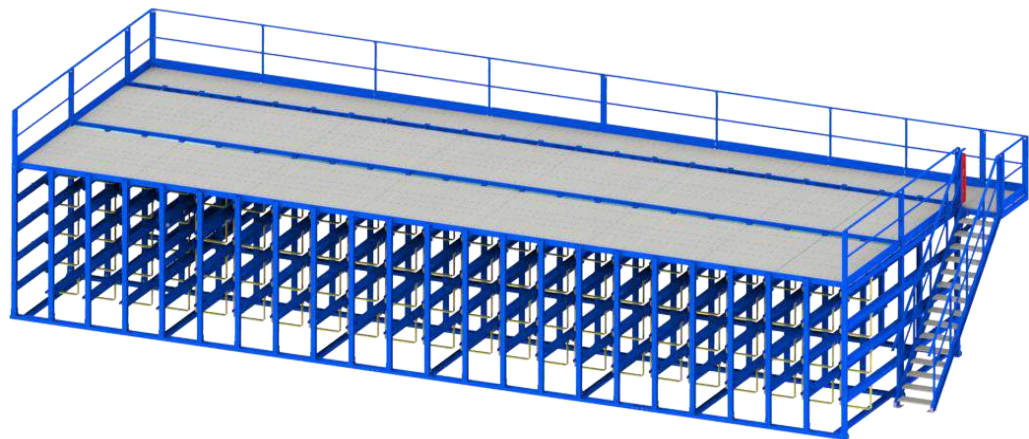


## INSTALLATION EXAMPLES:

### LONG PRODUCT STORAGE SYSTEM



V-LM\_1.25



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## 1. LONG PRODUCTS STORAGE SYSTEM

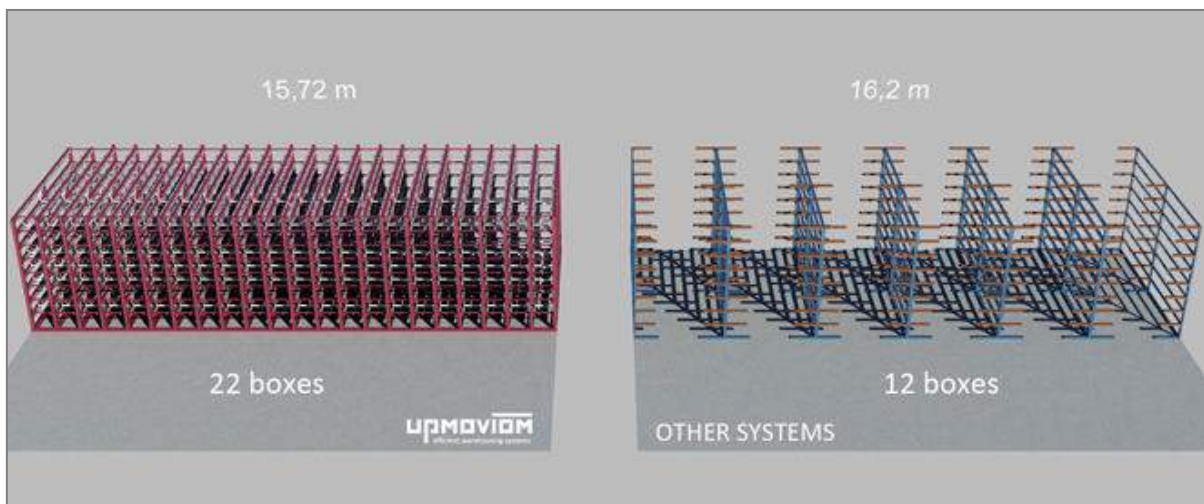
### 1.1 ADVANTAGES

- **5 YEARS AMORTIZATION**

Only with the time we save with operators, in 5 years or less the installation is paid.

- **SPACE SAVING**

It's possible to store the material with half of the space than other systems. If you are planning a new hall, with the construction space you save, storage location installation is paid.



- **LOW LABOUR HAZARDS**

It's a very secure system, and the efforts needed to operate with it are lower than with any other manual system.

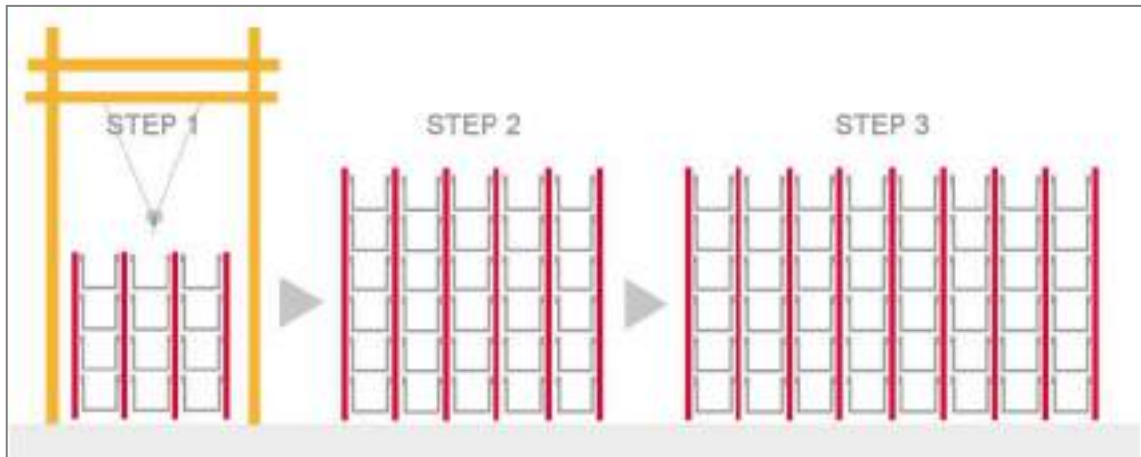
- **STOCK CONTROL**

The same material is always in the same place, we avoid mistakes preparing the orders and you will never miss any material (Inventory always under control).

- **STEP BY STEP INVESTMENT**

One of the features which makes **Upmoviom** such a versatile system is that it can be installed gradually in line with the specific needs of the customer's warehouse: size, storage capacity, location...

Begin with a small system, in a few years can make it bigger, later increase the capacity in height up to the double and/or install a platform.



- **FREE OF MAINTENANCE**

Storage Locations don't need any maintenance.

- **POSSIBILITY OF PLACING BETWEEN HALLS**

The structures can be placed between different halls, and also between columns.

## 1.2. EXAMPLES

One of the advantages of the Upmoviom system is that it is completely adaptable to client warehouse dimensions and needs. Further above any other system.

Here below we can see **different examples** of installations:

- We can install just the storage locations structure and operate them with an external crane.
- Storage locations are adaptable to client bundles size. We can place together different sizes in the same installation.
- Storage locations are adaptable to different weights. We can store from aluminum to also solid steel profiles.
- Storage locations are adaptable to different lengths. The system is functional from small lengths up to 12 m/40 feet material.
- Storage locations may be protected for storing stainless steel.
- One storage location may be divided for several references if necessary.
- We can store complete bundles on the top if necessary, as well as other materials, such as coils, panels, sheets, cages, etc.
- Adding trays, we can store also small pieces of material inside the storage locations.

### 1.2.1 INSTALLATION STEP BY STEP PROJECT. WITH CENTRAL UNLOADING AREA (Madrid)

Installation made in 2 steps, with upper storage zone:

- 36 columns of medium storage locations (4 heights).
- Cassettes for thin material.
- Double U-support in some storage locations.
- Upper storage zone with different heights (To allow better attached).

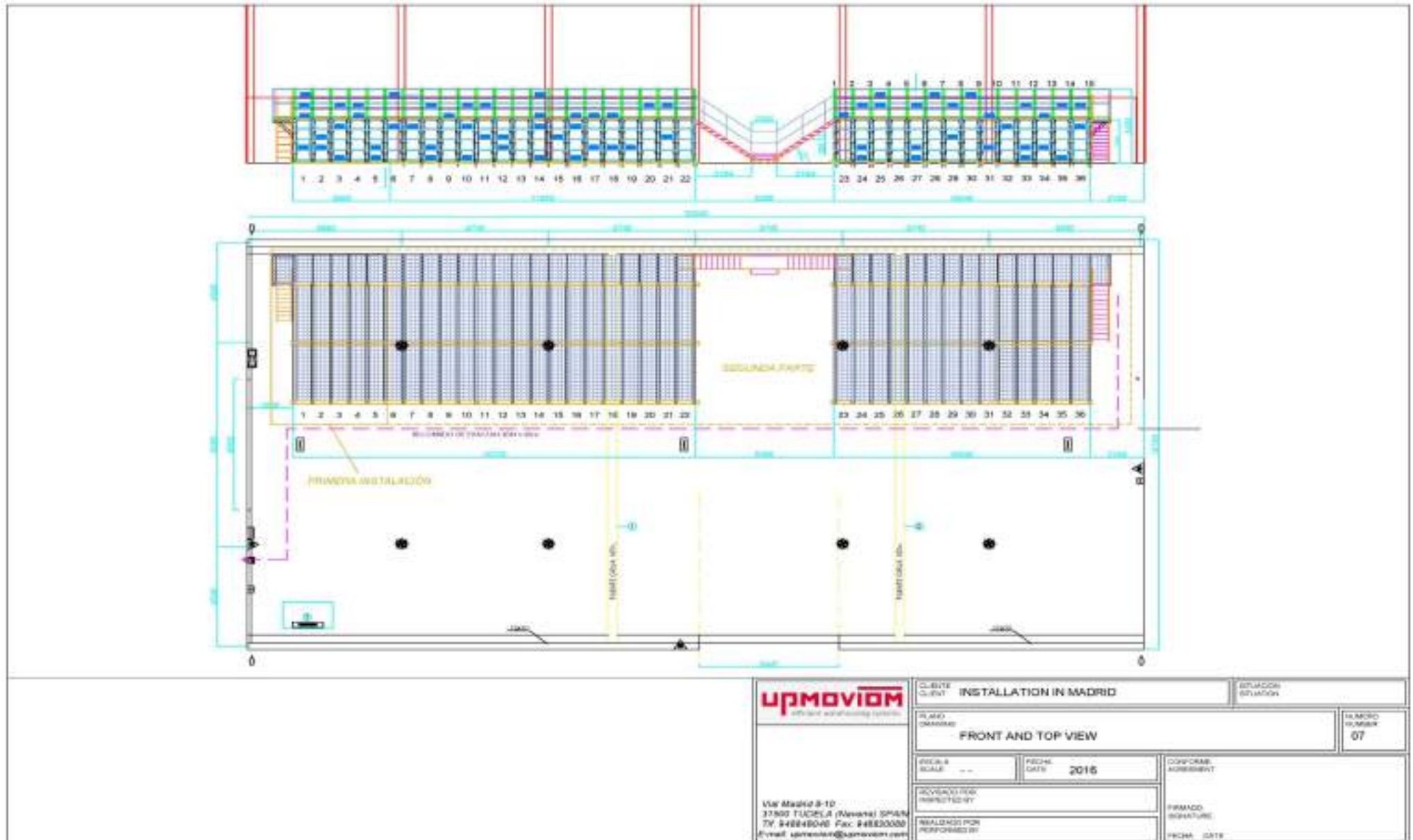
Structure height:	2.05 m / 6,7 ft
Total length:	26 m / 85 ft
Space occupied:	155 m <sup>2</sup> / 1668 ft <sup>2</sup>

#### **Stored references:**

Storage locations 540×255 (10x21"):	144 references
Upper Storage:	108 references

<b>Total capacity: 144 references + 108 extra bundles</b>
---





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### 1.2.2 INSTALLATION STEP BY STEP WITH FRONT FENCES (Zaragoza, Spain)

Installation with upper storage zone, side handrail and front doors. Floor without concrete.

