



P R O D U C T   O V E R V I E W

## Why Choose Jongia

Being an innovative stirring & mixing equipment supplier, we earned a leading position in the Netherlands over the years. Our high-quality mixers and other products are now exported all over the world. Global reach is supported locally through a wholly owned subsidiary in the US and a network of associated companies and agents worldwide.

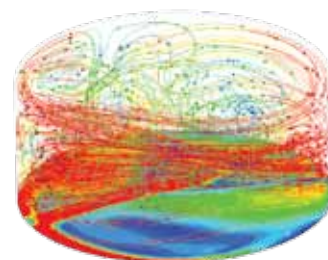
Our capabilities and strengths:

- Jongia has collected technical know-how over many years, specializing in stirring and mixing products.
- Production with controlled manufacturing quality.
- High-reliability of Jongia mixing systems.
- Simple design ensures the need for only a minimum of spare parts and maintenance.
- 24-hrs service and availability in Jongia's workshop and at site
- Full test facility, which enables all produced mixers to be tested before expediting
- CFD and final element analysis can be executed by our engineers

## What we do

Jongia are experts in the designing, engineering and manufacturing of stirring and mixing equipment for applications in the (petro)chemical, pharmaceutical, food processing, sustainable energy and waste water treatment industries.

Over 75 years of experience, extensive knowledge and total commitment have resulted in Jongia building a reputation as an innovative supplier of first class mixing equipment. For example, Jongia pioneered mixing systems for difficult to dissolve powders, systems for premixing and for slurries containing a high percentage of dry solids or having a high viscosity. Over the years, Jongia has earned a front leading position as specialist in fluid mixing.



## How we work

Working closely together with the client, Jongia's aim is to achieve the best possible solution for the given process, choosing from its comprehensive range of top entry, side and bottom entry as well as dynamic and static in-line mixers and powder dissolving systems. Jongia is able to validate your process by means of systematic calculations and lab-scale simulations. In this way, Jongia meets all requirements of customers requests and is able to supply process reliability and sustainable products.

## What we aim for

At every stage of the engineering, production and installation process, Jongia seeks a firm balance between price and quality. Competitive prices and short lead times are guaranteed.

## You need Maximum reliability?

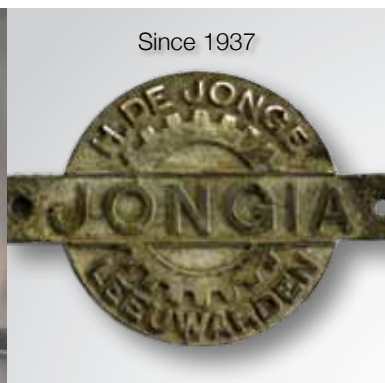
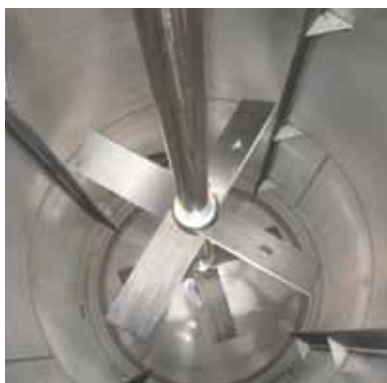
Skilled craftsmanship guarantees durability. The lifetime of a Jongia mixer is often more than 30 years. The inherent operational reliability ensures low levels of maintenance and repair activities resulting in a minimum cost of ownership.

## How we test and develop

Experienced process engineers are available for consultation and expert advice. New technologies requiring innovative equipment can be tested in Jongia's in-house test laboratory. Processes can be simulated on scale, allowing the most suitable solution for real-scale situations to be achieved. Also CFD can be executed on all Jongia's mixer designs. In addition to these activities endurance tests on wearing parts can also be conducted at Jongia's testing facilities. In close collaboration with our R&D team clients have been able to achieve process improvements in many occasions for Food, Chemical, Sustainable Energy and other industries.

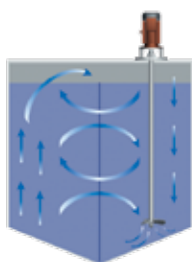
## We will serve you

Jongia offers the type of high quality service clients demand in the framework of Total cost of ownership and TPM strategies. For that very reason service and maintenance costs are an integrated part of Jongia's mixer program. Obviously swift reaction times and the availability of experienced and qualified service engineers still count as much as ever. Therefore Jongia is able to meet your service requirements. You can count on us!

