

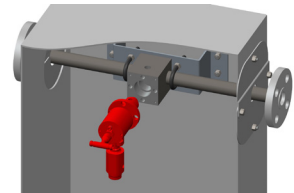


The SENSOR Heavy Products Sample System (HPSS) is designed to collect samples of hot, heavy products (such as resid, asphalt, hot tar, gas oil, resins, slurries, surfactants and emulsions) while maintaining personnel safety.

Sample Heavy Products with Minimal Downtime

The HPSS comes with 3 standard features unique to SENSOR which include a removable cartridge valve, condensate-free steam flush assembly and twist lock purge adapter.

- 1 Removable Cartridge Valve.** Allows for separating the valve's critical components from the sample line without removing the valve body and pipe spool from the process line in the event of required maintenance. The cartridge can simply be removed from the sample valve base and repaired or replaced with a new one, greatly reducing downtime.



- 2 Condensate-free Steam Flush Assembly.** This assembly utilizes a unique 3-way valve and steam trap to ensure that condensate-free steam is consistently available for purge operations. The steam purge clears any potential blockage from the sample path without disrupting the process flowing in the sample line.

- 3 Twist Lock Purge Adapter.** Without the need for tools, an operator can easily install the twist lock purge adapter onto the dispense tube and utilize steam to completely flush out the sample pathway to the drain of the enclosure. The steam flush is directed in a controlled manner without creating a mess on the inside of the enclosure or window from splatter.



Features and Benefits

- Safe collection of hot liquid without exposure to the operator
- High Viscosity "HV" Sample Valve allows the operator to control the rate of flow into the container
- Sample Valve includes a "Cartridge Design" that allows it to be changed quickly without removing the entire Flanged Spool Assembly
- Sample Valve has increased port size over the typical BBSS valve to handle heavier products
- Steam Heated Dispense Tube ensures that any residual that remains in the dispense tube (due to vapor lock when the sample valve is closed) remains hot and fluidized until it can be purged out
- Steam Purge after each sample collection ensures the sample valve and dispense tube are fully cleaned out after each use eliminating the chance of plugging
- Steam Supply is kept hot and condensate-free with the use of a unique 3-way Needle Valve and Steam Trap
- Twist Lock Purge Adapter ensures that all residual material that is purged out is contained and pushed down the metal flex hose to the drain of the enclosure instead of spraying out inside of the enclosure

Materials of Construction/Standard Configuration

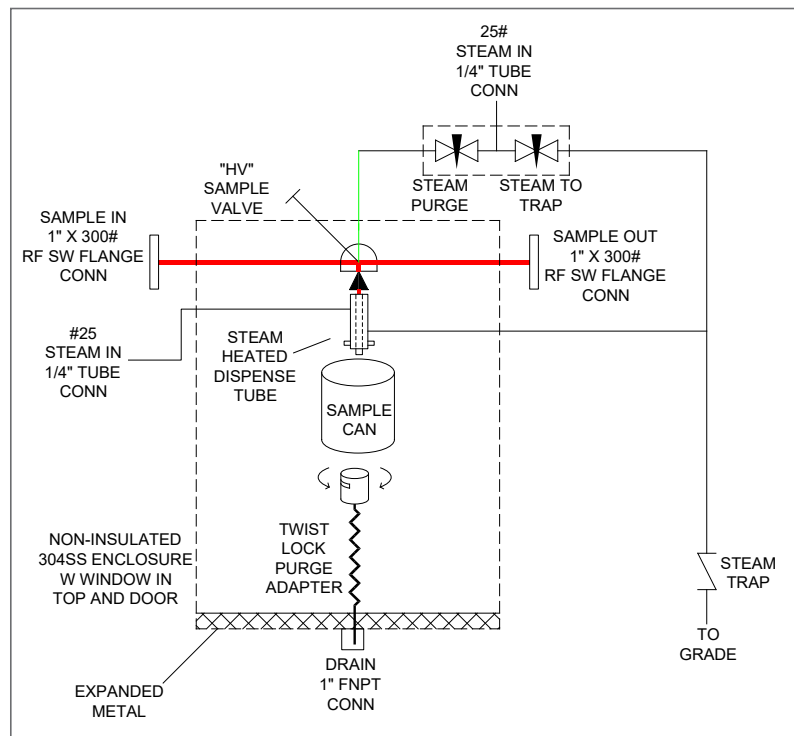
Sample Valve	316SSL Cartridge Type
Spool Piece	316L Stainless Steel (SS) standard; flanged process connections
Process Dispense Tube	316SS; 3/8"-1/2" steam heated dispense tube
Steam Heated Dispense Tube	Steam-traced dispense tube, prevents plugging
Seal Material	Graphoil
Container Shelf	304SS
Flush/Purge Adapter	316SS
Enclosure	304SS, non-insulated

