

# LPL vertical carousels



Perfect for set-up and picking stations

[www.apfel-gmbh.de](http://www.apfel-gmbh.de)

 **apfel**  
Factory equipment that fits

# The fusion of progress and tradition in storage

Based on the operating mode of a paternoster, the Apfel LPL automated vertical carousel gives quick and targeted access to all stored items.

The space-saving design uses the entire volume including the access section to offer maximum storage capacity on a minimal footprint.

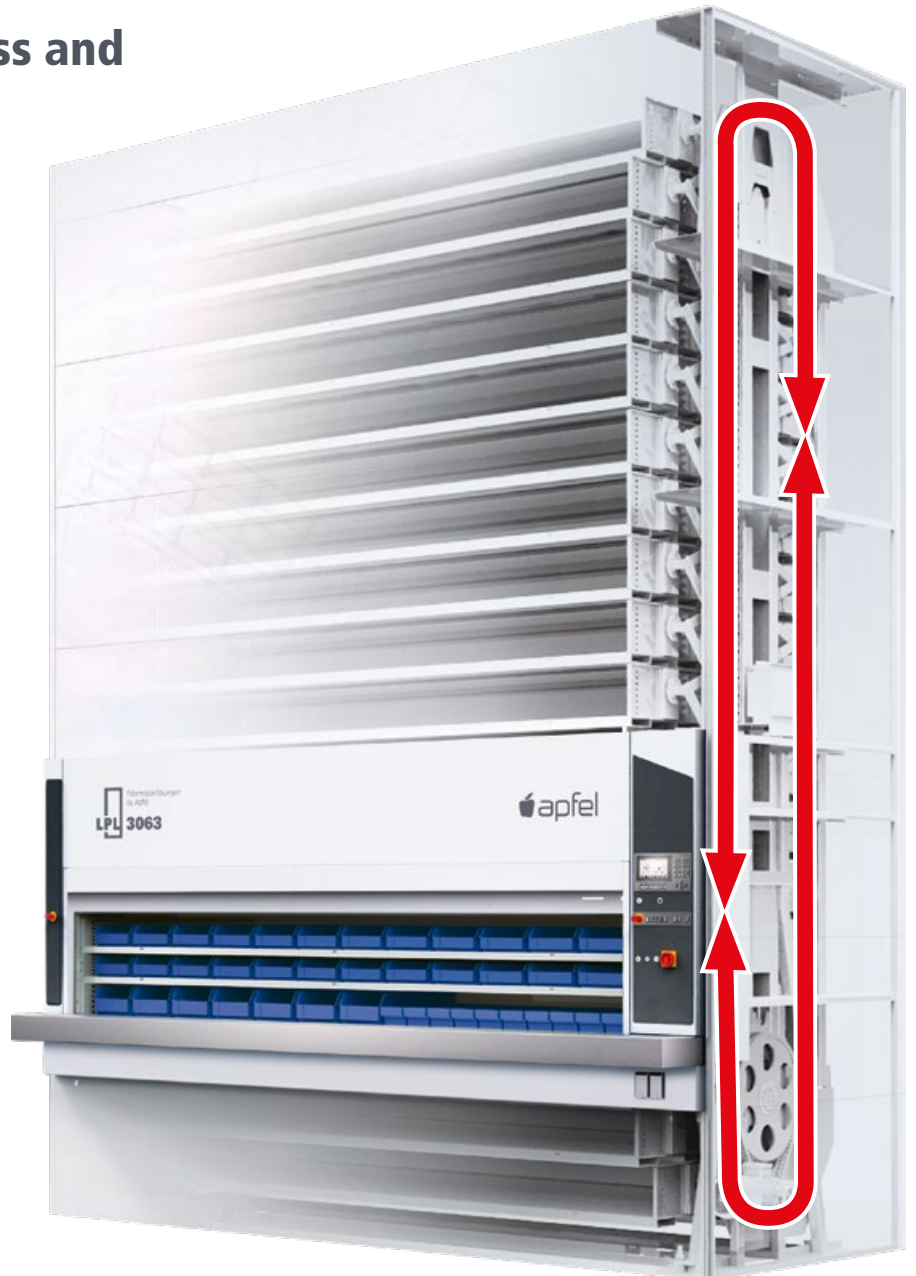
Because the LPL drives the carriers on the shortest possible way to the access, it suits particularly to the storage of articles or containers with high access frequency.