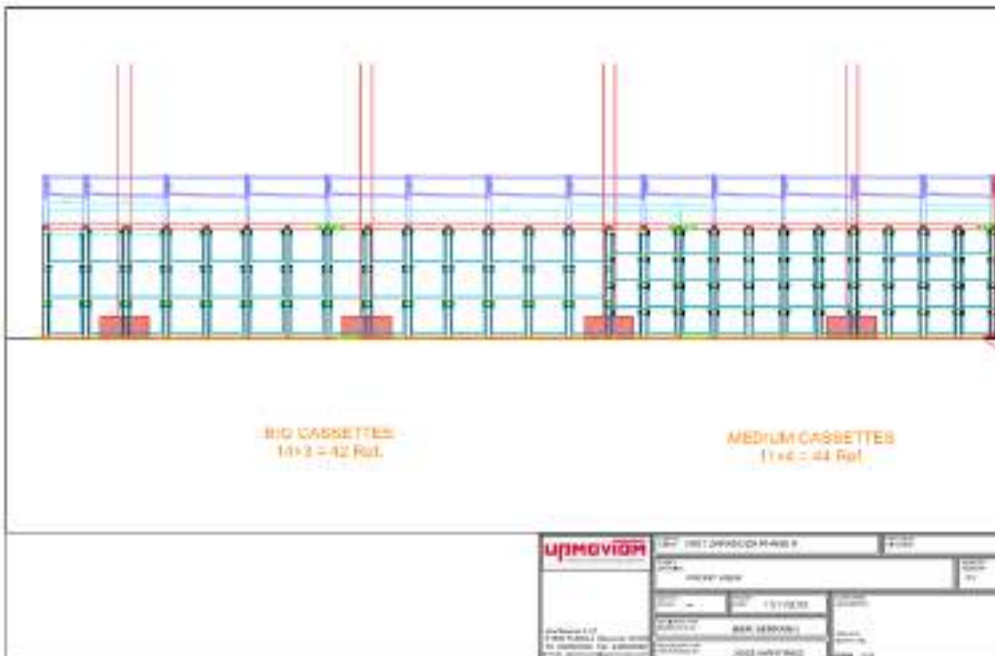
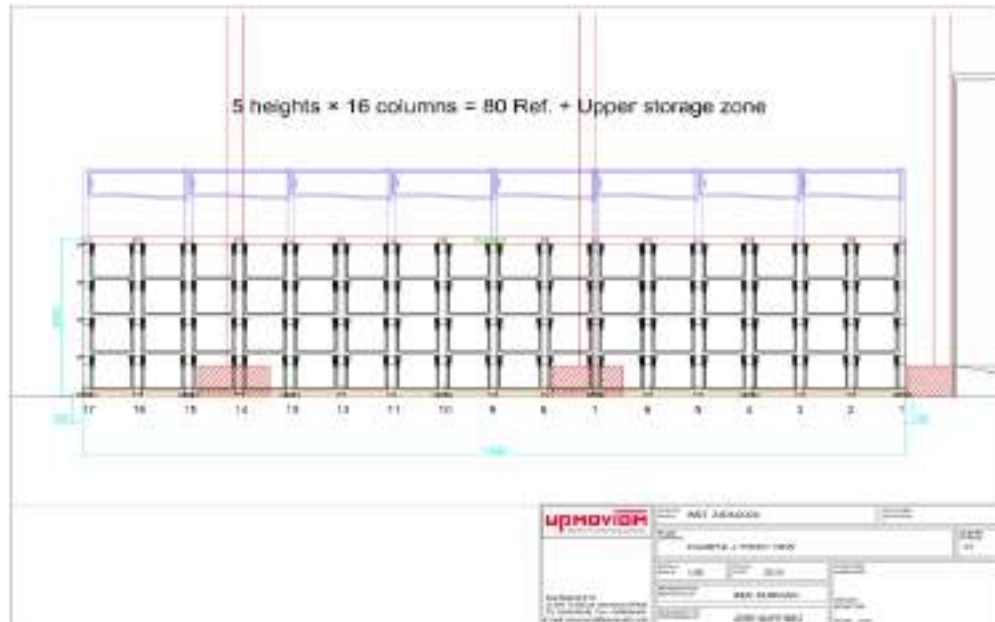
Step by step installation. We have built this project in three phases.

	Phase I	Phase II	Phase III	Total
Columns:	16 (4 heights)	11 (4 heights)	10 (4 heights)	37 (4 heights)
		14 (3 heights)	6 (3 heights)	20 (3 heights)
Structure height:	2,5 m / 8,2 ft	2,5 m / 8,2 ft	2,5 m / 8,2 ft	2,5 m / 8,2 ft
Width:	6,1 m / 20 ft	6,1 m / 20 ft	6,1 m / 20 ft	6,1 m / 20 ft
Rack length:	11,6 m / 38 ft	19,5 m / 64 ft	12,5 m / 41 ft	36,6 m / 120 ft
Area covered:	70,7 m <sup>2</sup> / 761 ft <sup>2</sup>	119 m <sup>2</sup> / 1280 ft <sup>2</sup>	76,3 m <sup>2</sup> / 821 ft <sup>2</sup>	266 m <sup>2</sup> / 2863 ft <sup>2</sup>

#### **Stored material:**

Medium size placements 560x480 (18x22")	64 ref	44 ref	40 ref	148 ref
Big placements 660x660 (25x25")		42 ref	18 ref	60 ref
Upper storage area	48 bundles	75 bun	48 bun	171 bun
<b><u>Total:</u></b>	<b>112 bun</b>	<b>161 bun</b>	<b>106 bun</b>	<b>379 bun</b>





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### 1.2.3 INSTALLATION STEP BY STEP WITH SEPARATORS AT THE TOP (Canary Islands, Spain)

Installation with upper storage, railing and separators at the top. Stairs at both sides.

Step by step installation. Project made in 2 Phases.

	<b>Phase I</b>	<b>Phase II</b>
	10 columns big locations (3 heights)	18 columns big locations (3 heights)
Structure height:	2 m / 6,5 ft	2 m / 6,5 ft
Free width:	6,7 m / 22 ft	6,7 m / 22 ft
Total length:	9,4 m / 30,8 ft	16 m / 52,5 ft
Space needed:	63 m <sup>2</sup> / 678 ft <sup>2</sup>	107,2 m <sup>2</sup> / 1153 ft <sup>2</sup>
<b><u>Stored references:</u></b>		
Big locations 600x530 (20x23"):	30 references	54 references
Upper storage:	30 extra bundles	27 extra bundles + 20 sheet coils

<b>Total capacity Phases I and II: 84 references + 57 extra bundles + 20 sheet coils</b>
--





#### 1.2.4 INSTALLATION STEP BY STEP –HEIGHT EXTENSION (Tudela, Spain)

Installation made in two phases. Two levels are increased in height, after several years, as it is not possible to increase the length of the system (there is no space).

System designed to store 12 metres / 40 feet long material.

	Phase I	Phase II
	6 columns of big locations (3 heights)	6 columns big locations (5 heights)
Structure height:	2 m / 6,5 ft	3.4 m / 11 ft
Free width:	11,06 m / 36,3 ft	11,04 m / 36,22 ft
Total length:	4,66 m / 15 ft	4,66 m / 15 ft
Space needed:	51,5 m <sup>2</sup> / 554 ft <sup>2</sup>	51,5 m <sup>2</sup> / 554 ft <sup>2</sup>

#### Stored references:

Big locations 600x530 (20x23"):	18 references	30 references
Upper storage:	18 extra bundles	18 extra bundles

<b>Total capacity after phase II: 30 references + 18 extra bundles</b>
--



Before Extension



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After Extension





Before Extension



After Extension



### 1.2.5 INSTALLATION BETWEEN COLUMNS (Toledo, Spain)

Installation of 4 structures, placed between columns. Each structure is made of:

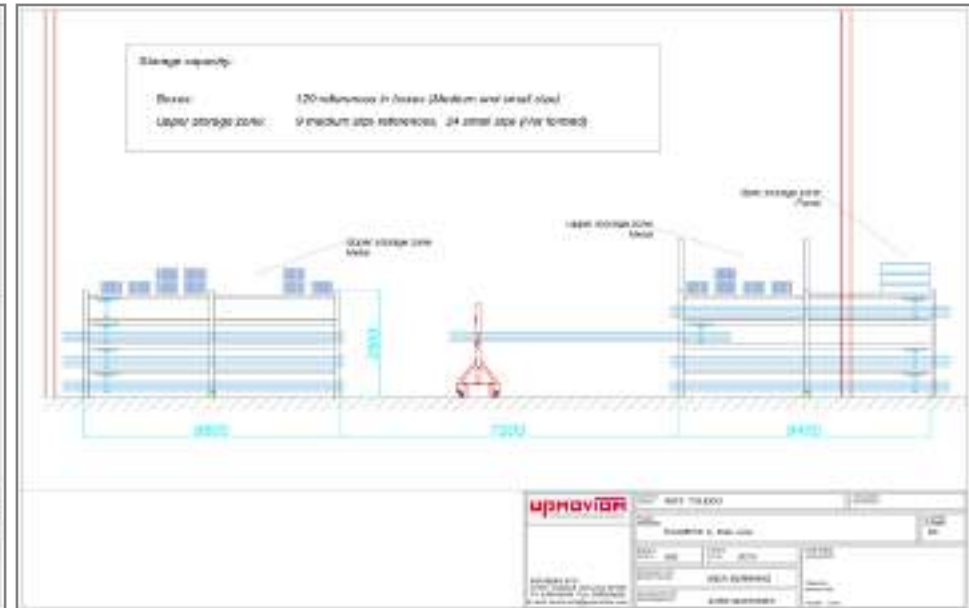
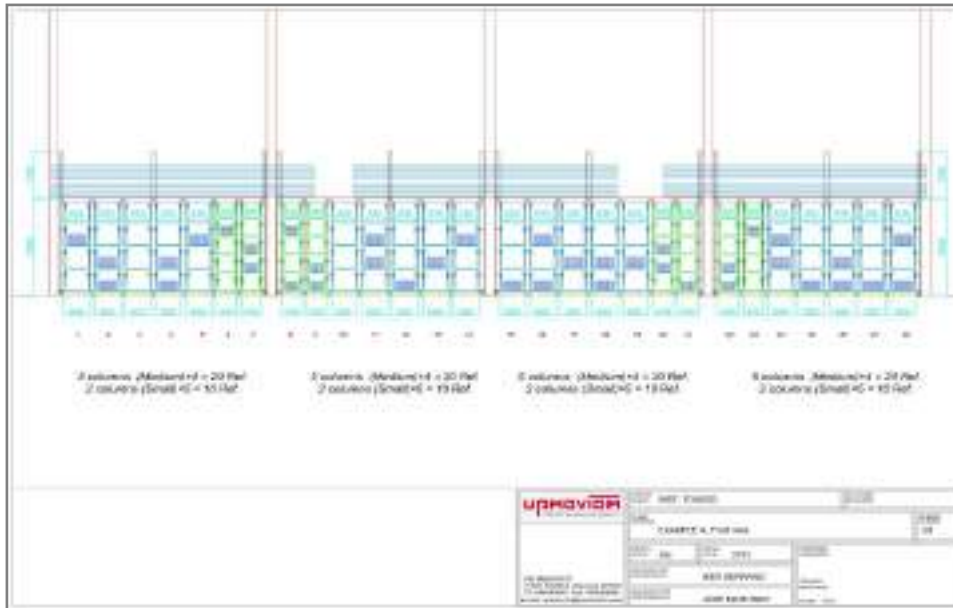
- 5 columns of medium storage locations (4 heights)
- 2 columns of small storage locations (5 heights)

Structure height:	2,5 m / 8,2 ft
Free width:	4,8 m / 15,7 ft
Total length:	19,7 m / 64 ft
Space occupied:	118,2 m <sup>2</sup> / 1272 ft <sup>2</sup>

#### **Stored references:**

Big Storage locations 530×400mm (15x20"):	40 references
Medium storage locations 400×300 mm (11x15"):	80 references
Upper Storage:	9/24 references





### 1.2.6 INSTALLATION BETWEEN COLUMNS (Santander, Spain)

Installation of 2 phases with 2 different rack structures facing each other (each phase), mounted between columns.

