

ITAS – Industrial stairs and working platforms



Platform with staircase on a web offset machine.

The ITAS-system is suitable for many outdoor and indoor applications from the simplest railings to complicated stairs and working platforms.

The easy "socket connection principle" of the internal tension system reduces construction and assembly work to a minimum.

A positive connection is created by tightening the special clamping screws. The smooth contour transitions are pleasant to the touch and ensure enhanced safety.



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Industrial stairs and working platforms

General information/
Operation conditions..... from page 226

Internal tension system..... from page 228

Quick change system from page 238

Accessories from page 244



ITAS – Industrial stairs and working platforms

...no drilling or welding, no mitre cut – just assemble.

delivery
from stock



Internal tension system

Principle: The clamping rocker is tilted by screwing in the set screw. The other side of the clamping rocker pushes the pressure piece against the inner side of the tube. Without the need for any mechanical machining, the tube construction is positively and quickly connected by simply tightening a screw.

Hebelspannsatz bestehend aus Klemmschraube, Klemmwippe, Druckstück und Verschlusskappe



Quick change system

Working and machining areas which in the past required additional guards can now be made accessible with just a few flicks of the wrist and without the need for any tools thanks to the ITAS quick change system. This makes the complicated removal of entire rail segments a thing of the past.



Features:

- Connect tubes without annoying transitions
- No mechanical treatment required – just cut the material to length and assemble
- Flexible – elements can be dismantled at any time
- Simple and stable system
- Plan and assemble – it's as simple as that!

Options:

- Other surface colours are available on request

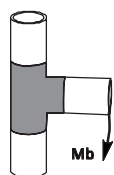


ITAS – Technical data

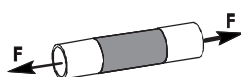
Basic information / mechanical properties

- ITAS die-cast elements
- clamping mechanism inside from steel (zinc plated)

Loads

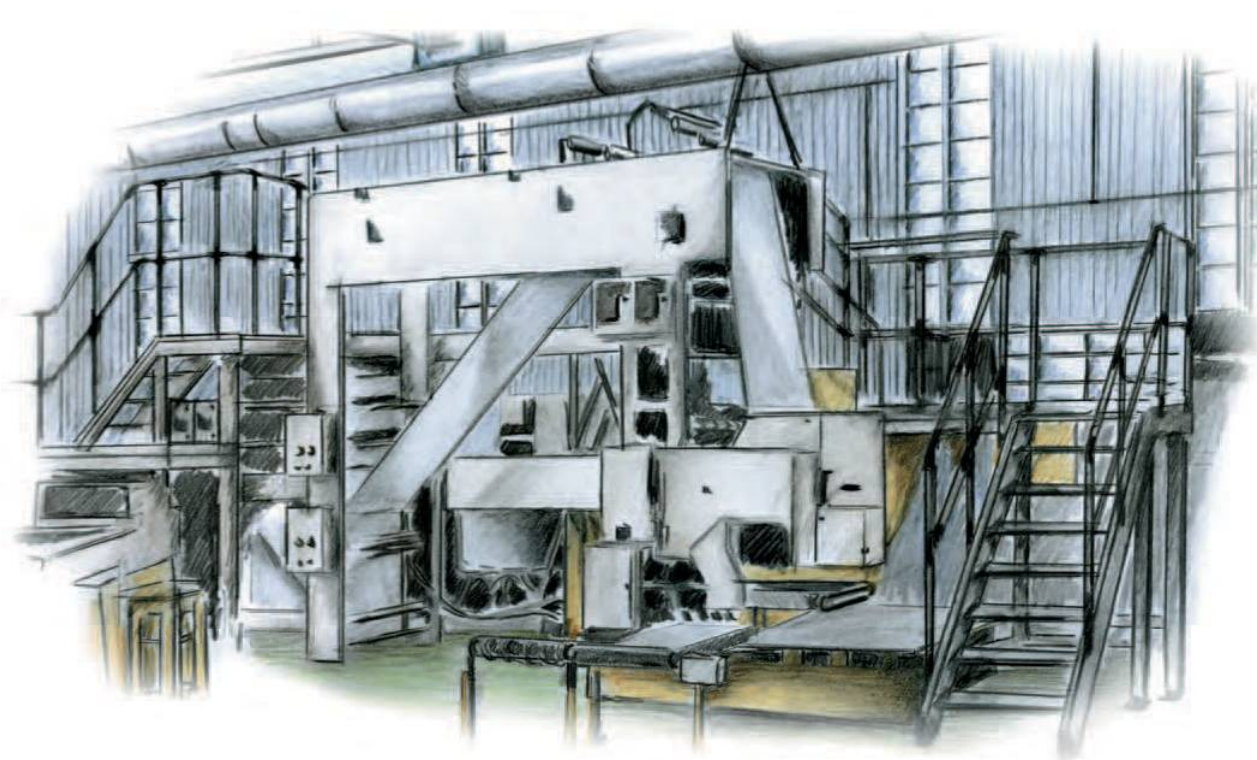


Bending moment Mb [Nm]



Adh. force: static pull,
dynamic pull+pressure

Size Type	Including static safety factor $\nu = 2,5$		Including dynamic safety factor $\nu = 1,5$	
	F [N]	Mb [Nm]	F [N]	Mb [Nm]
FI 40	1250	340	1200	160
MI40	1250	340	1200	160
WI40	1250	200	1200	160
WIT40	1250	200	1200	160
WIE40	1250	200	1200	160
WITE40	1250	200	1200	160



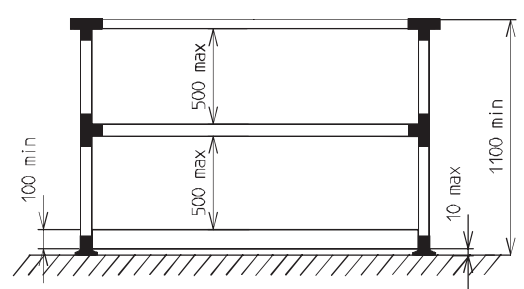


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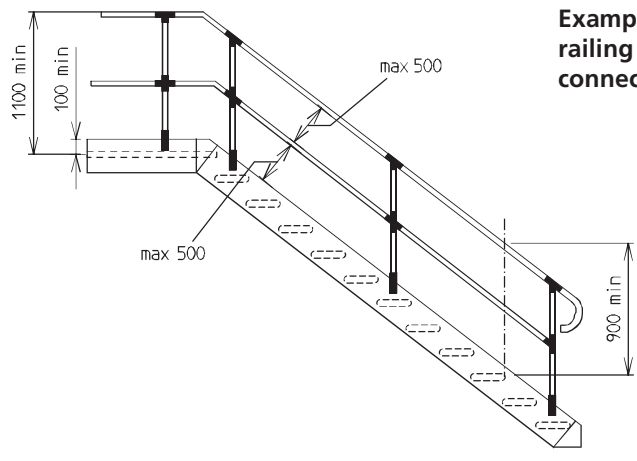
Introduction
Selection guide
Light Clamps
Solid Clamps
Robust Clamps
Accessories
ITAS
Support arm system
Appendix

ITAS – Load data

- Load data according to DIN 1055
- Maximum permitted load of railing (distance between pillars 0,7 m) 500 Nm
- The maximum permitted load of the platform depends on the base construction. It cannot exceed the maximum permitted load of the base clamps used.
- Technical safety requirements in accordance with DIN EN ISO 141221-4
- Maximum permitted load of steps (for a length of 1,2 m) 1500 N
- The railing must have at least one knee rail
- Do not exceed a free space between the handrail and knee and foot rail of 500 mm
- Fit a foot rail with a minimum height of 100 mm maximum 10 mm above the step level
- Maximum permitted load of stairs cross beams (for a 45° angle and a length of 4 m without support) 3500 N
- A staircase must have at least one handrail
- With a flight width equal to or exceeding 1200 mm two handrails must be provided in the same manner as with all ladder stairs.

