



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





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.



Industrial stairs and working platforms

General information/
Operation conditions..... from page 228

Internal tension system..... from page 230

Quick change system..... from page 240

Accessories from page 246

ITAS

ITAS – Industrial stairs and working platforms

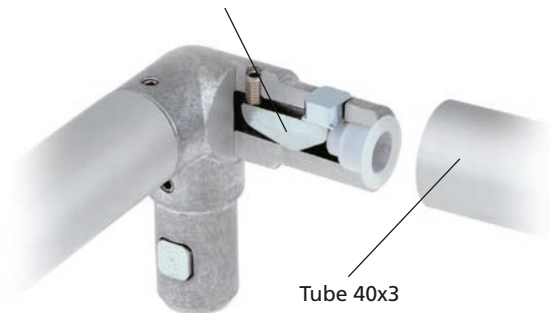
...no drilling or welding, no mitre cut – just assemble.



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.

Clamping set including clamping screw, clamping rocker, thrust pad and screw cap



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



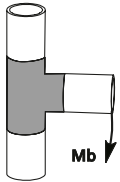
ITAS – table of contents

| | |
|---|---|
| <p>Properties/performance data</p> | <ul style="list-style-type: none"> ■ Technical data p. 228 ■ Loads / System description p. 228 ■ Building regulations p. 229 |
| <p>Versions (Dimensions, code numbers)</p> | <ul style="list-style-type: none"> ■ Internal tension system p. 230 ■ Quick change system p. 240 ■ Fax request form p. 256 |
| <p>Accessories</p> | <ul style="list-style-type: none"> ■ Aluminium tube p. 247 ■ Surface element support p. 247 ■ Stair railing support TGHF p. 248 ■ Stair cross beam profile p. 249 ■ Step profile p. 250 ■ Side plate p. 251 ■ Stair joint p. 252 ■ Stair corner joint p. 253 ■ Tools/spare parts..... p. 253 |

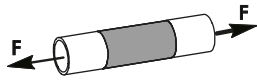
Basic information / mechanical properties

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

Loads

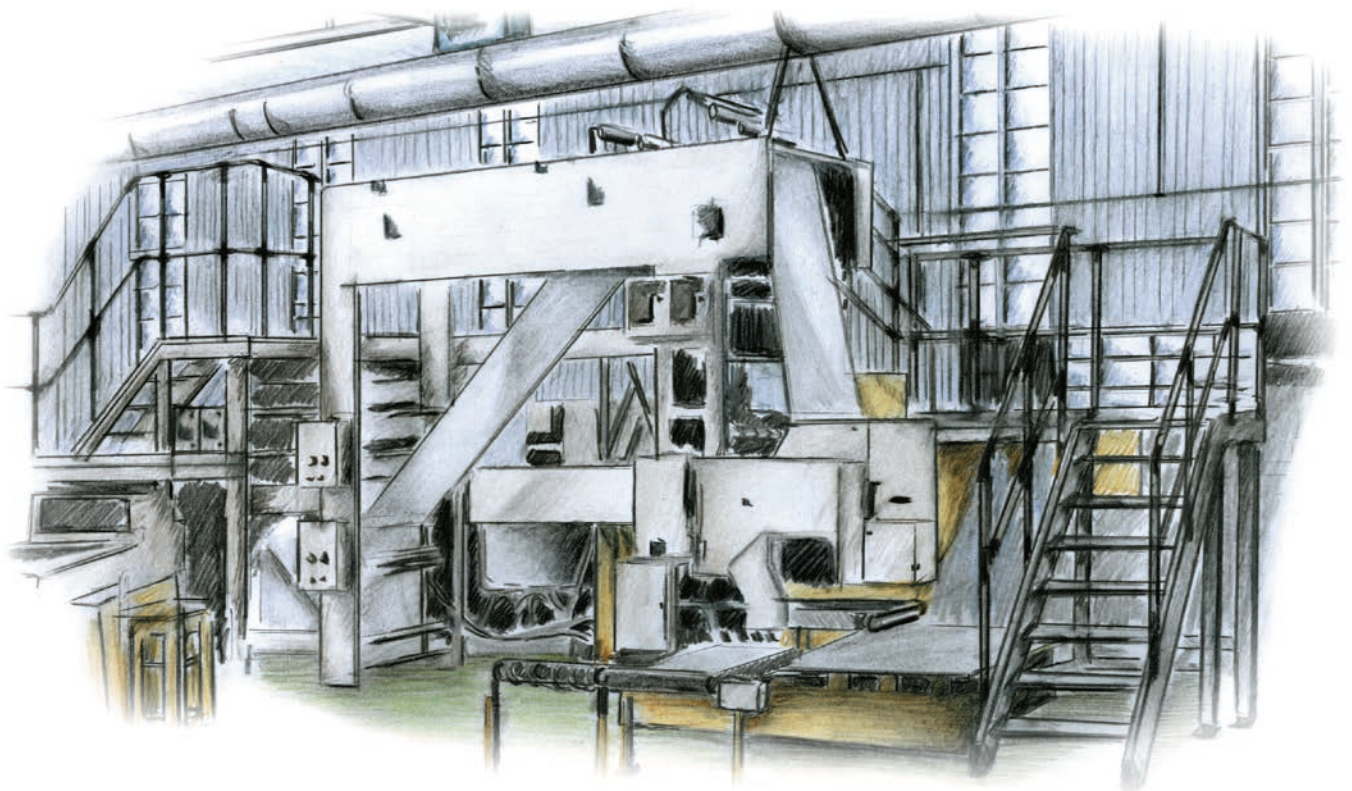


Bending moment Mb [Nm]



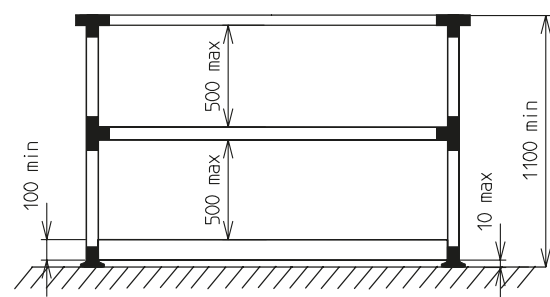
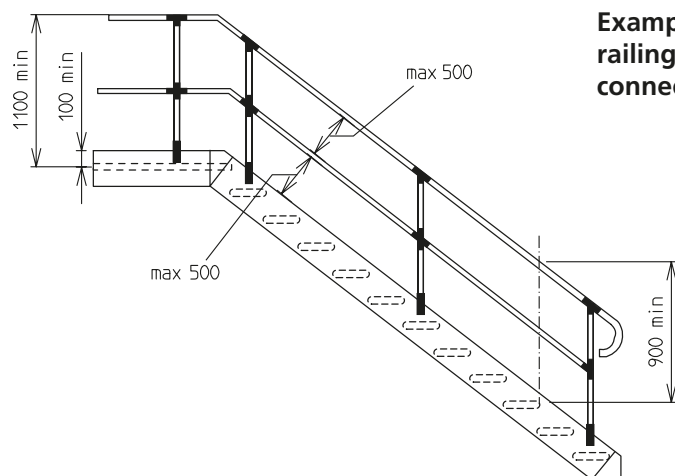
Adh. force: static pull,
dynamic pull+pressure

| Size Type | Including static safety factor $v = 2,5$ | | Including dynamic safety factor $v = 1,5$ | |
|--------------|--|---------|---|---------|
| | 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 |

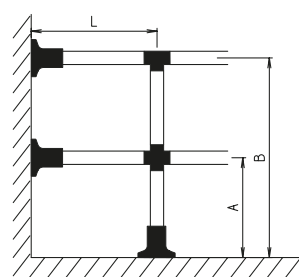
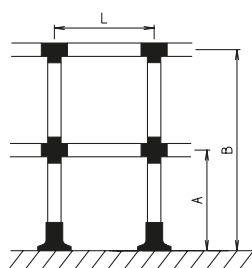


