

MASINO INDUSTRY

Industrial piping products

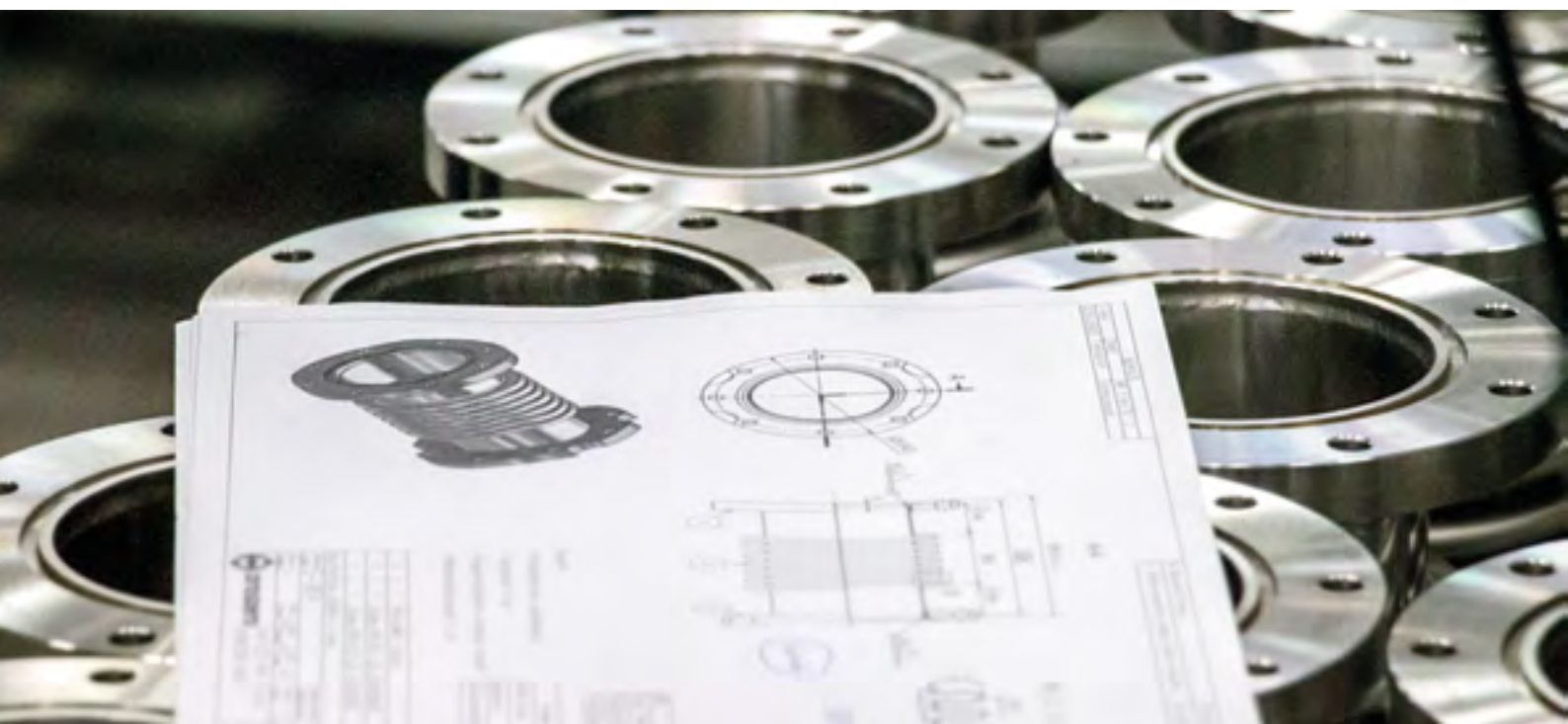




Masino Industry – a piping product supplier that understands the entire production chain

Masino Industry is a Finnish supplier of high-quality piping products. Our production facility, which is located in Ylöjärvi, manufactures expansion joints, hose assemblies and flexible joints for challenging industrial applications. Our products are known for their high quality, and the majority of our products are exported.

Masino Industry is part of Masino Group.
Read more at [masino.fi](https://www.masino.fi)





Our products meet the strictest quality requirements

The operations of Masino Industry are based on the ISO 9001 quality management system and a quality certificate based on the ISO 3834-2 standard. Our quality management system also covers the design and manufacture of products pursuant to the Pressure Equipment Directive 2014/68/EU Module H.