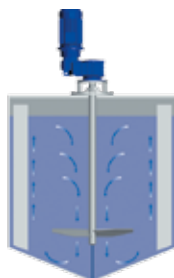


# Flow patterns

Propeller



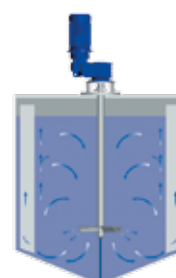
Hydrofoil



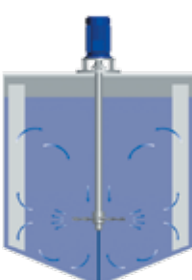
Trapezium Turbine



Axialflow Turbine



Sawblade / Dispersion blade



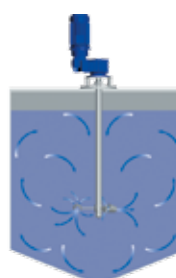
Flatblade / Rushton blade



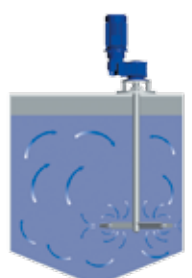
Radialflow Turbine



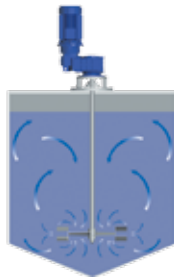
Cupmixer



Counterflow Turbine



Multi Counterflow Turbine



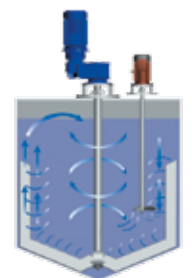
U/Z Turbines



Counter Rotating Elements



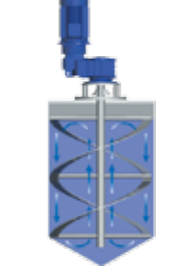
Anchor



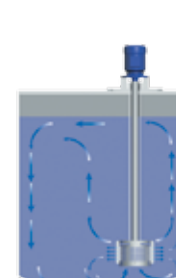
Gate



Ribbon



Rotor/Stator High Shear



# Mixing Elements

## Propeller

1-800 cp  
3-15 m/s  
D-d/0,1-



## Hydrofoil

1-25000 cp  
1-10 m/s  
D-d/0,2-0,6



## Trapezium turbine

1-10000 cp  
1-10 m/s  
D-d/0,2-0,8



## Axiaflow turbine

1-50000 cp  
1-5 m/s  
D-d/0,2-0,6



## Sawblade

1-8000 cp  
5-30 m/s  
D-d/0,1-0,3



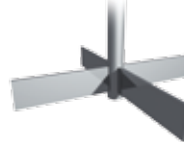
## Flatblade/Rushton

1-10000 cp  
1-5 m/s  
D-d/0,1-0,3



## Radialflow turbine

1-50000 cp  
1-5 m/s  
D-d/0,2-0,7



## Cup-mixer

1-8000 cp  
3-15 m/s  
D-d/0,1-0,5



## Counterflow turbine

1-80000 cp  
3-15 m/s  
D-d/0,2-0,9



## Multi counterflow turbine

1-800 cp  
3-15 m/s  
D-d/0,2-0,9



## U/Z turbines

1-50000 cp  
1-5 m/s  
D-d/0,2-0,6



## Combination elements

1-125000 cp  
1-15 m/s  
D-d/0,1-1



## Anchor

1-100000 cp  
1-2 m/s  
D-d/0,95-1



## Gate

1-100000 cp  
1-2 m/s  
D-d/0,9-1



## Ribbon

>10000 cp  
0,1-1 m/s  
D-d/0,9-0,98



## Rotor/stator

1-1000 cp  
10-20 m/s  
D-d/0,1-0,3



## Jet mixer



## Static mixer



## Dynamic in-line mixer



## Mobile lifting device



# FOOD PROCESS

## Type JDR

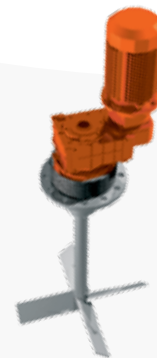
An innovative design topflange agitator. No gearbox necessary due to variable rpm options. Oil leakage and contamination of the tank contents with lubricants is therefore impossible. In addition the mixer shaft is fitted directly into the drive, eliminating the need for an extra shaft coupling. This strong and practically maintenance-free mixer is especially suited for applications in the food, nutritious and pharmaceutical industry.