ITAS – Load data

- **Load data according to DIN 1055**
- Maximum permitted load of steps (for a length of 1,2 m) 1500 N
- Maximum permitted load of stairs cross beams (for a 45° angle and a length of 4 m without support) 3500 N
- 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**


Example for a horizontal railing

Example for a stair railing - catwalk connector

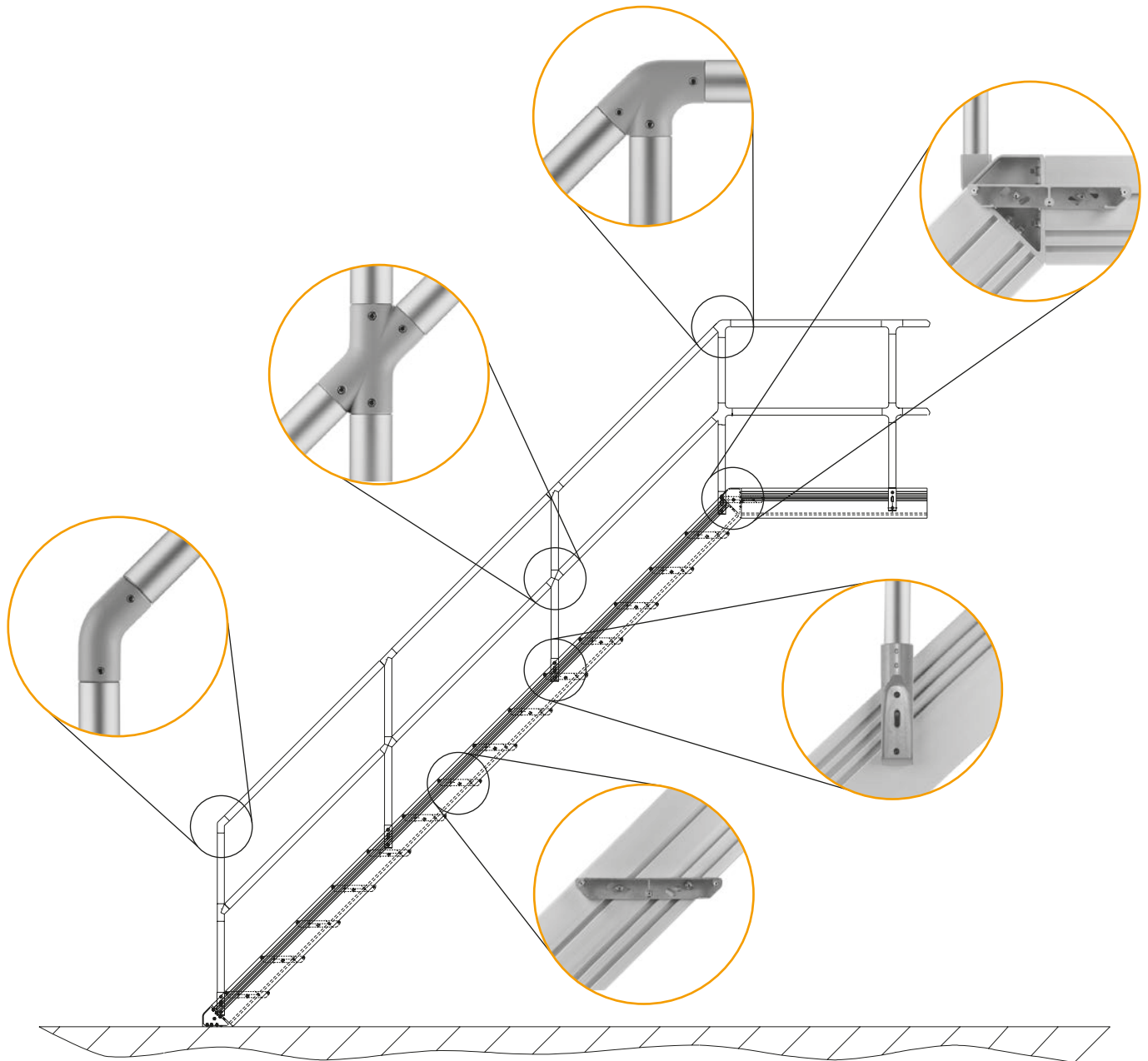
- The railing must have at least one knee rail
- Do not exceed a free space between the handrail and knee and foot rail of 500 mm
- Fit a foot rail with a minimum height of 100 mm maximum 10 mm above the step level
- A staircase must have at least one handrail
- With a flight width equal to or exceeding 1200 mm two handrails must be provided in the same manner as with all ladder stairs.

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-sup-
porting with floor fixing

| Example | Dimension max. | | |
|---------|----------------|------|-------|
| | 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



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

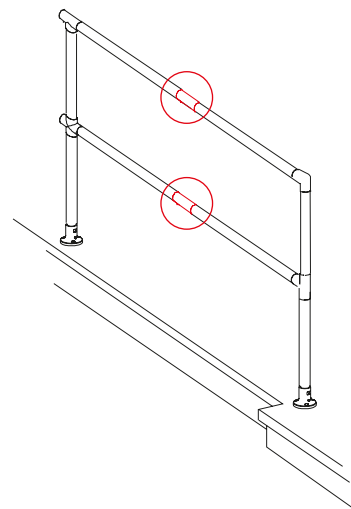
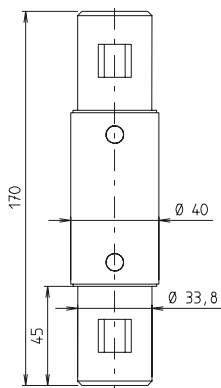


TGHF

ITAS – Internal tension system

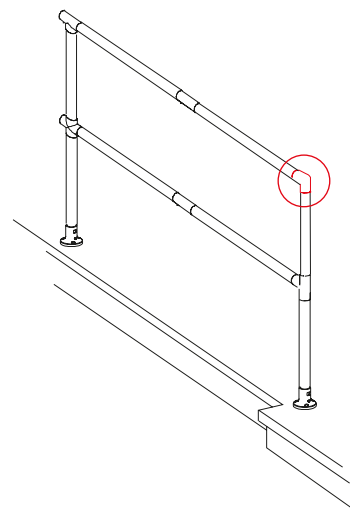
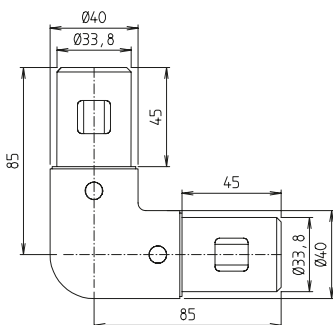
On request:

- ITAS elements in various RAL colours



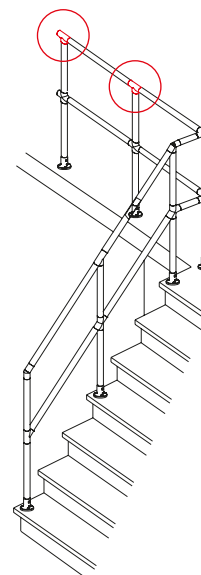
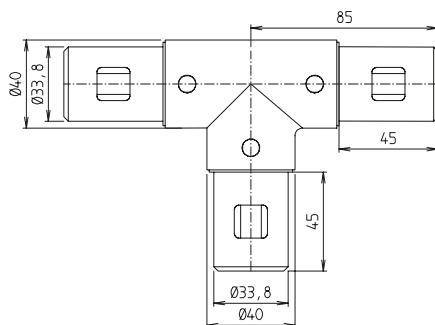
Coupler MI 40

