

MULTI CABLE TRANSIT

# HTM®

FIRST STEP IN FIRE SAFETY

## FIREPROOF MULTI CABLE TRANSIT SYSTEM



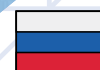
### PRODUCT CATALOGUE

ZAVOD HERMES LTD.  
5 YEARS  
OF SUCCESSFUL OPERATION

INSTALLATION VIDEO GUIDE



CATALOGUE DOWNLOAD



Made in  
Russia



2Ex e IIC G b IET 120

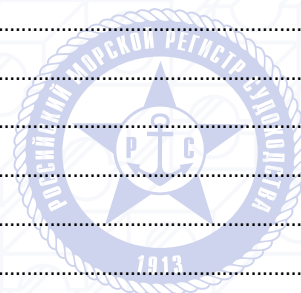
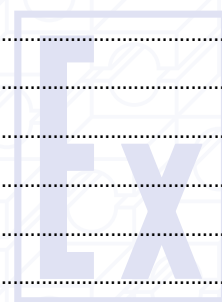


Gazprom ISO-9001



## TABLE OF CONTENTS

ABOUT HERMES PLANT .....	2
LIST OF TESTS PERFORMED FOR GROUND FACILITIES .....	4
LIST OF TESTS PERFORMED FOR MARINE AND RIVER FACILITIES .....	5
STANDARD HTM TRANSIT MODULES.....	6
EXTENDED RANGE HTM TRANSIT MODULES.....	7
HTM PLUG MODULES.....	8
HTM-PB PRESS-BLOCKS FOR RECTANGULAR FRAMES.....	9
HTM-PBK PRESS-BLOCKS FOR ROUND FRAMES .....	10
RECTANGULAR MOUNTING FRAMES .....	11
MOUNTING FRAMES HTM-RM .....	12
UNIVERSAL MOUNTING FRAMES HTM-RMF .....	13
FRAMES FOR WELDING CONNECTION HTM-RMS .....	14
DISMOUNTABLE MOUNTING FRAMES HTM-RMR.....	15
CUSTOMIZED MOUNTING FRAMES.....	16
MATING FRAMES HTM-RO.....	17
DISMOUNTABLE MATING FRAMES HTM-ROR .....	18
EMC SERIES. PROTECTION AGAINST ELECTROMAGNETIC INTERFERENCE.....	20
MODULE HTM40/SH FOR THE GROUNDING BUS 40X4 .....	22
ROUND MOUNTING FRAMES.....	23
ROUND MOUNTING FRAMES HTM-RMK .....	24
DISMOUNTABLE ROUND MOUNTING FRAMES HTM-RMKR.....	25
UNIVERSAL ROUND MOUNTING FRAMES HTM-RMKF .....	26
ROUND MOUNTING FRAMES FOR WELDING CONNECTION HTM-RMK5.....	27
ROUND MATING FRAMES HTM-ROKF .....	28
DISMOUNTABLE ROUND MATING FRAMES HTM-ROKFR.....	29
MARINE VERSION - THICK-WALLED MOUNTING FRAMES.....	30
THICK-WALLED FLANGED MOUNTING FRAMES HTM-RMTF .....	31
THICK-WALLED FLANGELESS MOUNTING FRAMES HTM-RMTS .....	32
MOUNTING FRAMES HTM-RMTS R WITH ROUNDED CORNERS .....	33
THICK-WALLED FLANGED MOUNTING FRAMES HTM-RMTFG WITH INCREASED DEPTH.....	35
THICK-WALLED FLANGELESS MOUNTING FRAMES HTM-RMTSG WITH INCREASED DEPTH .....	36
ACCESSORIES FOR ASSEMBLY .....	37
SOFTWARE FOR SELF-DESIGN.....	38
CERTIFICATES .....	40



"In places where wires and cables pass through walls, floors or outdoors, it must be possible to change electrical wiring. To do this, the passage must be made in a pipe, box, opening, etc. In order to prevent the penetration and accumulation of water and the spread of fire in places of passage through walls, floors or outdoors, gaps between wires, cables and the pipe (box, opening, etc.), as well as backup pipes (boxes, openings, etc.) should be sealed with easily removable mass made of non-combustible material. The sealing must allow the replacement, additional laying of new wires and cables and ensure the fire resistance rating of the opening is not less than the fire resistance rating of the wall (floor)."

Electrical Installations Code (PUE) clause 2.1.58, as amended on December 20, 2017.



#### WHO WE ARE?

HERMES plant is a Russian manufacturer of flameproof explosion-proof HTM® cable penetrations.

#### OUR MISSION

Saving human lives and ensuring the safe work of all employees of production and industrial enterprises in Russia.

## HTM® CABLE PENETRATIONS



Non-combustible



Transit



Modular

## MAIN COMPONENTS OF MODULAR CABLE PENETRATIONS

✓ Modules

✓ Press-blocks

✓ Frames

✓ Accessories

## PROPERTIES OF HTM® CABLE PENETRATIONS

Increased protection of type "e" in explosive environments.

Fire resistance limit – up to 120 minutes. Prevent the spread of fire, smoke, and gas.

IP66/68 protection - fully dustproof and protected against strong jets of water.

Water and gas tightness up to 2.5 bar in HTM® cable penetrations for class A structures.

## SCOPE OF APPLICATION



industrial and civil construction



telecom



energy and machine building



shipbuilding and floating platforms



oil, gas and chemical industry facilities

## BENEFITS OF WORKING WITH US

✓ **Quality.** European machines and raw materials allow us to create reliable cable penetrations of high quality.

✓ **Flexible production.** We make frames of all sizes and configurations.

✓ **Phase-out of imports.** Possibility to implement large projects with the use of Russian-made goods.

✓ **Operational efficiency.** If you are our regular customer, we keep a stock of products available for your orders.

✓ **Ease of design.** Three free types of software for designing cable penetrations - HTM-Constructor.

## ABOUT HERMES PLANT



### HERMES PLANT WAS ESTABLISHED IN 2017.

We work on injection-molding machines of the latest (10th) generation. They are made by the French concern REP International.

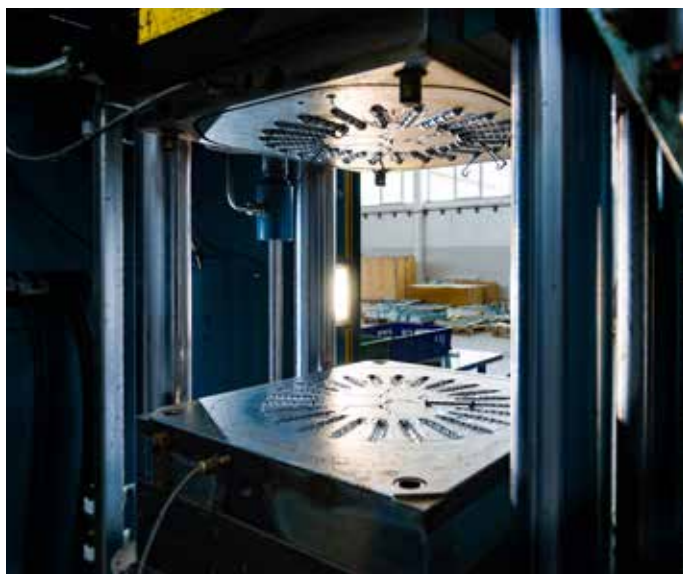
The main sealing components of HTM® cable penetrations are made of elastomer:

- plug modules
- transit modules
- compensation modules
- press-blocks

Over 30 different molds from leading manufacturers are used to cast these products.

We invite you to visit our production site!

The production capacity of the Hermes Plant allows us to quickly fill up the irreducible stock balances even during the largest orders.



Our company follows the principle of continuous improvement in its activities, applying lean production tools in all processes - from the development of new products, through production processes, packaging, and shipment of finished products to customer feedback.

The automated system for planning, accounting and analysis of activities is constantly being improved, equipment and tooling, auxiliary tools are being modernized and updated.

We are ready to open a consignment stock for any customer at his production site, and for regular customers we always keep a stock of their standard range for the quarter ahead.

The plant has introduced a bar-coding system for all components and finished orders to eliminate errors during shipment and accelerate delivery times.

Manual labor is replaced by robotization of production processes, a system of addressable storage and accounting with the help of WMS system.

The company's staff is motivated to improve the quality of its work, undergoes training aimed at improving professional skills and qualifications, which invariably leads to an increase in the quality of products and services.



## LIST OF TESTS PERFORMED FOR GROUND FACILITIES

HTM® cable penetrations have successfully passed the widest range of tests to meet the requirements of the relevant standards for use on surface facilities for various purposes.

Our products can be used to meet fire safety requirements at any civil, industrial and military facilities, as the fire resistance limit IET of the HTM® cable penetrations reaches 120 minutes.

HTM® cable penetrations are certified for use in explosive environments and to provide protection from the effects of a passing shock wave with a maximum overpressure of 835 kPa and are widely used in the oil and gas and chemical industries in Russia and CIS countries.



In addition, HTM® cable penetrations have been successfully tested for compliance with the following standards:

- Compliance with GOST 15150-69 for climatic version UHL (boreal climate), from -60 °C to +200 °C.
- Compliance with GOST 30546 for seismic resistance of 9 points according to MSK-64 scale.
- Compliance with GOST 30631-99 for structural design category M25 and M40.
- Compliance with GOST 14644 for use in clean rooms.

Hermes plant has also successfully passed certification for compliance with the requirements of QMS STO Gazprom 9001 and Assessment of Business Reputation in the system SDS INTERGAZSERT, which confirms the high level of reliability and quality of not only products but also the entire enterprise.

The products are successfully used at the facilities of PJSC Gazprom, PJSC Novatek, PJSC Transneft, PJSC Lukoil, PJSC Sibur Holding and PJSC Rosneft.

Detailed information about compliance with specific standards and regulations can be found in the Certificates section.



## LIST OF TESTS PERFORMED FOR MARINE AND RIVER FACILITIES

HTM® cable penetrations are widely used in marine and river shipbuilding and ship repair industries.

They are fully suitable for installation in watertight, gas-tight and fireproof ceilings of class A-0, A-15, A-30, A-60 on offshore vessels, floating rigs and offshore fixed platforms.

The products have been successfully tested for the passage of cables through internal and external structures of decks and bulkheads of class A and have been approved by the Russian Maritime Register of Shipping and the Russian River Register.



As part of the work on import substitution in shipbuilding for the needs of the Russian Federation Navy, our products and the raw materials from which they are made have successfully passed additional tests with the submission of test results to the Shipbuilding and Armament Research Institute of the Military Training and Research Center of the Navy "Naval Academy":

- Sanitary and chemical tests of the component composition of the gas-air phase of the silicone rubber mixture.
- Conformity of the materials to the group of low-combustible according to GOST 12.1.044-89.
- Odorimetric studies of silicone rubber compound samples.
- Compliance with group D2 materials with moderate smoke generation ability.
- Compliance of materials with the group T2 - moderately hazardous in terms of toxicity of combustion products.
- Compliance with the group of materials slowly spreading flame on the surface.
- Tests for resistance to external climatic factors and direct solar radiation.
- Tests for resistance to the effects of high humidity.
- Tests for resistance to mold fungi.
- Possibility of use in unrestricted areas of navigation and climatic version OM1.

According to the results of the tests, HTM® cable penetrations are included in the restrictive lists of the Russian Federation Navy ОП43883 "Non-metallic materials used for insulation, finishing, and equipment of spaces of surface ships. Fire safety characteristics" and ООПВ5Р9480.

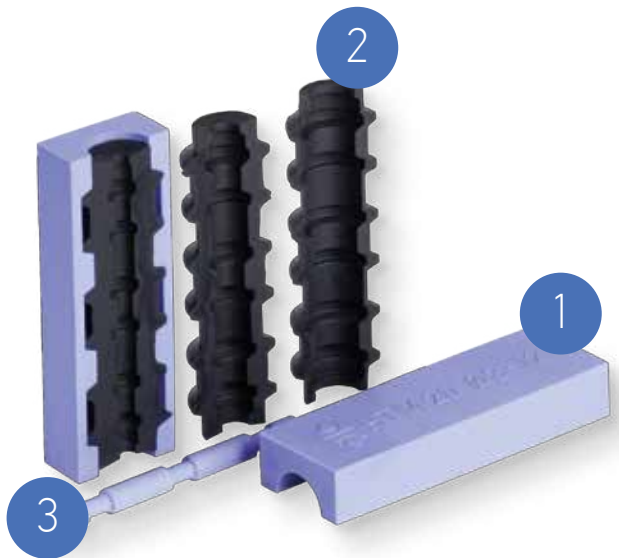
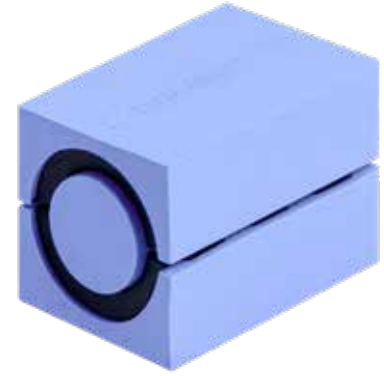


## STANDARD HTM TRANSIT MODULES

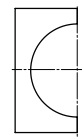
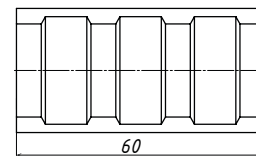
**Description:** Prefabricated product consisting of several elements - bases, a complete set of inserts and a core. All of the above components are included in the price and scope of delivery.

**Functions:**

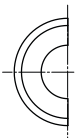
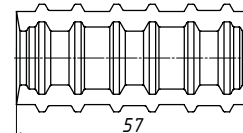
**Sealing of cables** with an outside diameter of **3 to 100 mm** in the mounting frame. The penetration does not lose its properties when making changes in its design, adding or removing cables, as the design of transit modules implies their repeated use.



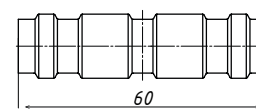
1. Base



2. Insert



3. Core



cable diameters, standard transit modules

Ordering number	Cable diameter, mm		Crimped cable diameter (with inserts), mm								Diameter of cable crimped by bases (without inserts), mm
	min	max	1		2		3		4		
<b>HTM15/3-11</b>	<b>3</b>	<b>11</b>	insert 3-4		insert 5-7		insert 7-9		-	-	base 15
			3	4.5	4.5	7	7	9	-	-	
<b>HTM20/3-12</b>	<b>3</b>	<b>12.5</b>	insert 3-4		insert 5-7		insert 8-10		-	-	base 20
			3	4.5	4.5	7.5	7.5	10.5	-	-	
<b>HTM30/13-23</b>	<b>12.5</b>	<b>23</b>	insert 13-15		insert 16-18		insert 19-21		-	-	base 30
			12.5	15.5	15.5	18.5	18.5	21.5	-	-	
<b>HTM40/23-34</b>	<b>23</b>	<b>34</b>	insert 23-25		insert 26-28		insert 29-31		-	-	base 40
			23	25.5	25.5	28.5	28.5	31.5	-	-	
<b>HTM60/34-52</b>	<b>34</b>	<b>52</b>	insert 34-38		insert 39-43		insert 44-48		-	-	base 60
			34	38.5	38.5	43	43.5	48.5	-	-	
<b>HTM90/51-79</b>	<b>51</b>	<b>79</b>	insert 51-57		insert 58-63		insert 64-69		insert 70-75		base 90
			51	57.5	57.5	63	63.5	69	69.5	75	
<b>HTM120/79-100</b>	<b>79</b>	<b>100</b>	insert 79-84		insert 85-90		insert 91-96		-	-	base 120
			79	84.5	84.5	90	90.5	96	-	-	

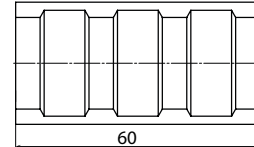


## EXTENDED RANGE HTM TRANSIT MODULES

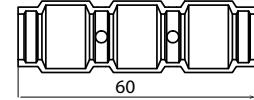
**Description:** HTM transit modules with extended cable sealing range are equipped with **upgraded bases and a special adapter into which, if necessary, standard sealing inserts are installed.** Inserts are also included. The new bases allow the installation of cables with an extended range of diameters into the HTM transit modules, while the dimensions of the modules themselves remain the same.



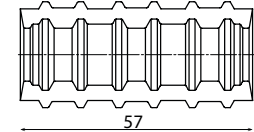
1. Base



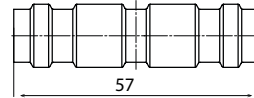
2. Adapter



3. Insert



4. Core



cable diameters, extended transit modules

Ordering number	Cable diameter, mm		Crimped cable diameter (with inserts), mm										Diameter of cable crimped by bases (without inserts), mm
			1		2		3		4		Adapter		
	min	max	min	max	min	max	min	max	min	max	min	max	
<b>HTM20/3-16</b>	<b>3</b>	<b>16</b>	insert 3-4		insert 5-7		insert 8-10		-		adapter		base 20
			3	4.5	4.5	7.5	7.5	10.5	-	-	10.5	13.5	13.5-16
<b>HTM30/10-26</b>	<b>10</b>	<b>26</b>	insert 10-12		insert 13-15		insert 16-18		insert 19-21		adapter		base 30
			10	12.5	12.5	15.5	15.5	18.5	18.5	21.5	21.5	24.5	24.5-26
<b>HTM40/20-36</b>	<b>20</b>	<b>36</b>	insert 20-22		insert 23-25		insert 26-28		insert 29-31		adapter		base 40
			20	22.5	22.5	25.5	25.5	28.5	28.5	31.5	31.5	34.5	34.5-36
<b>HTM60/31-56</b>	<b>31</b>	<b>56</b>	insert 31-33		insert 34-38		insert 39-43		insert 44-48		adapter		Base 60
			31	33.5	33.5	38.5	38.5	43.5	43.5	48.5	48.5	52.5	52.5-56

Dimensions of standard and extended HTM transit modules

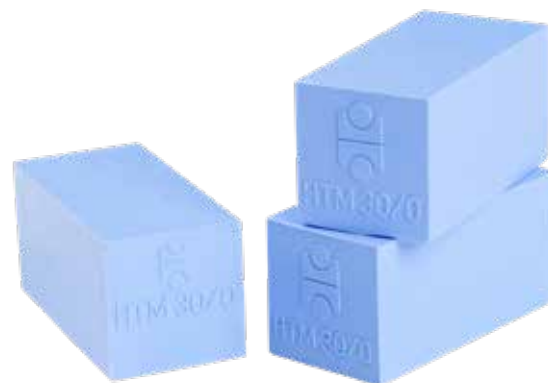
Standard size	Height, mm	Width, mm	Depth, mm
HTM15	15	15	60
HTM20	20	20	
HTM30	30	30	
HTM40	40	40	
HTM60	60	60	
HTM90	90	90	
HTM120	120	120	

## HTM PLUG MODULES

**Description:** One-piece HTM modules made of non-flammable elastomer. The use of these modules simplifies the installation process, allows you to significantly reduce customer costs in the implementation of large projects.

**Functions:**

Filling free space in the sealing section in the absence of cable or reserve space for it, providing additional distance between the cables.



Dimensions of HTM plug modules

Ordering number	Height, mm	Width, mm	Depth, mm
HTM15/0	15	15	60
HTM20/0	20	20	
HTM30/0	30	30	
HTM40/0	40	40	
HTM60/0	60	60	

## HTM COMPENSATION MODULES

**Description:**

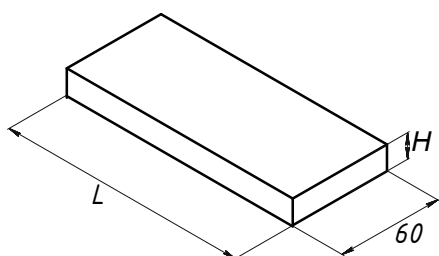
One-piece plates for sealing the remaining space in the sealing section of the HTM® cable penetration.

**Functions:**

Filling in the free space in the sealing section. They are used in cases where the required amount of cable has already been laid, and a gap remains between the press block and the last row of modules.



HTM Compensation Modules\*



Ordering number	Width, mm	Height, mm	Depth, mm
	L	H	
HTM5/0x60	60	5	60
HTM5/0x120	120	5	
HTM10/0x60	60	10	
HTM10/0x120	120	10	

\*on customer request, HTM compensation modules can be supplied in non-standard width L equal to 20, 30, 40 or 90 mm.

## HTM-PB PRESS-BLOCKS FOR RECTANGULAR FRAMES

### Description:

Made of non-flammable elastomer reinforced with embedded steel elements **to create structural rigidity, smooth and even sliding** of HTM® cable penetration components during sealing.

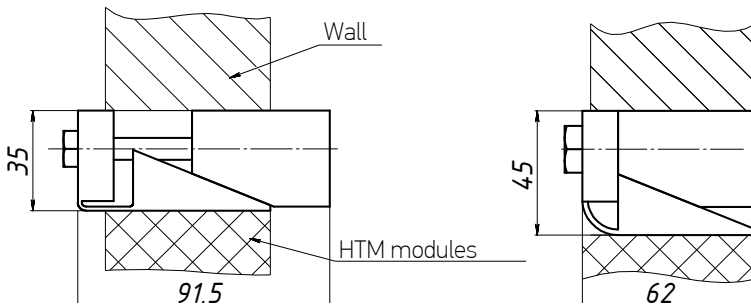
### Functions:

- **final sealing** of the cable penetration components;
- ensuring **moisture-, dust-, water-, gas-tightness** of the entire system.



