The Safe Gas Release Option (SGR)

THT product code = RSDSYS-SGR

The Safe Gas Release Option comprises:

- Manual valves and associated tubing
- Related swagelok connections
- Collection sample cylinders

The safety gas release option allows the users to either remotely vent the pressure lines or it also allows user to collect the gas in the sample cylinders provided.

It can be purchased in two, four or six channel configuration.

Figure 1 shows the six channel configuration with venting to the extractor system.

Figure 2 shows the collection cylinder provided. Different sizes may be used.
The operation of the remote pressure release option essentially is: When the gas is to be released turn the valve to release the gas.

A consideration should be the temperature of release and perhaps speed at which valve is opened. It should be noted that releasing a gas from a volume that contains not just gas but a liquid is likely to cause a two-phase flow.

The liquid under pressure is likely to have dissolved gas. This gas will be released from the liquid as the pressure drops and cause a foaming two-phase material to occur. This will have significant volume and is likely to rise into the pressure line.

If the two-phase material is at elevated temperature it is possible that there will be a solidification of the mixture if the material reaches pressure tubing that is at a cooler temperature. This is likely to then cause a permanent blockage of the tubing. A filter is provided to eliminate solid loss from the cell when pressure is reduced and to minimise liquid loss.

The vented gas line leads to the extractor. The extractor of course should be active during all tests but its use is essential to be used when safe gas venting is required.

Note: The OSU must be purchased with this option.