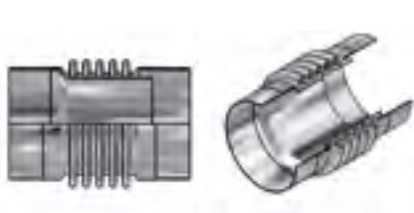
Hose assemblies welded at our plant are delivered fully tested in accordance with the ISO 10380 standard. We have also implemented the ISO 45001 occupational health and safety management and the ISO 14001 environmental management standards.

Our extensive certification is built on solid expertise, strong know-how and an active service attitude that manifest as high quality to our customers. Together, these characteristics ensure outstanding products designed to meet our customers' needs in all applications and projects anywhere in the world.



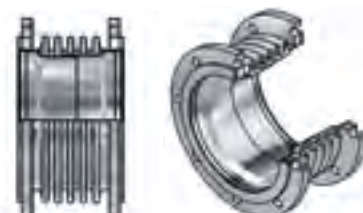
Metal expansion joints

Our metal expansion joints are made to measure in line with our customers' needs. Subjected to meticulous testing, the metal expansion joints can be used to compensate for thermal expansion and mechanical vibration and to reduce noise in piping systems. Their applications include district heating and process industry pipelines, shipbuilding and power plants.



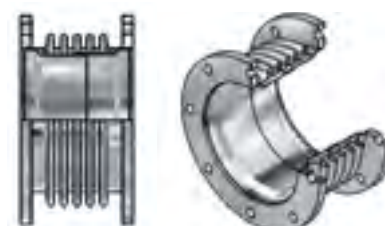
PRRA expansion joint with welding ends

Typically used for axial movement but use for angular and lateral movement is also possible.



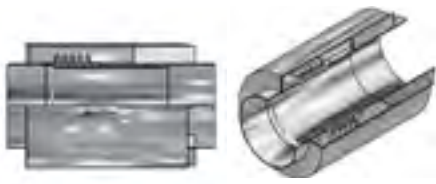
PRFI (PRFU) expansion joint with loose flanges

Typically used for axial movement but use for angular and lateral movement is also possible.



PRFA expansion joint with fixed flanges

Typically used for axial movement but use for angular and lateral movement is also possible.



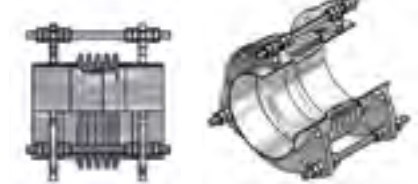
PRRO expansion joint with a external guide sleeve

Only for axial movement.
Can also be equipped with length limiters.



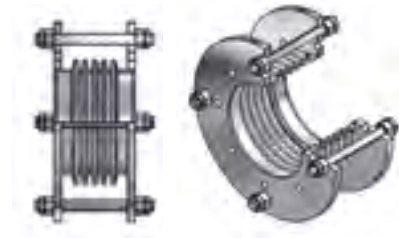
PRRC (PRFC) Gimbal expansion joint with welding ends

Only for angular movement on any plane. (PRFC, similar to PRRC but with flanges.)



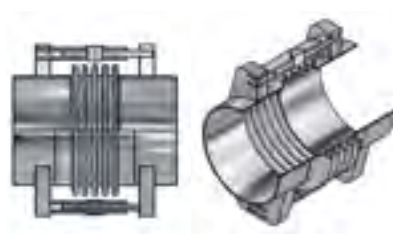
PRRV expansion joint with tie rods and welding ends

Typically used for lateral movement on any plane but axial movement is also possible.



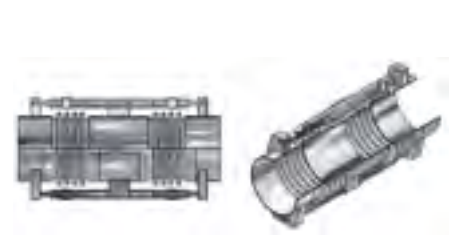
PRFV expansion joint with tie rods and flanges

Typically used for lateral movement on any plane but axial movement is also possible.



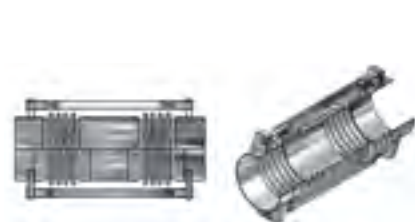
PRRN-1 (PRFN-1) Hinged expansion joint with welding ends

For angular movement on a single plane. (PRFN-1, similar to PRRN-1 but with flanges.)



PRRN-2 (PRFN-2) Hinged double expansion joint with welding ends

Typically used for lateral movement on a single plane also suitable for extensive angular movement on a single plane. (PRFN-2, similar to PRRN-2 but with flanges.)



