

The reliable one... **HUBTEX.**



 made
in
Germany



Glass Transport
Systems



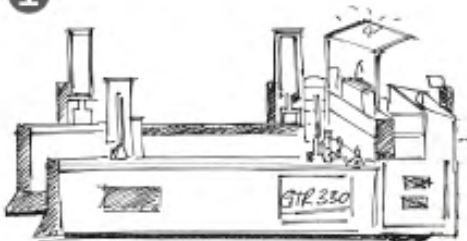
Putting ideas into action

As soon as a potential idea has been decided, HUBTEX develops a concept for you, which is coordinated and honed in several steps. Throughout this process, you benefit from our experience based on more than 30 years of manufacturing trucks for glass handling and special vehicles.

Facts

Headquarter:	Fulda, Germany (100 km northeast of Frankfurt / Main).
Employees:	approximately 275, including more than 45 engineers and technicians.
Performance	vehicle construction at the highest engineering level.
Spectrum:	60 series types and special purpose trucks.
Sales/Service:	through 15 own branch offices and more than 60 trade partners all over the world.

1



2

...The reliable one

Reliability and quality are the decisive factors for the transport equipment used in the glass industry, since these vehicles usually have 365 days per year of heavyduty work around the clock. HUBTEX is the world leader with an extensive product portfolio in this sector. The total operating hours of HUBTEX vehicles used in the glass sector alone add up to more than 10 million. This success results from the high availability and the long service life of the vehicles.



Your benefits

- **More safety**
 - minimized glass breakage
 - more visibility for drivers
- **More efficiency**
 - optimized handling times
 - increase of warehouse capacity
- **Less cost**
 - low operating cost (TCO)
 - low personnel cost
- **Lowest Total Cost of Ownership**
 - high reliability
 - only high quality parts



HUBTEX



Dispatch Lorry



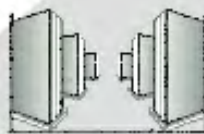
Dispatch Container



Warehouse Packs



HUBTEX



Warehouse Stillages



HUBTEX



Glass Processing



HUBTEX



Packing Area

**more than 10,000,000
working hours of experience
in glass handling**



Cold End Stacker



HUBTEX



... for more than 30 years

M 150

» Multidirectional Sideloaders up to 20 tons

HUBTEX Multidirectional Sideloaders M 150 can handle from single sheets up to 1 ton and glass packs up to 20 tons. The truck is used to handle Jumbo size glass. The glass handling attachment can be adjusted to various glass pack dimensions.

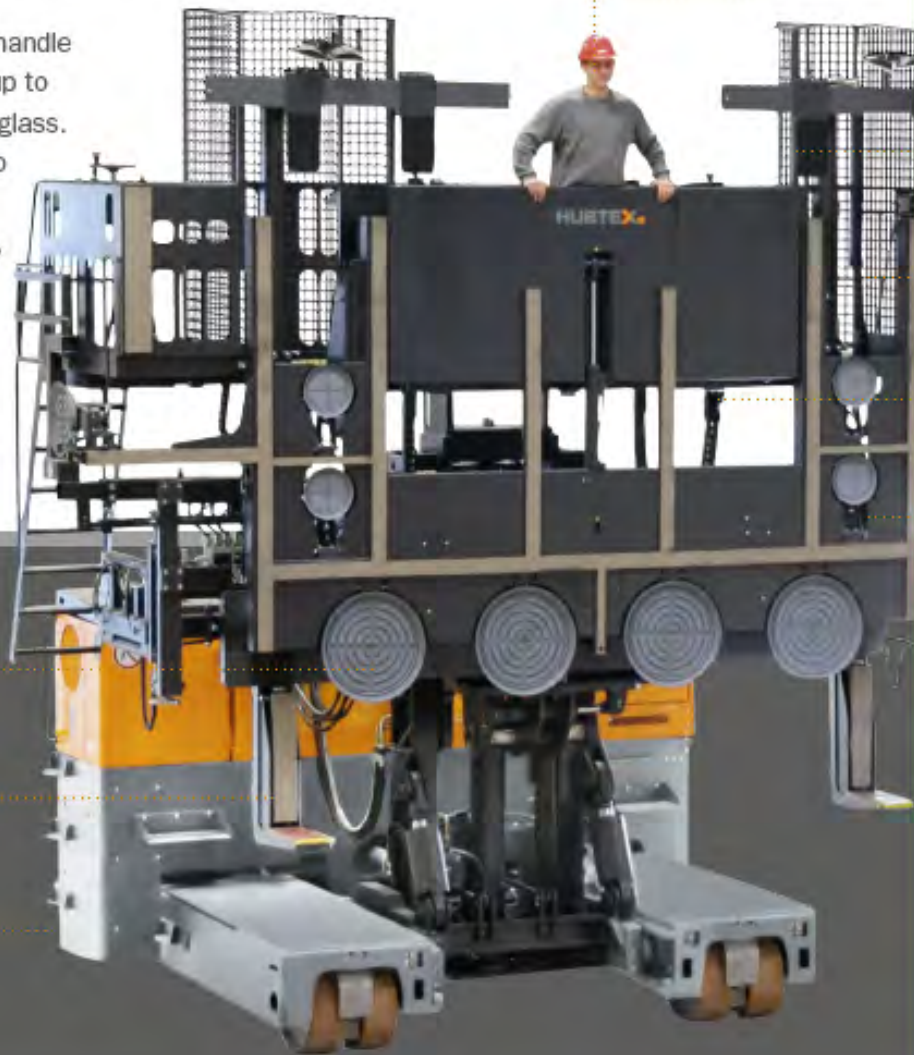
The M-series stores glass packs on floor bearers, which increase the storage density and finally optimize the warehouse capacity. Additionally the M truck performs the order picking by collecting the glass packs and locate them on dispatch stillages.