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



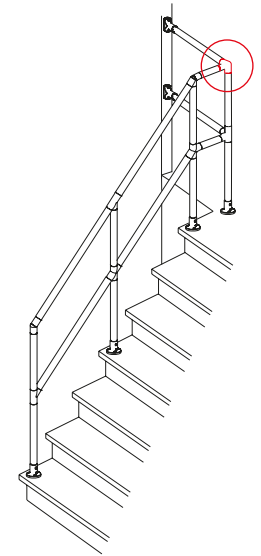
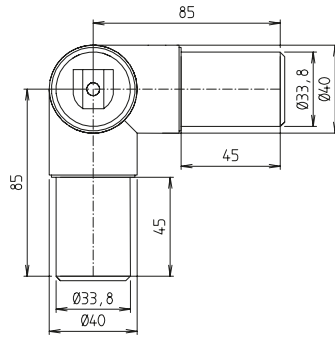
Elbow 90° WI 40

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



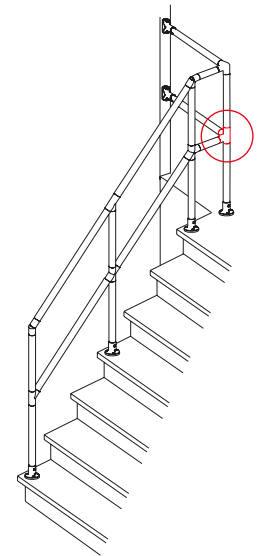
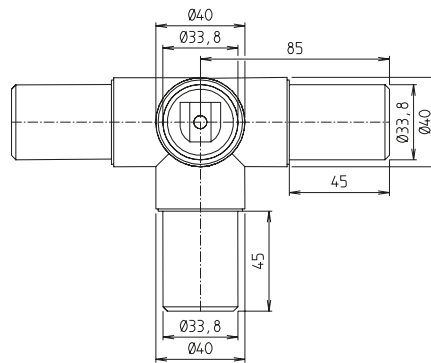
T-joint 90° WIT 40

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



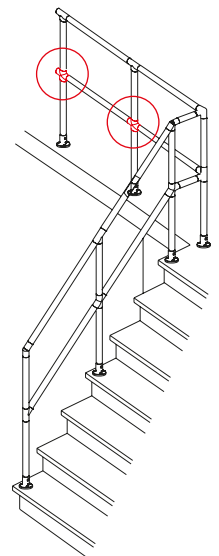
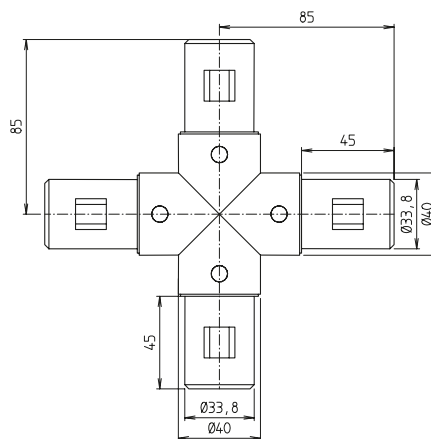
Corner joint WIE 40

| Code No. | Type | m [g] |
|-------------|------|-------|
| 11403422025 | WIE | 624 |



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 |

ITAS – Internal tension system

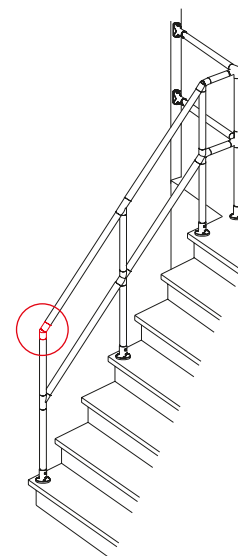
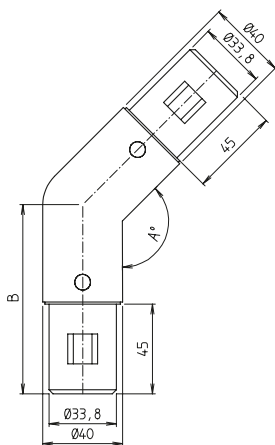
On request:

- ITAS elements in various RAL colours



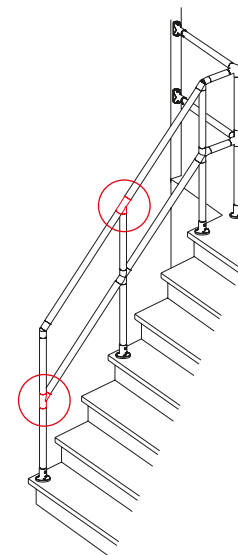
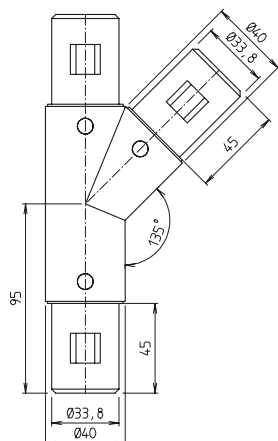
Elbow WI 40

| 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 |



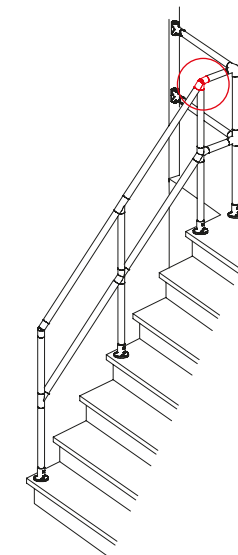
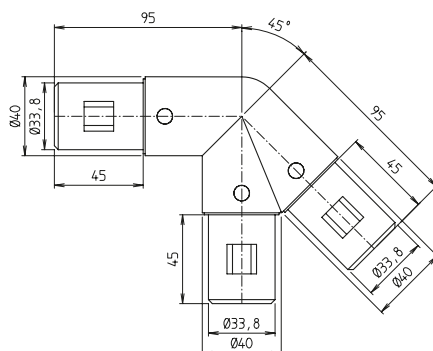
T-joint 45° WIT 40-45°

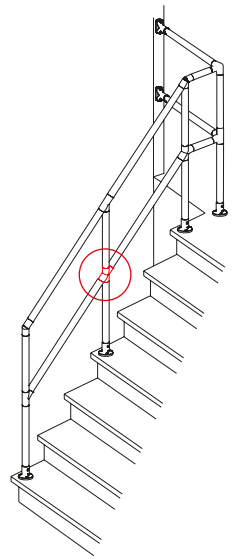
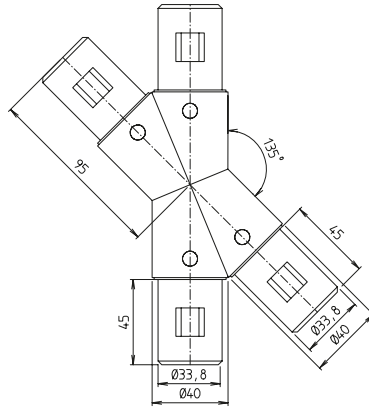
| Code No. | Type | m [g] |
|-------------|------------|-------|
| 11404523025 | WIT 40-45° | 715 |