**Description Phase I:** 10 columns of big locations (5 heights) + 2 columns of narrow big storage locations (5 heights).

In two different rack structures facing each other.

**Description Phase II:** 10 columns of big locations (5 heights) + 2 columns of narrow big storage locations (5 heights) + 3 columns for extra big locations (7 height) for trapezoidal/mini wave sheet.

In three different rack structures facing each other.

	<u>PHASE I</u>	<u>PHASE II</u>
Structure height:	3,2 m / 10,5 ft	3,2 m / 10,5 ft
Free width:	5,5 m / 18 ft	5,5 m / 18 ft
Total length:	9,7 m / 31,8 ft	16 m / 52,4 ft
Space needed:	53 m <sup>2</sup> / 570 m <sup>2</sup>	88 m <sup>2</sup> / 947 ft <sup>2</sup>
<u>Stored references:</u>		
Big storage locations 560×440 (17×22"):	50x2 = 100 references	50x2 = 100 references
Big narrow s. locations 380×440 (15×17"):	10x2 = 20 references	10x2 = 20 references
Extra big locations 1240×300 (11×48"):		3x7= 21 references for special sheet
Upper storage:	72 extra bundles	81 extra bundles

<b>Total capacity Phases I and II: 240 references + 21 references for special sheet + 153 extra bundles</b>
---





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### 1.2.7 INSTALLATION BETWEEN COLUMNS – 2 FACING SYSTEMS (France)

Installation made by 2 structures facing each other, installed between columns, each structure has:

<b>System I</b>		<b>System II</b>	
- 14 columns of big locations	(3 heights)	- 5 columns of big locations	(3 heights)
		- 7 columns of medium locations	(4 heights)
		- 5 columns of small locations	(5 heights)
- Height of the structure:	2,4 m / 7,8 ft		
Width:	6,7 m / 22 ft		
Total length:	13,3 m / 43,6 ft	13,7 m / 45 ft	
Space needed:	89,2 m <sup>2</sup> / 960 ft <sup>2</sup>	91,8 m <sup>2</sup> / 988 ft <sup>2</sup>	
<b>Stored references:</b>			
Big locations 650×650 mm (25x25"):		57 references	
Medium locations 500 x 480 mm (18x19"):		28 references	
Small locations 420 x 360 mm (14x16"):		25 references	
Upper storage:		93 extra bundles	
<b>Total bundles</b>	<b>System I: 84 references</b>	<b>System II: 119 references</b>	

<b>Total capacity: 110 references + 93 extra bundles</b>
--



**Sistema I**



**Sistema II**



**Sistema II**



### 1.2.8 INSTALLATION WITH MATERIAL HANDLING FROM BOTH SIDES (Alcoy, Spain)

Installation between the Hall columns. Handling the material into/from storage locations from both sides.

All the storage locations have double U-supports, capacity of 3TN / 6500 lb each, allowing handling from both sides. Half of the emplacements have trays with separators.

- 10 columns of small storage locations (7 heights)

Structure height:	3,2 m / 10,4 ft
Free width:	5,5 m / 18 ft
Storing length:	9,2 m / 30 ft
Space occupied:	51 m <sup>2</sup> / 549 ft <sup>2</sup>

#### **Stored references:**

Small storage locations with trays:	70 references
Small storage locations without trays:	35 references

<b>Total capacity: 105 references</b>
---------------------------------------





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### 1.2.9 INSTALLATION WITH UPPER CORRIDOR IN ADJACENT HALL (La Coruña, Spain)

Installation with upper storage zone between columns and side handrail, without front doors.

- 19 columns of big storage locations (4 heights)
- 72 columns of medium locations (5 heights)
- 26 columns of small locations (6 heights)

Structure height:	2,80 m / 9 ft
Total width:	19 m / 62 ft
Total length:	38 m / 124,6 ft
Space occupied:	720 m <sup>2</sup> / 7750 ft <sup>2</sup>

#### **Stored references:**

Big storage locations 600 x 580 (22x23")	76 references
Medium locations 540 x 450 (17x21")	360 references
Small locations 440 x 360 (14x17")	156 references
Upper Storage:	300 extra bundles

<b>Total capacity: 592 references + 300 extra bundles</b>
---





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### 1.2.10 INSTALLATION WITH RAISED UPPER STORAGE CORRIDOR (France)

Installation with the upper storage corridor raised over the top storage platform, allowing comfortable and secure movements. Perfect for shorter spaces.

- 19 columns of small storage locations	(8 heights)
Structure height:	4 m / 13 ft
Width:	5.5 m / 18 ft
Length:	20 m / 65,6 ft
Space:	110 m <sup>2</sup> / 1184 ft <sup>2</sup>

#### **Stored References:**

Small locations 440x320 (12x17"):	240 references
Upper storage:	90 extra bundles

<b>Total references: 240 references + 90 extra bundles</b>
--





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### 1.2.11 INSTALLATION WITH RAISED UPPER STORAGE CORRIDOR II (Italy)

Installation with the upper storage corridor raised over the top storage platform, allowing comfortable and secure movements. Perfect for shorter spaces.

- 42 columns of small storage locations	(7 heights)
Structure height:	3.4 m / 11,1 ft
Width:	5.5 m / 18 ft
Lenth:	32.5 m / 106,6 ft
Space:	179 m <sup>2</sup> / 1926 ft <sup>2</sup>

#### **Stored References:**

Small locations 550x380 (15x21"):	294 references
Upper storage:	84 extra bundles

<b>Total references: 294 references + 84 extra bundles</b>
--



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### 1.2.12 INSTALLATION WITH UPPER STORAGE FOR CAGE CONTAINERS (Ciudad Real, Spain)

Installation with the upper store of embossed steel sheet to store containers with different pieces.

Material can be handled on the upper warehouse with a pallet truck. Turning ladder to optimize space.

- 8 columns with small placements (8 heights)

- 8 columns with medium placements (6 heights)

Height of the structure:	3,4 m / 11,1 ft
Width:	5,2 m / 17 ft
Length:	11 m / 36 ft
Space:	57 m <sup>2</sup> / 613 ft <sup>2</sup>

#### **Stored references:**

Small storage locations: 64 references

Medium storage locations: 48 references

Upper storage area: Cage containers

<b>Total references: 112 references + steel cage containers</b>
---



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### 1.2.13 INSTALLATION WITH UPPER STORAGE FOR CAGE CONTAINERS (Uildecona, Spain)

Installation with combined upper storage to store 6 metres long material and also containers with different pieces.

Material can be handled on the upper warehouse with a pallet truck.

- 19 columns with medium placements (6 heights)

Height of the structure:	3,6 m / 11,8 ft
Width:	6,7 m / 22 ft
Length:	15,6 m / 51 ft
Space:	104,5 m <sup>2</sup> / 1124 ft <sup>2</sup>

#### **Stored references:**

Medium storage locations:	114 references
Upper storage area:	15 complete packages + 72 m <sup>2</sup> / 775 ft <sup>2</sup> of embossed steel sheet

<b>Total references: 114 references + 15 complete packages + 72 m<sup>2</sup> / 775 ft<sup>2</sup> for steel cage containers</b>
--





#### 1.2.14 INSTALLATION WITH UPPER STORAGE FOR 12 METERS MATERIAL (Poland)

Installation with upper storage designed to store material up to 12 meters / 40 feet long in transversal way.

Two Systems installed, in two phases.

<b>System I</b>		<b>Sistema II</b>	
- 4 columns of small locations	(7 height)	- 4 columns of small locations	(8 height)
- 24 columns of medium locations	(6 height)	- 24 columns of medium locations	(7 height)
- 4 columns of big locations	(5 height)	- 4 columns of big locations	(6 height)
System height:	3,5 m / 11,4 ft		4,1 m / 13,4 ft
System width:	6,7 m / 22 ft		6,7 m / 22 ft
System length:	26,5 m / 87 ft		26,5 m / 87 ft
Space occupied:	178 m <sup>2</sup> / 1915 ft <sup>2</sup>		178 m <sup>2</sup> / 1915 ft <sup>2</sup>
<b><u>References stored:</u></b>			
Small locations:	28 references		32 references
Medium locations:	144 references		168 references
Big locations:	20 references		24 references
Upper storage:	12 bundles of 12 m / 40 ft		12 bundles of 12 m / 40 ft
<b>Total References: 416 references + 24 bundles of 12m / 40 ft</b>			

**SYSTEM I**





**SYSTEM I**





**SYSTEM II**



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### 1.2.15 INTALLATION WITH OVER-DOOR WAREHOUSE PLATFORM (France)

Project with a warehouse platform area over a transit hall door. Suitable for storage of long products up to 12m/40ft long.

- 26 columns with medium storage locations (4 heights)
- 2 columns with big storage locations (3 heights)

Structure height:	2,6 m / 8,5 ft
Width:	6,7 m / 22 ft
Length:	30,5 m / 100 ft
Space:	162 m <sup>2</sup> / 1743 ft <sup>2</sup>

Stored references:

Medium Locations:	104 references
Big locations:	6 references

Upper storage area: 84 bundles of 6m / 20 ft material + 10 bundles of 12 m 40 ft material.

<b>Total stored: 110 references + 84 bundles 6m / 20 ft long + 12 bundles 12m / 40 ft long material</b>
---



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### 1.2.16 INSTALLATION WITH REMOVABLE UPPER HANDRAIL (France)

Project that has the particularity of having the upper corridor at the front of the system to be able to move freely. As the entire upper perimeter is closed, there is no risk of falling from a height, so it is not necessary to equip yourself with a safety harness to access the upper warehouse.

Removable and interchangeable front rail, for easy replacement in the event of a collision.

Symmetrical and facing installations. Some storage locations have separator pins to store multiple references in one location.

