

97120

Sediment Trap

The Shand & Jurs Biogas Model 97120 Sediment Trap protects downstream gas-handling equipment by removing bulk condensate and particulate matter before the gas reaches regulators, burners, or flare systems. Wet gas streams create corrosion, blockage, and water hammer events that shorten equipment life and destabilize system operation; the 97120 prevents those conditions at the source.

Gas enters through a tangential nozzle, which induces centrifugal separation and a rapid reduction in velocity, causing condensate and solids to drop out of the stream before downstream transport. The vessel provides a minimum of 6-gallon liquid and 6-gallon sediment holding capacity while maintaining a low pressure drop across a wide range of flow rates. Units are available in steel or 316/316L stainless construction with standard working pressures of 5 psig up to 25 psig and line sizes from 2" through 20".

Within the S&J gas conditioning family, the 97120 provides primary bulk contaminant removal upstream of drip traps and control equipment.



Key Features

Tangential centrifugal inlet

Induces rotational flow and velocity reduction, thereby separating entrained liquids and solids from the gas stream.

Large sediment and condensate capacity

Minimum 6-gallon liquid and 6-gallon solids storage supports extended service intervals in wet gas applications.

Low-pressure-drop vessel design

Maintains stable gas flow while removing contaminants upstream of regulators and burners.

Optional internal cooling coil

Promotes additional condensation of moisture to improve removal efficiency in saturated gas streams.

Integrated cleanout and drain connections

Blowout and drip trap ports allow safe removal of collected liquids and sediment.

Broad size and pressure envelope

Available in 2"-20" line sizes with working pressures 5psig/25psig for gas conditioning duty.

Benefits



REMOVES BULK LIQUIDS BEFORE REGULATION

Prevents regulator freeze-up, sticking valves, and unstable pressure control.



ELIMINATES PARTICULATE CARRYOVER

Protects flame arresters, burners, and meters from blockage and fouling.



STABILIZES GAS FLOW CONDITIONS

Prevents nuisance shutdowns caused by water slugging and water hammer.



REDUCES MAINTENANCE FREQUENCY

A larger collection volume extends service intervals in high-moisture applications.



IMPROVES COMBUSTION RELIABILITY

Dry gas improves ignition stability and reduces burner misfire events.



PROTECTS THE ENTIRE GAS TRAIN

Prevents cascading equipment damage and unplanned downtime across the system.

Available Options



Internal cooling coil

Circulating cooling water promotes condensation of moisture, improving removal efficiency in saturated gas streams.



Sight glass with isolation valves

Allows operators to monitor the condensate level while enabling safe visual isolation for maintenance.



Epoxy or galvanized finishes

Improves exterior corrosion protection in outdoor or high-humidity installations.



Specialized units available

Special designed tanks to meet design and space conditions.



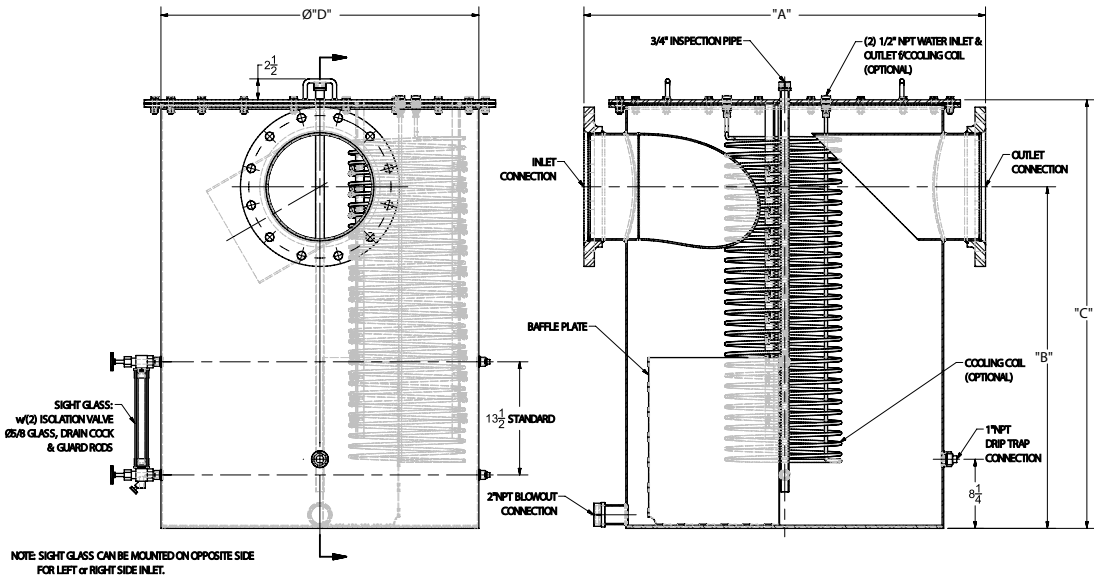
Insulation Jackets

Reduces the risk of freezing and maintains drainage reliability in cold climates. Note: Heat source shall be maintained under jacket.