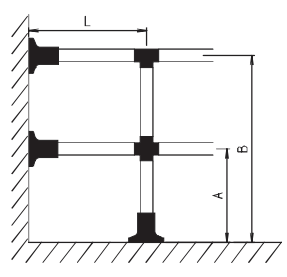


Example for a horizontal railing

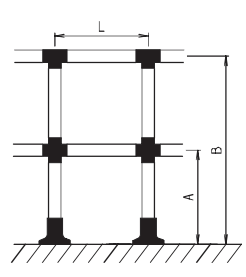


Example for a stair railing - catwalk connector

Building regulations for railings according to UVV, VBG1 and conforming to DIN EN ISO 14122-3 "construction type" tested.



Example 1: wall and floor fixing

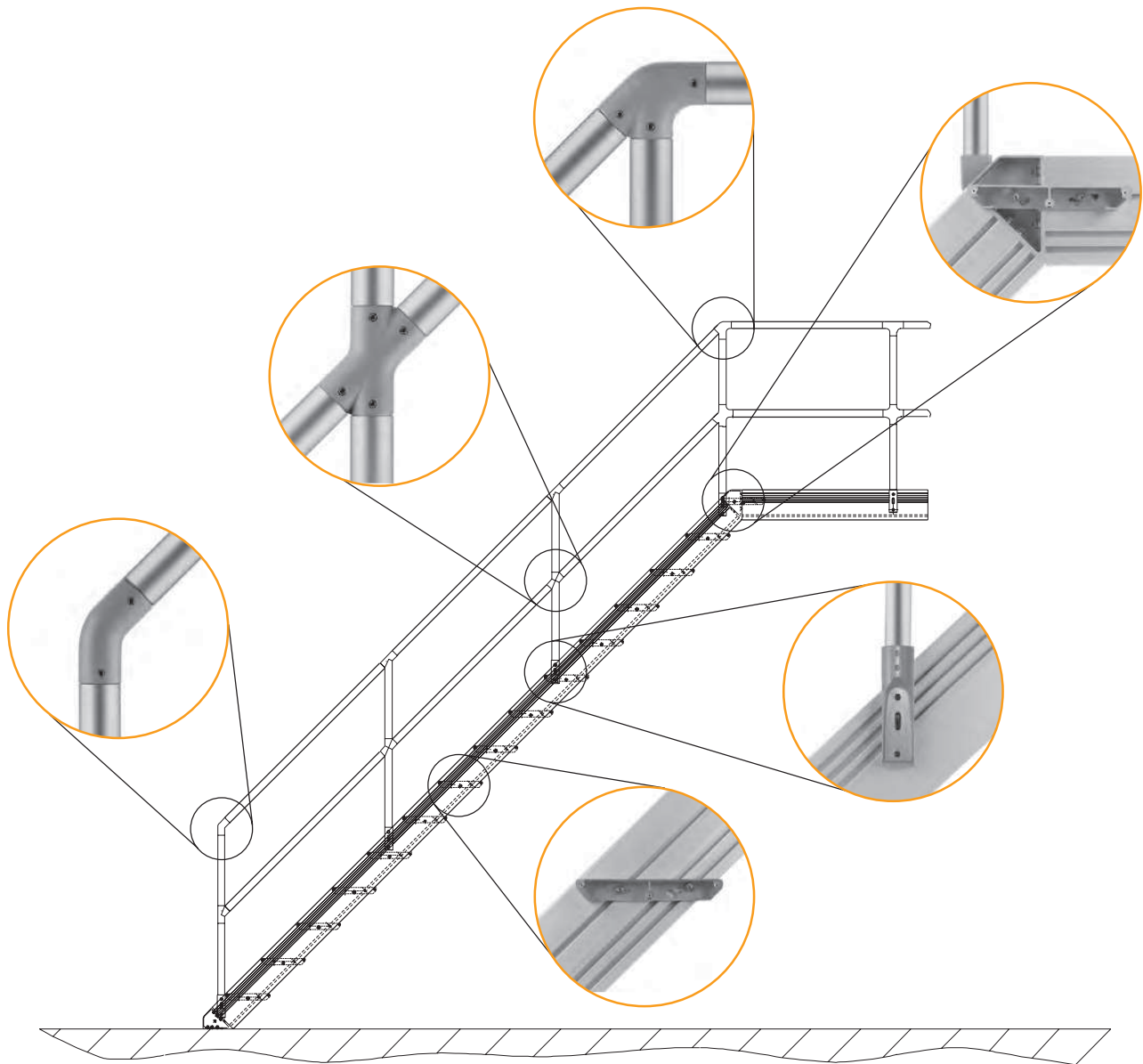


Example 2: self-supporting with floor fixing

Example	Dimension max. [mm]		
	A	B	L
1	500	1000	1500*
2	500	1000	1500*

* The support spacing "L" must ensure that 340 Nm for base type FI40 is not exceeded.

ITAS – Internal tension system



Features:

- Technically optimised solution for the installation of railings, frame structures, boundaries, superstructures, stairs and working platforms of all kinds.
- The smooth transitions between all of the elements used and the connecting tube are kind on the hands
- Positive, quick connection with the simple tightening of a screw – without the need for any mechanical machining

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MI 40



KI 40



KI 40H-45°



WIY 40-45°



WI 40



WI 40-45°
30°, 38°, 52°, 60°



WIT 40H-45°R



FIW 40



WIT 40



WIT 40-45°



WIT 40H-45°L



FI 40



WIE 40



WIT 40H-45°



WIV 40H-45°



TSI



WITE 40



KI 40-45°



WIV 40-45°



TSI 40-WI

Introduction

Selection guide

Light Clamps

Solid Clamps

Robust Clamps

Accessories

ITAS

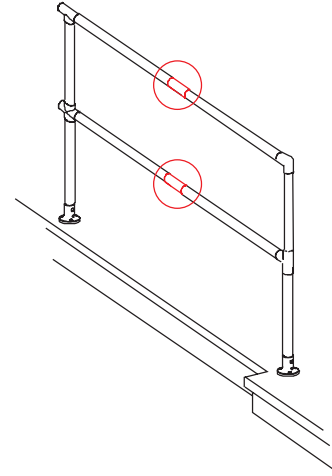
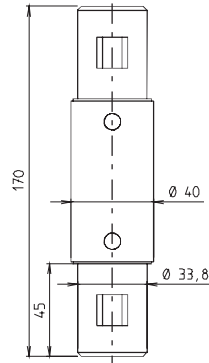
Support arm system

Appendix

ITAS – Internal tension system

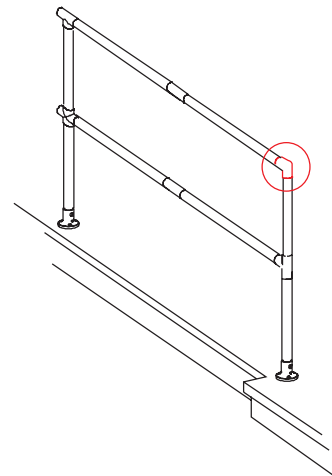
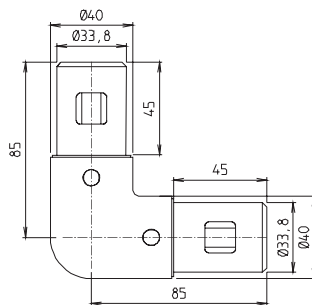
On request:

- ITAS elements in various RAL colours



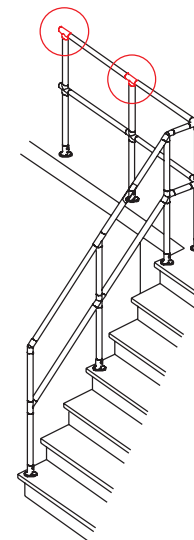
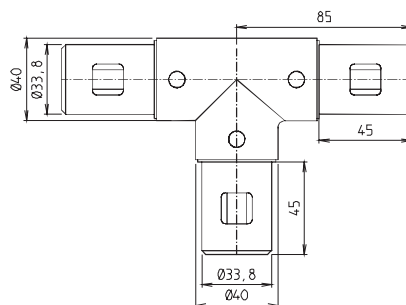
Coupler MI 40

Code No.	Type	m [g]
14403410025	MI 40	453



Elbow 90° WI 40

Code No.	Type	m [g]
11403421025	WI 40	455



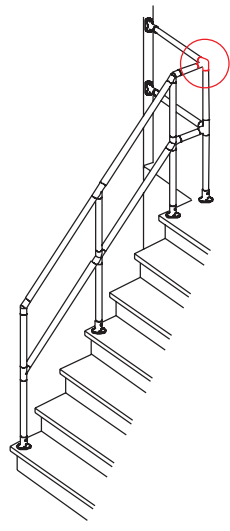
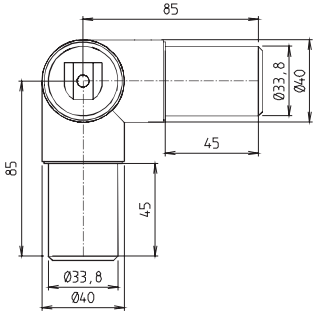
T-joint 90° WIT 40

Code No.	Type	m [g]
11403423025	WIT 40	625



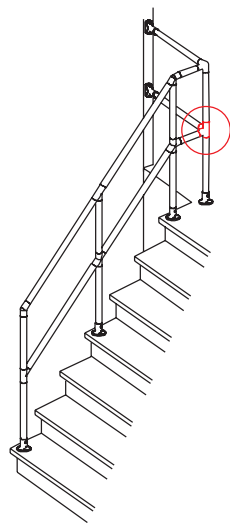
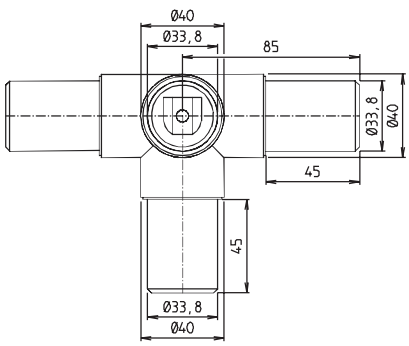
Corner joint WIE 40

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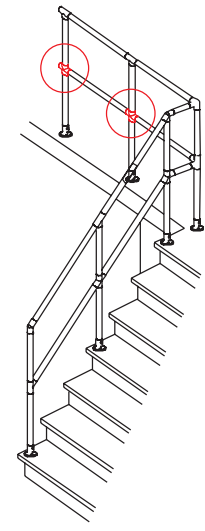
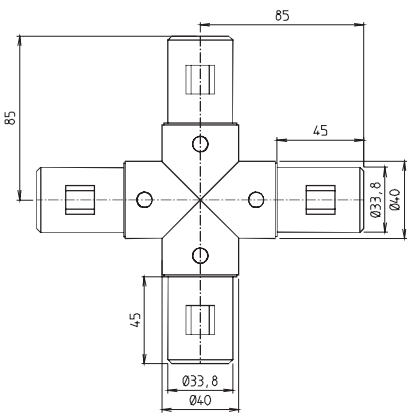
Corner T-joint WITE 40

Code No.	Type	m [g]
11403424025	WITE 40	786



Cross KI 40

Code No.	Type	m [g]
10403410025	KI 40	795



Einleitung
Auswahlhilfe
Light Clamps
Solid Clamps
Robust Clamps
Zubehör
ITAS
Geräteträgerp.
Anhang

ITAS – Internal tension system

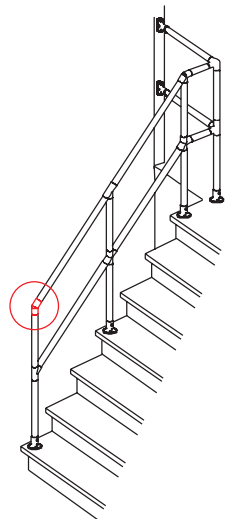
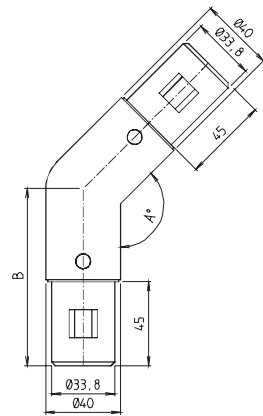
On request:

- ITAS elements in various RAL colours



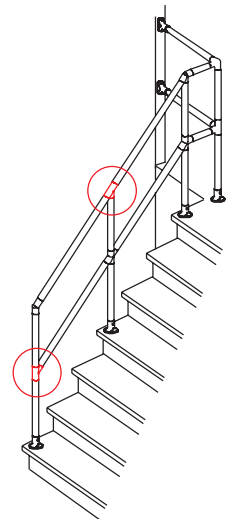
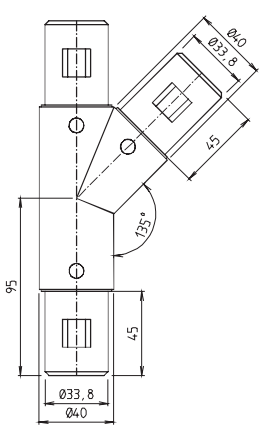
Elbow WI 40

Code No.	Type	A	B [mm]	m [g]
11404521025	WI 40-45°	135°	95	520
11405021025	WI 40-30°	150°	85	456
11404221025	WI 40-38°	142°	85	456
11402821025	WI 40-52°	128°	85	455
11402021025	WI 40-60°	120°	85	455



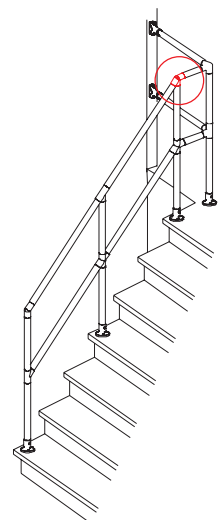
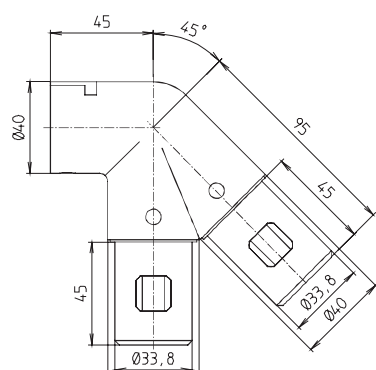
T-joint 45° WIT 40-45°

