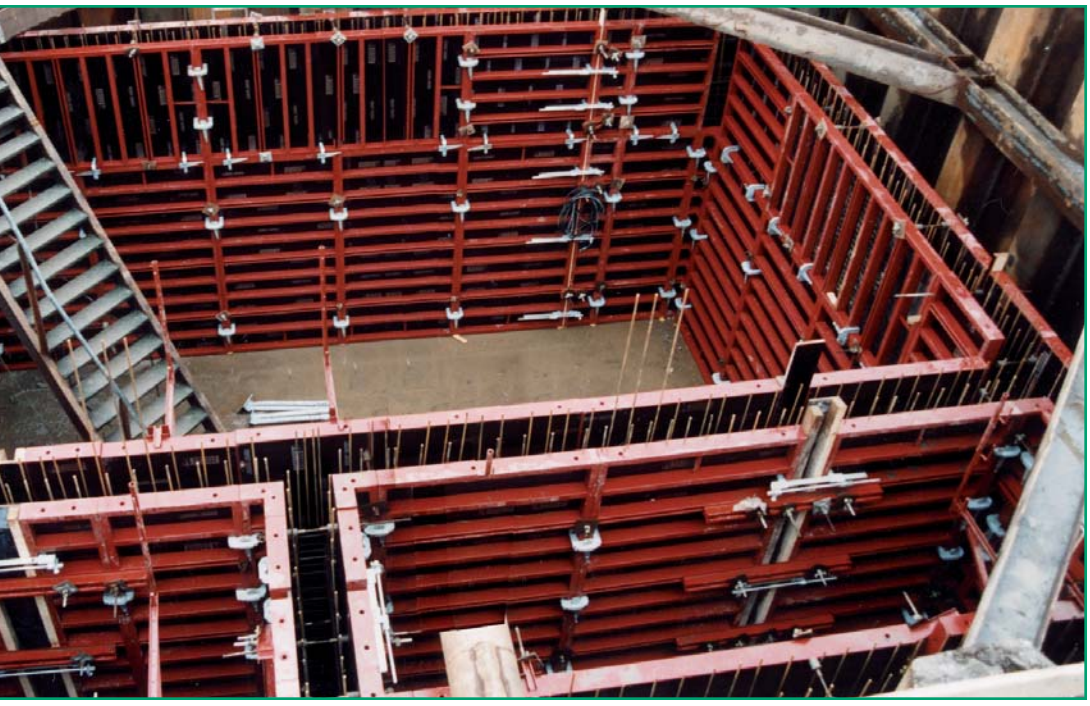
FEBE

FORMWORK SYSTEMS

ONE CONCEPT – THREE SYSTEMS

Overview

XT • AT • SL
Formwork and
Accessories



FEBE
SCHALUNG
FEBE GmbH

Over 50 years of experience in formwork systems

FEBE GmbH is rooted in traditional machine enginnering for the construction industry. It's experience with concrete formworks comes from Hägele, one of Germany's leading pioneers in the field. Hägele's expertise has been transferred from Weinstadt in Swabia to Berching (Bavaria), where it has been further developed by FEBE. If you wish to extend or repair a legacy Hägele system, speak to us.

The FEBE technical consulting service: qualified help given by experts

Solutions are part of our daily business. We are able to provide you with customized, CAD-generated formwork diagrams, take care of the technical consulting and comprehensively inform you about your site. You benefit from over 30 years experience in formwork construction!

The FEBE repair service: as good as new

Damaged and worn-out formwork units can be quickly and affordably brought back into action. Please request our repair price list.

The FEBE hire service: Quality formwork for rent

Most units and accessories are also available for hire. Please refer to our hire price list for further details, terms and conditions.

FEBE SCHALUNG FEBE GmbH

FEBE GmbH

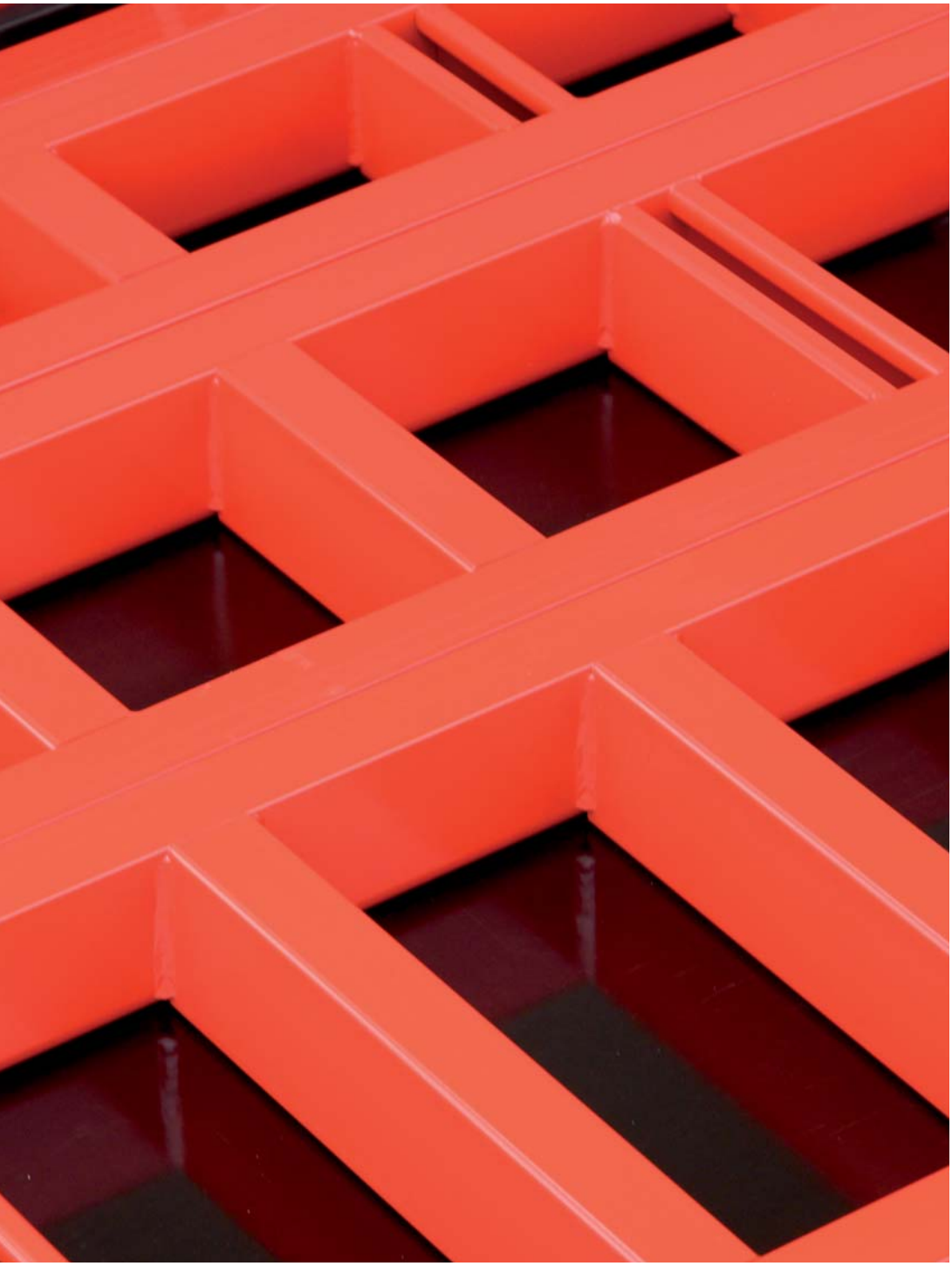
Maria-Hilf-Strasse 15-21
92334 Berching
Germany

