansion Joint

This consists of two single joints joined by a common connector which is anchored to a rigid part of the structure by means of an anchor support base.

YEC Double Expansion Joints are supplied with or without an anchor support base depending on the customer's preference. A double joint is used where the axial movement to be absorbed is too large to be handled by a single joint.



Universal Expansion Bellows

This type of expansion joints are used to absorb lateral movements in all planes. Also, with a special positioning of two tie rods at 180 degrees, the expansion joints becomes able to absorb some lateral and angular deflections at the same time.

Advantages of Universal Expansion Joints

- Absorption of lateral movements in all planes
- Easy to absorb large expansion movements
- Minimum application area
- Preventing axial inaccuracies increases the system safety



Elbow Pressure Balance Pipe Expansion Joint

This type of pipe expansion joint is really a combination of several types. Its purpose is to retain and balance the pressure thrust so that main anchoring of the pipe or adjacent equipment is not required, and forces and movements on attachment flanges of delicate equipment, such as turbines, are kept to acceptably low levels. Absorbs axial and lateral movements

- Eliminates main anchors
- Minimum guiding required
- Pressure forces remain in balance
- No volume change



Gimbal Type Bellows

Gimbal bellows are designed to absorb the full pressure thrust load of the expansion joint and thus guard the adjacent equipment from damage due to thrust loading. gimbal Expansion Joints are used to absorb angular rotation in any plane

- Absorbs angular rotation
- Eliminates pressure thrust forces
- Transmits shear and wind loads
- Supports dead weight
- Prevents torsion on bellows
- No main anchors required
- Minimum guiding required
- Low forces on piping system



Hinged Pipe Expansion Joint

Hinged Pipe Expansion Joints contain hinges or pivots which allow the unit to bend in a single plane. These units are designed to restrict axial deflection, either in extension or compression. The hinge mechanism is typically designed to accept full pressure thrust.

Angular motion in all planes

- Positive control over movement
- Eliminates pressure thrust forces
- Transmits external loads
- Bolsters dead weight
- Prevents torsion on bellows
- No main anchors required
- Minimum guiding required
- Low forces on piping system
- Most efficient in absorbing thermal deflections



Rectangular Metallic Pipe Expansion Joint

Rectangular Expansion joint design that will absorb the thermal movements of the system in which it is installed. Like circular pipe expansion joints, rectangular pipe expansion joints absorb three types of movement: axial, lateral and angular.

- Absorbs axial and lateral movements
- Variety of bellows geometry (for long straight sides)
- Normal guiding is required
- Manufactured for a wide variety of materials
- **Size available – 100 NB to 4500 NB**
- **Material – ASTM 304, ASTM 316, ASTM 321, INCO ALLOYS & CUSTOMIZE**



Metal Hose Joint

A Metal Hose is a flexible metal line element. Corrugated hoses can withstand high pressure and provide maximum leak tightness on account of their material. They are particularly well suited for conveying hot and cold substances.

- **Size available – 10 NB to 300 NB**

Material – ASTM 304, ASTM 316, ASTM 321 & CUSTOMIZE



Thick Wall Pipe Expansion Joint

These may be a cost-effective option for large-diameter piping systems which operate at low pressure. Metals can be selected to satisfy different temperature conditions. The distribution of axial, angular, and lateral forces will be different when thick-wall pipe expansion joints are used.

Size available – 100 NB to 3000 NB

- **Material – SA 516, ASTM 304,**
- **ASTM 316, ASTM 321 & CUSTOMIZE**



Telescopic Expansion joint / Slide Sleeve type Expansion Joint

Telescopic Expansion Joint is a very compact and easy to install product, used for absorbing the expansion and contraction movements of a pipeline system. We are counted amongst the most preferred Telescopic expansion joint manufacturer.

