



Development and manufacture

EQUIPMENT

for

ADAPTATION





of the objects for the disabled people













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ABOUT US



Tiflocentre «Vertical» (LLC) was established in 2007 on the basis of a manufacturing company in Torzhok, Tver region, specialized in manufacturing of tactile mnemonic diagrams and Braille books. At the present time Tiflocentre is the largest manufacturing company in Russia, engaged into space adaptation for all categories of people with limited mobility.

Our main areas of activity:

- 1. Examination of orientation ways of visually impaired people, hearing-impaired and locomotor patients.
- 2. Projecting of the barrier-free space for all disabled people, including the ease of use for ordinary people.
- 3. Development and manufacture of various goods for the disabled people:
- equipment for the blind and visually impaired people;
- equipment for the hearing-impaired people;
- equipment for wheelchair users and locomotor patients;
- facilities for inclusive education;
- universal equipment for several categories of the disabled people

The company's manufacturing facilities contain 8 workshops on the space area of 3000 sq.m, - this makes possible to manufacture qualitatively any volumes of the goods. The Design and engineering department is constantly working over improvement of the manufactured tactile facilities and the development of new orientation ones. The company's catalogue presents a large range of

goods, starting from tactile pictograms and books to tactile-sensory terminals with the software. The leading company's specialists are certified experts in space adaptation and they take part in the development of regulatory documentation of the Russian Federation on buildings' accessibility for the disabled people.

Owing to the high quality, goods of LLC Vertical are presented at many socially-important facilities: Ministry of Health, Main Department of the Pension Fund of the Russian Federation, the Tretyakov Gallery, the Museum-panorama - The Battle of Borodino, the Kolomenskoe Museum, the Olympic facilities and parks in Sochi as well as at Sheremetyevo, Pulkovo, Rostov-on-Don, Nadym, Kazan airports, etc.

Nowadays LLC Tiflocentre is developing the inclusive education in Russia. In 2017 the unique training tactile-sound displays for pre-school facilities have been developed.

The complex approach to settlement of accessibility issues makes possible for Tiflocentre to manufacture qualitative goods, which have already been assessed by thousands of the disabled people in our country and abroad.

OUR ADVANTAGE - LONGSTANDING EXPERIENCE AND QUALITY!

MAIN ACTIVITY AREAS OF TIFLOCENTRE «VERTICAL»

1. Projecting of the barrier-free space for all disabled people

During its whole work Tiflocentre Vertical has been constantly studying the orientation ways of a disabled person (visually-challenged, hearingimpaired and locomotor patients). Moreover, we don't only engage such people into testing of our goods but we also have blind specialists as staff employees. At the present time we have enough experience to project the barrier-free space ourselves. The specialists of our Project department have developed the Adaptation Manual for public facilities with high passability (an entrance unit, a water-closet, a classroom, a school hall, a swimming pool, a public transport stop, etc.). This Manual is completely based on the effective state standards and regulations.



2. Development and manufacture of the equipment for the blind and visually impaired people

Primarily the main activity area of Tiflocentre was manufacture of the equipment for the blind people: tactile plates and Braille books. In course of time the company's activity has expanded. At the present time Tiflocentre manufactures various types of tactile goods for visually impaired people: tactile paving, tactile indicators, , tactile-speaking plans, pictograms, tactile training sets, etc.



3. Development and manufacture of equipment for hearing-impaired people

The hearing-impaired people are in constant need of a loudspeaker mode, but this isn't always convenient for people, surrounding them.

Particularly for this purpose Company Vertical manufactures induction systems, based on magnetic waves.

Switching on the deaf hearing aid into a "T" mode a hearing-impaired person may easily get the required information without any inconveniences to other people.



4. Equipment for wheel chair users and locomotor patients.

We suggest the equipment not only for people with muscle-skeleton disorders, but also for the ones with limited mobility (pregnant women, elderly people with heavy luggage, etc.). Company Vertical manufactures a wide range of support rails to be installed on the stairs and in water closets as well as entrance ramps of various modifications to get over the height.



5. Facilities for development of inclusive education

Nowadays Tiflocentre Vertical is actively supporting inclusive education in our country. Our specialists have developed unique training displays: Alphabet, Arithmetic, Animals of Russia, Seasons, etc. Every tactile-interactive display is equipped with 3 ways of information perception: a picture, tactile surface and a sound. That's why they can be used not only in pre-schools but also in the children's playroom. Moreover, Tiflocentre specialists have developed universal tactile sets with figures and letters in several languages.

