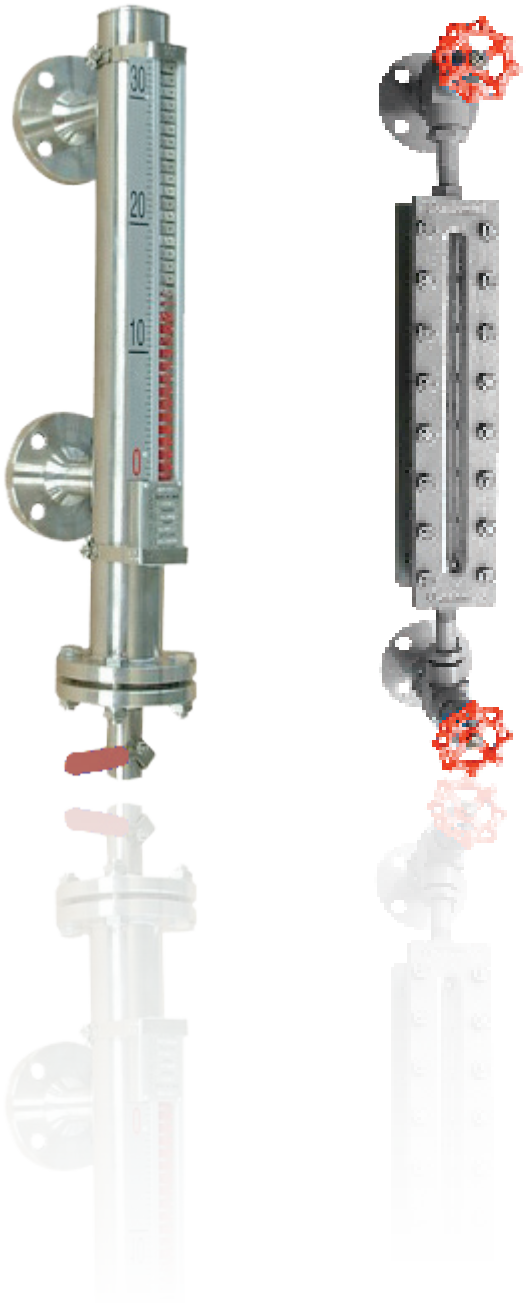


Gachman Level Gauges
- Magnetic
- Reflex
- Glass

Accessories
- Switches
- Transmitters

Gachman™

Gauging tomorrow through continuous improvement

Gachman Pressure Gauges
- Bourden Tube Sensing
- Liquid filled
- Dry
- Glycerine filled
- Oil Filled

CE Ex

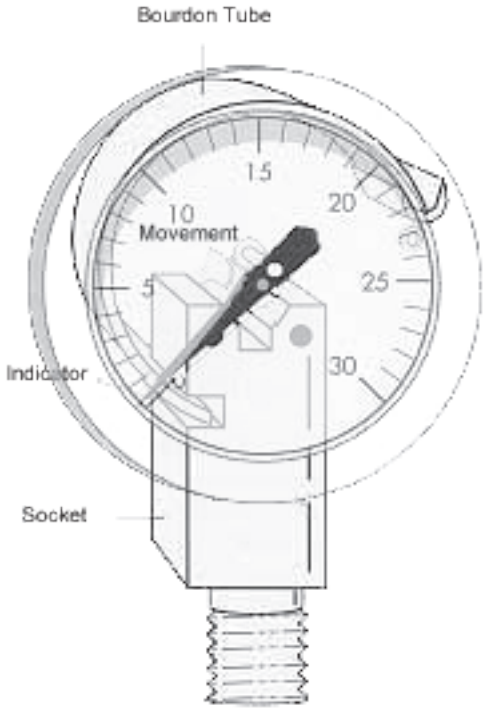
Pressure Gauges

Bourdon Tube Pressure Gauges

Theory: How does it works?

he Bourdon pressure gauge uses the principle that a flattened tube tends to change to a more circular cross-section when pressurized. Although this change in cross-section may be hardly noticeable, and thus involving moderate stresses within the elastic range of easily workable materials, the strain of the material of the tube is magnified by forming the tube into a C shape, such that the entire tube tends to straighten out or uncoil, elastically, as it is pressurized.