Operating Pressure 2000 psig max

Operating Temperature 850°F max

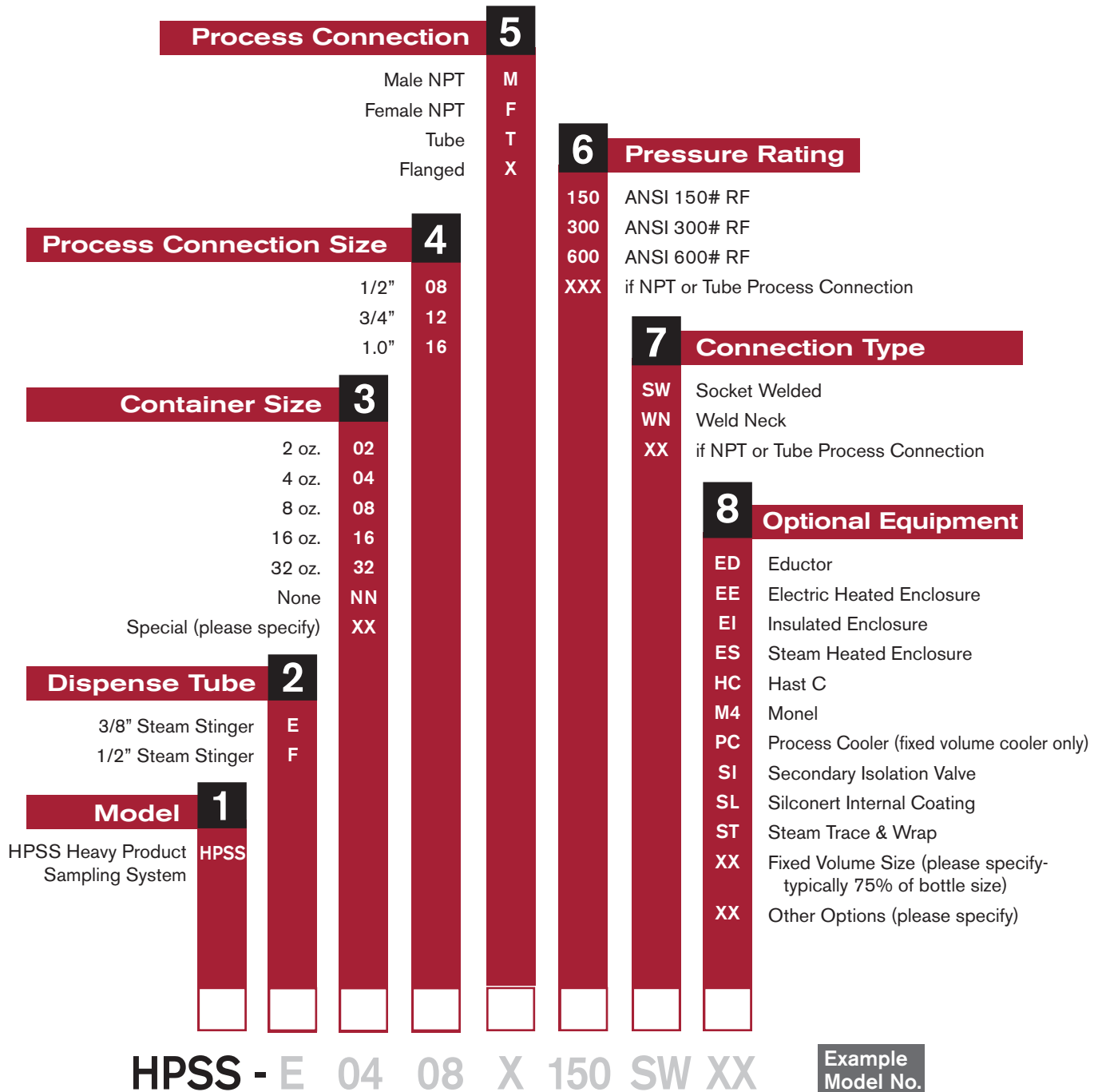
Optional Equipment

Pressure Isolating Chamber Sample Cooler	For use when process temperature exceeds auto ignition temperature or has high smoke point. Typically uses low pressure steam for cooling medium
Secondary Block Valve	Complies with double-block safety requirements
Enclosure	Options include: insulated enclosure, steam or electric heating
Mounting	2" X 60" pipe stand; galvanized
Eductor	Utilizes steam, plant air, or nitrogen to create motive force to remove vapor and/or smoke from inside the enclosure
Steam Tracing	All components in contact with process are steam traced and insulated
Pressure Isolating Chamber	Repeatable sample volumes helps prevent overflowing of container (recommended to heat trace chamber to prevent media from adhering to inner wall)



Below is the quick select model number tree that provides you with all the options to configure and order a sampling system for your application.

- You must select a designator for each component
- You must supply a completed Application Data Sheet shown on pages 4 and 5



* Pipe Schedule is sized for design pressure
