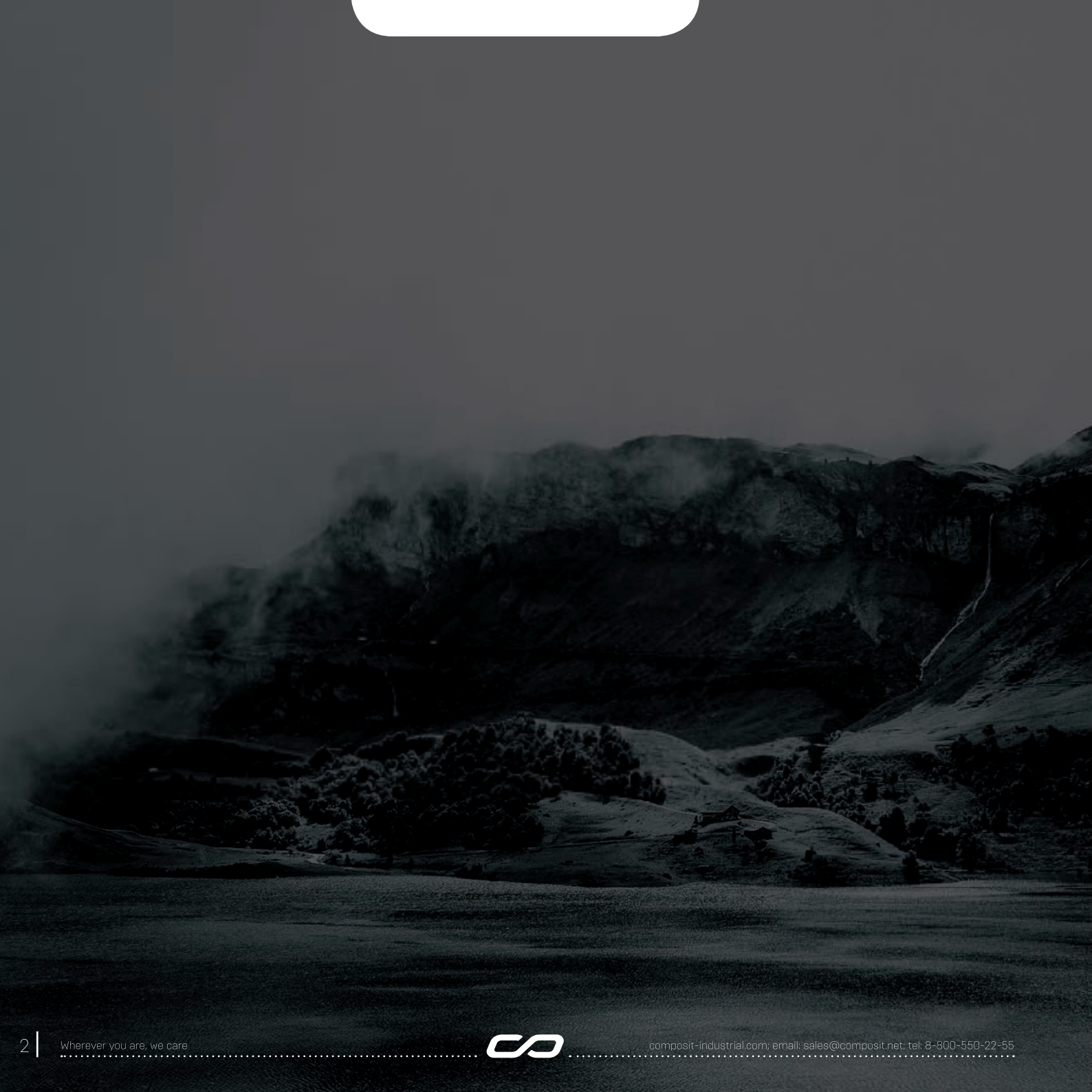




# COMPOSIT

WEAR-RESISTANT SOLUTIONS  
**FOR MINERAL PROCESSING**



# COMPOSIT

ENDLESS POSSIBILITIES

# COMPOSIT

## WHAT IS COMPOSIT?

- 1,000 QUALIFIED EMPLOYEES;
- 10,000 SATISFIED CUSTOMERS;
- 30 YEARS IN BUSINESS.

QUALITY GUARANTEE ENSURED BY THE INTEGRATED  
MANAGEMENT SYSTEM ISO 9001:2015

ENVIRONMENTAL REQUIREMENTS ENSURED BY THE  
IMPLEMENTED QUALITY SYSTEM ISO 14001:2015

OUR CLIENTS CONSTANTLY RECEIVE HIGH-QUALITY  
PRODUCTS MADE BY INDUSTRY LEADERS



**COMPOSIT**

# FUTURE TECHNOLOGIES TODAY

THE LARGEST HOSE MANUFACTURER  
FOR MINERAL PROCESSING AND DREDGING

Composit has been operating since 1992. Composit majors in the research, development and manufacture of wear-resistant rubber hoses.

Firstly, the company was focused on producing tracks for snowmobiles and similar equipment. The range of its products has been gradually expanding over time.

Today Composit products are used effectively in dredging, mineral processing and construction industries.

“

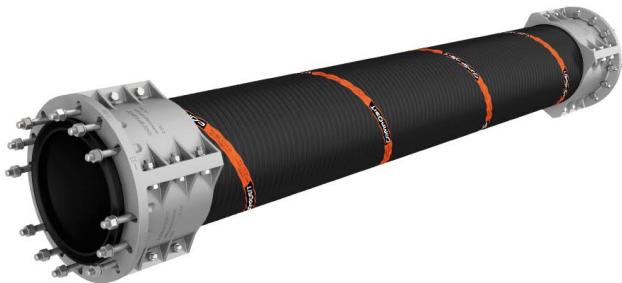
Endless manufacturing possibilities  
**ENSURE THE CONTINUOUS DEVELOPMENT**  
of our technologies

”

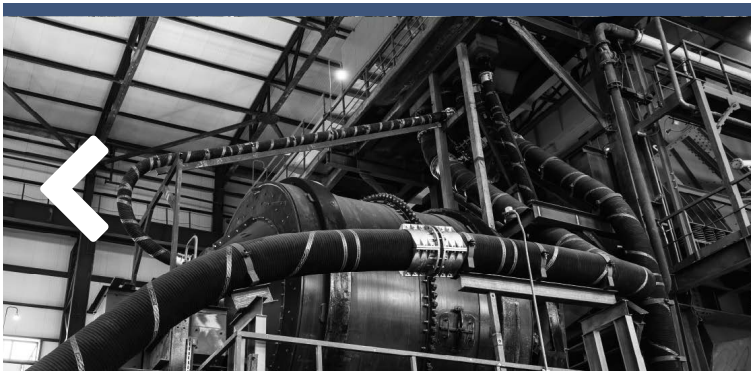
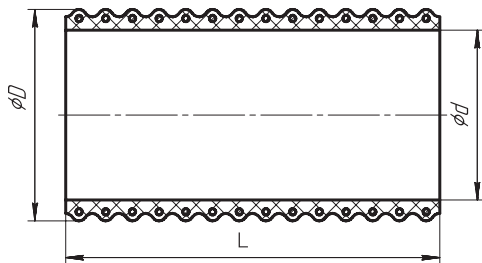
# WEAR-RESISTANT RUBBER-FABRIC PRODUCTS

**COMPOSIT**

# COMPOSITE FLEXIBLE HOSE



THE FLEXIBILITY OF THE HOSE HELPS TO INCREASE THE RESISTANCE OF THE HOSE SYSTEM, SAVE SPACE, AND REDUCE THE LENGTH OF THE HOSE MAIN AT THE DESIGN STAGE



**MATERIALS:**  
THE CONNECTORS ON THE FLEXIBLE RUBBER HOSE ARE MADE OF ALUMINUM COUPLINGS. THE TIGHTNESS OF THE HOSE CONNECTOR IS ENSURED WITH A RUBBER-LINED STEEL SEALING RING.