6. Universal equipment for several categories

Programme "Accessible environment" provides barrier-free movement and receiving information by all categories of people. Namely that's why our company is aimeЦЦd at the development and manufacture of universal equipment. One of such innovations is « Sign language Centre». This is a visually-acoustic indicator panel to transmit the information for long distances for all people, including totally deaf, blind and visually impaired ones. One more unique facility is our tactilesensoric terminal TACTILE-VERT, developed in an anti-vandal case, and having software INFO-VERT. The basic configuration has a function "Contrast" and "Magnifying glass" for visually impaired people, an adaptive menu (below) for managing the terminal by a wheelchair user and also a voice-reporting system. The menu buttons are equipped with the Braille letters specially for totally blind people, and a hearing loop for the hearing-impaired ones. Having had great success and patented several unique goods, Tiflocentre Vertical isn't satisfied with the achieved results. The team of Tiflocentre specialists works daily over improvement of the goods and the development of new universal facilities for adaptation of the social

TACTILE PAVING FROM THE MANUFACTURER

One of the leading manufacturing areas of Tiflocentre Vertical is manufacture of tactile paving according to the state standards. Special paving with volumetric tactile indicators on the surface provides free movement of visually impaired people in public places with high passability (hospitals, educational institutions, railway stations, post offices, parks, public transport stops, etc.). Tactile indicators "show" the movement direction to a blind person and warn of the obstacles on his way:



- "Cone" an attention, danger and barrier zone.
- "Stripe" a safe way,
- "Diagonal" change of the movement route

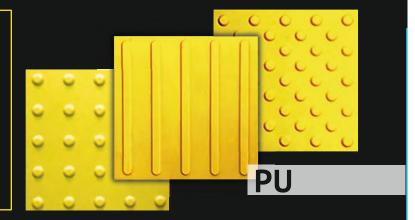
Our company manufactures a wide range of tactile paving from various materials for outdoor and indoor application.

TACTILE POLYURETHANE PAVING

Mounted polyurethane tactile paving is intended to inform visually impaired people of indoor and outdoor movement. It is manufactured from qualitative bead polyurea. It has overall dimensions 300x300mm and surface with tactile indicators (tactile surface), complying with the existing national and international standards

Main advantages:

- Easy mounting. Polyurethane tile is mounted with adhesive without demounting of the old flooring;
- Universality tactile paving is for outdoor and indoor application;
- Qualitative tactile effect the best tactile rise is selected on paving for the blind and visually impaired people as well as for the wheelchair users, without making difficult their movement;
- Possible cleaning with cleaning agents;



PVC

A wide range of our tactile goods makes possible to select paving for various operating conditions and for any type of interior. All models of tactile paving from Tiflocentre Vertical have been tested by the blind specialists.

TACTILE PVC PAVING

Tactile PVC paving (polyvinylchloride) is intended for indoor designation of a tactile way, has a tactile picture in compliance with the effective standards. It is mounted by sticking to the smooth surface (linoleum, ceramic granite and ceramic tile) with a two-component adhesive or a double-sided tape. It has dimensions of 300x300 mm and it has contrast color (yellow and black); tactile indicators' height is 4 mm.

Main advantages

- Easy mounting directly on the surface;
- Wear resistance in case of heavy loads;
- Anti-slip surface;

- Possible cleaning with standard cleaning agents;
- Suspension and orthopedic properties;
- Injury prevention;

AISI 304

TACTILE METAL PAVING

Tactile metal paving is made of strong steel (AISI 304) and is intended for rooms with increased passability (airports, railway stations, trading centers) as well as for the ones with raised design standards. Particularly often this type of paving is applied in hotels and hotels with the expensive interior furnishing.