T-joint horizontal 45° WIT 40H-45°

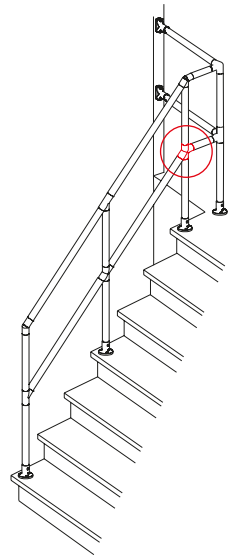
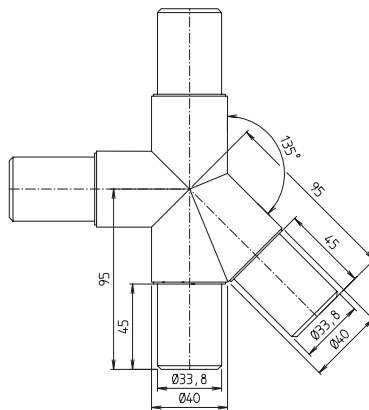
| Code No. | Type | m [g] |
|-------------|--------------|-------|
| 11404525025 | WIT 40 H-45° | 715 |





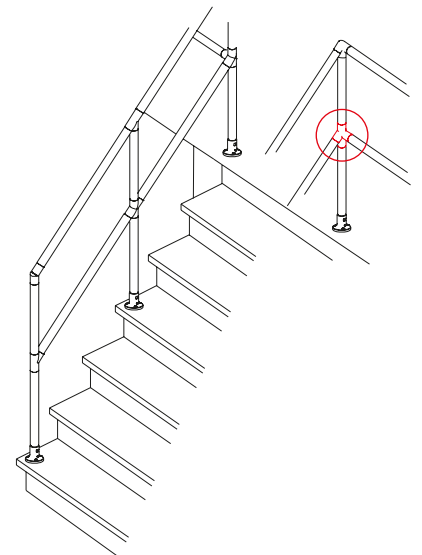
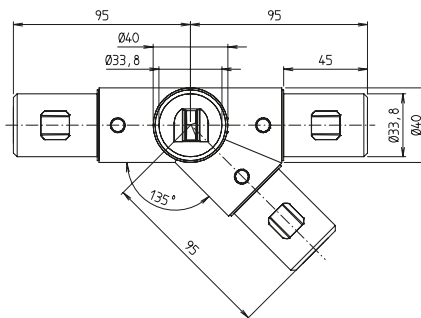
Cross KI 40-45°

| 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 |



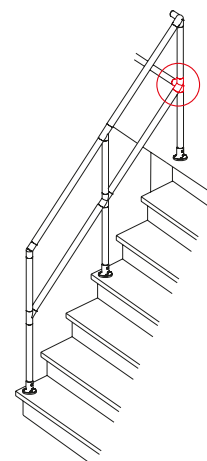
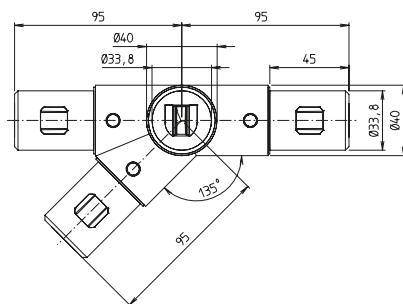
WIT 40H-45°R

| Code No. | Type | m [g] |
|-------------|--------------|-------|
| 11404528025 | WIT 40H-45°R | 908 |

ITAS – Internal tension system

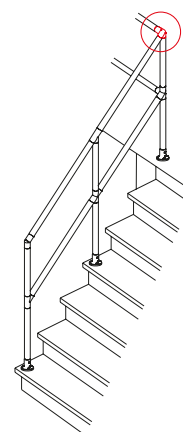
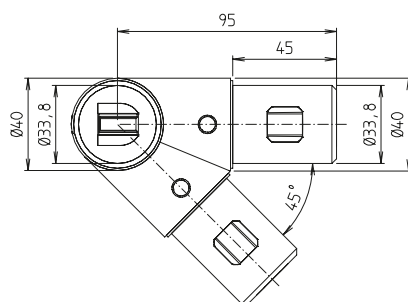
On request:

- ITAS elements in various RAL colours



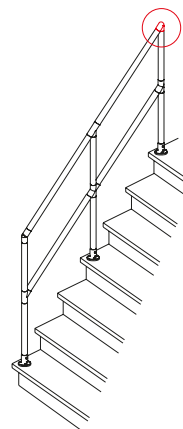
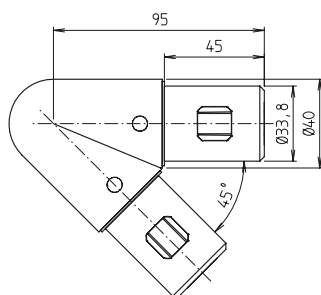
WIT 40H-45°L

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



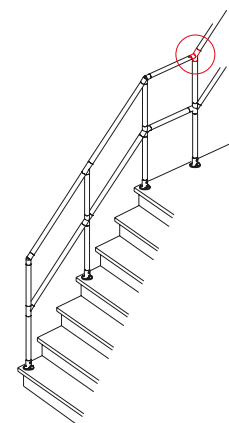
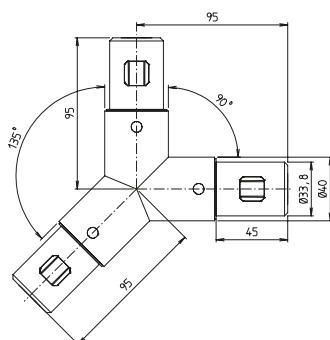
WIV 40H-45°

| Code No. | Type | m [g] |
|-------------|-------------|-------|
| 11404527025 | WIV 40H-45° | 693 |



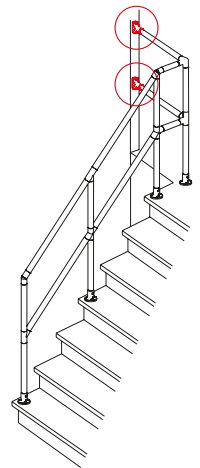
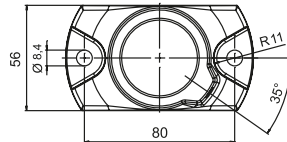
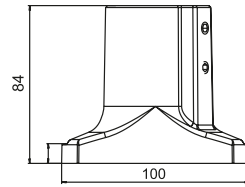
WIV 40-45°

| Code No. | Type | m [g] |
|-------------|------------|-------|
| 11404526025 | WIV 40-45° | 486 |



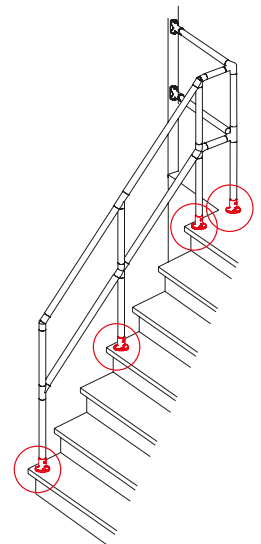
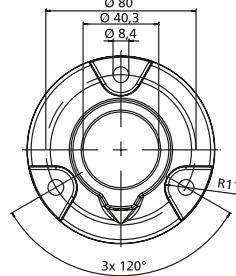
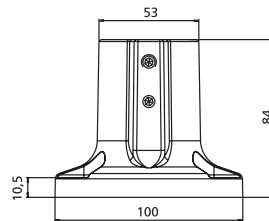
WIY 40-45°

| Code No. | Type | m [g] |
|-------------|------------|-------|
| 11404530025 | WIY 40-45° | 733 |



FIW 40 (Wall flange)

| Code No. | Type | m [g] |
|-------------|--------|-------|
| 13403430025 | FIW 40 | 428 |

