



stuffer®
High Quality Non-Asbestos Packings



Steam Seal Products

OUR VISION

“To be the global leader in industrial solutions, recognized for our commitment to quality, innovation, & sustainability, while exceeding customer expectations & contributing to the advancement of the industries we serve.”

“At Steam Seal Products, our mission is to provide superior industrial products that deliver exceptional performance & reliability. We are dedicated to continuous innovation, utilizing cutting-edge technology & materials to meet the evolving needs of our customers. Through a strong focus on quality, safety & environmental responsibility, we aim to build lasting partnerships with our clients and contribute positively to the industries we support.”

OUR MISSION



ABOUT US

We would like to introduce ourselves as premium manufacturers of all types of Gland Packing, Rings , Ropes and Gaskets serving the Valve and Pump industry for the last three decades. Over these developing years, we have transformed general products into special customized products as per the industry requirements.

Steam Seal Products | Stuffer® is a Pioneer in sealing technology. Steam Seal manufactures and supplies High Quality Non – Asbestos Gland Packing, Ropes & gaskets; Customized Die formed rings. Also manufacturing high quality Tanged, Spiral wound Gaskets.

SSP manufactures an extensive range of high quality gland packing, this outstanding range of products and services make SSP the best choice whatever your Gland packing & gaskets requirements may be.

The company is fully committed to excellence in customer service and this commitment runs through the organization at all levels.

OUR PRODUCTS

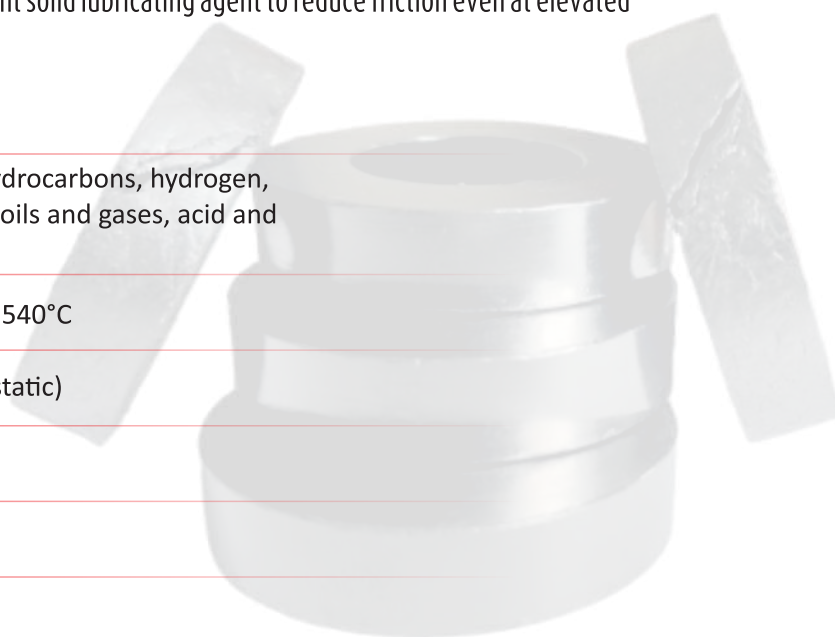
SSP 3100+3500 FE (FUGITIVE EMISSION) BRAIDED & GRAPHITE COMBINATION PACKING SET

Combination set consisting of SSP 3500FE Inconel jacketed expanded graphite braided packing as end rings and SSP 3100FE flexible pure graphite die-formed packings as intermediate rings.



- ◆ The most advanced technology valve packing set designed for high pressure application and extreme performance.
- ◆ Certified as per API 622, 3rd edition.
- ◆ Low emission graphite packing (Leakage <100ppm)
- ◆ High purity graphite with corrosion inhibitor and low detrimental materials like chlorides, fluorides and sulphides, eliminates the chance of decomposition at elevated temperature and formation of oxide, thereby reducing volume loss and increasing tightness.
- ◆ The braided end rings are excellent wiper rings, which prevent build up of free graphite/contamination on the valve stem, increase extrusion resistance, pressure resistance and dimensional stability.
- ◆ Packing set treated with a high temperature resistant solid lubricating agent to reduce friction even at elevated temperature.

