

# Chambers for Guided Wave Radar



## Features

- Applicable upto 150 kg and upto 550 deg cent
- Cryo applications upto -196 deg cent
- Jacketed design applicable
- For applicability in critical, acidic, cryo and high temperature zone
- IBR certified device available
- NACE, H2S service compatibility applicable
- Heat tracing available
- Viscous media (max upto 380 cst and upto 100 deg cent) besides other acidic, non acidic, steam water media
- Device fully compatible for conductive and non conductive media
- Applicable for refinery, petrochemical, chemical, power, radioactive, fertilizer, food, pharma, metal industry applications

## Concept and Principle of Operation

*General Instruments Consortium* offers chambers for guided wave radar technology wherein the chambers offer the component for the GWR to assemble on the chamber for achieving level measurement.

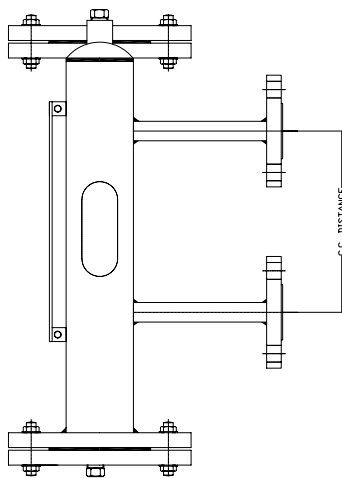
The chambers are technically installed vertically directly to the vessel and the fluid will flow into it and enable the GWR to sense the level accordingly.

These chambers are thus required to meet all sorts of applications where the material is essentially required to meet NACE, IBR, H2S.

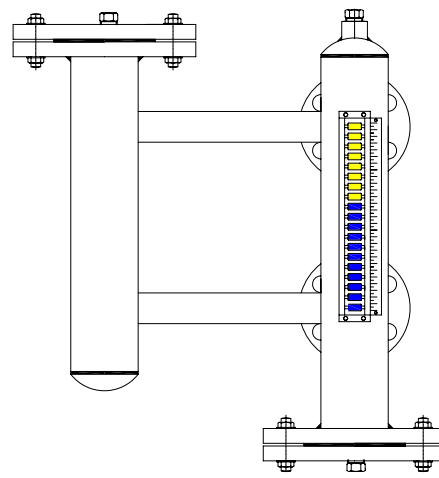
Our chambers meet all such critical requirements and can cater to pressure upto 150 bar and upto 550 deg cent applications.

## Technical Data Sheet - 1

<b>MOC type</b>	Forged, chamber schedule 10,10S, 20, 40, 100, 160, 250
<b>MOC type for flange</b>	Forged
<b>MOC of chamber</b>	SS316, SS316L, SS304L, Alloy20, PP, PVDF, PTFE, PTFE coated, PTFE lined, hastelloy
<b>CCD</b>	Upto 5000mm
<b>MOC of flange</b>	SS316, SS316L, SS304L, Alloy20, PP, PVDF, PTFE, PTFE coated, PTFE lined, hastelloy



Side View



Front View

GIC Magnetic level gauge with chamber connection for guided wave radar transmitter for refinery and petrochemicals application

## Technical Data Sheet - 2

<b>Product</b>	Chambers for Guided wave radar
<b>Application</b>	For both conductive and non conductive liquids and mixtures of gas and liquid
<b>Surface tension of the liquid</b>	Lowest to the highest
<b>Refractive index of the liquid</b>	Lowest to the highest
<b>Reynolds No</b>	Min 1250
<b>Viscosity</b>	Min 0.1cp to max 200 cp at operating temp
<b>Span of level measurement with accuracy defined, in a single stretch</b>	200mm to 5000mm
<b>Accuracy</b>	0.2% of the complete span
<b>Repeatability</b>	0.5% of the complete span
<b>Hysteresis</b>	0.2% of the span
<b>Max Velocity at the input of the measuring device</b>	10m/s for liquid and 40 m/s for mix for gas and liquid
<b>Application</b>	Acids, alkalies, steam water, hot water, resin liquid, molasis, thermic fluid, rock slat paste, syrup, metal deforming liquids, food molasis
<b>Operating pressure range</b>	28mm wc to 150 kg
<b>Operating temperature</b>	550 deg cent
<b>Operating density</b>	340 kg/m <sup>3</sup> to 1800 kg/m <sup>3</sup>
<b>Helium leak test level</b>	10(-5)mbarltr/sec
<b>Thermal coefficient of expansion</b>	0.2/deg cent
<b>Communication with control room</b>	Yes with integrated design of transmitter
<b>IBR certified</b>	YES
<b>ATEX certified</b>	Not applicable
<b>CCOE certified</b>	YES
<b>Most demand in industry</b>	All Refinery / petrochemical and oil and gas and chemical application
<b>Most applicable application</b>	Automation control systems in all refinery / petrochemical
<b>Applications for closed tanks (undergnd) / vessels</b>	Yes with top mounting design with integrated transmitter model
<b>Application for open tanks (above gnd) / vessels</b>	Yes
<b>Applicable for most corrosive nature atmosphere</b>	Yes
<b>SAFETY IN LINE (SIL certification)</b>	Yes SIL2 most rated in MLG with transmitter
<b>Exclusive cryogenic application</b>	YES
<b>Ambient condition for the device applicability</b>	Minus 40 deg to plus 60 deg cent (because of magnetism)
<b>Guaranteed full life cycles of operations</b>	5,00,000
<b>Dynamic response test applicability</b>	Most linear stable reading at upto 60 decibels reading and then at 0.15 fall at upto100 decibels
<b>Most applicable against constant interference of Electromagnetic Interference</b>	Most linear output upto 2000Hz
<b>View Interface system</b>	Magnetic flapper assembly, capsule type, transmitter HART / FF (display at Control Room)
<b>Exclusive boiler application</b>	Recommended with EMI interference worked out
<b>Application in Biopharma industry</b>	Yes
<b>Application in cement industry</b>	Cement water with high surface tension
<b>Application in oil and gas application</b>	Offshore and onshore at all applications medias
<b>Application in fertilisers</b>	Yes and at Ammonia plant / Urea plant / Bagging plant / Ammonia storage, CNA/ Sulphuric acid / Methanol plant
<b>Application in petrochemical plants</b>	HDPE / CCU / Boiler
<b>Application in refinery</b>	CRU / CCU / ARU / DCU / DHDS plants and for HSD manufacture and Aviation fuel
<b>Application in food and beverages</b>	Yes for all applications related to food and beverage industry