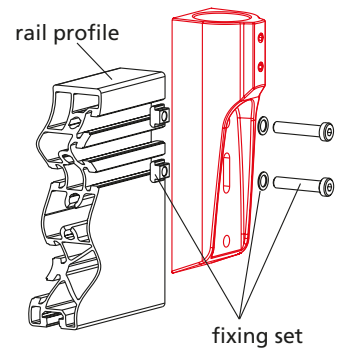
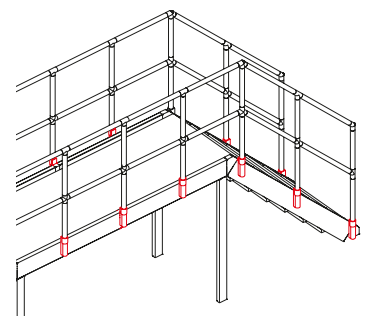
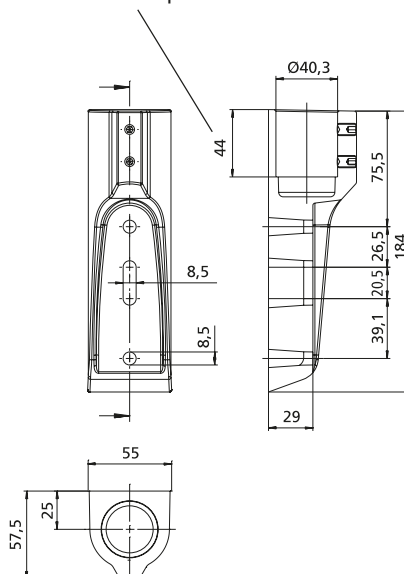


Base FI 40

| Code No. | Type | m [g] |
|-------------|-------|-------|
| 13403431025 | FI 40 | 487 |



Insert depth



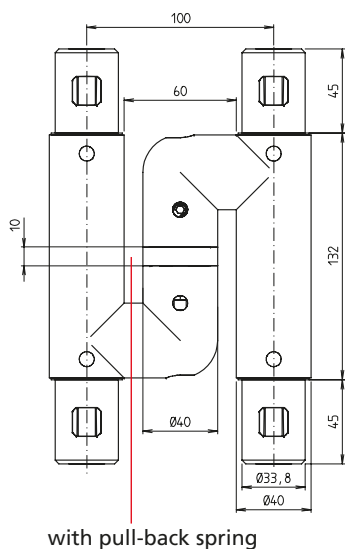
Stair railing support TGHF

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

ITAS – Internal tension system

On request:

- ITAS elements in various RAL colours



with pull-back spring

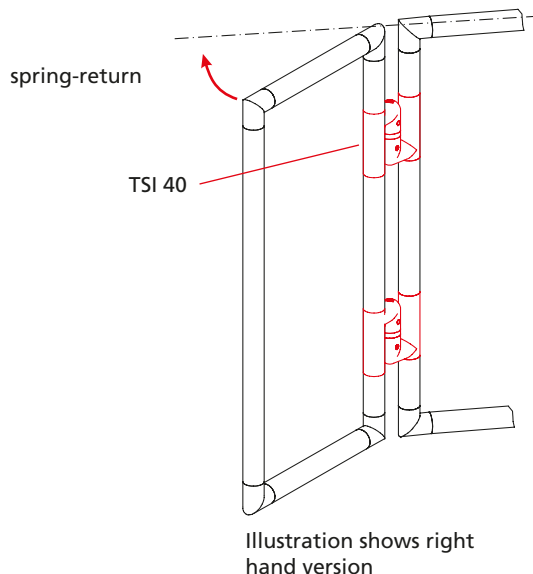
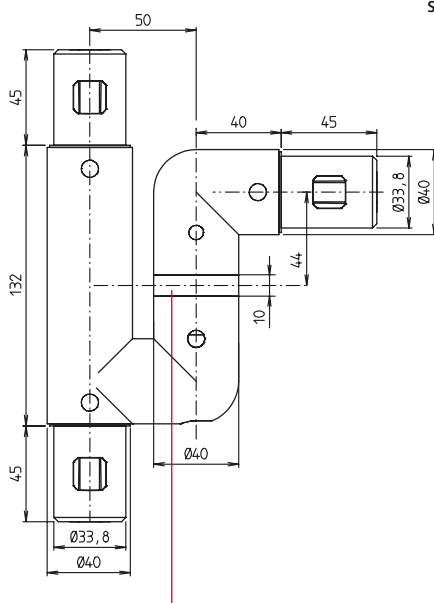


Illustration shows right hand version

TSI 40

| Code No. | Type | Version | m [g] |
|-------------|--------|------------|-------|
| 18403426025 | TSI 40 | Right-hand | 1872 |
| 18403427025 | TSI 40 | Left-hand | 1849 |

Attention:
please read the instruction manual



with pull-back spring

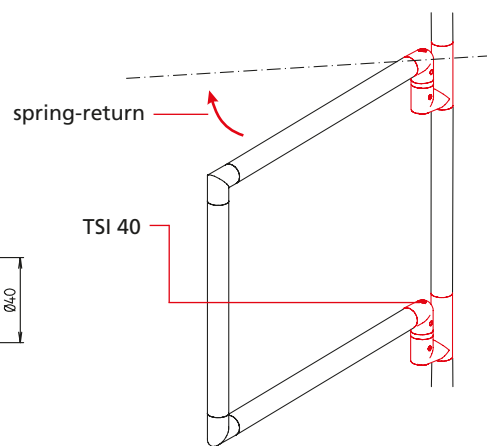
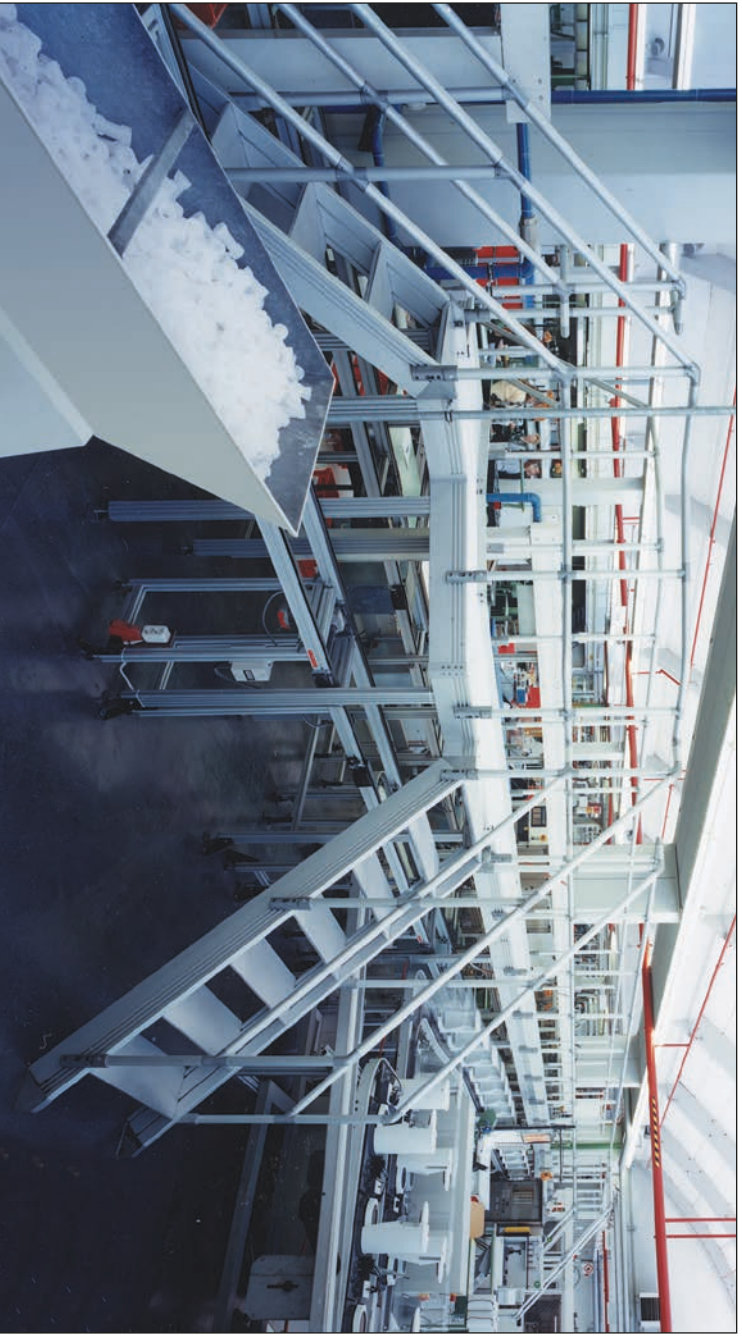


