

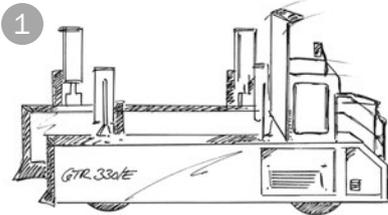
GLASS TRANSPORT SYSTEMS



made
in
Germany

www.hubtex.com

HUBTEX.
WE CREATE THE UNIQUE



We create the unique

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.

➤ 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 ABOUT HUBTEX

- Headquarter: Fulda, Germany
(100 km northeast of Frankfurt/ Main).
- Employees: approximately 400, including more than 50 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.



**MORE THAN 10,000,000
WORKING HOURS OF
EXPERIENCE IN GLASS
HANDLING FOR MORE
THAN 35 YEARS.**

➤ YOUR BENEFITS

MORE SAFETY

- minimized glass breakage
- more visibility for drivers

MORE EFFICIENCY

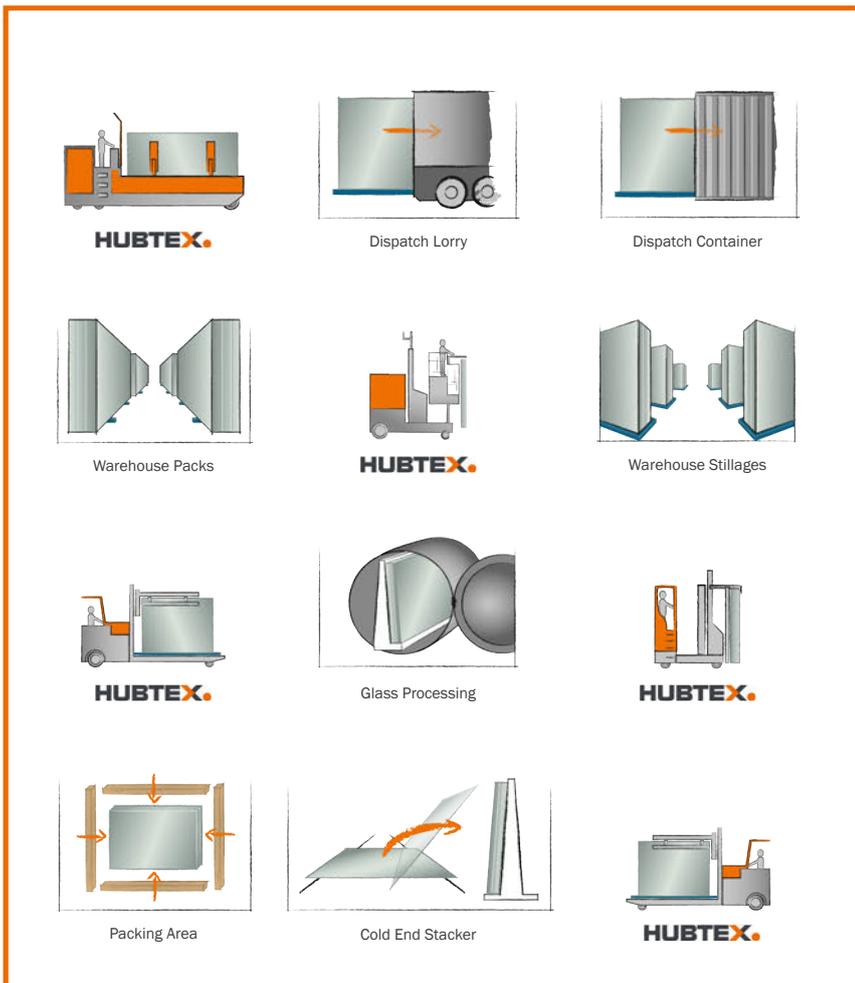
- optimized handling times
- increase of warehouse capacity