**RANGE OF APPLICATION:**

- CUT AT THE INSTALLATION SITE, DOES NOT REQUIRE ACCURATE LENGTH MEASUREMENTS;
- DURABILITY;
- FLEXIBILITY;
- HIGH ABRASION, CORROSION, AND EROSION RESISTANCE.

**RANGE OF APPLICATION:**

- MINERAL PROCESSING TPLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.

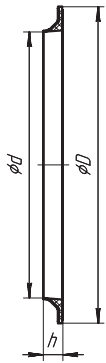
## BASIC SPECIFICATIONS

WORKING PRESSURE	VACUUM	INNER DIAMETER	MAXIMUM LENGTH	BEND RADIUS	WEAR-RESISTANT LAYER THICKNESS
Up to 1,0 MPa	Up to 0,08 MPa	Up to 610 mm	Up to 11,8 m	Up to 3D	Up to 15 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# COMPOSIT GASKET

INTENDED TO BE USED AS A SEAL FOR HOSE COUPLING CONNECTIONS. PRODUCTS CAN BE MANUFACTURED BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER FOR SPECIFIC OPERATING CONDITIONS



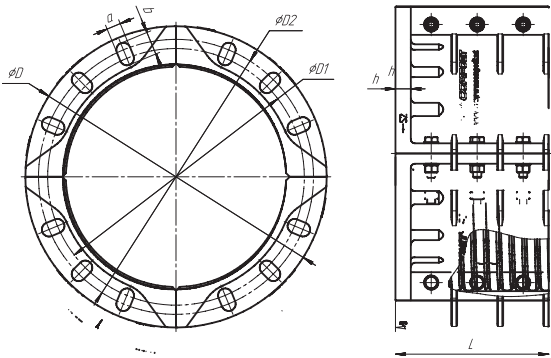
## BASIC SPECIFICATIONS

WORKING PRESSURE	Inner diameter
Up to 1,0 MPa	Up to 610 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# COMPOSIT COUPLING

INTENDED TO CONNECT THE FLEXIBLE HOSES. PRODUCTS CAN BE MANUFACTURED BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER FOR SPECIFIC OPERATING CONDITIONS



## BASIC SPECIFICATIONS

WORKING PRESSURE	Inner diameter
Up to 1,0 MPa	Up to 610 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS



# FLANGED HOSE



THE FLANGED HOSE'S REINFORCED STRUCTURE HELPS IT TO OPERATE AT SUFFICIENTLY HIGH PRESSURES AND PROVIDES RESISTANCE TO VACUUM-GENERATED, THERMAL, AND NATURAL INFLUENCES.



**BENEFITS:**

- LONG SERVICE LIFE;
- HIGH ABRASION, CORROSION, AND EROSION RESISTANCE OF THE INNER LAYER;
- EVEN DISTRIBUTION OF THE PUMPED MATERIAL

**RANGE OF APPLICATION:**

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS

**MATERIALS:**

THE WEAR-RESISTANT LAYER OF THE FLANGED HOSE IS MADE FROM NATURAL AND SYNTHETIC RUBBER. THE TYPE OF RUBBER DEPENDS ON THE TRANSPORTED MATERIAL. THE THICKNESS OF THE WEAR-RESISTANT LAYER IS BASED ON THE TECHNICAL CHARACTERISTICS OF THE PRODUCT, TAKING INTO ACCOUNT THE CUSTOMER'S REQUIREMENTS.

**BASIC SPECIFICATIONS**

TYPE OF FLANGES	WORKING PRES-SURE	VACUUM	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS	MINIMUM BEND RADIUS
Swivel flange	Up to 1,0 MPa	Up to 0,08MPa	Up to 820 mm	Up to 11,8 m	Up to 25 mm	10D
Embedded flange	Up to 2,0 MPa	Up to 0,08MPa	Up to 1380 mm	Up to 11,8 m	Up to 25 mm	10D
Nipple flange	Up to 2,5 MPa	Up to 0,08MPa	Up to 1020 mm	Up to 11,8 m	Up to 25 mm	10D

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS



# RUBBER BEND

## MATERIALS:

THE WEAR-RESISTANT LAYER OF THE BEND IS MADE FROM NATURAL AND SYNTHETIC RUBBER. THE FRAME CONSISTS OF FABRIC AND METAL ELEMENTS.



## BENEFITS:

- LONG SERVICE LIFE;
- HIGH ABRASION, CORROSION, AND EROSION RESISTANCE;
- POSSIBILITY TO INSTALL IN HARD-TO-REACH AREAS.

## RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.

INSTALLED IN HIGH WEAR AREAS TO CHANGE THE DIRECTION OF ABRASIVE FLOW DURING TRANSPORTATION WHERE A STANDARD RUBBER HOSE CAN NOT PROVIDE THE REQUIRED BEND RADIUS.

TYPES OF FLANGES: FOR EASE INSTALLATION TWO TYPES OF FLANGES CAN BE INSTALLED IN ONE HOSE – EMBEDDED AND SWIVLE. THE CONNECTING DIMENSIONS OF THE FLANGE CAN BE CHANGED BASED ON THE CUSTOMER'S TECHNICAL REQUIREMENTS.

## BASIC SPECIFICATIONS

WORKING PRESSURE	VACUUM	INNER DIAMETER	WEAR-RESISTANT LAYER THICKNESS	BEND RADIUS
Up to 1,6 MPa	Up to 0,08 MPa	Up to 820 mm	Up to 20 mm	From 1,5D

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# LONG-RADIUS RUBBER BEND



### MATERIALS:

THE WEAR-RESISTANT LAYER OF THE BEND IS MADE FROM NATURAL AND SYNTHETIC RUBBER. THE FRAME CONSISTS OF FABRIC AND METAL ELEMENTS.

INSTALLED IN SECTIONS OF THE HOSE SYSTEM TO SMOOTHLY CHANGE THE FLOW DIRECTION OF ABRASIVE MATERIAL DURING TRANSPORTATION

### BENEFITS:

- LONG SERVICE LIFE;
- HIGH ABRASION, CORROSION, AND EROSION RESISTANCE;
- REDUCED WEAR DUE TO ITS HIGHER BEND RADIUS.

### RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.

TYPES OF FLANGES: FOR EASE INSTALLATION TWO TYPES OF FLANGES CAN BE INSTALLED IN ONE HOSE – EMBEDDED AND SWIVLE. THE CONNECTING DIMENSIONS OF THE FLANGE CAN BE CHANGED BASED ON THE CUSTOMER'S TECHNICAL REQUIREMENTS.