Each system has:

- 26 columns of small lockers      (5 heights)
- Height:                              2.4 m / 7,8 ft
- Width:                                6.9 m / 22,6 ft
- Total length:                        18.6 m / 61 ft
- Occupied space:                    128.3 m<sup>2</sup> / 1381 ft<sup>2</sup>

#### **Stored references (each system):**

- Small storage locations:                      130 references
- Upper Warehouse:                              78 Complete Packages

<b>Total references: 260 references + 156 complete bundles in 256,6 m<sup>2</sup> / 2762 ft<sup>2</sup></b>
---



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### 1.2.17 INSTALLATION WITH REMOVABLE UPPER HANDRAIL (France II)

Project that has the particularity of having the upper corridor at the back of the system to be able to move freely. As the entire upper perimeter is closed, there is no risk of falling from a height, so it is not necessary to equip yourself with a safety harness to access the upper warehouse.

Removable and interchangeable front rail, for easy replacement in the event of a collision.

Project done in 3 Phases:

#### **Phase I**

Designed for storing aluminium (500kg/1100lb) and inoxidable (1500kg/3300lb) 6 metres / 20 feet long material.

	<u>ALUMINIUM</u>	<u>INOXIDABLE</u>
Structure height:	2,4 m / 7,8 ft	2,4 m / 7,8 ft
Free width:	5,5 m / 18 ft	5,5 m / 18 ft
Total length:	9,6 m / 31,1 ft	29 m / 95 ft
Space needed:	53 m <sup>2</sup> / 570 ft <sup>2</sup>	160 m <sup>2</sup> / 1722 ft <sup>2</sup>
Big storage locations:	5x4 = 20 references	16x4 = 64 references
Medium storage locations:	3x5 = 15 references	6x5 = 30 references
Small storage locations:	5x6 = 30 references	16x6 = 96 references
Upper storage:	39 extra bundles	111 extra bundles

**Total references Phase I: 255 references + 150 complete bundles in 213 m<sup>2</sup> / 2292 ft<sup>2</sup>**

### **Phase II:**

Designed to store structural tube (3000kg / 6500lb). With access stairs to connect with Phase I through the upper warehouse.

### **Phase III:**

Designed to store flat bars (3000kg / 6500lb).

	<u>Phase II</u>	<u>Phase III</u>
Structure height	2,9 m / 9,5 ft	2,9 m / 9,5 ft
Free width:	7,3 m / 23,9 ft	7,3 m / 23,9 ft
Total length:	24 m / 78,7 ft	25 m / 82 ft
Space needed:	177 m <sup>2</sup> / 1905 ft <sup>2</sup>	182 m <sup>2</sup> / 1959 ft <sup>2</sup>

### **Stored references:**

Big storage locations:	9x4 = 36 references	
Medium storage locations:	3x5 = 15 references	5x5 = 25 references
Small storage locations:	15x5 = 75 references	27x6 = 162 references
Upper storage:	81 extra packages	96 extra packages

<b>Total References Phase II and Phase III: 313 references + 177 complete packages in 359 m<sup>2</sup> / 3864 ft<sup>2</sup></b>
---

<b>Total References: 568 references + 455 complete packages in 572 m<sup>2</sup> / 6156 ft<sup>2</sup></b>
--



FASE I





FASE I





FASE II





FASE III





### 1.2.18 INSTALLATION WITH MEDIUM AND BIG STORAGE LOCATIONS, SOME TRAYS (Belgium)

Installation with upper storage zone.

Several storage locations equipped with trays for thin materials, others with 2 U-supports for 5 Tons / 11000 lb.

- 7 columns of medium storage locations (6 heights)
- 7 columns of large storage locations (5 heights).

Structure height:	3,5 m / 11,4 lb
Free width:	11 m / 36 lb
Space occupied:	73,7 m <sup>2</sup> / 793 ft <sup>2</sup>

#### **Stored references:**

Medium locations 490 x 480 (18x19")	42 references
Bog locations 580 x 560 (22x22,8")	35 references
Upper Storage:	42 extra bundles

<b>Total capacity: 77 references + 42 extra bundles</b>
---



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### 1.2.19 INSTALLATION WITH TRAYS WITH SEPARATORS (Cataluña, Spain)

Installation with upper storage zone, handrail, without front doors on the top.

All the installation equipped with trays, all with one or two separators, to store several small bundles of different lengths.

- 8 columns of medium storage locations with trays (5 heights).

Structure height:	2,4 m / 7,8 ft
Free width:	6,9 m / 22,6 ft
Space occupied:	46,25 m <sup>2</sup> / 497.83 ft <sup>2</sup>

#### **Stored references:**

Medium storage locations:	90 References
Upper Storage:	48 extra bundles

<b>Total capacity: 90 references + 48 extra bundles</b>
---



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### 1.2.20 INSTALLATION OF 4 METERS / 13 FEET HIGH WITH TRAYS AND HEAVY WEIGHT (Belgium)

Installation with upper storage zone.

All the installation equipped with trays, half of them with double U-supports and 5Tn / 11000 lb capacity, the other half 3Tn / 6500 lb capacity. Each tray contains 3 or 4 stored references.

- 9 columns of medium storage locations with trays (10 heights).

Structure height:	4 m / 13 feet
Free width:	6,5 m / 21,3 feet
Space occupied:	24,7 m <sup>2</sup> / 265,8 feet <sup>2</sup>

#### Stored references:

Medium storage locations 460x300 (11x18"):	90 trays (up to 360 references)
Upper Storage:	27 extra bundles

<b>Total capacity: 360 references + 27 extra bundles</b>
--



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### 1.2.21 INSTALLATION WITH VULKOLLAN FOR PROTECTING STAINLESS STEEL (Barcelona, Spain)

Installation that has specific elements fitted with Vulkollan, mainly the inner beam, the slot entry beam, inner sliding U-support and external support cart. The Vulkollan is meant to allow handling of stainless steel or delicate material without scratching, damaging or contaminating it.

#### System

6 columns with 4 rows each

Structure height: 2,4 m / 7,9 ft

Structure width: 6 m / 19,6 ft

Structure length: 5,05 m / 16,5 ft

Total space occupied: 30 m<sup>2</sup> / 323 ft<sup>2</sup>

Weight stored per location: 1000 kg / 2200 lb



Total stored: 24 references of 6m / 20 ft long







### 1.2.22 INSTALLATION FROM 3 UP TO 5 M / 10 UP TO 16 FT LONG MATERIAL (Location: Singapore)

System to store material from 3 up to 5 meters / 10 up to 16 feet long.

With separators posts in the upper warehouse.

All U-Supports are designed with holes to place pin separators (to have more than one reference inside the U-Support).

An auxiliary element was provided to manipulate the material with a forklift.

- 24 columns of medium locations (8 height)

System height:	3,9 m / 12,7 feet
System width:	4,9 m / 16 feet
System length:	22 m / 72 feet
Space occupied:	108 m <sup>2</sup> / 1162 feet <sup>2</sup>

#### **References stored:**

Medium locations 700x395 (15x27"):	192 references (up to 384 refs with pin separators)
Upper storage:	72 extra bundles

<b>Total References: 192 references + 72 extra packages</b>
---



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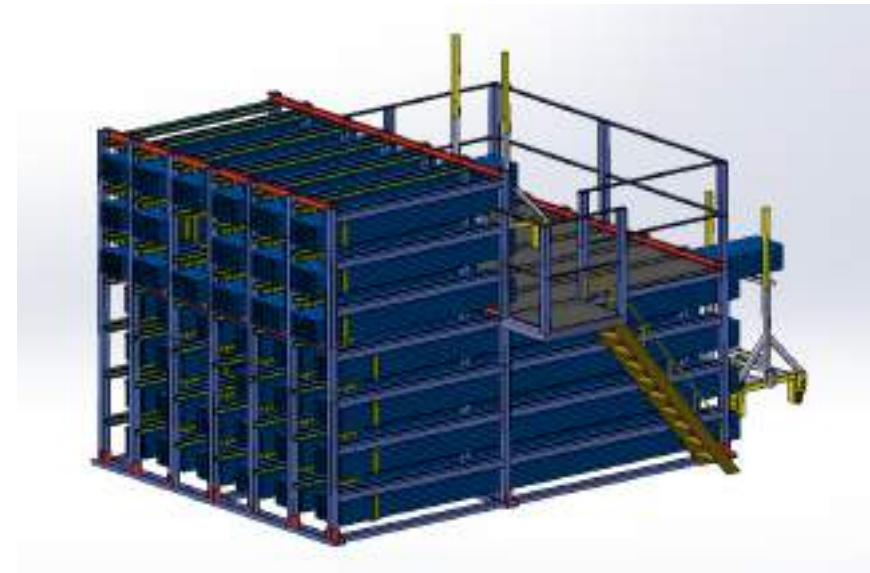
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### 1.2.23 INSTALLATION FOR 3M AND 6M / 10 and 20 FT MATERIAL (Spain)

Installation that permits the storage of 3 m and 6 m (10 and 20 ft) length, in the same space.

The installation has an upper storage that allows the handling of the 3m / 10 ft material in easy and safe way.

This solution can also be conceived for profiles of 6 and 12 m (20 and 40 ft) length.





#### 1.2.24 INSTALLATION FOR 3M AND 6M (10 AND 20 FT) MATERIAL (Location: France)

Project that consisted of few systems, one to store material 3 meters / 10 ft long (System I), and another to store material 6 meters / 20 ft long (System II). The System II was located in a moat.

<b>System I</b>		<b>System II</b>	
- 12 columns of small locations	(6 height)	- 4 columns of small locations	(7 height)
- 13 columns of medium locations	(5 height)	- 3 columns of medium locations	(3 height)
System height:	2,4 m / 7,8 ft		2,5 m / 8,2 ft
System width:	2,5 m / 8,2 ft		6,7 m / 22 ft
System length:	12 m / 40 ft		4,5 m / 14,7 ft
Space occupied:	30 m <sup>2</sup> / 322 ft <sup>2</sup>		29,2 m <sup>2</sup> / 314 ft <sup>2</sup>
<b><u>References stored:</u></b>			
Small references:	72 references		28 references
Medium references:	65 references		9 references
Upper storage:			21 references
<b>Total references: 174 references + 21 extra packages in upper storage</b>			



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### 1.2.25 INSTALLATION FOR 6M AND 12M MATERIAL (20 AND 40 FT) (Poland)

Installation for storing 6- and 12-meters (20 and 40 ft) long material.

- 7 columns of 12 meters storage locations (6 heights)
- 7 columns of 6 meters storage locations (6 heights)
- Structure height: 3,4 m / 11 ft
- Free width: 6,25 m / 20,5 ft
- Space occupied: 190 m<sup>2</sup> / 2045 ft<sup>2</sup>

#### **Stored references:**

- Locations of 550 x 450 (12 m) 42 References
- Locations of 550 x 450 (6 m) 42 References
- Upper Storage: 42 extra bundles

<b>Total capacity: 84 references + 42 extra bundles</b>
---



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### 1.2.26 INSTALLATION FOR 12M / 40 FT MATERIAL WITH VULKOLLAN PROTECTION (France)

Installation to store 12 meters of stainless steel material.

Project that has Vulkollan in several elements, mainly the sliding interior supports, interior profiles, profiles at the locker entrances and external support cart, to protect the stored material from scratches.

- 11 columns of medium locations (6 heights)

Height of the structure:	3,6 m / 11,8 ft
Free width:	13,6 m / 44,6 ft
Total length:	8,6 m / 28,2 ft

#### **Stored references:**

Small locations 500x460 (18x19"):	66 references
Upper Storage	33 extra references

**Total capacity: 66 references + 33 extra storage in upper warehouse**



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### 1.2.27 INSTALLATION FOR 12M / 40 FT MATERIAL AND FIXED STORAGE ON THE SIDE (Poland)

Installation for 12 m / 40 ft material. With fixed storage locations on the side for shorter bars.