Service Media and Conditions	Steam, hydrocarbons, hydrogen, catalysts, oils and gases, acid and alkali etc
Temperature	-196°C to 540°C
Pressure	425 bar (static)
pH	0 to 14
Applications	Valves



EXPANDED GRAPHITE BRAIDED RINGS WITH REINFORCED INCONEL WIRE
| SSP - 3500 FE

SSP 3500FE Inconel jacketed expanded graphite braided packing, self-lubricating, non-hardening, dimensionally stable and resistant to gases and fluids as well as heat, pressure and chemicals. It's high temperature flexible graphite and Inconel® filament jacket affords mechanical stability while the advanced construction provides leakage control and high integrity in steam service.

- ◆ Certified as per API 622, 3rd edition
- ◆ Low emission graphite packing (Leakage <100ppm)

Service Media and Conditions	Superheated and saturated steam, Hydrogen, All liquids & gases, Hot ash, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc.
Temperature	240°C to 650°C
Pressure	550 bar (static)
pH	14



FLEXIBLE GRAPHITE RINGS | SSP - 3100

Service Media and Conditions	Superheated & Saturated steam, all non-oxidizing liquid & gases, Hydrocarbons, Dyes & Chemicals, Fuel oil & Lube oil etc.
Temperature	-200°C to 650°C (Steam)
Pressure	Upto 300 bar (static)
pH	14



OUR PRODUCTS

PRESSURE SEAL RING REINFORCED WITH SS-304/SS-316| SSP 3100 PSR

- ◆ Much better substitute for soft iron gaskets
- ◆ Vertical reinforcement of SS wire net provides superb mechanical strength
- ◆ Does not damage parent equipment
- ◆ Approved by a host of valve makers

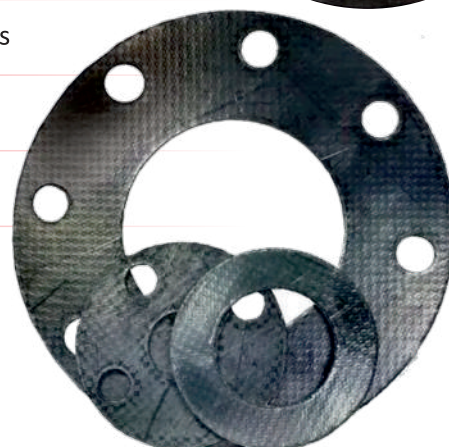
Service Media and Conditions	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
Temperature	-240°C to 650°C
pH	0 to 14
Max Pressure	500 bar (static)
Applications	Valve bonnets



GRAPHITE TANGED GASKETS | SSP 3100 G METALLIC

Graphite tanged gaskets are used in the chemical and petrochemical industries, in steam systems, and for flange gaskets for piping and machinery. They are often less expensive than MLS gaskets and can seal on rougher surfaces.

Material	Graphite reinforced with tanged stainless steel
Temperature	-200°C to 650°C, depending on the application
pH	Vaccum to 140 bar
Flexibility	Flexible with high recovery and no aging
Impermeability	Impermeable to gases and liquids
Compressibility	45%
Recovery	20%



SSP-3100 G SPW Spiral Wound Gaskets

Spiral wound gaskets are widely used in major process industries as Gasketing solution. These gaskets are made from different filler materials such as PTFE, GRAPHITE and other non-Asbestos materials. The stainless steel cover depends on the required grade in the process fluid such as SS-304/316/INCONEL/MONEL/UNS31803 etc. These gaskets are manufactured as per standard in ASME B16.20 in different pressure classes or in customised form as per demand. Size range starts from ½" to 24". These gaskets are manufactured with or without inner and outer rings as per the groove and flange sizes. Inner ring and outer ring material composition are defined and supplied as per material grade demand.

Temperature	650°C
Pressure	Upto 250 Bar Max
pH	0 to 14



SSP 3100 GS (GRAPHITE SLEEVE WITH SS-304 EYELETS)

Graphite Packing sleeves are used in many brands of gauge cock, to prevent leakage and to ensure effective operation. They are made from high purity graphite, with stainless steel eyelets, the computer controlled compression, ensure a standard, quality product. A popular application of graphite sleeve is to seal the drain cocks for level gauges, use of graphite sleeves provides smooth and reliable operation of the cocks and high resistance to erosive action of the medium and pollution.