## Perfect for set-up and picking stations

Wherever different parts need to be accessed quickly, the LPL is the ideal storage solution for many applications.

On the foldaway work surface parts can not only be picked up, but also directly set up right by their removal.

Especially in tool pre-tooling, the LPL offers advantages which make him a genuine alternative to conventional workstations.



## Fastest access with maximum security



All LPL vertical carousels are equipped with a lockable, easy-sliding door that can be operated both automatically and manually.



**Paternoster technology**



**Fast access times**



**Low overall depth**



**Variable height**



**Different widths**



**Ergonomic access height**

According to the „goods to person“ principle, all stored goods are driven to an ergonomic working height at the push of a button. While the sliding door is open, the carriers can also be moved continuously with the “drive and view” feature.

Selective access to the stored goods can be permitted by password assignment or the use of RFID chips to avoid unauthorized removal.

The safety concept of the LPL protects man, machine and stored goods. The light curtain of the access opening prevents accidents at work, the built-

in hand crank (only 350 kg version) provides access to the stored items even in the event of a power breakdown. The automatic chain tensioner ensures the smooth run of the load chain and reduces its wear.

The modular design guarantees ultimate space utilization and increases storage capacity by up to 60%.

The free-standing, expandable construction and the clip system of the cover panels facilitate the simple, fast and safe installation of the carousel. Later adjustments or extensions are easily possible.

## Technical specifications

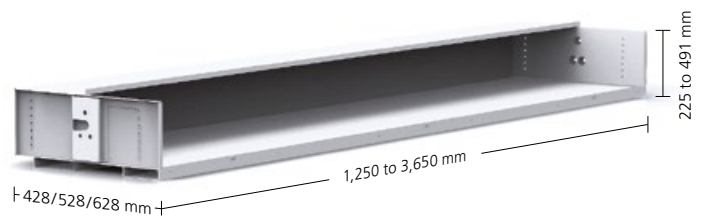
<b>Apfel LPL</b>			
Load per carrier	max.	350 kg	650 kg
Width	min.	1,875 mm	1,975 mm
	max.	4,275 mm	4,275 mm
Height	min.	2,360 mm	2,360 mm
	max.	10,010 mm	10,010 mm
Depths		1,271 mm	1,311 mm
		1,471 mm	1,511 mm
		1,671 mm	1,711 mm
<b>Usable carrier dimensions</b>			
Width	min.	1,250 mm	1,250 mm
	max.	3,650 mm	3,550 mm
Depths		428 mm	428 mm
		528 mm	528 mm
		628 mm	628 mm
Heights		225 mm	255 mm
		263 mm	306 mm
		301 mm	356 mm
		339 mm	407 mm
		377 mm	458 mm*
		415 mm	
* only available with 628 mm carrier height		453 mm	491 mm*
Unit imbalance	max.	1,200 kg	2,100 kg
<b>Unit load</b>			
incl. carrier weight	max.	12,500 kg	19,000 kg

## Carrier configurations

The variety of articles to be stored in the LPL ranges from bulk material through small parts and components to large multi-part assemblies. The usable storage space per carrier reaches up to 16 m<sup>2</sup>. Carrier depth, width and height are individually configurable to be adapted to any purpose. Multi-purpose carriers can be equipped with drawers, flaps or dividers and subdivided in height by intermediate shelves.

Due to their design, multi-purpose carriers prove to be versatile performers when it comes to:

- the direct storage of goods
- the use of standard storage and transit containers
- the use of customer-specific containers and vessels



Open carrier for various storage options



Carrier with partitions, adjustable by steps of 25 mm for an easy sorting of stored goods



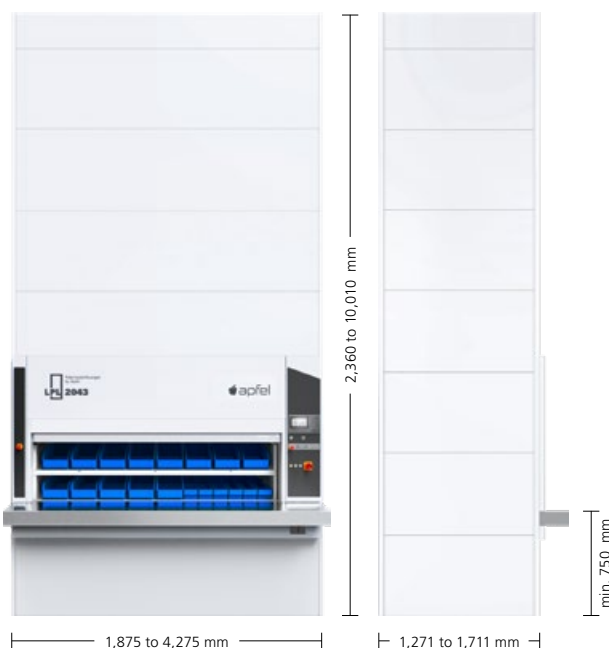
Carrier with self-supporting intermediate shelf, adjustable by steps of 25 mm for the storage of large flat parts



