

APPLICATION BULLETINS

for

CHEMICAL FLOW INDICATORS

(SIGHT GLASSES)

Plast-O-Matic flow and level indicators are designed to indicate the presence or clarity of liquid in a piping system or to indicate level in a tank. They offer a maximum viewing area with a full 360° visibility for dependable observation and inspection from a reasonable distance. With the exception of the Series GX flow indicator, which can only be used for liquids compatible with acrylic, all Plast-O-Matic indicators utilize double-wall construction.



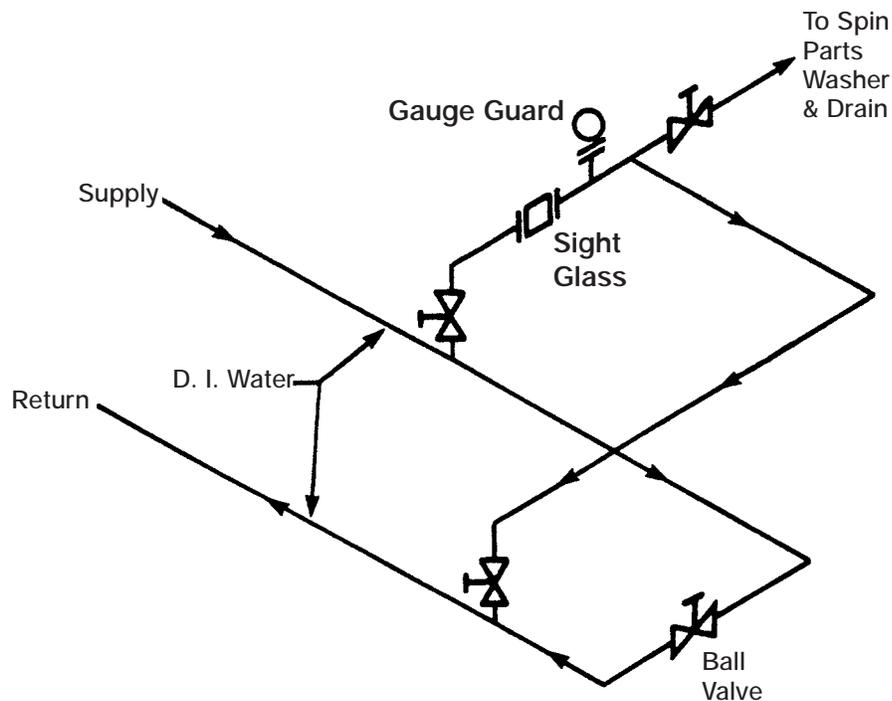
MARKET Semiconductor (Chip) Manufacturer

PRODUCT(S) Sight Glasses (GX050B-PV), Gauge Guards (GGMT060-PV)

REQUIREMENT To provide constant visual observation of fluid (for discoloration) and maintain pressure.

PROCESS FLUID(S) D. I. Water

INLET PRESSURE/TEMPERATURE 40 PSI / Ambient



Following the manufacturing of chips, they are placed into a Spin Parts Washer where D. I. water is used to clean the chips under pressure and spraying. Chips are then spun air-dried, and used for final assembly. Sight Glasses are utilized to

permit watching the fluid for visual color change in the D. I. water (algae-green). The Gauge Guard is used to confirm a constant pressure during the wash cycle. D. I. water is sent down drain after each use.