Temperature	-200°C to 300°C (Non Oxidizing) -200°C to 500°C (Oxidizing) -200°C to 650°C (Steam)
pH	0 to 14 (Except Strong Oxidisers)



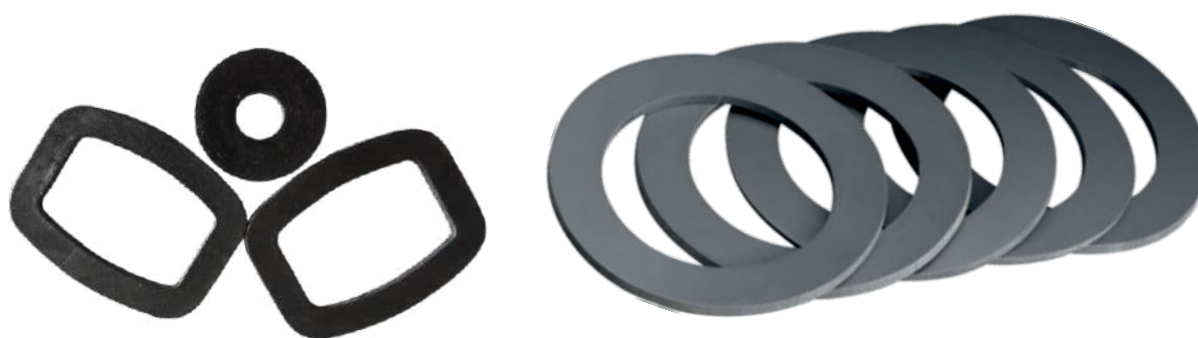
OUR PRODUCTS

SSP 3100 G (Graphite / Non Asbestos Gasket)

Service Media and Conditions	Superheated & Saturated steam, all non-oxidizing liquid & gases, Hydrocarbons, Dyes & Chemicals, Fuel oil & Lube oil etc.
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Temperature	-200°C to 650°C (Steam)
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Pressure	Upto 300 bar
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EXPANDED PTFE YARN PACKING | SSP - 4000

Highly corrosive chemicals, ammonia charge pumps, strong as well as weak acid & alkali, chemicals, foodstuffs, pharmaceutical industry applications, drinking water, hydrogen etc.

Temperature	-200°C to 260°C (Steam)
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Velocity	5 m/s
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pH	0-14
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OUR PRODUCTS

EXPANDED GRAPHITE BRAIDED PACKIN | SSP - 3200 | SSP - 3110 INCONEL | SSP - 3220 SS

Service Media and Conditions	Superheated & Saturated steam, all non-oxidizing liquid & gases, Hydrocarbons, Dyes & Chemicals, Fuel oil & Lube oil etc.
Temperature	-250°C to 600°C (Steam)
Pressure	Upto 450 bar
pH	0 to 14



PTFE GASKETS & RINGS | SSP - 4100 PTFE

Highly corrosive chemicals, ammonia charge pumps & carbonate recycle pumps, strong as well as weak acid & alkali, chemicals, foodstuffs, pharmaceutical industry applications, drinking water, hydrogen etc.

Temperature	-200°C to 260°C Steam
Velocity	5 m/s
pH	0 to 14



OUR PRODUCTS

EXPANDED PTFE / GRAPHITE PACKING WITH PURE ARAMID CORNERS | SSP - 8100 & SSP - 8200

Ammonia & Carbonate Solution, Plunger Pumps, Liquor Pumps, Sewage Water, Hot Water, Industrial Water, Oils, Greases, Solids, Sand Weak Acids & Alkali solutions etc.

Service Media and Conditions	Carbonate Solution, Ammonia Compounds, Chemicals, Abrasives, Slurries, Sewage, Water, Oils, Solvents, Diluted acids & Alkali etc.
Temperature	-240°C to 200°C (Steam)
pH	2-13

Temperature	280°C
Pressure	250 Bar
pH	0-13

CARBON FIBRE BRAIDED PACKING | SSP - 9100

Service Media and Conditions	Acid & Alkali, Caustics, Liquor, Steam, Boiler feed Water, Condensate, DM Water, Fuel Oil, Lube Oil, Solvents, Oil, Gases, Hydrocarbons etc.
Temperature	600°C
Max Velocity	25 m/s
pH	0-14



TESTING LAB

Steam Seal Products is fully committed to excellence in providing high quality products to our customers. To provide cutting edge high quality products we have a state of art testing laboratory for testing products and every level of production so that only the best gets delivered to our customers.



