



# KASRAVAND

---



FIXED EQUIPMENT



## ABOUT US

**KASRAVAND** is a DESIGN and MANUFACTURING Company with high Engineering and Management competency.

We design & manufacture PROCESS PACKAGES such as FLARE GAS RECOVERY, TEG, MEG, WATER TREATMENT, OIL TREATMENT also we Design and manufacture FIX EQUIPMENT such as PRESSURE VESSELS, different types of SEPARATORS, FILTERS, QUICK OPENING CLOSURES, STONE TRAPS, STRAINERS, and PIG LAUNCHER / RECEIVER traps.

We have established ISO 9001:2008 QUALITY management system, PROJECT MANAGEMENT SYSTEM (Based on PMBOK Standard), OHSAS 18001:2007 HEALTH and SAFETY management system and ISO 14001:2004 ENVIRONMENTAL management system to ensure the highest QUALITY STANDARDS are achieved and that all projects are delivered on time to reach our CLIENTS SATISFACTION.

We also have close RELATIONSHIPS and CO-OPERATIONS with INTERNATIONAL and WORLD CLASS COMPANIES and make necessary PARTNERSHIP for special and technically COMPLEX PROJECTS.



## WE CREATE IMPOSSIBLE

# INDEX

● PRESSURE VESSELS	4
● PIG LAUNCHERS & RECEIVERS	5
● QUICK OPENING CLOSURES	6
● ISOLATION JOINTS	7
● ANCHOR FLNAGES	7
● SEPARATORS	8
> GAS SEPARATORS	9
>> GAS FILTER SEPARATORS	9
>> DRY GAS FILTERS	9
>> GAS COALESCERS	10
>> GAS SCRUBBERS	10
> LIQUID SEPATARORS	11
>> STONE (SAND) TRAPS	12
>> STRAINERS	12
> INTERNALS	13
>> Vane Type Mist Eliminator	13
>> Cyclone Tube	13
>> Wire Mesh Mist Eliminator	13
>> Inlet Device	13
>> Baffles	14
>> Drained Meshpad Agglomerator	14
>> Plate Pack Coalescers	14
>> Swirl Tube Mist Eliminator	14
● OTHER SERVICES	15





## **PRESSURE VESSELS**

**KASRAVAND** has the expertise and experience to design, fabricate and install a variety of different types and sizes of pressure vessels especially with different kinds of INTERNALS.

**O**ver the years we have worked on numerous pressure vessels with more than 70 mm wall thickness and 5000 mm diameter.



**V**essels are designed and engineered using latest versions of standards and softwares such as ASME, EN, BS and PVElite, COMPRESS, NozzlePRO also finite element analysis and solid modelling.

**R**ange of materials includes carbon steel, stainless steel, monel, inconel and other exotic materials.





# PIG LAUNCHERS AND RECEIVERS

**KASRAVAND** designs and manufactures Launchers and Recivers for off-shore and onshore projects according to pipeline and vessel design codes including NACE, ASME VIII, BS 5500 and ASME B31.3, B31.4, B31.8.

**O**ur capacity ranges from 6" NS to 54" NS, ANSI Ratings 150# to 2500# and API, using regular carbon steel, or with different cladding and alloy steel materials.

**W**e've in-house engineering, manufacturing and testing capacity to produce launching and receiving systems to meet specific requirements of clients.



**O**ptional features and accessory equipment include:

- Complete SKID MOUNTED UNITS.
- PIG HANDLING SYSTEMS (manual or automatic)
- PIG SIGNALLERS (manual or automatic, remote or local)
- RELEASE FINGERS. (manual or motorised)
- ACTUATED VALVES, CONTROLS, DRIVES and Instrumentation





# QUICK OPENING CLOSURES

**KASRAVAND** is a world leader in the manufacture of quick opening closures and our QOC closures are in operation throughout the country.

Our QOC provide safe and quick access to pipeline and pressure vessels. They are built to meet all required international design codes and can be used in horizontal, vertical, inclined or declined applications, our product range is from size 6" to 60", and up to rating 2500#.

Approved Design:

- ASME VIII Div.1
- ASME VIII Div. 2
- PD5500



Types:

- Rapid Opening Closure
- Double Bolt Closure
- Swing-Bolt Closure
- CAMLOCK Bolt Closure
- Threaded Closure



Goals:

- SAFE AND SECURE DESIGN USING LATEST MECHANISMS OF WORLD CLASS MANUFACTURERS BY REVERSE ENGINEERING.
- PROPER SELECTION OF MATERIAL REGARDING WORKING CONDITION.
- APPLICATION OF RELIABLE MATERIAL.
- COMPLIANCE WITH ASME SEC VIII DIV 1 AND 2 REGULATIONS.

