# Tegometall





## 1 RACK BRACKETS

The end frame is made from special sections perforated in a 50 mm (1,97 lnch) pattern. 2 are joined by using cross beam to form a frame. Depending on the shelf load, various sections and material thicknesses are used.

## 2 CROSS-BEAMS

Beams are fully welded. They are connected to the frames to form a bay. The beams are held in place by using a safety pin.



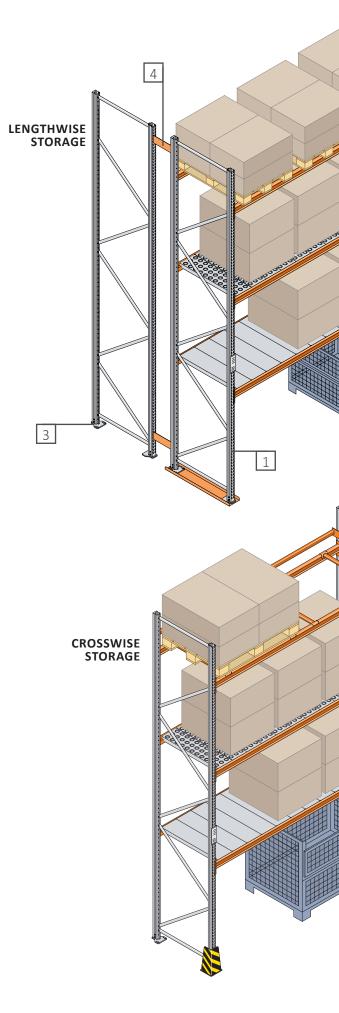


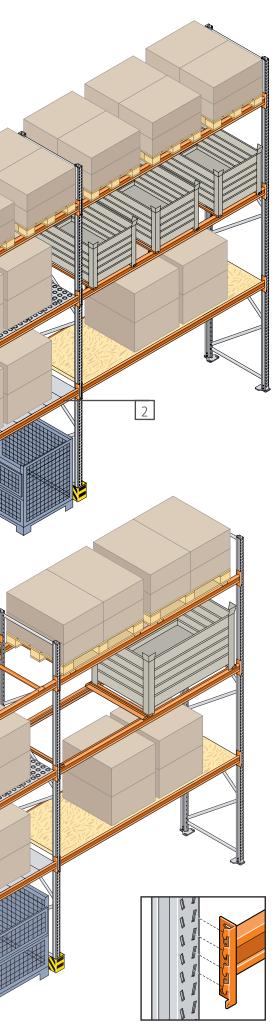
## 3 FLOOR FASTENING

The end frames are securely locked on the ground by using floor anchors. The design depends on the height of the frame and the quality of the concrete on the floor.

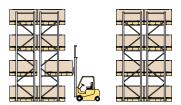
## 4 SPACERS

Spacers are used to connect two bays at a defined distance, thereby giving greater stability. For racking including sprinkler installation, spacers are used to accommodate pipework.



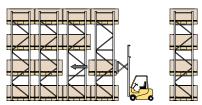


The beams are suspended in the perforated C profile of the rack bracket.



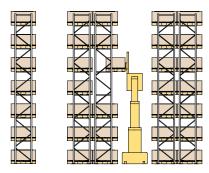
#### WIDE AISLE RACKING

Pallet racks to be served using front and reach trucks allow frame heights up to 11,5 m (452,76 Inch). Individual order picking and staging applications may be achieved by using a full range of accessories.



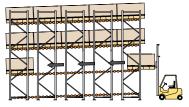
#### DOUBLE RACKING

For applications involving goods of small variety but high in quantity. Space-saving design, as two pallets, each are racked one behind the other so as to manage with fewer aisles.



#### VNA HIGH-BAY WAREHOUSE

Narrow aisles and frame heights up to 16 m (629,92 Inch) give a high storage capacity and allow direct access to goods with a small footprint. These features make this an interesting and popular design.



#### FLOW RACKS

This design is preferably used for a small variety of items but in large quantities and a high stock turnover, serving as buffer storage. It works in line with the FIFO principle and permits up to a 100% increase in space utilization at a high output.



#### DRIVE-IN RACKS

Maximum storage capacity with the lowest space requirements. Loading and unloading is performed on one side. This design is used for food and non food applications where a small variety of items is stored in large quantities.

