

## Product info

**Hydrocord™ UKP Seismo** is designed for sealing moving penetrations of pipes and communications. First of all, it is possible to use it in seismically active areas (more than 6 points), as well as with significant yields of the building foundation of buildings and structures during transverse shear of pipe penetrations.

Besides, the scope of such products is the sealing of penetrations near vibration-loaded equipment, where a significant vibration load is transmitted to the pipe.

## Application

**Hydrocord™ UKP Seismo** seal is used for sealing and waterproofing penetrations of sewerage, water supply, heat supply and other networks through the enclosing structures of buildings (usually through monolithic or prefabricated reinforced concrete walls and ceilings), in conditions of increased seismic activity.

The principle of seal operation is the expansion of the sealing element (rubber core), under the compressive force of the pressure steel plates when tightening the bolts that unite the structure.

## Advantages

- Proven water resistance up to 1 bar;
- Not a rigid seal for pipes;
- Corresponds to SP 14.13330.2018 (Russian regulatory document);

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- Elastic sealing at a distance of more than 100mm between the pipe and the hole;
- It can be used in case of significant yields of the building foundation and transverse movements of pipes relative to walls;
- Can be used near vibro-loaded equipment;
- Works in different directions and when turning the pipe relative to the wall;
- Installation does not depend on ambient temperature;
- Instrumental quality control (Dynamometric wrench);
- Gas and waterproof;
- Quick installation;
- Durability;
- Can be customized to any size and modification;
- Can be adjusted for contact with oils and oil products (made of oil and petrol resistant rubber);
- Application in contact with potable water is available (modification with food grade rubber);
- Modification with an extended operating temperature range (from - 60°C to + 200°C) made of silicone rubber is available.

## Notes

- The drilled hole must be treated with epoxy compound;
- Hydrocord™ UKP should not support the pipe;
- The pipe must be centered and fixed on special pipe supports.

## Patents

This design is patented by Trade House "Gidromix" LLC and is an intellectual property.

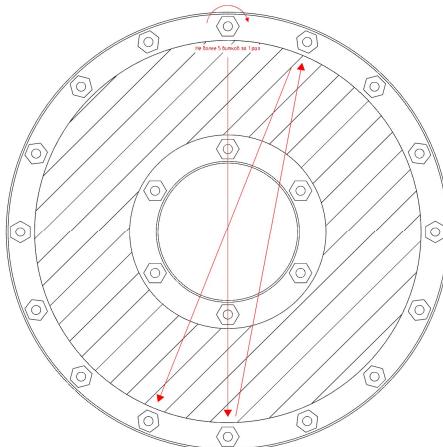
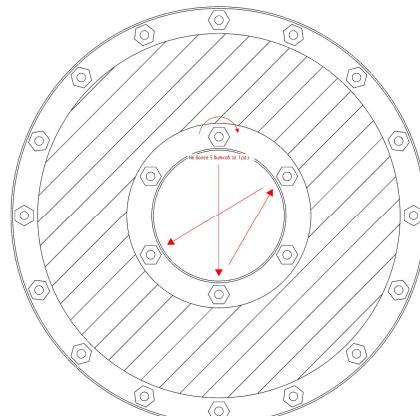




## Notes

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- The pipe must be centered and fixed on special pipe supports.

You can begin the process of tightening the Hydrocord™ UKP Seismo seal from the outer contour or from the inner contour.



## Materials

Annular space seal Hydrocord™ UKP can be made of the following materials:

1. EPDM (Standard);
2. Oil and petrol resistant rubber (Optional);
3. Food grade rubber (Optional);
4. High temperature silicone rubber (Optional);

## Installation

1. Clean the hole (sleeve, drilled hole, casing, etc.) and pipe;
2. Check the pipe and hole diameters and compare them with the seal diameters;
3. When installing in steel sleeves, inspect the sleeve weld and, if necessary, clean and smooth out any imperfections where the seals will be installed;
4. Install the Hydrocord™ UKP Seismo seal on the end of the pipe (if the pipe has a socket, install it from the opposite end);
5. Insert the seal into the hole. The tie bolt nuts should face the installer. (It is recommended to install the seal so that the tie bolt nuts are accessible during building operation);
6. Tighten the tie bolts in a star pattern using a torque wrench (as it is shown below). The tightening torque must be in accordance with the table below. Each bolt must be tightened in several passes until the required torque is reached. Multiple passes are required, with no more than 5 turns allowed at a time to ensure smooth and uniform tightening.
7. Do not use power tools to tighten bolts!
8. Within 12 hours of reaching the required tightening torque on all bolts, recheck the tightening torque on all bolts and, if necessary, tighten the bolts to the required torque.