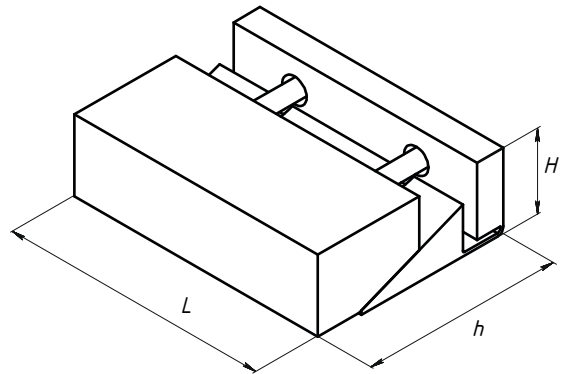
Before compression

After compression



### Dimensions of HTM press blocks

Ordering number	Dimension, mm				
	L	H		h	
		min	max	min	max
HTM-PB30	30	35	45	62	91.5
HTM-PB40	40	35	45	62	91.5
HTM-PB60	60	35	45	62	91.5
HTM-PB120	120	35	45	62	91.5



## EASY MOUNTING OF THE HTM-PB PRESS BLOCK WITH A FIXING PLATE HTM-OPF AND HTM-PU CLAMPING DEVICE / HTM-DU JACK

1. Fixing support plate HTM-OPF is installed on the penultimate row of modules in the frame. And a standard base plate is always installed directly in front of the press block.
2. Pre-sealing of the section is performed using the HTM-PU clamping device or the HTM-DMU jack, then fix the position of all components with bolts on the HTM-OPF.
3. After placing all the cables in the mounting frame, the HTM-PB press block is installed in the upper row.
4. After installing the HTM-PB press block, tighten the bolts one after the other to a torque of 20Nm. Thus, the cable will be securely sealed and fixed in the penetration.



## HTM-PBK PRESS-BLOCKS FOR ROUND FRAMES

### Description:

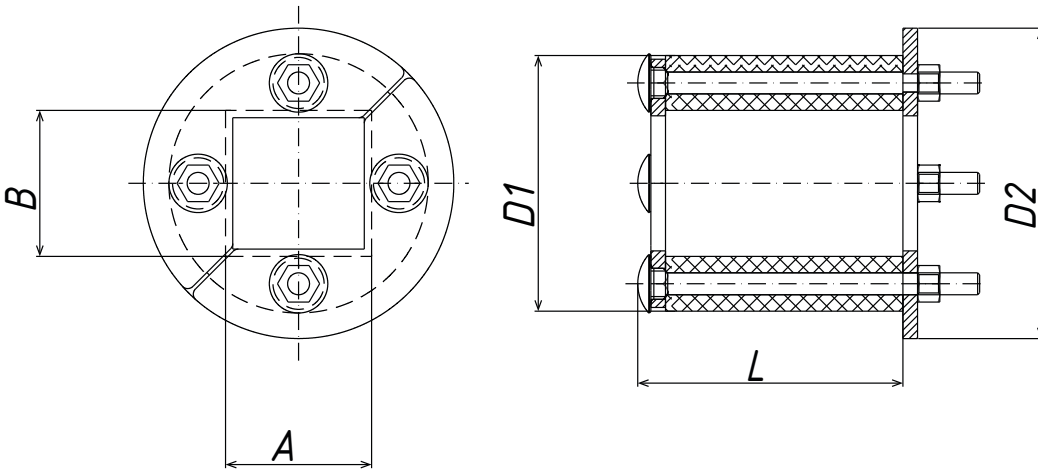
HTM-PBK press blocks are designed to seal cables and pipes with a diameter of 3 to 100 mm using HTM transit modules. Designed for round mounting frames HTM-RMK (KS/KF). The outer diameter of the press block corresponds to the inner diameter of the round frame.

### Functions:

- sealing the modules and sealing the cables and pipes in the press block is performed by tightening the front and rear steel covers with bolts;
- when used in conjunction with a dismountable frame HTM-RMKR allows you to seal already laid cable.

### Installation of the HTM-PBK press block:

1. The mounting frame is mounted in the prepared opening and fastened in an appropriate way (welding or bolting);
2. The press block is mounted in the installed and secured frame;
3. The sealing section of the press block is filled with transit modules with cables or pipes passing through them;
4. The bolts of the press block are tightened by turning them alternately in a crisscross pattern until the transit modules are fully sealed.



Press block HTM-PBK70  
with installed module  
HTM40/23-34

### Round press blocks HTM-PBK

Ordering number	Dimension, mm				
	D1	D2	A	B	L
HTM-PBK30	30	38	15	15	76
HTM-PBK40	40	50	20	20	76
HTM-PBK50	50	60	30	30	76
HTM-PBK70	70	85	40	40	72
HTM-PBK100	100	115	60	60	72
HTM-PBK150	150	165	90	90	72
HTM-PBK200	200	215	120	120	72

## RECTANGULAR MOUNTING FRAMES

- ✓ Used to place HTM modules for sealing cables and pipes in wall openings and other structures; The height of the sealing sections can be anything from 60 to 278 mm;
- ✓ If you do not plan to lay a large amount of cable, use smaller frames with a width of sealing sections of 60 mm, the standard width of sections is 120 mm.



### Possible arrangement of the sections:

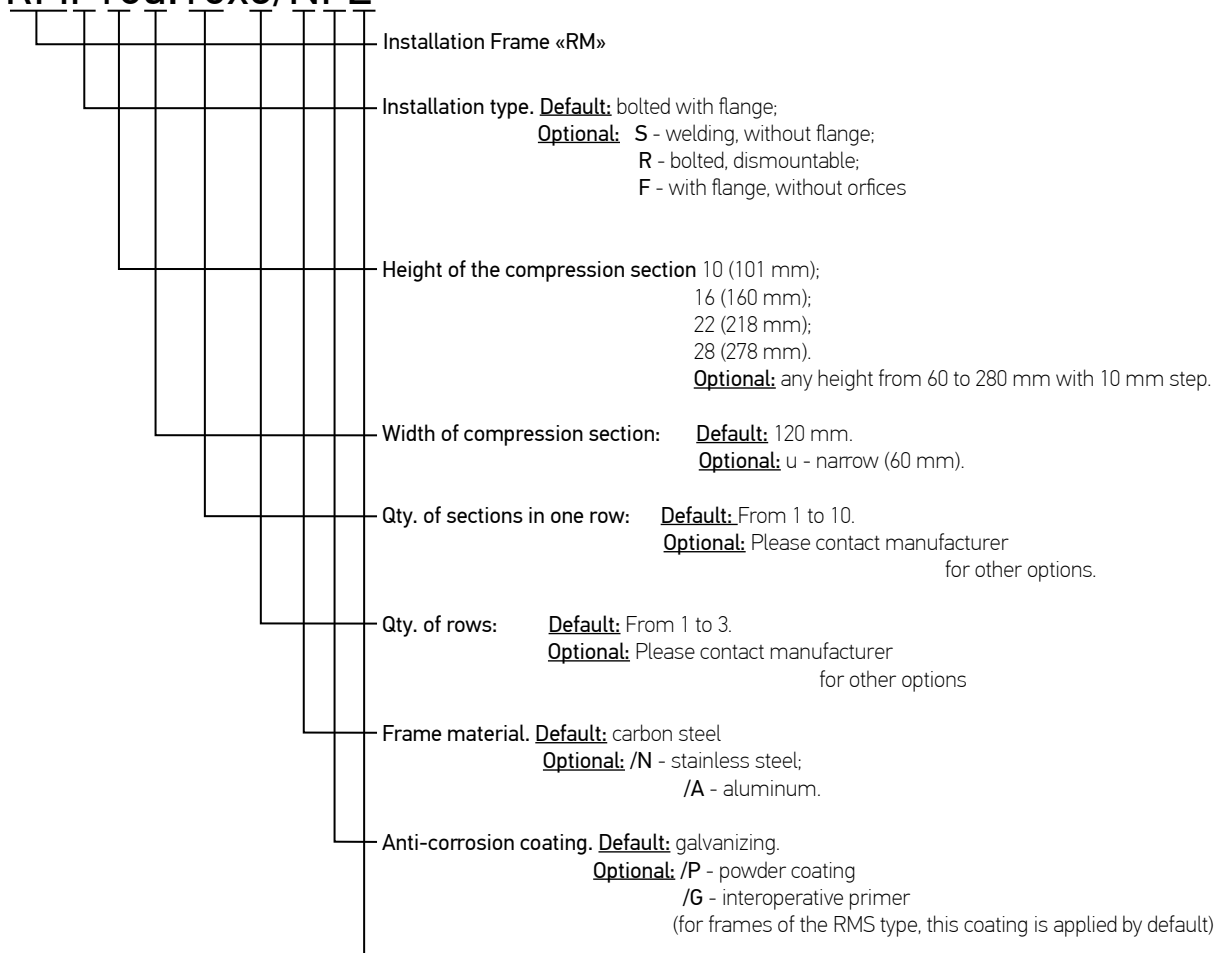
1. Longitudinally in one row;
2. Vertically in one column;
3. In several rows and columns;
4. Combining sections of different heights.

**Frames of non-standard sizes can be made at the customer's request!**

For the convenience of designing cable penetrations we offer you to use free CAD software - **HTM-constructor** (own development of Zavod HERMES Ltd.).

## Formation of an HTM mounting frames item number

HTM-RMF10u.10x3/NPZ\*



\* Example of mounting frame item number formation: HTM-RMF22u.8x3/NZ - flanged universal frame for welding or bolted connection with flanges without holes with reduced sealing section (60 mm) and height of 218 mm. Configuration - 24 sealing sections (8 sections in each of 3 rows), design - stainless steel with ground stud.



## MOUNTING FRAMES HTM-RM

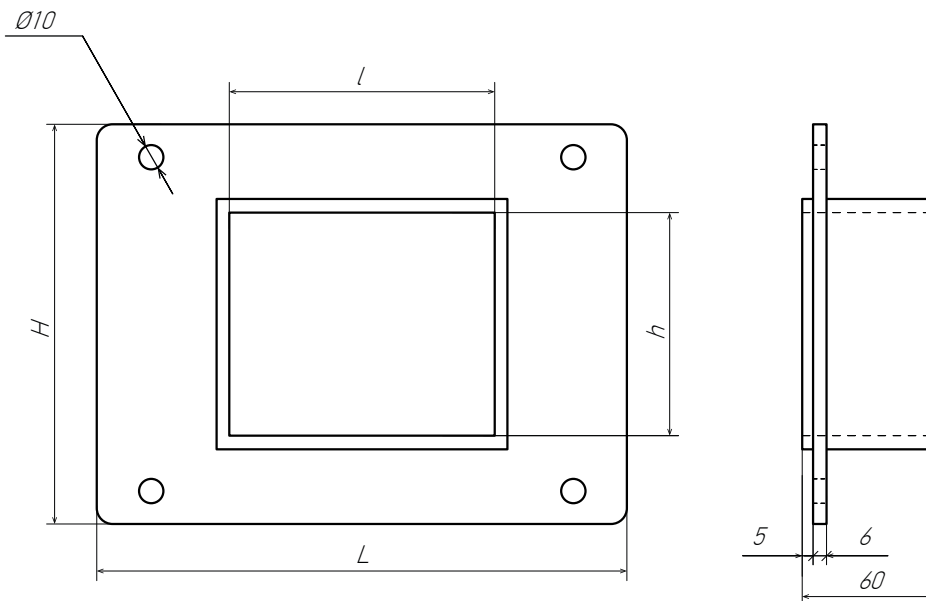
**Description:** The default manufacturing material is low-alloy steel with corrosion protection coating - galvanized. The design of mounting frames can be **single and multi-section** with standard or reduced width of sealing sections of 120 or 60 mm, respectively

**Functions:**

Location and fixation of all components of cable penetrations (sealing modules, press blocks and support plates) inside the slab.

**Mounting method:**

- bolted connection.



Mounting frame HTM-RM16.1x1 with modules and cable

### Single-section mounting frames HTM-RM of standard sizes\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RM10.1x1	240	181	120	101	140	121
HTM-RM16.1x1	240	240	120	160	140	180
HTM-RM22.1x1	240	298	120	218	140	238
HTM-RM28.1x1	240	358	120	278	140	298
HTM-RM10u.1x1	180	181	60	101	80	121
HTM-RM16u.1x1	180	240	60	160	80	180
HTM-RM22u.1x1	180	298	60	218	80	238
HTM-RM28u.1x1	180	358	60	278	80	298

\* dimensions of multi-section frames, as well as frames of non-standard sizes are available on request, as well as presented in the HTM-Constructor software



## UNIVERSAL MOUNTING FRAMES HTM-RMF

### Description:

The default manufacturing material is low-alloy steel with corrosion protection coating - intermediate primer or powder coating (to be specified when ordering). The design of mounting frames can be single and multi-section with standard or reduced width of sealing sections of 120 or 60 mm, respectively

### Functions:

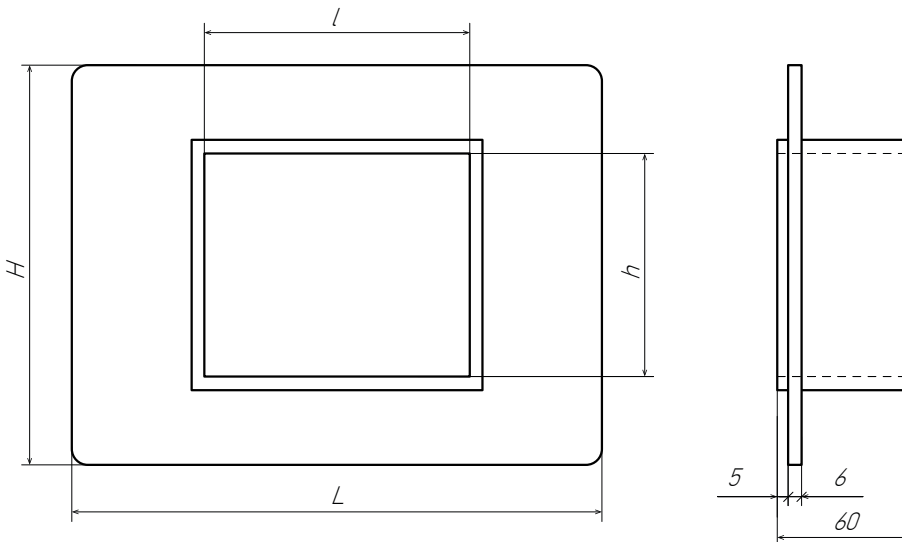
Designed to position and fix all components of cable penetrations (sealing modules, press blocks and support plates) inside the slab.

### Mounting method:

- welded connection;
- bolted connection;
- pouring concrete.



To install an HTM-RMF frame with bolted connection, you need to determine the diameter, number, and location of holes for fasteners and drill them yourself just before installation. **The holes should be treated with an anti-corrosion coating before installing the frame.**



Mounting frame HTM-RMF16.1x1 with modules and cable

### Single-section universal mounting frames HTM-RMF of standard sizes\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMF10.1x1	240	181	120	101	140	121
HTM-RMF16.1x1	240	240	120	160	140	180
HTM-RMF22.1x1	240	298	120	218	140	238
HTM-RMF28.1x1	240	358	120	278	140	298
HTM-RMF10u.1x1	180	181	60	101	80	121
HTM-RMF16u.1x1	180	240	60	160	80	180
HTM-RMF22u.1x1	180	298	60	218	80	238
HTM-RMF28u.1x1	180	358	60	278	80	298

\* dimensions of multi-section frames, as well as frames of non-standard sizes are available on request, as well as presented in the HTM-Constructor software



## FRAMES FOR WELDING CONNECTION HTM-RMS

**Description:** The frames are designed specifically for mounting by means of welded joints. They are made of 10 mm thick steel to ensure structural rigidity and maintain geometry during installation.

The frames are coated by default with an inter-operating primer that protects the frames from corrosion during storage. After installation, it is required to apply an anti-corrosion coating to the frame on site.

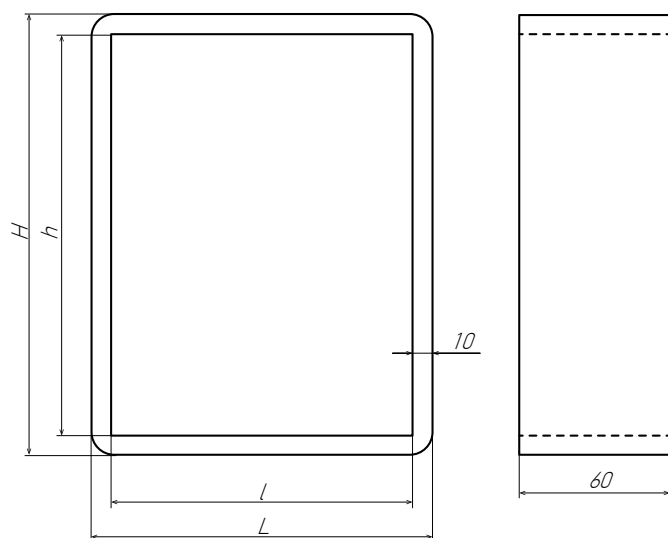
The design of mounting frames can be single and multi-section with standard or reduced width of sealing sections: 120 mm or 60 mm.

### Mounting method:

- welded connection, it is possible to weld the frame to the slab at an angle for more convenient cable routing.



For reliable mounting and to prevent deformation of the frame during welding, we recommend the use of a clamp, the width of which depends on the width of the sealing section of the mounted frame - 60 or 120 mm, as well as follow the instructions for installation.



Single-section mounting frames for welding HTM-RMS of standard sizes\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMS10.1x1	140	121	120	101	142	123
HTM-RMS16.1x1	140	180	120	160	142	182
HTM-RMS22.1x1	140	238	120	218	142	240
HTM-RMS28.1x1	140	298	120	278	142	300
HTM-RMS10u.1x1	80	121	60	101	82	123
HTM-RMS16u.1x1	80	180	60	160	82	182
HTM-RMS22u.1x1	80	238	60	218	82	240
HTM-RMS28u.1x1	80	298	60	278	82	300

\* dimensions of multi-section frames, as well as frames of non-standard sizes are available on request, as well as presented in the HTM-Constructor software





## DISMOUNTABLE MOUNTING FRAMES HTM-RMR

### Description:

The frame is delivered assembled, consisting of individual elements of low-alloy steel with corrosion-resistant coating - galvanized. Sealing between the elements of the frame is made at the installation site by applying heat-resistant fireproof sealant (not included) \*

### Functions:

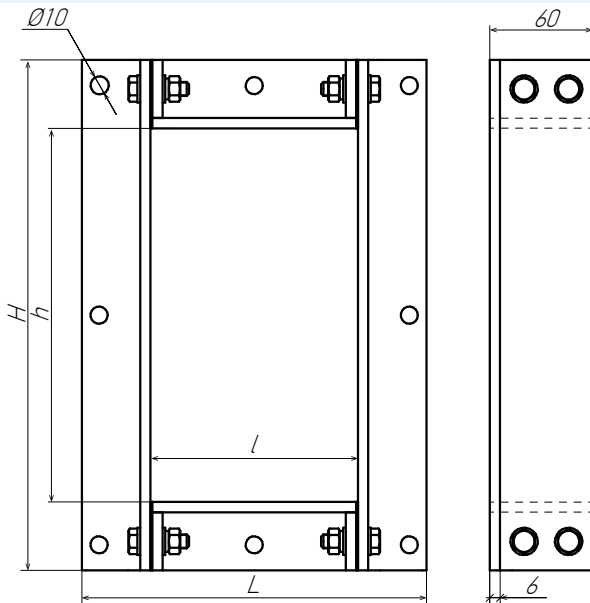
**Sealing of previously installed cables in the ceiling.** The frame parts are assembled around the existing cable in the slab and bolted together securely.

### Mounting method:

- bolted connection. Unlike non-dismountable frames, HTM-RMR is not built into the wall, but is mounted by the protruding part of the sealing sections outward, so that the section with the modules protrudes from the wall at 60 mm.