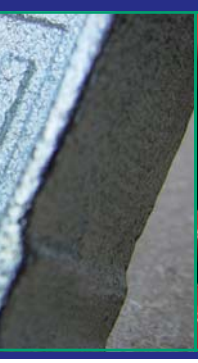
Phone +49 8462 2007-0
Fax +49 8462 2007-29

info@febe.eu
www.febe.eu

Contents

Three systems – in steel and aluminium

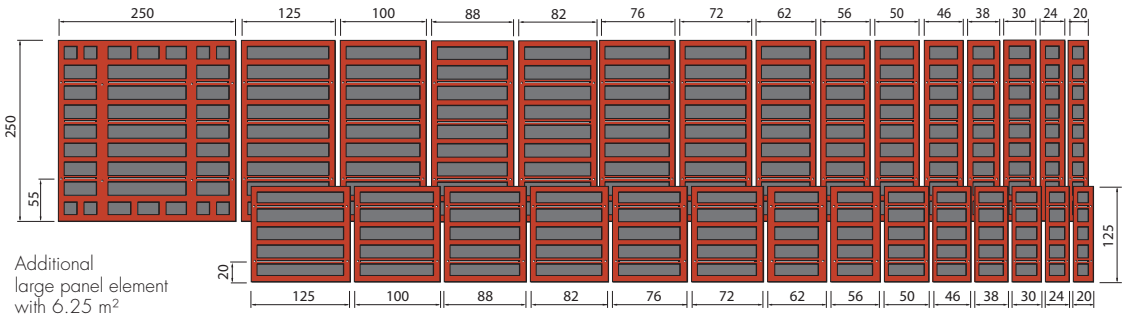




FEBE SCHALUNG
FEBE GmbH

XT 2500 /1250

Full height elements



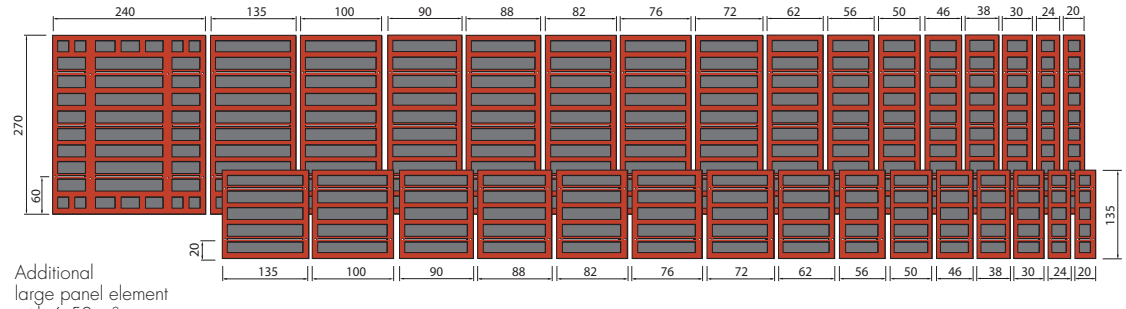
Additional large panel element with 6.25 m²

Half height elements

XT 2700 /1350

Custom sizes on request!

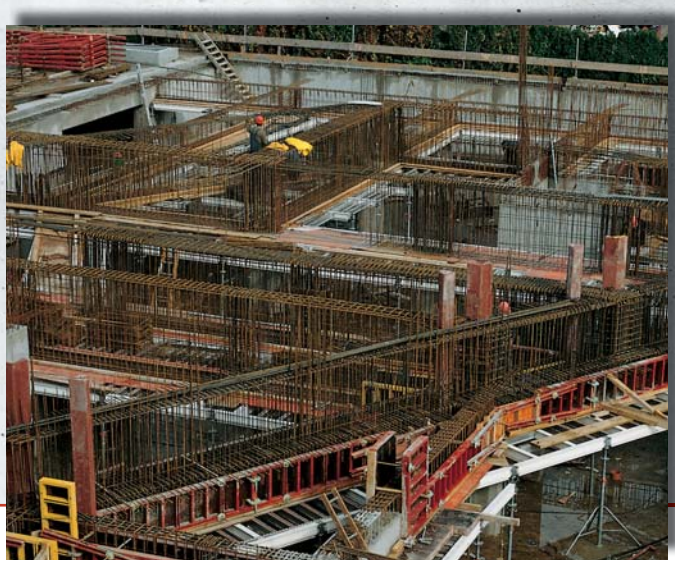
Full height elements



Additional large panel element with 6.50 m²

Half height elements

Casing with an element combination, pre-assembled on the floor. The brace bars provide stiffness during set-up.



The FEBE formwork is sufficiently flexible to shutter floor joists without the use of special-purpose accessories.

Safe and reliable crane displacement of a 28 m² element assembly using just FEBE quick fastening clamps.

Element in cm	Weight in kg	m²	Element in cm	Weight in kg	m²
250.0 x 250.0	395.0	6.25			
125.0 x 250.0	155.0	3.12	125.0 x 125.0	78.0	1.56
100.0 x 250.0	130.0	2.50	100.0 x 125.0	68.0	1.25
88.0 x 250.0	117.5	2.20	88.0 x 125.0	63.0	1.10
82.0 x 250.0	112.0	2.05	82.0 x 125.0	61.0	1.02
76.0 x 250.0	107.0	1.90	76.0 x 125.0	59.0	0.95
72.0 x 250.0	98.0	1.80	72.0 x 125.0	57.0	0.90
62.0 x 250.0	89.5	1.55	62.0 x 125.0	54.0	0.77
56.0 x 250.0	83.5	1.40	56.0 x 125.0	44.0	0.70
53.0 x 250.0	80.0	1.32	53.0 x 125.0	42.5	0.66
51.0 x 250.0	78.0	1.27	51.0 x 125.0	41.0	0.63
50.0 x 250.0	76.5	1.25	50.0 x 125.0	39.0	0.62
46.0 x 250.0	72.0	1.15	46.0 x 125.0	37.5	0.57
43.0 x 250.0	69.5	1.07	43.0 x 125.0	37.0	0.54
38.0 x 250.0	64.5	0.95	38.0 x 125.0	34.5	0.47
33.0 x 250.0	60.0	0.82	33.0 x 125.0	31.5	0.41
30.0 x 250.0	56.0	0.75	30.0 x 125.0	30.0	0.37
24.0 x 250.0	50.8	0.60	24.0 x 125.0	27.0	0.30
20.0 x 250.0	46.0	0.50	20.0 x 125.0	25.0	0.25