 * All flanges are raised face type

Bottle System Application Data Sheet



Date	
Name	Phone
Company	Email

GENERAL

Media	Tag Numbers
*Pressure Inlet	Pressures over 150 PSI, Fixed Volume System is recommended
*Fast Loop Outlet Pressure	
*Vapor Pressure	Vapor Pressures > 19 psiA recommended sampled in Sample Cylinder
*Viscosity	(CP) at Sampling Temperature
*Temperature	For temperatures over 135°F, Process Cooling is recommended
Particles in Sample <input type="radio"/> Yes <input type="radio"/> No	Micron Size ____ / ____ (%) if >100 micron y-strainer recommended

MATERIALS

*Wetted Parts <input type="radio"/> 316SS (std.) <input type="radio"/> Monel 400 <input type="radio"/> Hastelloy C276 <input type="radio"/> Other _____ *specify
*O-Ring Material (Elastomer) <input type="radio"/> Viton (std.) <input type="radio"/> Kalrez <input type="radio"/> Other _____ *specify
*Valve Packing Material <input type="radio"/> Teflon (std.) <input type="radio"/> Graphoil (Hi. Temp)

CONNECTION AND MOUNTING

*Sample Inlet/Outlet Connection Size (1/4" Tube Standard)
*Sample Inlet/Outlet Connection Type (specify tube, NPT, Flange)
*Flare Vent Pressure _____ Vent to Flare _____ Vent to Carbon Absorber _____ Tell Tale Crystals _____

