



SGG Since 1980

**Activated Carbon Filter Package
Condensate De-Oiling Package
Walnut Shell Filter Package**



Sanaye Garma Gostar Co., (SGG) is a leading process plant engineering & Construction Company which designs and builds the most challenging process plant equipments. We integrate processing solution, system components and process control into turnkey production plants. As an EPC contractor our project services include process analysis, engineering & construction of turnkey production plants, qualification and commissioning as well as maintenance and training.

We are primarily involved in supply of steam generation unit for processing liquids, pressure vessels, heat exchangers and pressure piping in following industries:

- . Oil, Gas and Petrochemical Industries
- . Power Plant Industry
- . Food industry
- . Paper industry
- . Steel industry
- . Other industry

Historical profile:

The company is a vision of **Mr. Mirkhan Aghazadeh** and he has embedded its position as one of the leading players in process plant industry in Iran. He established the company under Sun Boiler Co.in 1980 in Tehran and changed the company name to **Sanaye Garma Gostar Co.**

Milestone in a success story

1980

Company foundation and manufacture boiler system for central heating with fewer than 20 employees.

1982

SGG start to provide services for various heavy Industries, such as Oil, Gas, Petrochemical, Food and Steel Industries.

1985

SGG became partner with a west European Company for design and construction fire tube shell Boilers.

The product range, included steam boilers up to 70,000 lb/hr and hot water boilers up to 35 MBtu/hr. All of our shell boiler mechanical design and drawing approved by Liloyd's Register and based on performance acceptance & garanty of ERK (Germany).

1988

License agreement with Mitsui Babcock Co. UK for design and manufacturing industrial water tube boiler, **SGG** developed it activities in the field of water tube boiler & know-how of Bi-drum type water tube boilers.

1995

SGG becomes a leading EPC contractor for steam generation plant by utilizing in House design & simulation from design stage to fabrication, inspection and installation for combined cycle power plants and utilities.

SGG is the first company in Iran to be approved by accordance with ISO9001 and ISO/TS29001.

2004

SGG has signed an exclusive license agreement with ERK EckRohrKeseel of Germany. Our partnership with ERK improves our capabilities in the field of water tube boiler energy conversion and advanced heat transfer equipments. **SGG** can manufacture First class mono-drum water tube boiler, heat recovery steam generator, heaters, etc.

The first Eckrohr-Boiler was designed and manufactured in 2004 for Karoun Petrochemical Co. with capacity 90t/hr, working pressure 43 Bar and temp 430 °C.

Our strength

SGG design & manufacture complete Turnkey process plant system, our all around expertise includes consultancy services to the government department for various industries. Over the last 40 years we have established a sound infrastructure facility which is equipped with latest machines such as high-tech welding machines, plate rolling, cutter, drilling machines and surface roller. All our products are tested on well defined quality parameter to meet the highest demand of our costumer.

The first steam boiler left our plant in 1982 with capacity 500 kg/hr oil fired, fire tube, shell boiler for Sina hospital in Tehran. After 33 years in operation the boiler is under operation with desire working condition.

Our clientele

We follow an ethical business approach, placing the requirement of the clients on center stage. This has successfully enabled us to garner the trust of most reputed clients from various industries. Our long list of clientele includes the following:

- . Razi Petrochemical
- . Bandar Abbas Oil Refinery (NIOC)
- . Jam Petrochemical Co.
- . West Karoun Area NGL 3200 Project (NIOC)
- . Chadormalu, Yazd and Sirjan power plants in south of Iran.



Walnut Shell Filter Package

Filtration Objective:

Removal/absorption of oil traces in the de-oiled water

The Bid Boland II project specification:

Type of Filtration: Liquid- Liquid

Flow Rate: Normal 20 m³/h

Design 37 m³/h

Operating Pressure: 6 (Normal)

Media: Walnut Shell

Design Pressure: 10 barg

Design Temperature: 86 °C



1) Package included bypass, backwash, differential pressure measurement and agitator.

2) Package included all required instrumentation, electrical equipment and controls.

3) Package included all required skid internals, structure, piping, valves, fittings, ladders and platforms.



Condensate De-Oiling Package







Condensate De-Oiling Package

SGG's scope of supply consists of three lines. Each line is composed of two filters in series. The first filter is a coalescing filter designed to remove the most quantity of oil without any risk of clogging. The second filter is an activated carbon filter designed to remove the traces of hydrocarbon. The backwash-feeding pump is included in the package. The whole package shall be located downstream of low-pressure return condensate.

Steam condensate at Condensate De-oiling Unit outlet meet the following specification in the Bid Boland II project:

- Total Suspended Solids < 0.5 ppm
- Total Dissolved Solids NIL < 0.1 ppm
- Hydrocarbon < 0.3 ppm
- Discharge pressure > 2.6 barg





Activated Carbon Filter Package

Activated Carbon Filter Package is used for the removal / adsorption of dissolved oil traces in the stripped sour water and water from walnut shell filter. The treated water will be used as cooling tower make-up.

Design Data of Bid Boland II project:

Design flow: 37 m³/h.

Normal flow: 20.0 m³/h.

Temperature - Normal: 25 °C, Minimum: 5°C, Maximum: 31°C

Mechanical Design: 86 °C MDMT: (-) 2 deg°C

Operating pressure: Normal 2-3 barg

Vessel Design Pressure: 7.5 barg

Maximum Pressure Drop: 1bar

Water Composition & Properties:

OIL CONTENT

Normal 1 ppm (w)

Maximum 5 ppm (w)

Specific gravity 0.45 - 0.80

Oily water specific gravity 1.0, viscosity 1.0.

Treated water: < 0.1 ppm (w) oil maximum



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FILTRATION PACKAGES IN
OIL, GAS & PETROCHEMICAL PROJECTS



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