

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

BITO

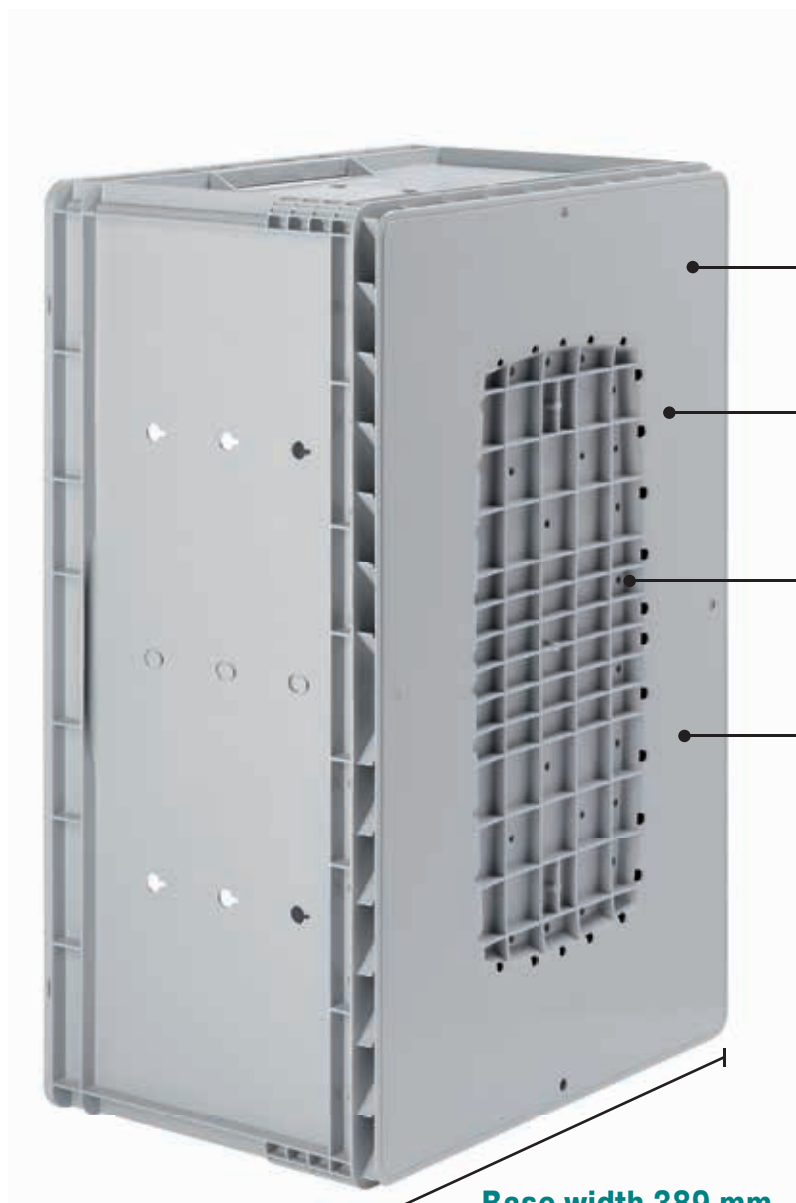
Ideally, totes used in automated systems fulfil the following requirements:

- > 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



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

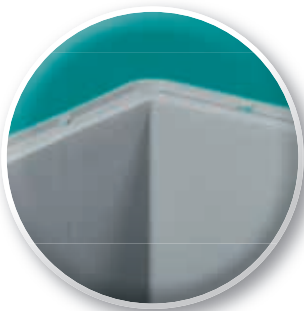
Base width 389 mm

■ Approximately 26 mm wider than usual

Secure stacking

■ XLmotion containers do not stack with European standard size containers.





Location lugs

- Optionally available to lock drop-in lid.



Straight sides

- Provide maximum volume utilisation



Integrated pocket handles

- Supplied as standard on the long sides.

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Grip handles

- Closed or open option.



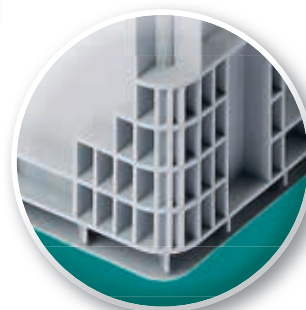
Drain holes

- 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.



Ribbing pattern

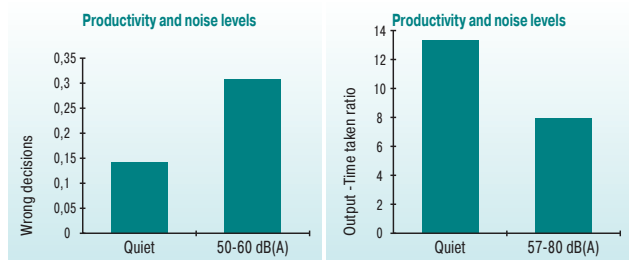
- Can be adapted for optimum compatibility with your automated handling system.

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)



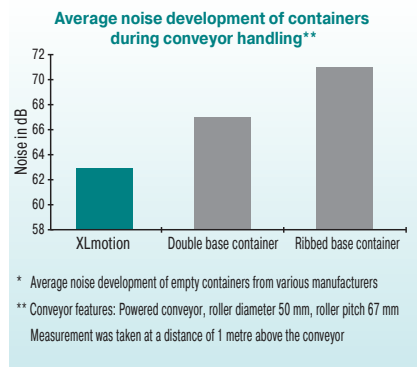
Noise affects ...