LESS COST

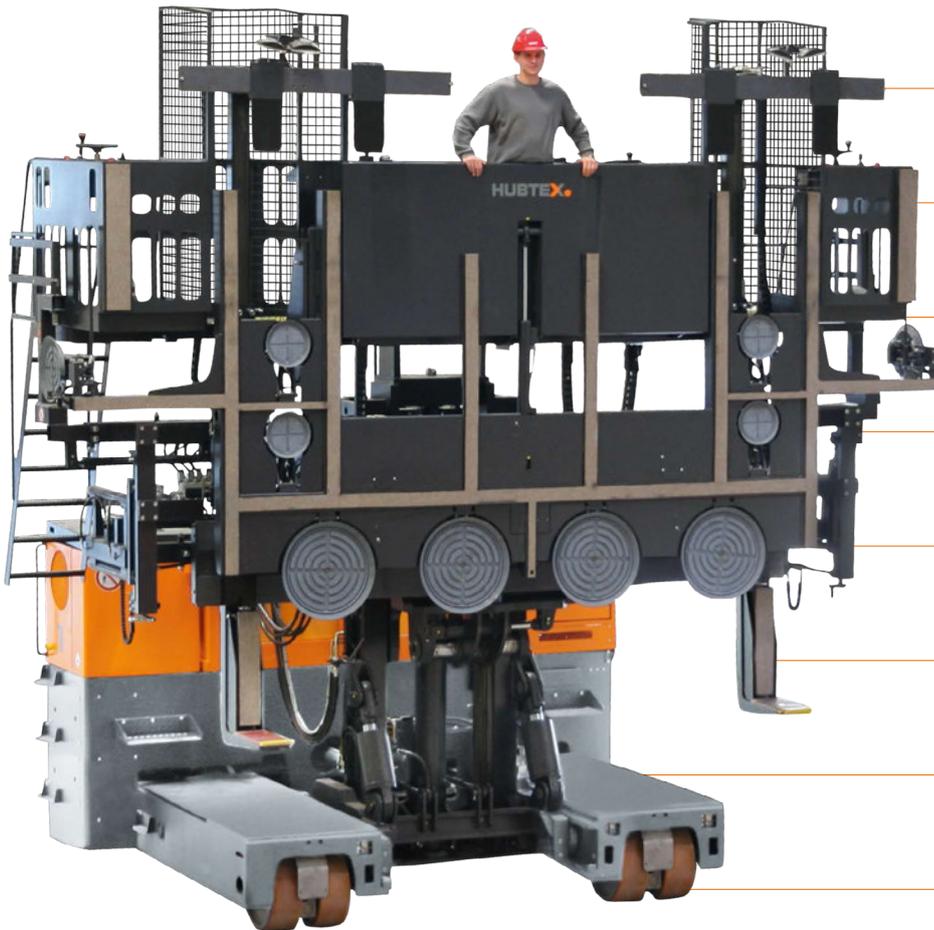
- low operating cost (TCO)
- low personnel cost

LOWEST TOTAL COST OF OWNERSHIP

- high reliability
- only high quality parts



Multidirectional Sideloaders M 150



- 360° degree panoramic view
- Maintenance-friendly design
- Intuitive operating elements
- Extensive safety equipment
- Usage of high quality components
- Load capacities up to 20 tons
- Cost saving HX steering system
- Precise truck movements

➤ 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.

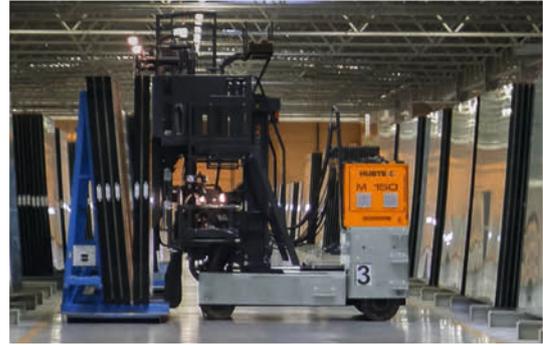


Video of M 150
in action



M 150 offers the driver 360° allround view

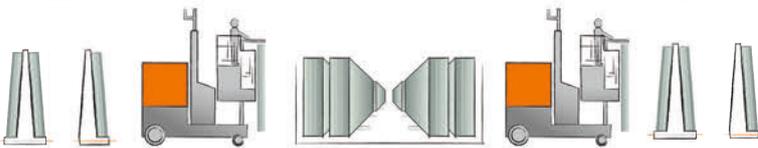
M 150 moves glass packs from a stillage to floor beares in a narrow aisle