In practice, a flattened thin-wall, closed-end tube is connected at the hollow end to a fixed pipe containing the fluid pressure to be measured. As the pressure increases, the closed end moves in an arc, and this motion is converted into the rotation of a (segment of a) gear by a connecting link that is usually adjustable. A small-diameter pinion gear is on the pointer shaft, so the motion is magnified further by the gear ratio. The positioning of the indicator card behind the pointer, the initial pointer shaft position, the linkage length and initial position, all provide means to calibrate the pointer to indicate the desired range of pressure for variations in the behaviour of the Bourdon tube itself.



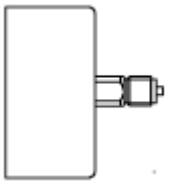
Bourdon tubes measure gauge pressure, relative to ambient atmospheric pressure, as opposed to absolute pressure; vacuum is sensed as a reverse motion. Some aneroid barometers use Bourdon tubes closed at both ends (but most use diaphragms or capsules, see below). When the measured pressure is rapidly pulsing, such as when the gauge is near a reprocating pump, an orifice restriction in the connecting pipe is frequently used to avoid unnecessary wear on the gears and provide an average reading; when the whole gauge is subject to mechanical vibration, the entire case including the pointer and indicator card can be filled with an oil or glycerin.

Through years of experience and evolution of the gauging device, Bourdon Tube Pressure gauges has adapted modern days application conditions and established itself in the industries. Gachman Bourdon Tube Pressure gauges has built in these consideration and provide the industries with reliable, hard wearing and precision product widely acknowledged by the industries.

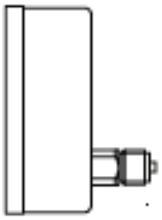
Pressure Gauges

Mounting Options:

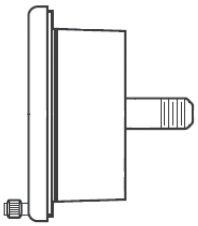
DB Mount



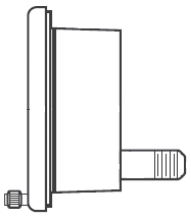
CB Mount



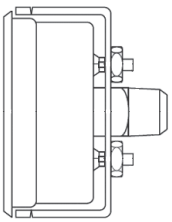
LB Mount



PCB Mount



PLB Mount



UCB Mount

Legend:

DB - Direct Bottom
CB - Center Back
LB - Lower Back
PCB - Panel Center Back
PLB - Panel Lower Back
UCB - U-Clamp Center Back
ULB - U-Clamp Lower Back

UCB Mount

DB Mount

CB Mount

Pressure Gauges

Applications: Low viscousity process fluid with low copper alloy corrosiveness.
Case material: Stainless Steel (SS), Phenolic Aldehyde(PA)
Movement: CuZn Alloy(CU), SS316(SS)
Scale: Bar, Psi, MPa or dual scales
Protection class: IP54, IP65
Available connection size: 1/4NPT, 1/2NPT, G1/4B, G1/2B
Available Dial size: 2”, 2-1/2”, 4”, 4-1/2”, 6”
Glass: Safety Glass, Instrument Glass, Polycarbonate
Option 1: Dry (UF), oil filled or glycerin filled (GF)
Option 2: Blowout disk (BO)

Despite normal range of pressure gauge, Gachman also custom made according to client’s special request. Such requirement include:
1) Case material
2) Connection Material
3) Scale color
4) Movement material
5) Glass material (safety glass, instrument glass, polycarbonate etc.)
6) Case size

Please include the connection size when placing your orders. If have doubt, please consult your local distributors.

How to Order

Dial Size, Case	/	Movement, Conn. Size	/	Scales	/	Conn. Location	/	Options

Example: 4SS/SSG1/4B/0-10bar/DB/GF
Specifications: 4” Dial, Stainless Steel case, Stainless Steel Movement with size G1/4B Process connection, Scale of 0-10bar, Direct Bottom connection location, Glycerine filled