**It is necessary to plan the size of the frame based on the diameter of the existing cable and the parameters of the sealing modules to complete the sealing. The frame is attached to the mounting surface with flanges, and the sealing section (60 mm deep) protrudes outward.**



Single-section dismountable mounting frames HTM-RMR of standard sizes\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm	
	L	H	l	h
HTM-RMR10.1x1	200	181	120	101
HTM-RMR16.1x1	200	240	120	160
HTM-RMR22.1x1	200	298	120	218
HTM-RMR28.1x1	200	358	120	278
HTM-RMR10u.1x1	140	181	60	101
HTM-RMR16u.1x1	140	240	60	160
HTM-RMR22u.1x1	140	298	60	218
HTM-RMR28u.1x1	140	358	60	278

\* dimensions of multi-section frames, as well as frames of non-standard sizes are available on request, as well as presented in the HTM-Constructor software



## CUSTOMIZED MOUNTING FRAMES

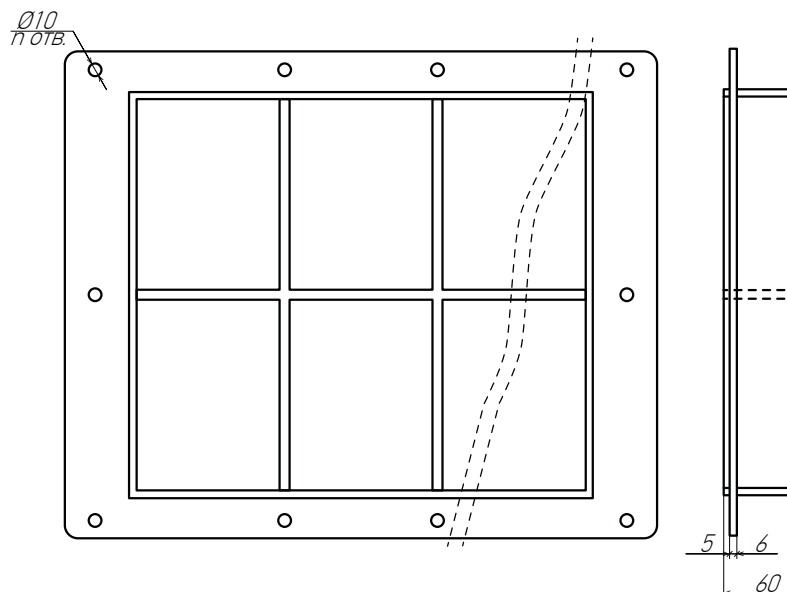
The flexibility of our production allows us to implement **any order you want!**

A combination of frame section sizes is possible. Their width is a choice of 60 or 120 mm, and the height can be any 60 mm or more, in increments of 10 mm.



Custom frame of non-standard sizes, HTM-RM28x12+22x12+28x12 with sections of combined height:

- RM28x12 - the first row of the frame (marking begins with the top row), section height 278 mm, the number - 12;
- 22x12 - the second row of the frame with a section height of 218 mm, the number - 12;
- 28x12 - the third row of frame sections, in this configuration, it duplicates the first.



You can independently **design a cable entry with any frame size and number of sections** in our free CAD - **HTM-constructor** (own development of Zavod HERMES Ltd.). To gain access, send a request to: [info@ntm-hermes.com](mailto:info@ntm-hermes.com)

The software is available for Windows in two variants:

- **stationary** (requires installation under an account with Administrator privileges);
- **portable** (requires no installation, can be run under an account with user rights, can be run from any media);
- **online** (available upon request after a quick registration on the website [конструктор.кабельные-проходки.рф](http://конструктор.кабельные-проходки.рф)).





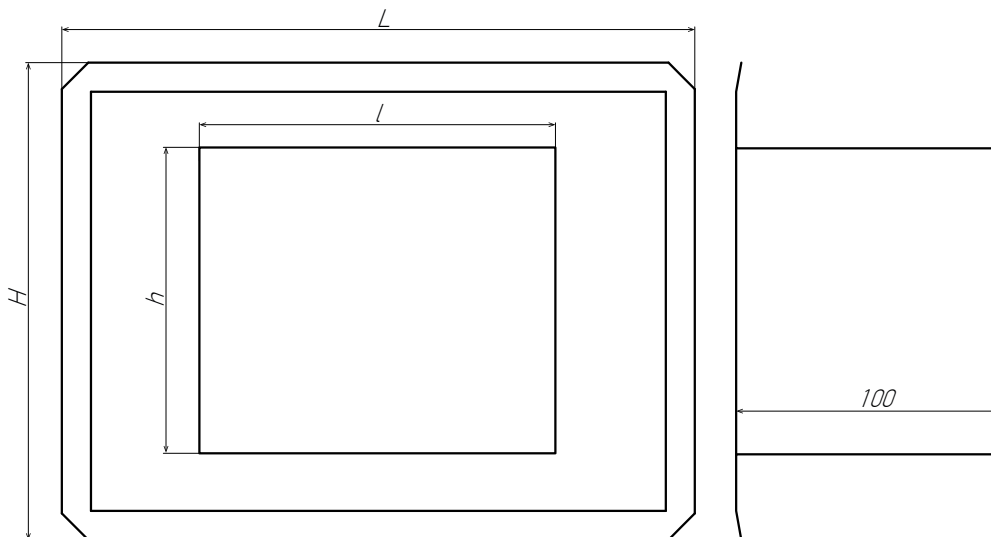
## MATING FRAMES HTM-RO

**Description:** Designed for use in conjunction with mounting frames and are used to **create a continuous channel inside particularly thick walls and ceilings**. The standard depth of the HTM-RO mating frames is **100 mm**, but we make frames of any depth on request.

They are made of galvanized sheet metal with a **thickness of 0.7 mm** and are supplied **without drill holes for fasteners**. The customer chooses the location of the holes and the method of attachment in the process of installation.

### Functions:

- creation of a continuous cable duct;
- protection of cable from damage by sharp cuts of sandwich panels;
- giving the structure a finished look.



Reduced mating frame HTM-RO16u.1x1

### Single-section mating frames HTM-RO in standard sizes\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm	
	L	H	l	h
HTM-RO10.1x1	240	181	135	116
HTM-RO16.1x1	240	240	135	175
HTM-RO22.1x1	240	298	135	233
HTM-RO28.1x1	240	358	135	293
HTM-RO10u.1x1	180	181	75	116
HTM-RO16u.1x1	180	240	75	175
HTM-RO22u.1x1	180	298	75	233
HTM-RO28u.1x1	180	358	75	293

\* dimensions of mating frames for multi-section passageway configurations, as well as frames of non-standard sizes, are available on request



## DISMOUNTABLE MATING FRAMES HTM-ROR

### Description:

Designed specifically for cases where the cable is already installed, and it is not possible to pull it through a solid frame. Frame parts are assembled around the existing cable on the back side of the slab. The standard depth of the HTM-ROR mating frames is 100 mm, but we make frames of any depth on request.

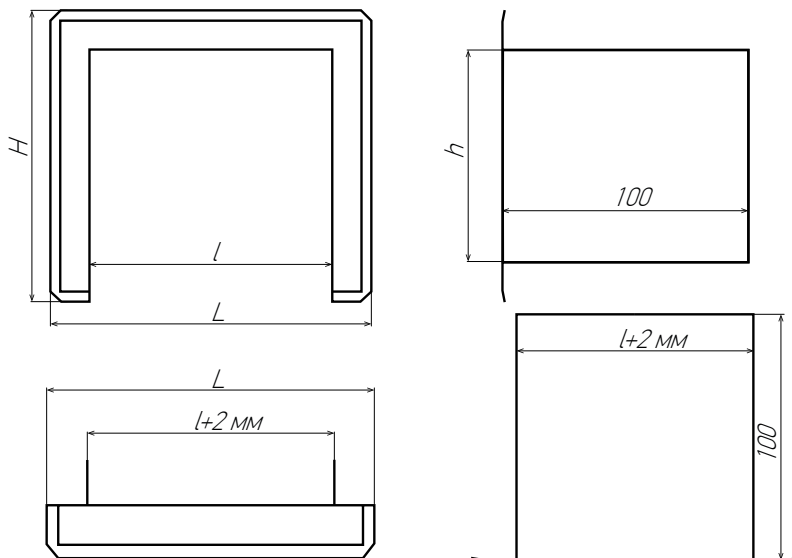
Made of galvanized sheet metal with thickness of 0.7 mm.

Manufactured without drilled holes for fasteners. Their location and how they are connected to the mounting frame is up to you.

The edges of the HTM-ROR are docked with the edges of the mounting frame in the opening.

### Functions:

- creation of a continuous cable channel in cases where the cable is already laid;
- protection of cable from damage by sharp cuts of sandwich panels;
- giving the structure a finished look.



Reduced mating frame  
HTM-ROR16.1x1

### Single-section dismountable mating frames HTM-ROR in standard sizes\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm	
	L	H	l	h
HTM-ROR10.1x1	200	181	120	101
HTM-ROR16.1x1	200	240	120	160
HTM-ROR22.1x1	200	298	120	218
HTM-ROR28.1x1	200	358	120	278
HTM-ROR10u.1x1	140	181	60	101
HTM-ROR16u.1x1	140	240	60	160
HTM-ROR22u.1x1	140	298	60	218
HTM-ROR28u.1x1	140	358	60	278

\* dimensions of mating frames for multi-section passageway configurations, as well as frames of non-standard sizes, are available on request



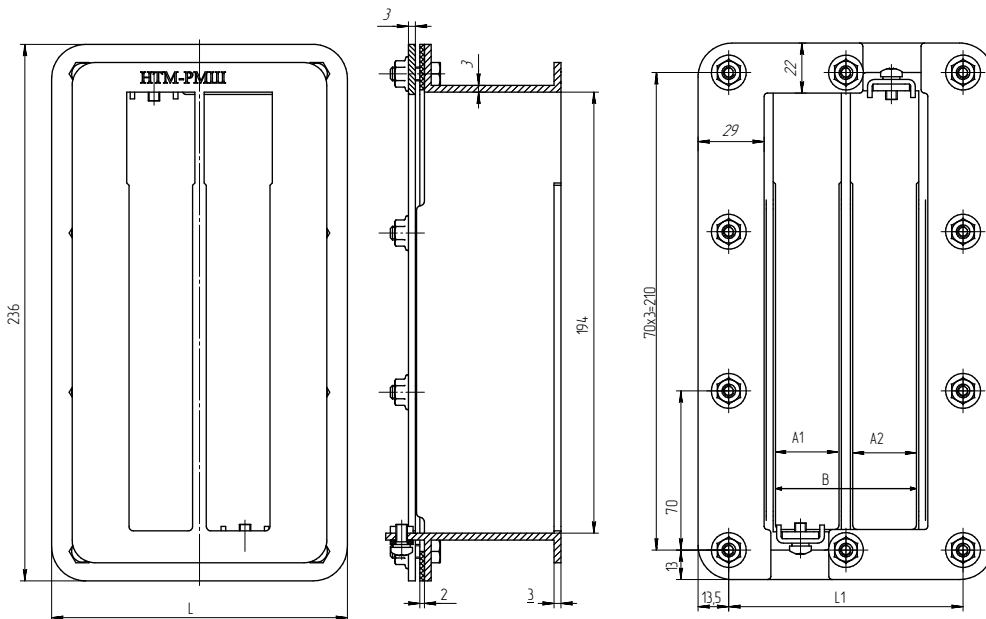
## CABINET MOUNTING FRAMES HTM-RMSH

**Description:** Cabinet frames are designed for installation in the metal wall of electrical control cabinets. They are made of steel with a thickness of 3 mm with corrosion protection coating - galvanized. The design can be single and double-section, with a width of sealing sections of 30 mm and 40 mm. The design of a combined double-section frame with the following section widths is possible: 30 mm and 40 mm. The frame is installed on the outside of the cabinet wall.

**Mounting method:**  
- bolted connection



Cabinet mounting frames HTM-RMSH are supplied with accompanying nomenclature: press block HTM-PB30/HTM-PB40, base plate HTM-OP30/HTM-OP40, sealing gasket.



Cabinet mounting frames HTM-RMSH

Ordering number	Frame external dimensions, mm		Section width, mm		Size of the mounting opening, mm		Intercenter distance, mm
	Width (L)	Height	A1	A2	Width (B)	Height	L1
HTM-RMSH 30	84	236	30	30	30	194	56
HTM-RMSH 30x2	130	236	30	30	64	194	56
HTM-RMSH 40	84	236	40	40	40	194	103
HTM-RMSH 40x2	130	236	40	40	84	194	103
HTM-RMSH 30+40	120	236	30	40	74	194	93



## EMC SERIES. PROTECTION AGAINST ELECTROMAGNETIC INTERFERENCE

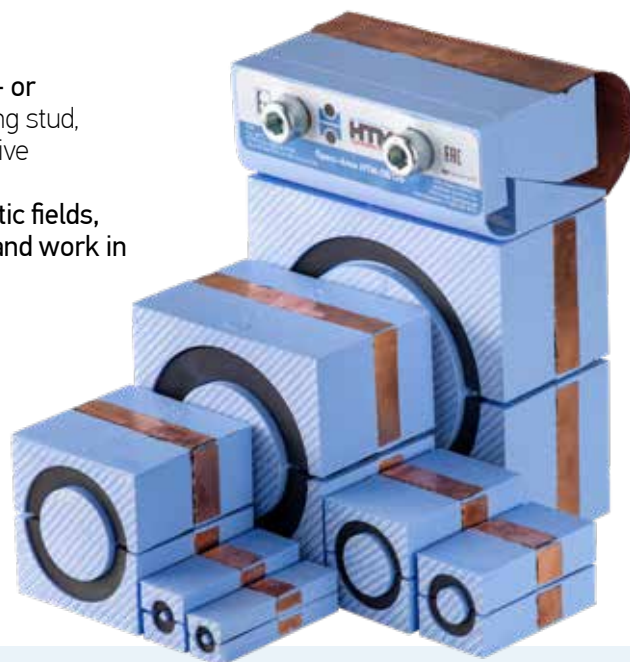
### Description:

The HTM cable penetration of EMC series (electromagnetic capability - or electromagnetic compatibility) consists of a steel frame with a grounding stud, steel plates, shielded sealing modules, shielded press block and conductive mounting grease.

Thus, the EMC series penetration **resists the influence of electromagnetic fields, surges and provides protection under the requirements of fire safety and work in explosive environments.**

### Functions:

Protection against electromagnetic interference caused by electromagnetic waves from electrical or electronic devices, as well as by electronic warfare.



HTM cable penetrations of EMC series are designed to **eliminate the negative effects of electromagnetic interference and impulses** transmitted through the passing cables and space in the cable penetration area, as well as to preserve electromagnetic compatibility between different electrical and electronic devices by means of electromagnetic shielding.

In addition, HTM cable penetration of EMC series also serves to effectively ground the reinforced and shielded cables passing through it, to prevent the negative effects of short circuits and surges in electrical equipment, connected by passing cables.

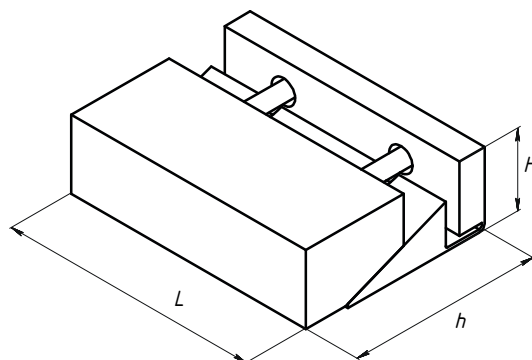
## PRESS BLOCKS HTM-PB EMC



Press blocks HTM-PB of EMC version contain a continuous screen of conductive copper foil to create a **protective barrier against passing electromagnetic pulses, interference** and transfer them through the steel frame to the grounding bus. The installation of such press blocks does not differ from the installation of conventional press blocks.

Press blocks HTM-PB EMC

Ordering number	Dimension, mm				
	L	H		h	
		min	max	min	max
HTM-PB60 EMC	60	35	45	62	91.5
HTM-PB120 EMC	120	35	45	62	91.5





## TRANSIT MODULES HTM EMC AND PRESS BLOCKS HTM-PBC EMC

Transit modules HTM and press blocks HTM-PKB of EMC version contain a continuous screen of conductive copper foil in the center of the module to create a protective barrier against passing electromagnetic pulses, interference, as well as to remove the grounding from the metal braided cables and transfer them through the steel frame to the grounding bus.

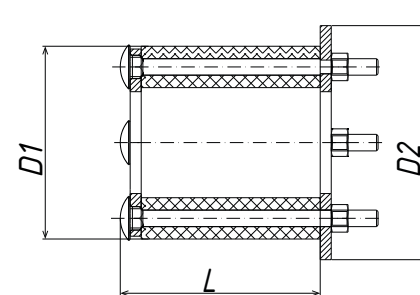
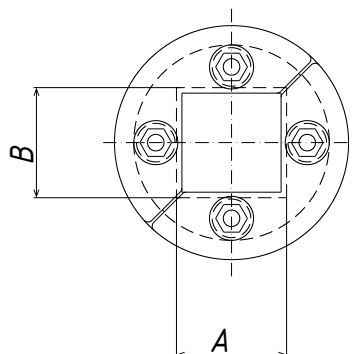
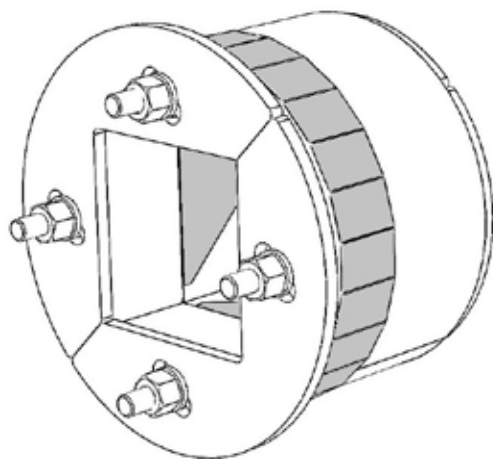


Crimped cable diameters, standard transit modules of EMC version

Ordering number	Cable diameter, mm		Crimped cable diameter (with inserts), mm								Diameter of cable crimped by bases (without inserts), mm
			1		2		3		4		
	min	max	min	max	min	max	min	max	min	max	
<b>HTM15/3-11 EMC</b>	<b>3</b>	<b>11</b>	insert 3-4		insert 5-7		insert 7-9		-	-	base 15
			3	4.5	4.5	7	7	9	-	-	9-11
<b>HTM20/3-12 EMC</b>	<b>3</b>	<b>12.5</b>	insert 3-4		insert 5-7		insert 8-10		-	-	base 20
			3	4.5	4.5	7.5	7.5	10.5	-	-	11-12.5
<b>HTM30/13-23 EMC</b>	<b>12.5</b>	<b>23</b>	insert 13-15		insert 16-18		insert 19-21		-	-	base 30
			12.5	15.5	15.5	18.5	18.5	21.5	-	-	22-23
<b>HTM40/23-34 EMC</b>	<b>23</b>	<b>34</b>	insert 23-25		insert 26-28		insert 29-31		-	-	base 40
			23	25.5	25.5	28.5	28.5	31.5	-	-	32-34
<b>HTM60/34-52 EMC</b>	<b>34</b>	<b>52</b>	insert 34-38		insert 39-43		insert 44-48		-	-	base 60
			34	38.5	38.5	43	43.5	48.5	-	-	49-52
<b>HTM90/51-79 EMC</b>	<b>51</b>	<b>79</b>	insert 51-57		insert 58-63		insert 64-69		insert 70-75		base 90
			51	57.5	57.5	63	63.5	69	69.5	75	76-79
<b>HTM120/79-100 EMC</b>	<b>79</b>	<b>100</b>	insert 79-84		insert 85-90		insert 91-96		-	-	base 120
			79	84.5	84.5	90	90.5	96	-	-	97-100

Crimped cable diameters, extended transit modules of EMC version

Ordering number	Cable diameter, mm		Crimped cable diameter (with inserts), mm								Adapter		Diameter of cable crimped by bases (without inserts), mm
			1		2		3		4				
	min	max	min	max	min	max	min	max	min	max	min	max	
<b>HTM20/3-16 EMC</b>	<b>3</b>	<b>16</b>	insert 3-4		insert 5-7		insert 8-10		-		adapter		base 20
			3	4.5	4.5	7.5	7.5	10.5	-	-	10.5	13.5	13.5-16
<b>HTM30/10-26 EMC</b>	<b>10</b>	<b>26</b>	insert 10-12		insert 13-15		insert 16-18		insert 19-21		adapter		base 30
			10	12.5	12.5	15.5	15.5	18.5	18.5	21.5	21.5	24.5	24.5-26
<b>HTM40/20-36 EMC</b>	<b>20</b>	<b>36</b>	insert 20-25		insert 23-25		insert 26-28		insert 29-31		adapter		base 40
			20	22.5	22.5	25.5	25.5	28.5	28.5	31.5	31.5	34.5	34.5-36
<b>HTM60/31-56 EMC</b>	<b>31</b>	<b>56</b>	insert 31-33		insert 34-38		insert 39-43		insert 44-48		adapter		Base 60
			31	33.5	33.5	38.5	38.5	43.5	43.5	48.5	48.5	52.5	52.5-56



Round press blocks HTM-PBK of EMC version

Ordering number	Dimension, mm				
	D1	D2	A	B	L
HTM-PBK30 EMC	30	38	15	15	76
HTM-PBK40 EMC	40	50	20	20	76
HTM-PBK50 EMC	50	60	30	30	76
HTM-PBK70 EMC	70	85	40	40	72
HTM-PBK100 EMC	100	115	60	60	72
HTM-PBK150 EMC	150	165	90	90	72
HTM-PBK200 EMC	200	215	120	120	72

## MODULE HTM40/SH FOR THE GROUNDING BUS 40X4

### Description:

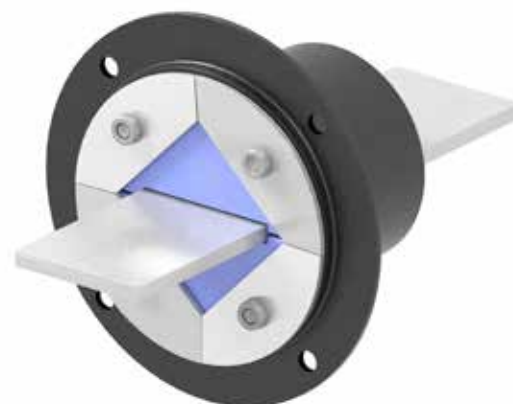
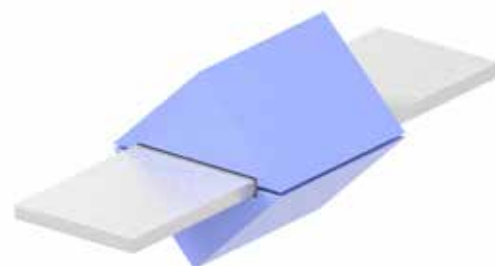
Module HTM40/Sh is a sealing element of non-flammable elastomeric class PV-0 with dimensions 40x40x60. Suitable for **sealing the node of the passage of the grounding strip 40x4** through the enclosing structure. Used together with the HTM-PBK70 press block.