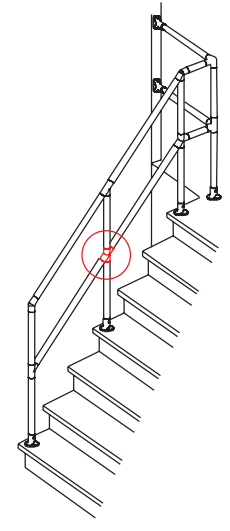
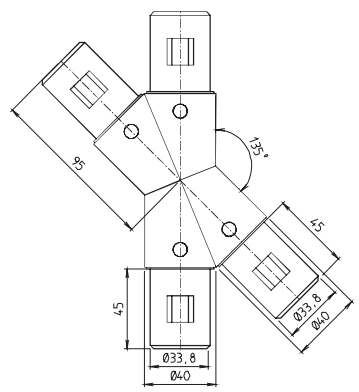
Code No.	Type	m [g]
11404523025	WIT 40-45°	715



T-joint horizontal 45° WIT 40H-45°

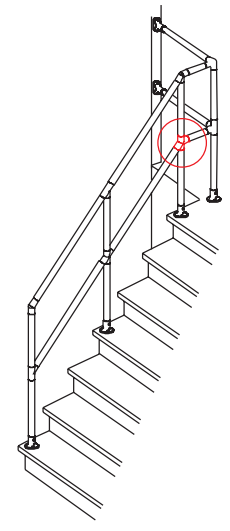
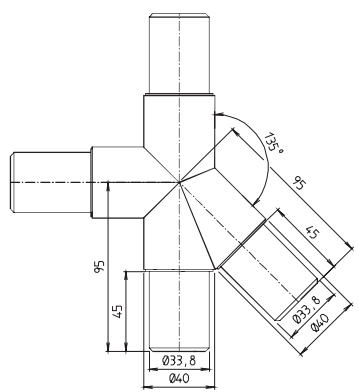
Code No.	Type	m [g]
11404525025	WIT 40 H-45°	715





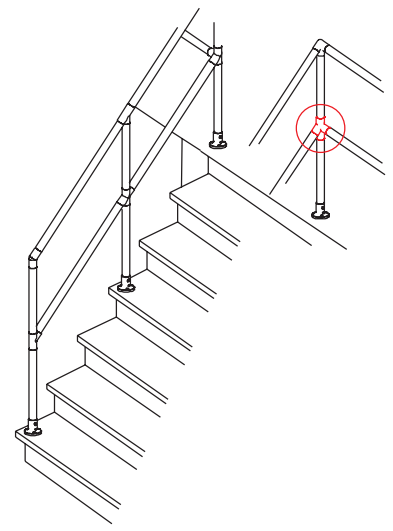
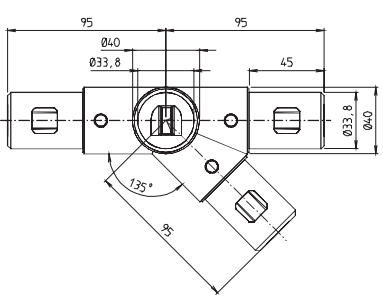
Cross KI 40-45°

Code No.	Type	m [g]
10404510025	KI 40-45°	901



Cross horizontal KI 40H-45°

Code No.	Type	m [g]
10404521025	KI 40 H-45°	940



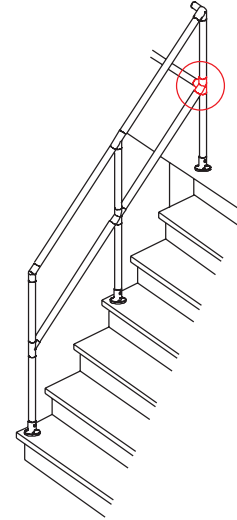
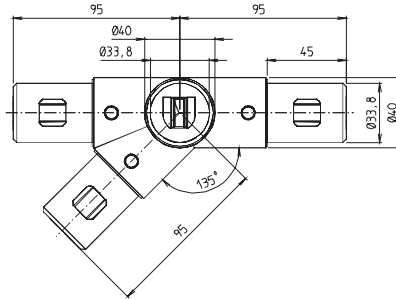
WIT 40H-45°R

Code No.	Type	m [g]
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ITAS – Internal tension system

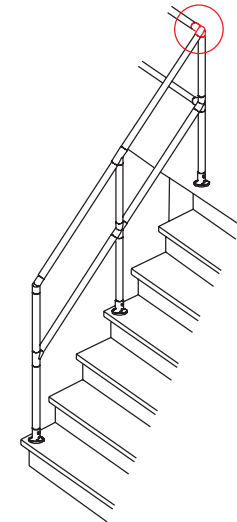
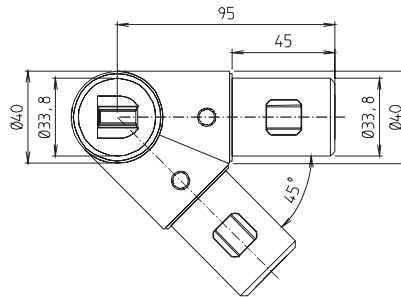
On request:

- ITAS elements in various RAL colours



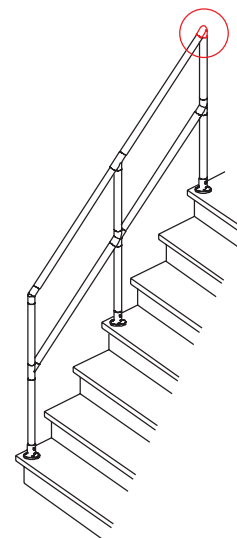
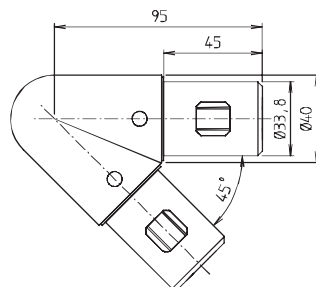
WIT 40H-45°L

Code No.	Type	m [g]
11404529025	WIT 40H-45°L	903



WIV 40H-45°

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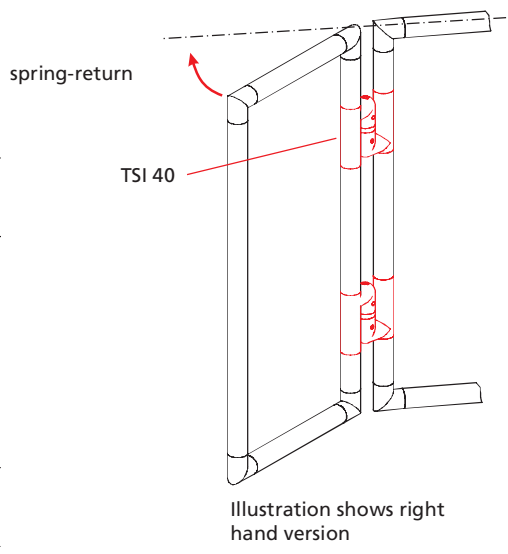
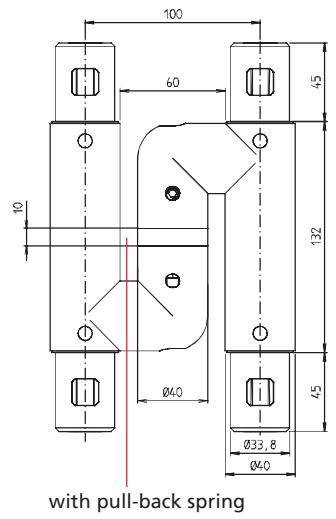
WIV 40-45°

Code No.	Type	m [g]
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ITAS – Internal tension system