## Type L

The L type mixer is especially designed for versatile industrial applications. The mixer shaft is mounted in the hollow drive shaft of the transmission.

When the shaft length exceeds 5 metres, a bottom bearing or an additional mixer housing with bearing section may be added. This type of mixer is particularly suitable for combining with a large range of sealing systems, varying from a covercap, lip seal, or stuffing box to simple or complex mechanical seal configurations.



## Type KL/FTD

A light, solid mixer powered by an electrical or pneumatic motor. The KL version is easily fastened to the vessel wall by way of a unique, adjustable clamping device. The FTD version is fitted with a mounting flange. Double bearings ensure a stable construction and compact size.



milk  
ice Cream  
paste.  
dairy  
fruit  
emulsion  
powder



### **Type JDRW**

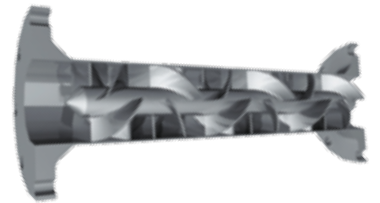
Jongia's direct driven side-entry mixer is suitable for mounting in the vessel wall or bottom. The mixer shaft is directly coupled onto the drive creating a short build-up length. The mixer is fitted with either a single inside mechanical seal, or an outside single or double mechanical seal with a sealing liquid system. The mixer can be placed close to the bottom, due to a very compact construction.. JDRW side entry mixers have a large pumping capacity combined with low shear making them ideal for larger (high) tanks. A manually or pneumatically operated leak stop can be fitted. As 3-A symbol holder Jongia supplies side-entry mixers for sanitary applications with special, easily cleansable seals.



### **Type SBM (static mixers)**

The In-Line Tube Mixer type SBM has no moving parts.

The in-line mixer simply consists of tube with a removable mixing element with specially designed flights to create multiple splitting, rotation and pulsation of product streams. A variety of applications include standard mixing, blending, as well as dispersion, aeration, de-aeration, heating and cooling and chemical reactions.



### **Type VHS (dynamic in-line mixers)**

Jongia's dynamic in-line mixer has been designed especially to achieve extremely intensive mixing whilst maintaining very short residence times. As a result small quantities of additives can be mixed with a relatively high, continuous process stream in a very brief time.

In particular when a component or ingredient must be added just before the next step in the process or before filling takes place, Jongia's in-line mixer offers a good solution.



# CHEMICAL PROCESS

## Type HD

The HD mixer is designed for heavy industrial applications, when relatively long shafts without bottom bearing, relatively high installed power, high pressures and temperatures are concerned. Radial and axial loads on the drive are completely absorbed by a separate double bearing section and the flexible coupling connecting the mixer shaft to the drive. The modular construction allows easy mounting of whichever kind of shaft seal required. An optional spacer coupling in the mixer housing allows fast and simple replacement of the seal without removing drive or mixer shaft. Seals, bearings, spacer and flexible coupling are easily accessible for inspection and maintenance.



## Type N

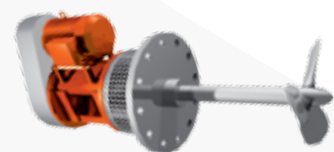
Mixer type N enhances a transmission with an outgoing shaft which is connected to the mixer shaft with a rigid coupling. The coupling is mounted in a torsion-free and easily accessible mixer housing with an integrated double, self-aligning bearing section. Radial loads on the drive are largely absorbed ensuring good running characteristics and excellent durability.

The design is also very suitable for longer shaft lengths without the need for a bottom bearing. Modular construction allows easy mounting of whichever kind of seal required.



## Type Sydmikser RWM

Jongia's Sydmikser type RWM is a side entry mixer suitable for heavy duty and large tank capacities. The mixer shaft has a separate bearing and is coupled to the drive with a tooth belt type transmission. The mixer is provided with an outside single or double mechanical seal. As an option the mixer can be equipped with a tank-shut-off system. Also a combination with a swivel angle is applicable. With this configuration the mixer is especially suitable for large storage tanks. The Sydmikser is executed with Jongia's Hiflo prop for ultimate hydraulic performance. A heavy petrochemical industry execution in accordance with API is available.



polymers  
petroleum  
grease oil  
chloride  
paints





### **Type CRM (Counter Rotating Mixers)**

When a process requires the mixer to perform more than one specific duty our combination mixers could be the answer.

Depending on the requirements a vessel can be fitted with 2 or more separate mixers. A wide range of combinations is available. A commonly used solution is that of an anchor type mixer with an axial flow type, dispersion or propeller type mixer.