### Function:

Steel strip 40x4 is often used in the creation of grounding circuits for the arrangement of lightning protection systems.

The standard grounding system consists of a certain set of metal parts and elements that ensure reliable contact with the ground of the enclosure of the connected electrical equipment.

All equipment requiring earthing is connected to the main grounding bus (MGB). Next, the MGB is connected to the ground loop and goes into the ground. As a rule, a 40x4 strip is used to create a ground loop. **If it is necessary to run the strip through the wall, the hole created for this purpose must be sealed.** Exactly in this case, you can use a HTM cable penetration kit with module HTM40/Sh.



Kit for sealing the grounding strip consisting of:  
HTM40/Sh module, HTM-PBK70 press block, HTM-RMK70 frame

Dimensions of module HTM40/Sh

Ordering number	Height, mm	Width, mm	Depth, mm
HTM40/Sh	40	40	60





## ROUND MOUNTING FRAMES

- ✓ Sealing of cables from 3 to 100 mm in diameter in onshore objects, in structures of decks and bulkheads of class A river and sea ships, floating drilling rigs and offshore fixed platforms;
- Prevent fire, water and gas from entering adjacent rooms;
- ✓ Water and gas tightness up to 2.5 kg/cm<sup>2</sup> (2.5 bar);
- ✓ IP66/68 protection level.
- ✓

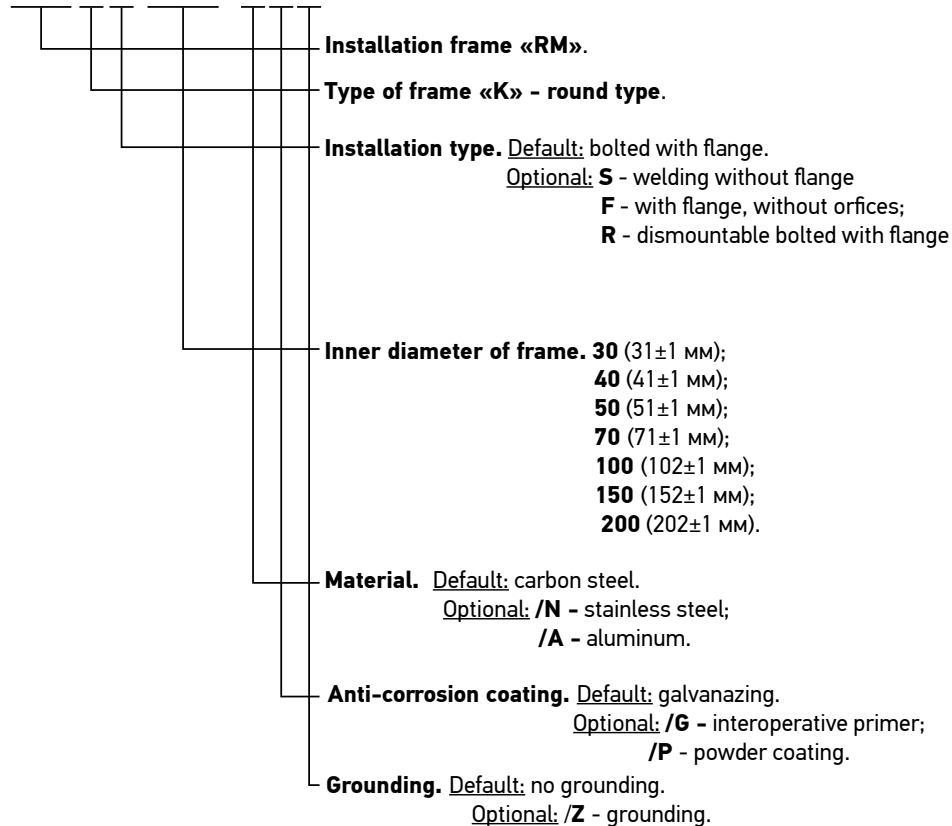


### Important:

- round frames provide tightness only in conjunction with the complete press block HTM-PBK and sealing modules HTM;

## Formation of a HTM-RMK round mounting frames item number

### HTM-RMKS 200/NGZ





## ROUND MOUNTING FRAMES HTM-RMK

**Description:** Frames made of steel with anti-corrosion coating for sealing cables and pipes with a diameter of 3 to 100 mm.

**Functions:**

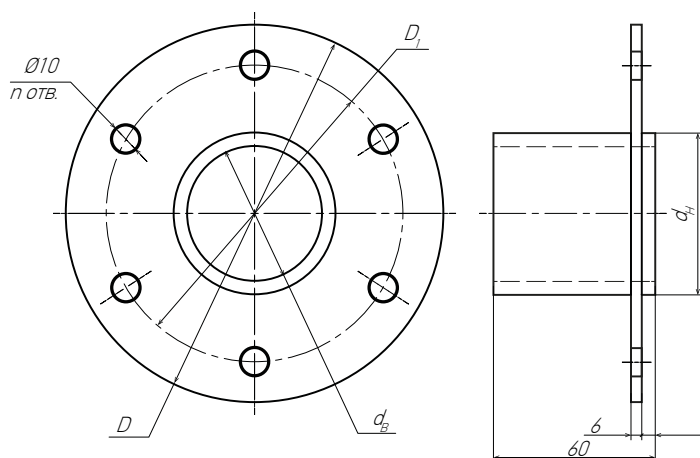
- prevent fire, water and gas from entering adjacent rooms;
- sealing of cables in walls and ceilings;
- IP66/68 protection level;

**Mounting method:**

- bolt mounting.

**Coating types:**

- interoperative primer;
- powder coating;
- galvanic zinc plating.



Round mounting frame HTM-RMK70 with installed HTM-PBK press block and transit module

### Round mounting frames HTM-RMK

Ordering number	Frame dimensions, mm					Applicable press blocks
	D	D <sub>1</sub>	d <sub>out</sub> ±1	d <sub>in</sub> ±1	n	
HTM-RMK30	100	70	38-40	31	4	HTM-PBK30
HTM-RMK40	110	80	48-50	41	4	HTM-PBK40
HTM-RMK50	140	110	57-60	51	4	HTM-PBK50
HTM-RMK70	160	130	80-83	71	4	HTM-PBK70
HTM-RMK100	195	165	108-114	102	4	HTM-PBK100
HTM-RMK150	236	206	159-168	152	6	HTM-PBK150
HTM-RMK200	290	260	210-219	202	8	HTM-PBK200



## DISMOUNTABLE ROUND MOUNTING FRAMES HTM-RMKR

**Description:** Frames made of steel with anti-corrosion coating for sealing already installed cables and pipes with a diameter of 3 to 100 mm due to dismantlable design.

**Functions:**

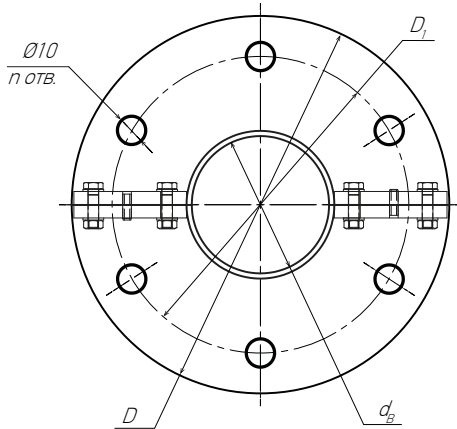
- prevent fire, water and gas from entering adjacent rooms;
- sealing of cables in walls and ceilings;
- IP66/68 protection level;

**Mounting method:**

- bolt mounting.

**Coating types:**

- interoperative primer;
- powder coating;
- galvanic zinc plating.



Round dismantlable mounting frame HTM-RMKR200

### Dismountable round mounting frames HTM-RMKR

Ordering number	Frame dimensions, mm					Applicable press blocks
	D	D <sub>1</sub>	d <sub>out</sub> ±1	d <sub>in</sub> ±1	n	
HTM-RMKR30	160	130	40	31	6	HTM-PBK30
HTM-RMKR40	213	180	50	41	6	HTM-PBK40
HTM-RMKR50	226	196	60	51	6	HTM-PBK50
HTM-RMKR70	246	216	83	71	8	HTM-PBK70
HTM-RMKR100	317	287	114	102	8	HTM-PBK100
HTM-RMKR150	367	337	168	152	10	HTM-PBK150
HTM-RMKR200	417	387	219	202	12	HTM-PBK200



## UNIVERSAL ROUND MOUNTING FRAMES HTM-RMKF

**Description:** Frames for sealing cables and pipes with a diameter of 3 to 100 mm. Intended **for installation at sea, offshore, as well as onshore facilities.**

**Functions:**

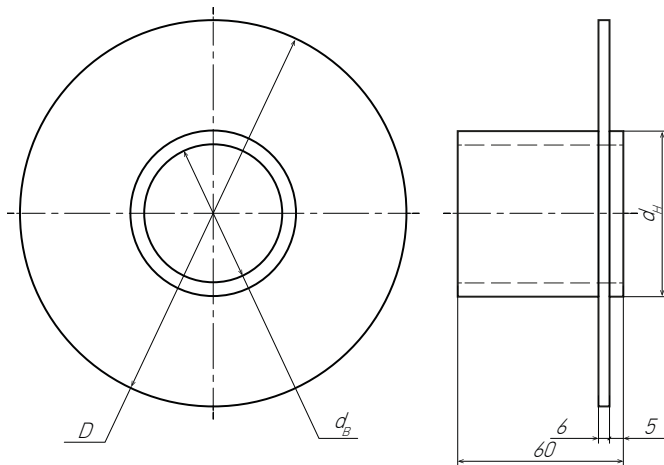
- prevent fire, water and gas from entering adjacent rooms;
- sealing of cables in walls and ceilings;
- water and gas tightness up to 2.5 kg/cm<sup>2</sup> (2.5 bar);
- IP66/68 protection level.

**Mounting method:**

- welded connection;
- bolt mounting.

**Possible types of coatings:**

- interoperative primer;
- powder coating;
- galvanic zinc plating.



Universal round mounting frame HTM-RMKF50

### Universal round mounting flanged frames HTM-RMKF

Ordering number	Frame dimensions, mm			Applicable press blocks
	D	d <sub>out</sub> ±1	d <sub>in</sub> ±1	
HTM-RMKF30	100	38-40	31	HTM-PBK30
HTM-RMKF40	110	48-50	41	HTM-PBK40
HTM-RMKF50	140	57-60	51	HTM-PBK50
HTM-RMKF70	160	80-83	71	HTM-PBK70
HTM-RMKF100	195	108-114	102	HTM-PBK100
HTM-RMKF150	236	159-168	152	HTM-PBK150
HTM-RMKF200	290	210-219	202	HTM-PBK200



## ROUND MOUNTING FRAMES FOR WELDING CONNECTION HTM-RMKS

**Description:** Frames for sealing cables and pipes with a diameter of 3 to 100 mm. Allow you to place the cable path at any angle to the floor. Intended **for installation at sea, offshore, as well as onshore facilities.**

### Functions:

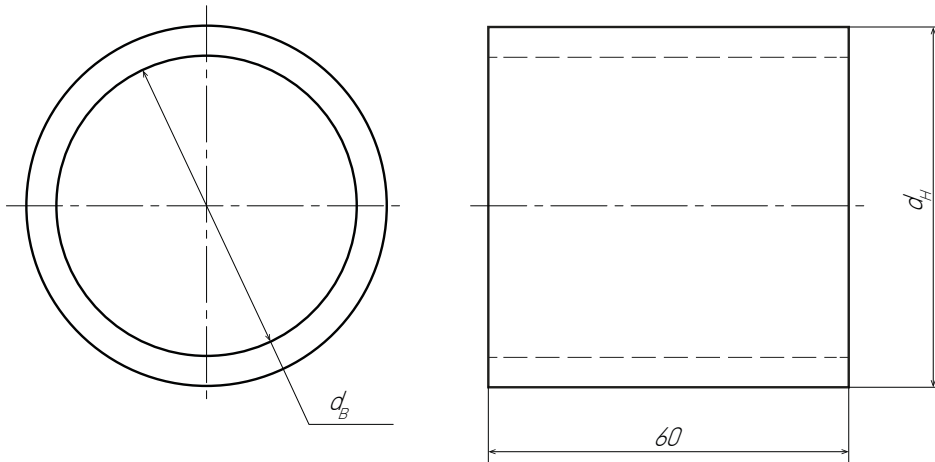
- prevent fire, water and gas from entering adjacent rooms;
- sealing of cables in walls and ceilings;
- water and gas tightness up to 2.5 kg/cm<sup>2</sup> (2.5 bar);
- IP66/68 protection level.

### Mounting method:

- welded connection.

### Possible types of coatings:

- interoperative primer;
- powder coating;
- galvanic zinc plating.



Round mounting frame for welding connection HTM-RMKS50

### Round mounting flangeless frames for welding connection HTM-RMKS

Ordering number	Frame dimensions, mm		Applicable press blocks
	$d_{out} \pm 1$	$d_{in} \pm 1$	
HTM-RMKS30	38-40	31	HTM-PBK30
HTM-RMKS40	48-50	41	HTM-PBK40
HTM-RMKS50	57-60	51	HTM-PBK50
HTM-RMKS70	80-83	71	HTM-PBK70
HTM-RMKS100	108-114	102	HTM-PBK100
HTM-RMKS150	159-168	152	HTM-PBK150
HTM-RMKS200	210	202	HTM-PBK200



## ROUND MATING FRAMES HTM-ROKF

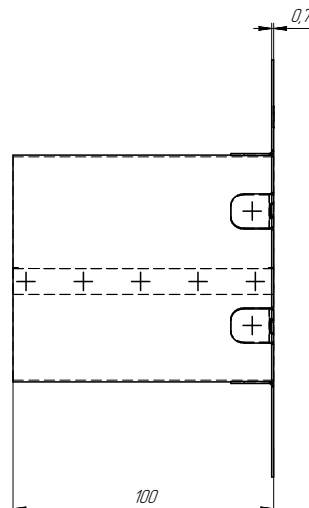
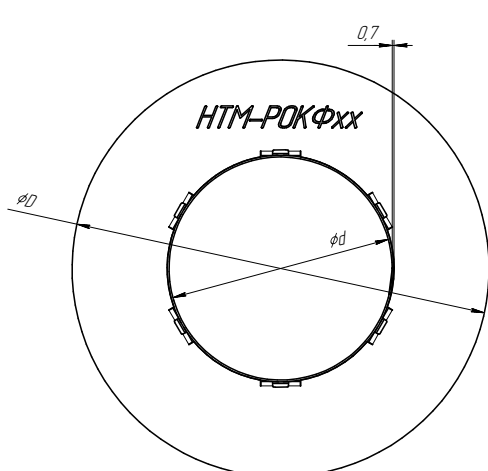
**Description:** Round counter frames are produced without drilled holes for fasteners, the customer can choose their location. When installed in an opening, the mounting frame fits completely inside the counter frame, providing a continuous cable duct. The standard depth of the HTM-ROKF mating frames is 100 mm, other depths of the mating frames are specified when ordering.

**Functions:**

- creation of a continuous cable duct;
- protection of cable from damage by sharp cuts of sandwich panels;
- giving the structure a finished look.

**Mounting method:**

- bolt mounting
- anchor bolt



Universal round mounting flanged frames HTM-ROKF

Ordering number	Frame dimensions, mm		Diameter of the mounting opening in the wall, mm
	D	$d_{in} \pm 1$	
HTM-ROKF30	100	44	50
HTM-ROKF40	110	54	60
HTM-ROKF50	140	64	70
HTM-ROKF70	160	87	93
HTM-ROKF100	195	118	124
HTM-ROKF150	236	172	178
HTM-ROKF200	290	223	229



## DISMOUNTABLE ROUND MATING FRAMES HTM-ROKFR

**Description:** Round counter frames are produced without drilled holes for fasteners, the customer can choose their location.

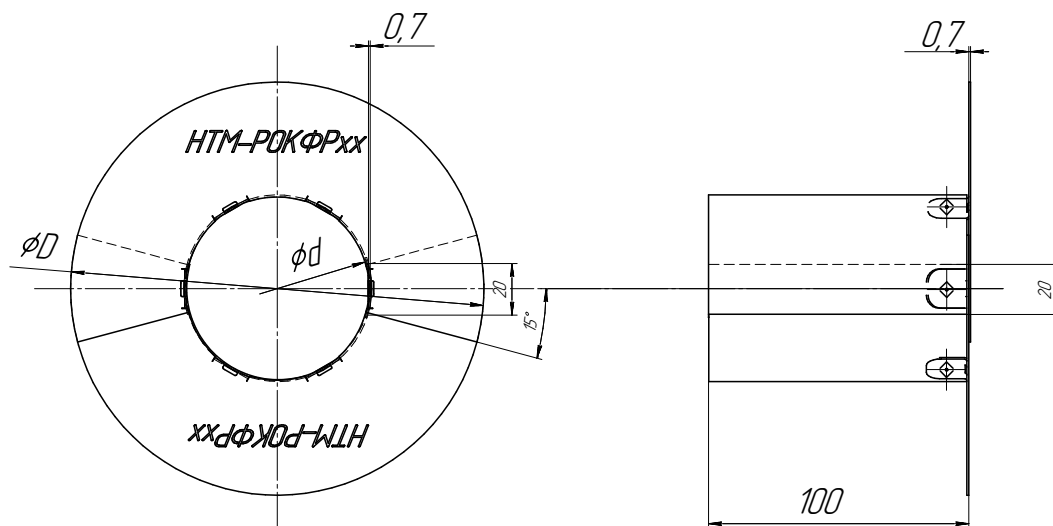
When installed in an opening, the mounting frame fits completely inside the counter frame, providing a continuous cable duct. The standard depth of the HTM-ROKFR mating frames is 100 mm, other depths of the mating frames are specified when ordering.

### Functions:

- it is used for already installed cable;
- creation of a continuous cable duct;
- protection of cable from damage by sharp cuts of sandwich panels;
- giving the structure a finished look.

### Mounting method:

- bolt mounting
- anchor bolt



Universal round mounting flanged frames HTM-ROKFR

Ordering number	Frame dimensions, mm		Diameter of the mounting opening in the wall, mm
	D	d ±1	
HTM-ROKFR30	100	44	50
HTM-ROKFR40	110	54	60
HTM-ROKFR50	140	64	70
HTM-ROKFR70	160	87	93
HTM-ROKFR100	195	118	124
HTM-ROKFR150	236	172	178
HTM-ROKFR200	290	223	229



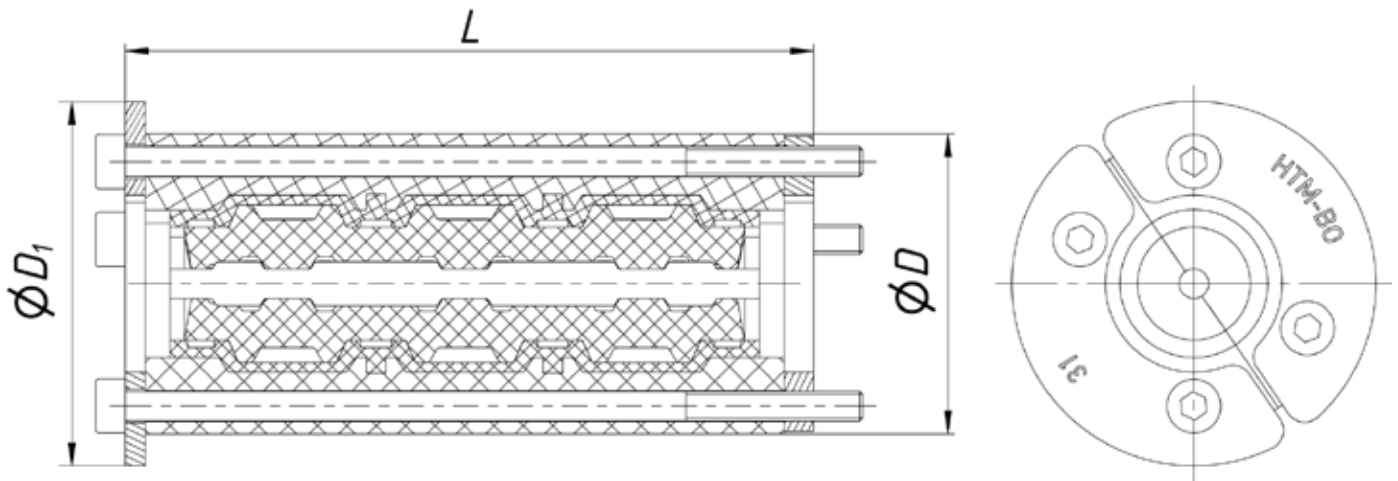
## SINGLE CABLE AND PIPE ENTRIES HTM-VO

### Description:

The HTM-VO press block is designed for sealing single cables and pipes with a diameter of 3 to 100 mm in metal frames or existing holes. Due to the fact that modules are not used in this penetration, and the HTM-VO press block itself serves as the basis for the inserts, the penetration ensures minimal weight and dimensions. The use of such an input becomes most appropriate when it is required to lay a single cable or pipe.