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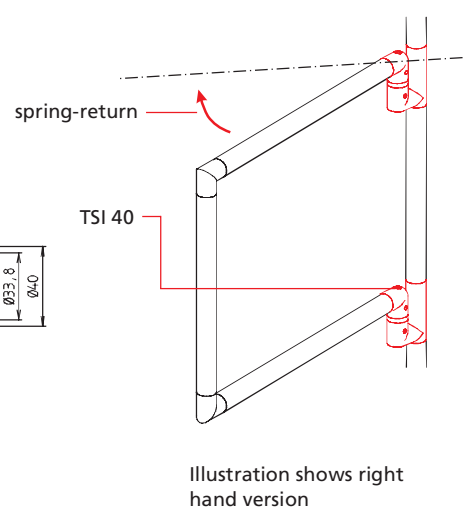
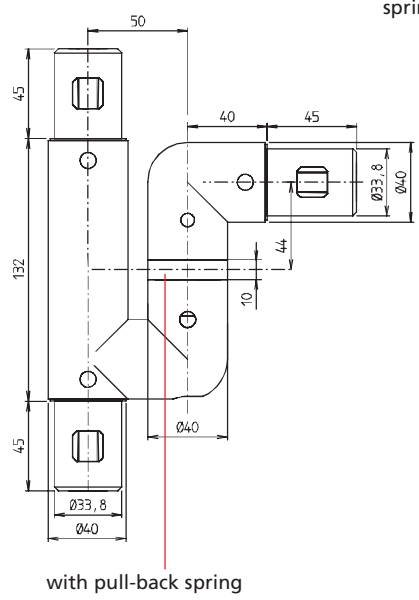
- ITAS elements in various RAL colours



TSI 40

Code No.	Type	Version	m [g]
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18403427025	TSI 40	Left-hand	1849

Attention:
please read the instruction manual



TSI 40-WI

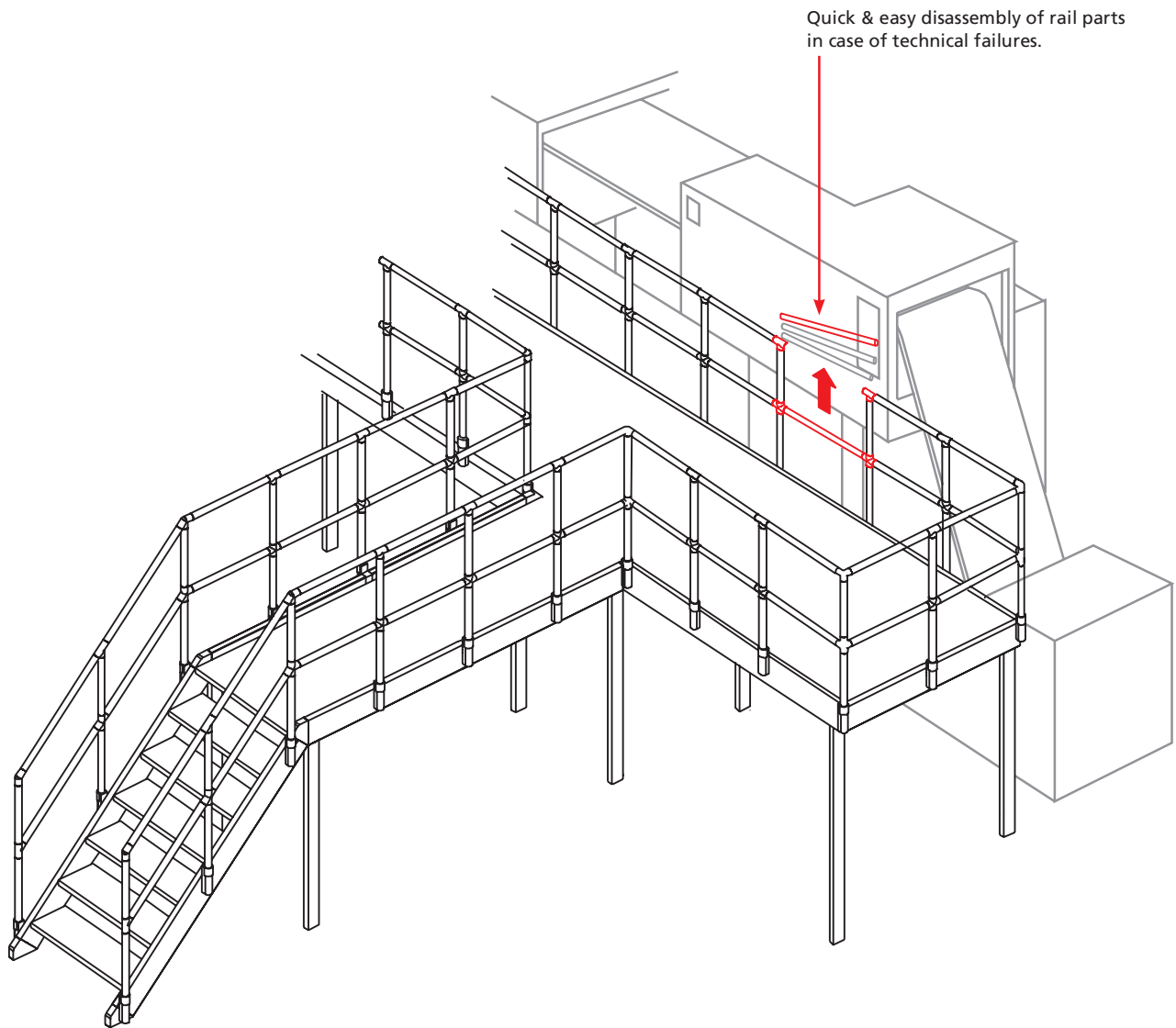
Code No.	Type	Version	m [g]
18403428025	TSI 40-WI	Right-hand	1353
18403429025	TSI 40-WI	Left-hand	1389

Attention:
please read the instruction manual



Crossovers made from ITAS elements provide access to various production areas.

ITAS – Quick change system



Features:

- This system combines the proven flexibility of the internal tension system and an easy assembly and dismantling system which is not to be compared to that of common railing systems.
- It enables protected working and machine areas to be more accessible.
- The new ITAS Quick change system permits an easy access to specific machine parts in case of technical malfunctioning: all you need is to remove the necessary part of the balustrade.



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WI 40-SW1



KI 40H-45°SW1



KI 40-SW2



WIT 40-SW1



WIT 40-SW2



WIT 40H-45°SW1



WIE 40-SW2



WITE 40-SW2

Dismantling of quick change system



Release stopper with a screwdriver



Loosen clamping screw



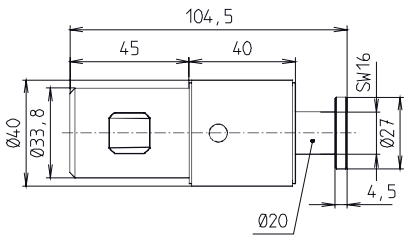
Turn the cross strut to 90° and then raise and release



ITAS – Quick change system

On request:

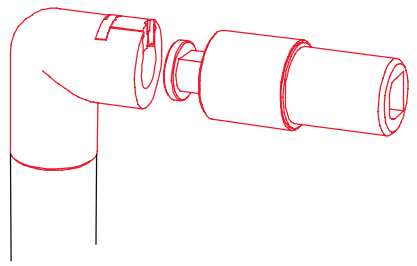
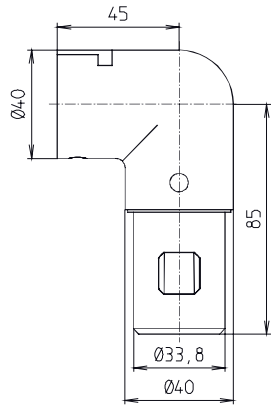
- ITAS elements in various RAL colours



Attention:
The clamping element MI-H 40-SW is included in the delivery set of the following quick change elements. This element does not need to be ordered separately