## BASIC SPECIFICATIONS

WORKING PRESSURE	VACUUM	INNER DIAMETER	WEAR-RESISTANT LAYER THICKNESS	BEND RADIUS
Up to 1,6 MPa	Up to 0,08 MPa	Up to 530 mm	Up to 15 mm	3D

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS



INSTALLED FOR A SMOOTH TRANSITION FROM ONE HOSE DIAMETER TO ANOTHER.

#### MATERIALS:

THE WEAR-RESISTANT LAYER OF THE REDUCER IS MADE FROM NATURAL AND SYNTHETIC RUBBER. THE FRAME CONSISTS OF FABRIC AND METAL ELEMENTS.

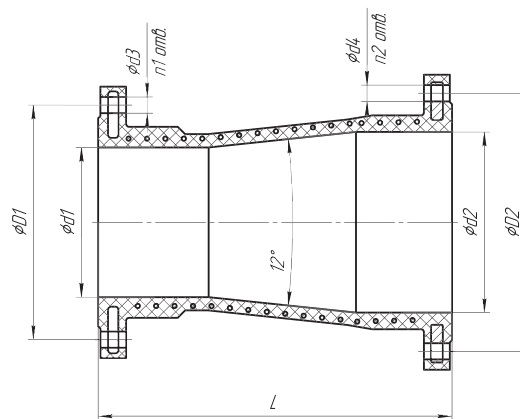
#### BENEFITS:

- DURABILITY;
- EASE OF INSTALLATION;
- INCREASED RESISTANCE TO ABRASIVE WEAR.

#### RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.

# CONCENTRIC RUBBER REDUCER



## BASIC SPECIFICATIONS

TYPE OF FLANGES	WORKING PRESSURE	VACUUM	INNER DIAMETER	WEAR-RESISTANT LAYER THICKNESS
Swivel flange	Up to 1,0 MPa	Up to 0,08 MPa	Up to 820 mm	Up to 20 mm
Embedded flange	Up to 1,6 MPa	Up to 0,08 MPa	Up to 1020 mm	Up to 20 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# LENS EXPANSION JOINT

**BENEFITS:**

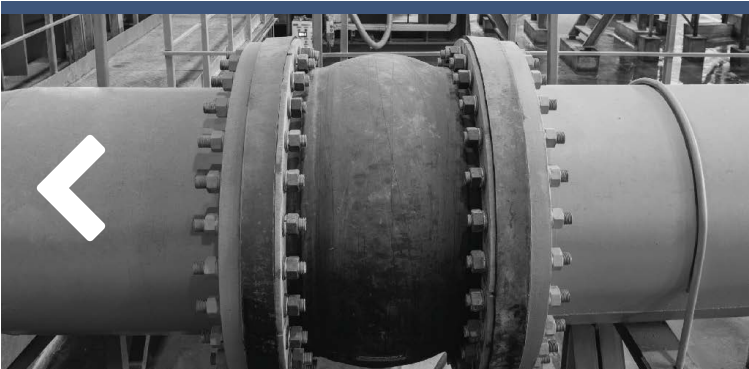
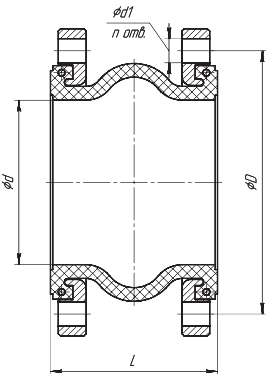
- PROTECTS EQUIPMENT FROM VIBRATION LOADS;
- DURABILITY;
- INCREASED RESISTANCE TO ABRASIVE WEAR.

**RANGE OF APPLICATION:**

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.

**INSTALLATION AND  
OPERATING CONDITIONS:**

THE JOINT IS EQUIPPED WITH SWIVEL FLANGES. LIMITER OR INDICATOR TIERODS CAN BE INCLUDED AT THE CLIENT'S REQUEST.



INSTALLED TO COMPENSATE FOR THERMAL DEFORMATIONS, ELIMINATE VIBRATIONS AND NOISE DURING TRANSPORTATION OF ABRASIVE MATERIALS, FLUIDS CONTAINING INORGANIC ACIDS AND ALKALI, GASOLINE, DIESEL FUEL, OR PETROLEUM-BASED OILS.

**MATERIALS:**

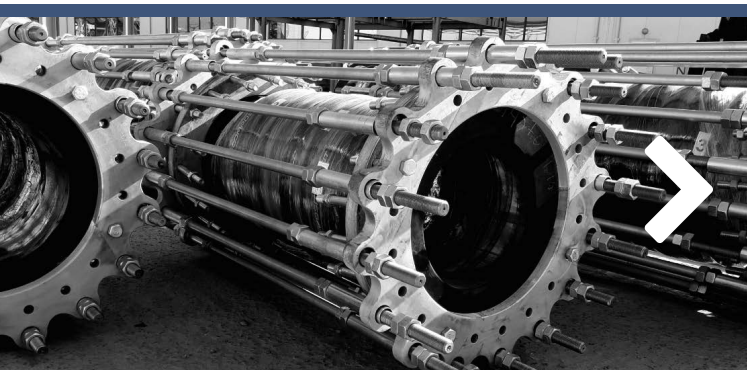
MADE FROM NATURAL AND SYNTHETIC RUBBER USING CORD FABRIC

FLANGE TYPE: TYPES OF FLANGES: SWIVEL. THIS TYPE OF FLANGE CAN BE USED WITH OR WITHOUT LIMITER TIEROD DEPENDING ON THE OPERATING CONDITIONS.

## BASIC SPECIFICATIONS

WORKING PRESSURE	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS
Up to 1,6 MPa	Up to 920 mm	Up to 300 mm	Up to 10 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS



# MULTI-LENS EXPANSION JOINT

## RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.



INSTALLED TO COMPENSATE FOR THERMAL DEFORMATIONS, AND ELIMINATE VIBRATIONS AND NOISE DURING SUPPLY OF ABRASIVE MATERIALS, FLUIDS CONTAINING INORGANIC ACIDS, ALKALINES, GASOLINE, DIESEL FUEL, AND PETROLEUM-BASED OILS.

## MATERIALS:

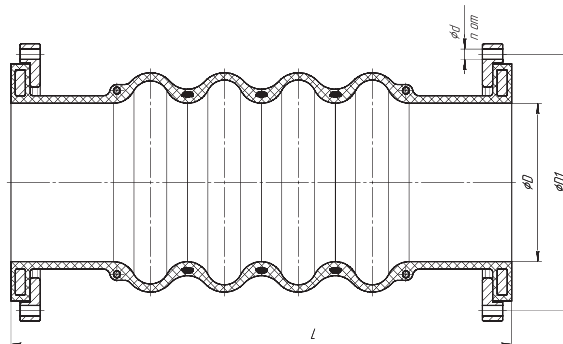
MADE OF NATURAL AND SYNTHETIC RUBBER USING CORD FABRIC.

## BENEFITS:

- LONG SERVICE LIFE;
- INCREASED RESISTANCE TO ABRASIVE WEAR;
- LARGER AMPLITUDE OF COMPRESSION, EXPANSION, AXIAL AND LINEAR MOVEMENTS THAN THE LENS EXPANSION JOINT.

