



COMPOSIT

FLEXIBLE RUBBER HOSES
FOR DREDGING



COMPOSIT

ENDLESS POSSIBILITIES

COMPOSIT

COMPOSIT IS THE
MARKET LEADER IN
RUSSIA AND CIS

No. 1 in Russia and CIS countries

550 qualified employees

5000 happy clients

25 years in business

500 000 m of hoses

OUR CLIENTS ARE SURE OF THE HIGHEST QUALITY
OF OUR PRODUCTS PROVIDED BY THE BEST
PROFESSIONALS IN THE INDUSTRY



COMPOSIT

FUTURE
TECHNOLOGY
TODAY

LEADING MANUFACTURER
OF SLURRY HOSES FOR DREDGING
AND MINING

Composit LLC was founded in 1992 and has been operating ever since. The key fields of Composit LLC operations lie with research, development, and manufacturing of wear-resistant rubber hoses.

The company history began with manufacturing of tracks for snowmobiles and other, and the production range has substantially expanded over time.

As of today, our hoses are successfully used in dredging, mining and processing industries.

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Endless manufacturing possibilities
ENSURE CONTINUOUS DEVELOPMENT
of our technology

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FLOATING HOSES FOR OPERATING IN THE MARINE ENVIRONMENT

Is the most advantageous solution for operating in the marine environment. Compliance with the requirements of modern dredging equipment and suitability for severe service conditions enables maximum profit in big and long-term projects.

Outer protective rubber-fabric layer of the float prevents damage from mechanical effects. Bearing frame has an increased safety factor, it is manufactured of cord fabric and provides hose durability and even distribution of inner loads. The inner wear-resistant layer is twice as thick as the standard structure. This fact considerably prolongs the life cycle of the hoses.

The following standard variants are expected: swivel and nipple flanges. If necessary, the dimensions of the flange connections can be performed at the customer's option. This considerably increases the hoses' life cycle.



BASIC SPECIFICATIONS * Components may be manufactured to individual client requirements

Flange	Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Wear-resistant layer thickness
Nipple	3.0 MPa	4.5 MPa	9.0 MPa	Up to 1200 mm	Up to 11.8 m	Up to 40 mm
Swivel	1.0 MPa	3.0 MPa	5.0 MPa	Up to 700 mm	Up to 11.8 m	Up to 40 mm

FLOATING HOSE WITH PLASTIC FLOAT FOR OPERATING ON RIVERS AND IN QUARRIES



UNIVERSAL SOLUTION FOR OPERATING AS PART OF A DIESEL OR ELECTRICAL DREDGER.

The implementation of 5 plastic floats on the hose section allows the maximum benefit to be achieved owing to reduction of the transportation expenses and economy of time for installation/dismantling. The float is made of wear-resistant plastics, with foam material inside. The floats provide at least 5% buoyancy of the hose completely filled with dredged material.



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Bending radius	Wear-resistant layer thickness
1.0 MPa	1.5 MPa	3.0 MPa	Up to 700 mm	Up to 11.8 m	10-20 DN	Up to 15 mm



FLOATING HOSE WITH PLASTIC FLOAT AS A DREDGER COMPONENT FOR THE OPERATION ON RIVERS AND IN QUARRIES

PRACTICAL SOLUTION FOR OPERATION AS PART OF THE DIESEL DREDGER

Owing to a strengthened design of the float and resistance to external mechanical effects, these hoses represent a favorable price/quality ratio when operated on large bodies of water.

Depending on the diameter, this float consists of two, three or four sections and has a round shape when assembled, which helps to avoid negative external mechanical effects. The floats provide at least 5% coefficient of buoyancy of the hose when completely filled with dredged material.



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Bending radius	Wear-resistant layer thickness
1.0 MPa	1.5 MPa	3.0 MPa	Up to 700 mm	Up to 11.8 m	10-20 DN	Up to 15 mm

FLOATING HOSES WITH PLASTIC FLOAT AS A COMPONENT OF THE ELECTRICAL DREDGER FOR OPERATING ON RIVERS AND IN QUARRIES



COST-EFFECTIVE SOLUTION FOR OPERATING AS PART OF THE DIESEL DREDGER

Its unique design, which allows electrical power cables to be laid, is the best choice when used on small bodies of water.

The upper part of the float is designed to avoid its overturn during operation. Thanks to the use of rubber fabric shock-absorbers, the floats are evenly distributed along the hoses and don't move.

BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Bending radius	Wear-resistant layer thickness
1.0 MPa	1.5 MPa	3.0 MPa	Up to 630 mm	Up to 11.8 m	10-20 DN	Up to 12 mm



SUCTION HOSE WITH STANDARD DESIGN FOR USE WITH A DREDGER



SUCTION HOSE WITH INCREASED BENDING ANGLE FOR USE WITH A DREDGER



THE SUCTION HOSE IS AN INTEGRAL PART OF THE DREDGER

Thanks to the flexibility of the hose, the dredging process is performed without changing the location of the dredger, allowing the customer to get the best benefit. The hose consists of the rubber-fabric frame and reinforcement layer, installed on the vacuum line between the pump and the frame of the dredger. The hoses are manufactured in two options: with an increased bending angle up to 90° and in standard design with bending angle up to 60° .



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Suction hose	Inner diameter	Bending radius	Wear-resistant layer thickness	Vacuum
Standard design	Up to 630 mm	7 DN	Up to 15 mm	- 0.08 MPa
With increased angle	Up to 1200 mm	4.5 DN	Up to 40 mm	- 0.08 MPa

JET HOSE



CONTINUOUS WATER SUPPLY FOR SOIL LOOSENING

Continuous water supply for soil loosening is ensured by flexible hose design, which provides for a constant dredging throughput, thus allowing for maximum dredge efficiency.

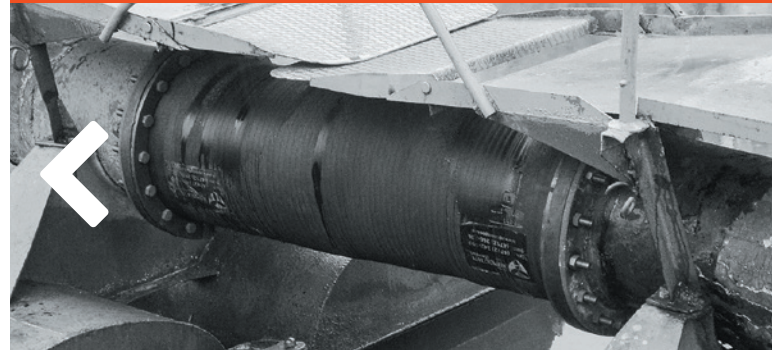
The hose frame is made of rubber and cord fabric. Hoses are available in two versions: flanged and flangeless.



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Bending radius	Inner layer thickness
1.0 MPa	1.5 MPa	3.0 MPa	Up to 630 mm	Up to 11.8 m	10 DN	Up to 12 mm

RUBBER INSERT INSTEAD OF BALL JOINT



CONTINUOUS OPERATION OF FLOATING HOSE WITHOUT WATER LOSSES

Wear resistance, flexibility, and tightness of joints with metal sections ensure continuous operation of the floating hose without water losses. This guarantees maximum economic benefits in comparison to large metal components.

This hose features a reinforced swivel flange and the hose frame is made of rubber and cord fabric.

BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Flange	Working pressure	Testing pressure	Bursting pressure	Inner diameter	Bending radius	Wear-resistant layer thickness
Swivel	1.0 MPa	1.5 MPa	3.0 MPa	Up to 700 mm	10 DN	Up to 20 mm
Nipple	3.0 MPa	4.5 MPa	9.0 MPa	Up to 1200 mm	10 DN	Up to 40 mm



HOSE SYSTEM FOR SUBMERSIBLE PUMP

TO SIMPLIFY EXTRACTION OF DREDGED MATERIAL IN HARD-TO-REACH CONDITIONS

The use of highly flexible hoses helps to enable and simplify extraction of dredged materials in hard-to-reach conditions of small bodies of water. The use of flexible hoses as part of the submersible pump enables a reduction of the initial cost of the dredged material, providing the best efficiency when compared to the use of larger machinery.

Special types of materials are used in the production of the hoses for use with submerged pumps in order to achieve the highest flexibility. The hose design excludes the formation of fractures during operation, providing failure-free service.



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Bending radius	Wear-resistant layer thickness
1.0 MPa	1.5 MPa	3.0 MPa	Up to 457 mm	Up to 11.8 m	10 DN	Up to 12 mm

ONSHORE HOSE OF STANDARD CONSTRUCTION



PROVIDES TRANSPORTATION OF THE ABRASIVE HYDRAULIC FLUID ALONG THE WATER-LINE

The onshore hose is a part of the hose system which provides the transportation of the abrasive hydraulic fluid along the water-line. Wear resistance and durability offer the best economic benefits when operating on long-term projects.