Features:

- Designed to counterbalance large movements at high pressures
 - Rugged construction and ease of installation
 - Excellent pressure and temperature range
- Suitable for industrial oil & chemical piping, irrigation piping systems, sewage treatment, and more
- **Size available – 25 NB to 3000 NB**
 - **Material – C.S., ASTM 304, ASTM 316 & CUSTOMIZE**



(B) Non-metallic Expansion Joints

Rubber Expansion Joint

Rubber Expansion Bellows are designed to take care of misalignment, neutralize movement factor and minimize noise and vibration in pipelines and Ducts.

Excellent mechanical properties

- Excellent resilience and compression set
- Excellent electrical resistivity
- Excellent adhesion to fabric and metals
- Excellent resistance to water and dilute acids and alkalis
- Good flexibility at low temperatures
- Good resistance to abrasion, gouging and cut growth
- Good resistance to oxidation, steam, ketones and oxygenated solvents, alcohols and ammonia
- OK in concentrated alkali and acid
- **Size available – 25 NB to 1500 NB**
- **Material – EPDM, NEOPRE & CUSTOMIZE**



Fabric Expansion Joint

YEC is an experienced manufacturer of Non Metallic fabric Expansion Bellow had having a wide range of design to handle various applications in almost all the industrial application. YEC has developed Combined Layer Seal Pack and is capable to handle upto 1200 DEG C temperature.

- **Size available – 50 NB to 4000 NB**
- **Temperature absorb – 1200° C**



(C) Dismantling Joints

Dismantling Joint & Flange Adaptor

We offer dismantling joints that are used before butterfly valves, pumps and other different valves etc. and are designed to perfection. Offered in customized ranges, these dismantling joints are extensively used for easy dismantle of the equipment fitted in the pipe line. YEC can manufacturer to specific customer specifications and dimensions on request.

- For water, sewage and neutral liquid applications
- Suitable for using with flanged pipes with international standard flanges
- Enables easy installation and dismantling.
- Compensates the axial movement of valves, flow meters, pumps etc.
- Standard gland ring (type A) or optional full stud (type B) available

Size - 15 - 3000 NB

Specification - General manufacturing standard

- **Application-** hot and cold water, drinking water, sewage, oil, fuel, air, lubricating oil, gas, Acid etc.
- **Material – CS, Cast Iron, Ductile Iron, Cast Steel ,ASTM 304 ,ASTM 316,ASTM 321 & CUSTOMIZE**



Pipe Sleeve Coupling / Mechanical Pipe Joint

We are manufacturer of high quality Pipe Sleeve Coupling We are India's most preferred pipe sleeve couplings manufacturer and exporter, with a focus to provide complete satisfaction to its diverse industrial customers. We have an extensive range of highly usable pipe sleeve couplings

Key Details:

- Ideal for repairing, joining and tapping etc.
- Provide reliable mechanical seals
- Excellent test pressure and operating temperature
- Convenient installation
- Resistant to chemicals and leak-proof
- Size available – 25 NB to 2000 NB

Material – CS, CI, ASTM 304 & CUSTOMIZE



(D) Strainers

Y Strainers

Y Strainer takes their name from their configuration. YEC Y Strainers are cast & Fabricated in sizes ¼" – 24" with Threaded, Socket Weld or Flanged End connections. Strainers are your most economical choice for large debris removal. They are most commonly used in pressurized lines of gas or liquid, but can also be used in suction or vacuum conditions. Y-Strainer has the advantage of being able to be installed in either a horizontal or vertical position. Cast Y-Strainer and of course fabricated Y-Strainer are available in most materials. We carry a large inventory so you don't have to depend on others. Depend on YOGIRAJ ENGINEERING COMPANY for your shut down or construction delivery requirements. Check out our full line of strainers or for more information contact us right now.