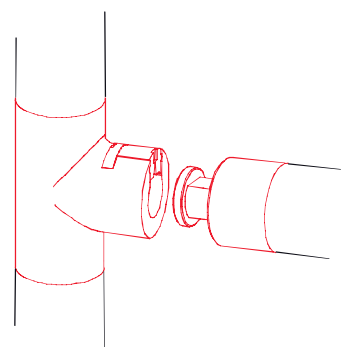
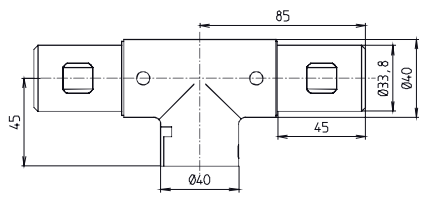
MI-H 40-SW

Code No.	Type	m [g]
14403411025	MI-H 40-SW	307



WI 40-SW1

Code No.	Type	m [g]
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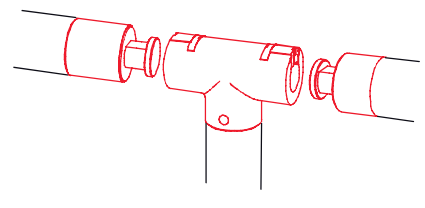
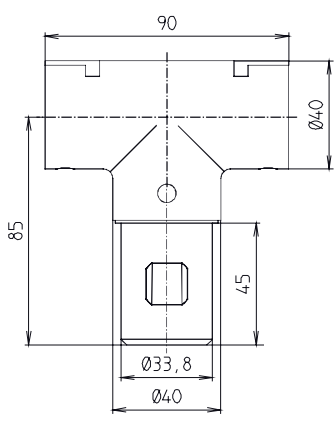
WIT 40-SW1

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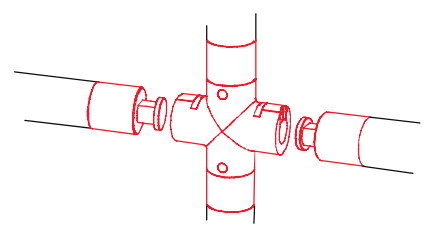
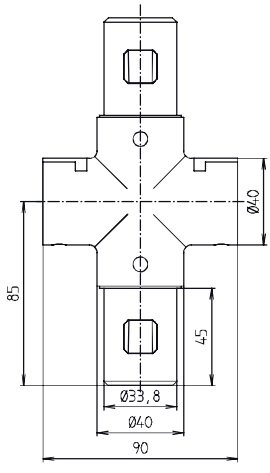
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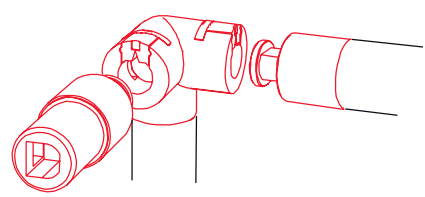
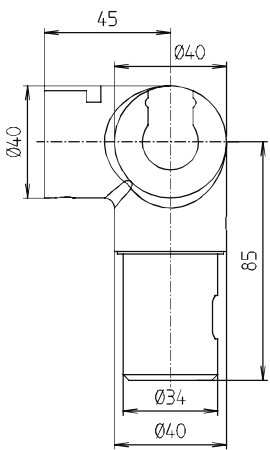
WIT 40-SW2

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11403426025	WIT 40-SW2	1020



KI 40-SW2

Code No.	Type	m [g]
10403411025	KI 40-SW2	1221



WIE 40-SW2

Code No.	Type	m [g]
11403427025	WIE 40-SW2	1034

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The mobile ITAS ladder makes accessing various storage shelves easier.



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ITAS – Accessories



Aluminium tube
Ø 40x3



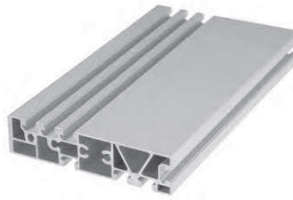
Angle plate
TGHF



Side plate



Surface element support
FEH-I 40



Stair cross beam
profile



Stair joint



Stair railing support
TGHF



Step profile



Stair corner joint



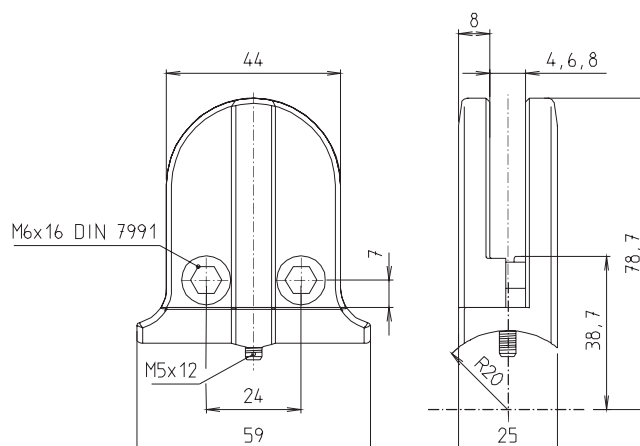
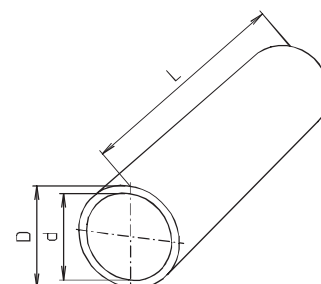
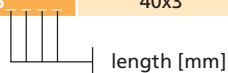
RK ROSE+KRIEGER



Material: AlMgSi 0,5 F22EQ
Resistance moment $W = 3 \text{ cm}^3$
Moment of inertia $I = 6 \text{ cm}^4$

Aluminium tube

Code No.	Type	Version
8240302_ _ _ _	40x3	clear anodized
8240303	40x3	black anodized



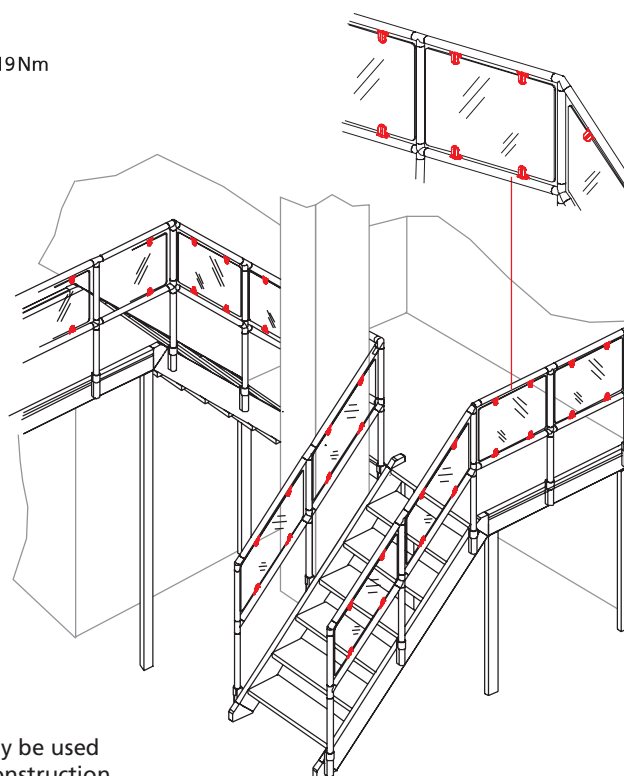
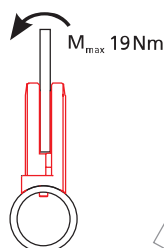
FEH-I 40 (Surface element support)

Code No.	Type
91803	FEH-I 40

Features:

- The surface element support enables the clamping of panels of 4, 6 or 8 mm thickness.
- The support can be used with a $\varnothing 40$ tube (min. wall thickness 3 mm)
- Only a 4.5 mm hole has to be bored into the tube where the support is then fixed with a thread former screw.