- 2 columns of small locations (6 heights)
- 6 columns of medium locations (5 heights)
- 1 column of big locations (4 heights)

Height of the structure:	2,4 m / 7,8 ft
Free width:	12,6 m / 41 ft
Total length:	7,6 m / 25 ft

#### **Stored references:**

Small locations 500x460 (18x19"):	12 references
Medium locations 550x460 (18x21"):	30 references
Big locations 650x460 (18x25"):	4 references
Upper storage:	27 extra bundles

<b>Total capacity: 46 references + 27 extra bundles + side bars</b>
---



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### 1.2.28 INSTALLATIONS FOR 12M MATERIAL / 40 ft, 2 FACING SYSTEMS (Tudela)

Double Installation, one system facing the other to optimize available space, for material 12m / 40 ft long.

#### **System I**

#### **System II**

		- 1 column of small locations (6 height)
- 6 columns of medium locations (5 height)		- 6 columns of medium locations (5 height)
		- 1 column of big locations (4 height)
System height:	3,5 m / 11,4 ft	3,35 m / 11 ft
System width:	13 m / 42 ft	12,6 m / 41 ft
System length:	4,7 m / 15 ft	7,1 m / 23 ft
Space occupied:	61 m <sup>2</sup> / 656,5 ft <sup>2</sup>	89,5 m <sup>2</sup> / 963,3 ft <sup>2</sup>

#### **References stored:**

Small locations:		6 references
Medium locations:	30 references	30 references
Big locations:		4 references
Upper storage:	18 references	24 references

<b>Total references of 12m / 40 ft long: 70 references + 42 extra bundles in upper storage</b>
--







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### 1.2.29 INSTALLATION WITH GREAT SPACE OPTIMIZATION. 2 FACING SYSTEMS (Poitiers, France)

Double installation, one system in front of the other to optimize the space available. Installation fitted in the available space between the hall columns. The material is stored in both sides of the columns, right till the hall wall.

Both systems with upper storage zone. Stored material: Steel, aluminum, inox steel.

#### **System on Side I:**

- 30 columns of medium storage locations (6 heights).

Structure height:	3,9 m / 12,7 ft
Free width:	23 m / 75 ft
Space occupied:	138 m <sup>2</sup> / 1485 ft <sup>2</sup>

#### **Stored references in System I:**

Medium storage locations (500×380 / 15x19"):	180 references
Upper storage:	90 extra bundles

<u>Total Bundles in Side I:</u>	270 references
---------------------------------	----------------

### System on Side II:

- 13 columns of big storage locations (4 heights).
- 25 columns of medium storage locations (6 heights).
- 2 columns of small storage locations (6 heights).

Structure height:	3,9 m / 12,7 ft
Free width:	31.15 m / 102 ft
Space occupied:	186.9 m <sup>2</sup> / 2011,7 ft <sup>2</sup>

### Stored references in System II:

Big storage locations 660×480 (19x26"):	52 references
Medium storage locations 500×380 (15x19"):	150 references
Small storage locations 430×380 (15x16"):	12 references
Upper storage:	123 bundles

Total Bundles in System II: 337 references

**Total capacity: 394 references + 213 extra bundles**









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### 1.2.30 INSTALLATION WITH GREAT SPACE OPTIMIZATION. 2 FACING SYSTEMS (Jaén)

#### System I

#### System II

- |   |  |
|---|--|
| - 20 columns of medium locations (6 height) | - 23 columns of small locations (8 height) |
| - 9 columns of big locations (5 height)     | - 7 columns of big locations (5 height)    |

System height:	3,8 m / 12,4 ft	3,8 m / 12,4 ft
System width:	6,5 m / 21,32 ft	6,5 m / 21, 32 ft
System length:	25 m / 82 ft	24 m / 78, 7 ft
Space occupied:	162,5 m <sup>2</sup> / 1749 ft <sup>2</sup>	156 m <sup>2</sup> / 1679 ft <sup>2</sup>

#### Stored references:

Small locations:	184 references
Medium locations:	120 references
Big locations:	45 references
Upper storage:	87 references
	35 references
	90 references

**Total references: 384 references + 177 extra bundles in Upper Storage**







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### 1.2.31 INSTALLATION WITH GREAT SPACE GAIN AND FIXED SIDE STORAGE (Bilbao, Spain)

Installation for 6m / 20 ft steel profiles, plus a fixed pillars system to optimize space.

- 4 columns of small storage locations (8 heights)
- 3 columns of medium storage locations (6 heights)

Structure height:	3,4 m / 11 ft
Total length:	4,8 m + 1,9/15,7 + 6, 23 ft fixed placements
Width:	6,1 m / 20 ft
Space needed:	39 m <sup>2</sup> / 419 ft <sup>2</sup>

#### Number of stored references

Small locations 320x320 (12x12"):	32 references
Medium locations 500x460 (18x19):	18 references
Upper storage:	45 extra bundles
Fixed pillars system	15 extra bundles

**Total capacity: 50 references + 60 extra bundles**



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### 1.2.32 INSTALLATION FOR TRAPEZOIDAL SHEETS (Santander)

Storage System designed to store different types of sheet such as trapezoidal, mini wave sheet, collaborating sheet, Pegaso sheet and others types of sheet.







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### 1.2.33 SYSTEM TRANSFER PROJECT BETWEEN LOCATIONS (LOCATION: PORTUGAL)

The next project was first installed in Palmela (Portugal), but due to a logistical change in the company, the location storage system was moved from Palmela to Estarreja (300km away).

All medium locations have the possibility of storing 2 references in the same location, either through separator pins placed directly on the U-Supports or through containers (for material that bends), also with separator pins:

- 18 columns of medium storage locations: (5 heights)
- 25 columns of big storage locations (4 heights)

Structure height:	2,5 m / 8,2 ft
Total length:	33,3 m / 109 ft
Width:	6,7 m / 22 ft
Space needed:	213 m <sup>2</sup> / 2398 ft <sup>2</sup>

#### Number of stored references:

Medium locations 510×370:	18 x 2 x 5=	180 references
Big locations 560×500:	25 x 4=	100 references
Upper warehouse:		129 extra packages

<b>Total references: 280 references + 129 extra packages</b>
--

First location: Palmela (Portugal)



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Disassembly – Assembly process



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Final location: Estarreja (Portugal)




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### 1.3 DIFFERENT WAREHOUSING MODES

There are different ways to store the material inside the system.

In the following table, it is shown the suggested storage location inside supports as per the type of material.

SUGGESTED STORAGE LOCATION INSIDE SUPPORTS AS PER THE TYPE OF MATERIAL 				
Material	Smaller profile dimension	1 U-support	2 U-supports	Tray
Tubes square and rectangular	>25mm	X		
Tubes square and rectangular	10-25mm		X	
Tubes circular	>25mm	X		
Tubes circular	10-25mm		X	
Solid round	>25mm	X		
Solid round	25-12mm		X	
Solid round	<12mm			X
solid square or rectangular	>25mm	X		
solid square or rectangular	25-12mm		X	
solid square or rectangular	<12mm			X
Angles	>60mm	X		
Angles	25-60mm		X	
Angles	<25mm			X
Plates	>20mm	X		
Plates	8-20mm		X	
Plates*	<8mm		X	X

\*For 8mm thickness plates, with a 1-hook crane, tray is suggested. With a 2-hook crane, a double U-support.



### 1.3.1 DIRECT MODE

With this method, the individual material or complete bundle is directly placed into the U-Support.

The capacity of each U-Support is usually 3000kg / 6500 lb each. It can be designed according to the client specification.

This capacity can be increased up to 5000kg / 11000 lb each with a double U-Support.



### 1.3.2 DIRECT MODE WITH PINS SEPARATORS

With this separation method, movable pins can be placed on the U- Support. This can be a good solution to place up to four different references inside one storage location (small or open bundles).



### 1.3.3 TRAYS MODE

If we are going to store very thin material inside the storage locations, using a tray would be the perfect solution to avoid damaging the stored material. Each tray can be equipped with inside separators that allow us to store different materials in one storage location.

The tray is prepared to contain up to 3000 kg / 6500 lb of material.

In the bottom side there is also a metallic piece in the bottom to avoid the tray slides out of the storage location U-support.

The tray is equipped with frontal hooking holes to place the hook from the chains of the crane on it to be able of extracting the tray in a safe way.

The tray also allows us to store small parts in the same storage location we place the long material. This allows us to have all the material from the same reference together. Simplifying the organization of the warehouse.





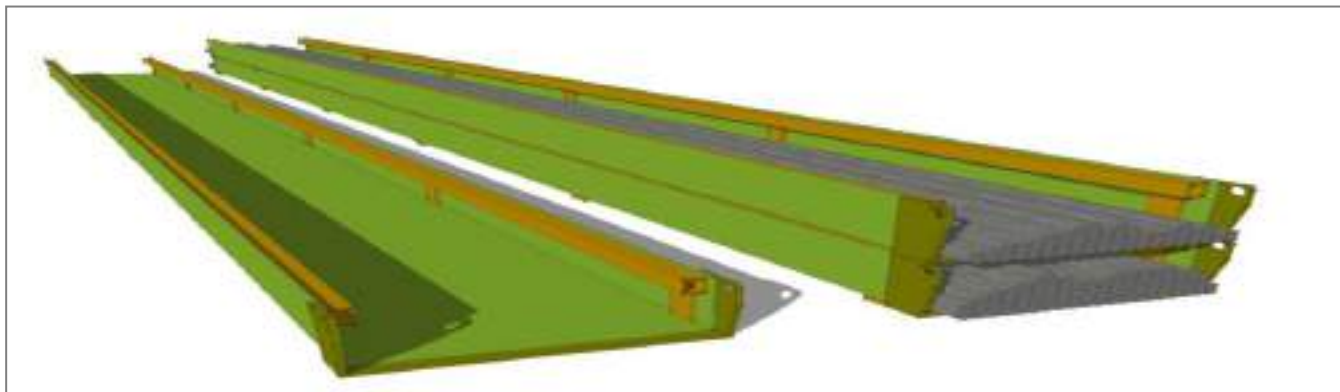
#### 1.3.4 TRAYS WITH SEPARATORS

With this separation method, movable pins can be screwed on the tray. Those removable pins (separators) are placed all over the tray so there is always a separation device to avoid the mixing of material. This can be a good solution to place two or more different references inside gaps.



### 1.3.5 DOUBLE TRAYS

With this type of tray, two piled trays are placed inside one same storage location, getting a high optimization of the space.





### 1.3.6 ANGLE TRAYS

With this type of tray, we can access the material and take it easily, quickly and safely, wrapping the package with lifting slings.



## 1.4 AUXILIARY ELEMENTS

### 1.4.1 EXTERNAL MANUAL TROLLEY

Thanks to this trolley, it's very simple, fast and safe to extract the material with one hook.



### 1.4.2 WAGON

Example of a wagon that allows to move the material through the warehouse thanks to rail guides.

The wagon operator can travel on the wagon or from the outside.

The size of the storage locations is adapted to the size of the material bundles, thus different reference sizes can be stored together. We customize the size of the wagon and the storage racks as per the customer specifications. The size, weight, and specific needs of the material to be handled.