### Functions:

- prevention of penetration of fire, water and gas into neighboring premises;
- cable sealing in walls and ceilings;
- water and gas tightness up to 2.5 kg/cm<sup>2</sup> (2.5 bar);
- protection level IP66/68.



Single cable and pipe entries HTM-VO

Article for order	Cable/pipe diameter, mm	Dimensions, mm			Compatible Mounting Frame
		D	D1	L	
HTM-VO25	3..11	25	30	70	HTM-RMK25, HTM-RMKS25, HTM-RMKF25
HTM-VO31	3..16	31	37	70	HTM-RMK30, HTM-RMKS30, HTM-RMKF30
HTM-VO43	10..26	43	50	71,5	HTM-RMK43, HTM-RMKS43, HTM-RMKF43
HTM-VO50	20..36	50	60	71,5	HTM-RMK50, HTM-RMKS50, HTM-RMKF50
HTM-VO68	31..56	68	78	71,5	HTM-RMK68, HTM-RMKS68, HTM-RMKF68
HTM-VO75	31..56	75	85	73	HTM-RMK75, HTM-RMKS75, HTM-RMKF75
HTM-VO100	51..79	100	110	73	HTM-RMK100, HTM-RMKS100, HTM-RMKF100
HTM-VO125	79..100	125	145	73	HTM-RMK125, HTM-RMKS125, HTM-RMKF125





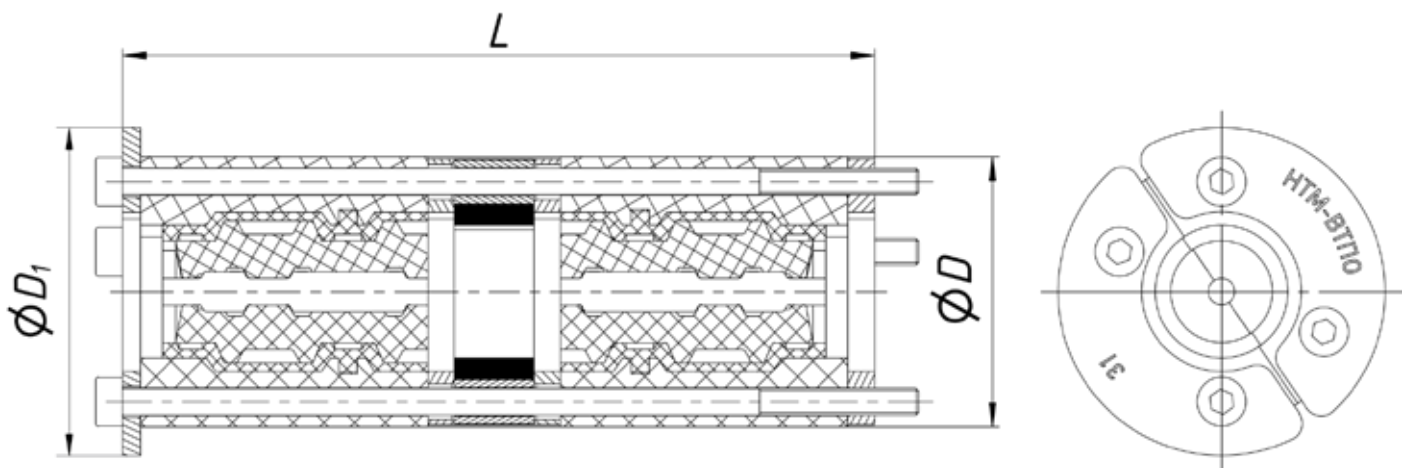
## SINGLE INLETS OF PLASTIC PIPES HTM-VTPO

### Description:

The HTM-VTPO press block is designed for sealing single plastic pipes with a diameter of 3 to 100 mm in metal frames or existing holes.

### Functions:

- in case of fire of a plastic pipe passing through the HTM-VTPO transit, the thermally expanding material inside the penetration increases many times in size when the fire reaches it and completely blocks the hole through which the pipe passed;
- prevention of penetration of fire, water and gas into neighboring premises;
- pipe sealing in walls and ceilings;
- water and gas tightness up to 2.5 kg/cm<sup>2</sup> (2.5 bar);
- protection level IP66/68.



### Single inlets of plastic pipes HTM-VTPO

Article for order	Pipe diameter, mm	Dimensions, mm			Compatible Mounting Frame
		D	D1	L	
HTM-VTPO25	3..11	25	30	85	HTM-RMK25, HTM-RMKS25, HTM-RMKF25
HTM-VTPO31	3..16	31	37	85	HTM-RMK30, HTM-RMKS30, HTM-RMKF30
HTM-VTPO43	10..26	43	50	86,5	HTM-RMK43, HTM-RMKS43, HTM-RMKF43
HTM-VTPO50	20..36	50	60	86,5	HTM-RMK50, HTM-RMKS50, HTM-RMKF50
HTM-VTPO68	31..56	68	78	86,5	HTM-RMK68, HTM-RMKS68, HTM-RMKF68
HTM-VTPO75	31..56	75	85	88	HTM-RMK75, HTM-RMKS75, HTM-RMKF75
HTM-VTPO100	51..79	100	110	88	HTM-RMK100, HTM-RMKS100, HTM-RMKF100
HTM-VTPO125	79..100	125	145	88	HTM-RMK125, HTM-RMKS125, HTM-RMKF125



## SINGLE THREADED CABLE ENTRY HTM-VRO

### Description:

The HTM-VRO press block is designed for sealing single cables with a diameter of 3 to 36 mm. Ideal for installation in thin ceilings, since the sealing part of the penetration has been reduced and ranges from 20 to 40 mm, and the entry body has an external thread onto which a nut is screwed from the back of the mounting wall. Thus, no additional tools and fasteners are required for the installation of the bushing, while the penetration retains a minimum weight and dimensions.

### Functions:

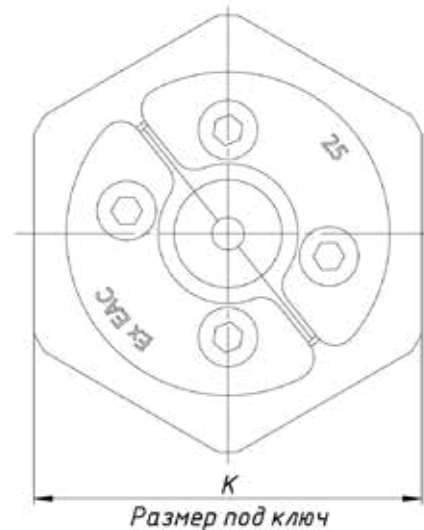
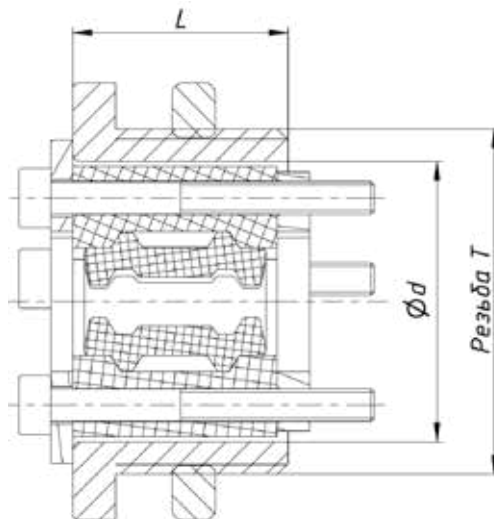
- prevention of penetration of fire, water and gas into neighboring premises;
- cable sealing in walls and ceilings;
- protection level IP66/68.

### Mounting method:

- self-locking fixing with a nut.

### Material:

- nickel-plated brass;
- stainless steel



### Одиночные вводы кабеля резьбовые HTM-ВРО

Article for order	Cable diameter, mm	Dimensions, mm			
		d	T	L	K
HTM-VRO25	3..11	26	M32x1,5	20	36
HTM-VRO31	3..16	32	M40x1,5	20	46
HTM-VRO43	10..26	44	M50x1,5	40	60
HTM-VRO125	20..36	51	M63x1,5	40	70

## MARINE VERSION - THICK-WALLED MOUNTING FRAMES



"Passages of cables through watertight, gas-tight and fireproof bulkheads and decks shall be sealed. Seals where cables pass through the said bulkheads and decks shall not reduce their impermeability, and no forces resulting from elastic deformation of the hull shall be transmitted to the cables."

**Rules of classification and construction of ships. Part XI cl.16.8.6.1.**

HTM® cable penetrations with increased frame thickness are designed for structural resistance to increased loads. Frames are used for cable sealing in the structures of decks and bulkheads from class A on ships, floating rigs and offshore fixed platforms:

- ✓ Sealing of cables and pipes from 3 to 100 mm in diameter in walls and ceilings at offshore and coastal facilities;
- ✓ Prevent fire, water and gas from entering adjacent rooms;
- ✓ Water and gas tightness up to 2.1 kg/cm<sup>2</sup> (2.1 bar).

Horizontal partitions of frames HTM-RMTS and HTM-RMTF are made of **20 mm thick steel**, and sealing sections are separated from each other by **vertical walls of 10 mm**. Frame construction can contain **no more than 3 rows and no more than 5 sealing sections** in each row.



## THICK-WALLED FLANGED MOUNTING FRAMES HTM-RMTF

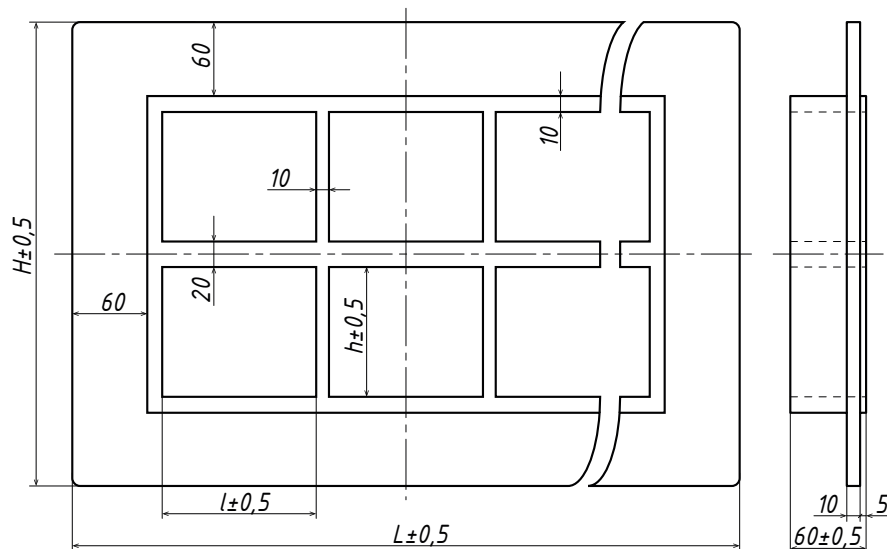
**Description:** Frames with increased wall thickness are designed for **structural resistance to increased loads**. They are used to seal cables in bulkheads and decks in **shipbuilding and offshore facilities**.

**Functions:**

- cable sealing in bulkheads and decks, walls and ceilings;
- prevent fire, water and gas from entering adjacent rooms;
- water and gas tightness up to 2.1 kg/cm<sup>2</sup> (2.1 bar).

**Mounting method:**

- welded connection.



Single-section mounting frames HTM-RMTF \*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMTF10.1x1	260	241	120	101	200	181
HTM-RMTF16.1x1	260	300	120	160	200	240
HTM-RMTF22.1x1	260	358	120	218	200	298
HTM-RMTF28.1x1	260	418	120	278	200	358
HTM-RMTF10u.1x1	200	241	60	101	140	181
HTM-RMTF16u.1x1	200	300	60	160	140	240
HTM-RMTF22u.1x1	200	358	60	218	140	298
HTM-RMTF28u.1x1	200	418	60	278	140	358

\* Dimensions of multi-section frames are available on request, as well as available in HTM-Constructor software and on the website кабельные-проходни.рф.



## THICK-WALLED FLANGELESS MOUNTING FRAMES HTM-RMTS

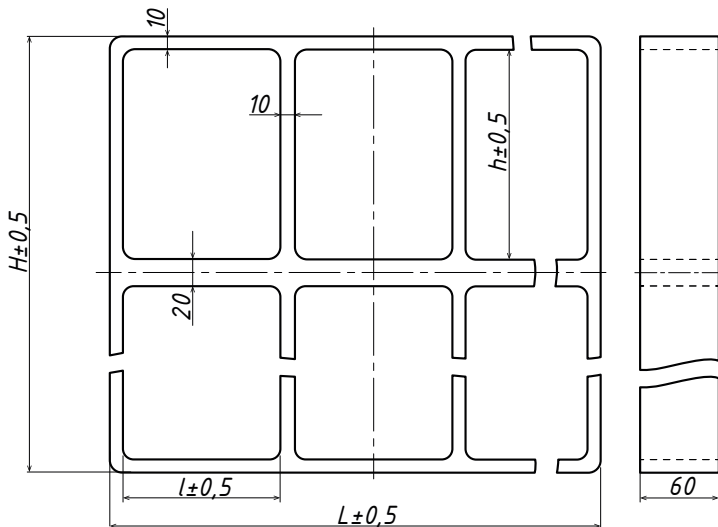
**Description:** Frames with increased wall thickness are designed for **structural resistance to increased loads**. They are used to seal cables in bulkheads and decks in **shipbuilding and offshore facilities**. They allow you to place the cable passageway at an angle to the floor in the horizontal and vertical planes.

**Functions:**

- cable sealing in bulkheads and decks, walls and ceilings;
- it is possible to place the mounting frame at any angle to the bulkhead, deck, wall, slab;
- prevent fire, water and gas from entering adjacent rooms;
- water and gas tightness up to 2.1 kg/cm<sup>2</sup> (2.1 bar).

**Mounting method:**

- welded connection. It is possible to weld the frame to the slab at an angle for more convenient cable routing.



### Single-section mounting frames HTM-RMTS \*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMTS10.1x1	140	121	120	101	142	123
HTM-RMTS16.1x1	140	180	120	160	142	182
HTM-RMTS22.1x1	140	238	120	218	142	240
HTM-RMTS28.1x1	140	298	120	278	142	300
HTM-RMTS10u.1x1	80	121	60	101	82	123
HTM-RMTS16u.1x1	80	180	60	160	82	182
HTM-RMTS22u.1x1	80	238	60	218	82	240
HTM-RMTS28u.1x1	80	298	60	278	82	300

\* Dimensions of multi-section frames are available on request, as well as available in HTM-Constructor software and on the website кабельные-проходки.рф.



## MOUNTING FRAMES HTM-RMTS R WITH ROUNDED CORNERS

### Description:

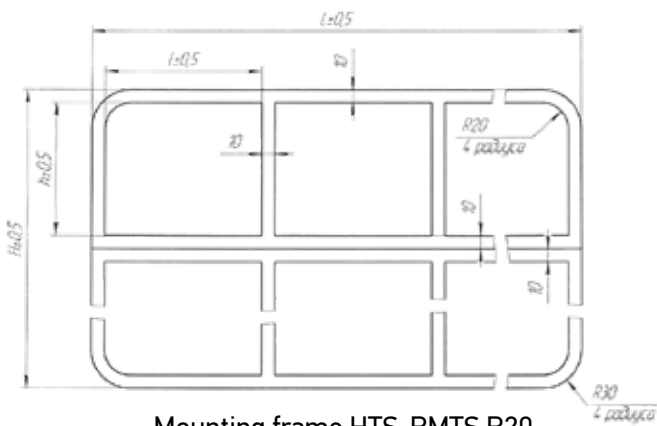
Frames with rounded corners are designed **to resist increased loads**. The rounded corners reduce stress concentrations and minimize the risk of cracking around the frame. They are used to seal cables in bulkheads and decks in shipbuilding and offshore facilities. **Each frame is equipped with a set of R-series modules to provide installation of all standard elements of HTM cable penetrations.** It is produced in three versions with rounding radius of R20, R40 and R60.

### Functions:

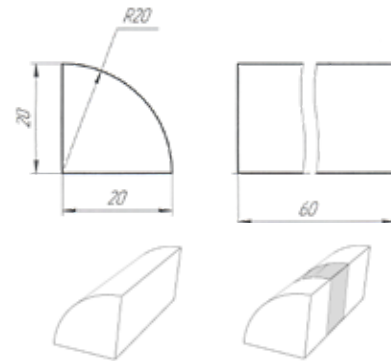
- cable sealing in bulkheads and decks, walls and ceilings;

### Mounting method:

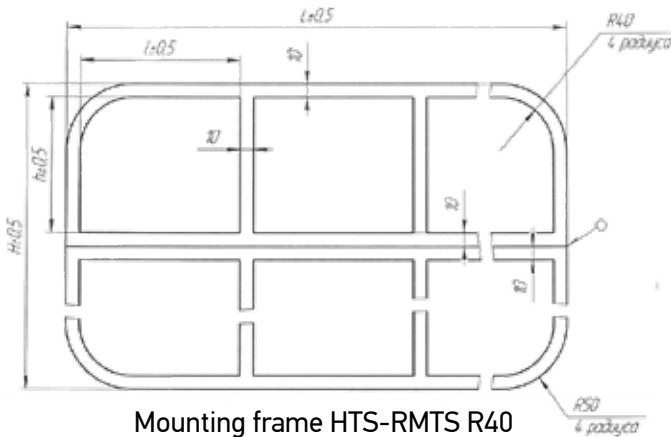
- welded connection.



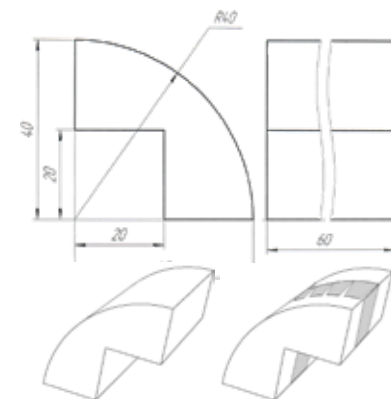
Mounting frame HTS-RMTS R20



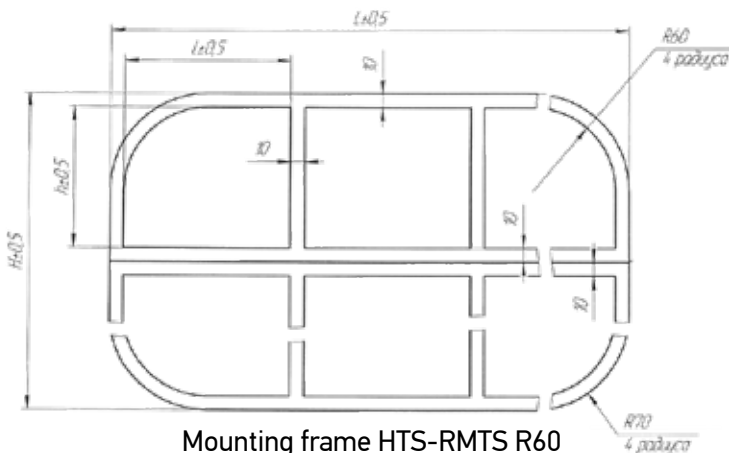
Module HTM R20/0



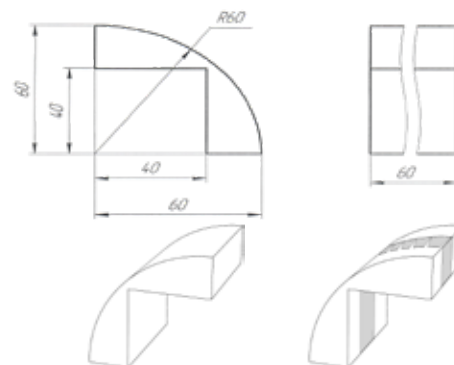
Mounting frame HTS-RMTS R40



Module HTM R40/0



Mounting frame HTS-RMTS R60



Module HTM R60/0



## Single-section mounting frames HTM-RMTS R20\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMTS10.1x1 R20	140	121	120	101	142	123
HTM-RMTS16.1x1 R20	140	180	120	160	142	182
HTM-RMTS22.1x1 R20	140	238	120	218	142	240
HTM-RMTS28.1x1 R20	140	298	120	278	142	300
HTM-RMTS10u.1x1 R20	80	121	60	101	82	123
HTM-RMTS16u.1x1 R20	80	180	60	160	82	182
HTM-RMTS22u.1x1 R20	80	238	60	218	82	240
HTM-RMTS28u.1x1 R20	80	298	60	278	82	300

## Single-section mounting frames HTM-RMTS R40\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMTS16.1x1 R40	140	180	120	160	142	182
HTM-RMTS22.1x1 R40	140	238	120	218	142	240
HTM-RMTS28.1x1 R40	140	298	120	278	142	300

## Single-section mounting frames HTM-RMTS R60\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMTS22.1x1 R60	140	238	120	218	142	240
HTM-RMTS28.1x1 R60	140	298	120	278	142	300

\*multisection frame dimensions are available on request,



## THICK-WALLED FLANGED MOUNTING FRAMES HTM-RMTFG WITH INCREASED DEPTH

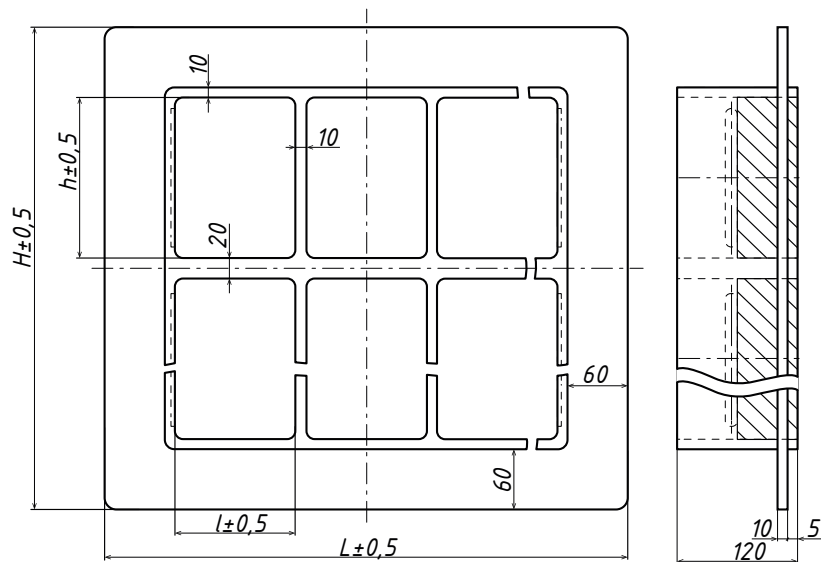
**Description:** Frames with increased wall thickness are designed for **structural resistance to increased loads**. They are used to seal cables in bulkheads and decks in shipbuilding and offshore facilities.