## INSTALLATION AND OPERATING CONDITIONS:

CAN BE EQUIPPED WITH LIMITER OR INDICATOR TIERODS.



## BASIC SPECIFICATIONS

TYPE OF FLANGES	WORKING PRESSURE	VACUUM	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS
Swivel flange	Up to 1,0 MPa	Up to 0,08 MPa	Up to 820 mm	Up to 3 m	Up to 20 mm
Embedded flange	Up to 2,0 MPa	Up to 0,08 MPa	Up to 1020 mm	Up to 3 m	Up to 20 mm
Nipple flange	Up to 2,5 MPa	Up to 0,08 MPa	Up to 1020 mm	Up to 3 m	Up to 20 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# COMPOSITE VIBRO JOINT

## RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.



## MATERIALS:

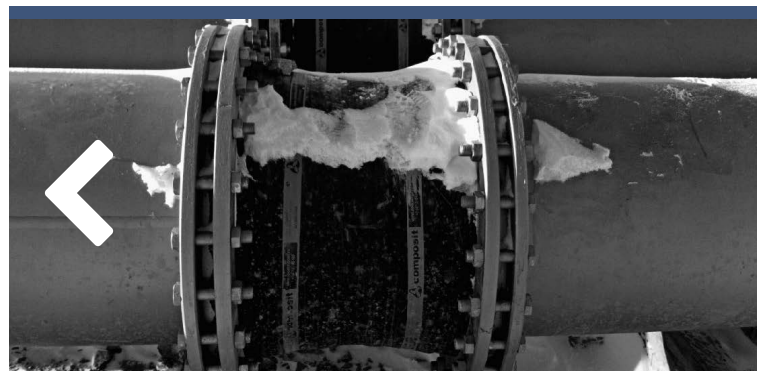
IT CONSISTS OF A WEAR-RESISTANT INNER PART MADE FROM SYNTHETIC AND NATURAL RUBBER AND A FRAME MADE OF CORD FABRIC.

## BENEFITS:

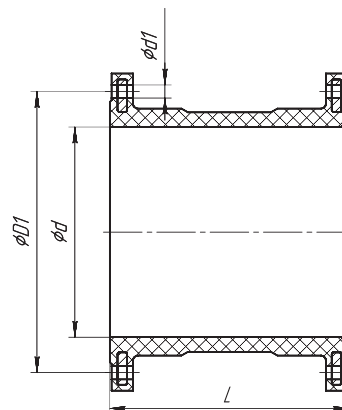
- PROTECTS EQUIPMENT FROM VIBRATION LOADS;
- DURABILITY;
- INCREASED RESISTANCE TO ABRASIVE WEAR.

## INSTALLATION AND OPERATING CONDITIONS:

BOTH SWIVEL AND EMBEDDED FLANGES CAN BE USED IN ONE VIBRO JOINT.



INSTALLED TO COMPENSATE FOR THERMAL DEFORMATIONS, ELIMINATE VIBRATIONS AND NOISE DURING TRANSPORTATION OF ABRASIVE MATERIALS, FLUIDS CONTAINING INORGANIC ACIDS AND ALKALI, GASOLINE, DIESEL FUEL OR PETROLEUM-BASED OILS.



## BASIC SPECIFICATIONS

TYPE OF FLANGES	WORKING PRESSURE	VACUUM	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS
Swivel flange	Up to 1,0 MPa	Up to 0,08 MPa	Up to 820 mm	Up to 1 m	Up to 25 mm
Embedded flange	Up to 2,0 MPa	Up to 0,08 MPa	Up to 1020 mm	Up to 1 m	Up to 25 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS



# FLOATING HOSES

RESISTANCE OF THE INNER LAYER.  
RECOMMENDED FOR USE ON TAILING PONDS IN MINING  
AND PROCESSING PLANTS FOR THE TRANSPORTATION  
OF ABRASIVE SLURRY FROM DREDGERS OR FLOATING  
STATIONS TO THE SHORE

## RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;

## BENEFITS:

- FLEXIBILITY;
- HIGH ABRASION, CORROSION, AND EROSION

## MATERIALS:

THE WEAR-RESISTANT PART OF THE FLEXIBLE HOSE IS MADE OF NATURAL AND SYNTHETIC RUBBER, DEPENDING ON THE TRANSPORTED MATERIAL. THE THICKNESS OF THE WEAR-RESISTANT LAYER IS BASED ON THE TECHNICAL CHARACTERISTICS OF THE PRODUCT, TAKING INTO ACCOUNT THE CUSTOMER'S REQUIREMENTS.

## INSTALLATION AND OPERATING CONDITIONS:

CONSIDERING THE FEATURES OF MODERN EQUIPMENT, HOSES CAN BE EQUIPPED WITH FLOATS FOR OPERATION AS PART OF BOTH DIESEL AND ELECTRIC DREDGERS WITH AN OPTION FOR LAYING A POWER CABLE.



## BASIC SPECIFICATIONS

TYPE OF FLANGES	WORKING PRESSURE	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS
Swivel flange	Up to 1,0 MPa	Up to 630 mm	Up to 11,8 m	Up to 15 mm
Embedded flange	Up to 2,0 MPa	Up to 630 mm	Up to 11,8 m	Up to 15 mm
Nipple flange	Up to 2,5 MPa	Up to 1020 mm	Up to 11,8 m	Up to 35 mm



# RUBBER-LINED STEEL PRODUCTS

***COMPOSIT***



# RUBBER-LINED STEEL PIPE

## RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.

## BENEFITS:

- OPERABLE IN ANY CONDITIONS (IN CLOSED INDUSTRIAL PREMISES AND IN OPEN SPACES);
- THE NUMBER OF METAL STRUCTURES FOR INSTALLATION IS MINIMIZED DUE TO THE BEARING CAPACITY;
- THE INNER RUBBER LAYER PROTECTS IT FROM EXTERNAL MECHANICAL DAMAGE.



## MATERIALS:

THE OUTER LAYER IS A METAL JACKET MADE OF HIGH-STRENGTH STEEL. THE INNER LAYER IS A CHAMBER MADE OF NATURAL AND SYNTHETIC RUBBER

THIS KIND OF PIPE CAN OPERATE WITH HIGH PRESSURE AND VACUUM.

## BASIC SPECIFICATIONS

WORKING PRESSURE	VACUUM	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS
Up to 4,0 MPa	Up to 0,08 MPa	Up to 1380 mm	Up to 10 m	Up to 25 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# RUBBER-LINED STEEL BEND



**RANGE OF APPLICATION:**

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.

**BENEFITS:**

- LONG SERVICE LIFE;
- EASE OF INSTALLATION;
- INCREASED RESISTANCE TO ABRASIVE WEAR;
- THE INNER RUBBER LAYER PROTECTS FROM EXTERNAL MECHANICAL DAMAGE
- LOAD-BEARING CAPACITY.

INSTALLED ON SECTIONS OF THE HOSE SYSTEM TO SMOOTHLY CHANGE THE FLOW DIRECTION OF ABRASIVE MATERIAL.