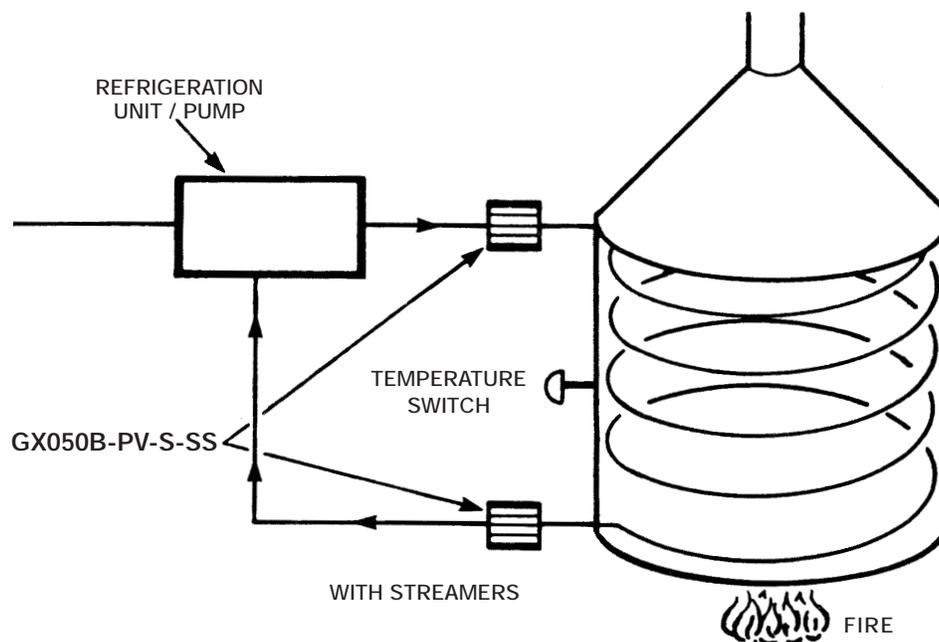
MARKET Brewery (Beer) Industry

PRODUCT(S) Series GX050B-PV-S-SS

REQUIREMENT To provide visible proof that chilled water is passing through fermentation cooling lines.

PROCESS FLUID(S) Chilled Water

INLET PRESSURE/TEMPERATURE 20 PSI / 40°F



An English brewery incorporates an unique fermentation process in the manufacturing of their lager. By maintaining an elevated temperature throughout the fermentation process their yield increased dramatically. However, should the temperature exceed a specific point, the batch is lost. Running a coiled pipe inside the vessel enabled the brewer to introduce chilled water as a

cooling mechanism without diluting the product. A temperature switch monitors the fermentation process temperature and signals the refrigeration unit when chilled water is required. The GX050B-PV-S-SS Sight Glass provides positive visual proof that water is flowing and that the lager is fermenting properly, within its safe temperature range.