**Functions:**

- cable sealing in bulkheads and decks, walls and ceilings;
- prevent fire, water and gas from entering adjacent rooms;
- water and gas tightness up to 2.1 kg/cm<sup>2</sup> (2.1 bar).

**Mounting method:**

- welded connection.



Single-section mounting frames HTM-RMTFG\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMTFG10.1x1	260	241	120	101	200	181
HTM-RMTFG16.1x1	260	300	120	160	200	240
HTM-RMTFG22.1x1	260	358	120	218	200	298
HTM-RMTFG28.1x1	260	418	120	278	200	358
HTM-RMTFG10u.1x1	200	241	60	101	140	181
HTM-RMTFG16u.1x1	200	300	60	160	140	240
HTM-RMTFG22u.1x1	200	358	60	218	140	298
HTM-RMTFG28u.1x1	200	418	60	278	140	358

\* multisection frame dimensions are available on request





## THICK-WALLED FLANGELESS MOUNTING FRAMES HTM-RMTSG WITH INCREASED DEPTH

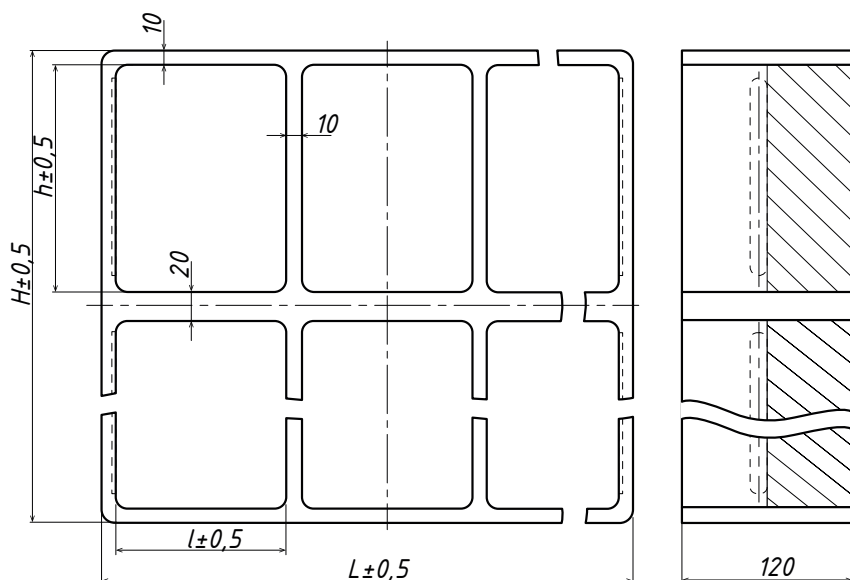
**Description:** Frames with increased thickness are designed for structural resistance to increased loads. Used for sealing cables in bulkheads and decks in shipbuilding and offshore facilities. **Increased depth** allows you to place the cable passageway at an angle to the slab in the horizontal and vertical planes.

**Functions:**

- cables and pipes sealing in bulkheads and decks, walls and ceilings;
- it is possible to place the mounting frame at any angle to the bulkhead, deck, wall, slab;
- prevent fire, water and gas from entering adjacent rooms;
- water and gas tightness up to 2.1 kg/cm<sup>2</sup> (2.1 bar).

**Mounting method:**

- welded connection. It is possible to weld the frame to the slab at a greater angle than the RMTS frame due to the increased depth for maximum ease of cabling.



Single-section mounting frames HTM-RMTSG\*

Ordering number	Frame external dimensions, mm		Section internal dimensions, mm		Size of installation opening in the wall, mm	
	L	H	l	h	Width	Height
HTM-RMTSG10.1x1	140	121	120	101	142	123
HTM-RMTSG16.1x1	140	180	120	160	142	182
HTM-RMTSG22.1x1	140	238	120	218	142	240
HTM-RMTSG28.1x1	140	298	120	278	142	300
HTM-RMTSG10u.1x1	80	121	60	101	82	123
HTM-RMTSG16u.1x1	80	180	60	160	82	182
HTM-RMTSG22u.1x1	80	238	60	218	82	240
HTM-RMTSG28u.1x1	80	298	60	278	82	300

\* multisection frame dimensions are available on request

## ACCESSORIES FOR ASSEMBLY



**HTM-OP** base plates are used for fixation and separation of module rows, prevent displacement of modules in the process of compaction, increase the resistance of the cable grommet under static and dynamic pressure.



The **HTM-OPF** fixing base plate is designed to simplify the installation of the HTM-PB press block. Installed transit modules are pre-loaded with a jack or clamping device and then secured in this position with screws on the HTM-OPF plate.



**Universal assembly jack HTM-DMU** provides preliminary sealing of modules. It works based on the principle of a standard rhombic jack. Increases the distance between the frame and the last row of modules to simplify the installation of HTM-PB press blocks.



The **HTM-PU** clamping device ensures pre-compaction of modules. The telescopic mechanism extends the clamping device platforms by up to 50 mm. Increases the distance between the frame and the last row of modules to simplify the installation of HTM-PB press blocks.



**HTM-SM** grease is used to facilitate the installation of the components of the bushing - transit modules and press unit. Ensures reliable sealing of all system components. Packages of 50 grams.



**Sealing tape HTM-LU** is used to seal the contact area between the flange and the mounting surface for bolting. It has an adhesive reinforced layer, which simplifies installation on the frame. Under the influence of fire increases in volume, forming a foamy material that prevents the penetration of flames, smoke and hot gases



The **frame plug HTM-ZR** serves for temporary sealing of the mounting frame extension section until the cable is laid. Prevents moisture and dust from entering the room.



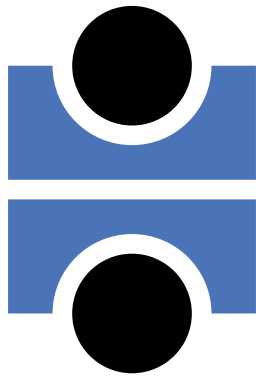
**Metal hose clamp bracket HTM-KFM** is used with compatible metal hose clamp type RKn for single cable entry through the round frame with bolt connection HTM-RMK.



A **clamp** is used to hold the frame securely in place during welding.



**Measuring tape** allows you to find the right insert for the sealing module simply by wrapping the tape around the cable you want to lay.



MULTI CABLE TRANSIT®  
**HTM**  
 FIRST STEP IN FIRE SAFETY



HTM® cable penetrations are certified for use in explosive environments and have the explosion protection marking RP Ex e I Mc/1Ex e IIC Gb/ Ex e IIIC Db in accordance with TR EEU 012/2011 with the degree of dust and moisture protection IP66/68.



Fire resistance limit IET up to 120 minutes. Operating temperatures from -60 °C to +200 °C, compliance with GOST R 53310-2009 and TR EEA 043/2017



All products of Zavod Hermes Ltd. produced in Russia, which is confirmed by a certificate of origin under the form of CT-1, as well as the conclusion of the Ministry of Industry and Trade of Russia.



The products are certified in accordance with the standards of the Technical Regulations of the Customs Union (TR CU / EAC) and can be used both in the Russian Federation and in Belarus, Armenia, Kyrgyzstan, and Kazakhstan.



Compliance with the requirements of STO Gazprom 9001-2018 in SDS INTERGAZSERT for the production and sale of flameproof explosion-proof HTM cable penetrations.



HTM® cable penetrations are approved by the Russian Maritime Register of Shipping and the Russian River Register for use in ship structures of class A.



The designs of the main components of the tunnel - HTM transit modules and HTM-PB press blocks - are patented.

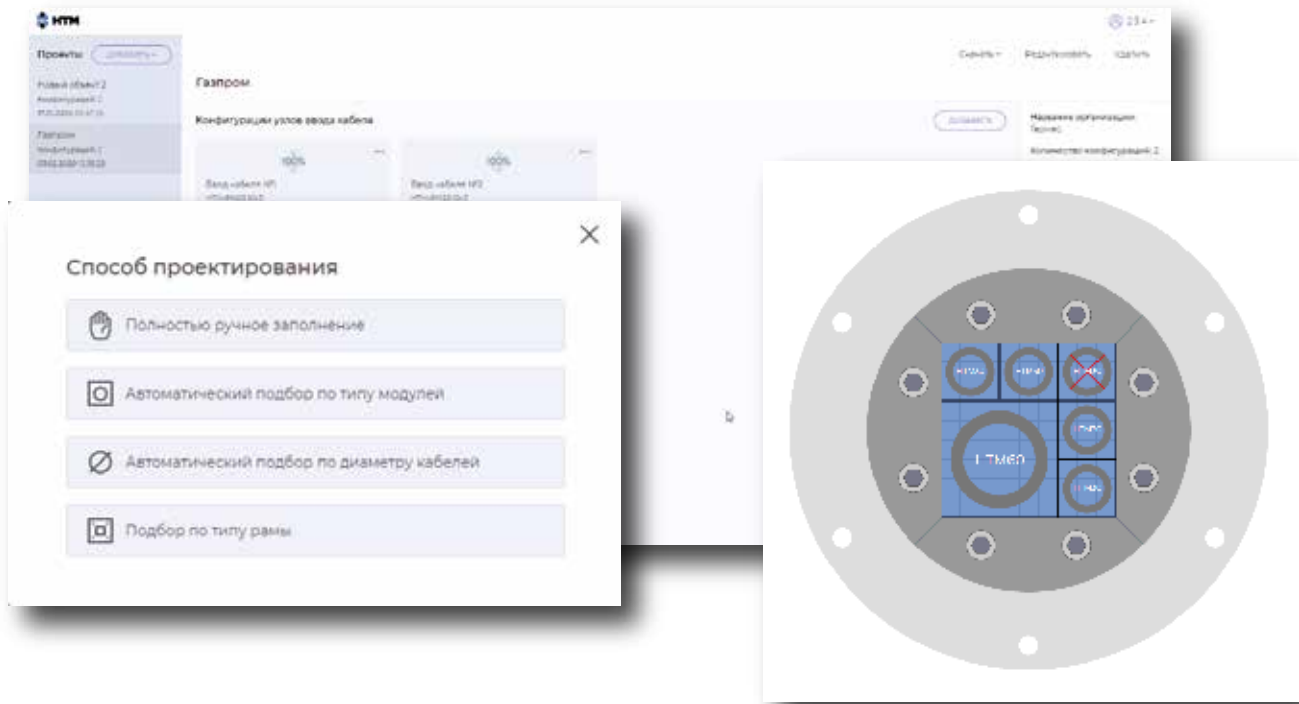


HTM® cable penetration elements are controlled at all stages of production in accordance with the quality management system GOST R ISO 9001:2015 (ISO 9001:2015).



Design methods for HTM® cable penetrations:

- ✓ completely manual selection
- ✓ by module type
- ✓ by cable diameter
- ✓ by frame type

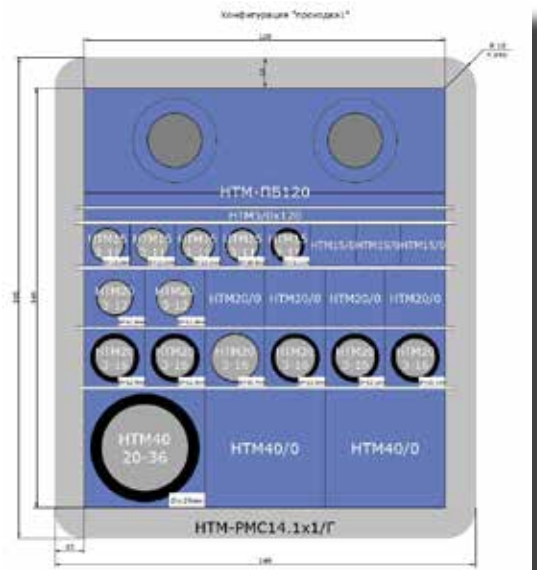
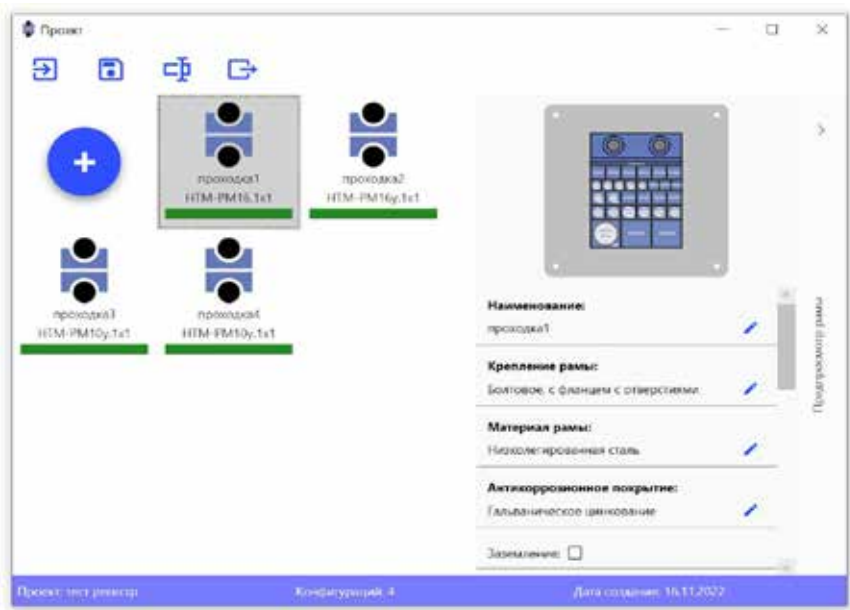


## FULL AUTOMATION

Fully automatic design based on the user's cable log.

The cable log can be imported from a custom Excel file. In addition, the user can fill in the cable magazine directly in the program interface. Designing based on a cable magazine also allows you to specify the cable route - that is, through which particular entry nodes a given cable should pass. Based on the cable log, many cable penetrations can be automatically designed.

№	Марка	Сечение	Количество	Маршрут	
1	2RM6-8	СЛОВЭЛЫ ИР	2x2,5	10,9	проходка1
2	2RM6-5	СЛОВЭЛЫ ИР	2x2,5	10,9	проходка1-проходка2
3	1YB-108	СЛОВЭЛЫ ИР	4x1	12,9	проходка1-проходка2
4	1YB-84	СЛОВЭЛЫ ИР	4x1	12,9	проходка1
5	1YB-78	СЛОВЭЛЫ ИР	2x2,5	12,7	проходка1-проходка2
6	2YB-1	СЛОВЭЛЫ ИР	2x2,5	29	проходка1-проходка2
7	2YB-21	СЛОВЭЛЫ ИР	2x1,5	13,5	проходка1-проходка2
8	2YB-332	СЛОВЭЛЫ ИР	4x1	10,4	проходка1-проходка2-проходка3
9	2YB-338	СЛОВЭЛЫ ИР	12x1	13,1	проходка1-проходка2-проходка3
10	2YB-339	СЛОВЭЛЫ ИР	4x1	10,4	проходка1-проходка2-проходка3
11	2YB-345	СЛОВЭЛЫ ИР	12x1	13,1	проходка1-проходка2-проходка3
12	2YB-346	СЛОВЭЛЫ ИР	2x1	9,1	проходка1-проходка2-проходка3
13	2YB-347	СЛОВЭЛЫ ИР	5x1	11,6	проходка1-проходка2-проходка3
14	2YB-67	СЛОВЭЛЫ ИР	2x1	11,8	проходка1-проходка2-проходка3-проходка4



# CERTIFICATE FOR USE IN EXPLOSIVE ATMOSPHERES TR CU 012/2011

HTM cable penetrations are certified for use in explosive environments.  
Explosion protection markings: **RP Ex e I Mc / 1Ex e IIC Gb / Ex tb IIIC Db.**



**ПЕРМСКАЯ  
ТОРГОВО-ПРОМЫШЛЕННАЯ  
ПАЛАТА**  
PERM CHAMBER  
OF COMMERCE AND INDUSTRY UNION

**SOEX** СОЮЗЭКСПЕРТИЗА  
Пермь  
АВТОНОМНАЯ НЕКОММЕРЧЕСКАЯ ОРГАНИЗАЦИЯ  
INDEPENDENT NON-PROFIT ORGANIZATION «СОЮЗЭКСПЕРТИЗА-ПЕРМЬ»

Certified English Translation



**CUSTOMS UNION  
CERTIFICATE OF COMPLIANCE**  
№ TC RU C-RU.A.06.B.01185  
Series RU № 0625218

#### CERTIFICATION BODY

Standard-Group Limited Liability Company. Place of location: 142211, Russia, Moscow region, Serpukhov, ul. Oboronnaia, house 2. Place of business: 142211, Russia, Moscow region, Serpukhov, ul. Oboronnaia, house 2. Telephone: +74956648940. E-mail: [serpuhov@standard-g.ru](mailto:serpuhov@standard-g.ru). Accreditation Certificate registration № RA.RU.11A.06 dd. March 3, 2016

#### APPLICANT

Zavod HERMES Limited Liability Company.  
OGRN (Primary State Registration Number): 1175958044460.  
Place of location: 614513, Russia, Perm krai, Perm district, territory Shosse Kosmonavtov, house 433, building 8.  
Place of business: 614513, Russia, Perm krai, Perm district, Savino village, territory Shosse Kosmonavtov, house 433, building 8.  
Telephone 83422008826, e-mail: [Bab@htm-hermes.com](mailto:Bab@htm-hermes.com)

#### MANUFACTURER:

Zavod HERMES Limited Liability Company.  
Place of location: 614513, Russia, Perm krai, Perm district, territory Shosse Kosmonavtov, house 433, building 8.  
Place of manufacture: 614513, Russia, Perm krai, Perm district, Savino village, territory Shosse Kosmonavtov, house 433, building 8.

#### PRODUCTS:

Universal modular fireproof explosion-proof cable transit systems, type HTM, with explosion safety marking RP Ex e I Mc / 1Ex e IIC Gb / Ex tb IIIC Db according to Appendix (blank sheet № 0438139).  
The products are manufactured according to specification TU23.20.14-001-20082023-2018 Universal modular fireproof explosion-proof cable transit systems, type HTM.  
Commercial production.

**CODE TN VED CU (EAEU) 8547 90 000 0**

**MEETS REQUIREMENTS** of the Customs Union Technical Regulations TR CU 012/2011  
"On safety of equipment intended for use in explosive atmospheres"

#### CERTIFICATE IS ISSUED PURSUANT TO:

Test report № T562 LAB-EXP/06-18 dd. June 8, 2018 issued by the Test Laboratory "Center for Testing of Technical Devices Pribor-Test LLC", Accreditation Certificate № RA.RU.21AG33. Production Analysis Report SG160518-04 dd. May 21, 2018 issued by the Certification Body Standard-Group LLC; other documents submitted by the applicant to prove correspondence to TR CU 012/2011 requirements, see Appendix (blank sheet № 0438137).  
Certification Scheme: 1c

#### ADDITIONAL INFORMATION

List of standards voluntary implementation of which ensures compliance with requirements of the technical regulations: see Appendix (blank sheet № 0438138). Service life – 30 years. Storage conditions - see manufacturer's technical documentation.