» 360° degree panoramic view

» Intuitive operating elements

» Load capacities up to 20 tons

» Precise truck movements



» The main advantages in summary

- » best visibility for more safety
- » high loading capacity for more efficiency
- » precise truck movements to avoid glass breakage
- » smooth multidirectional steering system for narrow aisles, higher warehouse capacity and exact truck positioning
- » less cost for internal glass handling (only 1 operator)



M 150 storing glass packs on floor bearers to increase warehouse density

Video of M 150 in action:



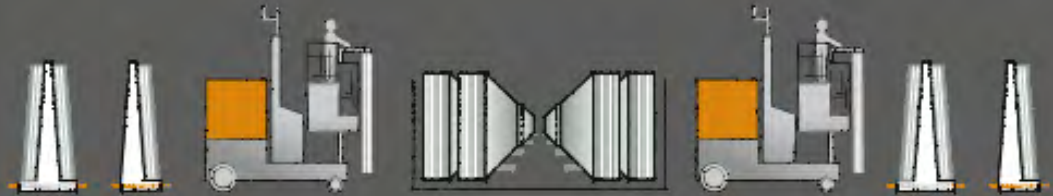
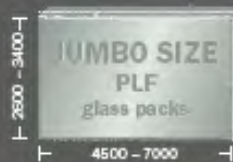
- >> Extensive safety equipment
- >> Usage of high quality components
- >> Cost saving HX steering system
- >> Maintenance-friendly design



M 150 offers the driver 360° allround view

Optimize your warehouse capacity!

- > Suitable for glass products:
- > Flow of glass products:



M 150 is able to load/unload a stillage with 30t glass in 2 working cycles



M 150 moves glass packs from a stillage to floor bearers in a narrow aisle



M 150 provides optimized visibility for the operator

M 90

» Multidirectional Sideloaders up to 9 tons

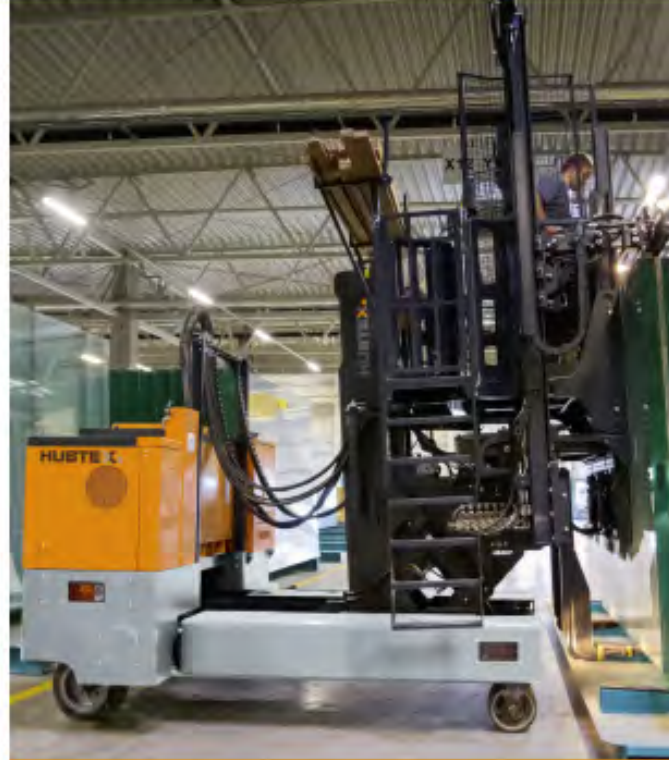
HUBTEX Multidirectional Sideloader M 90 can handle single sheets up to 0,5 ton and glass packs up to 9 tons.