CERTIFICATIONS



purvainspection.com

ASME B16.20 PERFORMANCE TEST REPORT CUM CERTIFICATE

Conformity with Leak Testing
Acc. to ASME B16.20-2017 Clause No SW-2.6 Performance Testing
Test Certificate No: PITS/PT/16.20/STUFFER/001 Test & Report Date: 13/01/2024
Name & Address of the Gasket Manufacturer and Test Location
STUFFER (STEAM SEAL PRODUCTS)
ADDRESS: D-13, UPSIDC, KOSI KOTWAN, DISTRICT MATHURA, PIN CODE- 281 403, UTTAR PRADESH, INDIA
Name & Address of the Testing Facility
PURVA INSPECTION & TESTING SERVICES
16, SATYAM ESTATE, STEEL TOWN, BESIDE HOF, HORAIYA, CHANGODAR, AHMEDABAD- 382213, GUJARAT, INDIA
We hereby certify that the Metallic Spiral Wound Gasket tested on an Industrial Test Fixture meets the requirements of the above-mentioned Standard.

Corresponding Gasket Size	NPS 4
Corresponding Gasket Class	150
Gasket Type	SSP STYLE NO. 3100 G PURE EXPANDED GRAPHITE SPIRAL GASKET - 55304L
Gasket Sealing Element Dimensions	Metallic Spiral Wound Gasket with Inner Rings & Outer Rings of Carbon Steel; Material of Winding: 35 SSM; Filler Material: Graphite
Gasket Bore / Certificate	176.8 mm (ID) X 149.6 mm (OD) X 4.53 mm (THK)
Gasket Batch No	SSP/SAMPLE/2024 DATE: 08/01/2024
Maximum Permissible Leakage Rate	0.0137 mg/s.m (7.67E-10 lb/sec.in)
Circumferential Length	409.41 mm
Maximum Permissible Leakage Rate Calculated for Test Gasket	579 gpm/m
Gasket Stress	71 MPa (10000 psi)
Calculated Flange Tightening Torque	60 Nm
Test Temperature	20 bar (290 psia) (21 kg/cm ²)
Test Pressure	Ambient Temperature (33°C)
Test Medium	Acetylene Gas with 99.99% purity
Methane Gas Leak Detector	Make: THERMOFISHER, Model: TGA-2020, Serial No: 20201013852; FID (Flame Ionization Detector) instrument
Pressure Gauge Details	Instrument No: PSV/PV/16; Pressure Range: 0 to 70 kg/cm ² ; Calibration Certificate No: NCQC-M/140223/11; Date of Calibration: 14/03/2023; Due Date of Calibration: 13/03/2024
Test Start Time	10:00 am
Test End Time	02:30 pm
Test Pressure Maintain / Hold Time	04 Hours 20 min
Reading Taken at Time	02:20 pm 02:25 pm 02:30 pm
Leakage Observed	259 gpm/m
Average Leakage Observed	253 gpm/m
Acceptance Criteria	Leakage Rate < 579 gpm/m
Test Result	PASS

TEST PERFORMED BY (TECHNICIAN)
DHAVAL CHAUHAN
M/S PURVA INSPECTION & TESTING SERVICES
(NOT LEVEL II- Mass Spectrometer Leak Testing)

INSPECTION
Inspector No: 52-088
Date: 13/01/2024
Signature: [Signature]
TEST WITNESSED BY
BHAVIN NALYAPARA (TPIA) (M/S DNV)

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3 New Tirupati Society,
Nr. Radhaswami Satsang,
Ranip, Ahmedabad - 382480

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FIRE TEST (TYPE TEST) CERTIFICATE OF COMBINATION PACKING TYPE/MODEL "SSP STYLE 3110 & SSP STYLE 3100" FIRE SAFE TEST CONDUCTED IN ACCORDANCE WITH API STD 589, 2ND EDITION, JULY 1998