# ISOLATION JOINTS

**KASRAVAND** designs and manufactures different types of ISOLATION JOINTS.

**IsoJoint** For Superior CATHODIC PROTECTION. IsoJoint is a true monolithic isolating joint which effectively and efficiently stop short circuits and stray currents from damaging pipelines and equipment.

**IsoJoints** employs one or more, preassembled pressure seals and isolating ring.

**Our** product range is from SIZE 6" to 60" include different rating pressures.



## ANCHOR FLANGES

**KASRAVAND** Anchor flanges those protecting pipeline pumping stations. Welded into the line and encased in concrete, they immobilize the pipe at predetermined locations and transfer built-up stresses to external structures.

Anchor Flanges may be used to secure subsea piping and risers to platform structures.

**Anchor** flanges can be manufactured from size 4" to 36" for different rating pressures.





# SEPARATORS

**KASRAVAND** designs and manufactures different types of test separators such as:

Gas Scrubbers (Gas/Liquid) , (Gas/Solid)

3 Phase Separators (Gas/Oil/Water)

2 Phase Liquid Separators (Oil/Water)

Flash Drums / Knock Out Drums (Gas/Liquid)

Filter Separators (Gas/Liquid), (Gas/Solid)

**O**ur engineering department consists of capable and qualified engineers who are able to do process calculation and CFD



modelling for different types of separators which can be 2 phases or 3 phases.

**T**he PROCESS and PERFORMANCE GUARANTEE are provided for our separators.





# GAS SEPARATORS

## GAS FILTER SEPARATORS

- Removes solids and liquids on COMPRESSOR SUCTIONS, GAS STATIONS & GAS PLANT ENTRANCES.
- Mist extractor options include different kind of VANES, WIRE MESH & CYCLONE TUBES.
- Vertical and horizontal configurations in 6" to 120" diameter sizes.



## DRY GAS FILTERS

- **KASRAVAND** dry gas filters are designed to removes solid and semisolid particle for applications such as PETROCHEMICAL, GAS REFINERY PLANTS, COMPRESSOR SUCTIONS, GAS STATIONS.
- Using depth fiberglass, depth polyester surface and different kinds of pleated paper filter elements maximize performance under almost any service condition.
- Sizes range from 6" through 120" diameter in vertical and horizontal configurations.





# GAS SEPARATORS

## **GAS COALESCERS**

- **R**emoves different liquids from gas stream
- **A**pplications include desiccant bed protection, compressor lube oil discharge removal, feed gas filtration, process liquid reclaiming, and general low surface tension mist removal.
- **S**tandard design includes FILTER ELEMENTS, STILLING SCREEN, OUTLET BAFFLE & full diameter quick opening closure.



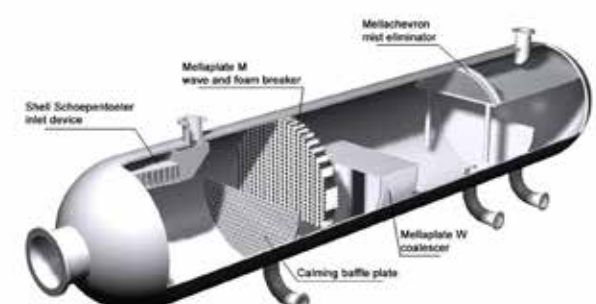
## **GAS SCRUBBERS**

- **G**as scrubbers are designed by both vertical tube separation system (CYCLOTUBES) and VANE type internals and are used in production as initial liquid separators, on gas coalescer and filter separator inlets as bulk liquid knockouts, as multistage compression separators, process liquid reclaimers downstream of contact towers, and in many other critical locations.
- **U**nits are available with or without slug capacity, in vertical or horizontal configurations and in diameter SIZES ranging from 8" through 120".

# LIQUID SEPARATORS

## Solid Retention

In solid retention we separate solid particles from liquid stream by different types of filters including BASKETS, FILTER CARTRIDGE & BAG FILTERS. This kind of separation is applied in crude oil production, Petrochemical plants, Refineries, power plants, steel plants and oil and lubricants filtration. Range of products in this area includes STRAINERS, GRIT TRAPS, STONE TRAPS, BAG FILTERS, Glycol filter, Amine filter and Oil filter.