### TECHNICAL INFORMATION

## Required safety equipment for racks in line with BGR 234

#### 1.1 Increased height of the end frame

By at least 500 mm above the top decking.

#### 1.2 Passageways

Must be provided with a cover (chipboard, grating). Clear passage height must be at least 2000 mm.

#### 1.3 Safety distance

For a distance of less than 100 mm between pallets in a double rack, pallet back stops must be provided.

#### 1.4 End frame

For all free standing end frames, a corner protector must be provided. This also applies to passageways.

#### 1.5 Single bays

When a single bay stands freely and one side is not intended for loading or unloading, this side must be provided with a form of protection against falling of items from racks, e.g., a back panel.

#### 1.6 Crosswise storage

For crosswise storage, pallets or containers must be secured, e.g., using entry bars, chipboard or grating. This does not apply to pallets with stringers in the depth direction.

#### 1.7 Signage

All racking must be provided with signage indicating the load-bearing capacity.

#### Technical provisions for pallet racking

#### 2.1 Rack rows

One rack row must consist of at least four bays.

#### 2.2 Beam levels

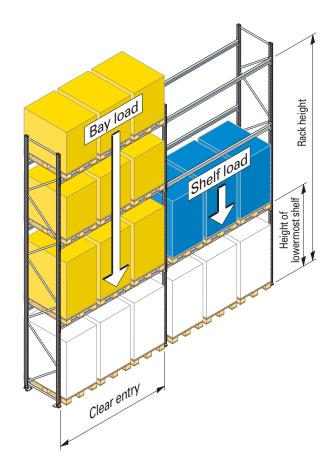
There must be at least two beam levels in each bay.

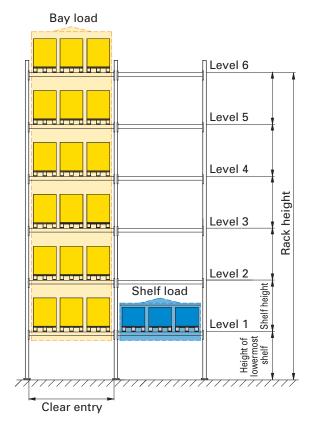
#### 2.3 Shelf heights

Maximum shelf height space is 2500 mm.

#### 2.4 Quality of concrete floor

Minimum floor concrete: C 20/25 according to DIN 1045. Concrete thickness:  $20\,\mathrm{cm}$ .

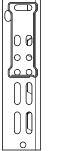


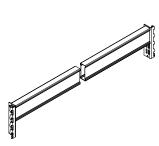




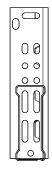
## STORAGE SYSTEMS

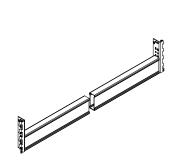
Cross-beam top ITDI



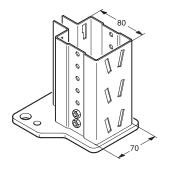


Cross-beam bottom ITDI

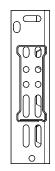




CI 70 x 80



Cross-beam centre ITDI





## INDUSTRIAL STORAGE SYSTEMS

#### URPIGHT PROFILE FOR END FRAME FOR BAY LOAD UP TO 30 000 KG



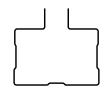
CI 70 x 80 Max. bay load 15 000 kg



CI 85 x 80 Max. bay load 18 000 kg



CI 100 x 80 Max. bay load 24 000 kg

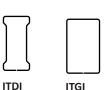


CI 120 x 80 Max. bay load 30 000 kg

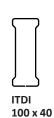
The upright-profiles will be screwed as frames with cross-bars.

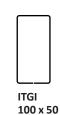
Standard depths are 800 mm for crosswise storage and 1100 mm for alongside storage.

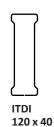
#### CROSS-BEAM PROFILES FOR SHELF LOAD UP TO 5000 KG

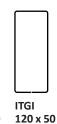


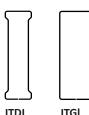








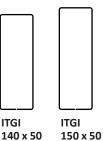


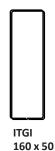


130 x 50

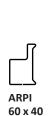
130 x 40



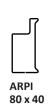


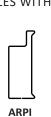


CROSS-BEAM PROFILES WITH STEP FOR SHELVING ELEMENTS 25 MM

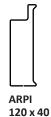


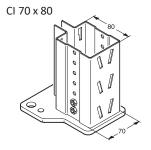
80 x 40

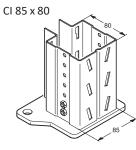


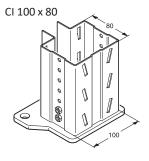


100 x 40











Please note! The grid distance and the adjustability of the cross-bars is 50 mm.