Key Performance Data

Parameter	Value
Device Type	Bulk gas sediment and condensate separator
Separation Method	Tangential centrifugal separation with velocity reduction
Working Pressure	5psig Standard, up to 25psig.
Line Sizes	2"–20"
Connection Types	ANSI RF or ANSI FF
Liquid Capacity	Minimum 6 gallons
Sediment Capacity	Minimum 6 gallons
Pressure Drop	Low-pressure drop design
Blowout Connection	2" NPT
Drip Trap Connection	1" NPT
Body Materials	Carbon Steel or 316/316L Stainless Steel
Hardware	316 Stainless Steel
Soft Goods	CR (Neoprene)
Hardware	316 Stainless Steel
Sight Glass Assembly	316 Stainless Steel or Bronze
Cooling Coil Assembly	316 Stainless Steel

Dimensions



Line Diameter (Inches [mm])	Dimensions (Inches [mm])			
	"A"	"B"	"C"	"D"
2 [50]	22.5 [572]	22.25 [565]	27.13 [689]	16 [406]
3 [75]	23 [584]	21.5 [546]	27.13 [689]	16 [406]
4 [100]	23 [584]	20.75 [527]	27.13 [689]	16 [406]
6 [150]	27 [686]	24.75 [629]	32.13 [816]	20 [508]
8 [200]	39 [991]	31.25 [794]	38.13 [969]	30 [762]
10 [250]	39 [991]	30.63 [778]	38.13 [969]	30 [762]
12 [300]	48 [1219]	40.75 [1035]	50.5 [1283]	38 [965]
14 [350]	60 [1524]	46 [1168]	58 [1473]	48 [1219]
16 [400]	62 [1575]	50 [1270]	62 [1575]	48 [1219]
18 [450]	74 [1880]	58 [1473]	70 [1778]	62 [1575]

Air Flow Capacity in Standard Cubic Feet per Hour x 1000 @ 600F

Pressure Drop Inches W.C.	Line Size, Volumetric Flow (SCFH)									
	"A"	3"	4"	6"	8"	10"	12"	14"	16"	18"
0.25	1.2	3.1	5.6	13	23	36	51	65	85	108
0.5	1.9	4.4	8	18	32	50	72	92	120	152
0.75	2.3	5.5	10	22	40	62	89	113	147	187
1	2.7	6.6	11	26	46	72	103	130	170	216
1.5	3.3	8.0	14	32	56	87	125	160	209	264
2	3.9	9.3	16	36	64	100	145	185	241	305

Model Number Selection

The model number will have a base number 97120 followed by 6 digit numbers. These digits will represent 5 sets of option tables.

97120 - AB - C - DE - F - G

Table AB - Line Size

Option AB	Size (Inches)
02	2"
03	3"
04	4"
06	6"
08	8"
10	10"
12	12"
14	14"
16	16"
18	18"

Table C - Connection / Pressure Rating

Option C	Tank Material	Connection	Pressure Rating
A	STEEL	ANSI-FF	25 PSIG
B	316/316L SS		
C	STEEL	ANSI-RF	
D	316/316L SS		
E	STEEL	ANSI-FF	5 PSIG
F	316/316L SS		
G	STEEL	ANSI-RF	
H	316/316L SS		

Table DE - Line Size

Option DE	Line Size
02	2"
03	3"
04	4"
06	6"
08	8"
10	10"
12	12"
14	14"
16	16"
18	18"

Table F - Finish & Cooling Coil

Option F	Tank Material	Connection
A	No Finish	None
B	Rust Inhibitive Primer	
C	Epoxy Internal & External	
D	Internal Epoxy / External Rust Inh. Primer	
E	No Finish	Cooling Coil
F	Rust Inhibitive Primer	
G	Epoxy Internal & External	
H	Internal Epoxy / External Rust Inh. Primer	

Table G - Sight Glass & Seal Cover

Table G	Sight Glass Valves	Connection
0	None	CR (Neoprene)
2	316 SS	
3	316 SS	

Summary

The 97120 performs primary gas conditioning by removing bulk contaminants before control or combustion equipment. By stabilizing flow and eliminating liquid carryover, it protects downstream components and prevents system instability. Used as the first stage in the S&J gas handling train, it reduces maintenance events and extends equipment life while supporting reliable gas utilization.

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This document is for information purposes only. All designs subject to change. Certified dimensions, specifications, and performance data available upon request