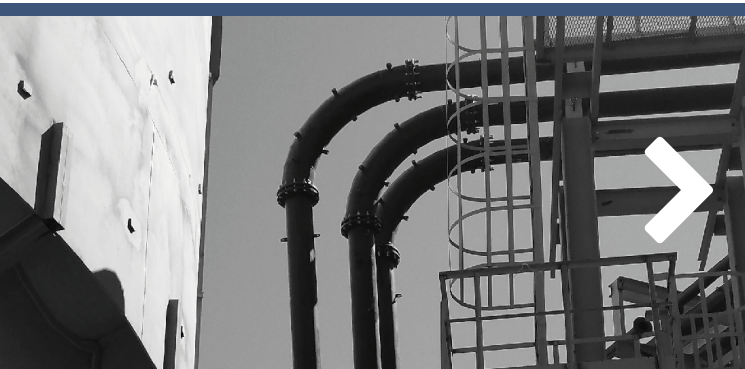
**MATERIALS:**

THE OUTER LAYER IS A METAL JACKET MADE OF VARYING GRADES OF STEEL. THE INNER LAYER IS A CHAMBER MADE OF NATURAL AND SYNTHETIC RUBBER.

## BASIC SPECIFICATIONS

WORKING PRESSURE	VACUUM	INNER DIAMETER	WEAR-RESISTANT LAYER THICKNESS	BEND RADIUS
Up to 4,0 MPa	Up to 0,08 MPa	Up to 1000 mm	Up to 40 mm	1,5D

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS



# LONG-RADIUS RUBBER-LINED STEEL BEND

## BENEFITS:

- REDUCED WEAR DUE TO ITS HIGHER BEND RADIUS;
- LONG SERVICE LIFE;
- EASE OF INSTALLATION;
- THE INNER RUBBER LAYER PROTECTS FROM EXTERNAL MECHANICAL DAMAGE;
- LOAD-BEARING CAPACITY.

## RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.



## MATERIALS:

THE OUTER LAYER IS A METAL JACKET MADE OF VARIOUS STEEL GRADES. THE INNER LAYER IS A CHAMBER MADE OF NATURAL AND SYNTHETIC RUBBER.

INSTALLED TO SMOOTHLY CHANGE THE DIRECTION OF SLURRY IN AREAS OF INCREASED ABRASION.

## BASIC SPECIFICATIONS

WORKING PRESSURE	VACUUM	INNER DIAMETER	WEAR-RESISTANT LAYER THICKNESS	BEND RADIUS
Up to 4,0 MPa	Up to 0,08 MPa	Up to 610 mm	Up to 40 mm	3D

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# CONCENTRIC RUBBER-LINED STEEL REDUCER

.....  
INSTALLED FOR A SMOOTH TRANSITION FROM ONE PIPE  
DIAMETER TO ANOTHER.  
.....

**MATERIALS:**

THE OUTER LAYER IS A METAL JACKET MADE OF HIGH-STRENGTH  
STEEL. THE INNER LAYER IS A CHAMBER MADE OF NATURAL AND  
SYNTHETIC RUBBER.

**BENEFITS:**

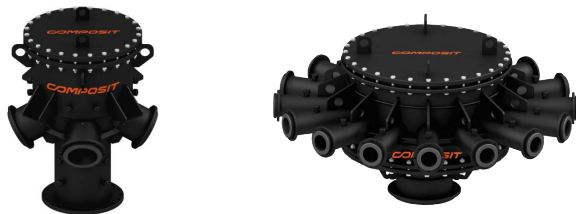
- DESIGNED TO WITHSTAND HIGH  
ABRASIVE AND WORKING PRES-  
SURE LOADS, ALLOWING SMOOTH  
OPERATION;
- CAN BE OF VARIOUS SIZES AND  
CONFIGURATIONS, BASED ON  
OPERATING CONDITIONS, DUE TO  
UNIQUE PRODUCTION
- TECHNOLOGY;
- HELPS TO REDUCE FLOW TURBULENCE, MINIMIZING WEAR OF THE  
PIPELINE;
- CAN BE MADE BOTH ECCENTRIC AND CONCENTRIC, DEPENDING ON  
THE PURPOSE AND OPERATING CONDITIONS.



.....  
**BASIC SPECIFICATIONS - CONCENTRIC RUBBER-LINED STEEL REDUCER**  
.....

WORKING PRESSURE	VACUUM	INNER DIAMETER	WEAR-RESISTANT LAYER THICKNESS
Up to 4,0 MPa	Up to 0,08 MPa	Up to 1020 mm	Up to 40 mm

.....  
**RUBBER-LINED STEEL  
CUSTOM PIPING**  
.....



**BENEFITS:**

- REDUCED WEAR DUE TO ITS HIGHER BEND RADIUS;
- LONG SERVICE LIFE;
- EASE OF INSTALLATION;
- THE INNER RUBBER LAYER PROTECTS FROM EXTERNAL MECHANICAL DAMAGE;
- LOAD-BEARING CAPACITY.



BASED ON CUSTOM SKETCHES AND DRAWINGS, A PROJECT CAN BE  
DEVELOPED TO MANUFACTURE UNIQUE PRODUCTS. INSTALLED TO  
SOLVE COMPLEX OBJECTIVES AT MINERAL PROCESSING FACILITIES.

**MATERIALS:**

THE OUTER LAYER IS A METAL JACKET MADE OF HIGH-STRENGTH  
STEEL. THE INNER LAYER IS A CHAMBER MADE OF NATURAL  
AND SYNTHETIC RUBBER

# RUBBER-LINED STEEL T-SECTION



INSTALLED WHEN IT IS NECESSARY TO SEPARATE OR COMBINE MATERIAL FLOWS

**MATERIALS:**

THE OUTER LAYER IS A METAL JACKET MADE OF HIGH-STRENGTH STEEL. THE INNER LAYER IS A CHAMBER MADE OF NATURAL AND SYNTHETIC RUBBER.

**BENEFITS:**

CAN BE OF VARIOUS DIAMETERS, JUNCTION ANGLES, AND CONFIGURATIONS;  
DESIGNED TO WITHSTAND HIGH LEVELS OF ABRASION AND OPERATING PRESSURE LOADS FOR SMOOTH OPERATION.

**RANGE OF APPLICATION:**

MINERAL PROCESSING PLANTS;  
GOLD MINING FACILITIES;  
CHEMICAL INDUSTRY;  
COAL PROCESSING FACTORIES;  
THERMAL POWER PLANTS;  
CEMENT PLANTS;  
METALLURGICAL PLANTS.

# RUBBER-LINED STEEL MANIFOLD



INSTALLED TO COMBINE OR SEPARATE THE FLOW OF TRANSPORTED MATERIALS.

**MATERIALS:**

THE OUTER LAYER IS A METAL JACKET MADE OF HIGH-STRENGTH STEEL. THE INNER LAYER IS A CHAMBER MADE OF NATURAL AND SYNTHETIC RUBBER.

**BENEFITS:**

DESIGNED TO WITHSTAND HIGH ABRASIVE AND WORKING PRESSURE LOADS, ENSURING SMOOTH OPERATION;  
CAN BE OF VARIOUS SIZES AND CONFIGURATIONS, BASED ON OPERATING CONDITIONS, THANKS TO OUR UNIQUE PRODUCTION TECHNOLOGY.