CONTAINER

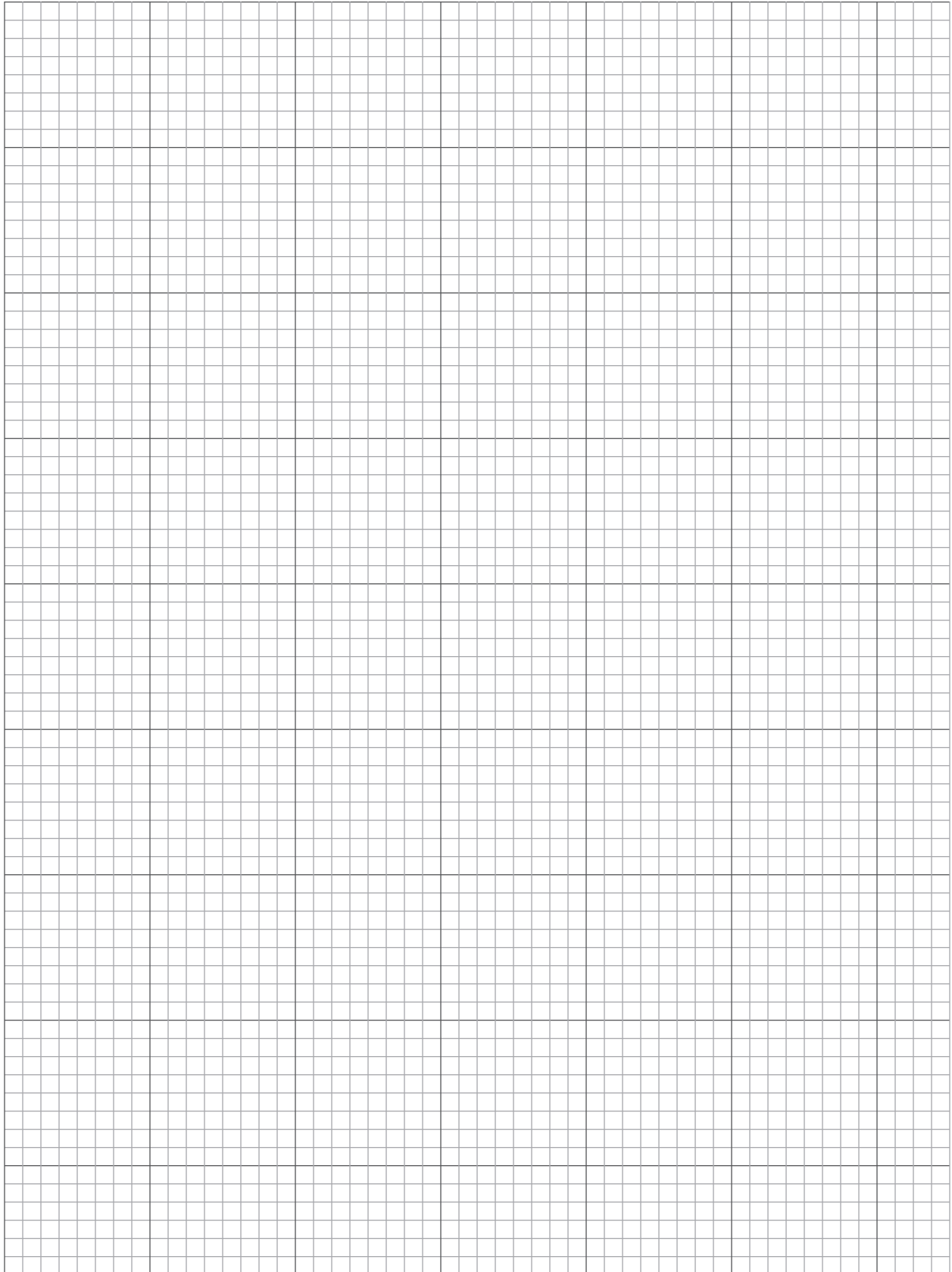
Size
*Material <input type="radio"/> Glass <input type="radio"/> Plastic <input type="radio"/> Safety Coated Glass <input type="radio"/> Other _____ *specify
*Sampling Method <input type="radio"/> Septum Bottle (closed loop, captured vent) <input type="radio"/> Open Top Bottle
*Type <input type="radio"/> Boston Round <input type="radio"/> Customer (provide sample for manufacturing)

OPTIONS

<input type="radio"/> PipeStand for Mounting System
<input type="radio"/> Needle Evacuation System (NES)
<input type="radio"/> Secondary Sample Isolation Valve
<input type="radio"/> Sample Cooler Heat transfer document needed.
<input type="radio"/> Enclosure Type Insulated <input type="radio"/> Yes <input type="radio"/> No Heated <input type="radio"/> Yes <input type="radio"/> No if yes, <input type="radio"/> Steam or <input type="radio"/> Electric if electric, Volts
<input type="radio"/> Process Block Valve <input type="radio"/> Sample Inlet <input type="radio"/> Sample Outlet <input type="radio"/> Both
<input type="radio"/> Check Valve on Vent
<input type="radio"/> Non-standard Process Needle (.083std) <input type="radio"/> .109 <input type="radio"/> .148 <input type="radio"/> 1/4" Stinger
<input type="radio"/> Steam Stinger
<input type="radio"/> Collection Vessel Size <input type="radio"/> oz. <input type="radio"/> mL (if applicable)

*Required information

SKETCH **VESSEL** or **APPLICATION** HERE





SENSOReng.com

Sampling Systems | Houston, TX | 281-902-3924

REGIONAL OFFICES

China

SOR China | Beijing, China | china@SORInc.com
+86 (10) 5820 8767 | Fax +86 (10) 58 20 8770

Middle East

SOR Measurement & Control Equipment Trading DMCC | Dubai, UAE
middleeast@SORInc.com | +971 4 363 3637 | Fax + 1 913 312 3596