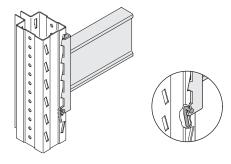
Max. bay load in kg

Cross-beam profile	Upright CI 70 x 80	Upright CI 85 x 80	Upright CI 100 x 80
80 x 50 mm	9000	11 000	12 000
100 x 50 mm	12 000	14 500	15 500
120 x 50 mm	13 500	16 000	17 000
130 x 50 mm	14 000	16 500	17 500
140 x 50 mm	14 000	17 000	18 000
150 x 50 mm	14 000	17 500	18 000



Please note!

The bay load mentioned here is used as example for shelf space height 1250 mm.

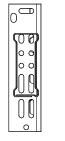


## INSERTING LIFT-OUT PREVENTERS SYSTEM CI

Lift-out preventers are specially designed to fit the hook and system hole geometry. They prevent the cross-beam accidentally becoming disengaged.

Each cross-beam must be installed with two lift-out preventers, i.e. one for each hook-on plate - eachend.

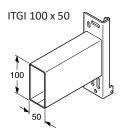
Cross-beam centre ITDI

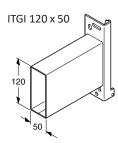


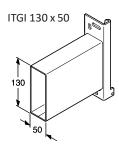


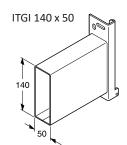
## Max. shelf load per pair of cross-beams in kg — System CI 70x80, CI 85x80, CI 100x80

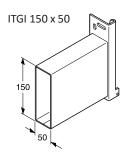
Cross-beam profile	1830 mm	2230 mm	2730 mm
ITDI 80 X 40	2100	1600	1150
ITDI 100 X 40	2900	2500	1900
ITDI 120 X 40	3800	3200	2700
ITDI 130 X 40	4500	4200	3500





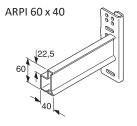


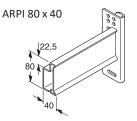


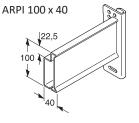


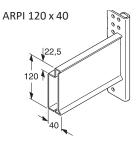
Max. shelf load per pair of cross-beams in kg — System CI 70x80, CI 85x80, CI 100x80

Cross-beam profile	1830 mm	1930 mm	2230 mm	2730 mm	2830 mm	2930 mm	3330 mm	3630 mm	3730 mm	4030 mm
ITGI 80 X 50	2300	2200	1900	1375	1300	1200	800	500	400	100
ITGI 100 X 50	3100	3000	2700	2200	2100	2000	1600	1300	1200	900
ITGI 120 X 50	3900	3800	3500	3000	2900	2800	2450	2100	2000	1700
ITGI 130 X 50	4200	4100	3800	3300	3150	3000	2700	2400	2300	2000
ITGI 140 X 50	4400	4300	4000	3500	3400	3300	3000	2800	2700	2400
ITGI 150 X 50 X 2.0	5000	4900	4600	4100	4000	3900	3500	3200	3100	2800
ITGI 150 X 50 X 2.5	5800	5700	5400	4900	4800	4700	4300	4000	4000	3700
ITGI 150 X 50 X 3.0	6100	6000	5700	5200	5100	5000	4700	4400	4300	4000





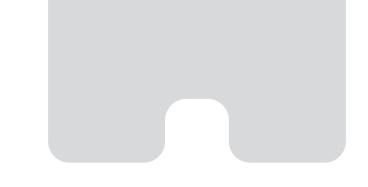




Max. shelf load per pair of cross-beams in kg -System CI 70x80, CI 85x80, CI 100x80

Cross-beam profile	1830 mm	2230 mm	2730 mm
ARPI 80 X 40	1700	1400	1000
ARPI 100 X 40	2500	2100	1700
ARPI 120 X 40	3300	2800	2400

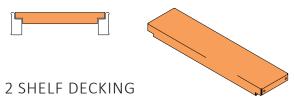
## **ACCESSORIES**



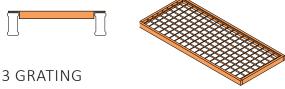


permeability for fire protection reasons.

