

TIWAC

Quality Pressure Gauges

An ISO 9001-2000 Company

A Tradition of Engineering Excellence



WALCHANDNAGAR INDUSTRIES LIMITED TIWAC DIVISION

Approved by

- Engineers India Ltd. (EIL) • Indian Boiler Regulations (IBR)
- Metallurgical Engineering and Consulting and Consultants of India Ltd. (MECON) • Avant-Garde Engineers
- Director General of Quality Assurance (DGQA) • Steel Authority of India Ltd. (SAIL) • Nuclear Power Corporation Ltd. (NPCL)
- Bharat Pumps & compressors Ltd. (BPCL) • Products & Development India Ltd., (PDIL)
- National Thermal Power Corporation (NTPC) • Indian Iron and Steel Co. Ltd.
- Indian Farmers Fertilizers Co-operative Ltd. (IFFCO)

TIWAC DIVISION

Tiwac is a Division of Walchandnagar Industries Ltd. This Division, before being amalgamated with Walchandnagar Industries Ltd., in 1982, was known as Tiwac Industries Ltd., This was set up in 1962-63 to manufacture Mechanical Alarm Time Pieces in technical collaboration with Louis Schwab of Switzerland.

Most of the machineries installed are imported from Germany, Switzerland and England and are very much suitable for manufacturing precision components. Till the year 1995-96, One day Alarm Time Piece was the main product and was manufactured in large quantity. Tiwac has the distinction of introducing Centre Second Models in India for the first time.

Tiwac Division has successfully developed many products which are precision in nature viz, Synchronous Multiflex Timer used in Sugar Factories (an import substitution), Sector Mechanism for Dash Board Instruments and Industrial Pressure Gauges, Precision components for Electrical Meters, Timers, Electronic Gadgets, Automobiles Etc.

In keeping with tradition of Walchandnagar Industries Ltd., Tiwac Division, diversified in a big way to manufacture Pressure Gauges and Temperature Gauges in the year 1992-93. Since then it has never looked back.

The Manpower consists of some of the best brains from the Precision Industries perfectly suited for the production of these products.

At present Pressure Gauges in the size 40 mm (1.5") to 300 mm (12") having pressure range 0 to 700 kg/cm² (10000 Psi) and Vacuum are manufactured. The various types of gauges manufactured are liquid filled, diaphragm seal, low pressure diaphragm, all SS gauges, Electrical contact gauges, Master gauges, etc. Pressure Gauges are manufactured as per IS 3624 of 1987 specifications.,

Tiwac Pressure Gauges are extensively used in Industrial Boiler, Thermal Power Stations, Nuclear Power Corporations, Petrochemicals, Fertilizers Factories, Sugar Machinery, Industrial and Marine Gear Boxes, etc. At Tiwac Temperature Gauges are manufactured in Mercury in Steel Type and Bimetal Type in the size from 100 mm (4") to 300 mm (12") having temperature range from -38°C to 600°C. Tiwac's Organization culture centres on Quality, Precision and Time.



DRY GAUGE

Sensing Element	Bourdon
Dial Size	63, 100, 150, 200, 250 mm
Case & Bezel	Weather proof Aluminium / SS 304 (up to 150 mm)
Bourdon Material	Brass / SS 316
Socket	Brass / SS 316
Movement	Brass / SS 304
Window	Plain / Toughened / Shatter Proof
Mounting	Direct / Surface / Panel / Clamp
Entry	Bottom / Back
Connection	1/4", 3/8", 1/2"- BSP / NPT (M)
Ranges	1 kg/cm ² to 700 kg/cm ² Vacuum & Compound
Accuracy	± 1% FSD (± 1.6% FSD for 63 mm)
Special Feature	Capillary Connection



DIAPHRAGM GAUGE

Sensing Element	Bourdon
Dial Size	63, 100, 150 mm
Case & Bezel	Weather Proof Aluminium / SS 304
Bourdon Material	SS 316
Socket	Brass / SS 316
Movement	Brass / SS 304
Window	Plain / Toughened / Shatter Proof
Mounting	Bottom entry Direct on Sealed Unit
Connection	3/8", 1/2" BSP / NPT (M)
Ranges	1 kg/cm ² to 700 kg/cm ² Vacuum & Compound
Accuracy	± 1.5 % FSD
Special Feature	Teflon Coating / Capillary Flange / Glycerine

SPECIFICATION FOR SEALED UNIT

Sensing Element	Diaphragm
Diaphragm Material	SS 316 / SS 316 L
Sealing Media	Silicon Oil
Top Chamber	SS 304
Bottom Chamber	SS 316 / SS 316 L

MASTER GAUGE

Sensing Element	Bourdon
Dial Size	150, 200, 250 mm
Case & Bezel	Weather proof Aluminium
Bourdon Material	SS 316
Socket	Brass / SS-316
Movement	SS 304
Window	Toughened / Shatter Proof
Mounting	Direct
Entry	Bottom
Connection	3/8", 1/2"-BSP / NPT (M)
Ranges	1 kg/cm ² to 700 kg/cm ²
Accuracy	± 0.25 % / 0.5% FSD
Special Feature	Jewelled Movement , Anti Paralax Mirrored