## BASIC SPECIFICATIONS - T-SECTION, MANIFOLD, CUSTOM PIPING

WORKING PRESSURE	VACUUM	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS
Up to 4,0 MPa	Up to 0,08 MPa	Up to 1020 mm	Up to 3 m	Up to 40 mm



# VALVES

## *COMPOSIT*

Wear-resistant hoses for mineral processing



49 Solovinnaya Street, Kursk 305022, Russia

# COMPOSIT PINCH VALVES

USED AT MINERAL PROCESSING FACILITIES TO SHUT OFF AND REGULATE THE FLOW OF THE WORKING MEDIUM, ACTING AS A SHUT-OFF OR CONTROL HOSE VALVE

THE MAIN OPERATING ELEMENT OF THE PINCH VALVE IS A PINCH PIPE SLEEVE SECURELY INSTALLED TO THE BODY OF THE VALVE.

## MATERIALS:

SMOOTH OPERATION IS ENSURED DUE TO THE INCREASED WEAR RESISTANCE OF THE RUBBER NOZZLE, A ONE-PIECE METAL BODY WITH AN INCREASED WALL THICKNESS AND THE HIGH CORROSION RESISTANCE OF STAINLESS-STEEL RUNNING GEAR ELEMENTS. THE BODY OF THE VALVE IS MADE OF DIFFERENT TYPES OF METAL, DEPENDING ON WEATHER CONDITIONS DURING OPERATION, THE INSTALLATION SITE AND THE TEMPERATURE OF THE PUMPED MEDIUM, AND CAN BE MADE OF CAST IRON, STEEL, OR ALUMINUM.

VALVE CONTROL TYPES AVAILABLE TO ORDER: ELECTRIC DRIVE, PNEUMATIC DRIVE, MANUAL DRIVE (HANDWHEEL OR REDUCER).



VALVE WITH  
MANUAL DRIVE



VALVE WITH  
ELECTRIC DRIVE

# VALVE WITH PNEUMATIC DRIVE



## TECHNICAL CHARACTERISTICS OF THE COMPOSIT PINCH VALVE:

- MAXIMUM TIGHTNESS CLASS A ACCORDING TO THE 1544 STANDARD;
- FULL-BORE DESIGN OF THE BODY AND PINCH PIPING ALONG THE ENTIRE LENGTH, WHICH ELIMINATES CONGESTION AND LODGING OF THE PUMPED MATERIAL;
- PIPING CAN BE SELECTED TO BE MADE OF DIFFERENT TYPES OF RUBBER, DEPENDING ON THE COMPOSITION AND TEMPERATURE OF THE PUMPED MATERIAL, AS WELL AS THE PRESENCE OF THE SOLID ABRASIVE PARTICLES IN IT;
- COMPONENTS ARE MADE OF STAINLESS STEEL, WHICH PREVENTS CORROSION OF THE CHASSIS AND JAMMING;
- EASY MAINTENANCE THROUGHOUT THE SERVICE LIFE, WITH ONLY PINCH PIPE SLEEVE NEEDING TO BE REPLACED;
- EXPANSION PETALS ARE SECURELY FIXED TO THE VALVE BLADE, ENSURING A DIRECT FLOW THROUGH THE PIPING EVEN IN A VACUUM.

COMPOSIT VALVES ARE SPECIALLY DESIGNED FOR INTENSE OPERATING CONDITIONS IN MINERAL PROCESSING AND METALLURGICAL INDUSTRIES

## BASIC SPECIFICATIONS

WORKING PRESSURE

Up to 1.0 MPa

Inner diameter

From 50 mm to 400 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# COMPOSIT KNIFE GATE VALVES



KNIFE GATE VALVE  
WITH MANUAL DRIVE



KNIFE GATE VALVE  
WITH REDUCER



KNIFE GATE VALVE  
WITH PNEUMATIC DRIVE



KNIFE GATE VALVE  
WITH ELECTRIC DRIVE

COMPOSIT KNIFE GATE VALVES ARE DESIGNED FOR INTENSE OPERATING CONDITIONS IN MINERAL PROCESSING AND METALLURGICAL INDUSTRIES. RECOMMENDED AREAS FOR INSTALLATION: SUCTION ASSEMBLY, HYDRO-CYCLONE ASSEMBLY, TAILING POND.

## MATERIALS:

THE MAIN WORKING ELEMENTS OF THE KNIFE GATE VALVE ARE A STAINLESS STEEL KNIFE AND CUFFS MADE OF WEAR-RESISTANT RUBBER. THE TIGHT FIT OF THE CUFFS TO THE BLADE ENSURES MAXIMUM TIGHTNESS OF THE VALVE AND PREVENTS LEAKAGE IN THE PROCESS SYSTEM. THE VALVE BODY IS MADE OF DIFFERENT TYPES OF METAL, DEPENDING ON WEATHER CONDITIONS DURING OPERATION, THE INSTALLATION SITE, AND THE TEMPERATURE OF THE PUMPED MATERIAL, AND IT CAN BE MADE OF CAST IRON OR STEEL.

## TECHNICAL CHARACTERISTICS OF THE COMPOSIT KNIFE GATE VALVE:

- MAXIMUM TIGHTNESS CLASS A ACCORDING TO 1544 STANDARD;
- TWO-WAY FLOW DIRECTION OF THE PUMPED MATERIALS;
- SEALS CAN BE SELECTED TO BE MADE OF DIFFERENT TYPES OF RUBBER, DEPENDING ON THE COMPOSITION AND TEMPERATURE OF THE PUMPED MATERIALS, AS WELL AS THE PRESENCE OF SOLID ABRASIVE PARTICLES IN IT;
- UNIQUELY DESIGNED KNIFE SHAPE TO ELIMINATE CONGESTION AND LODGING OF THE PUMPED MATERIAL IN THE VALVE SEAT;
- VALVE PORT IS INCLUDED IN THE DESIGN TO CONNECT TO THE FLUSHING SYSTEM.

COMPOSIT KNIFE GATE VALVES ARE USED AT FACILITIES TO COMPLETELY SEAL OFF THE FLOW OF THE PUMPED MATERIAL, ACTING AS SHUT-OFF VALVES. THE PRODUCT IS DESIGNED AS A SHUTTER THAT SEALS OFF THE MEDIUM PERPENDICULARLY TO ITS FLOW

## BASIC SPECIFICATIONS

WORKING PRESSURE

Up to 1 MPa

INNER DIAMETER

From 50 mm to 630 mm

PRODUCTS CAN BE MANUFACTURED TO ORDER BASED ON A CUSTOMER'S TECHNICAL DRAWINGS AND REQUIREMENTS, INCLUDING PRODUCTS OF A LARGE DIAMETER, FOR SPECIFIC OPERATING CONDITIONS

# PINCH PIPE SLEEVE

INSTALLED TO SEAL OFF THE WORKING MEDIUM WHEN EXPOSED TO OUTSIDE PRESSURE, REGULATES THE FLOW OF THE WORKING MEDIUM WHEN APPLIED IN PINCH VALVES



## MATERIALS:

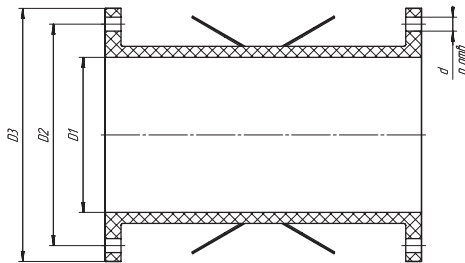
MADE OF SYNTHETIC AND NATURAL RUBBER IN COMPOSITION WITH FABRIC.