TWO CONSTRUCTION OPTIONS ARE POSSIBLE:

- Bearing frame is manufactured from cord fabric and provides hose durability and even distribution of inner loads.
- Reinforcement of the onshore hoses provides high pressure and anti-vacuum effect.



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Bending radius	Wear-resistant layer thickness	Vacuum
1.0 MPa	1.5 MPa	3.0 MPa	Up to 700 mm	Up to 11.8 m	10 DN	Up to 15 mm	- 0.08 MPa

LAYFLAT FLEXIBLE HOSE



UNIQUE MOBILITY DURING TRANSPORTATION, INSTALLATION AND DISMOUNTING

This type of hose has a unique mobility during transportation, installation and dismounting, which allows you to get the best economic benefit.

The use of special types of cord fabric and rubber mixtures provides the maximum reduced-weight design of the flexible hose. Layflat flexible hose can be mounted with the help of the nipple and flange connection.



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Wear-resistant layer thickness
1.0 MPa	1.5 MPa	2.0 MPa	Up to 530 mm	Up to 11.8 m	Up to 6 mm

SHORT RADIUS RUBBER BEND



LONG RADIUS RUBBER BEND



SHORT RADIUS RUBBER BEND

Used on the most difficult parts of hose systems to change the abrasive mixture stream direction during transportation. Resistance to abrasive wear and minimal flow resistance ensure a long life cycle, which allows you to achieve the maximum result in operation. Considering the fact that the external wall of the bend is the most vulnerable to abrasive wear, the rubber bend has a strengthened design for this part. Any bending angle is possible.

LONG RADIUS RUBBER BEND

Used on the most difficult parts of hose systems to change the abrasive mixture stream direction during transportation. The difference is that the long radius rubber bend has a larger bending radius, so its structure reduces the flow turbulence and minimizes shock loads on the inner surface of the bend.

BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Rubber bend	Working pressure	Testing pressure	Bursting pressure	Inner diameter	Bend angle	Bending	Wear-resistant layer thickness	Vacuum
Short radius	1.0 MPa	1.5 MPa	3.0 MPa	Up to 610 mm	30-90°	1.5 - 5 DN	Up to 15 mm	- 0.08 MPa
Long radius	1.0 MPa	1.5 MPa	3.0 MPa	Up to 610 mm	30-90°	1.5 - 5 DN	Up to 15 mm	- 0.08 MPa



LENS COMPENSATOR

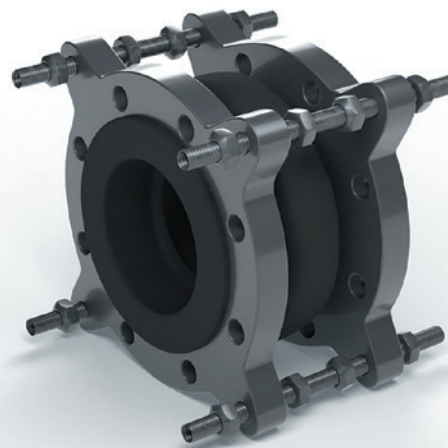
LENS COMPENSATOR

Designed for temperature expansions and shrinkages and to eliminate hoses misalignment. Owing to this, the lens compensator helps to prolong the equipment life cycle.

It is a flexible element manufactured of cord fabric. The inner part is made of natural rubber. The swivel flanges are already embedded into the structure.

VIBRO-INSERT

To prolong the life cycle of the equipment, the vibro-insert is used to eliminate and reduce vibrations and noise, and to absorb hydraulic shocks. The use of swivel and embedded flanges is intended by design.