The M 90 is used to handle LES-size and Split-LES glass packs, both either unpacked or packed in wooden end caps.

Various glass pack dimensions can be transported because of the multiple adjustable glass handling attachment.

The M-series stores glass packs on floor bearers, which increase the storage density and finally optimize the warehouse capacity.

Additionally the M truck performs the order picking by collecting the glass packs and locate them on dispatch stillages.



M 90 preparing customer orders

» 360° degree panoramic view

» Intuitive operating elements

» Usage of high quality components

» Precise truck movements

» Load capacities up to 9 tons

» Extensive safety equipment

» Cost saving HX steering system

» Maintenance-friendly design





M 90 feeding tiltable packing tables with unpacked glass



M 90 handling glass packs in end caps

Optimize your warehouse capacity!

- Suitable for glass products:
- Flow of glass products:



M 90 storing glass packs on floor bearers



M 90 loading glass packs directly on a lorry



M 90 offers optimized visibility

Features

Multidirectional Sideloaders



>> vacuum attachment for single glass sheet handling



>> anti glass breakage fork sensor kit



>> anti-collision-scanner



>> cost and time saving HX steering system



MQ 45 handles L-stillages with raw glass



Multidirectional Sideloader handles PV-modules on an A-stillage



M 80 S0 for loading/unloading of glass in end caps into/out of 20 feet closed sea containers

Customized Multidirectional Sideloaders

HUBTEX customers are often faced with internal logistics challenges, whose origins are customer and/or market specific requirements.

A key strength of HUBTEX is to design and produce a wide range of multidirectional sideloaders that provide solutions to these challenges.



NEW Product: M 40 R (1-man version) for rotation of glass packs to feed a coating line



M 150 S0 stores glass packs in collares on two levels



MQ 80 for handling glass packs in wooden crates up to 8 tons



MQ 60 R for rotation of LES-glass packs from portrait to landscape and vice versa

... precise and reliable

GTR

» Glass Frame Transporters up to 42 tons

HUBTEX Glass Frame Transporters can handle A and L-stillages with lateral lifting rails. The truck loading capacity goes up to 42 tons. GTR's main task is to move stillages with high volume of glass packs between cold end stacker, warehouse, glass processing and dispatch. GTR's high truck reliability is a precondition for an optimal, continuous and efficient internal flow of your glass products.

» Increased operators position
for best visibility and high safety standards

» Intuitive operating elements

» Vertical glass clamps
with increased retention force and ultrasonic sensors to avoid any pressure on glass packs

» Synchronous vertical lifting system

» Latest generation of power controls
with high energy efficiency

» Maintenance-friendly truck design

» Electric, Diesel or LPG drive

» Vulkollan tires for indoor application and/or rubber tires for in- and outdoor use



GTR 300 G (LPG) with big-sized rubber tires for combined in- and outdoor use

rain protection



GTR 330 E for indoor transport of L-stillages with 33 tons of glass

Video of GTR in action:



GTR 330 E unloading/loading an autoclave in a laminating line



GTR 330 E unloading 33 tons stillage from cold end stacker

Increase the efficiency of your internal processes!

- Suitable for glass products:
- Flow of glass products:



A and L-stillages with lateral lifting rails



GTR 330 E transporting L-stillage with glass packs in end caps



GTR 330 E feeding packing tables with unpacked glass packs

Features Glass Frame Transporters



>> liftable operator's platform for best visibility during stillage handling



>> anti-collision-scanner



>> glass clamps with increased retention force (curve-drive proof)



>> sensors on clamps to avoid pressure on glass packs



>> frame-integrated color camera and illumination for more safety



>> sensors for automatic speed reduction during stillage pick-up



GTR with adjustable loadarms to achieve



GTR with 180° foldable lifting arms to handle stillages with different widths



GTR with special device to transport glass stillages with fork pockets

Customized Glass Frame Transporters

HUBTEX customers are often faced with intra logistical challenges, whose origins are customer and/or market specific requirements. A key strength of HUBTEX is to design and produce glass frame transporters that provide solutions to these challenges.



GTR for handling of LES stillages in a coating line



compatibility with trolleys



GTR unloading stillage from trolley

GTT

» Glass Frame Transporter up to 50 tons

HUBTEX Glass Frame Transporters can handle A and L-stillages with feet and with a total weight from 5 up to 50 tons. GTT's main task is to move stillages with high volume of glass packs between cold end stacker, warehouse, glass processing and dispatch. GTT's high truck reliability is a precondition for an optimal, continuous and efficient internal flow of your glass products.