#### 1.4.2.1 INSTALLATION WITH A WAGON (Brest)

Installation with an electric wagon, ideal for a fast and secure preparation of purchase orders.

<u>Phase I</u>	<u>Phase II</u>	<u>Phase III</u>
- X Big columns (3 heights)	21 Big columns (3 heights)	17 Big columns (3 heights)
- 4 Medium columns (4 heights)	14 Medium columns (4 heights)	17 Medium columns (4 heights)
- 19 Small columns (5 heights)	X Small columns (5 heights)	9 Small columns (5 heights)
Structure height: 2,4 m / 7,8 ft		
Total system width: 6,7 m / 22 ft		
Lenght: 18 m / 59 ft	34 m / 111 ft	50 m / 164 ft
Space occupied: 120 m <sup>2</sup> / 1291 ft <sup>2</sup>	228 m <sup>2</sup> / 2454 ft <sup>2</sup>	333 m <sup>2</sup> / 3584 ft <sup>2</sup>
<b>References stored:</b>		
Big Ref 650×650 mm (25x25"):	63 references	
Medium Ref 500 x 480 mm (18x19"): 16 references	56 references	104 references
Small Ref 420 x 360 mm (14x16"): 95 references		175 references
Upper Storage: 69 extra packages	105 extra packages	183 extra packages
<u>Total packages</u>	<u>Phase I: 180 references</u>	<u>Phase II: 224 references</u>
		<u>Phase III: 462 references</u>

<b>Total References: 509 references + 357 extra packages</b>
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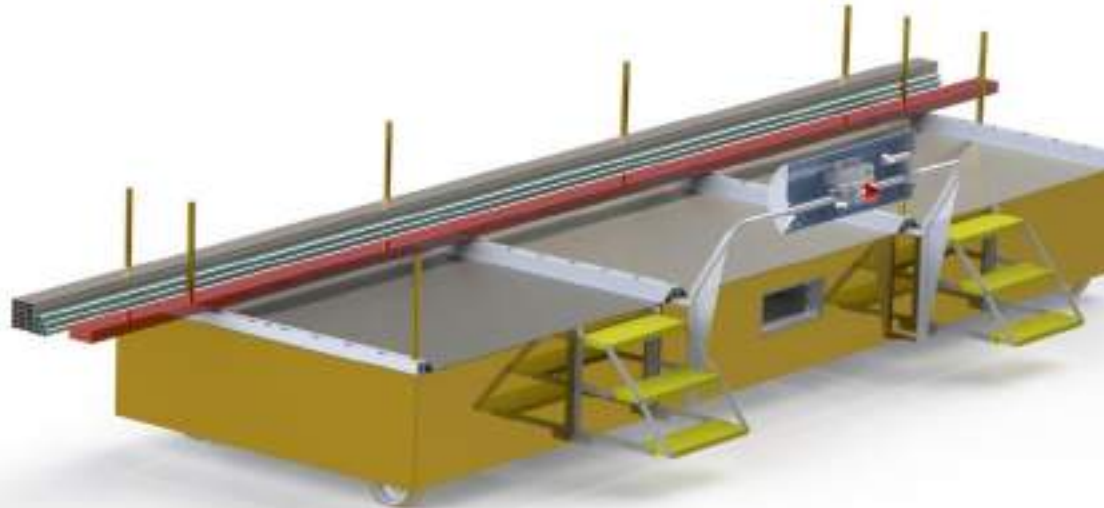


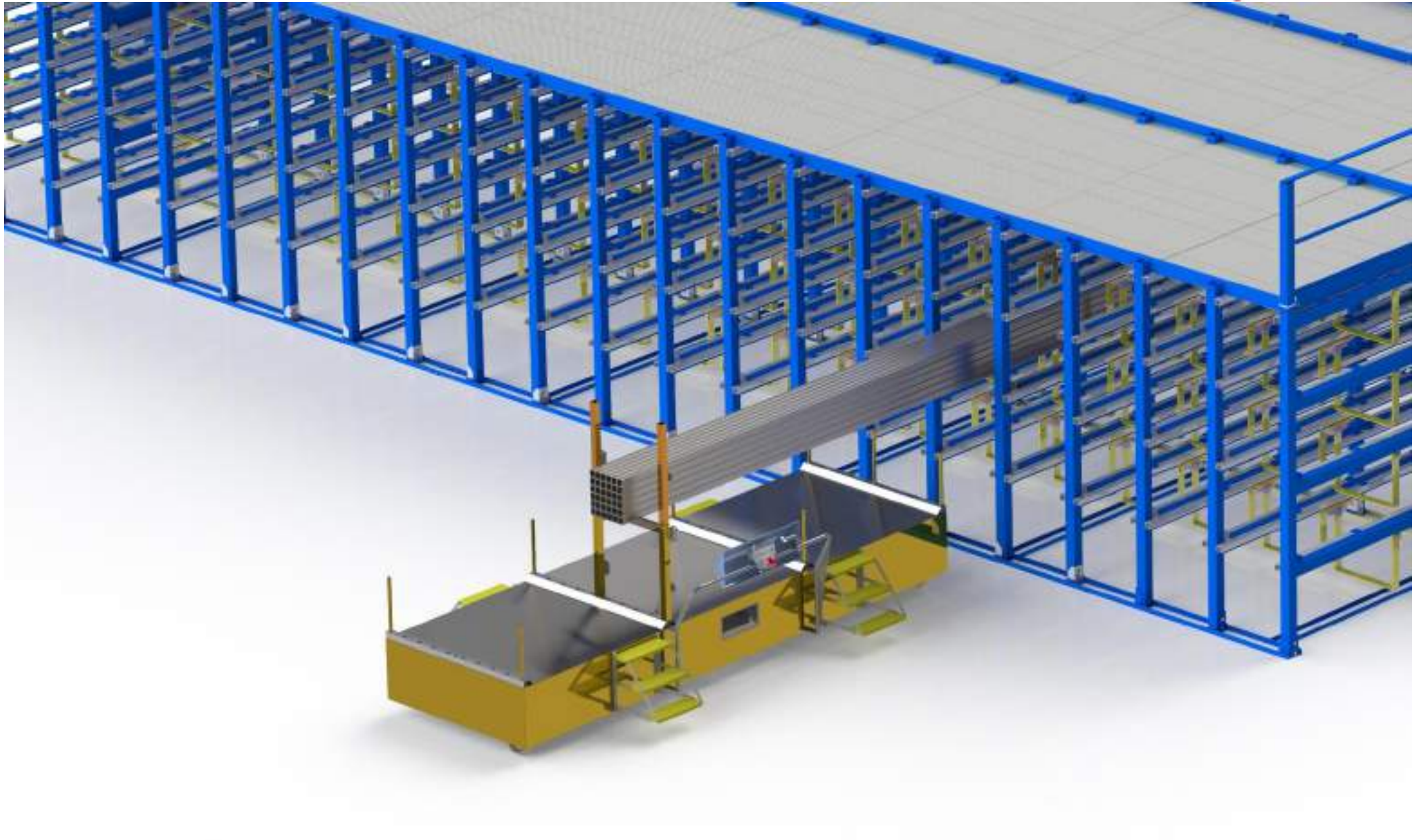
#### 1.4.2.2 ELECTRIC WAGON WITH BATTERY

The electric platform battery is the perfect solution for those warehouses that do not have a lifting platform, but that they need a fast & easy way to prepare purchase orders.

No need of installing rails.

- Faster order preparations
- Less crane movements needed
- Increase productivity
- Allow moving the material to a different hall
- Improve ergonomics
- Less physical effort





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#### 1.4.3 EXTRACTION WITH FORKLIFT / ELECTRIC STACKER.

There is also the possibility of introducing/extracting the material in the system with a forklift or with an electric stacker (same procedure).

This way of working needs to be complemented with a manual trolley (1.4.1)



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#### 1.4.4 WORKING PLATFORM

Here we can see different examples of platforms and distributions.

The sizes of the storage locations are adaptable to the size of the bundles, and different measures can be stored together.

We can adapt the platform and storage locations to fit with the client requirements, in size, weight and the care needed with the material.

##### 1.4.4.1 COMPLETE INSTALLATION WITH ELECTRIC PLATFORM (Navarra, Spain)

Free width:	23,50 m / 77 ft
Total length (includes unloading and expedition zone):	52 m / 170 ft
Total system width:	23,50 m / 77 ft
Space occupied:	1097 m <sup>2</sup> / 11808 ft <sup>2</sup>
Storing length (without unloading and expedition zone):	40 m / 131 ft

##### Stored references:

Small storage locations:	280 references
Medium storage locations:	330 references
Big storage locations:	50 references
Upper Storage:	190 extra references

<b>Total capacity: 660 references + 190 extra bundles</b>
---









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#### 1.4.4.2 INSTALLATION WITH HYDRAULIC PLATFORM (Bordeaux, France)

Free width:	15 m / 49 ft
Total length (includes unloading and expedition zone):	50 m / 164 ft
Total system width:	6.7 m / 22 ft
Space occupied:	200 m <sup>2</sup> / 2152,7 ft <sup>2</sup>
Storing length (without unloading and expedition zone):	29.92 m / 98 ft

#### Stored references:

Medium storage locations:	154	references
Big storage locations:	84	references
Total references inside storage locations:	238	references
Upper Storage:	108	extra references

Total Bundles: 346 references











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#### 1.4.4.3 COMPLETE INSTALLATION WITH HYDRAULIC PLATFORM (Le Havre, France)

Step by step installation. Project made in 3 Phases. With hydraulic platform.

Phase III in process.

##### **Phase I**

- 17 columns of medium locations (5 heights)
- 9 columns of small locations (6 heights)

##### **Phase II**

- 27 columns of small locations (6 heights)

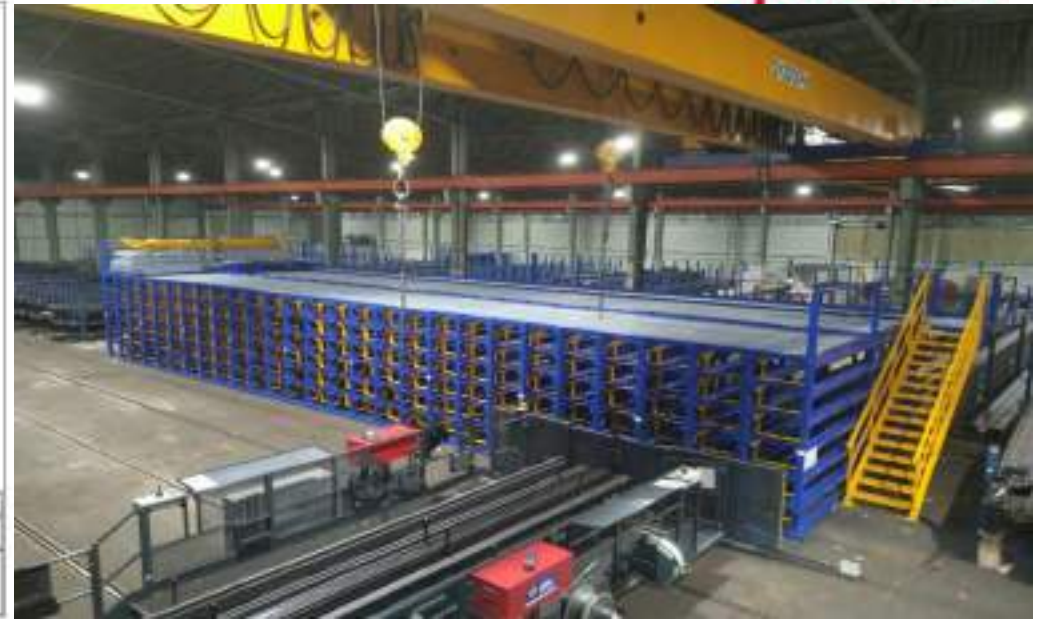
- Height of the structure:	2,9 m / 9,5 ft	
Width:	6,7 m / 22 ft	
Total length:	21,2 m / 69 ft	20,8 m / 68 ft
Space needed:	142 m <sup>2</sup> / 1528,4 ft <sup>2</sup>	140 m <sup>2</sup> / 1506.9 ft <sup>2</sup>

##### **Stored references:**

Big locations 650×650 mm (25x25"):	32 references
Medium locations 500 x 480 mm (18x19"):	110 references
Small locations 420 x 360 mm(14x16"):	306 references
Upper storage:	243 extra bundles

Total bundles      System I: 139 references      System II: 162 references      System III: 147 references

<b>Total capacity: 448 references + 243 extra bundles</b>
---





#### 1.4.4.4 INSTALLATION OF PLATFORM WITH AUTOMATIC MATERIAL EXTRACTION (Madrid, Spain)

Automatic extraction with rollers.