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)

**OPTIMIZE YOUR WAREHOUSE CAPACITY!
FLOW FOR GLASS PRODUCTS:**

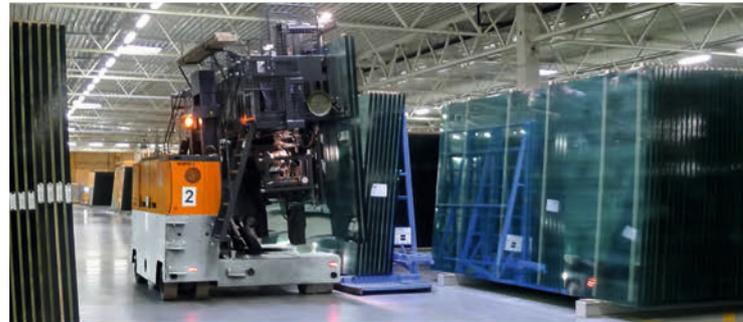


SUITABLE FOR GLASS PRODUCTS:



- **Width:**
4500 – 7000 mm
- **Height:**
2600 – 3400 mm

M 150 provides optimized visibility for the operator



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

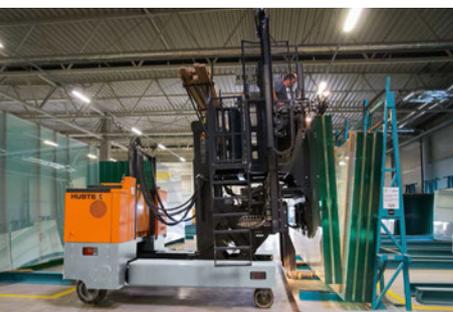


M 150 storing glass packs on floor beares to increase warehouse density

Multidirectional Sideloaders M 90



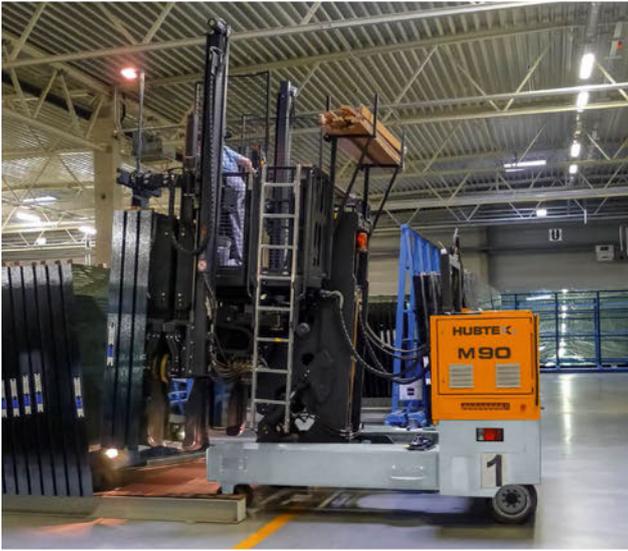
- 360° degree panoramic view
- Maintenance-friendly design
- Intuitive operating elements
- Extensive safety equipment
- Usage of high quality components
- Load capacities up to 9 tons
- Cost saving HX steering system
- Precise truck movements



M 90 preparing customer orders

➤ 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.