Main advantages:

- -Fire-safety nowadays it is the only one tactile product at the market, complying with all fire safety standards;
- Increased wear resistance at the facilities with high passability;
- Universal and operable installation (the product is mounted with screw anchors or an adhesive), without demounting of the old flooring;
- Aesthetic design. Metal tactile paving has a high quality polished coating, making an aesthetic interior;
- Qualitative tactile effect the best tactile rise is selected on paving for the blind, visually impaired people and wheel chair users, without making their movement difficult;

Metal tactile paving can be fixed in two ways:

- 1) Spinning with 4 screw anchors or self-scrapping screws (aren't included into a delivery set).
- 2) Sticking to a mounting plate (delivered separately) with a special double-sided tape or adhesive (delivered separately).





GUIDE TACTILE TAPE

A quide tactile tape has clearly defined tactile and visual signs (tactile indicators), intended to indicate movement routes for visually impaired people. Depending on marking peculiarities Tiflocentre Vertical manufactures several kinds of tactile tape.

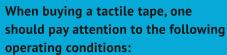


passability;

Tactile PU tape is used for marking of the tactile routes in buildings with small passability. It has an advantage of easy mounting and an accessible price.

2. Tactile tape for rooms with medium and high passability.

We recommend using PU tactile indicators or tactile tapes in aluminum casing for rooms with high passability.



- Contrast color to the underlying surface: vellow if the surface is dark, and black - if it is light;
- Passability. Depending on the passability, it's recommended to apply different types of tactile marking. As it's recommended to use tactile tapes with an adhesive base, being 29-50 mm wide, for rooms with medium passability and for the ones with high passability - tactile tapes in aluminum casing should be used;
- Easy and qualitative mounting. An important condition for the selection of the right type of a tactile indicator is the price. Thus, mounting of a tactile tape with the self-adhesive surface reduces the costs on application works without drilling. However, mounting of the tactile tape in aluminum casing guarantees durable fixation;

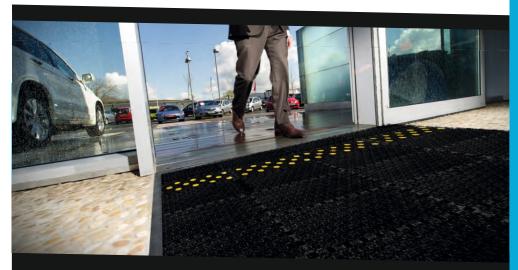




Mounting of the tactile tape should be performed on dry surface; mounting should be done with an already applied adhesive layer. The tape in aluminum casing may be mounted with FIXVERT adhesive systems as well as with the screws.



DIRT-RESISTANT TACTILE COATING TIFLOFLOOR-10

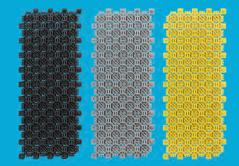


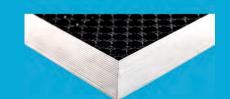
TIFLOFLOOR-10 - a modern invention of Tiflocentre Vertical, being a modular tactile dirt-resistant coating. This is a universal solution not only to provide access to visually impaired people but also to

make possible to keep the entrance unit clean. The dirt-resistant coatings contain frost-resistant PVC with an elastic cellular structure and installed tactile indicators (D25 mm).

The application of such coatings makes possible to solve the following tasks:

- To provide an anti-slip coating for entrance units;
- To provide shoes' cleaning with further dirt collection in special cells;
- To make the facility accessible for the blind and visually impaired people;
- To avoid problems with tactile paving mounting;
- To avoid problems with daily cleaning of the tactile paving surface;





We supply dirt-resistant coatings in sheets and rolls. As coatings are of small elasticity, they are manufactured oversized. If required, we can frame the coating into a special aluminum casing, making possible to fix it firmly on different types of the surface.

TACTILE INDICATORS



Tiflocentre Vertical is specialized in manufacture of different types of tactile indicators in compliance with the Russian and international standards.

Tactile indicators are special floor indicators, required for the route marking for visually impaired people. They are manufactured in the form of cones and stripes. They are used indoors as well as outdoors and also in places with no possibility for tactile paving mounting: stairways, entrance ramps and narrow corridors. Cones are generally used to indicate warning and danger areas, and stripes determine the direction for safe movement.

POLYURETHANE TACTILE INDICATORS

Cheap floor tactile indicators which are a nice alternative to polyurethane tactile paving. They have an aesthetic design and a contrast color (yellow). They may be mounted indoors and outdoors at a wide temperature range. To make the mounting process (using an adhesive) easier we manufacture footless tactile indicators.