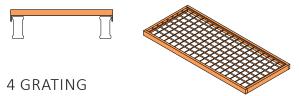
With our full range of accessories you may build a storage rack, which suits your individual requirements. Besides the accessories shown here, other variations and designs to match specific industries and applications are available. Please contact us – we will be happy to provide advice



Made of steel sheet. The classic concept for high loads.



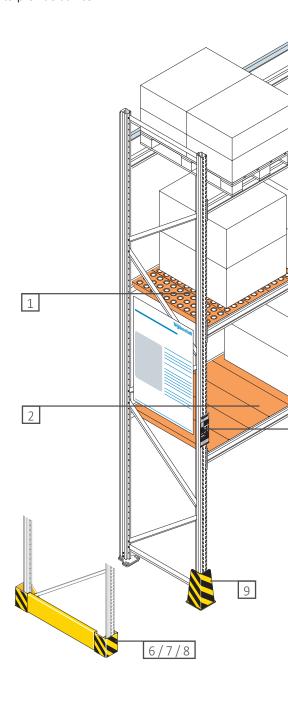
Inserted with welded angle or U-profile. Benefical for space saving.



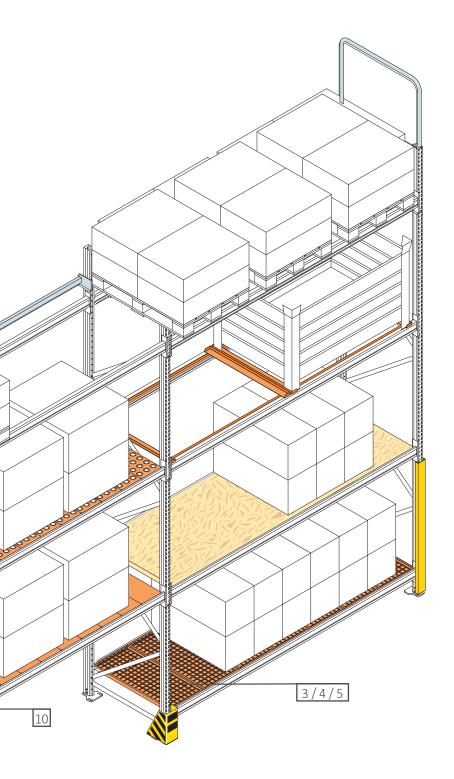
Laid on with stops to prevent items dislodging.



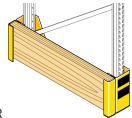
For light and medium loads, e.g. cardboard boxes.



## SAFETYEQUIPMENT

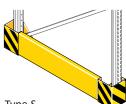


In day to day warehouse operation, safety can only be ensured with matching components. For instance, warehouses with a high stock turnover, which are served with reach trucks, different aspects have to be considered, compared with a narrow aisle rack. The new DIN EN 15635 standard will govern the safety of storage systems, including training and annual rack inspections. We will be pleased to devise a tailored concept for you.



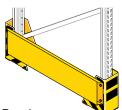
#### 6 BUMPER

Wood for rack end. Easily removable wooden beam.



7 BUMPER, Type S.

Rugged design with 28 mm (1,10 Inch) round bar steel in the corners.



8 BUMPER, Type L. with removable steel guard rail.



#### 9 CORNER PROTECTOR

Standard device to protect rack corners.



#### 10 LOAD LABEL

Showing all required information including com. no., shelf load, bay load, etc

II Zuverlässigkeit zählt.

Reliability matters.



Management Head Office Lengwil (CH)

**Administration** Konstanz (DE) Production
Lengwil (CH)
Krauchenwies (DE, shopfitting)
Sauldorf (DE, storage technology, coil slitting)
Grantham (GB)
Šentjur (SI)
Pniewy (PL)

Sales Lengwil (CH) Nottingham (GB) Forbach (FR) Šentjur (SI) Pniewy (PL) Logistics Krauchenwies (DE, logistic centre) Grantham (GB) Nottinghamshire (GB) Forbach (FR) **■ Zuverlässigkeit zählt.** 

**I** Reliability matters.