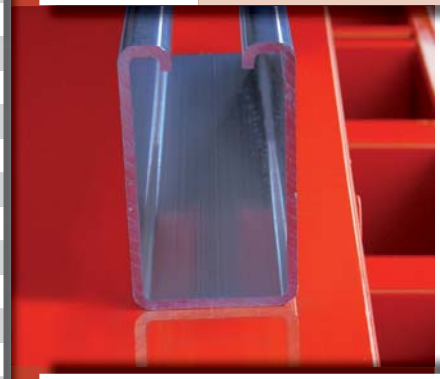
Element in cm	Weight in kg	m²	Element in cm	Weight in kg	m²
240.0 x 270.0	420.0	6.48			
135.0 x 270.0	178.0	3.64	135.0 x 135.0	101.0	1.82
100.0 x 270.0	140.0	2.70	100.0 x 135.0	95.0	1.35
92.0 x 270.0	132.0	2.48	92.0 x 135.0	74.0	1.24
90.0 x 270.0	130.0	2.43	90.0 x 135.0	72.0	1.22
88.0 x 270.0	127.0	2.37	88.0 x 135.0	70.0	1.19
82.0 x 270.0	120.0	2.21	82.0 x 135.0	66.0	1.10
76.0 x 270.0	114.0	2.05	76.0 x 135.0	62.0	1.02
72.0 x 270.0	110.0	1.94	72.0 x 135.0	60.0	0.97
62.0 x 270.0	100.0	1.64	62.0 x 135.0	54.0	0.84
56.0 x 270.0	93.0	1.51	56.0 x 135.0	50.0	0.76
51.0 x 270.0	88.0	1.37	51.0 x 135.0	48.0	0.67
50.0 x 270.0	87.0	1.35	50.0 x 135.0	47.0	0.67
46.0 x 270.0	82.0	1.24	46.0 x 135.0	45.0	0.62
43.0 x 270.0	79.0	1.16	43.0 x 135.0	43.0	0.58
38.0 x 270.0	74.0	1.02	38.0 x 135.0	41.0	0.51
33.0 x 270.0	70.0	0.89	33.0 x 135.0	38.0	0.44
30.0 x 270.0	65.0	0.81	30.0 x 135.0	35.0	0.41
24.0 x 270.0	60.0	0.64	24.0 x 135.0	31.0	0.32
20.0 x 270.0	55.0	0.54	20.0 x 135.0	29.0	0.27

Even large-panel formworks of varying element widths can be used to shutter any ground plan.

XT

Steel formwork

Frame thickness:	12 cm
Material:	Steel powder-coated
Union between elements:	2 quick-fastening clamps
Green concrete pressure:	48 kN/m²
Shuttering time:	0.2 / 0.4 h/m²



The benefits:

- 6.5 m² using just one element
- Up to 48 kN green concrete pressure!
- Fast positioning of large-panel walls
- Flexibility via wide range of element widths
- Stack-up element assembly system
- Can be set-up vertically and crossways

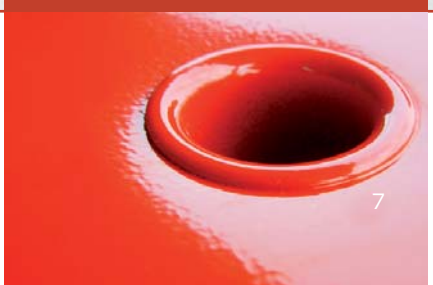
The Giants up to 6.5 m²

Thanks to their 12cm-wide frame profile section, the formwork elements of the XT series can reliably withstand green-cement pressures of up to 48 kN/m². The XT series is designed for large-panel wall, curved, and column formwork for hoisting by crane.

Large-panel standard elements need only two fastening points at the top of each element. When used with FEBE quick-fastening clamps, they permit very short shuttering times of approx. 0.2 or 0.4 hrs/m². And if that's still not fast enough, a special large-panel element measuring 240 x 270 cm can be used to shutter 6.5 m² with a single element.

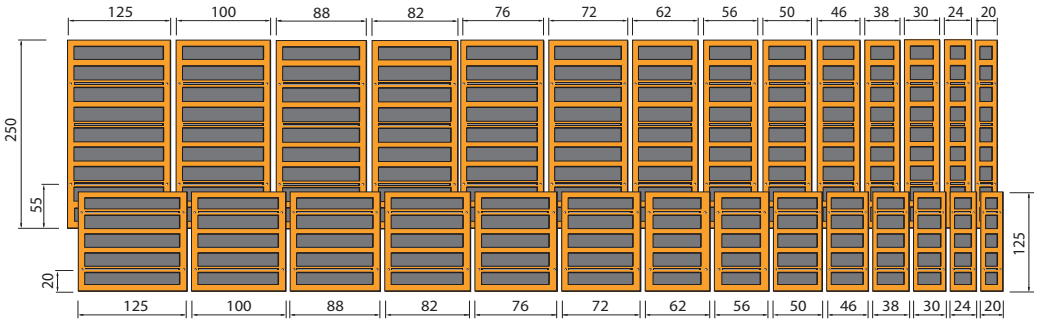
Wedges and bolts can be used to make large-panel composite elements for faster positioning in repetitive work cycles. The wedges and bolts do not extend beyond the element frame, so these composite elements can be stacked flat.

Thanks to the series production of various element widths, just about any ground plan can be shuttered with our standard range of products. This means that you will not need expensive, special-purpose formworks or costly accessories.



AT 2500 /1250

Full height elements

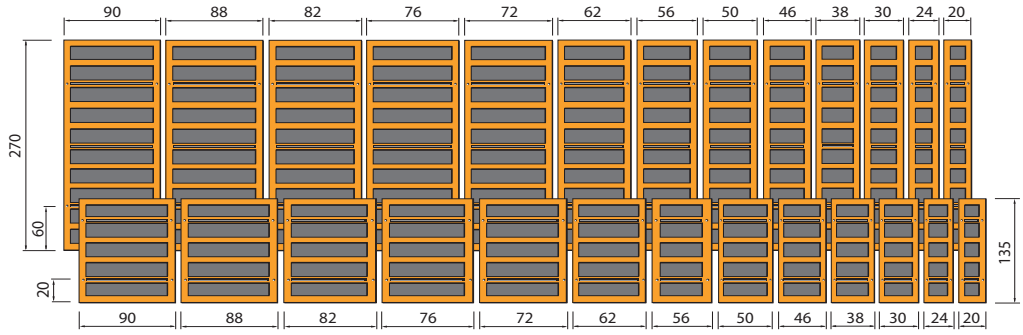


Half height elements

AT 2700 /1350

Custom sizes on request!