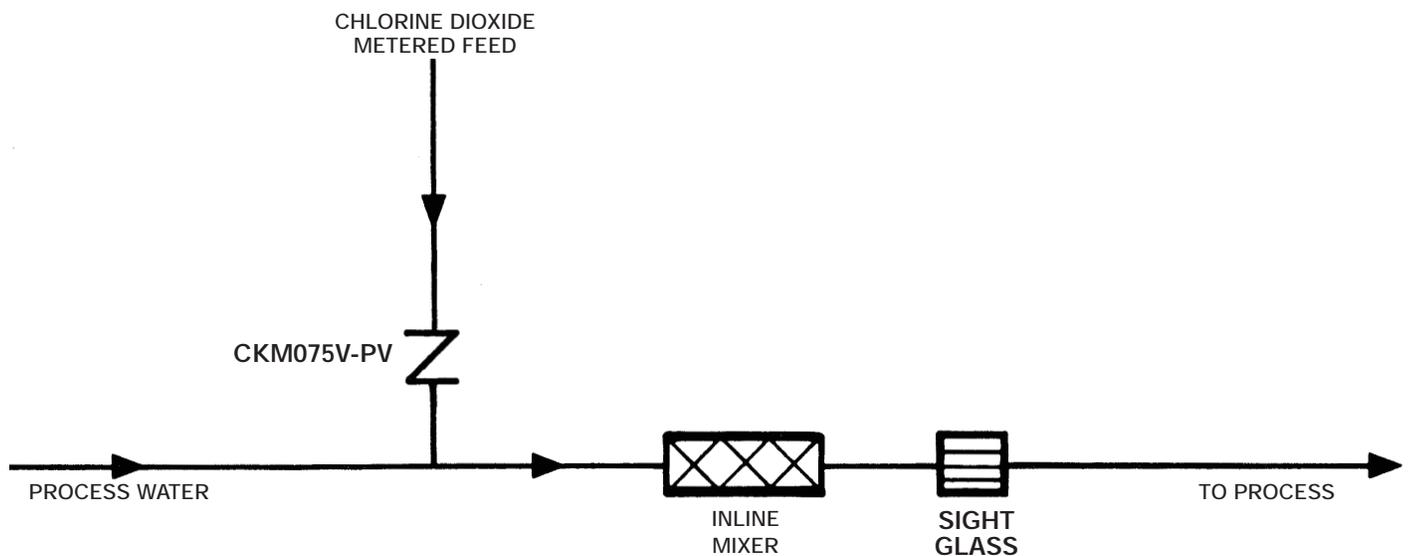
MARKET Water Treatment – Power Industry

PRODUCT(S) Sight Glasses, Series GY100V-PV-SS

REQUIREMENT To provide visual confirmation of color (yellowish) to assure proper mixture has taken place.

PROCESS FLUID(S) Chlorine Dioxide (C₁O₂) Dissolved in Water.

INLET PRESSURE/TEMPERATURE 50 PSI / Ambient



The Electric Utility Industry uses phenomenal amounts of water in the various process as used to produce electricity. One final step in the water treatment process is the elimination of odor/smell from the water before it's returned for use. This is

accomplished by treating it with Chlorine Dioxide. To assure the proper mixture of C₁O₂ has been injected and mixed, a Series GY Sight Glass with streamers is installed to confirm flow and proper color.

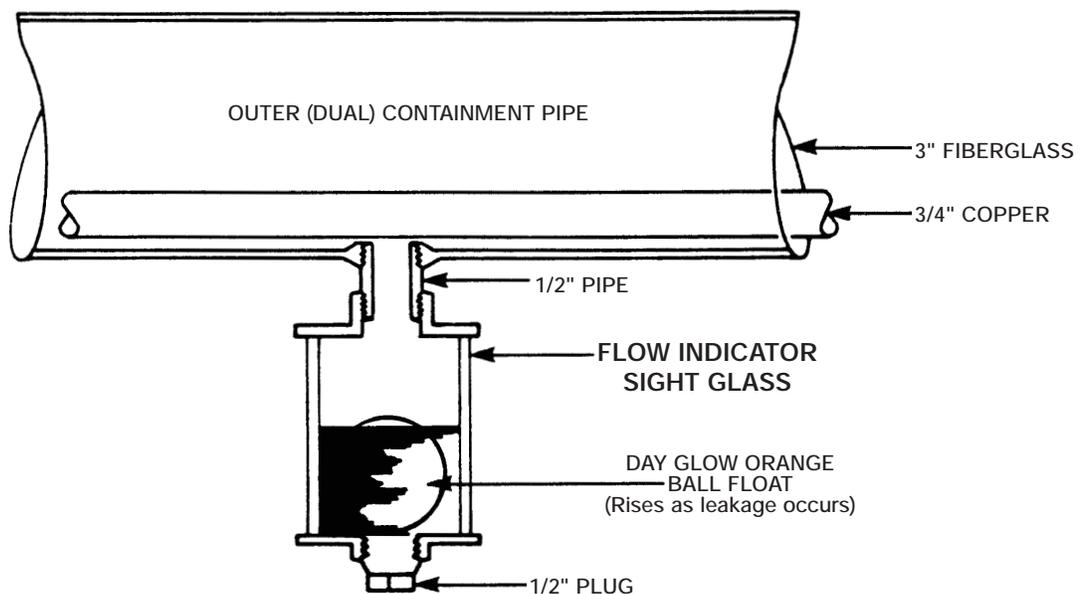
MARKET Petroleum Industry

PRODUCT(S) Series GX150B-PV

REQUIREMENT To provide a visual monitoring of possible fuel leakage within a dual containment piping system.