Material: PA-GF, black
Fixation set galvanized



Attention:
the support can only be used
in a closed frame construction.

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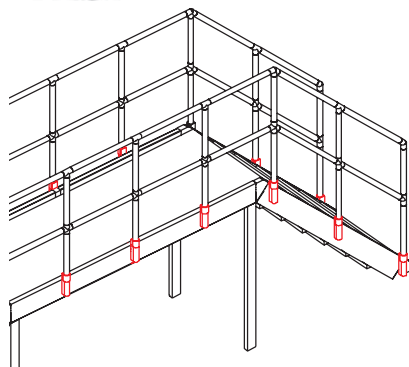
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ITAS – Accessories

On request:

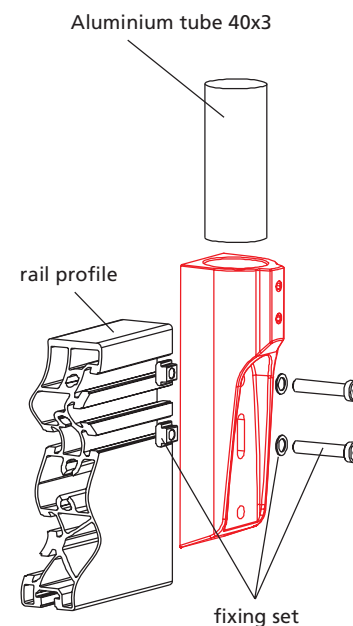
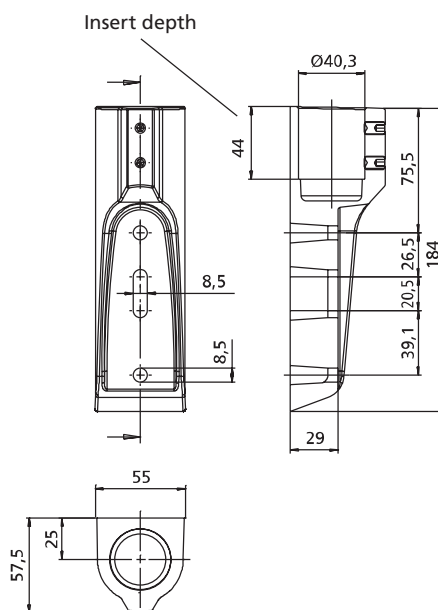
- ITAS elements in various RAL colours

- The base houses the vertical railings
- The fixing set for connecting to the spar is not included in the equipment as delivered
- Please order this extra as required.



**Stair railing support
TGHF**

Code No.	Type
13403429025	TGHF 40
93800	fitting TGHF cross beam profile

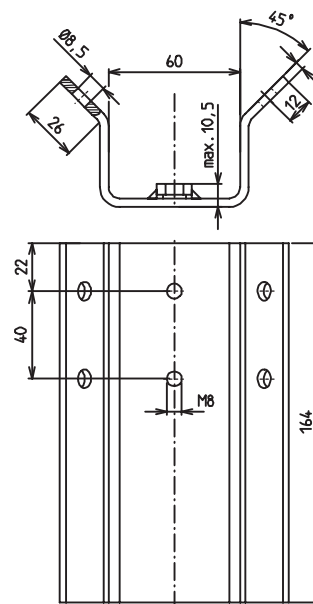
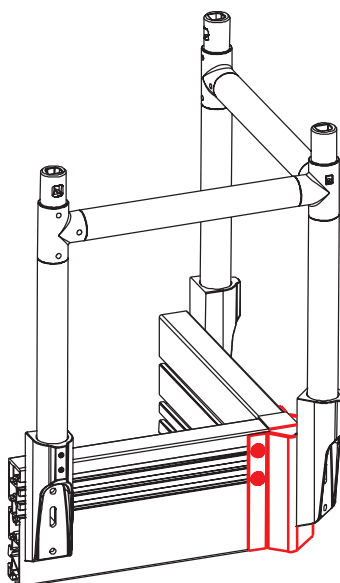


- The angle plate is fixed to the corner of the stair cross beam at 90° degrees.



Angle plate for TGHF

Code No.	Type
96701	Angle plate



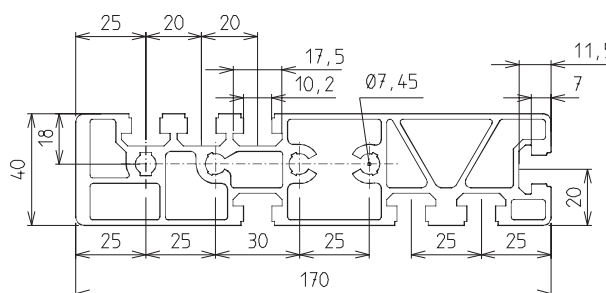


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Material: AlMgSi 0,5 F25,
clear anodized

$I_x = 37 \text{ cm}^4$
 $I_y = 606 \text{ cm}^4$
 $W_x = 18 \text{ cm}^3$
 $W_y = 69 \text{ cm}^3$



Stair cross beam profile

Code No.	Type	Version	m [g]
4505000 _ _ _ _	Stair cross beam profile	Cut max. 6000 mm	5957 / m
450500 _ _ _ _	Stair cross beam profile	Bar at 6000 mm	5957 / m



Features:

- The 'T'-slot channels of the extruded aluminium profile enable fitting of the fixing components for the step profile (see p. 248).
- The geometry of the 'T'-slot channels is designed to comply with the BLOCAN® Profile Assembly System which is designed and manufactured by RK Rose+Krieger.
- Threaded to ensure that stair joints can be fixed with standard M8 screws
- Realisation of 38, 45 and 60 degree leadangles without mitre cuts of the beam profile by using special designed stair joints. Saws with a smaller dia can therefore be used.
- The geometry conforms with the UVV rules so that commercially available surface elements / grids can be used for the platform surfaces
- The protective railing and the continuous rim of the stair cross beam profile provide protection against slipping.

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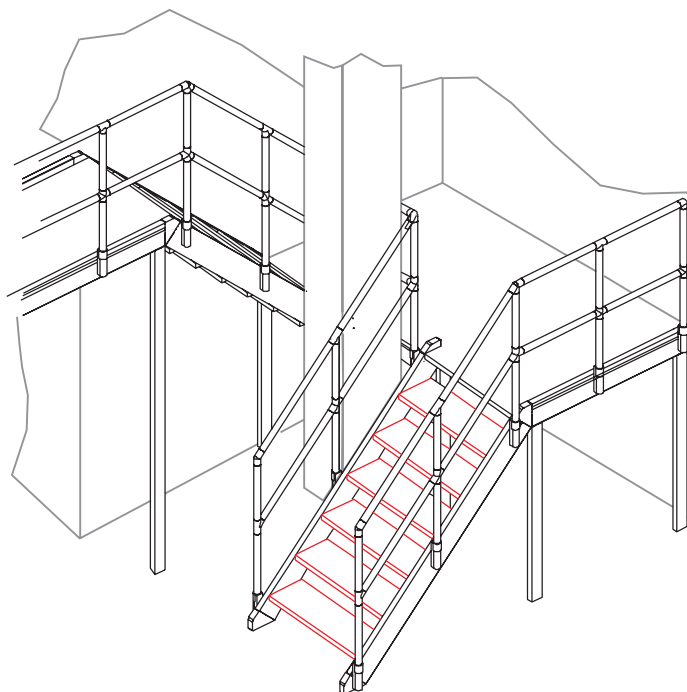
ITAS – Accessories