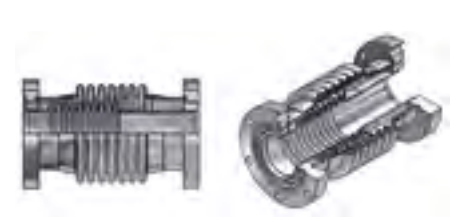
PRRL (PRFL) Hinged double expansion joint with gimbals and welding ends

For lateral movement on any plane. (PRFL, similar to PRRL but with flanges.)



PRPB Pressure balanced expansion joint

For axial and/or lateral movement. Eliminates pressure thrust force from pipe supports. Only remaining loads are caused by expansion joints' spring rates and friction forces from hinge mechanisms. Available in straight pipeline or 90° elbow versions.



Double wall structure

For special applications where additional reliability is required, we can offer expansion joints with a double bellow structure. These expansion joints are used in applications such as LNG pipelines.



Metal hoses

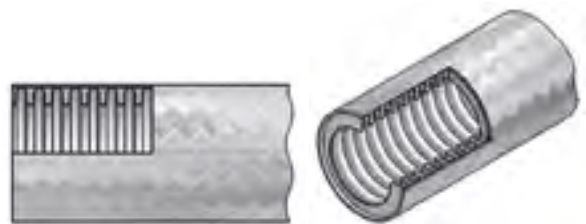
Our metal hose assemblies are manufactured in Ylöjärvi, Finland. With their high resistance to chemicals, mechanical wear and fluctuations in temperature, these products are used in pipes for steam, condensation, gas, oil and chemicals. The hoses are rigorously tested and have several type approvals from various classification bodies.

Structure:	Corrugated all-metal hose from butt-welded pipe
Corrugation:	Austenitic stainless steel 1.4404 and other materials when necessary
Weave:	Material 1.4301, when necessary also material 1.4404
Connection pieces:	Flanges, threaded joints, welding ends and other pieces available on the market
Sizes:	RS 331 / RS 330: DN 4-300 RS 531 / RS 430: DN 5-300
Pressure tolerance:	RS 331 / RS 330: max. 150 bar (depending on the size and operating temperature) RS 531 / RS 430: max. 250 bar (depending on the size and operating temperature)
Temperature tolerance:	-270 °C ... +550 °C



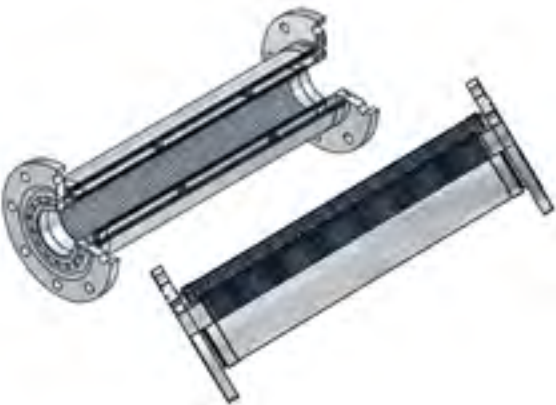
Hose type RS 331 (... DN 100)
Hose type RS 330 (DN 125 ...)

Medium-heavy structure, normal corrugation.



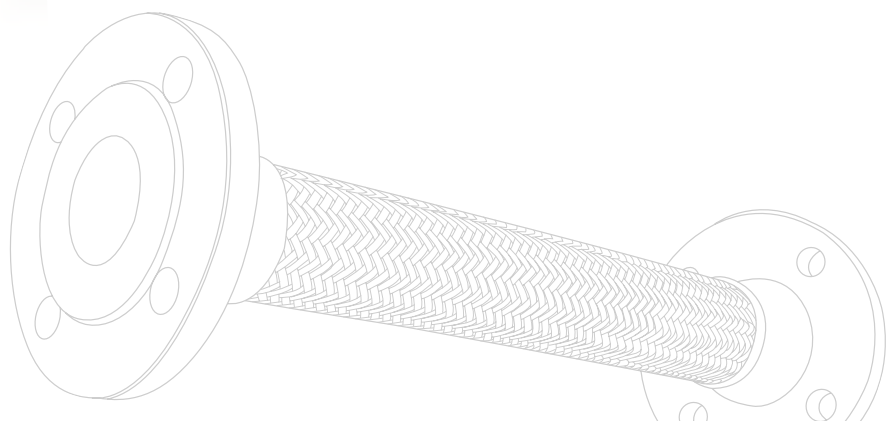
Hose type RS 531 (... DN 16)
Hose type RS 430 (DN 20 ...)