Full height elements



Half height elements

Even large-panel formwork elements are so light that the entire formwork can be erected manually.

Two quick-fastening clamps are all that is needed to join the elements. These clamps are so strong that just two clamps per element are enough to move large-panel formworks.

The rigid outer corners are manufactured from high-grade press-drawn aluminium. Their uniform section means you can join them at any point using quick-fastening clamps.

Element in cm	Weight in kg	m²
125.0 x 250.0	81.6	3.12
100.0 x 250.0	67.0	2.50
88.0 x 250.0	60.5	2.20
82.0 x 250.0	57.8	2.05
76.0 x 250.0	54.0	1.90
72.0 x 250.0	52.3	1.80
62.0 x 250.0	46.0	1.55
56.0 x 250.0	43.0	1.40
51.0 x 250.0	40.5	1.27
50.0 x 250.0	40.2	1.25
46.0 x 250.0	37.2	1.15
43.0 x 250.0	35.4	1.07
38.0 x 250.0	32.4	0.95
37.0 x 250.0	28.5	0.92
30.0 x 250.0	26.5	0.75
24.0 x 250.0	25.5	0.60
20.0 x 250.0	19.0	0.50

Element in cm	Weight in kg	m²
125.0 x 125.0	43.3	1.56
100.0 x 125.0	36.0	1.25
88.0 x 125.0	32.4	1.10
82.0 x 125.0	30.5	1.02
76.0 x 125.0	28.9	0.95
72.0 x 125.0	27.7	0.90
62.0 x 125.0	24.8	0.77
56.0 x 125.0	22.9	0.70
51.0 x 125.0	21.4	0.64
50.0 x 125.0	21.2	0.62
46.0 x 125.0	20.0	0.57
43.0 x 125.0	19.0	0.54
38.0 x 125.0	17.5	0.47
37.0 x 125.0	15.2	0.46
30.0 x 125.0	14.5	0.37
24.0 x 125.0	13.4	0.30
20.0 x 125.0	12.5	0.25

Element in cm	Weight in kg	m²
90.0 x 270.0	65.0	2.43
88.0 x 270.0	64.2	2.37
82.0 x 270.0	60.8	2.21
76.0 x 270.0	57.3	2.05
72.0 x 270.0	55.0	1.94
62.0 x 270.0	49.3	1.67
56.0 x 270.0	45.7	1.51
51.0 x 270.0	42.9	1.38
50.0 x 270.0	41.7	1.35
46.0 x 270.0	40.0	1.24
43.0 x 270.0	38.4	1.16
38.0 x 270.0	35.5	1.02
30.0 x 270.0	31.0	0.81
24.0 x 270.0	27.5	0.64
20.0 x 270.0	25.5	0.54

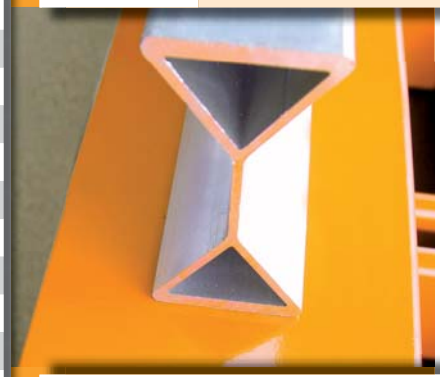
Element in cm	Weight in kg	m²
90.0 x 135.0	34.5	1.21
88.0 x 135.0	33.9	1.18
82.0 x 135.0	32.0	1.10
76.0 x 135.0	30.0	1.02
72.0 x 135.0	29.0	0.97
62.0 x 135.0	26.0	0.83
56.0 x 135.0	24.0	0.75
51.0 x 125.0	22.5	0.69
50.0 x 135.0	22.0	0.67
46.0 x 135.0	21.0	0.62
43.0 x 135.0	20.0	0.58
38.0 x 135.0	18.6	0.51
30.0 x 135.0	16.0	0.40
24.0 x 135.0	14.5	0.32
20.0 x 135.0	12.5	0.27

A complete ground plan manually shuttered on site without using a crane.

AT

Aluminium formwork

Frame thickness:	**8 cm**
Material:	**Aluminium, powder-coated**
Union between elements:	**2 quick-fastening clamps**
Green conrete pressure:	**65 kN/m²**
Shuttering time:	**0.3 h/m²**



The benefits

- Only 65 kg per 2.5 m²
- Wide range of elements for more flexibility in all ground plans
- Rapid manual set-up onsite
- Aluminum formwork basement with a great future
- No crane required
- Ideal combination with XT systems via universally compatible accessories

Fully in trend: site managers agree on the advantages of aluminum formwork

The reason is clear: the largest full element of the AT series – 900 x 2700 mm – weighs only 65 kg and can still shutter an area of almost 2.5 m2. Even complete ground plans can be manually formed.

The elements are manufactured from high-grade press-drawn aluminium and are 5 mm thick. This makes them strong enough for hoisting by crane as large-panel elements - so you can simultaneously position fixed composite elements for repeated work cycles.

All aluminium components have a light-grey powder coating. This reduces the adhesion of the concrete to the frame and makes it easier to keep elements clean.

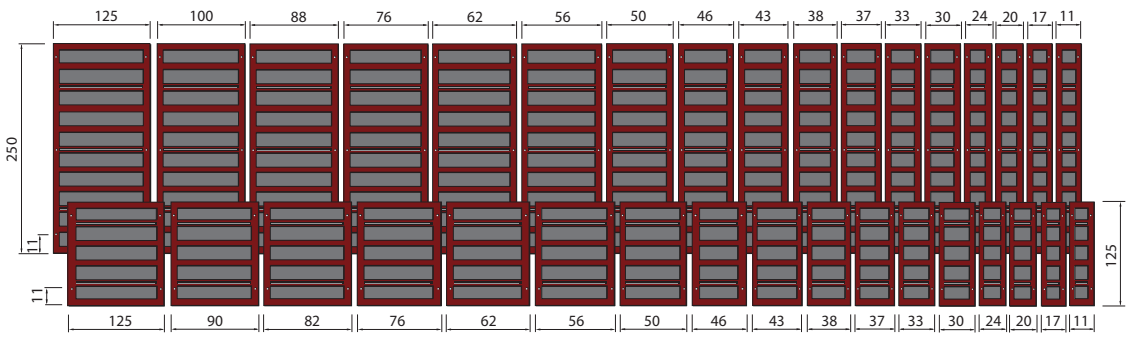
AT elements require only two fastening points at the top of each element.

Joined with two quick-fastening clamps per unit, AT elements align automatically and can withstand green cement pressures of up to 65 kN/m2.

The lightweight AT elements can be combined with any elment from other FEBE Systems. For you, the customer, this means that you can use any SL and XT elements you have in stock if the frame is not wide enough.