- **Size available – 15 NB to 800 NB**
- **Material – CS, CI, WCB, CF8M, CF3M, CF8, CF3, DUPLEX & CUSTOMIZE**



Basket Strainers

Basket Strainers feature top removal of the screen. The screen is in the form of a basket, with a lifting handle, so that all particulate captured and retained by the screen can be easily removed for disposal. They are intended for applications where large amounts of solids particulate are expected and where the clean-out will be frequent. For easily flushable solids, a modified cone bottom basket can be tilted with automatic or manual blow-down through drain port.

Basket Strainers are in stock at Yogiraj Engineering Company ensuring prompt delivery of your order.

- **Size available – 15 NB to 1500 NB**
- **Material – CS, CI, WCB, CF8M, CF3M, CF8, CF3, DUPLEX & CUSTOMIZE**



Duplex Strainers

Duplex Strainers are designed for applications where flow cannot be shut down to service the strainer screen. Change over is accomplished by use of butterfly valves. They are very economical because they are fabricated to your specific requirements and with your choice of valves. This arrangement provides a bubble-tight shut off between basket chambers, essential for use in negative head pump suction systems. Duplex Strainers. Check out our full line of strainers or for more information us right now.

- **Size available – 15 NB to 800 NB**
- **Material – CS, ASTM 304, ASTM 316, ASTM 321 & CUSTOMIZE**



Tee Strainers

A YEC Tee strainer is a custom fabricated compound strainer designed to remove foreign particles from pipeline. Tee Type Strainers are a low cost solution to large nominal bore straining requirements. They can be mounted into vertical or horizontal piping and can be configured for right-angled applications.

- **Size available – 15 NB to 2000 NB**
- **Material – CS, CI, WCB, ASTM 304, ASTM 316, ASTM 321 & CUSTOMIZE**



Suction Diffusers

YEC Suction diffusers mount to the suction side of a pump in either a horizontal or vertical position. YEC Suction Diffusers incorporate the functions of a strainer, flow straightener, elbow and pipe reducer in one compact unit thereby reducing installation costs. It is designed to remove any foreign matter that may be hazardous to the pump or other system components, while providing the proper flow conditions to the pump.

- **Size available – 25 NB to 3000 NB**
- **Material – CS, WCB, ASTM 304, ASTM 316, ASTM 321 & CUSTOMIZE**



Conical Strainers / Temporary Strainers

YEC offers fabricated temporary pipeline strainers in cone, basket, or plate strainers. These temporary pipeline strainers are a cost effective mean for temporary straining for start-up applications.

- **Size available** – 25 NB to 2000 NB
- **Material** – ASTM 304 ,ASTM 316,ASTM 321 & CUSTOMIZE