Illustration shows right hand version

TSI 40-WI

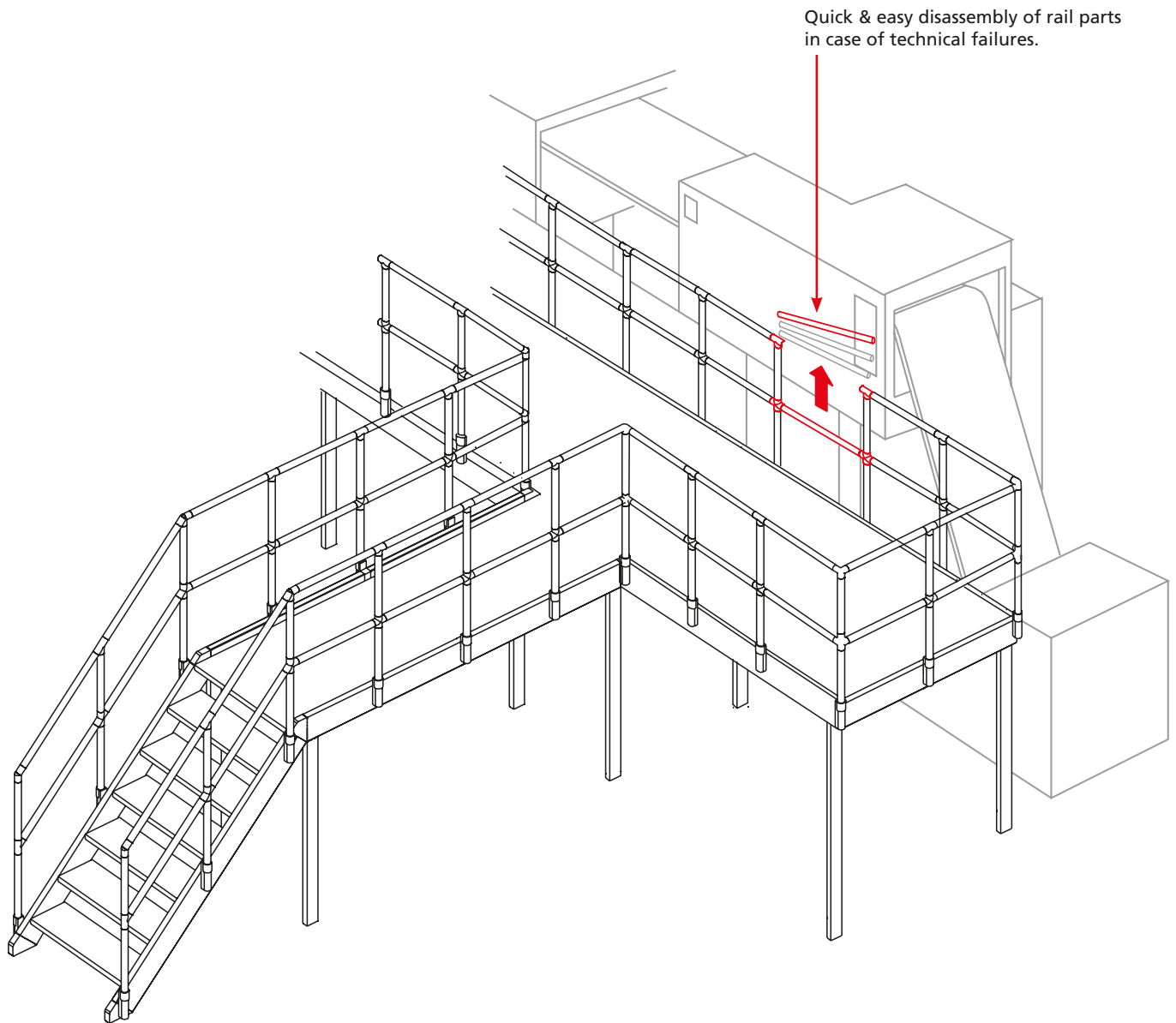
| Code No. | Type | Version | m [g] |
|-------------|-----------|------------|-------|
| 18403428025 | TSI 40-WI | Right-hand | 1353 |
| 18403429025 | TSI 40-WI | Left-hand | 1389 |

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.



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



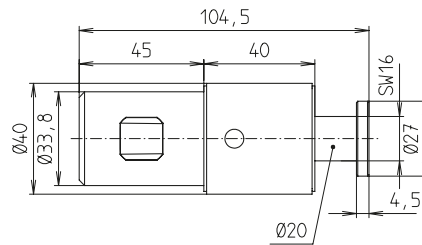
Turn the cross strut to 90° and then raise and release



ITAS – Quick change system

On request:

- ITAS elements in various RAL colours

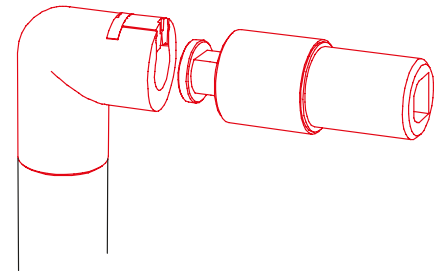
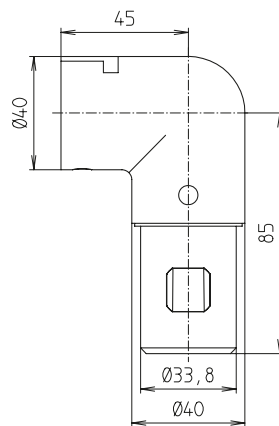


Attention:

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

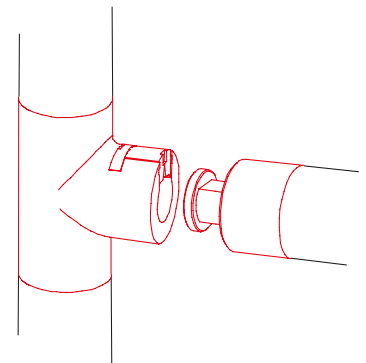
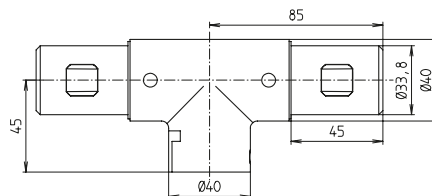
MI-H 40-SW

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



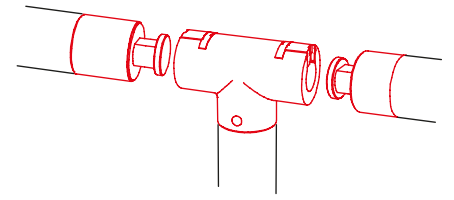
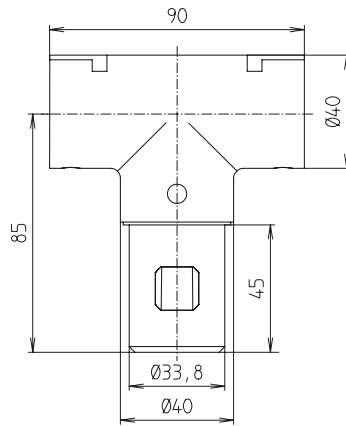
WI 40-SW1

| Code No. | Type | m [g] |
|-------------|-----------|-------|
| 11403425025 | WI 40-SW1 | 643 |



