

# Liquid Sample Recovery System

## LSRS1



LSRS1

### FEATURES

- » Electrical Area Classification: Suitable for Hazardous Area Zone 1/ Zone 2 Gas Gr IIA/B, IIB+H2 installations.
- » Efficient recovery and discharge of product back into the process.
- » Vent vapour discharge available for vapour emissions to Flare.
- » Pump bypass line equipped with relief valve to prevent overpressure discharge
- » Magnetic Type level indicator for visual indication
- » Level Low and Level High alarm available to trip the entire system

### ADVANTAGES

- » AXIS make Liquid sample recovery systems provides a stable condition at the process analyzer outlet.
- » The system is also ideal for use in applications where it is undesirable to discharge hydrocarbons or chemicals into sewage drains.
- » Profitability/ROI - Recovering your product is one of the simplest ways to increase your profit and reduce costs.
- » Reduction of Product Waste - When considering product recovery, it is imperative to assess how much product is being wasted.
- » Lower Environmental Impact - Minimizing your carbon footprint goes hand-in-hand with reducing product waste. While the primary driver for a product recovery project may be economics, another significant benefit is that it can lower your emissions. Environmentally friendly operating changes like product recovery can help your organization to “go green”

### DESCRIPTION

Liquid Sample Recovery Systems are designed specifically to collect process liquid effluent or spent sample from analyzers and return the same to the process line, or any other suitable location in a fully controlled manner. This system is ideal for use in applications where it is undesirable to discharge chemicals or hydrocarbons into sewage drains.

Analyzers have limitation in pressure and temperature, so the spent sample cannot be returned to the process line from which it was taken. A consequence of this is that a sample collection system has to be installed which collects the sample.

The liquid sample recovery system allows natural or pressure draining from the analyzer into the atmospheric recovery tank. This collected sample is returned to the process using pumps. By using these special collection vessels, the user spares the environment, avoids hazardous situations, creates a stable outlet condition for the analyzers and, by recovering spent samples, costly product is not lost but can be reprocessed.

The system is designed per process return requirements. The size, shape and MOC of vessel is customized to customer requirement.

A standard sample recovery system includes a base frame, recovery tank, Level Indicator/Transmitter with option of high and low alarm level indications, positive displacement pumps, relief valves. The motor is driven by a locally installed Electrical Control panel with emergency push buttons and selector switch for local / remote control selection for pump start/stop. The remote selection can be customized. When high level detected pump starts to return sample to process. Pump running stop when low level detected. High high and low low level trip contacts provided for system trip.

### ORDERING INFORMATION

<b>LSRS1</b>										<b>9</b>
<b>Area classification</b>										
	0	Zone 1 & 2 IIA IIB								
	1	Zone 1 IIC								
<b>Power Supply</b>										
	0	415VAC 50 HZ for the Pump								
<b>Non Heated / Heated</b>										
	0	Non Heated								
	1	Heated								
<b>Tank Material</b>										
	0	MS painted								
	1	SS 304								
	2	SS 316								
<b>Flow</b>										
	0	500 LPH								
	1	XX LPM								
<b>Tank capacity</b>										
	0	50 liters								
	1	100 liters								
<b>Certification for electrical components</b>										
	0	CCOE certified								
	1	ATEX Certified								

### TECHNICAL SPECIFICATIONS

<b>Operating Temperature</b>	32°–113° F (0–50°C)
<b>Motor &amp; Pump</b>	
Pump	Sealsless, positive displacement, diaphragm pump
Flow	500 LPH
Differential Pressure	10 bar
Make	Hydracell
Motor	ATEX / CCOE Certified
Power Supply	415 VAC / 230 VAC
Make	Bharat Bijle /Crompton
<b>Sample Recovery Tank</b>	
Tank capacity	50 L, 100 L
MOC	SS 305, SS316
Thickness	2.5mm thick
<b>Tube fittings</b>	
Inlet /outlet MOC	SS 316 / SS 316L
Size	1/2"
Make	Hylok / Fitok
<b>Local Control Panel</b>	
Area Classification	Zone 1 & 2 IIA IIB IIC
	Manual & Auto
<b>Level Indications</b>	Level Gauge shall be provided for indication. Low and low low switch and High and High High switch shall be used for pump control operation

### ADDITIONAL ACCESSORIES

Description	Qty.
Sample Pump*	1 No.
Motor*	1 No.
Level Switch*	1 No.
Level IN*	1 No.

Note : \* As per Installation

### APPLICATIONS

- » Refineries
- » Petrochemical
- » Oil & Gas