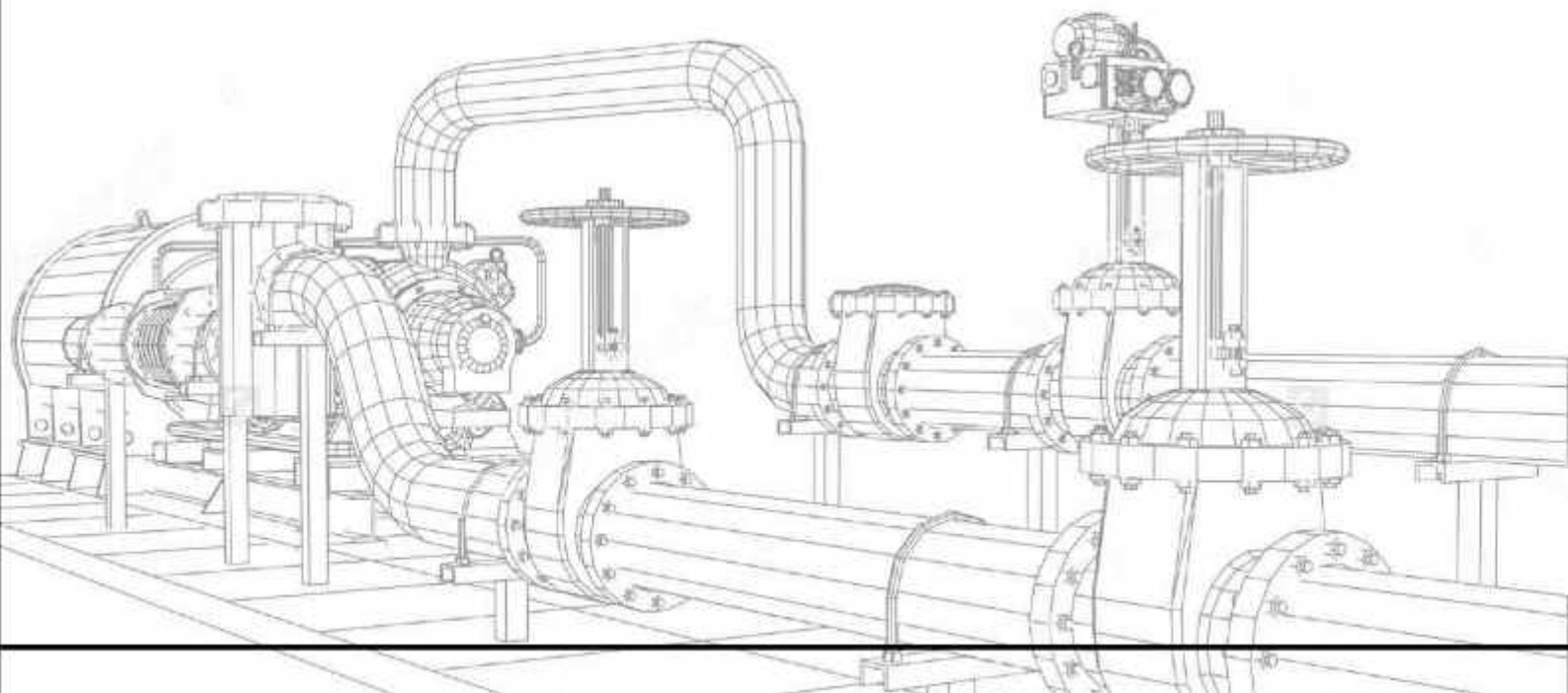


Automatic Strainers

YEC Automatic Scraper Strainer is a motorized unit designed for the continuous removal of suspended solids from intake, process and wastewater flows. These units can handle heavy solids loading with particles as small as 75 microns and as large as 150mm (6" stones). Our strainers have been installed on applications where backwash strainers have suffered premature clogging

All strainer vessels are designed and built in general accordance with ANSI and ASME Sec. VIII, Div. 1. Nozzle arrangements can be offset (standard), in-line at the top and at the bottom of the vessel.

- **Size available** – 50 NB to 900 NB
- **Material** – CS,ASTM 304 ,ASTM 316,ASTM 321 ,DUPLEX & CUSTOMIZE



(E) Sight flow Indicators

Sight flow Indicators

✦ SFI Model A- Sight Flow Indicator

The SFI Model A Safe Site is an in-line type that is used in existing or new piping to observe material flow through a line. this can be supplied with indicators such as drip tubes, rotors or flappers. The SFI Model A can be manufactured to meet your pressure and temperature requirements, and different materials of construction are available to meet your process needs. Other connections are available upon request, including stub-end with lap joint flanges, butt-weld, threaded, or sanitary.

- **Size available** – 10 NB to 600 NB
- **Material** – CI, WCB,CF8M, CF8, CF3M, CF3 & CUSTOMIZE



✦ SFI Model C Full-view Sight Flow Indicator

The Full-View Sight Flow Indicator is an in-line type that is used to provide 360-degree viewing of material flow through a line. The Full-View unit is available flanged from 1/2" to 6" sizes, NPT pipe thread 1/8" to 2" sizes or sanitary 3/4" to 6" sizes. Face-to-face dimensions listed are standard; other face-to-face dimensions may be specified.

