

JLS International provides process equipment from high quality manufacturers located in Europe, Asia, and the US to customers worldwide. We assist our manufacturing partners with equipment design, prepare quotations according to customer specifications, and follow all projects very closely through realization, keeping our customers informed.

Products (with page numbers) include:

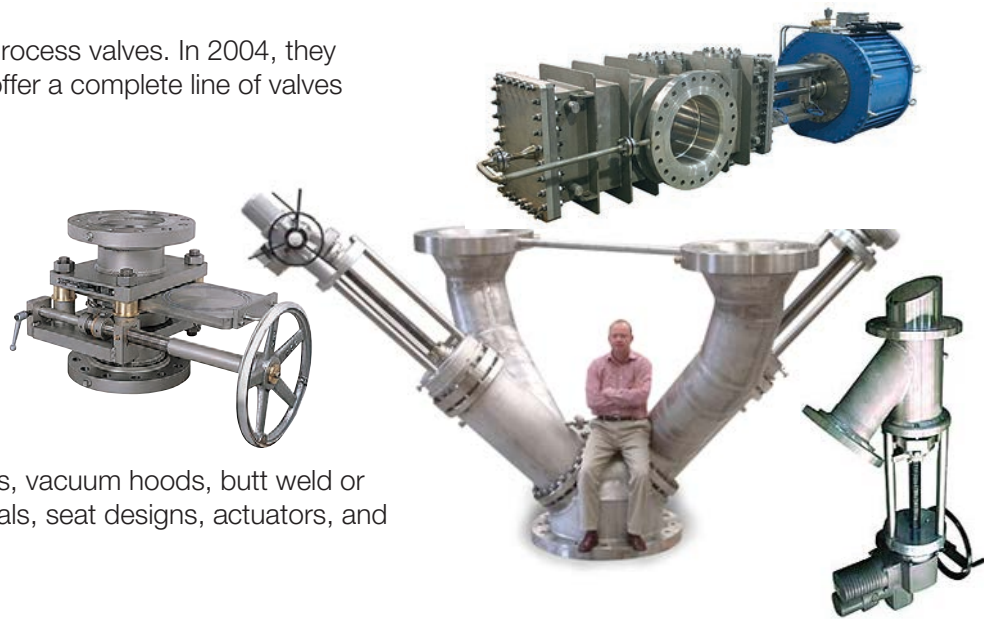
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|---|---|
| 1 Process Valves | 3 Filtration |
| 1 Static Mixers: Helical and High Shear | 3 Eductors and Ejectors |
| 2 Static Mixers: for Gas and Low Viscosity Liquids | 4 Process Vessels |
| 2 Thin Film and Short Path Processors | 4 Hastelloy, Inconel, and Titanium Pipe and Fittings |
| 2 Drum Dryers and Cooling Drum Flakers | 4 Continuous Process Dryer |
| 3 Thermal Shut-offs for Fire Safe Valves | 4 Desuperheaters |

Process Valves (Strahman)

Strahman is a leading manufacturer of process valves. In 2004, they acquired MG Process Valves and now offer a complete line of valves including:

- Drain
- Gate (standard and severe service)
- Injection
- Line blind / Goggle
- Diverter / Multi-way (2 – 12 ways)
- Ram / Piston
- Sampling
- Spray rinse
- Tank bottom

Most valves can be supplied with jackets, vacuum hoods, butt weld or flanged connections, and a variety of seals, seat designs, actuators, and configurations.



Static Mixers: Helical and High Shear (Samhwa)

Helical Mixers — Four types are available:

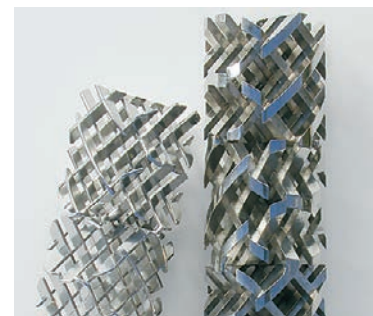
General Purpose: For liquid and powder mixing, reaction, extraction, dividing, composition, coloring, emulsification, heat exchange, pH control, neutralization, diffusion.

Food / Pharmaceutical: For applications such as edible oil, mayonnaise, ice cream chocolate, beverage/milk industry, ketchup, pharmaceuticals.

Viscous Fluids / High Pressure: Used for molten resin coloring and polymer mixing, plastics extrusion, mixing and dividing in chemical fiber processing, adhesives, and other high viscosity fluid mixing.

