BITOBOX XLmotion

Lowest ever noise level on conveyors improves job satisfaction

FOR A QUIET WORKPLACE
BITOBOX XLmotion containers in operation at HAWE Hydraulik
BITOBOX XLmotion —
The no-compromise container for automated storage

Ideally, totes used in automated systems fulfil the following requirements:

- Low noise handling
- Compatibility with all components of the system
- Large volume
- Load capacity requirements must be met
- Container body must allow water to pass through if sprinklers are in operation
- Possibility to subdivide containers
- Attractive price-performance ratio

Automated system totes are vital for operating automated material handling systems.
BITOBOX XLmotion containers — Features

**Base width 389 mm**
- Approximately 26 mm wider than usual

**Support ribbing**
- Running diagonally to reduce noise development.

**Double base contouring**
- At least 100 mm wide.

**Drain holes**
- Optional drain holes in the base.

**New: Edge contouring double base**

**Secure stacking**
- XLmotion containers do not stack with European standard size containers.

**CUSTOM COLOURS UPON REQUEST**
**Integrated pocket handles**
- Supplied as standard on the long sides.

**Grip handles**
- Closed or open option.

**Location lugs**
- Optionally available to lock drop-in lid.

**Drain holes**
- Containers can optionally be supplied with drain holes in the lower part of the sides.

**Divider slots**
- The container sides are optionally available with slots to fix dividers.

**Straight sides**
- Provide maximum volume utilisation.

**Ribbing pattern**
- Can be adapted for optimum compatibility with your automated handling system.
BITOBOX XLmotion —
Your first choice for quiet material handling

Benefit from almost inaudible container handling

> Edge contouring double base minimises noise development
> Considerably reduced noise levels near conveyors
> Reduce noise hazards for operators
> Increase job satisfaction, minimise noise-induced stress levels, reduce sickness absence rates
> Less mistakes and more productivity in a quiet work environment

Source: BAuA: Lärmentwicklung - Gehör, Gesundheit, Leistung 2004 (Study on noise-related health hazards and performance)

Noise affects …

> ability to focus
> memory
> speed of thought
> creativity
> work performance
> motivation
> stress level
> need for a break - fatigue
> bodily health
> emotional health

Noise has adverse effects on employee health and performance. This is why extensive regulations and guidelines on noise levels in the workplace have been established. One of them is the implementation of the EU Directive EG 2003/10/EG into German law as Lärmm- und Vibrations-Arbeitschutzverordnung (LärmVibra-ArbschV) which is to protect employees from noise and vibration hazards at work. An effective way of reducing noise hazards is to prevent or minimise noise at the source of origin. Applying the principle of minimisation means that noise or any sound that is perceived as disturbing or damages hearing or is in any other way harmful to health must be reduced as far as possible by state-of-the-art technology standards.

> + 3 dB doubles the acoustic noise level and is perceived as substantially louder

BITO INFO

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Large storage volume

The straight sides and the wider base of the XLmotion container make for a very large storage volume. Compared to conventional containers, storage volume increases by as much as 3 to 6 litres.

Calculation example:
Additional volume per container: 3 litres.
Number of storage positions: 30,000.
Additional storage volume: 90,000 litres.
BITOBOX XLmotion – The no-compromise container for automated storage systems

Reduce steelwork cost when constructing your automated facility

In view of developing the perfect container for automated storage, we decided to pass up on stacking compatibility with European standard size containers. Compared to like-products on the market, the BITO XLmotion container base is 26 mm wider. This extra base width provides a wider seat surface which allows to reduce the width of steel profiles for container placement in classical ASRS facilities.

Calculation example:
Cost saving on steel for guide rails: approx. EUR 0.30 per storage position
Number of storage positions: 30,000
Savings potential:
30,000 x EUR 0.30 = approx. EUR 9,000

A wider base than is usual for European standard size stacking containers (389 mm instead of 363 mm) saves steelwork costs in ASRS facilities.

Container subdivision for multiple loads

> All containers of the XL series can be divided into smaller compartments.
> Length and width dividers have lugs that are inserted into the divider slots (optional feature) in the container sides. A downward push locks them into place.
> Secure fit, easy to remove.

Optional divider system subdivides totes into 2 up to 16 compartments. Firm fit, easy to insert or remove.