Heavy structure, normal corrugation.



Double wall structure

For special applications where additional reliability is required, we can offer hoses with a double wall structure. These metal hoses are used in applications such as LNG pipelines.

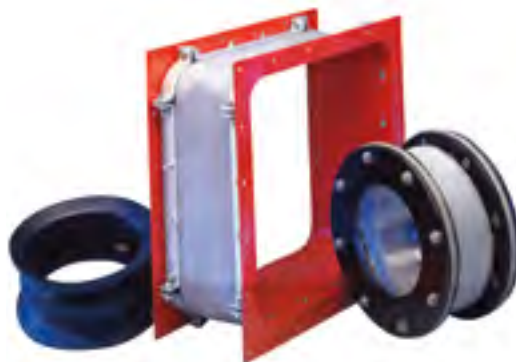


Other piping products



Masino rubber expansion joints

The Masino rubber expansion joints are used to compensate for thermal expansion and vibration, to reduce noise and to eliminate any deviations in installation caused by the axial and lateral movement of the structure. Applications include cooling pipes in power plants and other large facilities, desalination plants, potable water pipes, shipbuilding, pumps, turbines and containers.



Masino flexible joints

The products are resistant to chemicals, mechanical wear and large variations in temperature and pressure. The expansion joints are made of materials such as non-woven fabric compounds, Hypalon, Viton, EPDM and PTFE. They are suitable for use in pipes for gas, air, chemicals acids, oil and ozone.



Hydra metal expansion joints

The product is used to compensate for thermal expansion and mechanical vibration and to reduce noise in pipes for steam, condensate water, gas, oil and chemicals.



Air and smoke duct bellows

These products are used in the air and smoke ducts in power plants to compensate for thermal movement. They are made to measure in line with the duct size. Several material options.



Suction hoses

Used for cold and hot air, exhaust fumes and flue gases, for example. Suction hoses for transferring dust and wood and metal chips. Our suction hoses are light-weight and easy to install.



Cable and protective hoses

Suitable for use as a protective tube for electric wires and a cover tube for rubber and plastic hoses and to protect flexible shafts.



PTFE hoses

Very bendy, chemically non-reactive PTFE interior that is resistant to most solvents, acids, bases and other chemicals. Available in a wide range of sizes and with flanges, threaded joints and customer-specific ends.



siFramo support system

siFramo is a weld-free steel support system for building modular frames and structures. The system enables diverse joints without the need for through-bolts and backplates. The profiles offer high torsional resistance and the adjustment capability of the structural components is excellent.

These CE-approved products offer a unique support system for load-bearing steel structures. The system components have a high HCP corrosion resistance.



Hydra support system

Hydra is a modular support system that is designed for pipes, containers, air and smoke ducts and boilers in various industrial applications.

The Flexperte calculation program is used in the dimensioning and design of the Hydra support system.



**From the drawing
board to production
– with success**

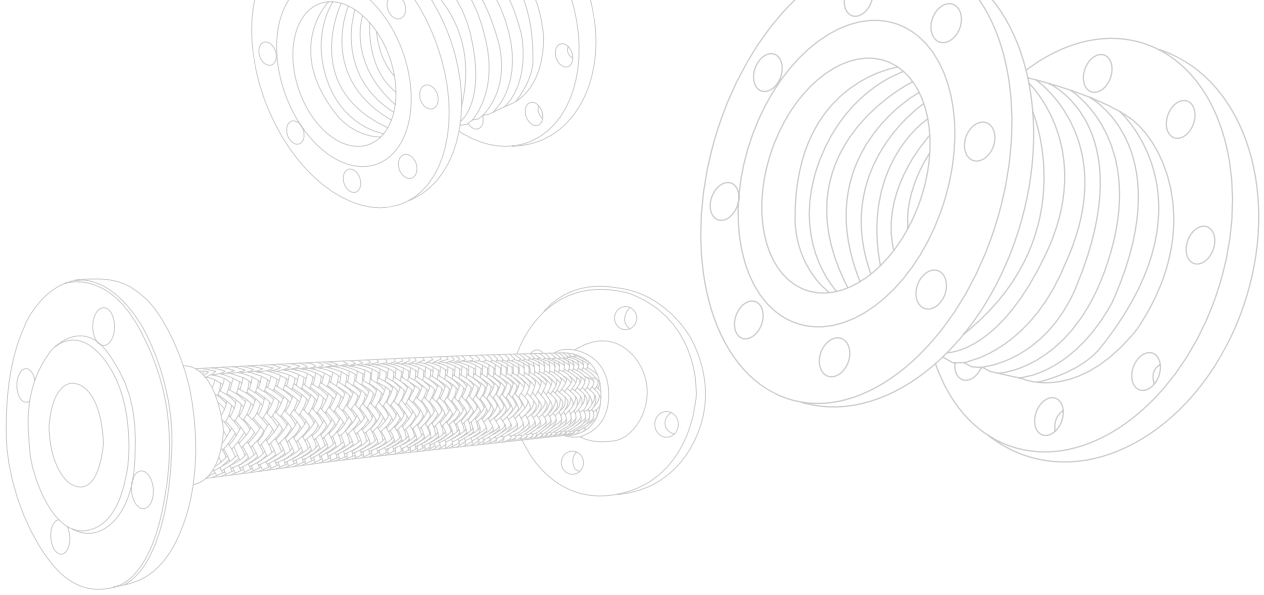
**Masino's extensive
experience of scrubber
technology**