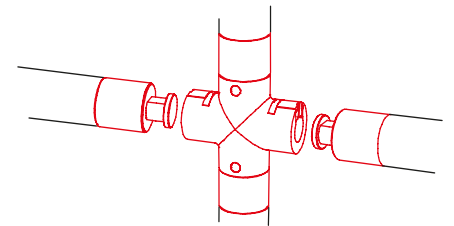
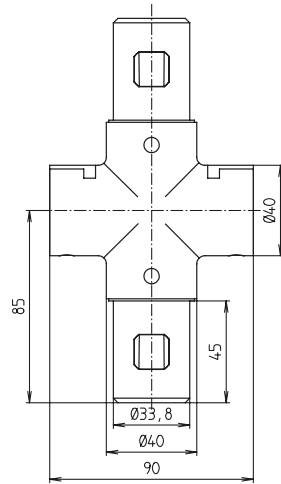
WIT 40-SW1

| Code No. | Type | m [g] |
|-------------|------------|-------|
| 11403428025 | WIT 40-SW1 | 828 |



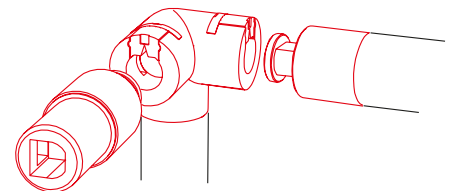
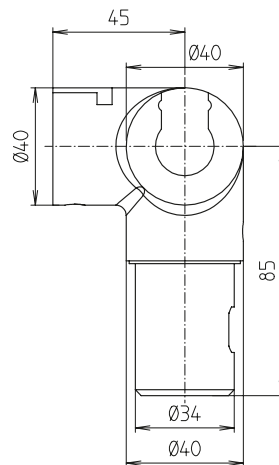
WIT 40-SW2

| Code No. | Type | m [g] |
|-------------|------------|-------|
| 11403426025 | WIT 40-SW2 | 1020 |



KI 40-SW2

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



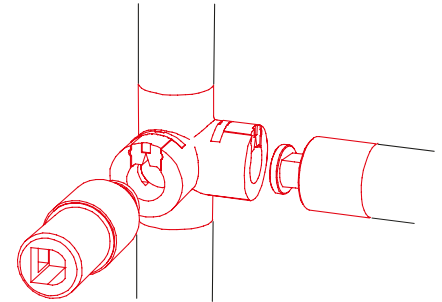
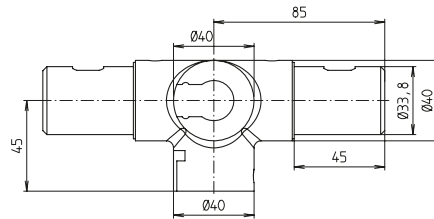
WIE 40-SW2

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

ITAS – Quick change system

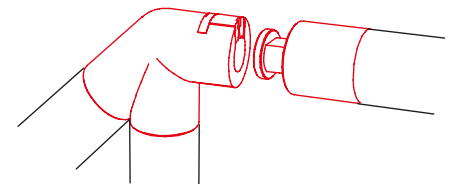
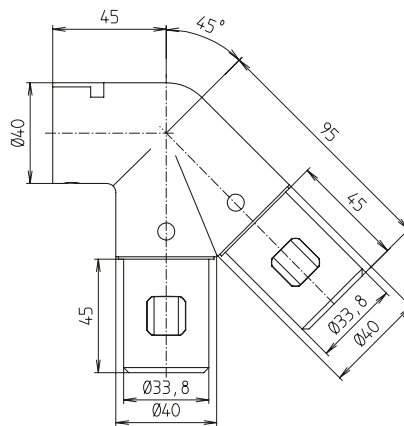
On request:

- ITAS elements in various RAL colours



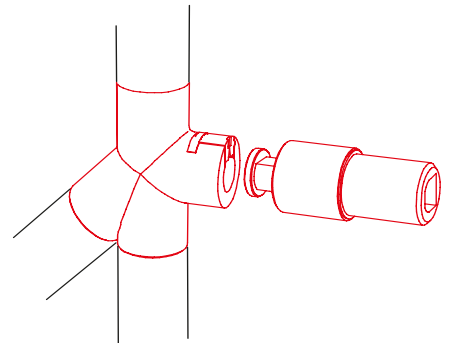
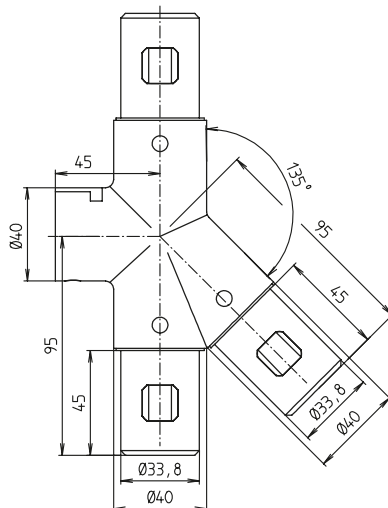
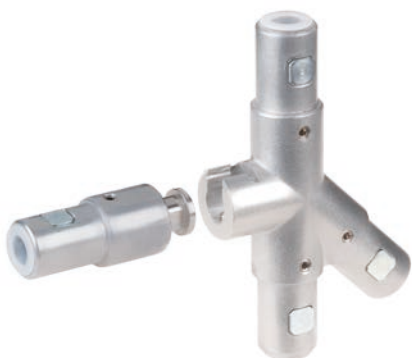
WITE 40-SW2

| Code No. | Type | m [g] |
|-------------|-------------|-------|
| 11403429025 | WITE 40-SW2 | 1209 |



WIT 40H-45°SW1

| Code No. | Type | m [g] |
|-------------|----------------|-------|
| 11404524025 | WIT 40H-45°SW1 | 902 |