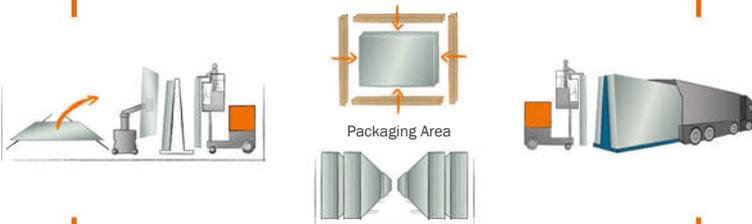


M 90 storing glass packs on floor bearers



M 90 offers optimized visibility

**OPTIMIZE YOUR WAREHOUSE CAPACITY!
FLOW FOR GLASS PRODUCTS:**



SUITABLE FOR GLASS PRODUCTS:



> **Width:**
1605 – 3660 mm

> **Height:**
1605 – 3660 mm

> **Width:**
1605 mm

> **Height:**
800 mm



M 90 loading glass packs directly on a lorry



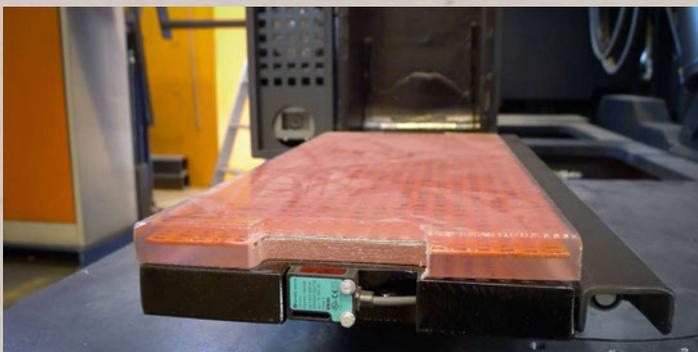
M 90 handling glass packs in end caps

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



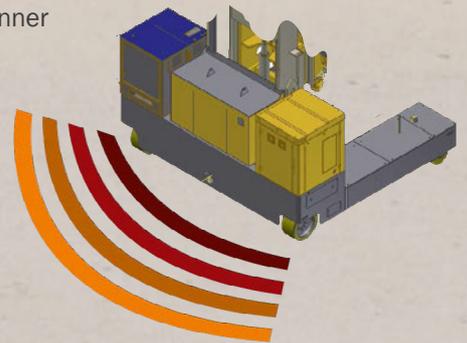
➤ FEATURES MULTIDIRECTIONAL SIDeloadERS

➤ vacuum attachment for single glass sheet handling



➤ anti glass breakage fork sensor kit

➤ anti-collision-scanner



➤ cost and time saving HX steering system

**HX
STEERING**





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



M 150 S0 stores glass packs in collars on two levels

➤ 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 multi-directional sideloaders that provide solutions to these challenges.

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



Multidirectional Sideloaders handles PV-modules on an A-stillage



MQ 45 handles L-stillages with raw glass



Glass Frame Transporter GTR



➤ Synchronous vertical lifting system

➤ Vertical glass clamps

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

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

➤ Increased operators position

for best visibility and high safety standards

➤ Latest generation of power controls

with high energy efficiency

➤ Intuitive operating elements

➤ Easy entrance to cabin

with durable anti-slipping steps and handrails

➤ Maintenance-friendly truck design

➤ Electric, Diesel or LPG drive



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

➤ 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.



Video of GTP in action



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



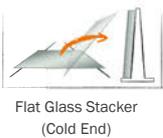
GTR 330 E unloading 33 tons stillage from cold end stacker

GTR 330 E feeding packing tables with unpacked glass packs



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

**INCREASE THE EFFICIENCY OF YOUR INTERNAL PROCESSES!
FLOW FOR GLASS PRODUCTS:**



Flat Glass Stacker (Cold End)



Warehouse Stillages

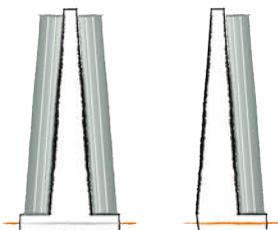


Dispatch Lorry



Glass Processing

SUITABLE FOR GLASS PRODUCTS:



➤ A and L-stillages with lateral lifting rails



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



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

➤ FEATURES GLASS FRAME TRANSPORTERS



- sensors on clamps to avoid pressure on glass packs



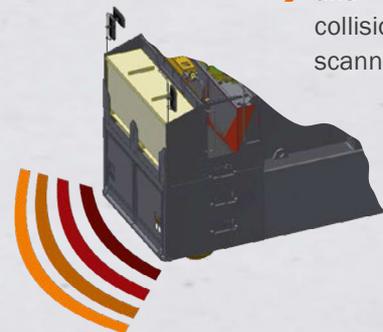
- frame-integrated color camera and illumination for more safety



- sensors for automatic speed reduction during stillage pick-up



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



- anti-collision-scanner





GTR unloading stillage from trolley



GTR for handling of LES stillages in a coating line

➤ 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 with special device to transport glass stillages with fork pockets



TR with adjustable loadarms to achieve



compatibility with trolleys



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

Glass Frame Transporter GTT

- Stand-up platform or sit-down cabin

both in open or closed version available

- Latest generation of power controls

with high energy efficiency

- Intuitive operating elements

- Maintenance-friendly truck design

- Electric, Diesel or LPG drive



- Glass securing device

- Platform dimensions adaptable to stillage design

- Synchronous vertical lift systems



GTT 330 for indoor use

➤ GLASS FRAME TRANSPORTERS 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.



TT loading an autoclave



TT unloading an autoclave

GTT 330 for combined in- and outdoor use



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

**INCREASE THE EFFICIENCY OF YOUR INTERNAL PROCESSES!
FLOW FOR GLASS PRODUCTS:**



Flat Glass Stacker (Cold End)



Warehouse Stillages

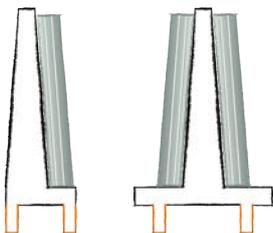


Glass Processing



Dispatch Lorry

SUITABLE FOR GLASS PRODUCTS:



➤ A and L-stillages with feet



USE OF LITHIUM-ION BATTERIES

Through the use of lithium-ion batteries, users with lengthy deployment times are able to enjoy a rapid return on investment thanks to a significant reduction in ancillary and follow-on costs. In most cases, users are able to avoid switching batteries, as they can reach full charge within as little as one hour. By design, lithium-ion batteries recharge using energy flows fed back from the vehicle.

Automated guided vehicle (AGV)

Automating logistics processes opens up a whole new dimension in the way they are organised, making a key contribution to the fourth industrial revolution. Automated guided vehicles, or AGVs, are an integral part of our portfolio of solutions for fully and partly automated intralogistics systems.

The installation of sensors for optical, laser-based or inductive driving enables vehicles to follow a set route or automatically complete a certain task without an operator needing to be present. These systems can be integrated into existing structures and also boast a high level of versatility. This is a key feature that guarantees 100% reliability through the use of cutting-edge technology.

Thanks to the use of our lithium-ion battery technology, our AGVs can be integrated into high-performance logistics concepts for 24-hour deployment. Don't delay – slash your operating costs and enhance the efficiency of your warehouse logistics today.