Pilot Plant: Applications include laboratories and pilot plants, mixing of small quantities, and mixing of two-component resins (resin + hardener).

High Shear Mixers — Compared to helical mixers, HSM mixers are better for low/low or low/high viscosity liquids, liquid/gas, and gas/gas mixing applications in most cases. HSM mixers have a higher pressure drop than helical mixers.

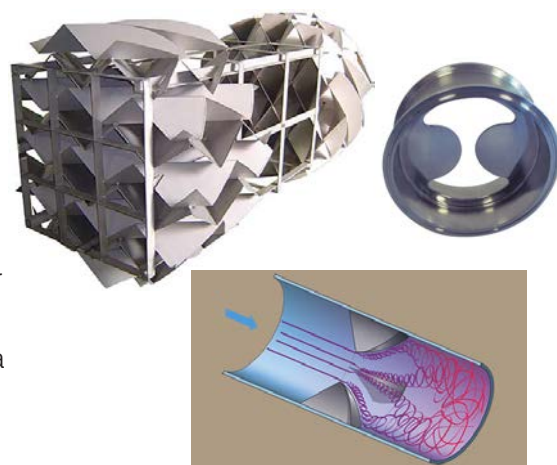


Static Mixers: Gas and Low Viscosity Liquids (Samhwa & Westfall)

JLS offers a variety of static mixers for low viscosity liquids and gases.

- HSM-L type mixers from Samhwa.
- Injection mixers offered in 3 beta ratios and pipe sizes up to 120”.
- Unique vane mixers for low head applications; available in one, two, or three-stage versions, and pipe sizes up to 120”.
- Conditioning mixers that eliminate swirl caused by pipe bends and other conditions; available in pipe sizes up to 120”.

These mixers require no maintenance and produce the desired results in a very compact space.

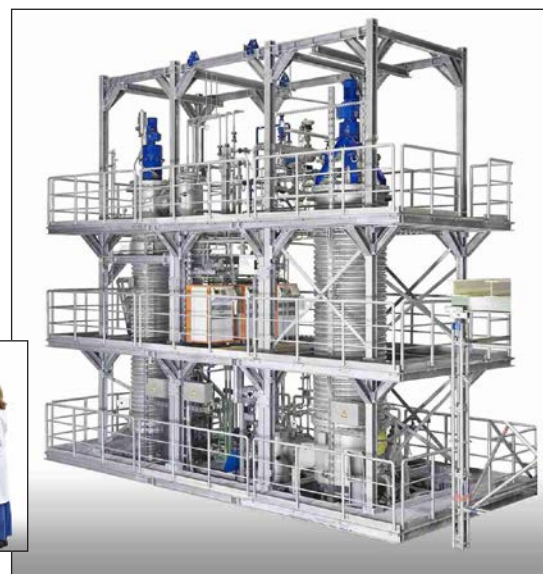


Thin Film and Short Path Processors (VTA)

JLS represents VTA, a world leader in providing short path, thin film (rigid rotor), and wiped film processors and systems for evaporation and distillation. These systems provide continuous, reliable processing of many heat sensitive materials without product degradation.

VTA is very experienced with building large capacity units and is especially capable of designing and building skid systems of any size. Applications include solvent recovery, mass reduction, stripping, devolatilization, and concentration of process streams.

For R&D facilities, VTA offers a variety of lab units and mini-plants for development work.



Drum Dryers and Cooling Drum Flakers (Buflovak)

Drum Dryers are available in single and double drum models. Single drum units may be dip or splash fed, or equipped with applicator rolls. The latter is particularly effective for drying high viscosity liquids or pasty materials such as mashed potatoes, applesauce, fruit-starch mixtures, gelatin, dextrine-type adhesives, polyacrylamide, synthetic resins, and various starches.

Double drum dryers are the most versatile and widely applied. These dryers are used to dry many food, chemical, and pharmaceutical materials of widely varying densities and viscosities: dilute solutions, heavy liquids, pasty materials, or fairly heavy sludges. The movable drum permits complete control of product film thickness. Feed may be by perforated tube trough, pendulum, or special engineered devices.

Cooling Drum Flakers — Special applications include single drum, double drum, twin drum, and special flaker configurations. Enclosures range from dust-tight, vapor tight, and extra tight designs.

Testing Lab and Rental Units — Buflovak maintains a complete testing facility for testing your product on all their equipment. Also rental units are available for some applications and equipment for use at the customers facility.