DIFFERENTIAL PRESSURE GAUGE

Sensing Element	Diaphragm
Dial Size	150 mm
Case & Bezel	Weather Proof Aluminum
Diaphragm Material	SS 316
Movement	Brass / SS 304
Window	Acrylic
Mounting	Direct / Flush Panel
Entry	Bottom / Back
Connection	1/4" NPT (F) for L.P & H.P
Ranges	100 mm WC to 6000 mm WC, 0.6 kg/cm ² to 16 kg/cm ² ± 1.5% FSD
Accuracy	± 1.5% FSD
Diaphragm Chamber	SS 316
Max. Static Pressure	60 kg/cm ²
Standard Fitments	1. Over Range relief Valve 2. External Zero adjustment



DRAUGHT GAUGE

Sensing Element	Capsule
Dial Size	150 x 78 mm, 200 x 104 mm
Case	Fabricated Mild Steel
Capsule Material	Brass / SS 316
Socket	SS 316
Movement	Brass
Window	Acrylic
Mounting	Flash / Panel
Entry	Back
Connection	1/4" BSP (M) / 1/4 NPT (M)
Ranges	Pressure 25 mm WC to 6000 mm WC Suction -25 mm WC to - 6000 mm WC Compound -25 mm WC to + 300 mm WC ± 1.5% FSD
Accuracy	± 1.5% FSD
Dial Orientation	Vertical / Horizontal



LIQUID FILLED GAUGE

Sensing Element	Bourdon
Dial Size	63, 100, 150 mm
Case & Bezel	Weather Proof Aluminium / SS 304
Bourdon Material	Brass / SS 316
Socket	Brass / SS 316
Movement	Brass / SS 304
Window	Toughened / Shatter Proof
Mounting	Direct / Surface / Panel / Clamp
Entry	Bottom / Back
Connection	1/4", 3/8", 1/2" - BSP / NPT (M)
Ranges	1 kg/cm ² to 700 kg/cm ² Vacuum & Compound ± 1.0 % FSD
Accuracy	± 1.0 % FSD
Special Feature	Glycerine / Silicone



ELECTRIC CONTACT GAUGE

Sensing Element	Bourdon
Dial Size	100 & 150 mm
Case & Bezel	Weather Proof Aluminium / SS 304
Bourdon Material	Brass / SS 316
Socket	Brass / SS 316
Movement	Brass / SS 304
Window	Acrylic
Mounting	Direct / Surface
Entry	Bottom / Back
Connection	3/8", 1/2" BSP / NPT (M)
Accuracy	± 1 % FSD
Electric Contact	1 No, 1 NC, NONC, NCNO Max. 380V, 30W-50VA, 1 Amp.
Special Feature	Flange



DUAL PRESSURE GAUGE

Sensing Element	Twin Bourdon
Dial Size	100 mm
Case & Bezel	Weather Proof Aluminium / Mild Steel
Bourdon Material	Brass
Socket	Twin
Socket Material	Brass
Movement	Brass
Window	Plain glass
Mounting	Direct Clamp
Entry	Bottom
Connection	1/4" NPT
Ranges	0-10 and 2.5 kg/cm ²
Accuracy	± 2% FSD



LOW PRESSURE DIAPHRAGM GAUGE

Sensing Element	Diaphragm
Dial Size	100 & 150 mm
Case & Bezel	Weather Proof Aluminium / SS 304
Diaphragm Material	SS 316
Movement	Brass / SS 304
Window	Toughened / Shatter Proof
Mounting	Direct
Entry	Bottom / Back
Connection	3/8", 1/2" - BSP / NPT (M)
Ranges	100 mm WC to 8000 mm WC Compound - 100mm WC to + 3000mm WC
Schaffer's Type	1 to 25 kg/cm ²
Accuracy	± 1.5 % FSD
Top Chamber	Weather Proof Aluminium /SS 304
Bottom Chamber	SS 316



Homogeniser gauge/ SMS Connection

Sensing Element	Bourdon
Dial Size	100, 150 mm
Case & Bezel	Weather Proof Aluminium /SS 304
Bourdon Material	SS 316
Socket	SS 316
Movement	SS 304
Window	Toughened Glass / Shatter Proof
Mounting	Bottom
Connection	Male or Female hygienic connection or clamp (Triclover)
Range	1 kg/cm ² to 600 kg/cm ²
Accuracy	± 1.5 % FSD
Special Feature	Glycerine / Silicon

Specification for sealed unit

Sensing Element	Diaphragm
Diaphragm Material	SS 316
Sealing Media	Silicon Oil
Top Chamber	SS 316



Manufacturers :



WALCHANDNAGAR INDUSTRIES LIMITED TIWAC DIVISION

Authorised Dealer :