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

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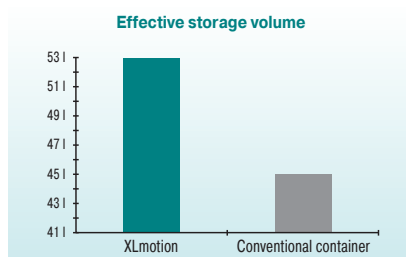
Noise has adverse effects on employee health and performance. This is why extensive regulations and guidelines on noise levels in the workplace have been established. One of them is the implementation of the EU Directive EG 2003/10/EG into German law as Lärm- und Vibrations-Arbeitschutzverordnung (LärmVibrationsArbSchV) 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



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.

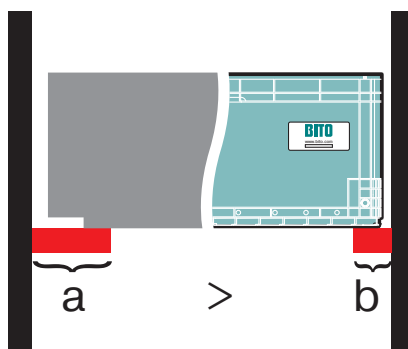


Calculation example:
Additional volume per container: 3 litres.
Number of storage positions: 30,000.
Additional storage volume: 90,000 litres .

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:

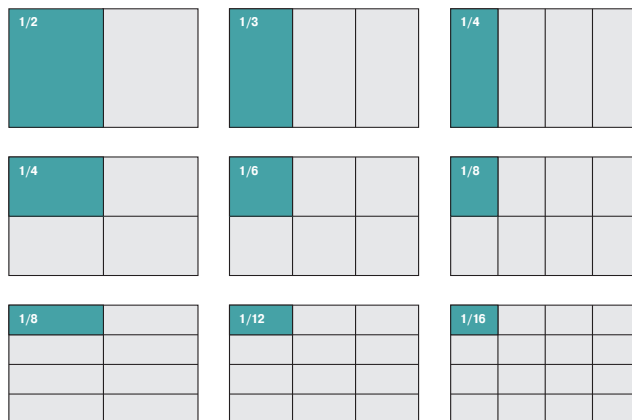
30,000 x EUR 0.30 = approx. EUR 9,000

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

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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.



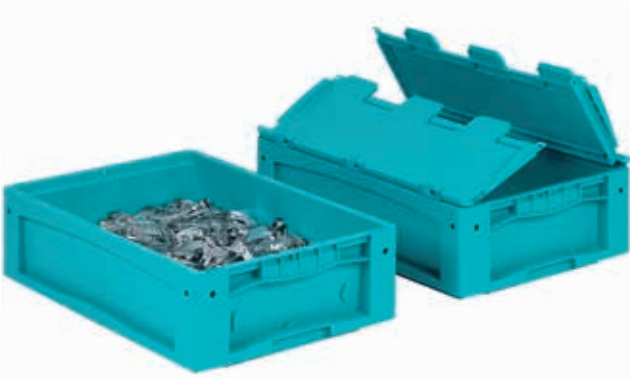
Optional divider system subdivides totes into 2 up to 16 compartments. Firm fit, easy to insert or remove.

Choice of sizes

Type	Outside dimensions in mm	Inside dimensions in mm	Load capacity	Stacking load	Volume	Ref. no.
XLM64121	599 x 399 x 120	569 x 369 x 100	50 kg	250 kg	21 l	55-31534
XLM64171	599 x 399 x 170	569 x 369 x 150	50 kg	250 kg	31 l	55-31533
XLM64221	599 x 399 x 220	569 x 369 x 200	50 kg	250 kg	42 l	55-31397
XLM64271	599 x 399 x 270	569 x 369 x 252	50 kg	250 kg	53 l	55-31377
XLM64321	599 x 399 x 320	569 x 369 x 300	50 kg	250 kg	63 l	55-31398

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)



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!

Base dimensions in mm	Height options in mm					
400 x 300	120	170	220	270		
600 x 400	120	170	220	270	320	420

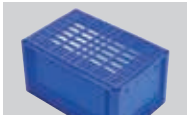
BITOBOX XL



- > 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)



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.

Base dimensions in mm	Height options in mm					
300 x 200	120	170	220			
400 x 300	120	170	220	270		
600 x 400	120	170	220	270	320	420
800 x 600	120	220	320	420	520	

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

BITO

Base dimensions in mm	Height options in mm				
300 x 200	153				
400 x 300	173	223	273	323	
600 x 400	173	223	273	323	423
800 x 400	323	423			
800 x 600	323	423			

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.

Base dimensions in mm	Height options in mm
400 x 300	50
600 x 400	50
640 x 426	50
670 x 410	70

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.



Both, racking
installation and bins
were supplied by BITO.

BITO XLmotion
containers in a
shuttle facility

Modern, shuttle
assisted bin storage
facility at the logistics
centre of BOMAG, the
world market leader in
compaction technology

Picture: BEEWEN

Your BITO benefit:

Steel trays for heavy duty applications

BITO

High density tray
storage



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.**

Heavy duty steel trays
loaded with small parts



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

Picture: viastore systems

BITO because.....



we plan,
design and
implement
your storage
solution



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