ENDURANCE AND STABILITY TEST OF ALL PRODUCED MACHINES PRIOR TO DELIVERY

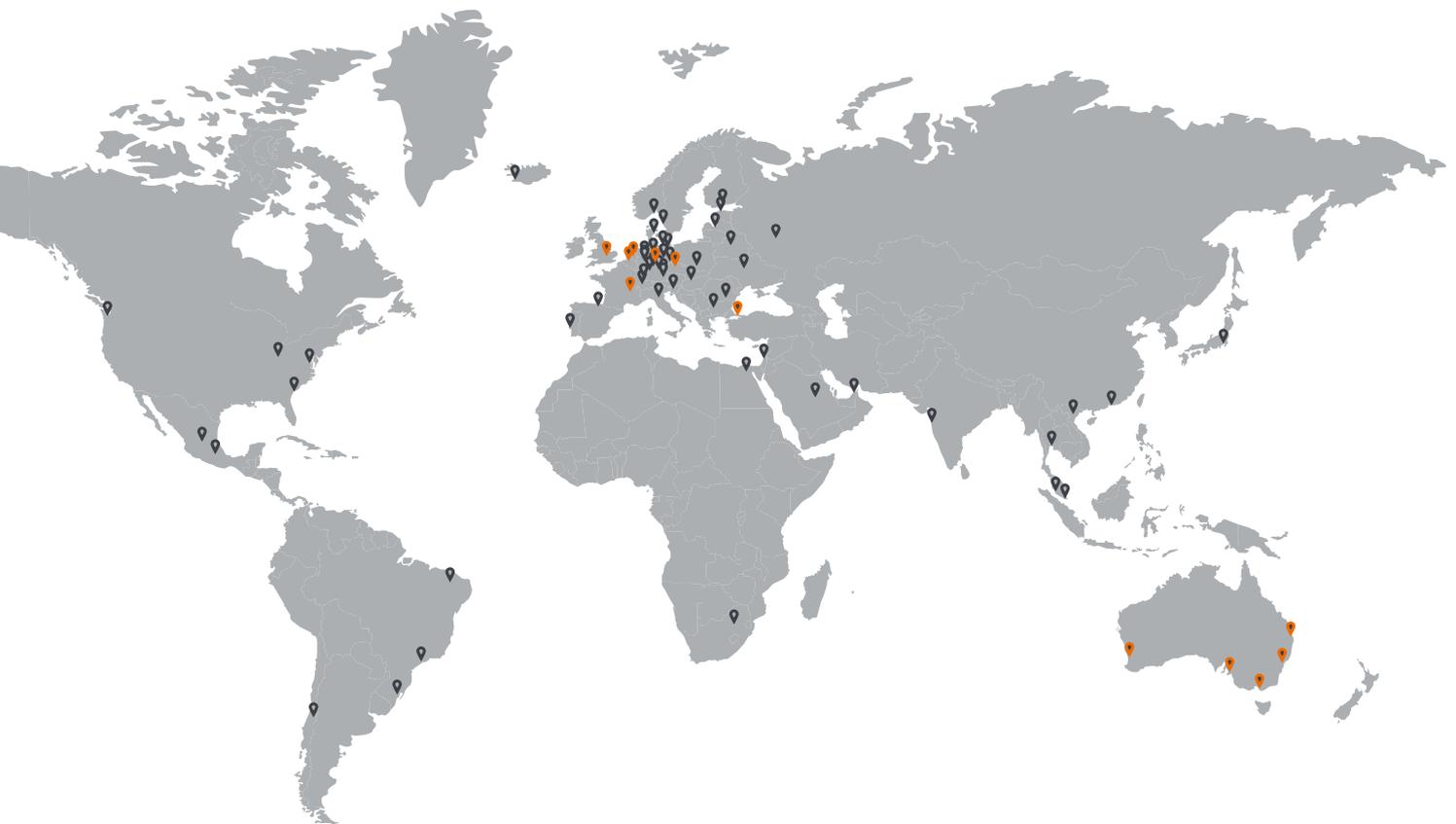
All HUBTEX trucks are tested prior to delivery. For example all trucks have a full stability test in accordance with EN 1726-1 and an endurance test under full load.

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.

- ISO 9001:2008
- Producer qualification
"Welding" according to
DIN EN ISO 3834-2,
DIN 18800-7, Class E,
EN 1090, EXC 3
- Certificate
„Sicher mit System“
(systematically safe)

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.

➤ MORE THAN 100 HIGH-SKILLED SERVICE TECHNICANS

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.

