GT 24 Lattice Girder
User Information

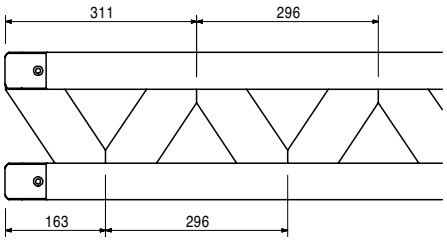
1. Identification markings

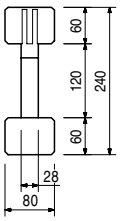
of the GT 24 lattice girder, referred to as GT 24 in the following.
The GT 24 is classified according to EN 13377:2002 (D) in Girder Class L 24.



*BWU02 - Testing Institute for Steel, Wood and Stone of the Institute for Technology (KIT) in Karlsruhe

2. Dimensions and weight





Nominal Length [m]	Actual Length [mm]	Weight [kg]
0,90	918	5,30
1,20	1214	7,10
1,50	1510	8,90
1,80	1806	10,60
2,10	2102	12,40
2,40	2398	14,20
2,70	2694	15,90
3,00	2990	17,70
3,30	3286	19,50
3,60	3582	21,20
3,90	3878	23,00
4,20	4174	24,80
4,50	4470	26,60
4,80	4766	28,30
5,10	5062	30,10
5,40	5358	31,90
5,70	5654	33,60
6,00	5950	35,40
Overlength up to L = 17,80 m		5,90 kg/m

3. GT 24 application

The GT 24 is used as formwork girder for all areas of forming.
Main areas are wall-, column-, slab- and special formworks.

3.1 Wall- and column formworks

The GT 24 is used for constructing wall formwork elements. It serves to support the formlining which has direct contact to the fresh concrete during concreting. It transfers the loads from the fresh concrete pressure to the steel walers which support it on the side opposite the formlining. The GT 24 and steel waler are connected by means of hook straps.

3.2 Slab Formwork

The GT 24 is used as a main beam with support provided by a crosshead or clawhead, or directly through the head plate of a slab prop. It is also used as a secondary beam for transferring slab loads into the main beam. In both cases the GT 24 must project 163 mm over the axis of the beam to be supported.

GT 24 Girder
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3.3 Further applications

In addition the GT 24 is also used for stopends at slab edges as well as for special forms.

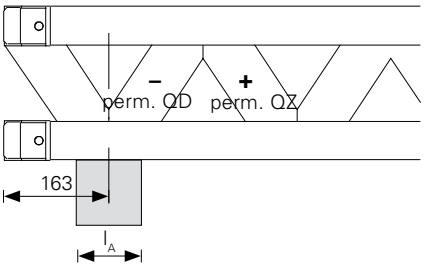
4. Mechanical properties

The maximum support forces, shear forces and moments are to be taken from the following sketches (permissible loads).
The permissible values are calculated with γM = 1,3 / kmod = 0,9 / γF = 1,5.

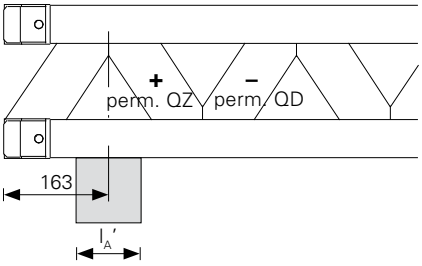
Bearing width for transferring the max. support force lA ≥ 135 mm, lA' ≥ 145 mm

Flexural strength: EI_x = 887 kNm²
I_x = 8064 cm⁴

Girder end area

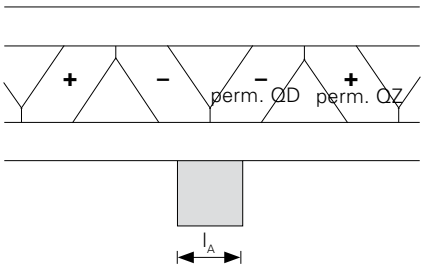


perm. A_n = 16.0 kN
perm. Q_D = 14.0 kN
perm. Q_Z = 13.0 kN

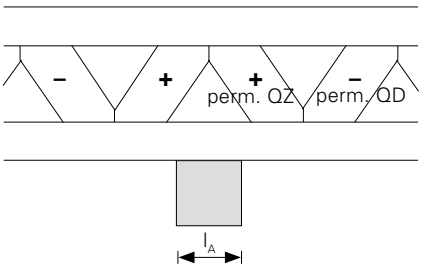


perm. A_m = 13.0 kN
perm. Q_Z = 13.0 kN

Girder middle area



perm. A	=	28.0	kN
perm. M_n	=	7.0	kNm
perm. Q_D	=	14.0	kN



perm. A	=	20.0	kN
perm. M_m	=	4.0	kNm
perm. Q_Z	=	13.0	kN

5. Handling of damaged girders

Due to its low weight, the GT 24 is basically moved, assembled and dismantled by hand. No damage occurs through the use of machinery. Damage could occur if the GT 24 falls to the ground from a great height or is shortened by means of a saw. The GT 24 is to be inspected before every use for signs of damage and, if necessary, taken out of service.

6. Storage

The GT 24 is stored in a horizontal position: chord on chord or chord on web. The entire surface is to be supported in order to avoid any distortion occurring.

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