**Read more at
masino.fi/blogi**



Work with a partner that knows the entire production chain

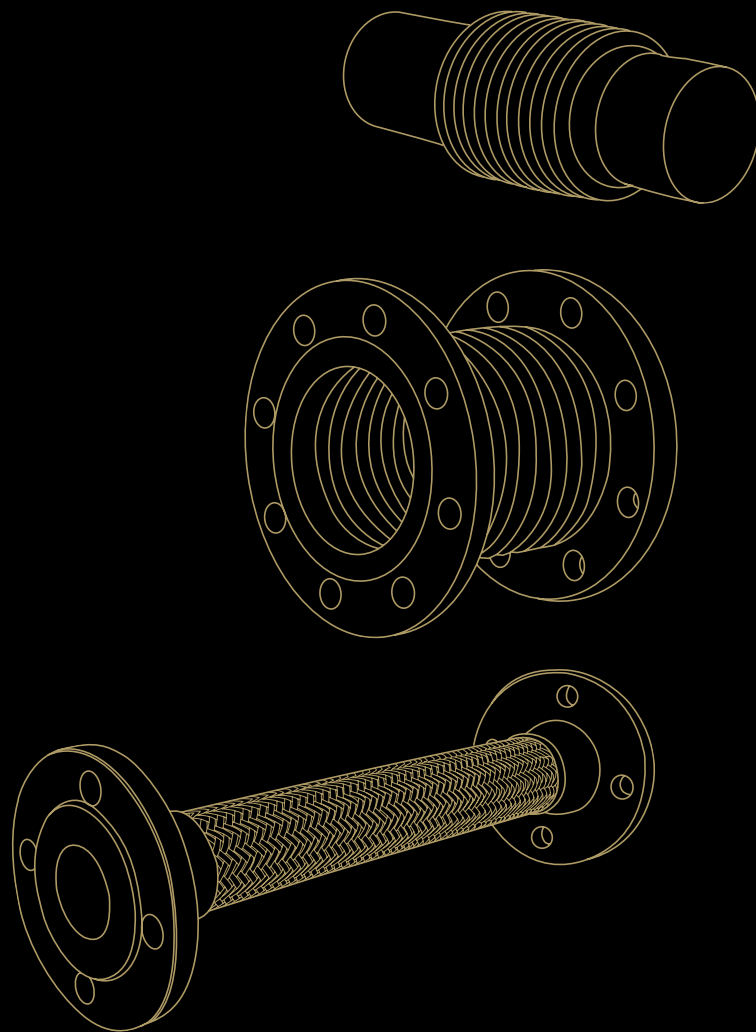
We design, manufacture and deliver the products to your unique needs. We test the products according to your requirements and perform an individual final inspection. Our piping products are guaranteed to withstand the most challenging operating conditions.



References

- Metal hose assemblies in a fiber-line washer lines in Brazil
- Constant power hangers in power plant pipes, Alholmens Kraft, Pietarsaari, Finland
- DN2300 expansion joint in a power plant in Savonlinna, Finland
- Pressure-balanced expansion joint structure, patented by Masino Industry, in a turbine steam line
- Metal expansion joints in Helsinki energy tunnel



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Masino Industry is part of Masino Group. Masino Group consists of companies that specialise in power transmission solutions, hydraulics, filtration technology, pumps, blowers, industrial maintenance, piping products, welding and soldering technologies, rock reinforcement, concrete fibres and HEPAC fixing and installation accessories. Our turnover is approximately €80 million and we employ 180 people. Our branches are located in Vantaa (in two locations), Ylöjärvi, Tampere and Turku.