**VALIDITY PERIOD:** from June 22, 2018 to June 21, 2023 inclusively.

Official seal of certification body  
Head of Certification Body (authorized person)  
Expert (Auditor)/Experts (Auditors)

(signed)  
(signed)

Koziichuk Lina Vasilevna  
Zubrev Evgeniy Vladimirovich



Россия, 614000, г. Пермь, ул. 25 Октября, 8. Russia, 614000, Perm, ul. 25 Oktyabria  
тел./факс (342) 254-05-55 phone/fax +7 (342) 254-05-55

e-mail: [expert@permexpert.su](mailto:expert@permexpert.su) | [www.permexpert.su](http://www.permexpert.su)

# FIRE RESISTANCE CERTIFICATE TR EEU 043/2012

Fire resistance limit **IET 60** (60 minutes) on HTM penetrations to meet the requirements of technical regulations of the Customs Union for use in Russia, Kazakhstan, Armenia, Belarus, and Kyrgyzstan.



Certified English Translation



**EURASIAN ECONOMIC UNION  
CERTIFICATE OF COMPLIANCE**  
№ EAEU RU S-RU.PB74.V.00169/21  
Series RU № 0149782

#### CERTIFICATION BODY

Certification Body – CZRC SERT, Limited Liability Company “Severno-Zapadny Fire Safety Approval Center”. Place of location: 187021, RUSSIA, LENINGRAD REGION, TOSNO DISTRICT, FEDOROVSKOE VILLAGE, 1<sup>st</sup> VOSTOCHNIY PROEZD, 10, BLD. 1.  
Place of business: 187021, RUSSIA, Leningrad Region, Tosno District, Fedorovskoe village, 1<sup>st</sup> Vostochniy Proezd, 10, bld. 1.  
Registration № TRPB.RU.PB74, date of registration December 28, 2015  
Telephone: +78125078375, e-mail: [info@czrc.ru](mailto:info@czrc.ru)

#### APPLICANT

ZAVOD HERMES LIMITED LIABILITY COMPANY.  
Place of location: 614513, RUSSIA, PERM KRAI, PERM DISTRICT, TERRITORY SHOSSE KOSMONAVTOV, HOUSE 433, BUILDING 8, OFFICE – SEPARATE ENTRANCE  
Place of business: 614513, Russia, Perm krai, Perm district, territory Shosse Kosmonavtov, house 433, building 8.  
OGRN (Primary State Registration Number): 1175958044460  
Telephone +73422008826, e-mail: [info@ntm-hermes.com](mailto:info@ntm-hermes.com)

#### MANUFACTURER:

ZAVOD HERMES LIMITED LIABILITY COMPANY.  
Place of location: 614513, RUSSIA, PERM KRAI, PERM DISTRICT, TERRITORY SHOSSE KOSMONAVTOV, HOUSE 433, BUILDING 8, OFFICE – SEPARATE ENTRANCE  
Place of business: 614513, Russia, Perm krai, Perm district, territory Shosse Kosmonavtov, house 433, building 8.

#### PRODUCTS:

Cable penetration points through fire barriers: Universal modular fireproof explosion-proof cable transit systems, type HTM, rectangular: HTM-RM, HTM-RMF, HTM-RMS, HTM-RMR; round: HTM-RMK, HTM-RMKF, HTM-RMKs, HTM-RMKR, mounted according to Installation Manual IM.002.HTM, consisting of elements listed in Appendix № 1 on 3 pages (blank sheets №0696091-0696093), manufactured in compliance with TU23.99.19-002-20082023-2020 UNIVERSAL MODULAR FIREPROOF EXPLOSION-PROOF CABLE TRANSIT SYSTEMS, TYPE HTM.  
Commercial production.

**CODE TN VED EAEU 8484 10 000 9**

**MEETS REQUIREMENTS** of the Eurasian Economic Union Technical Regulations on Fire Safety and Fire Extinguishing Means (TR EAEU 043/2017)

#### CERTIFICATE IS ISSUED PURSUANT TO:

Test report № PPB-035/03-2021 dd. March 2, 2021 issued by NORMATEST Test Laboratory of Center for Compliance Certification LLC, reg. № RA.RU.21ZhE01; Production examination report № 546-SS.01-2021 dated January 11, 2021 issued by the Certification Body – CZRC SERT, Limited Liability Company “Severno-Zapadny Fire Safety Approval Center”, reg. № TRPB.RU.PB74  
Certification Scheme: 1s

#### ADDITIONAL INFORMATION

GOST R 53310-2009 Through penetration for cables, hermetic inputs and through penetration of electric current types. Requirements of fire safety. Fire resistance test methods. Fire-resistance degree – EIT60. Storage conditions: in warehouses or premises protected against sunlight and precipitation exposure at temperature - 35°C min. and +35 °C max., relative humidity 80% max. Storage period – 12 months max. Service life – 12 months.

**VALIDITY PERIOD:** from March 5, 2021 to March 4, 2026 inclusively.

Official seal of certification body

Head of Certification Body (authorized person)  
Expert (Auditor)/Experts (Auditors)

(signed)  
(signed)

Natalia Aleksandrovna Fedorova  
Dmitrii Evgenevich Shevchenko



Россия, 614000, г. Пермь, ул. 25 Октября 8, тел./факс (342) 254-05-55  
Russia, 614000, Perm, ul. 25 Oktabria 8, phone/fax +7 (342) 254-05-55

e-mail: [expert@permexpert.ru](mailto:expert@permexpert.ru) | [www.permexpert.ru](http://www.permexpert.ru)

# FIRE RESISTANCE CERTIFICATE IET120

Fire resistance rating **IET 120** (120 minutes) on symmetrical HTM penetrations, consisting of two mounting frames with a set of seals, installed on the outside and inside of the wall/ceiling.



**ПЕРМСКАЯ  
ТОРГОВО-ПРОМЫШЛЕННАЯ  
ПАЛАТА**  
PERM CHAMBER  
OF COMMERCE AND INDUSTRY UNION

**SOEX СОЮЗЭКСПЕРТИЗА  
Пермь**  
АВТОНОМНАЯ НЕКОММЕРЧЕСКАЯ ОРГАНИЗАЦИЯ  
INDEPENDENT NON-PROFIT ORGANIZATION «СОЮЗЭКСПЕРТИЗА-ПЕРМЬ»

Certified English Translation

## RUSSIAN FEDERATION CERTIFICATE OF CONFORMITY (obligatory certification)

№ C-RU.AIO64.B.01385

№ 0020049

### APPLICANT

Zavod HERMES Limited Liability Company.  
Place of location and business: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8. OGRN (Primary State Registration Number):  
Telephone 83422008826. Fax 83422008826. E-mail: [info@ntm-hermes.com](mailto:info@ntm-hermes.com)

### MANUFACTURER

Zavod HERMES Limited Liability Company.  
Place of location and business: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8. OGRN (Primary State Registration Number):  
Telephone 83422008826. Fax 83422008826. E-mail: [info@ntm-hermes.com](mailto:info@ntm-hermes.com)

### CERTIFICATION BODY

POLYCERT Products and Services Certification Body, Certification Independent Non-Commercial Organization Elektrocert. Place of location: 129226, Russian Federation, Moscow, ul. Selskokhozyaistvennaia, house 12A. Actual address: 129110, Russian Federation, Moscow, ul. Shchepkina, house 47, building 1. Telephone: (495) 995-10-26, fax: (495) 995-10-26. E-mail: [info@certif.ru](mailto:info@certif.ru). Accreditation certificate № RA.RU.10AIO64 issued on July 21, 2015 by the Federal Accreditation Service.

### CERTIFIES THAT THE PRODUCT

Universal modular symmetrical fireproof cable transit systems, type HTM manufactured according to TU23.20.14-001-20082023-2018 consisting of: transit modules HTM, mounting frames HTM-RM, mating frames HTM-RO, press blocks HTM, anchor plates HTM-OP, antifriction lubricant, sealing tape.  
Commercial production.

Code OK 005 (OKP):  
Code OK 034 (OKPD 2): 23.20.14.110

Code EKPS:

Russian Code TN VED  
(HS Code) 8547900000

### MEETS THE REQUIREMENTS OF TECHNICAL REGULATION(S)

Fire Safety Technical Regulations (Federal Law № 123-FZ dd. 22.07.2008),  
Fire-resistance rating IET 120 acc. to GOST R 53310-2009 determined by testing of the HTM cable transit system consisting of two mounting frames and set of seals installed in external and internal side of a wall/floor in horizontal and vertical separating elements with min. thickness of 120 mm.

### EXAMINATIONS (TESTS) AND MEASUREMENTS

Test Report № 2/K2884-FZ dd. 20.09.2018 issued by Test Center "Polytest" Certification Independent Non-Commercial Organization Elektrocert, № RA.RU.21AD12 dd. 21.08.2015.  
Certification Scheme 5c.

### SUBMITTED DOCUMENTS

Certificate of Conformity to requirements of GOST R ISO 9001-2015 (ISO 9001:2015) № POCC RU.AA69.K.00020 dd. 15.05.2018, issued by LANTA CENTER LLC Management System Certification Body, accreditation certificate № POCC RU.0001.13AA69. Address: 115088, Russia, Moscow, ul. Sharikopodshpnikovai, house 4, building 4. Telephone +79653903601.



Россия, 614000, г. Пермь, ул. 25 Октября, 8, тел./факс (342) 254-05-55  
Russia, 614000, Perm, ul. 25 Oktiabria 8, phone/fax +7 (342) 254-05-55

e-mail: [expert@permexpert.ru](mailto:expert@permexpert.ru) | [www.permexpert.ru](http://www.permexpert.ru)



# FIRE RESISTANCE CERTIFICATE IET90, IET60

Fire resistance rating **IET 60** (60 minutes), **IET 90** (90 minutes) according to GOST R 53310-2009 for single HTM penetrations.



**ПЕРМСКАЯ  
ТОРГОВО-ПРОМЫШЛЕННАЯ  
ПАЛАТА**  
PERM CHAMBER  
OF COMMERCE AND INDUSTRY UNION



**СОЮЗЭКСПЕРТИЗА  
Пермь**  
АВТОНОМНАЯ НЕКОММЕРЧЕСКАЯ ОРГАНИЗАЦИЯ  
INDEPENDENT NON-PROFIT ORGANIZATION «SOYUZEXPERTIZA-PERM»

Certified English Translation

## RUSSIAN FEDERATION CERTIFICATE OF CONFORMITY (obligatory certification)

№ C-RU.AIO64.B.01347

№ 0020012

### APPLICANT

Zavod HERMES Limited Liability Company, OGRN (Primary State Registration Number): 1175958044460. Place of location: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8. Actual address: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8. Telephone 83422008826, fax 83422008826. E-mail: [info@ntm-hermes.com](mailto:info@ntm-hermes.com)

### MANUFACTURER

Zavod HERMES Limited Liability Company, OGRN (Primary State Registration Number): 1175958044460. Address: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8. Actual address: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8. Telephone 83422008826, fax 83422008826. E-mail: [info@ntm-hermes.com](mailto:info@ntm-hermes.com)

### CERTIFICATION BODY

POLYCERT Products and Services Certification Body, Certification Independent Non-Commercial Organization Elektrocert. Place of location: 129226, Russian Federation, Moscow, ul. Selskokhozyaistvennaia, house 12A. Actual address: 129110, Russian Federation, Moscow, ul. Shchepkina, house 47, building 1. Telephone: (495) 995-10-26, fax: (495) 995-10-26. E-mail: [info@certif.ru](mailto:info@certif.ru). Accreditation certificate № RA.RU.10AIO64 issued on July 21, 2015 by the Federal Accreditation Service.

### CERTIFIES THAT THE PRODUCT

Universal modular fireproof cable transit systems, type HTM manufactured according to TU23.20.14-001-20082023-2018 consisting of: transit modules HTM, mounting frames HTM-RM, mating frames HTM-RO, press blocks HTM, anchor plates HTM-OP, lubricant HTM-SM, sealing tape HTM-LU. Commercial production.

Code OK 005 (OKP):  
Code OK 034 (OKPD 2): 23.20.14.110

Code EKPS:

Russian Code TN VED  
(HS Code) 8547900000

### MEETS THE REQUIREMENTS OF TECHNICAL REGULATION(S)

Fire Safety Technical Regulations (Federal Law № 123-FZ dd. 22.07.2008), Fire-resistance rating IET acc. to GOST R 53310-2009 determined by testing in horizontal and vertical separating elements with depth of installation of:  
- 60 mm – **IET60**;  
- 150 mm (noncombustible rockwool (NC acc. to GOST 30244-94) with thickness of 90 mm and density 90 kg/m3 min. is used from one side of the transit system) – **IET90**;

### EXAMINATIONS (TESTS) AND MEASUREMENTS

Test Reports №№ 2/K2761-FZ, 2/K2762-FZ dd. 10.08.2018 issued by Test Center "Polytest" Certification Independent Non-Commercial Organization Elektrocert, № RA.RU.21AД12 dd. 21.08.2015, address: 129226, Moscow, ul. Selskokhozyaistvennaia, 12A. Certification Scheme 5c.

### SUBMITTED DOCUMENTS



Certificate of Conformity to requirements of GOST R ISO 9001-2015 (ISO 9001:2015) № ПССС RU.AA69.K.00020 dd. 15.05.2018, issued by LANTA CENTER LLC Management System Certification Body, accreditation certificate № ПССС RU.0001.13AA69. Address: 115088, Russia, Moscow, ul. Sharikopodshipnikovaia, house 4, building 4. Telephone +79653903601.



Россия, 614000, г. Пермь, ул. 25 Октября, 8, тел./факс (342) 254-05-55  
Russia, 614000, Perm, ul. 25 Oktiabria, 8, phone/fax +7 (342) 254-05-55

# CERTIFICATE OF COMPLIANCE WITH THE REQUIREMENTS OF THE RUSSIAN MARITIME REGISTER OF SHIPPING A-0

Fireproof explosion-proof modular-type structures for cable penetration through internal and external structures of decks and bulkheads of class A-0 fully meet the requirements of the Russian Maritime Register of Shipping.

РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА RUSSIAN MARITIME REGISTER OF SHIPPING		6.8.4
		
<b>СВИДЕТЕЛЬСТВО О ТИПОВОМ ОДОБРЕНИИ СУДОВОЙ ПРОТИВОПОЖАРНОЙ КОНСТРУКЦИИ TYPE APPROVAL CERTIFICATE FOR FIRE-PROOF DIVISION</b>		
Наименование и тип огнестойкости Designation and class of fire resistance	<i>Кабельные проходы типа «HTM» в конструкциях палуб и переборок класса</i> <i>A-0/Cable transits HTM type through decks and bulkheads A-0 class divisions.</i> Код ОКП / ОКПД2: 64 2000/ 28.99.39.190 <i>All Russian Products Classification Code: / Code 2: 64 2000/ 28.99.39.190</i>	
Разработчик (изготовитель) Designer (manufacturer)	ООО "Завод ГЕРМЕС", ИНН 5902045954 <i>LLC "Zavod HERMES", TIN 5902045954</i>	
Адрес Address	Россия, 614513, Пермский край, Пермский район, тер. Шоссе Космонавтов д. 433, к. 8 <i>433 b. 8, Kosmonavtov highway, Perm region, Perm district, 614513, Russia.</i>	
<p>На основании освидетельствования и проведенных испытаний удостоверяется, что вышеупомянутая(ые) конструкция(и) удовлетворяет(ют) требованиям Российского морского регистра судоходства. This is to certify that on the basis of the survey and tests carried out the above mentioned division(s) complies(ly) with the requirements of Russian Maritime Register of Shipping.</p> <p><small>п. 2.1.3.3 части VI и 16.8.6, 16.8.7 части XI Правил классификации и постройки морских судов (2021 г.); Пр. II-2/3.2, II-2/9.3.1 МК СОЛАС-74 с поправками 2000 г.; Часті 3 Кодекса ПНО 2010 (рез. ИМО MCS.307(88)), Технического регламента о безопасности объектов морского транспорта. /Reg. 2.1.3.3 Part VI и 16.8.6, 16.8.7 Part XI of Rules for the Classification and Construction of Sea-Going Ships (2020); Reg. II-2/3.2, II-2/9.3.1 SOLAS-74 as amended 2000 г.; Part 3 of FTP Code 2010 (IMO Res. MCS.307(88)). Technical Regulations Concerning the Safety of Sea Transport.</small></p>		
Настоящее Свидетельство о типовом одобрении действительно до This Type Approval Certificate is valid until	25.01.2027	
<p>Настоящее Свидетельство о типовом одобрении теряет силу в случаях, установленных в Правилах технического наблюдения за постройкой судов и изготовлением материалов и изделий для судов. This Type Approval Certificate becomes invalid in cases stipulated in Rules for the Technical Supervision during Construction of Ships and Manufacture of Shipboard Materials and Products.</p>		
Дата выдачи Date of issue	25.01.2022	№ 22.00042.381
Код номенклатуры Code of nomenclature	06010005МК	
Российский морской регистр судоходства Russian Maritime Register of Shipping	 М.П. (подпись) L.S.	Филиппов А.В. / A. Filippov (фамилия, инициалы) name

# CERTIFICATE OF COMPLIANCE WITH THE REQUIREMENTS OF THE RUSSIAN MARITIME REGISTER OF SHIPPING A-60

HTM type cable penetrations are fully suitable for installation in watertight, gas-tight and fireproof slabs of A-60 type on sea-going ships, floating drilling rigs and offshore fixed platforms.

<b>РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА</b> <b>RUSSIAN MARITIME REGISTER OF SHIPPING</b>		6.8.4
		<i>Выдано взамен Свидетельства</i> <i>Issued to replace of Certificate</i> No.: 20.00100.381 om/of 08.04.2020
<b>СВИДЕТЕЛЬСТВО О ТИПОВОМ ОДОБРЕНИИ</b> <b>СУДОВОЙ ПРОТИВОПОЖАРНОЙ КОНСТРУКЦИИ</b> <b>TYPE APPROVAL CERTIFICATE</b> <b>FOR FIRE-PROOF DIVISION</b>		
Наименование и тип огнестойкости Designation and class of fire resistance	<i>Кабельные проходы типа "HTM" в конструкциях палуб и переборок класса А-60/Cable transits of "HTM" type through decks and bulkheads A-60 Class divisions.</i> Код ОКП / ОКПД2: 64 2000/ 23.99.19 All Russian Products Classification Code: / Code 2: 64 2000/ 23.99.19	
Разработчик (изготовитель) Designer (manufacturer)	ООО "Завод ГЕРМЕС", ИНН 5902045954 LLC "Zavod HERMES"	
Адрес Address	Россия, 614513, Пермский край, Пермский район, тер. Шоссе Космонавтов д. 433, к. 8 433 b. 8, Kosmonavtov highway, Perm region, Perm district, 614513, Russia.	
<p>На основании освидетельствования и проведенных испытаний удостоверяется, что вышеупомянутая(ые) конструкция(и) удовлетворяет(ют) требованиям Российского морского регистра судоходства.</p> <p>This is to certify that on the basis of the survey and tests carried out the above mentioned division(s) complies(ly) with the requirements of Russian Maritime Register of Shipping.</p> <p><small>II. 2.1.3.3 части VI и 16.8.6, 16.8.7 части XI Правил классификации и постройки морских судов (2020 г.); Пр. II-2/3.2, II-2/9.3.1 МК СОЛАС-74 с поправками 2009 г.; Часть 3 Кодекса ППО 2010 (пр. ИМО МСХ.307(88)); Техническое регламента о безопасности объектов морского транспорта. (Reg. 2.1.3.3 Part VI and 16.8.6, 16.8.7 of Part XI of the Rules for the Classification and Construction of Sea-Going Ships (2020); Reg. II-2/3.2, II-2/9.3.1 SOLAS-74 as amended 2009; Part 3 of FTP Code 2010 (IMO Res. MSC.307(88)). Technical Regulations Concerning the Safety of Sea Transport Items.</small></p>		
Настоящее Свидетельство о типовом одобрении действительно до This Type Approval Certificate is valid until	<b>08.04.2025</b>	
<p>Настоящее Свидетельство о типовом одобрении теряет силу в случаях, установленных в Правилах технического наблюдения за постройкой судов и изготовлением материалов и изделий для судов.</p> <p>This Type Approval Certificate becomes invalid in cases stipulated in Rules for the Technical Supervision during Construction of Ships and Manufacture of Shipboard Materials and Products.</p>		
Дата выдачи Date of issue	28.12.2020	№ <u>20.00393.381</u>
Код номенклатуры Code of nomenclature	<u>06010005МК</u>	
Российский морской регистр судоходства Russian Maritime Register of Shipping	 М.П. (подпись) L.S.	<u>Филиппов А.В. / A. Filippov</u> ( фамилия, инициалы ) name

# CERTIFICATE OF ORIGIN ACCORDING TO FORM CT-1

Certificate of origin under the form CT-1 confirms the production of all Hermes plant products in the Russian Federation.



