

# Armada® SPS-A Single-Phase Sampler

## DOWNHOLE COLLECTION OF RESERVOIR FLUID SAMPLES FOR PRESSURE-VOLUME-TEMPERATURE (PVT) ANALYSIS

### OVERVIEW

The Armada® SPS-A single-phase sampler is utilized in all Armada tubing conveyed carrier, slickline, and electric line systems. These mercury-free samplers are manufactured to strict specifications and designed to operate successfully with highly corrosive reservoir fluids. All cylinders are highly corrosion resistant nickel chromium alloy and are suitable for use in sour gas environments. This provides significantly higher levels of H<sub>2</sub>S in sour gas environments than conventional 17-4PH samplers which are limited to <0.5psi partial pressure.

The Armada SPS-A samplers have an inert coating to limit the adsorption of H<sub>2</sub>S to provide clients with accurate readings, particularly when analyzing samples with less than 20 ppm of hydrogen sulfide (H<sub>2</sub>S) where even small losses could produce a false negative for the presence of H<sub>2</sub>S which may adversely impact material selection for subsequent production and process facilities. Furthermore, the Armada sampler is the only sampler on the market that can be preloaded with scavenger fluids to capture low level quantities of reservoir contaminants, providing laboratories the ability to perform a more thorough sample analysis. The high-pressure nitrogen charge retains the sample in single-phase condition during retrieval to surface.

### FEATURES AND BENEFITS

- » Sampler is suitable for use in sour gas environments where partial pressure is ≥ 0.5 psi
- » Inert ceramic coating facilitates measurement of trace elements such as H<sub>2</sub>S
- » Unique design results in ease of assembly/redress and high operational reliability
- » Nitrogen source supplied with conveyance system to pressurize and maintain samples in single phase
- » Sample collection verification before samplers are removed from conveyance system
- » Modular design allows for same technology across all sampling conveyance systems
- » Optional preloaded scavenger fluids for thorough sample analysis

### Equipment Specifications

Part Number	101458462	
Sampler Length	186.5 in. (4737 mm)	
Sampler Weight, (dry)	24 lbs. (10.9 kg)	
Sampler Outside Diameter, (nominal)	1 in. (25.4 mm)	
Sampler Volume, (nominal)	400 cc (24.4 cubic in.)	
Maximum Absolute Pressure	20,000 psi (1379 bar)	
Service Temperature	400°F (204°C)	
H <sub>2</sub> S Partial Pressure Limitations	32°F to 270°F (0°C to 132°C)	Unlimited
	271°F to 350°F (133°C to 177°C)	200 psi
	351°F to 400°F (177°C to 204°C)	150 psi

### Notes:

- » For individual equipment specifications, refer to the equipment data book.
- » These ratings are guidelines only. Contact your local Halliburton representative for more information.

For more information, contact your local Halliburton representative or visit us on the web at [www.halliburton.com](http://www.halliburton.com).

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