COMBINED TACTILE INDICATORS

These are tactile indicators, made from two materials – metal and polyurea. Such indicator combines all the requirements: contrast, durability, resistance to temperature drops and an aesthetic design. It is suitable for mounting at places with large passability: educational institutions, hospitals, post offices, etc.





METAL TACTILE INDICATORS

Tiflocentre Vertical manufactures tactile indicators from stainless steel, aluminum or brass. They have an aesthetic design, not spoiling the office interior and corporate style. The installation of such indicators is also reasonable at the religious facilities and in museums. Metal tactile indicators are suitable for indoor and outdoor mounting.



Our manufacturing company also develops and tests mounting adhesives for floor tactile indicators. Tiflocentre specialists have developed special adhesive FIXVERT, guaranteeing qualitative fixation to any type of the surface.

ASSISTANCE ALARM

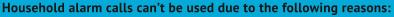
To provide access to the disabled people to the building or render assistance to them in inaccessible places one should use a simple and effective solution – an assistance alarm button. Tiflocentre Vertical renders a range of services on installation of its own system of such a type for social facilities (banks, hospitals, educational institutions, administration buildings, etc.). We suggest effective solutions for small administration buildings as well as for large multi-storey boarding houses, hotels and centers.



Wireless assistance alarm includes contrast tactile buttons with the Braille script and a signal receiver, available at the employee's.

The devices are intended for people with limited mobility – disabled people, parents with little children

and elderly people. The assistance alarm buttons are located at the entrance to the room or building to convey the signal to the personnel; they should also be installed indoors – in the bathrooms and lavatories of the hotels, health centers and boarding houses.



- low interference protection of the devices and special installation of such buttons. They should be installed only on one side of the door that is unsafe in case of emergencies;
- impossible determination of the call direction by the personnel, when using two buttons, as similar signals from different rooms are applied;
- no constant current supply in household alarms generally, galvanic elements are used; impossible power increase, no tactile and contrast markings;
- low quality of the devices and short service life;

NTERACTION SCHEME



NTERACTION SCHEME





Mountin

ts are made of ABS-plastics, resistant to impact and mechanical damage. The protection index of the devices class complies with IP66 standard. The signals' reception is made through a special panel.



TACTILE MAP

A tactile map is a special raised plan of the room or territory, made using the Braille letters.

Its availability and placement in the rooms is obligatory and is regulated by existing standards. Tiflocentre Vertical develops and manufactures different types of tactile maps, depending on the designation place.

Every device is checked by the proof-readers of Braille system, completed with a quality certificate and a datasheet with an assigned device serial number.

Our specialists make diagrams for various facilities:

- For a room,
- For a water closet.
- For a park;
- For a crossing;
- For an entrance unit:
- For a public transport stop;

The tactile surface of the mnemonic diagram is an important and expensive element of this tactile indicator – that's why requirements for its high quality are specified, affecting the device durability and design as well as its required tactile effect. Our company cares about comfortable orientation and movement of the disabled and visually impaired people.









AUDIO-TACTILE MAP

According to statistics only 5-7% of the totally blind persons possess the Braille reading process. Having studied this problem, Tiflocentre Vertical has developed and implemented in manufacture a new device – an audio-tactile map (a mnemonic diagram).

An audio-tactile map (the facility layout) is a perfect device that can transfer the information about environment in a visual, tactile and sound way. The patented invention of Vertical LLC has been already duly appreciated by the blind people from Russia and CIS states.

Apart from standard tactile maps this device may be easily used by any visitor, including visually impaired people. It has a common structure, being different in the facilities of application: entrance units, a water-closet, a park, an underground passage, a public transport stop, etc.

This innovation has made possible the following:

- Getting new information about the examined enviornment in two accessible ways: sensory, providing a graphic geometric representation, and an acoustic one with verbal description of the routes and obstacles on them;
- Personal use of the mnemonic diagram by the blind people, not possessing the Braille reading process;
- Use of the data device by all categories of citizens;





The application of the audio-tactile maps during the adaptation of social infrastructure facilities raises a lot the status and accessibility of such facilities, laying emphasis on advertency to the problems of people with limited mobility. Moreover, one of important functions of the audio-tactile map is its possible simultaneous adaptation to several foreign languages.