## Certified English Translation

1. Consignor/Exporter (name and address) Zavod HERMES LLC, Russia, 614513, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8.			4. Reference № 0014004555  <b>0345400</b>		
2. Consignee/importer (name and address)			<b>CERTIFICATE OF ORIGIN</b> Form ST-1 Issued in <b>Russian Federation</b> (Country) To be presented in <b>Russian Federation</b> (Country)		
3. Means of transport and route (as far as known)			5. For Official Use <b>To be presented to the Ministry of Industry and Trade of the Russian Federation</b>		
6. Item number	7. Number and kind of packages	8. Description of goods	9. Origin criterion	10. Quantity of goods	11. Number and date of invoices
1		Universal modular fireproof explosion-proof cable transit systems type HTM consisting of: transit modules HTM, plug modules HTM, solid modules HTM, mounting frames HTM-RM, HTM-RMF, HTM-RMR, HTM-RMS, HTM-RMK, HTM-RMKF, HTM-RMKS, HTM-RMT, HTM-RMTS, HTM-RMTS R20, HTM-RMTS R40, HTM-RMTS R60, HTM-RMTSG, HTM-RMTF, HTM-RMTFG, HTM-RMKR, mating frames HTM-RO, HTM-ROKF, HTM-ROKFR, press blocks HTM-PB, HTM-PBK, anchor plates HTM-OP, HTM-OPF, lubricant HTM-SM, sealing tape HTM-LU TU 23.99.19-002-20082023-2020 OK Code 034-2014 (KPES 2008) 23.99.19 EAEU TN VED (HS Code) 8547900000	P		
12. Certificate It is hereby certified, that the declaration by the exporter is correct.  Union Perm Chamber of Commerce and Industry 24B, Sovetskaya Street, Perm, Perm Krai, 614000, Russia  Iu.F.Bratchikova (signed)  Date: November 12, 2020  Seal of Perm CCI  Date, signature and stamp			13. Declaration by the exporter The undersigned hereby declares that the above details and statements are correct: that all the goods were produced or processed enough in  <b>Russian Federation</b> (Country) and that they comply with the origin requirements specified for these goods.  A.B.Bezukladnikov (signed)  Date: November 12, 2020  Seal of Zavod HERMES LLC  Date, signature and stamp		

This is a true and accurate translation of the source document.

Duly authorized signatory



Natalya Yu. Gashkova

Россия, 614000, г. Пермь, ул. Октябрьская, 24Б, Russia, 614000, Perm, ul. 25 Oktiabria B,  
тел./факс (342) 254-05-55 phone/fax +7 (342) 254-05-55

## QUALITY MANAGEMENT SYSTEM CERTIFICATE

Our company's quality management system is certified according to **ISO 9001:2015** standards by Bureau Veritas Certification Rus, the world leader in certification!



**BUREAU VERITAS**  
Certification

**“Zavod HERMES” Company  
including “Zavod HERMES” LLC  
and “Trade House “Zavod HERMES” LLC**

433, Shosse Kosmonavtov str., bld.8, Perm region, Perm Krai, 614513, Russia

**This is a multi-site certificate, additional sites are listed on the next pages**

*Bureau Veritas Certification Holding SAS – UK Branch certifies that  
the Management System of the above organisation has been audited and found to be  
in accordance with the requirements of the management system standards detailed below*

---

**ISO 9001:2015**

*Scope of certification*

---

**Development, production and sale of fire - proof explosion - proof cable transit system**

Original cycle start date:	<b>22 May 2019</b>
Expiry date of previous cycle:	<b>21 May 2022</b>
Recertification Audit date:	<b>29 April 2022</b>
Recertification cycle start date:	<b>07 June 2022</b>
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on:	<b>21 May 2025</b>

Certificate No: **RU004189**      Version: **1**      Revision date: **07 June 2022**



**Technical manager**  
JSC “Bureau Veritas Certification Rus”  
Vera V. Skitina



0008

Certification body address: 5<sup>th</sup> Floor, 66 Prescott Street, London E1 8HG, United Kingdom  
Local office: Bureau Veritas Certification Rus JSC, 30, Marshala Proshlyakova str., 123458, Moscow, Russia

For further clarifications regarding the scope and validity of this certificate, and the applicability of the management system requirements, please call: +7 495 228 7848

Page 1 of 2



# CERTIFICATE OF PROTECTION AGAINST THE EFFECTS OF A PASSING SHOCK WAVE

The certificate confirms compliance with the requirements of providing protection from the effects of a passing shock wave with a maximum overpressure of 835 kPa, taking into account the full error of measurement.

 <p><b>ПЕРМСКАЯ ТОРГОВО-ПРОМЫШЛЕННАЯ ПАЛАТА</b> PERM CHAMBER OF COMMERCE AND INDUSTRY UNION</p>	 <p><b>SOEX СОЮЗЭКСПЕРТИЗА Пермь</b> АВТОНОМНАЯ НЕКОММЕРЧЕСКАЯ ОРГАНИЗАЦИЯ INDEPENDENT NON-PROFIT ORGANIZATION «СОЮЗЭКСПЕРТИЗА-ПЕРМЬ»</p>
<p>Certified English Translation</p>	
<p><b>GOST R CERTIFICATION SYSTEM</b> FEDERAL AGENCY FOR TECHNICAL REGULATION AND METROLOGY</p>	
	<p><b>CERTIFICATE OF COMPLIANCE</b></p> <p>No. <b>ROSS RU.CZ15.N07471</b></p> <p>Validity period from September 11, 2019 to September 10, 2022</p>
<p><b>№ 0313645</b></p>	
<p><b>CERTIFICATION BODY</b> No RA.RU.11CZ15 Independent Non-Profit Organization CENTR EKSPERTIZY BEZOPASNOSTI (CEB), 197374, Russia, St.-Petersburg, ul.Optikov, house 4, lit.A, office 11-N, № 427, 447,449. Telephone (812) 324 78 02, 324 78 03, +7 (921) 969 76 11. E-mail: <a href="mailto:osceb@mail.ru">osceb@mail.ru</a></p>	
<p><b>PRODUCTS</b> Universal modular fireproof explosion-proof cable transit systems type HTM. List of components – see Appendix (blank sheet № 0038180) TU 23.20.14-001-20082023-2018. Commercial production.</p>	
<p>Code OK 28.99.39.190</p>	
<p><b>CONFORMS WITH REQUIREMENTS OF THE FOLLOWING REGULATORY DOCUMENTS:</b> TU 23.20.14-001-20082023-2018 (pp. 3.1.9, 7.6.3) and protects against shockwave actions with peak overpressure 835 kPa (adjusted to overall measurement error)</p>	
<p>HS Code (TN VED) 8547 90 0000</p>	
<p><b>MANUFACTURER:</b> Zavod HERMES LLC, Tax Id. (INN) 5902045954, OKPO 20082023 Russia, 614513, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8.</p>	
<p><b>CERTIFICATE HOLDER:</b> Zavod HERMES LLC, Tax Id. (INN) 5902045954, OKPO 20082023 Russia, 614513, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8. Tel./fax: +73422008826, e-mail: <a href="mailto:info@ntm-hermes.com">info@ntm-hermes.com</a></p>	
<p><b>SUPPORTING DOCUMENTS:</b> Test Report No. 301-19/Vz dated 26.08.2019 issued by Test Laboratory Neva-Reglament ANO CEB, Accreditation Certificate No. RA.RU.21CZ27, address: 197374, St.-Petersburg, ul.Optikov, house 4, lit.A, office 11-N; Certificate ISO 9001:2015 № RU002561 (valid from May 22, 2019 to May 21, 2022), JSC Bureau Veritas Certification Rus, address: 123458, Moscow, ul.Marshala Proshliakova, 30</p>	
<p>Россия, 614000, г. Пермь, ул. 25 Октября, 8, тел./факс: (342) 254-05-55      Russia, 614000, Perm, ul. 25 Oktiabria 8, phone/fax +7 (342) 254-05-55</p>	
	

# CERTIFICATE OF CONFORMITY GOST 14644 FOR CLEAN ROOMS

Products are acceptable for use in clean rooms in accordance with the requirements and GOST 14644-1-2017 at least "5ISO", GOST R ISO 14644-8-2014 at least ISO-ACC class (-9), GOST R ISO 14644-9-2013, GOST R ISO 14644-10-2014

<b>ДОБРОВОЛЬНАЯ СЕРТИФИКАЦИЯ ПРОДУКЦИИ</b>	
Система добровольной сертификации в области промышленной и экологической безопасности "Промышленный эксперт" Зарегистрирована Федеральным агентством по техническому регулированию и метрологии 11.04.2016 г., регистрационный № РОСС RU.31485.04ИДЮ0	
<b>СЕРТИФИКАТ СООТВЕТСТВИЯ</b>	
№ 04ИДЮ101.RU.C03793	
Срок действия с 24.08.2022 по 23.08.2025	
№ 1305021	
<b>ОРГАН ПО СЕРТИФИКАЦИИ</b> Общества с ограниченной ответственностью «СамараТест». Место нахождения (адрес юридического лица): 443030, РОССИЯ, Самарская область, город Самара, улица Урицкого, дом 19. Адрес места осуществления деятельности: 443030, РОССИЯ, Самарская обл. г Самара, Железнодорожный район, ул. Урицкого, д. 19, комн. 46, 48, 49. Телефон: +7(846)206-03-79. Адрес электронной почты: info@samaraset.ru. Свидетельство о признании компетентности органа по сертификации № РОСС RU.31485.04ИДЮ0.101 от 20.05.2021 года.	
<b>ПРОДУКЦИЯ</b> Проходки кабельные модульные универсальные огнестойкие взрывозащищенные типа «НТМ» ТУ 23.99.19-002-20082023-2020 Серийный выпуск	код ОК 034-2014 (КПЕС 2008) 23.99.19
<b>СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ</b> ГОСТ 14644-1-2017 не менее «СИСО», ГОСТ Р ИСО 14644-8-2014 не менее ИСО-ACC класс (-9), ГОСТ Р ИСО 14644-9-2013, ГОСТ Р ИСО 14644-10-2014	код ТН ВЭД 8547900000
<b>ИЗГОТОВИТЕЛЬ</b> Общество с ограниченной ответственностью «Завод ГЕРМЕС» Юридический адрес: 614513, Россия, Пермский край, Пермский район, территория Шоссе Космонавтов, дом 433, корпус 8, офис отдельный вход ИНН: 5902045954	
<b>СЕРТИФИКАТ ВЫДАН</b> Общество с ограниченной ответственностью «Завод ГЕРМЕС» Юридический адрес: 614513, Россия, Пермский край, Пермский район, территория Шоссе Космонавтов, дом 433, корпус 8, офис отдельный вход Телефон: 73422008826. E-mail: info@ntm-hermes.com ИНН: 5902045954	
<b>НА ОСНОВАНИИ</b> протокола испытаний № 130-20/12 от 15.12.2020 года, выданного испытательным центром Электротехнических изделий «Строймонтаж» Закрытого акционерного общества Научно-производственный центр «СТРОЙМОНТАЖ»	
<b>ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ</b> Схема сертификации: Зс	
	Руководитель органа
Эксперт	 Подпись
	 Подпись
	<b>А.М. Кузнецов</b> инициалы, фамилия
	<b>Ф.Ю. Зубков</b> инициалы, фамилия

## CERTIFICATE OF SEISMIC RESISTANCE 9 POINTS (GROUP M40)



ПЕРМСКАЯ  
ТОРГОВО-ПРОМЫШЛЕННАЯ  
ПАЛАТА  
PERM CHAMBER  
OF COMMERCE AND INDUSTRY UNION

SOEX СОЮЗЭКСПЕРТИЗА  
Пермь  
АВТОНОМНАЯ НЕКОММЕРЧЕСКАЯ ОРГАНИЗАЦИЯ  
INDEPENDENT NON-PROFIT ORGANIZATION «СОЮЗЭКСПЕРТИЗА-ПЕРМЬ»

Certified English Translation



SeismoBezопасnost  
Voluntary certification system

Voluntary certification for seismic stability, vibration strength,  
vibration and climate exposure resistance

Krupskaya Street 8, Bldg. 3, Moscow 119311

## CERTIFICATE OF COMPLIANCE

Series 001 № 381

Issued to:

Zavod HERMES Limited Liability Company

Address: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8.

Actual address: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8.

Telephone +7 (342) 220-88-26, e-mail: info@ntm-hermes.com

(company's name – holder of this certificate)

**This is to certify, that the following products:**

Universal modular fireproof explosion-proof cable transit systems type HTM,  
manufactured acc.to TU 23.99.19-002-20082023-2020 requirements.

(products description)

**MEET THE REQUIREMENTS OF STATE STANDARDS**

(state the applicable standard)

GOST 30546.1-98, GOST 30546.2-98, GOST 30546.3-98

(seismic stability rating – 9 acc. to MSK-64 Seismic Intensity Scale);

GOST 30631-99 (M 40 – Group of Mechanical Design).

**AS PROVED BY**

(test/examination report)

Test reports №№ 99-21/04, 100-21/04 dd. April 9, 2021 issued by Stroimontazh, Center for Electric  
Products Testing, registration № ROSS RU.31297.04ZhTU0.004.

Certification Body: VELES Certification Center

Actual address: 195009, St. Petersburg, Akademik Lebedev Str. 12 bld. 2, lit. A,  
2<sup>nd</sup> Floor, room 26

Registration №:

CB.OS.011

Date of registration:

April 15, 2021

Expires on:

April 14, 2024

Director of Certification Body

G.A.Rodzivon

(full name)

  
(signature)

Seal:

VELES Certification Center

St-Petersburg

This is a true and accurate translation of the source document.

Duly authorized signatory

Natalya Yu. Gashkova



Россия, 614000, г. Пермь, ул. 25 Октября 8, Россия, 614000, Пермь, ул. 25 Октября 8,  
тел./факс +7 (342) 254-05-55, phone/fax +7 (342) 254-05-55



## CERTIFICATE OF SEISMIC RESISTANCE 9 POINTS (GROUP M25)



ПЕРМСКАЯ  
ТОРГОВО-ПРОМЫШЛЕННАЯ  
ПАЛАТА  
PERM CHAMBER  
OF COMMERCE AND INDUSTRY UNION

SOEX СОЮЗЭКСПЕРТИЗА  
Пермь  
АВТОНОМНАЯ НЕКОММЕРЧЕСКАЯ ОРГАНИЗАЦИЯ  
INDEPENDENT NON-PROFIT ORGANIZATION «SOYUZEXPERTIZA-PERM»

Certified English Translation



SeismoBezопасnost

Voluntary certification system

Voluntary certification for seismic stability, vibration strength,  
vibration and climate exposure resistance

Krupskaya Street 8, Bldg. 3, Moscow 119311

## CERTIFICATE OF COMPLIANCE

Series 001 № 382

Issued to:

Zavod HERMES Limited Liability Company

Address: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8.

Actual address: 614513, Russia, Perm krai, Perm district, ter. Shosse Kosmonavtov, house 433, building 8.

Telephone +7 (342) 220-88-26, e-mail: info@ntm-hermes.com

(company's name – holder of this certificate)

**This is to certify, that the following products:**

Universal modular fireproof explosion-proof cable transit systems type HTM,  
manufactured acc.to TU 23.99.19-002-20082023-2020 requirements.

(products description)

**MEET THE REQUIREMENTS OF STATE STANDARDS**

(state the applicable standard)

GOST 30546.1-98, GOST 30546.2-98, GOST 30546.3-98

(seismic stability rating – 9 acc. to MSK-64 Seismic Intensity Scale);

GOST 30631-99 (M 25 – Group of Mechanical Design).

**AS PROVED BY**

(test/examination report)

Test reports №№ 99-21/04, 101-21/04 dd. April 9, 2021 issued by Stroimontazh, Center for Electric  
Products Testing, registration № ROSS RU.31297.04ZhTU0.004.

Certification Body: VELES Certification Center

Actual address: 195009, St. Petersburg, Akademik Lebedev Str. 12 bld. 2, lit. A,  
2<sup>nd</sup> Floor, room 26

Registration №:

CB.OS.011

Date of registration:

April 15, 2021

Expires on:

April 14, 2024

Director of Certification Body

G.A.Rodzivon

(full name)

  
(signature)

Seal:

VELES Certification Center

St-Petersburg

This is a true and accurate translation of the source document.

Duly authorized signatory



Natalya Yu. Gashkova

Россия, 614000, г. Пермь, ул. 25 Октября 8, телефон/факс +7 (342) 254-05-55  
Russia, 614000, Perm, ul. 25 Oktiabria 8,  
phone/fax +7 (342) 254-05-55

## QUICK INSTALLATION INSTRUCTIONS FOR HTM® CABLE PENETRATIONS



1. Install the HTM-RM frame in the mounting location and clean it with a metal brush.



2. Apply grease HMT-SM to the inside surfaces of the frame and thoroughly lubricate all corners.



3. Route all cables through the mounting frame compartment. Select HTM sealing modules and inserts according to the cable diameter. Prepare plug modules for areas that do not require cabling.



4. Thoroughly lubricate the outer surfaces of the modules and matched inserts. Mount the plug modules together with the core.



5. Place HTM modules with cables according to the installation plan. Install the plug modules as close as possible to the press block to make it easier to make changes to the penetration in the future.



6. Install the HTM-OPF support fixing plate before the last row of modules, and the standard HTM-OP plate after it. Seal all components with a clamping device HTM-PU or jack HTM-DMU, fix the bolts on the fixation plate.



**7.** Assemble the HTM-PB press block (corresponding to the width of the frame section), connect its parts with two bolts for 1-2 turns using an Allen key (included in the delivery set of the HTM® cable penetration). Thoroughly lubricate the internal and external surfaces of the press block with HTM-SM grease.



**8.** Insert the press block into the frame over the last support plate. Tighten the bolts with an Allen wrench, turning them 4-5 turns alternately until both parts of the press unit are fully tightened.



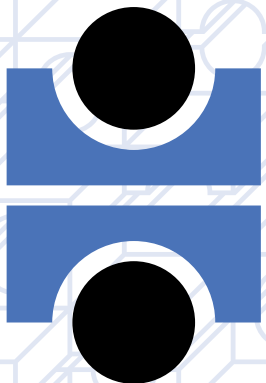
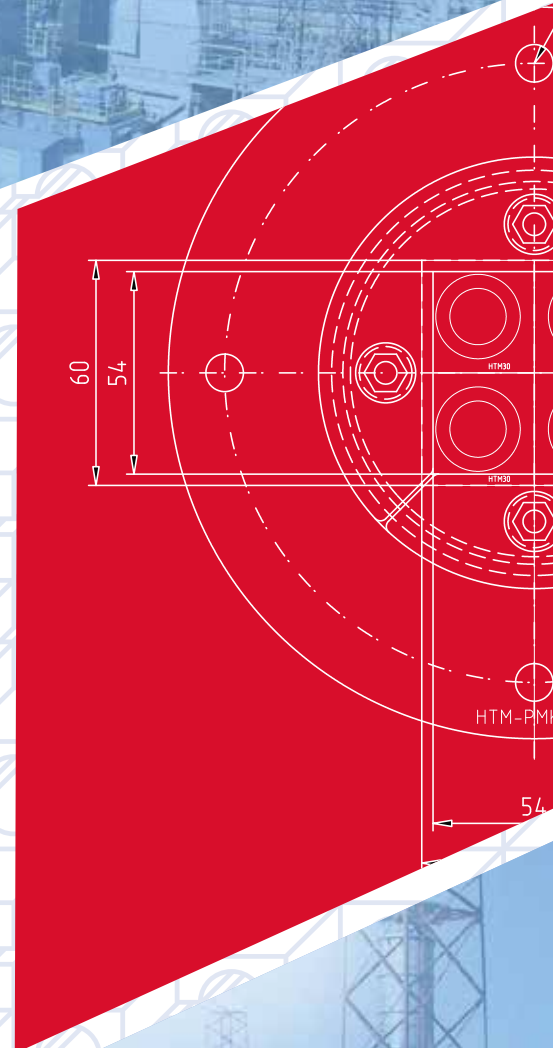
**9.** Unscrew HTM-OPF bolts alternately to distribute the compacted components evenly over the height of the section. After assembly, check the immobility of the cables in the module, remove excess grease.

5 YEARS  
OF SUCCESSFUL OPERATION

Our mission is saving human lives and ensuring the safe work of all employees of production and industrial enterprises in Russia. This mission dictates the basic principles of our organization. After all, the most precious thing we have is our life and health.

Explosion-proof fireproof cable penetrations HTM® is one of the basic elements of safety, so we pay maximum attention to the quality and reliability of our products. In this regard, the goal of our organization is to provide customers with the most reliable and safe products that provide maximum protection against the spread of fire in fires, the penetration of flammable media from the room into the other room and their ignition.

When you buy HTM® cable penetrations, you trust us with your safety. And we have no right to let you down. After all, by doing so, you are first of all expressing confidence in us and our cause.



MULTI CABLE TRANSIT  
**HTM**®  
FIRST STEP IN FIRE SAFETY