Material operation with external crane with magnets.

Capacity: 6.110 Tons / 13500 lb

Space occupied: 2.500 m<sup>2</sup> / 26909 ft<sup>2</sup>

#### **Stored references:**

Small storage locations with cassette: 660 references

Total references inside storage locations: 1010 references

Upper Storage: 210 extra references

Total Bundles: 1.220 references



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#### 1.4.5 SOLUTIONS WITH CRANES / HOISTS

##### 1.4.5.1 INSTALLATION WITH A HOOK-CRANE BETWEEN TWO STORAGE RACKS (Poland)

Example of installation with its own crane system. Two storage locations installations placed one in front of the other with a crane system on top (designed specifically for these installations).

Structure to allow to extract the material of the storage locations.



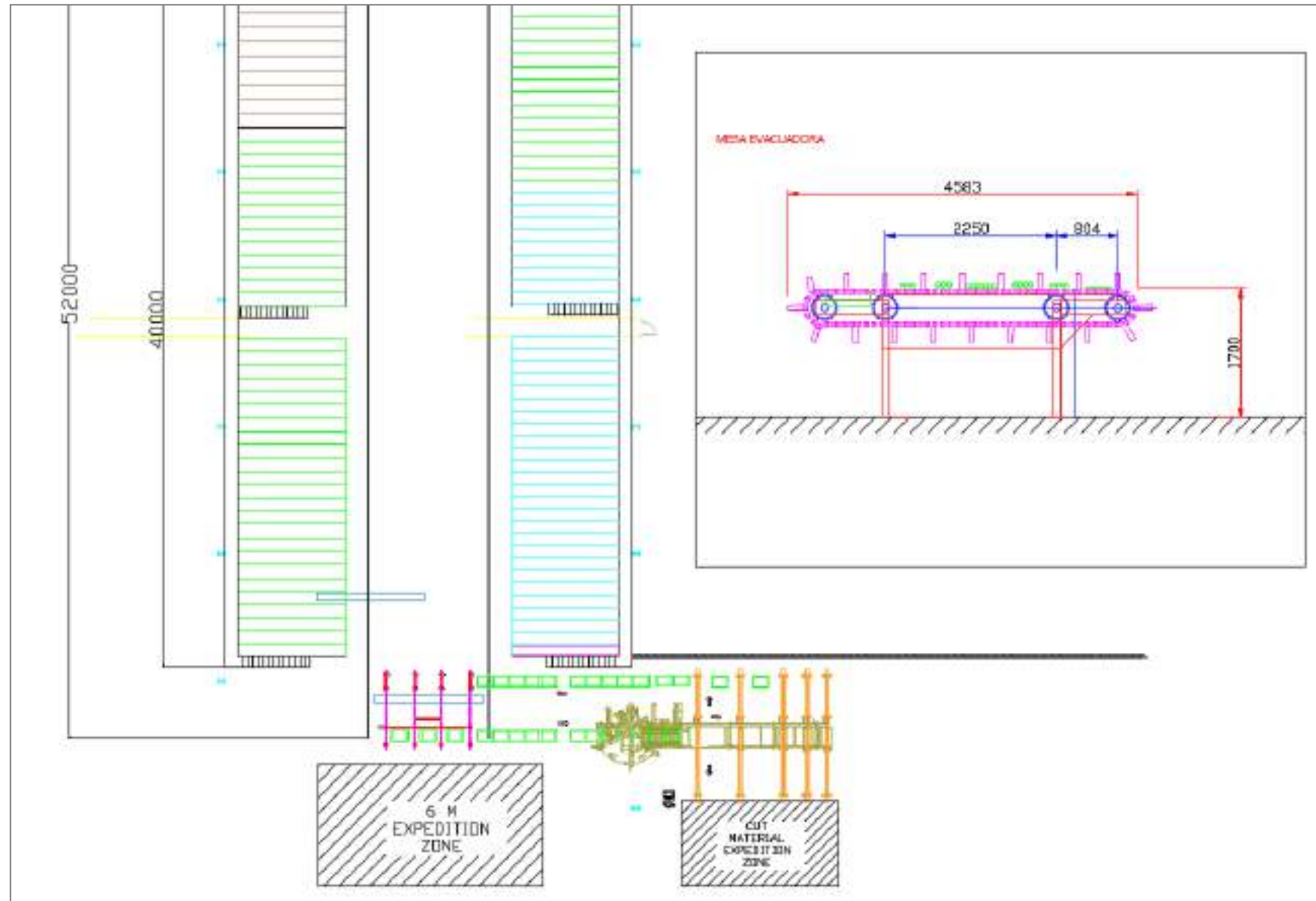






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#### 1.4.6 MATERIAL EXTRACTION SYSTEM AND PRODUCTION MACHINE CONNECTION





## 2 COMBINED SYSTEMS

### 2.1 COMBINED SYSTEM FOR FOR 3M MATERIAL AND SIDE EXTRACTION SYSTEM (Poland)

Installation for 3m / 10 ft length material.

On one of the sides, a Side extraction drawing storage system for cuts and rests pieces.

- 10 columns of medium storage locations (8 heights)

Structure height	4 m / 13 ft
Width	4 m / 13 ft
Length	9,8 m / 32 ft
Space occupied	39,2 m <sup>2</sup> / 421.9 ft <sup>2</sup>

#### **Stored references:**

Medium storage locations:	80 references
Upper storage area:	30 bundles
Side storage for rests:	10 drawers



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## 2.2 COMBINED SYSTEM FOR SMALL PIECES & LONG PRODUCT SYSTEM (RPF)

Mixed storage system that combines system for small pieces and system for long products.

- 6 columns of medium storage locations (6 heights).
- 1 columns of big storage locations (5 heights).
- Small pieces system (10 cassettes)

Structure height:	3.05 m / 10 ft
Free width:	6.8 m / 22,3 ft
Space occupied:	40.8 m <sup>2</sup> / 439 ft <sup>2</sup>

### Stored references:

Total references inside medium storage locations (500×280/11x19"):	36 references
Total references inside medium extra-large storage locations (700×320/12x27"):	5 references
References in upper storage:	21 references
10 cassettes for small pieces (3000kg / 6500 lb each).	



Efficient warehousing systems









Efficient warehousing systems



## 2.3 COMBINED SYSTEMS FOR LONG PRODUCTS SYSTEM, SMALL PIECES, & PLATE SYSTEM

Installation that combines: Front Storage of Long Products + Side Extraction Storage System + Plate Mixed Storage System.

### Front Storage:

- 20 columns of medium storage locations (4 heights). With 60 trays with separators (more references, same space)

#### Capacity

Structure height: 3.05 m / 10 ft  
 Free width: 6.8 m / 22 ft  
 Length: 17.7 m / 58 ft  
 Space occupied: 40.8 m<sup>2</sup> / 439 ft<sup>2</sup>

#### Stored references

Total references (610×370/14×24"): 80 references  
 References in upper storage: 60 references

### Side Extraction Storage System (2 different dimensions):

#### System I

Structure height: 2.1 m / 6,8 ft  
 Free width: 2.2 m / 7,2 ft  
 Length: 6.7 m / 22 ft  
 Space occupied: 14.4 m<sup>2</sup> / 155 ft<sup>2</sup>  
 Nº Shelves: 12

#### System II

Structure height: 2.1 m / 6,8 ft  
 Free width: 2.2 m / 7,2 ft  
 Length: 3.7 m / 12 ft  
 Space occupied: 8.2 m<sup>2</sup> / 88.2 ft<sup>2</sup>  
 Nº Shelves: 12

## Plate Mixed Storage System:

Combination of fixed and sliding storage shelves.

3x Plate Mixed Storage Systems installed.

Dimensions (2500x1500mm / 48x96"):