- **Size available** – ½ " NB to 6" NB
- **Material** – CI, WCB,ASTM 304 ,ASTM 316,ASTM 321 & CUSTOMIZE



✦ SFI Model D Dome and Spinner Sight Flow Indicator

Stainless Steel Bodied sight flow indicator with a PTFE ball that becomes clearly visible in the glass dome whilst there is flow of liquids or gases. Detecting changes in the condition and colour of liquids during the process.

- **Sizes** from 1/4" up to 1.1/2"
- **Pressures** up to 16 bar
- **Material** – CI, WCB,ASTM 304 ,ASTM 316,ASTM 321 & CUSTOMIZE



(F) Sight Glass

Sight Glass

➤ **SG Model A- Flange Sight Glass**

The Model A Flange unit mounts on standard ANSI B16.5 (2" to 8") flange accommodations, and can be manufactured to meet a wide range of pressure and temperature requirements. Different materials of construction are available to meet your process needs. Applications requiring DIN standards or non-ANSI flanges are available upon request.

Size available – 2" NB to 8" NB

Material – CS, ASTM 304 ,ASTM 316,ASTM 321 & CUSTOMIZE



➤ **SG Model B- Weld Sight Glass**

The Model B Weld unit, with its bolt-down lens retainer cap, is designed for adaptation to new or existing equipment to become an integral part of a vessel shell, vessel head, manway cover or in a pipeline system. It is available with the weldment contoured to fit a specific radius (cylindrical or spherical) and can be mounted flush with the interior or directly to the outside of the vessel shell

- **Size available – 2" NB to 24" NB**

- **Material – CS, ASTM 304 ,ASTM 316,ASTM 321 & CUSTOMIZE**



➤ **SG Model-E Wiper Assembly**

The Wiper Assembly satisfies the need to wipe the lens clean on the process side of the sight glass. It is designed to fit with mating gaskets between a standard flange (ANSI B16.5) and most Pressure Products sight glass flange units (ANSI B16.5). The outside diameter of this Wiper is machined to fit inside of the flange bolts, thereby centring the Wiper. The Wiper can also be built as an internal component of most Pressure Products sight glass weld units. Sizes for non-ANSI flanges are available upon request.

- **Size available – 2" NB to 8" NB**

- **Material – CS, ASTM 304 ,ASTM 316,ASTM 321 & CUSTOMIZE**



(G) Other Equipment

EOT Crane and Electric Wire rope Hoist

We offer superior grade EOT Crane and Electric Wire Rope Hoist Crane made using high quality raw materials. These are available in different models and sizes at the most affordable rates. This premium quality product is popular in the market owing to its corrosion resistant surface and high durability feature. The raw materials used to manufacture these cranes are tested by professionals for their quality.

Specifications:

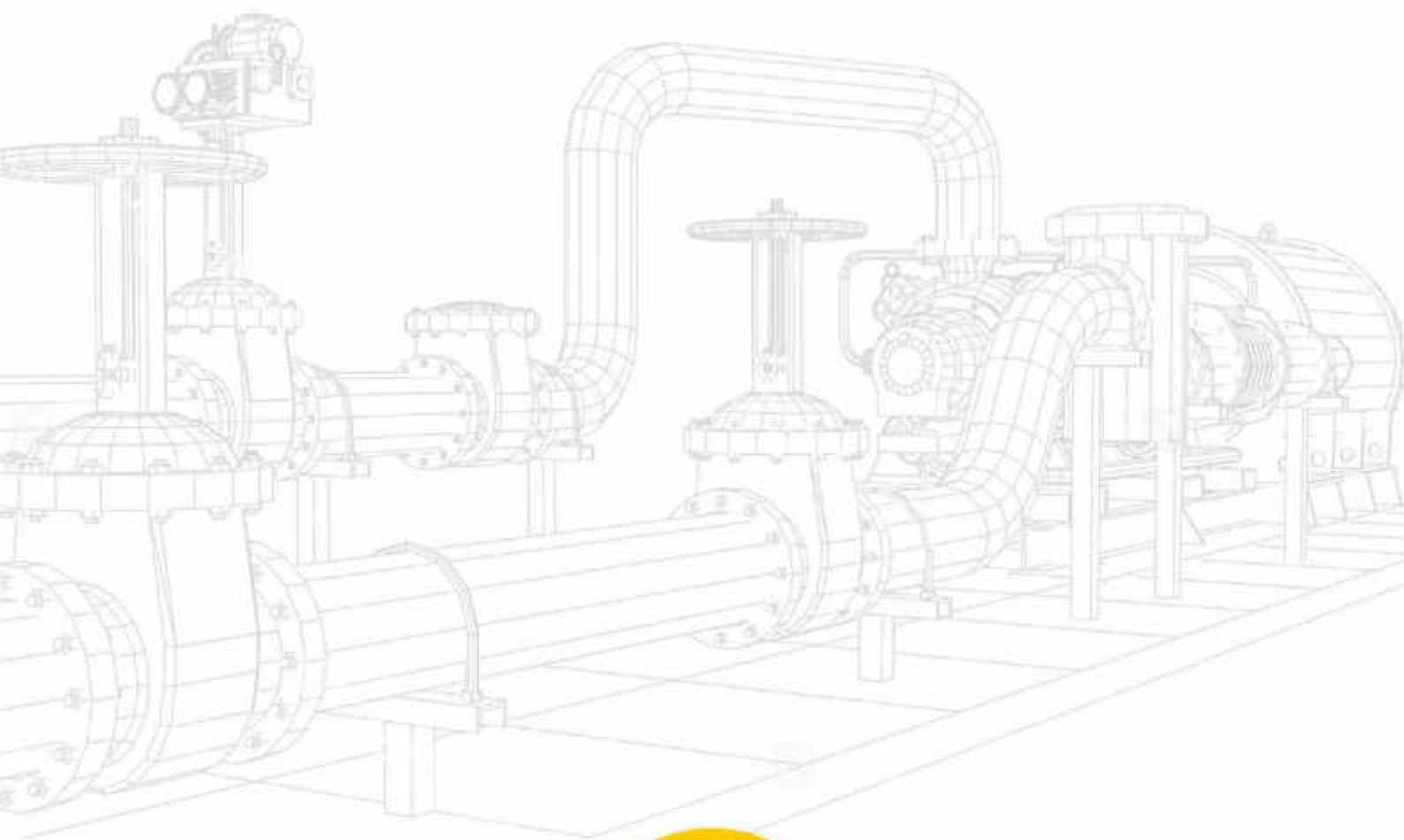
1. Safe Working Load: 500 kgs. to 50,000 kgs.
2. Heights of Lift: As per customer specifications
3. Class of Duty / Standards: Equivalent to IS 3177 & IS 938
4. Speeds: Selected depending on client specifications / applications / shed dimensions
5. Crane Control: From floor through Pendant Push Buttons, Optionally through Radio Remote Control
6. Drive System: Drive through Squirrel Cage Induction Geared Motors with built-in fail safe brakes
7. Motors: Squirrel Cage Induction Hoisting Motors with built-in fail safe brakes for Hoisting. Insulation Class for all motors B/F
8. Brakes: Built-in Brakes for Hoisting, Cross Travel Motions
9. Power Supply System: To Hoist and Cross Travel through Trailing Cables.



Tank & Pipe Spool Fabrication and Flanges Manufacturing

YEC always believes in serving their customers with utmost Quality Products. Pre-Fabricated Piping Tank, , Spools and Flanges are made as per Client Requirements. We have a dedicated Designing, Engineering & Manufacturing Team that offers best in class Tank, Piping Spools and Flanges. We do our best to fulfil all Tank, piping Spool Requirements of our Customer as a One Stop Solution Provider. Tank & pipe spool are designed and built in general accordance ASME Sec. VIII, Div. 1





YOGIRAJ ENGINEERING COMPANY

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