TACTILE SIGNS

Tactile signs for the disabled people are standard methods of information of this population category in public places. Tiflocentre Vertical manufactures tactile signs in large volumes. According to the effective standards we have developed several types of tactile surfaces, used depending on the information type and the way of its transmission.

Tactile-sound signs

"Speaking" signs – universal devices for the transmission of tactile, visual and sound data for any category of disabled people. A "speaking" sign should be mounted on the door or near it and has a sound button apart from visual and tactile data. One can record any sound message on the device, including the ones in several languages, using a dictating machine.















Desktop tactile signs

Full-color signs.

Signs with the Braille alphabet for the blind people.



тифлоцентр «ВЕРТИКАЛЬ»

Tactile signs with changeable tactile data.

Integratedtactile signs for visuallyimpaired people.







Tiflocentre Vertical has a patent for manufacturing tactile indicators with the layer-by-layer polymeric tactile surface which is the most convenient type for tactile perception by a blind person.



TACTILE PORTRAITS AND TIFLOMARKER

Tactile portraits of the greatest historical figures are the innovative developing of Tiflocentre "Vertical". Today there are 25 famous people in our volumetric portraits range: writers, politicians, inventors, cosmonauts. The whole list of persons was made based on the survey of completely blind people.

All volumetric portraits are manufactured from hypo-allergenic plastic using vacuum fabrication method with applying of Brail script. Under the volumetric image there is a full-color portrait of a famous figure. All the images proportionally are as close to the original faces as it is possible.









In addition, using Tiflomarker you can record cognitive information about historical figure on Tiflomark and stick it to the portrait. Thus you can get a quick access to the necessary information: you just need to hold the device in "Tiflomarker"-mode up to the mark.

"Tiflomarker" is designed to recognize by blind people objects of identical shape or different packaging at home, at work, at educational and cultural institutions using tentatively recorded voice messages.

INDUCTION SYSTEMS

To adapt the room for hearing-impaired people special induction systems are used, operated by the formation of a magnetic field. Tiflocentre Vertical has been manufacturing such devices based on high-quality European complementary parts. This equipment is intended for adaptation of environment for hearing-impaired people under the programme "Accessible environment". To hear better the collocutor's speech it is enough to turn on the hearing aid into a "T" mode.



Our manufacturing company produces portable (compact) induction systems as well as stationary ones:

- A portable induction loop has a strong induction field and is equipped with an integral battery. It is recommended for application in crowded areas in the confined spaces in case of available obstacles between the collocutors. Some models are equipped with MP3 files playback mode;
- A stationary induction loop is developed for application at social-important facilities with large space areas: an assembly hall, a classroom, a waiting room, etc.;
- An induction transport loop is intended for the environment adaptation in any mode of transport. The model improves information provision and it is also safe for hearing impaired people. Due to that system a hearing-impaired person gets duly and available information about public transport stops and route directions;



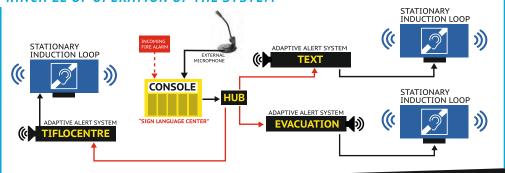


"SIGN LANGUAGE CENTER" ADAPTIVE ALERT SYSTEM

"Sign language center" is a patented system by Tiflocentre, intended for long-distance transmission of information. It is suitable for receiving information by all the visitors of an institution including completely blind and deaf people.



PRINCIPLE OF OPERATION OF THE SYSTEM





With blocks of "Sign language center" system usage any facility can be easily adapted (school, hospital, theatre, shopping mall, bank). Plus information accessibility is provided for all the categories of disabled people, and that is particularly important for warning and alarm systems in case of emergency.











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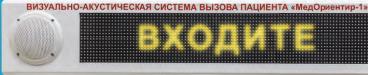




"MED GUIDANCE" CALLING PATIENT SYSTEM

Installation of adaptive alert system for disabled people is the indispensable condition for such special category of facilities as hospital. Specifically here large number of people with impaired health is concentrated and they all need organization of easily accessible help and information.







This system makes more comfortable not only working process for medical personnel, but also process of waiting in line for patients, especially if they have any limits in information perception. Using the remote control doctor can call next patient, inform about the appointment schedule or about a break with visual or audio method.





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