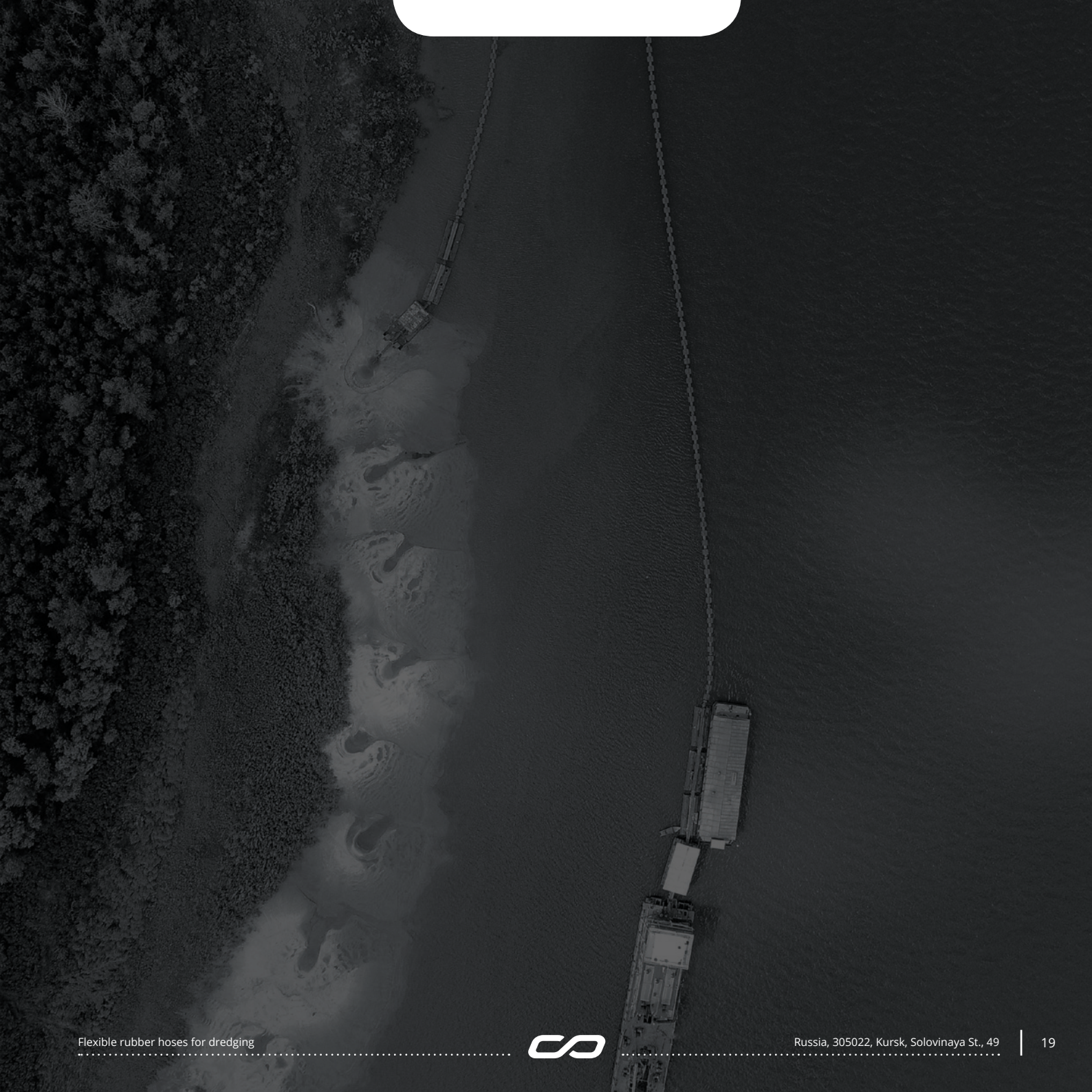


VIBRO-INSERT



BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

	Working pressure	Testing pressure	Bursting pressure	Inner diameter	Maximum length	Squash/Stretch	Axial shift
Compensator	1.0 MPa	1.5 MPa	3.0 MPa	Up to 820 mm	Up to 0.275 m	Up to 40 mm/ Up to 25 mm	Up to 30 mm
Vibro-insert	1.0 MPa	1.5 MPa	3.0 MPa	Up to 820 mm	Up to 2 m	-	-





RUBBER-LINED PRODUCTS **COMPOSIT**

RUBBER-LINED HOSES



The main advantage of the rubber-lined hoses is bearing capacity and record-breaking resistance to external and internal effects. It enables the most efficient operation.

Thanks to its rigid structure, the hose can function even under high pressure.

BASIC SPECIFICATIONS

Working pressure	Inner diameter	Vacuum
2 MPa	Up to 530 mm	- 0.08 MPa

* Components may be manufactured to individual client requirements

RUBBER-LINED BEND



Designed for smooth change of the abrasive slurry stream direction during transportation. Resistance to abrasive wear and operating pressure loads provides failure-free operation, providing maximum benefit.

T-SECTION



It is a hoses system component which separates and combines the transported material flows. The design allows it to withstand high abrasive loads and high pressure loads, which provides failure-free operation.