TEST CERTIFICATE NO: PITS/FT/589/STUFFER/CERT/001 DATE: 21ST AUGUST 2023

Test Number	PITS/FT/589/STUFFER/001	Test Date	21/08/2023
Packing Material	GRAPHITE BRASSED AND DIE MOLDDED COMBINATION GLAND / STEAM PACKING SET		
Style Number	SSP STYLE 3110 & SSP STYLE 3100		
Packing Manufacturer	STUFFER (STEAM SEAL PRODUCTS)		
Test Valve Size	NPS 6 (DN 150), CLASS 300	Actual Valve	✓
Packing Gland OD and ID per the packing:	OD: 147.30 mm ID: 133.00 mm	Packing Gland Bolt Diameter:	5/8 inch
Packing Configuration:	3 nos.	Show sketch of packing installation: define each ring:	
Number of Rings Tested:	3 nos.		
Ring Shape (Square, Circular, Vite)	Square		
Solid or Split:	2 RINGS BRASSED SPLIT SSP STYLE 3110 AND 1 RING DIE FLOWED SOLID SSP STYLE 3100		
Select the following:			
Brassed	✓		
Die Formed	✓		
Spool Stock	✓		
Wire or Other Reinforcement	✓		
Corrosion Inhibitor & Type	(ZINC DUST)		
Other			
Packing compression % of free height:	10%		
Torque on gland nuts (each side):	80 Nm 75 Nm after hydro-test 45 Nm 50 Nm after burn		



Leakage Measurements:	Observed Leak	Maximum Calculated Leak Rate for NPS 6	Maximum Allowable Rate per NPS: minimum/NPS
During two-minute pretest hydrotest:	total (ml) 0	rate (ml/min/NPS) 0	0
During burn and cool-down 30 minutes:	total (ml) 0	rate (ml/min/NPS) 40	10
During 5 minutes following cool-down:	total (ml) 0	rate (ml/min/NPS) 3	0.5
After closing and opening (not back sealed): for 5 minutes period:	total (ml) 50	rate (ml/min/NPS) 60	10

Packing Qualification: The packing tested complies with the performance requirements of this standard

TEST CONDUCTED BY:
DHAVAL CHAUHAN
M/S PURVA INSPECTION & TESTING SERVICES
DATE: 21/08/2023

INSPECTION
Inspector No: 52-088
Date: 21/08/2023
Signature: [Signature]
TEST WITNESSED BY
BHAVIN NALYAPARA (TPIA) (INSPECTOR)
(M/S DNV)
DATE: 21/08/2023

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API STANDARD 622 TYPE TEST CERTIFICATE

"TYPE TESTING OF PROCESS VALVE
PACKING FOR FUGITIVE EMISSIONS"
THIRD EDITION, OCTOBER 2018; ADDENDUM 1, MARCH 2022

Performed for

STUFFER (STEAM SEAL PRODUCTS)

www.steamseal.in

"STUFFER" SSP 3500 FE + SSP 3100 FE
COMBINATION PACKING SET

TEST CERTIFICATE NO: PITS/FET/622/STUFFER/CERT/002

TEST START DATE : 16TH SEPTEMBER 2024
TEST END DATE : 21ST SEPTEMBER 2024

Performed by

PURVA INSPECTION & TESTING SERVICES

www.purvainspection.com

TEST PERFORMED BY (TECHNICIAN)
DHAVAL CHAUHAN
M/S PURVA INSPECTION & TESTING SERVICES

INSPECTION
Inspector No: 52-067
Date: 21/09/2024
Signature: [Signature]
TEST WITNESSED BY
UMANG PARMAR (TPIA) (M/S DNV)

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API STANDARD 622 TYPE TEST CERTIFICATE

TYPE TESTING OF PROCESS VALVE
PACKING FOR FUGITIVE EMISSIONS
THIRD EDITION, OCTOBER 2018; ADDENDUM 1, MARCH 2022

Performed for

STUFFER (STEAM SEAL PRODUCTS)

www.steamseal.in

SSP STYLE 3500 FE STUFFER

TEST REPORT NO: PITS/FET/622/STUFFER/RP/001

TEST START DATE : 25TH SEPTEMBER 2023
TEST END DATE : 30TH SEPTEMBER 2023

Performed by

PURVA INSPECTION & TESTING SERVICES

www.purvainspection.com

TEST PERFORMED BY (TECHNICIAN)
DHAVAL CHAUHAN
M/S PURVA INSPECTION & TESTING SERVICES

INSPECTION
Inspector No: 52-088
Date: 30/09/2023
Signature: [Signature]
TEST WITNESSED BY
BHAVIN NALYAPARA (TPIA) (M/S DNV)

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Our Global Reach



Our Valued Patrons



Good Food, Good Life™



C.R.I. PUMPS
Pumping trust. Worldwide.



A B Sugars Limited



GEMCO



Industries Served

Petrochemicals | Chemical | Steel | Mining | Marine | Sugar & Ethanol |
Bio Diesel | Paper | Water & Sewage | Metallurgical | Bio Pharmaceutical |
Power Generation | Pump & Valves.