» Latest generation of power controls with high energy efficiency

» Maintenance-friendly truck design

» Electric, Diesel or LPG drive

» Platform dimensions adaptable to stillage design

» Stand-up platform or sit-down cabin

both in open or closed version available

» Intuitive operating elements

» Synchronous vertical lift systems

» Glass securing device



GTT 330 for indoor use



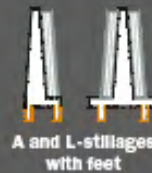
GTT 330 for combined in- and outdoor use



GTT loading/unloading an autoclave

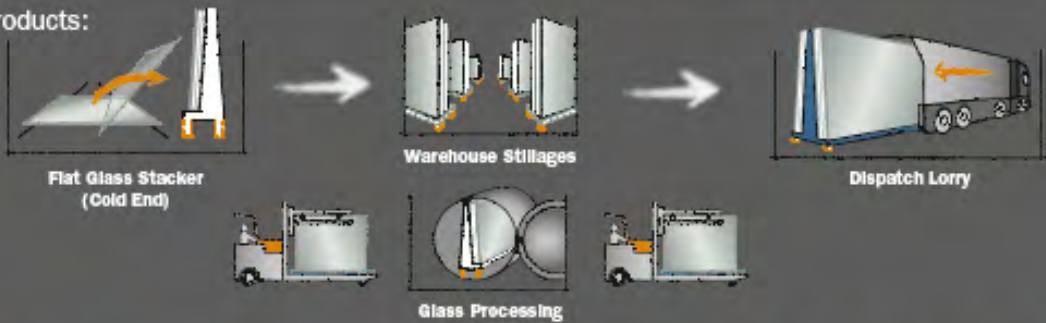
Increase the efficiency of your internal processes!

➤ Suitable for glass products:



A and L-stillages with feet

➤ Flow of glass products:



Flat Glass Stacker (Cold End)

Warehouse Stillages

Dispatch Lorry

Glass Processing



Glass securing device adjustable to different glass pack heights and widths



Different versions of glass stillage securing devices to fix the stillage on the platform

Independent certifications confirm HUBTEX quality

HUBTEX quality is documented by numerous certifications. Since 1997 HUBTEX maintains a quality management system according to DIN EN ISO 9001:2008. Another quality feature is the manufacturer's qualification according to DIN 18800 which forms the basis of work for all qualified welding engineers and experts at HUBTEX.



In this way long lasting weld seam quality of all steelwork parts is ensured. It goes without saying that all HUBTEX machines have full compliance with latest EU regulations and are therefore CE-marked.



» Endurance and stability test of all produced machines prior to delivery

All HUBTEX trucks are tested prior to delivery. For example all trucks have a full stability test in accordance with EN 1726-1 and an endurance test under full load.





M 150 (year of construction 1996) and M 150 (year of construction 2012) work together during sophisticated glass pack hand-over process to change tin and air side of the glass.

»» Reduced total cost of ownership and long service life of HUBTEX trucks

Glass transport equipment is a process critical part of the workflow in a flat glass factory. For that reason HUBTEX' focus is quality and reliability. Often 2 machines of different generations work together nowadays.

With a lot of old machines being still in use today we give proof of the solid HUBTEX quality and of the truck reliability. The benefit is the high operational availability of the vehicles and the reduced total cost of ownership.

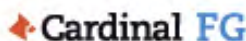
Worldwide service for globally acting customers

Benefit from our comprehensive sales and service network. From the start HUBTEX has been a company which is operating globally with a focus on export markets. The production of high-quality glass transport systems and

the provision of a first class after-service support are the foremost principle and corporate strategy of HUBTEX. Nowadays our sales and service network covers more than 60 countries worldwide.



Our Customers:



... and many more

More than 100 high-skilled service technicians

Apart from the high-quality product HUBTEX offers long-term durability of your investment and excellent after-sales support. Worldwide our comprehensive service network provides access to over 100 service technicians from trained service partners. After delivery our service team guarantees expert start-up and extensive operator training. Your new vehicle is thus ready for use immediately after delivery.



Rental and financing

HUBTEX offers a variety of financial instruments along with a flexible approach to help you meet both the requirements of your business and the needs of the market. From renting to owning – the choice is yours. Besides a purchase HUBTEX offers rentals, hire-purchases, leasing arrangements (in cooperation with a bank) and full rental contracts (including maintenance and repair).



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**Further HUBTEX products
at a glance:**

- Electric Multidirectional Sideloaders
- Diesel/LPG Fourway Sideloaders
- Electric Fourway High-Lift Trucks
- Sideloaders
- Order Picking Systems
- Heavy-duty Transport Vehicles
- Reach Trucks
- Special-Purpose Vehicles
- Second-Hand and Rental Equipment