Choice of sizes

<table>
<thead>
<tr>
<th>Type</th>
<th>Outside dimensions in mm</th>
<th>Inside dimensions in mm</th>
<th>Load capacity</th>
<th>Stacking load</th>
<th>Volume</th>
<th>Ref. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLM64121</td>
<td>599 x 399 x 120</td>
<td>569 x 369 x 100</td>
<td>50 kg</td>
<td>250 kg</td>
<td>21 l</td>
<td>55-31534</td>
</tr>
<tr>
<td>XLM64171</td>
<td>599 x 399 x 170</td>
<td>569 x 369 x 150</td>
<td>50 kg</td>
<td>250 kg</td>
<td>31 l</td>
<td>55-31533</td>
</tr>
<tr>
<td>XLM64221</td>
<td>599 x 399 x 220</td>
<td>569 x 369 x 200</td>
<td>50 kg</td>
<td>250 kg</td>
<td>42 l</td>
<td>55-31397</td>
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<tr>
<td>XLM64271</td>
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<td>50 kg</td>
<td>250 kg</td>
<td>53 l</td>
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<tr>
<td>XLM64321</td>
<td>599 x 399 x 320</td>
<td>569 x 369 x 300</td>
<td>50 kg</td>
<td>250 kg</td>
<td>63 l</td>
<td>55-31398</td>
</tr>
</tbody>
</table>
More BITO bins & containers for automated storage

BITOBOX KLT

- Strong and durable, designed for high load capacities
- Can be supplied with standard base, ribbed base or double base
- Ergonomically shaped pocket grips
- Hinged lids (optional)

<table>
<thead>
<tr>
<th>Base dimensions in mm</th>
<th>Height options in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 x 300</td>
<td>120 170 220 270</td>
</tr>
<tr>
<td>600 x 400</td>
<td>120 170 220 270 320 420</td>
</tr>
</tbody>
</table>

**Standard base**
Maximum base deflection 3% (measured along diagonal line) for loads of 30 to 50 kg (depending on container size).*

**Ribbed base**
Maximum base deflection ≤ 1 mm for loads of up to 50 kg.*

**Double base**
Maximum base deflection ≤ 1 mm for loads of up to 75 kg.*

*All values assume uniformly distributed loads, an ambient temperature of 23 °C and long-side on handling in automated storage facilities!

BITOBOX XL

- Versatile container series offering a lot of varieties in many sizes
- Can be supplied with standard base, ribbed base (standard or diagonal ribbing) or double base
- Solid or perforated sides.
- Hinged lids (optional)

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<td>400 x 300</td>
<td>120 170 220 270</td>
</tr>
<tr>
<td>600 x 400</td>
<td>120 170 220 270 320 420</td>
</tr>
<tr>
<td>800 x 600</td>
<td>120 220 320 420 520</td>
</tr>
</tbody>
</table>

**Standard base**
The standard base is excellent for loads of up to 30 kg.

**Ribbed base**
Ribbed base containers can carry up to 50 kg and have a very low base deflection ratio.

**Double base**
Double base containers can carry up to 50 kg and have a very low base deflection ratio.
More BITO bins & containers for automated storage

BITOBOX MB

> BITO MB distribution containers are conical in shape which allows nesting during empty storage
> Can be supplied with standard base, ribbed base or double base
> Many varieties available

<table>
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<tr>
<th>Base dimensions in mm</th>
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<tbody>
<tr>
<td>300 x 200</td>
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<tr>
<td>400 x 300</td>
<td>173 223 273 323</td>
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<tr>
<td>600 x 400</td>
<td>173 223 273 323 423</td>
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<tr>
<td>800 x 400</td>
<td>323 423</td>
</tr>
<tr>
<td>800 x 600</td>
<td>323 423</td>
</tr>
</tbody>
</table>

BITO Trays

> Perfect for use as “adapter” for storage units such as cartons that are not suited for transport on conveyors or for automated storage.
> We provide custom solutions as well as trays in standardised dimensions in a number of varieties.

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<td>400 x 300</td>
<td>50</td>
</tr>
<tr>
<td>600 x 400</td>
<td>50</td>
</tr>
<tr>
<td>640 x 426</td>
<td>50</td>
</tr>
<tr>
<td>670 x 410</td>
<td>70</td>
</tr>
</tbody>
</table>
Your BITO benefit:
Bins & containers + shelving & racking
for automated storage from a single source

Perfectly compatible components are a basic requirement for ASRS facilities: shelving & racking cannot operate without fitting bins and trays because stacker cranes will cause considerable damage if tolerances are not observed. BITO is your single source provider of all these components. Dealing with one supplier only increases project reliability and safety, as customers, planners and general contractors do not have to struggle with overlapping areas of responsibility. The success of this one stop shop formula has been proven in many projects implemented by BITO on a national and international scale.
Your BITO benefit:  
Steel trays for heavy duty applications

The BITO product range for automated storage has been extended by a steel tray designed for very heavy loads. It provides the following advantages:

> Bended draw beads ensure optimum handling.
> Recessed areas along the long sides provide space for product coding.
> Notches in the sides allow to increase tray height by clipping on collars.
> Insert bins for additional subdivision to allow for product organisation.

Document storage on steel trays at the archive logistics centre of the Sberbank in Moscow, the largest bank in Eastern Europe.

Picture: viastore systems
because........

we plan, design and implement your storage solution

BITO Storage Systems
Finch Way,
Hemdale Business Park
Nuneaton, CV11 6WH
Tel. +44 (0) 2476 388850

www.bito.com