When the size of the vessel top limits the use of various separate mixers, combi-systems with a special hollow shaft construction are recommended. These mixers are built on top of each other with the shaft of the one mixer passing through the other mixer shaft, each shaft being driven separately.



### **Jongia powder dissolving equipment**

For homogeneous mixing of powders in liquids Jongia offers powder dissolving installations, manually operated as well as automated.

The effective, sanitary Jetmixer that does not contain any moving parts forms the heart of the installation. Depending on the ingredients, the flow characteristics of the powder and the desired concentration the installation can be operated in-line or circulatory.



### **Lifting stands**

Jongia's lifting stands for smaller and medium-sized mixers are tailor-made to meet the specifications of our clients. They are available in wall as well as floor-mounted versions, fixed or mobile and in a rigid design.



# SUSTAINABLE ENERGY & WASTE WATER

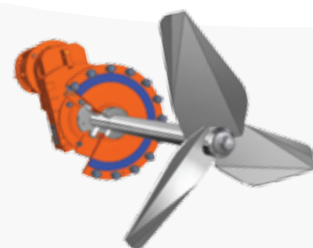
## Type L

The L type mixer is especially designed for light industrial applications. The mixer shaft is mounted in the hollow drive shaft of the transmission. When the shaft length exceeds 5 metres, a bottom bearing or an additional mixer housing with bearing section may be added. This type of mixer is particularly suitable for combining with a large range of seals, varying from dustcap, lip seal, or stuffing box to mechanical seal.



## Type Sydmikser JRWM

Jongia's Sydmikser type JRWM is a very compact, rigid and reliable side entry mixer, typically applicable for large capacities, heavy duties and requires very few maintenance. The JRWM is mostly applied on tanks with sludge, relatively high dry solids and fluids with particles. For example, type JRWM is applied in Biogas tanks and waste water systems. The JRWM can be executed with a wide variety of mixerblades, however together with the Hydrofoil 2 version mixerblades, the JRWM is unbeaten in its field. Almost all mechanical seal constructions, even stuffing box systems can be applied. The gearbox has an extended bearing distance incorporates the oversized shaft. Equipped with a tank-shut-off system, the JRWM is your most versatile side entry mixer.



## Type HD

This mixer is designed for heavy industrial applications, when relatively long shafts without bottom bearing, relatively high installed power, high pressures and temperatures. Radial and axial loads on the drive are completely absorbed by a separate double bearing section and the flexible coupling connecting the mixer shaft to the drive. The modular construction allows easy mounting of whichever kind of shaft seal required. The robust construction of the rigid torsion-free mixer housing and the precision of the running characteristics guarantee the durability of the shaft seal. For use on reactor and high-pressure vessels an extra axial bearing is incorporated in the bearing section. An optional spacer coupling in the mixer housing allows fast and simple replacement of the seal without removing drive or mixer shaft. Seals, bearings, spacer and flexible coupling are easily accessible for inspection and maintenance.



digestate  
biogas  
slurry energy  
fermentation

## International Quality Standards

Consistency and quality in our services are achieved through internal and external quality assessment systems. Thus Jongia is ISO 9000:2008 (Bureau Veritas) and VCA certified (Lloyds).

Jongia's quality management system is also approved for ATEX by KEMA Institute. This means that we are certified to manufacture mixers for zone 0/20 in the vessel regardless of whether these mixers are fitted with stuffing box type seals, lipseals or mechanical seals.

In addition Jongia is authorized to affix the 3A symbol to its mixers to indicate that they meet some of the strictest sanitary standards as set by 3A Sanitary Standards Incorporated. The 3A organization is distinguished by a remarkable history of serving public health through the development of standards for the advancement of food sanitation and hygiene.



## Stibbe Management Strategy and Investment Group

Jongia Mixing Technology is wholly owned by Stibbe Management.

Stibbe Management Strategy and Investment Group is currently clustered in 4 divisions. Within each company division, synergy between the independently operating companies is achieved in the areas of technology development, commercial strategy and shared services. For more info go to [stibbemanagement.com](http://stibbemanagement.com)

## Other Stibbe Management Companies

<b>terlet.com</b>	(food process equipment)
<b>heinkel.de</b>	(pharma and fine chemical equipment)
<b>nihot.nl</b>	(waste management systems)



## Representatives and Agents

Jongia has a world wide network of allied companies, resellers and agents. Each of these can be found on our website.





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