Carrier with drawers, separator set and intermediate shelf for the combined storage of various goods



Carrier with built-in drawer blocks for the secure and well-arranged storage of small parts



All Apfel LPL vertical carousels are available in the standard colour RAL 9010 Pure white.

## KEK storage bins in standard euro dimensions for the ultimate use of carrier space

The four sizes of the KEK storage bins are compatible one to another in width and depth and therefore perfectly suited to the storage in LPL vertical carousels.

Made of shock-resistant polypropylene (PP) and equipped with tubular corner pieces, they are easy to stack and carry extreme loads.



## Two carrier payloads



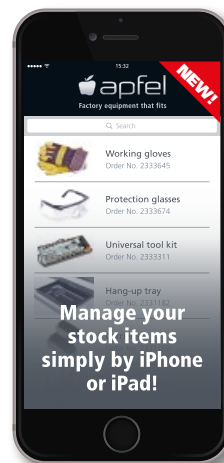
The LPL of the medium payload range is the perfect solution

for the storage of all tools, C-items, small pieces and spare parts. Thanks to its numerous dimensions and equipment options, the carriers, which can be loaded with up to 350 kg, are perfectly adaptable to the intended purpose and location.



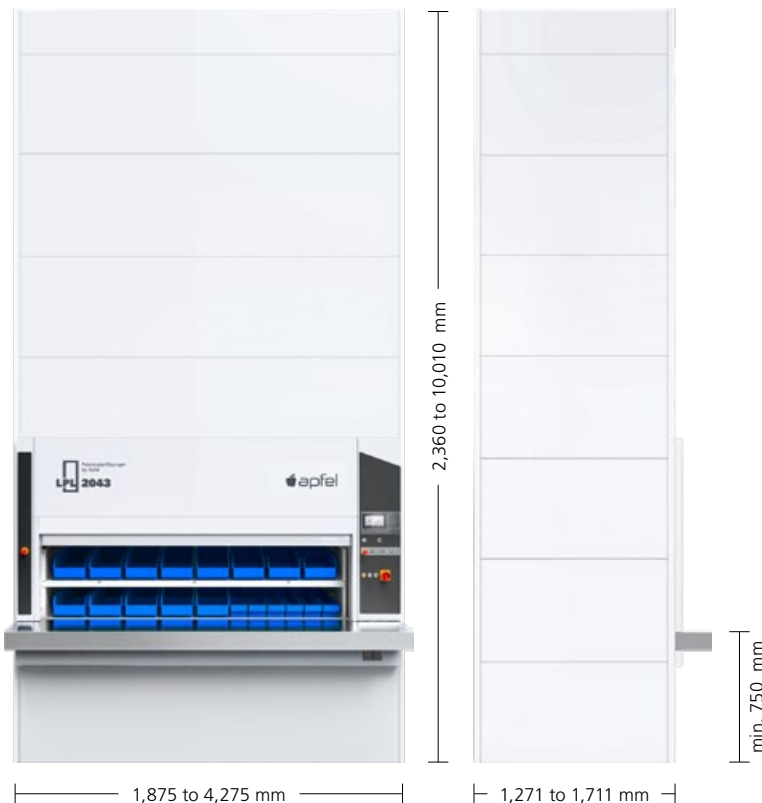
With a maximum payload of 650 kg the carriers of the heavy duty range

are ideally suited to the quick access to many heavy items. Their high capacity offers a wide variety of applications, such as a stock in production chains, an intermediate buffer for semi-finished workpieces or as a spare parts warehouse.



## Industry 4.0 in a pants pocket

With an optional, digitally connected control via smartphone, Apfel turns the LPL into a fully automated warehouse, that avoids the need for any searching and saves the operator's time by delivering the required parts in advance to the access opening.



## Five steps to your vertical carousel

- Select carrier payload
- Define width
- Choose depth
- Calculate height
- Determine access height



Your interlocutors



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