On request:

- ITAS elements in various RAL colours

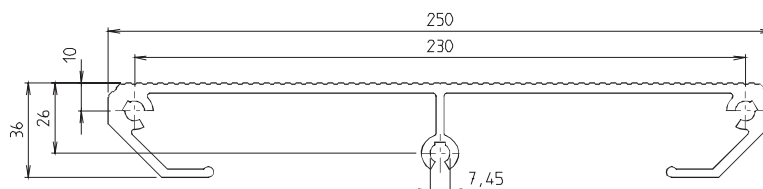
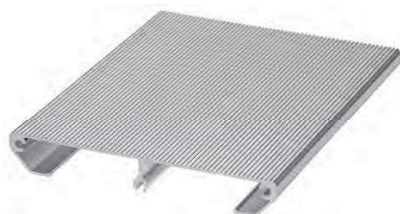
Features:

- An endless step profile made of extruded aluminium which is cut to the step width desired.
- The surface complies with the UVV rules DIN 24530.
- Threaded channels have been prepared to ensure that side plates can be fixed with standard M8 screws (see p. 249).
- This step profile can, of course, also be used as a platform element.



Material: AlMgSi 0,5 F22, natural

- $I_x = 16 \text{ cm}^4$
- $I_y = 1003 \text{ cm}^4$
- $W_x = 7 \text{ cm}^3$
- $W_y = 80 \text{ cm}^3$



Step profile

Code No.	Type	Version	m [g]
4525000	Step profile	Cut max. 6000 mm	3621 / m
4525001	Step profile	Bar at 6000 mm	3621 / m



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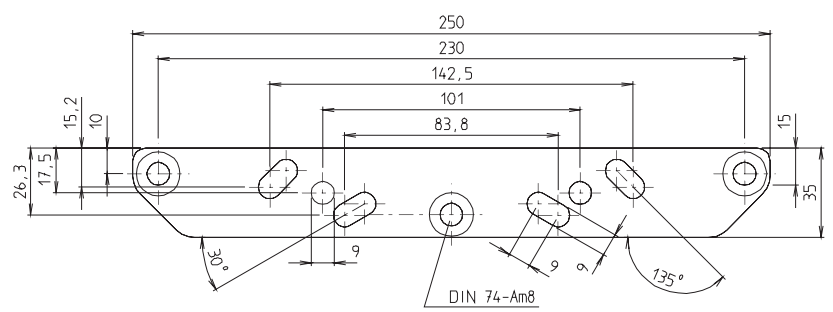
Features:

- The code n° contains a complete fixing set for the fitting of the side plate to the step profile (see p. 248).
- The arrangement of the holes and slots enables alignment of the step when it is fitted to the stair cross beam profile. The side plate serves as an end piece to the step width chosen by the customer.



Material: AlMgSi 0,5 F22, natural

Thickness t = 5 mm



Site plate

Code No.	Type	m [g]
93700	Side plate	164

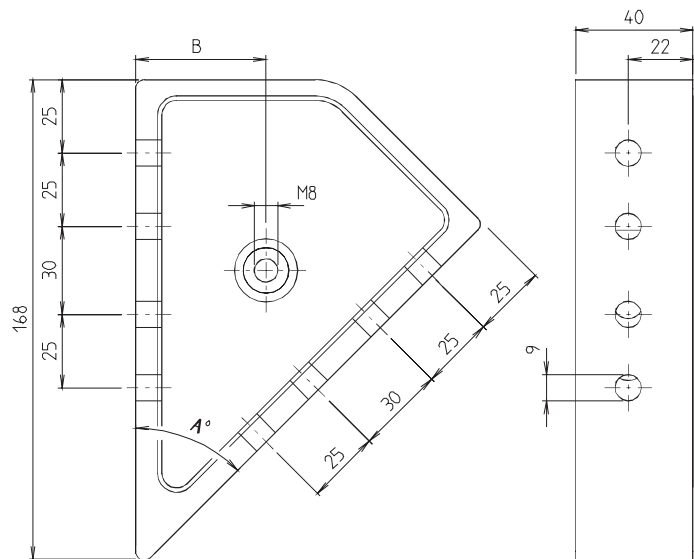
ITAS – Accessories

On request:

- ITAS elements in various RAL colours

Features:

- This joint permits the construction of 38°, 45° and 60° angles.
- The arrangement of the holes guarantees fixing of this joint to the stair cross beam profile with standard M8 screws (see p. 247).
- The centre spigot is for the fixing of the last step in the transition from stair to platform.



Stair joint

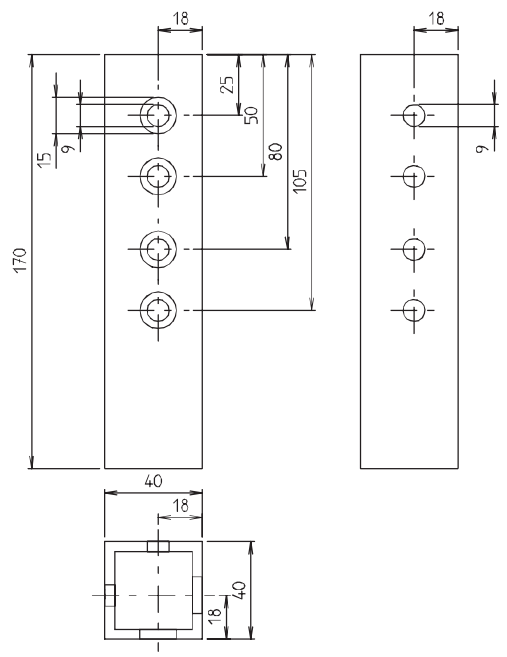
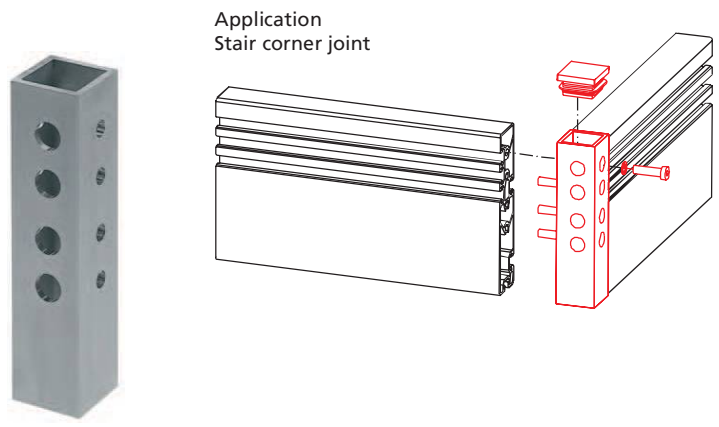
Code No.	Type	A	B	Material	m [g]
93807	Stair joint 38° fixing step-platform	38°	36,15	Gk AlSi 12	430
93810	Stair joint 45° fixing step-platform	45°	44,5	Gk AlSi 12	621
93811	Stair joint 45° fixing floor step	45°	44,5	Gk AlSi 12	621
93820	Stair joint 60° fixing step-platform	60°	60,5	St 37-2	1500



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Material: AlMgSi 0,5 F22



The illustration shows a "left" version .
 The right version is the mirror-image.

Stair corner joint

Code No.	Type	m [g]
93821	Stair corner joint right-hand	242
93822	Stair corner joint left-hand	242

Tools / spare parts

Code No.	Type	Application
4016621	Cross handle key SW4	for clamping screw, int. tension and quick change system
91804	Compl.clamping lever set	Spare parts for internal tension system (clamping screw, clamping rocker, thrust pad, screw cap)
90430	Stopper	for quick change system