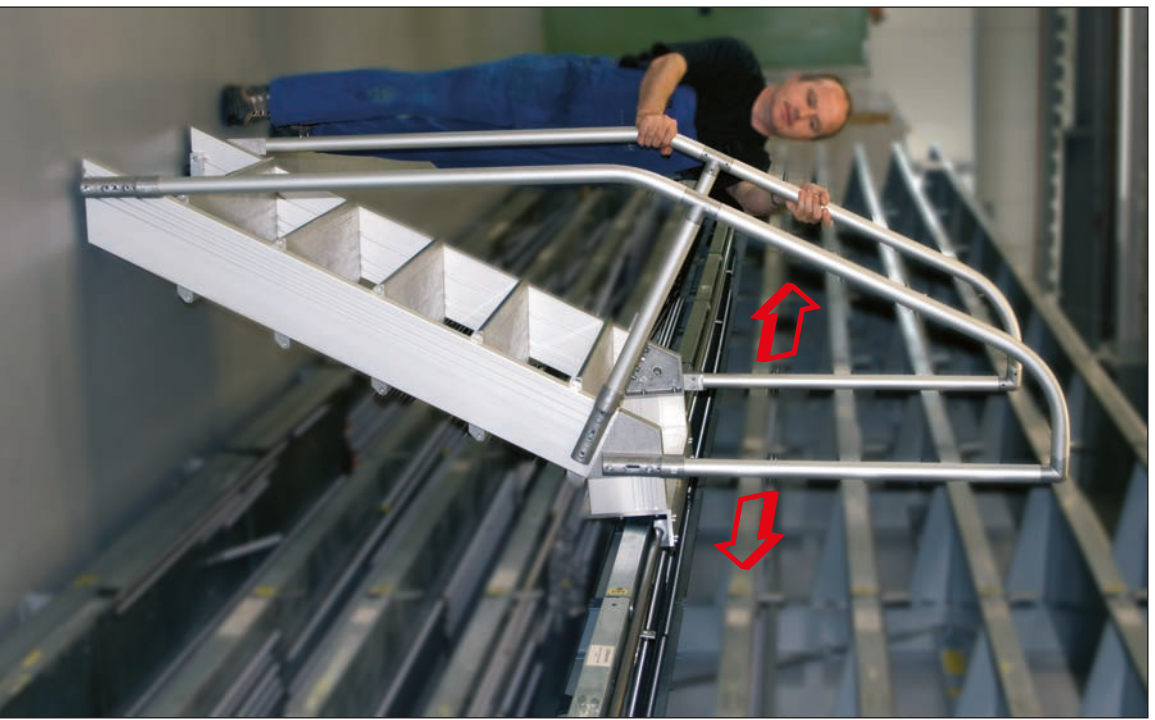


KI 40H-45°SW1

| Code No. | Type | m [g] |
|-------------|---------------|-------|
| 10404511025 | KI 40H-45°SW1 | 1068 |



The mobile ITAS ladder makes accessing various storage shelves easier.





Aluminium tube
Ø 40x3



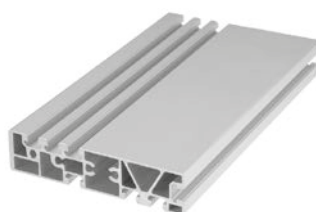
Angle plate
TGHF



Side plate



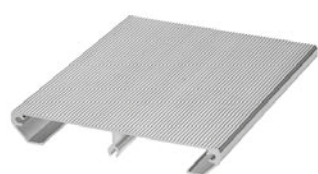
Surface element support
FEH-I 40



Stair cross beam
profile



Stair joint



Step profile



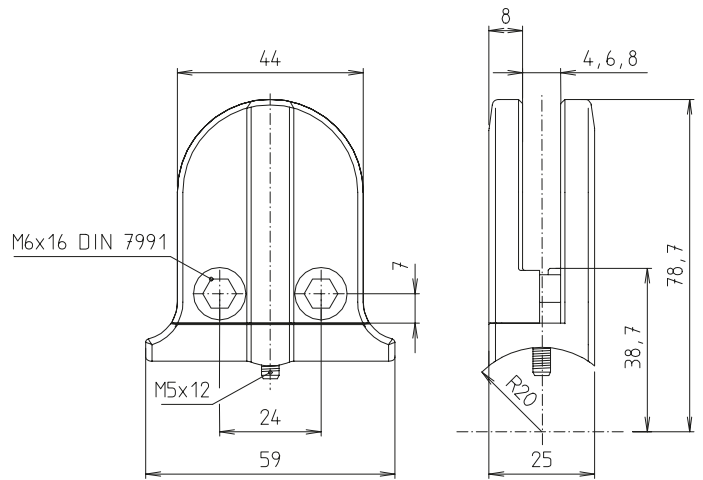
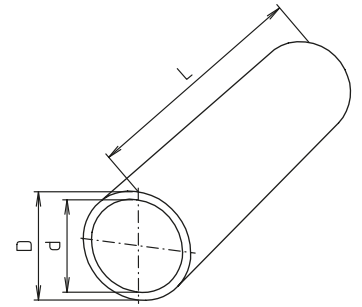
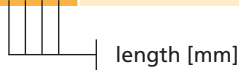
Stair corner joint



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 |



Features:

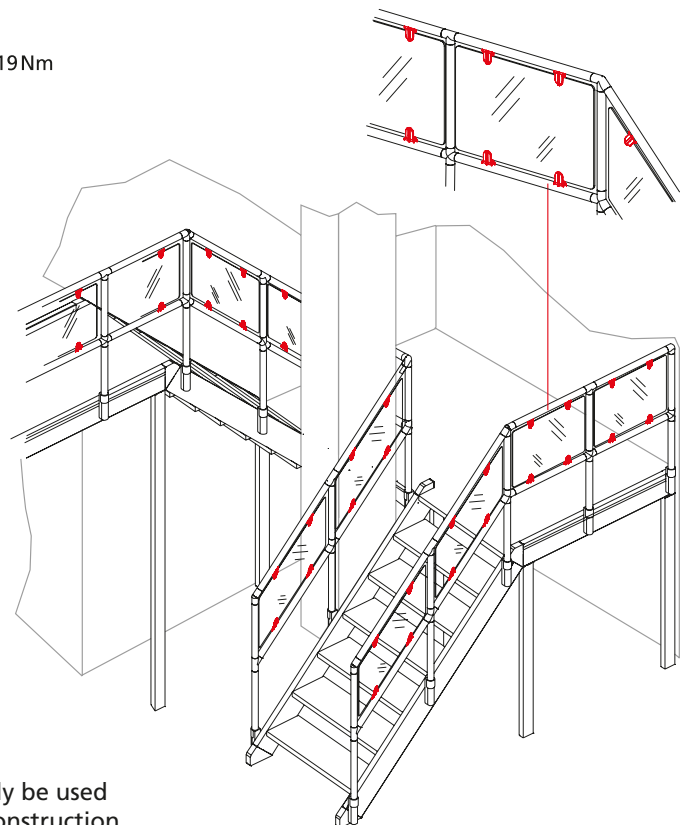
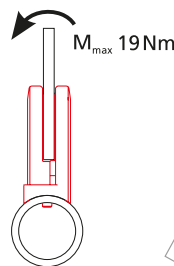
- The surface element support enables the clamping of panels of 4, 6 or 8 mm thickness.
- The support can be used with a $\varnothing 40$ tube (min. wall thickness 3 mm)
- Only a 4.5 mm hole has to be bored into the tube where the support is then fixed with a thread former screw.

Material: PA-GF, black
Fixation set galvanized

FEH-I 40 (Surface element support)

| Code No. | Type |
|----------|----------|
| 91803 | FEH-I 40 |

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

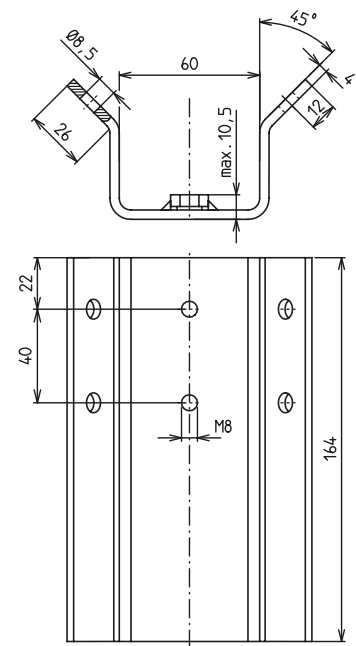
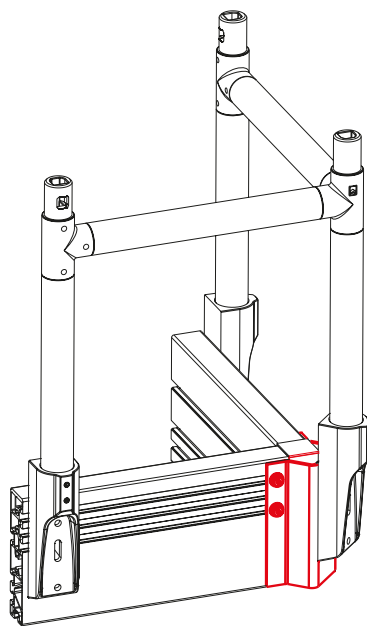


ITAS – Accessories

On request:

- ITAS elements in various RAL colours

- 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 |