SL 2500 /1250

Full height elements

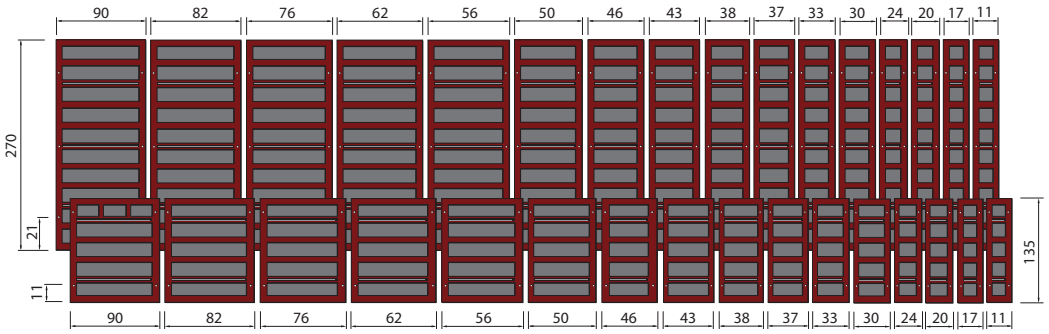


Half height elements

SL 2700 /1350

Custom sizes on request!

Full height elements



Half height elements

The light SL formwork is the ideal solution for cast concrete sections of 5 m height

Even complicated ground plans are easy to shutter using just standard elements.
Single-faced walls are lined with FEBE shoring frames.

Element in cm	Weight in kg	m²
125.0 x 250.0	113.0	3.12
100.0 x 250.0	86.0	2.50
87.5 x 250.0	82.0	2.20
75.0 x 250.0	70.0	1.90
62.5 x 250.0	64.0	1.55
56.0 x 250.0	62.0	1.40
53.0 x 250.0	61.0	1.32
51.0 x 250.0	60.0	1.27
50.0 x 250.0	59.0	1.25
48.0 x 250.0	57.0	1.20
46.0 x 250.0	55.0	1.15
43.0 x 250.0	53.0	1.07
41.0 x 250.0	50.0	1.02
38.0 x 250.0	49.0	0.95
37.0 x 250.0	48.0	0.92
33.0 x 250.0	46.0	0.82
30.0 x 250.0	44.0	0.75
28.0 x 250.0	43.0	0.70
25.0 x 250.0	41.0	0.62
24.0 x 250.0	40.0	0.60
20.0 x 250.0	38.0	0.50
17.0 x 250.0	36.0	0.42
11.0 x 250.0	30.0	0.27

Element in cm	Weight in kg	m²
125.0 x 125.0	59.0	1.56
100.0 x 125.0	48.0	1.25
87.5 x 125.0	44.0	1.10
75.0 x 125.0	37.5	0.95
62.5 x 125.0	33.0	0.78
56.0 x 125.0	32.0	0.70
53.0 x 125.0	31.5	0.66
51.0 x 125.0	31.0	0.64
50.0 x 125.0	30.0	0.63
48.0 x 125.0	29.0	0.60
46.0 x 125.0	28.0	0.58
43.0 x 125.0	27.0	0.54
41.0 x 125.0	26.5	0.51
38.0 x 125.0	25.5	0.48
37.0 x 125.0	25.0	0.46
33.0 x 125.0	24.0	0.41
30.0 x 125.0	23.0	0.38
28.0 x 125.0	22.0	0.35
25.0 x 125.0	21.0	0.26
24.0 x 125.0	20.5	0.30
20.0 x 125.0	20.0	0.25
17.0 x 125.0	19.0	0.21
11.0 x 125.0	17.0	0.14

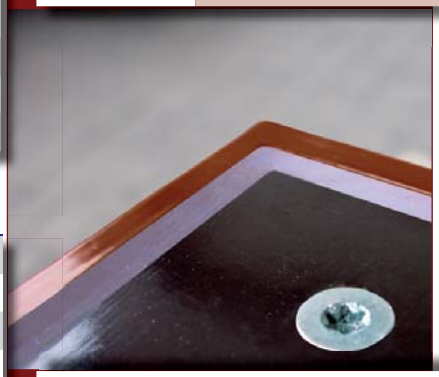
Element in cm	Weight in kg	m²
90.0 x 270.0	88.0	2.43
82.0 x 270.0	82.0	2.21
75.0 x 270.0	75.5	2.05
62.5 x 270.0	66.0	1.67
62.0 x 270.0	65.5	1.65
56.0 x 270.0	62.0	1.51
50.0 x 270.0	60.0	1.35
46.0 x 270.0	57.0	1.24
43.0 x 270.0	55.0	1.16
38.0 x 270.0	51.0	1.02
37.0 x 270.0	50.0	0.99
33.0 x 270.0	48.0	0.89
30.0 x 270.0	46.0	0.81
24.0 x 270.0	42.0	0.64
20.0 x 270.0	40.0	0.54
17.0 x 270.0	37.5	0.45
11.0 x 270.0	33.5	0.29

Element in cm	Weight in kg	m²
90.0 x 135.0	48.0	1.21
82.0 x 135.0	44.0	1.10
75.0 x 135.0	37.0	1.02
62.5 x 135.5	35.0	0.84
62.0 x 135.0	34.5	0.83
56.0 x 135.0	34.0	0.75
50.0 x 135.0	32.0	0.67
46.0 x 135.0	31.0	0.62
43.0 x 135.0	29.0	0.58
38.0 x 135.0	27.5	0.51
37.0 x 135.0	27.0	0.49
33.0 x 135.0	26.0	0.44
30.0 x 135.0	25.0	0.40
24.0 x 135.0	23.0	0.33
20.0 x 135.0	21.5	0.28
17.0 x 135.0	19.5	0.23
11.0 x 135.0	18.0	0.15

SL

Steel formwork

Frame thickness:	**8 cm**
Material:	**Steel, powder-coated**
Union between elements:	**2 quick-fastening clamps**
Green concrete pressure:	**70 kN/m²**
Shuttering time:	**0.5 h/m²**



The benefits

- Slim, small and light
- Easy to move manually and without a crane
- The ideal solution for small building sites
- Proven system over decades
- New SL elements compatible for assembly with older SL formwork system
- Suitable for combination with XT and AT elements