## LIQUID-LIQUID SEPARATION

In liquid –liquid separation we separate unwanted fluid (water) from main fluid (hydrocarbons, crude oil, different oils and fuels). Separation is done by internals such as VANES, MESH pads and FILTER cartridge. Used in industries such as: crude oil production, Petrochemical plants & Refineries.

DIESEL FILTER, GASOLINE FILTER, KEROSENE FILTER, CONDENSATE FILTER, CRUDE OIL PURIFICATION, OIL FILTER and ... are in this group.







# LIQUID SEPARATORS

## STONE (SAND) TRAPS

**KASRAVAND** Sand separators are an integral part in protecting downstream production equipment from well-formation sand and/or frac sand.

From 6"O.D. to 40" I.D. L-Type or our low profile high volume spherical design... 2,000 psig - 10,000 psig.

Our sand traps are designed for stationary applications and/or mounted on transportable L-shape type skids.



## STRAINERS

**KASRAVAND** is leading manufacturer, supplier and exporter of Strainers that are used for filtration in liquid flow pipes. These Strainers are available in various sizes with different specifications. We supply these Strainers in various industries at competitive prices.

Salient features are as follows:

- Sizes: 15mm - 500mm and for higher pipeline diameter
- Type: Y - T - Basket Type
- Material: Cast Iron, Cast Carbon Steel, Stainless Steel, ...



# SEPARATORS INTERNALS

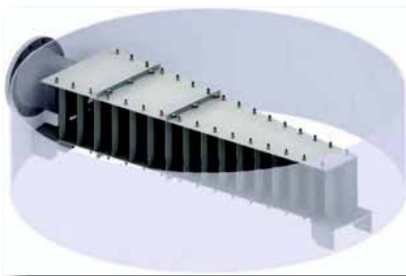
**KASRAVAND** offers high efficiency internals that make desirable separation such as:

## Vane Type Mist Eliminator

The vane types are very usual and useful internals for liquid separation from gas. These types according to design and shape can remove the droplets more than 8 microns.

## Cyclone tube

Cyclotubes are used in production as initial liquid separators, on gas coalescer and filter separator inlets as bulk liquid knockouts, as multistage compression separators, process liquid reclaimers downstream of contact towers, and in many other critical locations.



## Wire Mesh Mist Eliminator

Mist Eliminators provide high performance wherever liquid entrainment must be removed from a vertically flow gas stream.

## Inlet Device

The Inlet device is used for foam Breaking, Suitable for installation in horizontal inlets on vertical separators and also Can be added to horizontal three phase separators.





# SEPARATORS INTERNALS

## Baffles

A Very effective method to reduce flow turbulence is by installing a liquid distribution baffle. This is a perforated plate designed with a certain open area to suit the given process conditions and vessel lay-out.



## Drained Meshpad Agglomerator

If a very high degree of gas/liquid separation is required or if the separation duty is demanding due to the presence of small droplets then a mesh agglomerator can be used, both in horizontal and in vertical orientations.

## Plate Pack Coalescers

These are used in the liquid section of a separator or scrubber to optimise the degree of liquid / liquid separation and its base is on the fact that the flow through the narrowly spaced plates is laminar, so the distance the dispersed phases have to travel to the interface is greatly reduced.

## Swirl Tube Mist Eliminator

The SpiraFlow cyclone type provides a high degree of separation of fine droplets and foam, even at high operating pressures. It can be positioned vertically or horizontally within a vessel.





## PROCUREMENT

**O**ur Procurement Department not only supplies equipment and material for our manufacturing activities with required specifications but also provides procurement service for different clients independently.

**R**egarding engineering backbone of our company we are pleased to offer a rather special and tailor made solutions to our clients.

**O**ur global and regional logistic and co-operations provides solutions to overcome the challenges of current procurement environment.

## CONSTRUCTION

**O**ur installation services department is staffed by qualified engineers and oil field specialists, who are ready for any challenge and travel across the country to provide the field installation services such as:

- Installation and construction of huge vessels and tanks.
- Pipeline
- Electrical installation
- Equipment maintenance





**Head Office:** Unit 63, Sadaf Tower, Shaikh Bahaei Sq., North Shaikh Bahaei Ave,  
Molasadra St., Tehran, Iran.

**Telefax:** +98 21 88212776 - +98 21 88212350 - +98 21 88606251-2

**Factory:** No 11, Golbarg 11 St., Narenjestan Blvd., ShamsAbad Industrial Park  
35<sup>th</sup> Km Tehran - Qom Highway, Tehran, Iran.

**Telefax:** +98 21 56233225 - 6

**WWW.KASRAVAND.COM**