System height: 4,7 m / 15 ft

Width: 3,5 m / 11 ft

Length: 3,2 m / 10, 4 ft

Space needed: 11,2 m<sup>2</sup> / 120,5 ft<sup>2</sup>

Nº shelves: 20



Efficient warehousing systems





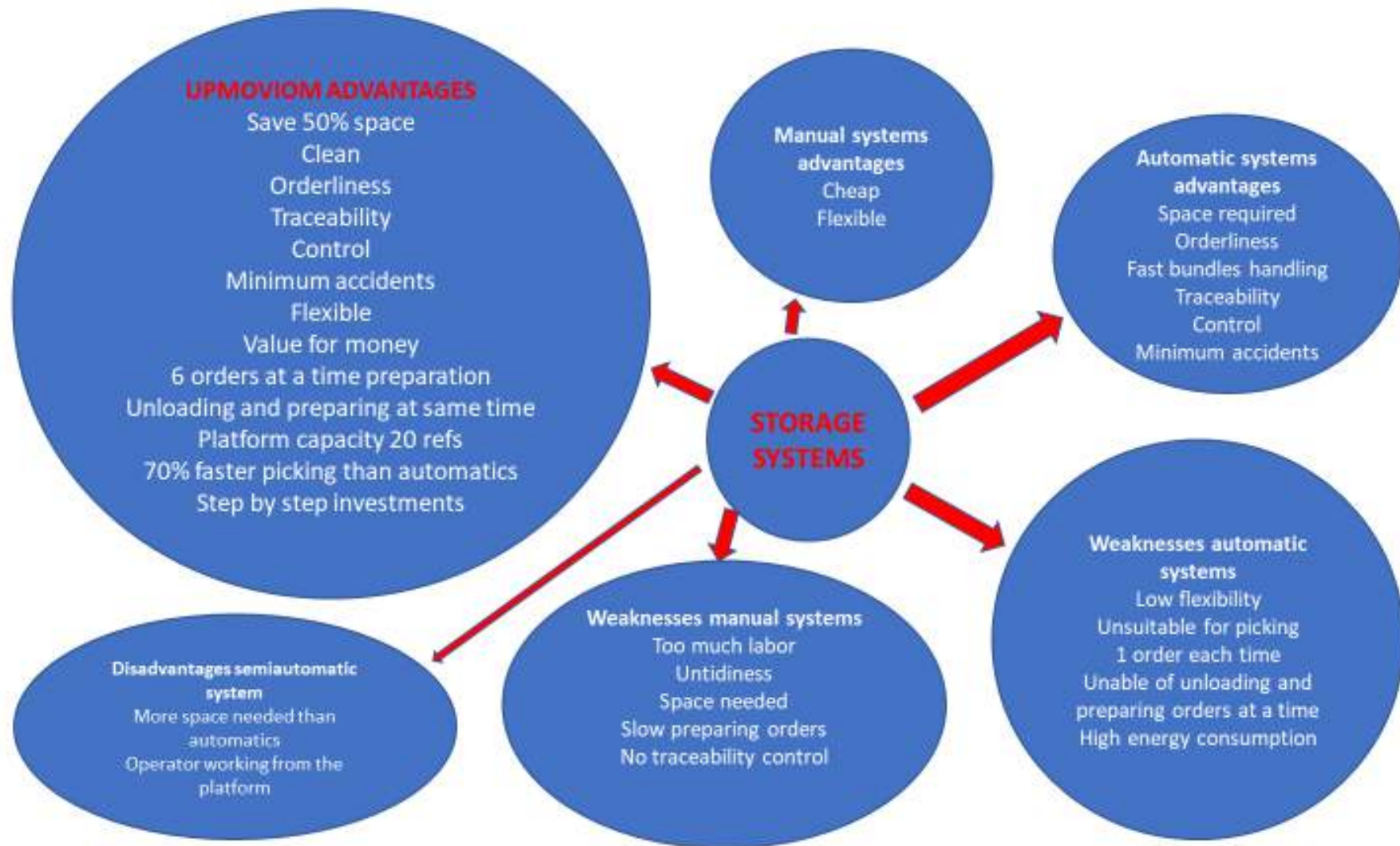
Efficient warehousing systems



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### 3 STORING SYSTEM COMPARISON







#### 4 BEFORE AND AFTER









BEFORE



Efficient warehousing systems



AFTER



Efficient warehousing systems



## 5 CLIENT'S OPINIONS

**Our Customers says.....**

*"Introduction of one bundle used to take us 45 minutes.  
You've done it **in 1 minute**"*

*"You've managed to store all the longs in one single hall. Now we can **save** the other hall only for the plates"*

*"the key of our success is the **safety**, and to reduce human efforts. Workforce will barely have to touch the material"*

*"this is the **best invention** for handling steel"*

*"Everything is now **controlled and accesible**"*

*"Now **we know everything** we have in stock, just taking a quick look"*

*"Being able to put the material between the hall pilars, we have doubled our **storage capacity**"*

UPMOVION

## 6 MANAGEMENT PROGRAM

The platform comes equipped with a software that allows us to make the job much easier, faster and precise.



**PLATFORM PROGRAM**

**MANAGEMENT PROGRAM**

**ERP CONNECTION (ENTERPRISE RESOURCE PLANNING)**

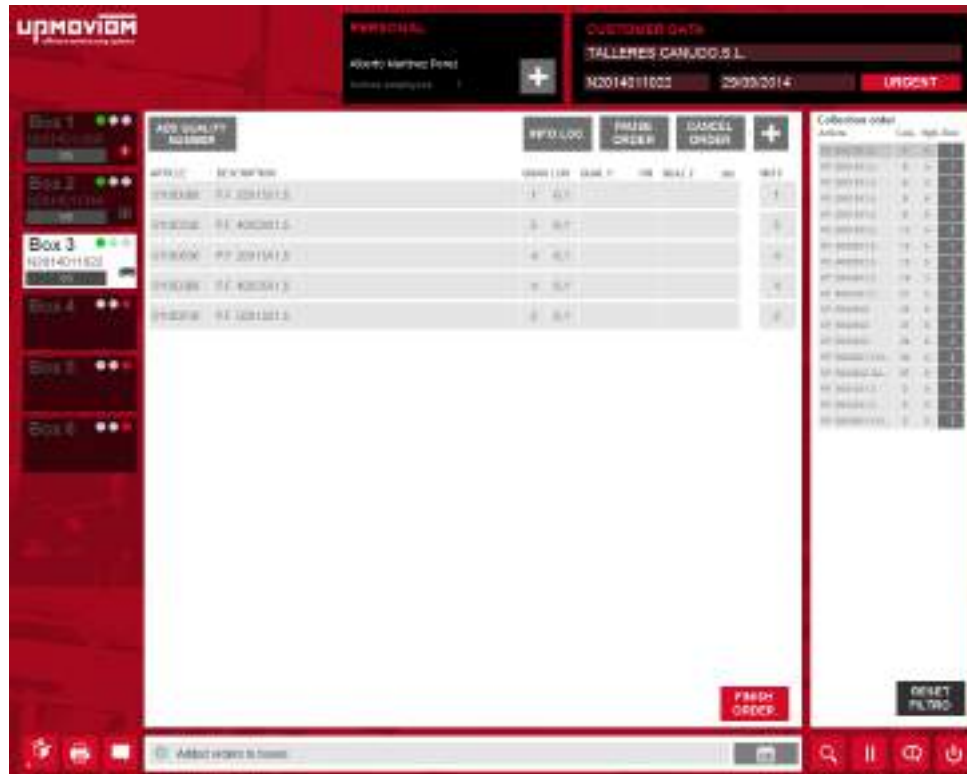
**REMOTE ORDERS**



## 6.1 PLATFORM PROGRAM

With this program, orders are sent to and completed on the platform.

### MAIN WINDOW



### TRACK ORDERS IN REAL TIME

Includes the name of the product, the location and the traceability number.

### BEST WAY TO MINIMIZE THE SYSTEM MOVEMENT

The system optimizes the picking order, so in just one round trip, we pick up all the materials needed to prepare six different orders with all their materials.


### POSSIBILITY TO CHOOSE THE ORDER DEPENDING ON THE PRIORITY

Several icons for choosing the orders to prepare (already showed from more urgent to less urgent), printing labels to identify the orders, sending and receiving messages to the department needed...

## 6.2 MANAGEMENT PROGRAM

The system is also equipped with the management program. With this program, we can adjust the way of working with the platform to our needs and also we have access to all the information we need, including:

**Work in real time:** You have access to what is being prepared on the platform preparing in that exact moment from the place you need in the company.



Order	Type	Customer	Date	Units	Units prepared
2010101001	Order	ALUMINUM EVANGELIS	20101011	1	1
2010101002	Order	ALUMINUM EVANGELIS	20101011	1	1
2010101003	Order	ALUMINUM EVANGELIS	20101011	1	1
2010101004	Order	ALUMINUM EVANGELIS	20101011	1	1

### Production reports:

You can control what has been prepared in one day or in one week, month... by a single worker or in whole company....

### Economic cost reports:

Adding the cost of the worker and the platform, you can control the cost needed to prepare an order, or the order for one client, all the orders in one period, time for preparing a single product... All the information you need to take your strategic decisions.

### Buying reports:

The program can notify you that a product is under minimum stocks and generate for us a buying order (under client request)

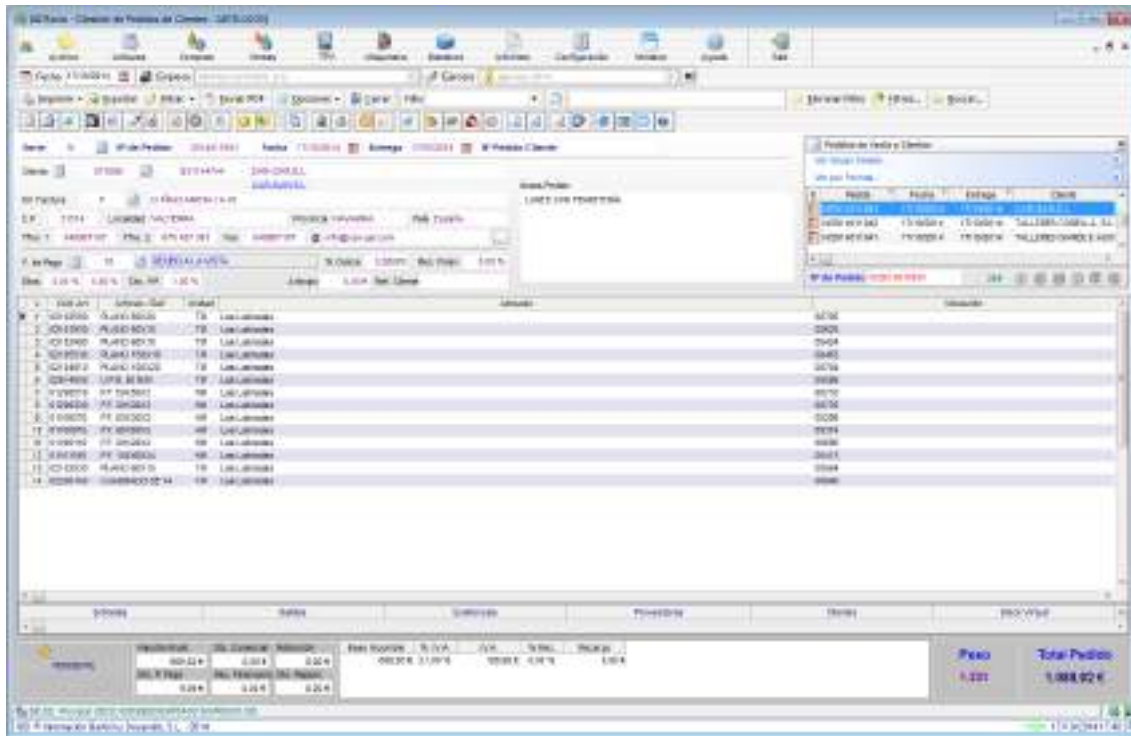


Order	Date	Units	Cost	Quantity	Cost	Cost
Customer: 011100 - CITY OF LANCASTER	Orders: 1	14	487.50	0.40	56.00	70.00
N2014012176	20101014	14	567.50	0.41	56.00	70.00
Customer: 012001 - METALS PROGRESS LAMBERT	Orders: 1	1	177.37	0.11	11.92	17.11
N2014012104	20101014	1	177.37	0.11	11.92	17.11
Customer: 013442 - LEMMON MEAT INDUSTRY	Orders: 4	19	285.34	0.02	33.33	115.48
N2014011708	18101014	19	285.34	0.02	33.33	115.48
Customer: 014001 - PETER WORTH CONTRACTORS	Orders: 1	4	164.00	0.00	0.00	11.40
N2014012111	20101014	4	164.00	0.00	0.00	11.40
Customer: 015000 - JOHN METAL WORKSHOP	Orders: 1	11	185.00	0.00	0.00	27.40
C2014000000	20101014	11	185.00	0.00	0.00	27.40
		71	1,010.40	0.54	107.75	60.00



## 6.3 ERP CONNECTION

This program is prepared to be integrated with your own ERP program, so when you create the order in your program, all the information automatically is ready for the working platform, and when the worker on the platform finishes, you have all the data you need (Traceability number, order preparing confirmation,...) already prepared in your ERP.



## 6.4 INSERTING PURCHASE ORDERS ON-LINE

The program can also be used on-line with portable devices, allowing the sales workforce from wherever they are to take a look at the available stocks and directly issue a purchase order that would be inserted in the company program and straight on to the UPMOVIOM Storage System platform.