## BENEFITS:

- CAN BE OF VARIOUS DIAMETERS, JUNCTION ANGLES, AND CONFIGURATIONS;
- DESIGNED TO WITHSTAND HIGH LEVELS OF ABRASION AND OPERATING PRESSURE LOADS FOR SMOOTH OPERATION.

## RANGE OF APPLICATION:

- MINERAL PROCESSING PLANTS;
- GOLD MINING FACILITIES;
- CHEMICAL INDUSTRY;
- COAL PROCESSING FACTORIES;
- THERMAL POWER PLANTS;
- CEMENT PLANTS;
- METALLURGICAL PLANTS.



## BASIC SPECIFICATIONS

WORKING PRESSURE	INNER DIAMETER	MAXIMUM LENGTH	WEAR-RESISTANT LAYER THICKNESS
Up to 1,6 MPa	Up to 300 mm	Up to 1 m	Up to 8 mm

# CONNECTIONS

***COMPOSIT***



## COUPLING JOINT



A COUPLING JOINT CONSISTS OF A CONNECTING COUPLING AND A GASKET WHICH ENSURES THE TIGHTNESS AND RELIABILITY OF THE CONNECTION

## BLIND (RUBBER-LINED) FLANGE



A BLIND (RUBBER-LINED) FLANGE IS USED IN AREAS WHERE THE FLANGE OPENING NEEDS TO BE CLOSED

## COUNTER



A COUNTER FLANGE ENSURES EASY CONNECTIVITY BETWEEN RUBBER AND METAL HOSES

## NIPPLE FLANGE



A NIPPLE FLANGE IS USED FOR HOSE OPERATION IN HIGH-PRESSURE AREAS

## EMBEDDED



EMBEDDED FLANGE IS A RUBBERIZED METAL FLANGE ELEMENT WHICH IS AN INTEGRAL UNIT OF THE HOSE

## SWIVEL



THE METAL SWIVEL FLANGE IS AN ELEMENT INDEPENDENT OF THE PIPELINE, THAT ALLOWS FOR EASIER INSTALLATION AND DISMANTLING

## TRANSITION



THE TRANSITION (RUBBER-LINED) FLANGE IS USED IN AREAS WHERE RUBBER HOSES, RUBBER-LINED HOSES, AND RUBBER-LINED PRODUCTS NEED TO BE CONNECTED WITH OTHER TYPES OF PIPING OR EQUIPMENT WITH DIFFERENT MOUNTING DIMENSIONS

## MOUNTING



THE MOUNTING FLANGE IS USED IN THE INSTALLATION OF PIPING AND ALLOWS FOR THE FASTENING OF RUBBER PIPING TO THE SURROUNDING METAL STRUCTURES

# COMPOSIT TECHNOLOGICAL SOLUTIONS

**COMPOSIT**

# FLOATING STATION ASSEMBLY

INSTALLED AT THE DISCHARGE SECTION OF  
THE FLOATING QUARRY DEWATERING STATION  
TO ENSURE IT MOVES PROPERLY DURING  
OPERATION

## BENEFITS:

INCREASED RESISTANCE TO ABRASIVE WEAR;  
NO WELDING IS REQUIRED ON THE HOSE WHEN THE WATER LEVEL IN  
THE QUARRY SUMP CHANGES.

THIS IS A FLEXIBLE FLANGED HOSE INSTALLED BETWEEN THE FLOAT-  
ING STATION AND THE SHORE PIPELINE. THE FLOATING STATION CAN  
BE EQUIPPED WITH RUBBER-LINED PRODUCTS (BENDS, T-SECTIONS,  
SHUT-OFF VALVES, ETC.).





# PUMPS SWITCH ASSEMBLY

INSTALLED IN THE DISCHARGE SECTION FOR ALTERNATING SLURRY SUPPLY IN PIPELINES

## BENEFITS:

INCREASED RESISTANCE TO ABRASIVE WEAR;  
NO ADDITIONAL REDUNDANT HOSES REQUIRED;  
SIMPLIFIED MAINTENANCE AS NO WELDING IS REQUIRED;  
REDUCES CUT-OFF TIME FOR MAINTENANCE.

THE STRUCTURE CONSISTS OF RUBBER-LINED PRODUCTS (REDUCERS, BENDS, BRANCH PIPES, T-SECTIONS, SHUT-OFF HOSE VALVES, ETC.) TO COMBINE THE DISCHARGE LINES OF TWO PUMPS INTO ONE LINE.

# HYDROCYCLONE ASSEMBLY

INSTALLED IN THE HYDROCYCLONE AND DESIGNED TO TRANSPORT PUMPED ABRASIVE MATERIALS



## BENEFITS:

CONSISTS OF BENDS, SHUT-OFF VALVES, AND BRANCH PIPES OF VARIOUS SIZES DEPENDING ON THE BRAND OF THE HYDROCYCLONE AND INSTALLATION OPTIONS.

INCREASED RESISTANCE TO ABRASIVE WEAR;  
SIMPLIFIED PUMP AND ISOLATION VALVE MAINTENANCE;  
REDUCES CUT-OFF TIME FOR MAINTENANCE.

# SUCTION ASSEMBLY

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INSTALLED IN THE PUMP SUCTION  
SECTIONS

.....

CONSISTS OF RUBBER-LINED STEEL PRODUCTS IN VARIOUS CONFIGURATIONS (BENDS, REDUCERS, T-SECTIONS, SHUT-OFF VALVES, ETC.) AND RUBBER EXPANSION JOINTS. DESIGNED ACCORDING TO THE LOCATION AND LAYOUT OF THE EQUIPMENT.

.....



## **BENEFITS:**

INCREASED RESISTANCE TO ABRASIVE WEAR;  
SIMPLIFIED PUMP AND ISOLATION VALVE MAINTENANCE;  
REDUCES CUT-OFF TIME FOR MAINTENANCE.

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# SCREENER ASSEMBLY

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INSTALLED ON DIFFERENT TYPES OF SCREENERS  
IN AREAS WITH INCREASED WEAR

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## **BENEFITS:**

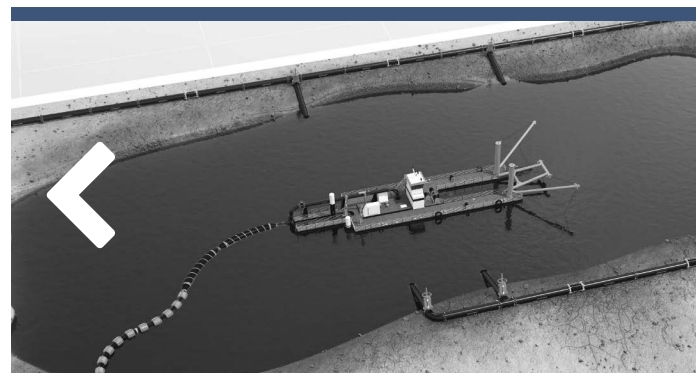
INCREASED RESISTANCE TO ABRASIVE WEAR;  
SIMPLIFIED SCREENER MAINTENANCE AS THERE IS NO WELDING REQUIRED;  
REDUCES CUT-OFF TIME FOR MAINTENANCE.