Bolt diameter	Tool dimensions for bolts
M6	10mm
M8	13mm
M10	17mm
M12	19mm

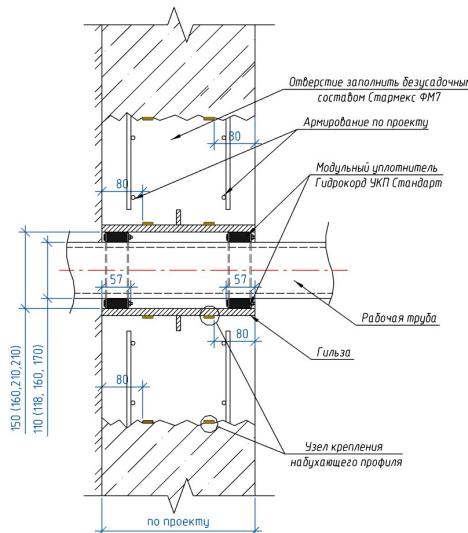
Maximum tightening torque, Nm		
Bolt diameter	Standard pipes	Thin-walled and pre-insulated (corrugated) pipes
M6	5 Nm	5 Nm
M8	10 Nm	8 Nm
M10	20 Nm	18 Nm
M12	20 Nm	20 Nm



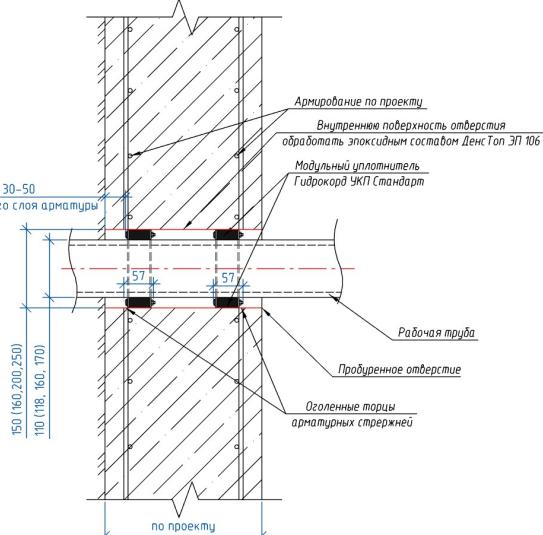
## Options for technical solutions

The annular space seal Hydrocord™ UKP can be used in various cases:

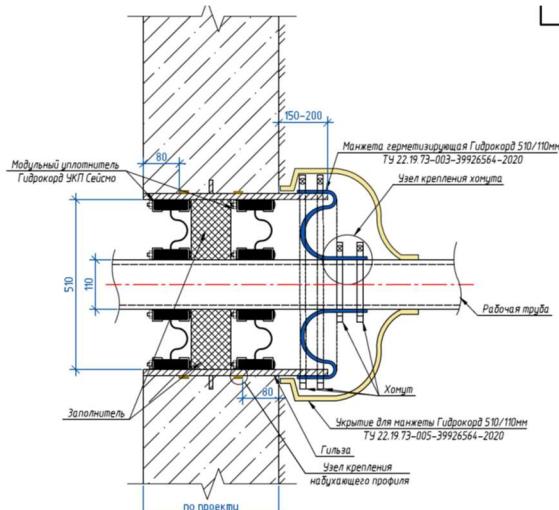
### Rectangular hole in the wall for one or more pipes (embedded sleeve)



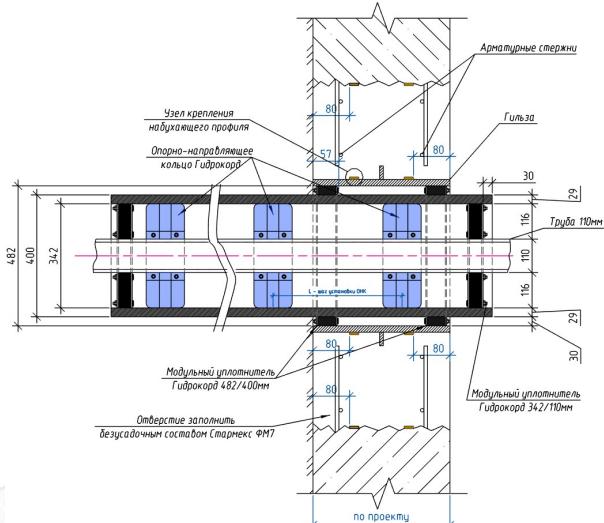
### A hole drilled with a diamond bit



### Seismic conditions or subsidence soils:



### The space between the case and the working pipe



Upon request, the design department of Hydrocord LLC can develop technical solutions for your project. According to your initial data, our specialists will develop a project for sealing penetrations of networks with specifications and detailed nodes.

Download the set of standard solutions following the link in the section "Solutions for designers" of our website:



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Product info on the website