Proven, versatile, affordable

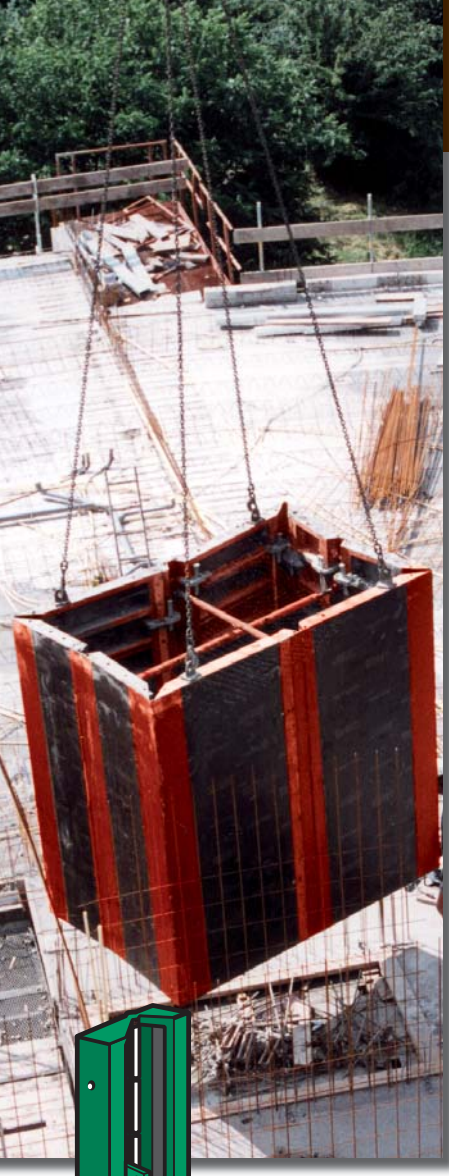
SL formwork elements are the most affordable introduction to FEBE steel formwork systems. The most basic option, they have proved thier value over decades of use.

In spite of continuous technical development, the basic concept of SL formwork has been retained. For the user, this means full compatibility between the SL elements already in use - no matter how old they are - and the SL elements of the latest generation.

The SL formwork is particularly recommended for small building sites with no space for a crane or when the crane loading capacity does not accomplish the requirements. The SL elements with a frame width of 8 cm are slimmer, smaller and lighter than XT elements and can be moved manually with ease.

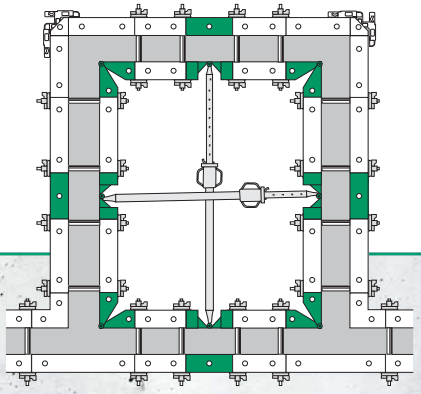
A wide range of well-tuned element widths makes possible accuratley fitting formwork assemblies that can withstand a max. green concrete pressure up to 70 kN/m².

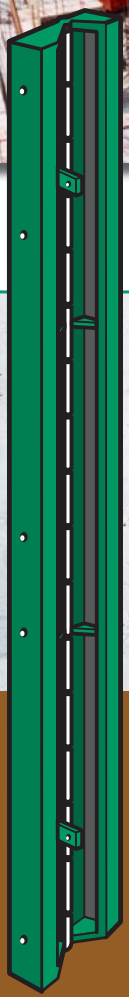
To acheive this, three fastening points over the complete height of the element are required, along with two quick fastening clamps for each pair of elements.

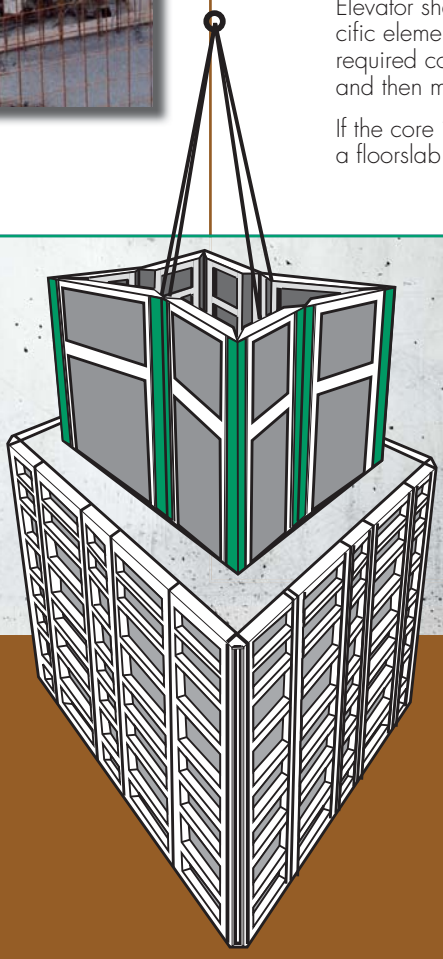


Elevator shafts can be built up using a single specific element: the FEBE elevator shaft element. The required core cross-section is set up just once on site and then moved up from storey to storey.

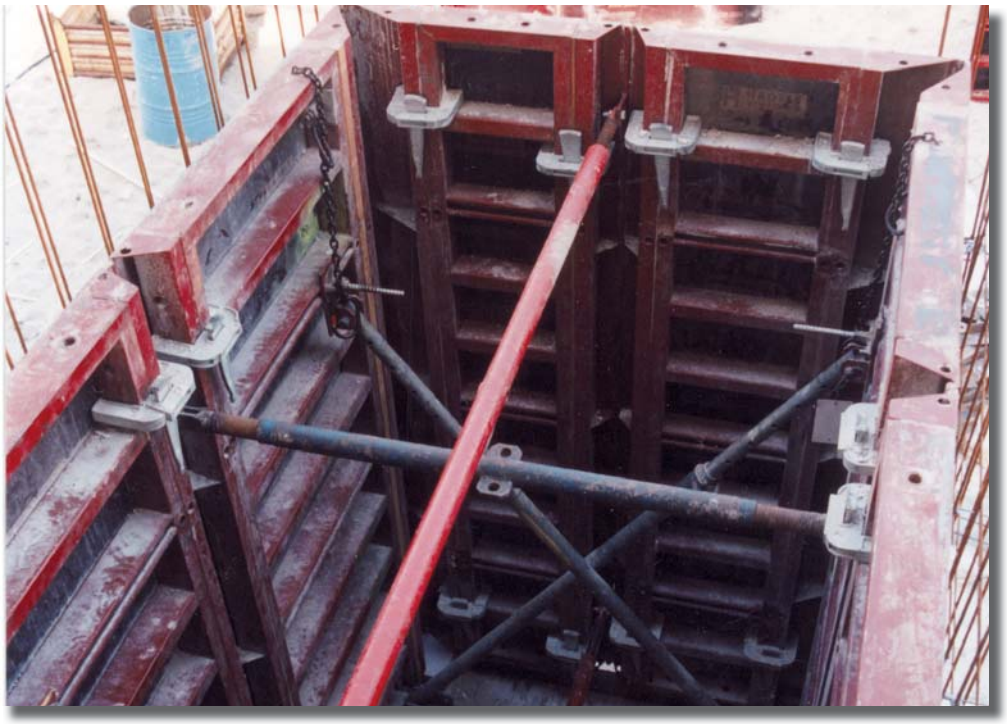
If the core is set high enough, it can also be used as a floorslab edge formwork.