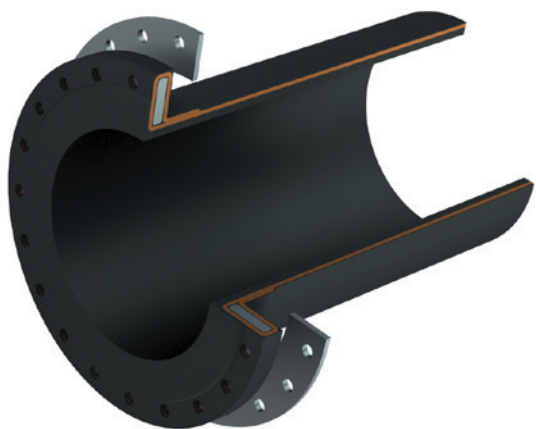
The metal jacket of the product is filled with a wear-resistant rubber layer by means of the extrusion technique and after-vulcanization, which provides the structural integrity and the thickness of the working chamber.

BASIC SPECIFICATIONS *Components may be manufactured to individual client requirements

Rubber-lined	Working pressure	Inner diameter	Bending angle	Bending radius	Wear-resistant layer thickness	Vacuum
Bend	2 MPa	Up to 700 mm	30-90°	1.5 - 5 DN	Up to 40 mm	- 0.08 MPa
T-section	2 MPa	Up to 700 mm	-	-	Up to 40 mm	- 0.08 MPa

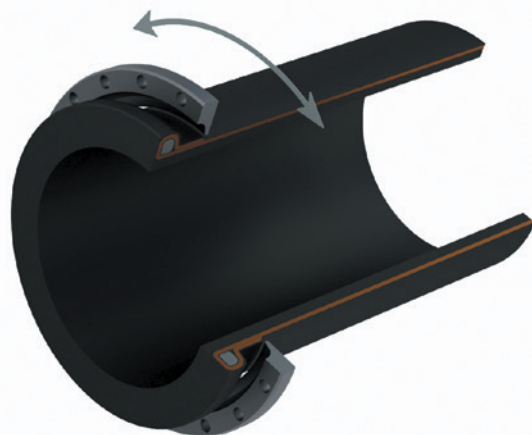


EMBEDDED FLANGE



The embedded flange is a structure of the rubber-coated metal flange element, which represents an integral hose.

METAL SWIVEL FLANGE

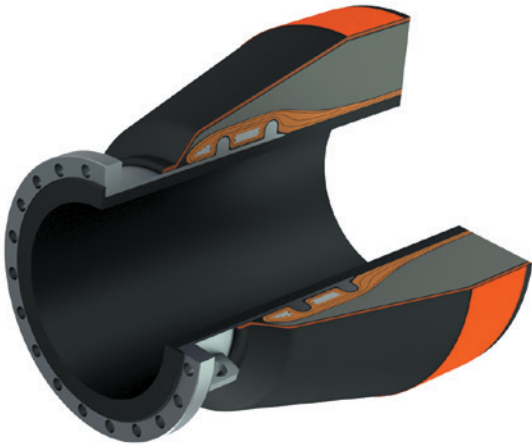


The metal swivel flange is situated on the hose and represents an independent element. It simplifies the installation and dismounting processes.

COMPOSIT

CONNECTION TYPES

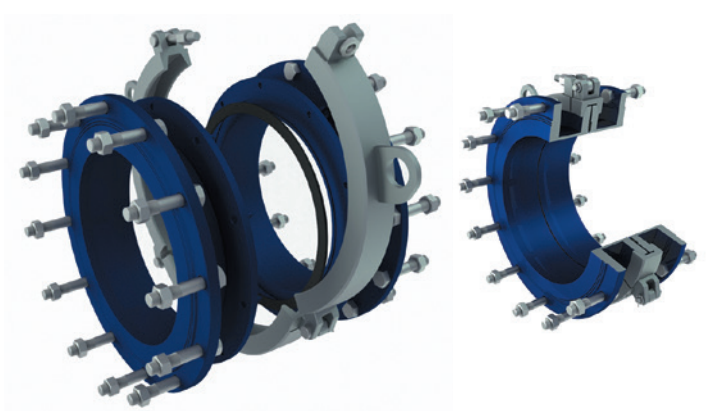
NIPPLE FLANGE



A nipple flange is a flange union embedded into the hose and fixed by the heavy rubber-fabric frame.

The nipple flange is intended for operation under high dynamic and hydraulic loads.

QUICK-RELEASE COUPLING (QRC)



Quick-release coupling (QRC) is a component consisting of three elements and allowing quick dismounting of hose sections and their urgent disconnection.

REPRESENTATIVE OFFICES

Russia
AO "Kanex Trade"
OOO "BPK"

Uzbekistan
AQM "Commercial Limited"

Azerbaijan
AST-Technologiyalari

Kazakhstan
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