

Quoting a magnetic level gage

1. **Process fluid/ specific gravity-** Having the process fluid and knowing the specific gravity are the first and foremost important pieces of information in determining whether we can build to the customer's needs. Be mindful of a process fluid potentially having an effect on material choices. Be mindful of the affect temperature can have on a specific gravity as well (i.e. water)
2. **Operating temp and pressure-** after the specific gravity has been determined the temp and pressure need to be established. The pressure will determine the overall design of the gage (size of chamber, schedule of the pipe and flange class). Pressure also has a direct correlation in design of the float (size, length). Temperature needs to be addressed whether it is on the low or high end. Standard flags have a max rating (350 deg. F with insulation strip) and high temp flags can be ordered if the gage calls for it. Temperature can also de-rate your gage as it gets hotter.
3. **Centers-** center to center dimensions are required in calculating the price of a gage. The overall design needs to be established upfront so the customer can determine if there is a clearance issue on their end. (I.e. going with a style D for float access if there is low clearance on the bottom; or inverting the chamber if necessary). Keep in mind standard dimensions in the magnetic design (6" on top etc.)
4. **Material-** what is the tank or bridle material? It will usually match what is required for the MLI. Keep in mind the process fluid when selecting a material if one is not requested. No magnetic gage will have a carbon steel chamber, but the process flanges can be if the tank is carbon steel (customer preference)
5. **Process conn size/type-** size and type of the connection will not only have an effect on pricing, but an effect on the style of gage (NPT, flanged, IPS etc.)
6. **Vent/drain-** we have standard of ½" NPT on the vent/drain which includes plugging any NPT connection unless it has valves. Pricing for the variations of standard needs to be considered in quoting.
7. **Indicator type-** wide flag (black & yellow) as a standard (not high temp) or red and silver for high temp applications. Type of scale needs to be addressed as well (standard, metric or percentage)
8. **Options-** switches, transmitters, glass gages and guided wave radar are a customer's preference. Some options need to be offered automatically such as cryogenic insulation or blankets (all depending on temperature)