Elevator shaft elements

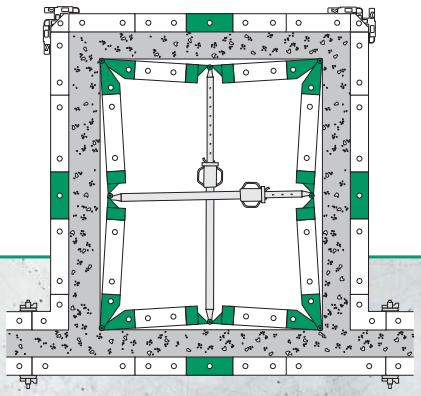


The basic core for the elevator shaft formwork consists of mobile inner corners, standard elements and, if necessary, fittings from the FEBE products line with the appropriate inner size.

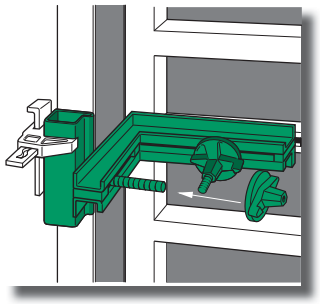
The elevator shaft elements are used as a middle section. A quick-fastening clamp joins the elements.

The FEBE elevator pit element can even be used for non-symmetrical lift shafts.

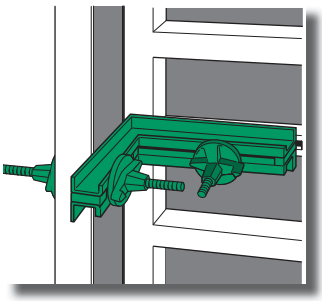
The core is compressed using compression and tension spindles. It can now me removed easily.



The new column formwork element can be set up directly at the corner without the need for a complex substructure.

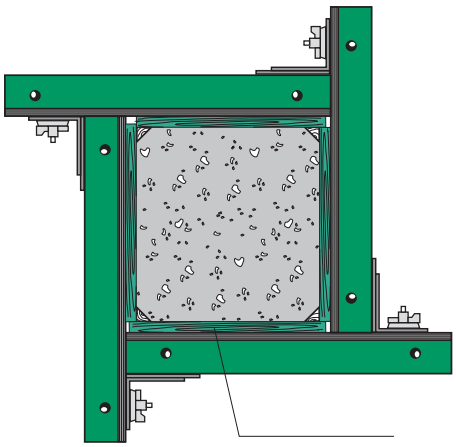


Angle braces fixed on the frame (SL)

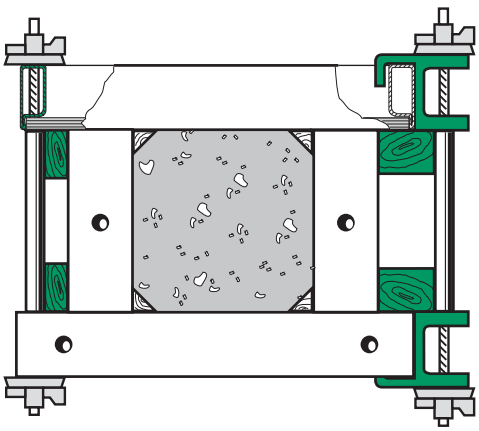


Angle braces fixed through the frame (XT/AT)

2.70-metre-high column formwork element for balcony columns.

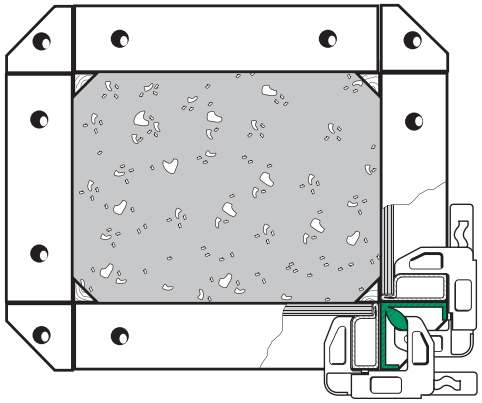


Using FEBE standard elements to create a load-bearing column: … shuttered with standard elements and angle braces.

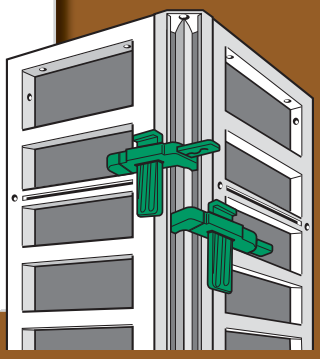


… shuttered with standard elements and claw-type clamps.

Column formwork



… shuttered with standard elements, outer corners and quick-fastening clamps.



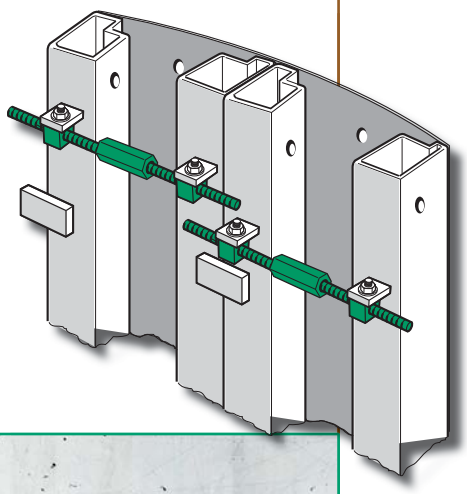
The FEBE column formwork element system includes four individual elements and matching prestressing accessories. Each column formwork element is 90 cm wide and is available in heights of 135 and 270 cm. This means that you can increase height by up to 1080 cm. You can use the column formwork element to shutter cross-sections with edge lengths between 10 x 10 cm and 80 x 80 cm. The dimensions are infinitely variable.

