

The following instructions are recommended for maintenance of MGM's model 275 magnetic gauging device.

MGM magnetic gauging devices are factory designed, built and calibrated for accuracy of + or - $\frac{1}{4}$ " in accordance with dimensions supplied by purchaser and information regarding the commodity being measured and its associated specific gravity. Any change of commodity or specific gravity can affect the accuracy of this gauge.

Consult MGM technical information department if any service changes are to take place.

Each MGM model 275 magnetic gauging device has a stainless steel tag on the flange (#9) that includes the serial number of the gauge. A separate tag on the upper end of the gauge rod (#10) includes specific information pertaining to the device as well. These serial numbers match specific technical information on file at MGM for EACH individual gauge assigned at the time of manufacture. The preservation of this information is critical to the proper long-term maintenance of the gauging device.

MGM magnetic gauging devices require very little maintenance. It is recommended that the O-ring (#14) on the body (#5) be replaced once a year. The vent holes on the top housing (#12) and the specific gravity adjustment bushing (#5A)

should be kept clean and free of debris.

MGM's model 275 gauge rods (#10) are 100% graphite/high strength material which is not affected by hydrocarbons or most chemicals. An extended 7'- 8' rod can bend up to 30° from vertical in any direction and will still return to its original position. Care should be taken however, not to abuse the gauge rod or allow a dome cover to crash down on it.

The gauge rod magnet should be inspected periodically by carefully removing the specific gravity adjustment bushing (#5A) at top of gauge body (#5) and removing gauge rod from body. Clean any metal filings or foreign debris that may have collected around the gauge rod magnet.

When inspecting gauge rod (#10), check for the below conditions, any of which would require replacing the gauge rod:

- Broken rod
- Faded numbered scales or identification label
- Broken magnet assembly
- Damaged or missing clear shrink tube along the length of the rod
- Missing or damaged black shrink tube around the magnet assembly

Inside (at the bottom end) of the guide tube (#3), a four-inch (4") standoff is permanently mounted for the gauge rod (#10) to rest on when not in use. Over time, debris may collect around this standoff and it should be periodically cleaned out.

It is recommended that a solution mix (not included) of 50% Ethylene Glycol and 50% water be added inside the guide tube (#3) to prevent freezing of any condensation that may build up in the tube, thereby freezing up the gauge rod magnet. The amount of solution mixture recommended for the guide tube should only be enough to reach the bottom of the magnet. A few ounces (2 – 3 oz.) is all that is required. Casual rainwater and other moisture can dilute this solution over time so it is recommended that the liquid inside the guide tube be removed and replaced with a fresh solution mixture once a year.

If replacement parts are required for the gauging device, please order from MGM using part number(s) on enclosed drawing. The serial number of the specific gauge will be required for replacement of gauge rod (#10), float (#1), guide tube (#3) or any other calibrated part.

Please contact MGM for any questions regarding the above.