Thermal Shut-offs for Fire Safe Valves (Bi-Torq)

Bi-Torq, a Strahman company, is a leader in the manufacture of fusible link thermal shut-off assemblies for fire safe quarter-turn valves. Bi-Torq also offers fire safe ball and butterfly valves as well as actuators and automation accessories for those valves. Deadman handles and auto lock-out kits are also available.

Thermal Shut-off Features

- FM approved
- Can be applied to any API 607 fire safe valve, up to 24 inch size
- Most valves can be manually operated even when armed
- Remote activation options available
- Variety of activation temperatures available



Filtration (IPEG)

JLS offers a number of solutions for filtration and separation in chemical process applications.

Filters

- Cartridge
- Activated carbon
- Metal
- Automatic filter systems

Separators

- Liquid/liquid and liquid/gas coalescers
- Steam condensate separators

Strainers

- T- and Y-types
- Bucket
- Dual
- Automatic systems

Specialized systems are also available.



Eductors and Ejectors (Samhwa)

Eductors — These jet mixing eductors are placed in a vessel and fed by a recirculation line. The recirculated liquid sucks in surrounding liquid from the vessel, mixes with it, and is ejected. The ejected liquid promotes further mixing by forming a swirling flow inside the vessel.

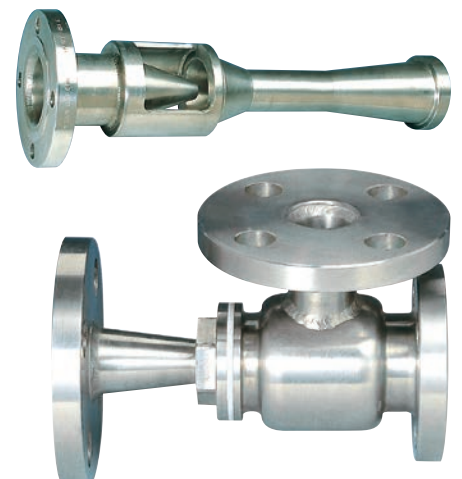
Ejectors — We offer four types. Ejector systems are available for producing higher vacuum levels.

Steam: These offer a range of vacuum levels using steam as the motive fluid. Single stage units are for low vacuum use, while high vacuum applications require multistage designs with intercondensers.

Steam Jet Liquid: For transporting, discharging, or heating liquid with high speed steam as the motive fluid.

Liquid: Used to suck and mix, transport, or compress fluids using high speed fluid (usually water) as the motive medium.

Air: Installed in the suction line of a water sealed vacuum pump, using atmospheric air as the motive medium.



Process Vessels

Our fabricators are capable of building vessels, heat exchangers, and systems to almost any specification and to the major standards such as ASME, ANSI, DIN, JIS, KS, and Nuclear. They have manufactured vessels and systems for major corporations around the world.



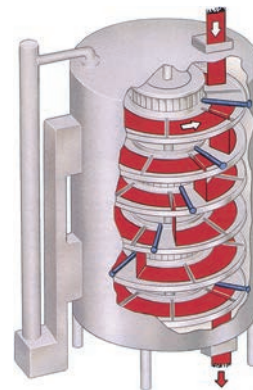
Hastelloy, Inconel, and Titanium Pipe and Fittings

JLS has access to a large quantity of pipe, tubing, fittings, and fasteners made from Hastelloy, Inconel, Titanium, and other exotic alloys. These partners also maintain larger stocks of Hastelloy, Inconel, and Titanium sheet and bar from which pipe can be fabricated.



Continuous Process Dryer (Wyssmont)

The Turbo-Dryer® is a very versatile dryer offering gentle handling with little dust or fines, product mixing for high uniformity, and the tightest temperature control of any dryer available, up to 650 °C. It can operate as a dryer, cooler, reactor, heat treater, calciner, humidifier, agglomerator, sublimator, roaster, or combination of these. Various models are available, including explosion-proof, environmentally sealed, and solvent recovery.



Desuperheaters (Samhwa)

Samhwa's desuperheaters produce saturated steam, low pressure/ low temperature steam from superheated steam, or high pressure/ high temperature steam by injecting water directly into the steam.

Four types are available:

- Single venturi
- Double venturi
- Variable orifice
- Atomizing

Each type has different characteristics; we will work with you to determine which is best for your application.

Benefits

- No noise or vibration
- Uniform temperature of saturated steam
- No component failures or parts to be maintained
- No high pressure water supply required
- Can be used even when there is a large temperature difference between superheated and desired steam



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