MOBILE SHELVING SYSTEM
“LIVING SPACE”

TECHNICAL FEATURES

www.technarredi.com  info@technarredi.com
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1. OUR COMPANY

For more than fifteen years Technarredi, located in Milan, Italy, has been studying, manufacturing and installing: fixed and mobile shelving systems for archives, libraries and warehouses, and metal and office furniture. Supported by modern CNC machineries, and by a skilled Technical Department, company attention is driven by best quality research, with the possibility of total personalization of every product, according to customer needs.

UNI EN ISO 9001: 2000 and UNI EN ISO 14001: 2004 Certifications, following newest and severe European regulations, shows that company strategy is really focused on the customer, and having his fully satisfaction is our mission.

Our activity covers both national and international markets, with important realizations for National Libraries, Archives, Museums, Private Companies and Public Departments.

With its “Safety Division” Technarredi offers also a wide range of safes, data safes, strong and antifire cabinets, to join a rational storage with a valid protection from theft and fire.
2 TECHNICAL SPECIFICATIONS

2.1. SYSTEM GENERAL CHARACTERISTICS

Mobile shelving system "Living Space" is realized according to the needs of modern libraries and archives, with superior quality standards in comparison with traditional mobile systems more focused to traditional warehouses.

Our main purpose is to create a real FILING CABINET installed on a mobile bays. To reach this ambitious target we provided our system with some and important exclusive characteristics like:

1) FULL LATERAL PANELS 10/10 thickness
Thanks to them you can store inside each type of books without using, as for open shelves, any dividers to avoid their fall
Unlike warehouse shelves, books cannot fall from one side to the other!!

2) INDIPENDENT SHELVES 10/10 thickness
Inside the system, you will have a double order of shelves, with possibility to create different spaces on the two sides, ensuring a more rational storage.
High thickness avoids every shelf bending, even for heavy loads.

3) SYSTEM SAFETY DEVICES
We always pay huge attention to the SAFETY of our systems, thanks to these two fundamental devices.

- **Antioverturning system** to join and deeply connect mobile bays to the rails

- **Antisqueezing system**, with a smart button placed in the center of every handle that, once pushed, immediately block it, avoid any other bays movement and let the operators staying inside the corridor in total safety.
2.2. SHELVING COMPONENTS

MOBILE BAYS

STRUCTURE

Mobile bays are made of longitudinal sections from steel plates mm. 120 X 30 X 2, pressed and bended by CNC punching Centre.
The heads of the truck are made of punched and bended steel plates (after working with CNC punching Centre) with thickness of 20/10 mm.
The rails of mobile bays are carried out by coupling of two "C" shaped galvanized sheet metal pressed and bended (after working with CNC punching Centre) with thickness of 30/10 mm.
Each carriage is connected to longitudinal sections by means of a plate made of galvanized pressed and bended steel.
TRANSMISSION

To move the carriage in manual version, the operator must rotate a technopolymer handle, dark finishing, fixed on a carter placed on the front panel of each mobile bays. Fixed bays comes without the handle.
In case of need, after pushing the button, the handle is immediately blocked and the mobile bays stops.
To facilitate maintenance operations like chain substitution and inspection there is an external steel carter fixed with screws that, in case of need, can be easily removed.
Last carriage handle comes with a general lock that block the whole system in parling position with no corridors opened between mobile bays.

CAUTION: Before entering the corridor the operator must give a look at the open aisle and check if there is anyone left inside.

Transmission system comes with a proper gear ratio to facilitate the movement of mobile bays with few rotations of the handle without applying great strenght on it m(normally 5 kgs.)
In case of high load we can also provide a reduced gear ratio.(more handle rotation to ensure same movement)
BAYS MOVEMENT

Mobile bays are running on solid rails made of steel plates mm. 30 x 25 optically levelled during the installation and then fixed to the ground with raw plugs. Outer rails incorporate antioverturning system providing also with forward and correct movement of mobile bays. All the rails come with inclined zinc coated profiles to facilitate trolleys passage. If required an antifire levelling platform can be placed between the rails.
MOBILE SHELVING

FULL LATERAL PANELS

Like a filing cabinet, with full lateral panels you can store inside each type of books without using, as for open shelves, any dividers to avoid their fall.

All the panels are made of first quality steel sheet, 10/10 thickness, worked on a CNC punching machinery, then folded twice.

Each panel is provided with rounded holes, placed in height every mm.25 to regulate the shelves at different levels.