MAY CONSIST OF VARIOUS WEAR-RESISTANT PRODUCTS MANUFACTURED BY COMPOSIT LLC, DEPENDING ON THE CONFIGURATION AND LAYOUT OF THE EQUIPMENT.

# WEAR-RESISTANT SOLUTION FOR TAILINGS

INSTALLED ON SUCTION SECTIONS, ON THE DREDGER'S DECK AND ON THE SURFACE OF THE WATER BODY

CONSISTS OF A SET OF PRODUCTS FOR USE AS PART OF A DREDGER (SUCTION HOSE ON THE FRAME OF THE DREDGER, THE DISCHARGE LINE ASSEMBLY OF THE DREDGER'S DECK).



## BENEFITS:

- INCREASED RESISTANCE TO ABRASIVE WEAR;
- ENSURES DREDGER MOBILITY DURING OPERATION;
- NO HOSE WELDING REQUIRED;
- NO NEED TO USE A BALL JOINT;
- NO NEED TO USE METAL PONTOONS.



# PUMPS SWITCH ASSEMBLY







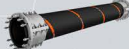

INSTALLED IN THE DISCHARGE, SUCTION AND FREE-FLOW SECTIONS TO ENSURE A UNIFORM SUPPLY OF WORKING MATERIAL IN THE PIPELINE.

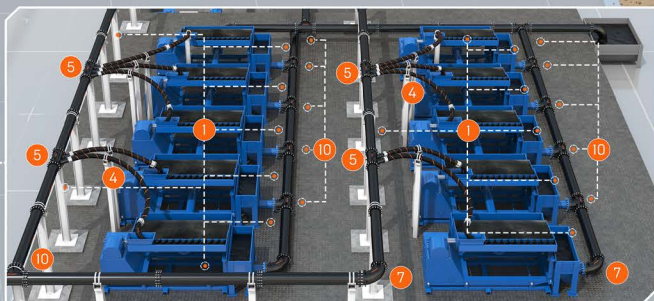
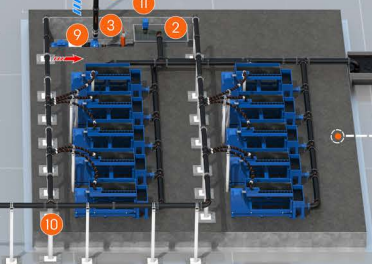
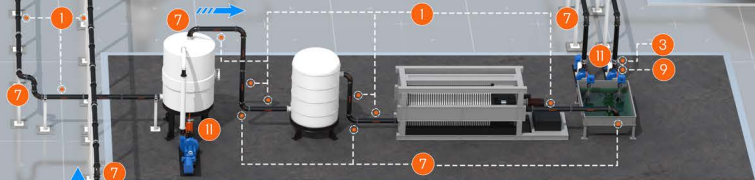
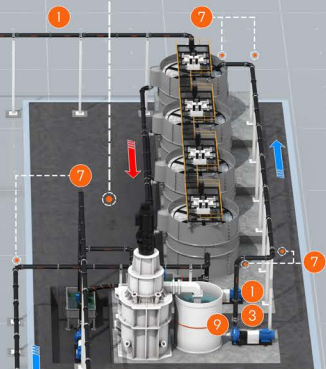
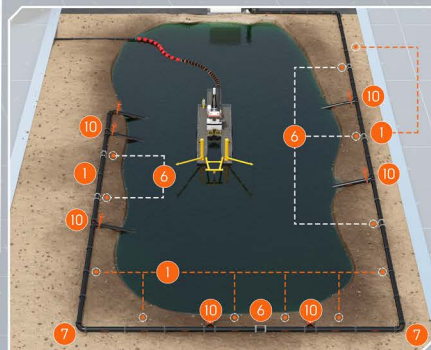
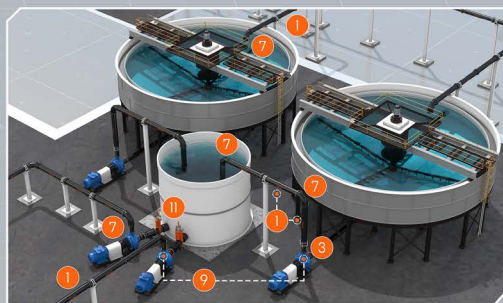
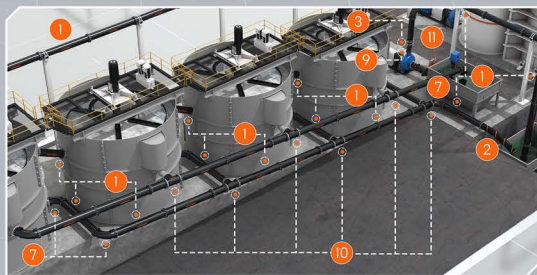
## BENEFITS:

- INCREASED RESISTANCE TO ABRASIVE WEAR;
- NO ADDITIONAL STANDBY HOSES REQUIRED.

CONSISTS OF RUBBER-LINED PRODUCTS (A MANIFOLD, REDUCERS, BENDS, BRANCH PIPES, AND T-SECTIONS) TO DIVIDE OR COMBINE PIPELINES.



- |   |   |                         |   |   |                             |
|---|---|-------------------------|---|---|-----------------------------|
| 1 |  | RUBBER-LINED STEEL PIPE | 5 |  | RUBBER-LINED STEEL MANIFOLD |
| 2 |  | FLANGED HOSE            | 6 |  | MULTI-LENS EXPANSION JOINT  |
| 3 |  | LENS EXPANSION JOINT    | 7 |  | RUBBER-LINED STEEL BEND     |
| 4 |  | FLEXIBLE HOSE           | 8 |  | RUBBER BEND                 |



9



CONCENTRIC RUBBER-LINED STEEL REDUCER

10



RUBBER-LINED T-SECTION

11



SUCTION ASSEMBLY

12



CUSTOM PIPING

13



FLOATING HOSE WITH PLASTIC FLOATS (UPF)

14



SELF-FLOATING HOSE



FREE FLOW LINE



DISCHARGE LINE  
(PARTIAL SIZE UP TO 10 MM)



DISCHARGE LINE  
(PARTIAL SIZE UP TO 2 MM)

# COMPOSIT

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MULTICHANNEL TEL.: +7 (4712) 200-600;  
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## REPRESENTATIVE OFFICES

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KETON LLC

BELARUS  
PRIVATE TRADE UNITARY ENTERPRISE  
"GERDA SPE"

KAZAKHSTAN  
KAZPROMSNAB 2011 LLP  
METEX COMPANY LLP  
METEX SERVICE LLP

UZBEKISTAN  
ROSPROMLMPORT LLC

TURKEY  
MTM MAKINA TICARET MUMESSILLIK

EGYPT  
UGEI

POLAND  
PLMZ POLSKA  
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FRANCE  
TECHNO SUPPLY SARL