› OUR CUSTOMERS



PILKINGTON



GLASS UNLIMITED



Visteon®



see it. feel it



Glass all around us



cebrace



AGC Obeyon



Mediterranean Float Glass



New World Glass

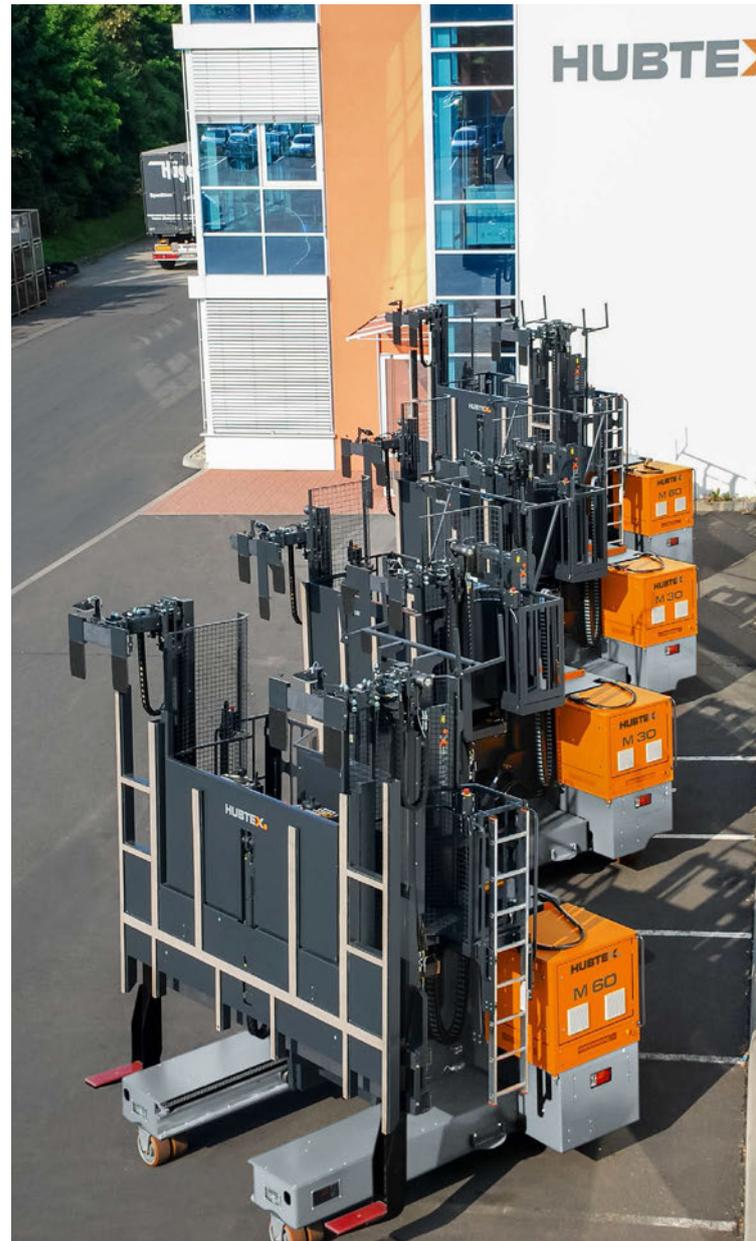
CARDINAL FG ↗

... and many more

› 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).



HUBTEX SECTORS

ALUMINIUM › AUTOMOTIVE › AVIATION › BUILDING MATERIALS › COIL › DRUM › FOOD › FOUNDRY › GLASS
METAL › PAPER › PLASTIC › CONTAINER › TEXTILES › TYRES › WIND POWER › WOOD

HUBTEX.

WE CREATE THE UNIQUE

HUBTEX MASCHINENBAU GMBH & CO. KG · Industriepark West · Werner-von-Siemens-Str. 8 · 36041 Fulda, Germany
Tel.: +49 661 8382-0 · Fax: +49 661 8382-120 · info@hubtex.com · www.hubtex.com