PROCESS FLUID(S) Fuel Oil

INLET PRESSURE/TEMPERATURE 5 PSI / Ambient



To comply with EPA rules on monitoring possible fuel oil leakage, customer needed a visual method of observation. A Series GX Sight Glass was modified via "blacking out" the lower half of the sight glass cylinder and inserting a bright day glow orange, fuel

resistant ball. This orange/black coloring provides a dramatic contrast should the carrier pipe leak, allowing fuel oil to enter the sight glass monitoring chamber and causing the ball to rise.

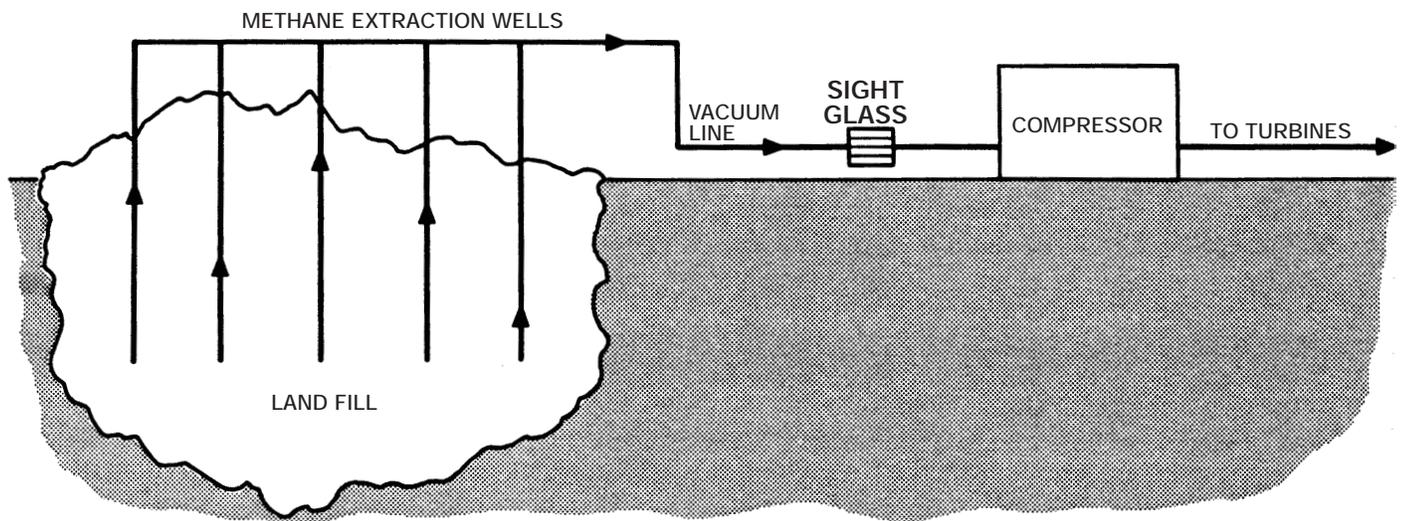
MARKET Electric Utilities

PRODUCT(S) Sight Glasses Series GY and GYW with Fluttering Device

REQUIREMENT A direct view of flow to vacuum side of compressor.

PROCESS FLUID(S) Methane Gas

INLET PRESSURE/TEMPERATURE Vacuum / Ambient



Wells are drilled in various locations in a landfill to extract methane gas, created by the decomposition of trash. The gas is drawn, via vacuum, through the compressor and powers turbines that produce the electricity. The Series GYW Sight Glasses with fluttering devices allow

the operator to monitor the lines for possible blockage which would damage the compressor. If line blockage occurred, the fluttering devices would go limp, since no gas would be flowing, which would alert the operator to shut down the compressor.