Each front panel is provided with a plexiglass plate to sign index and content of the shelf.
SINGLE SHELF

- 10/10 mm.thickness for high loads

All the shelves are made of first quality steel sheet, 10/10 thickness, worked on a CNC punching machinery, then bended in 3 ways on each side to give more strength. Third fold gives brings the shelf in order with security laws on the workplaces. All the shelves can be placed at different levels on the lateral panels with 4 galvanised hooks, with a range of mm.25 in height. Medium load is 100 kg. per linear meters.
SHELF ACCESSORIES

If required, inside the shelves can be placed removable vertical dividers, made of solid sheet steel, 15/10 mm. thickness.
The dividers are running on all the shelf length.

If required, mobile shelving system “Living Space” can be provided with pull-out shelves, made of solid sheet steel, 10/10 mm. thickness.
Pull-out shelves are running on telescopic guides, so to ensure a complete movement.
Normally it can be used one pull out shelf per corridor, giving the operator the possibility to read the folder without coming back to his desk.
CROSS BARS

Cross bars are made of solid metal plates 20 x 3 mm. thickness, and fixed to the lateral panels with galvanised brachets. Normally it can be used one cross bar each two shelf units, so to ensure one completely free side per each bay, and let the operators have the possibility, in case of big files, to use double depth.
BACK PANELS

If required instead of cross bars “Living Space” can be provided with metal back panels, made of solid steel sheets, 8 mm.thickness, placed between the two sides of double bays to avoid fell of book and folders. Metal back panels are standard for single fixed bays Finishing in the same colour of shelves.
**ANTIDUST PROFILES**

Each mobile shelving is protected from dust by PVC perimetral profiles, dark black finishing, running on all his length and height, and fixed with screws to the lateral panels. Antidust rubber profiles can also reduce noise when two metal basement are approaching one to another to open a corridor.
Last mobile element is provided with an handle with a general lock and keys. Once locked, it is not possible to rotate the handle and consequently, it is not possible to open the desired aisle and enter the corridor.
SLIDING DOORS

Made of solid sheet steel, 10/10 mm. thickness, can be added, if required, to the last mobile bay to close the whole system and avoid unhautorised operations inside the corridor.

Doors are running on specific guides on upper and lower level, and are provided with general lock and keys.
LEVELLING PLATFORM

If required, we can provide the system with a levelling platform, realized with Class 1 antifire cheapboard, plated with an antisliding surface. This platform is placed between the rails and is connected with ground level by inclined zinc coated profiles.
LIGHTING SYSTEM

If required, for each mobile bay can be installed a lighting system that provides the automatic lighting of the lamps that illuminate the corridor of consultation when a carriage is opened, and their automatic power off after the same carriage has been closed. The lamps are supported by special arms and profiles made of painted sheet metal, fixed on both the sides of the shelves. In case of reduce height of the ceiling, lighting system can be installed below the upper shelf.
FINISHING

All the materials are painted with epoxy powders in electrostatic procedure: decreasing, phosphating, washing in demineralized water and drying. The polymerization of the powders is done in ovens at constant temperature of 180°.

Standard finish is light grey RAL 7035. On request different colours can be provided.
2.3. **MAIN REFERENCES**

**UNIVERSITA’ ROMA TRE**
3.500 linear meters, manual mobile shelving

**ARCHIVIO DI STATO DI TORINO**
5.000 linear meters, electric mobile shelving
BRESCIA, CIVICA BIBLIOTECA QUERINIANA
6,000 linear meters, manual mobile shelving

BIBLIOTECA COMUNALE DI MERANO(BZ)
4,000 linear meters, manual mobile shelving
BRESCIA, CIVICA BIBLIOTECA QUERINIANA
5,000 linear meters, manual mobile shelving

BIBLIOTECA UNIVERSITA’ DI PAVIA
4,000 linear meters, manual mobile shelving
COMUNE DI TRIESTE
12,000 linear meters, electric mobile shelving

OSPEDALE DI BUSTO ARSIZIO (VA)
2,000 linear meters, electric mobile shelving
UNIVERSITA' DEGLI STUDI DI PADOVA
20,000 linear meters, manual mobile shelving

FONDAZIONE QUERINI STAMPALIA, VENEZIA
6,000 linear meters, manual mobile shelving
TELECOM ITALIA, ARCHIVIO GENERALE DI TORINO
33.000 linear meters, manual mobile shelving

CAMERA DI COMMERCIO, BERGAMO
5.000 linear meters, manual mobile shelving