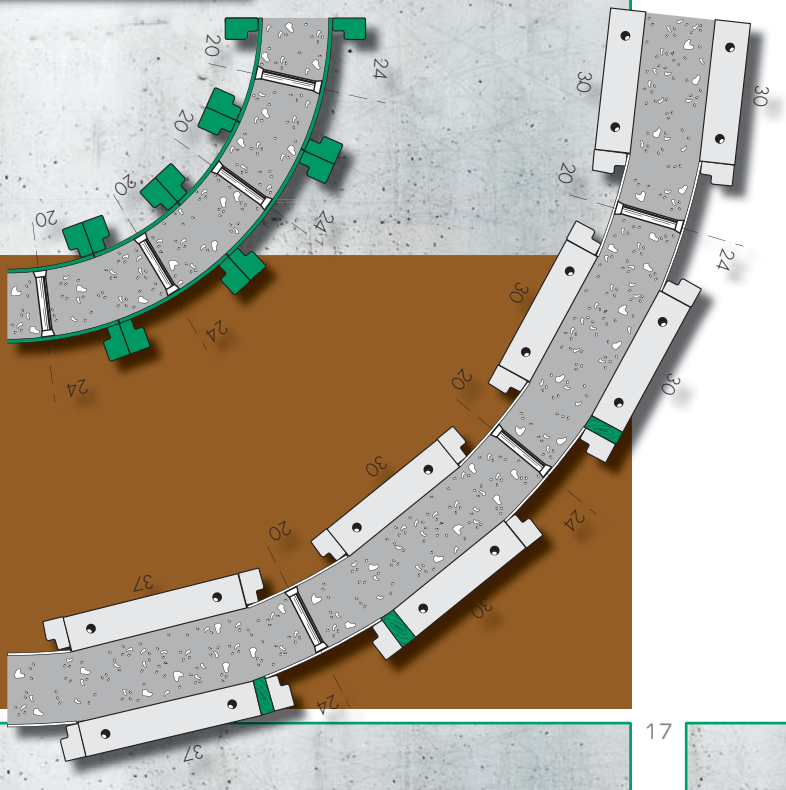
With FEBE column formwork elements you can shutter any (square or rectangular) column cross-section. Column formwork elements are braced according to the „wind vane" principle, making prestressing anchors unnecessary. Compression and tension supports are secured to the outer C-section track. They hold the formwork upright and enable it to be aligned later. When mounting the formwork element, additional brace bars are secured from the outside. The formwork shell is fitted and bolted from the rear. When erected in this way, the new column formwork elements produce exposed concrete with an absolutely smooth facing.

Triangular chamfer strips can then be attached to the formwork shell.

The column formwork elements are available as a set and are supplied complete with accessories.

Circular wall formwork





The proven FEBE Flex elements are available for each system in 200, 240 and 280 mm widths, suitable for forming all diameters from 1000 mm upwards.

- **The flexibility** of the FEBE Flex is provided by the thick, solid steel sheet lining.
- **The strength** comes from the solid frame reinforcement.
- **The radius accuracy** is provided by adjustable cross reinforcements at top and bottom.

FEBE quick-fastening clamps facilitate easy and plannable work; when forming curves with a larger radius, reinforcing crossbeams are recommended inside and outside to prevent undesired bending.

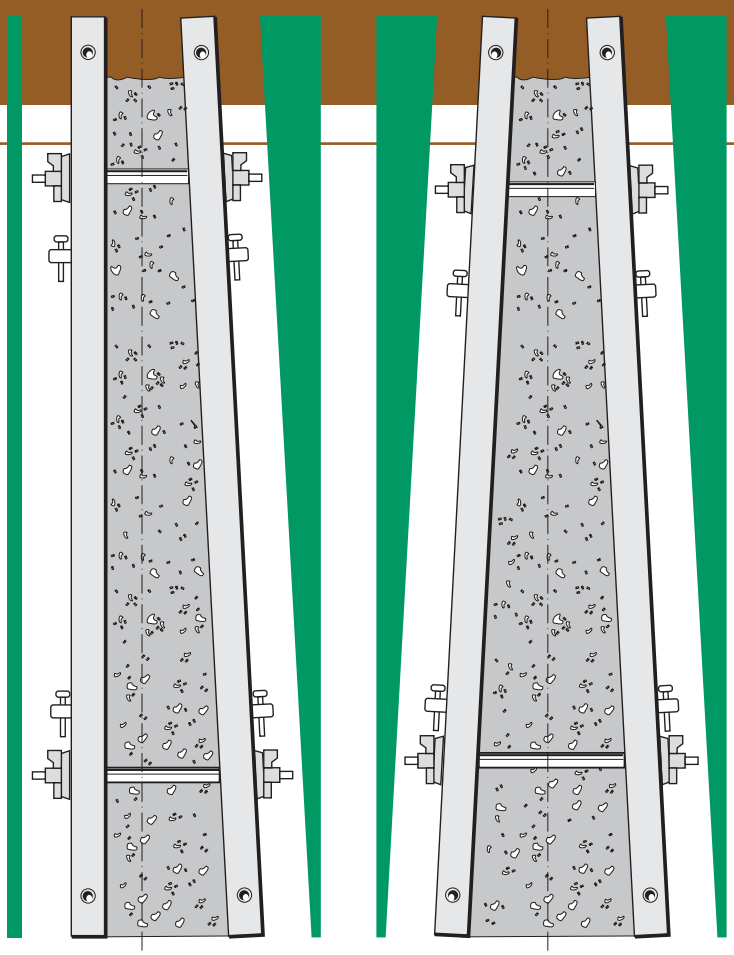
The Flex elements also allow steplessly adjustable height offset; this facilitates the construction of high entrances to underground garages and deep clarifiers, as well as circular pits of single-face construction.

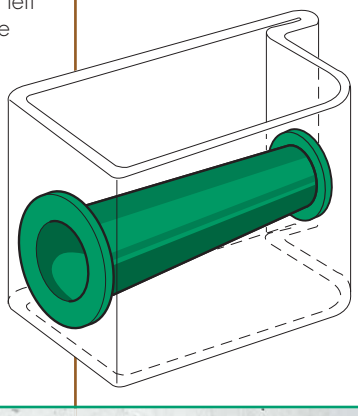
Depending on radius, wall height and wall thickness, FEBE offers a number of solutions for the forming of curved walls. And to ensure smooth progress at your site, FEBE also offers you qualified on-the-spot consultancy and planing services as well as curved flexible elements for rent at affordable prices.

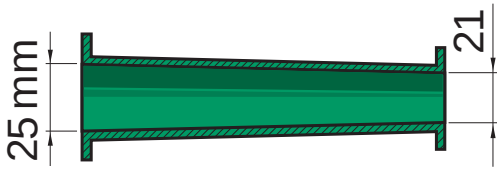
FEBE wall formwork can be used to form conical walls with up to 3° of inclination on one or both sides. This has been made possible by providing the FEBE formwork with fastening points able to accommodate the corresponding conical sleeves. Fastening takes place with standard threaded rods and the FEBE supernut with mobile pressure plate. The spherical support allows the plate can be set to an inclination between 3° and 4°. The ball and socket joint also separates the nut, providing absolute stability to the base plate.

The conically shaped sleeves provide the following benefits:

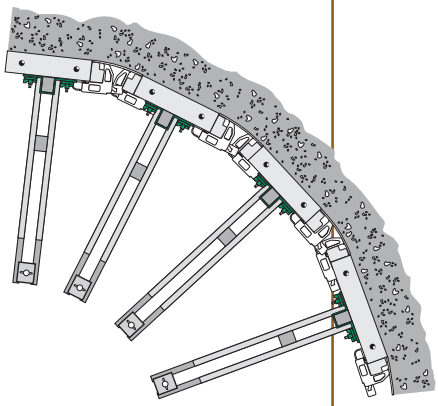
- Quick assemblage: The insertion of the threaded rods is quicker, because more mobility space is available to accurately hit the fastening point of the opposite formwork wall.
- Easy cleaning: if an unused fastening point has been inadvertantly left open, hardened concrete can be easily tapped backwards out of the cone.







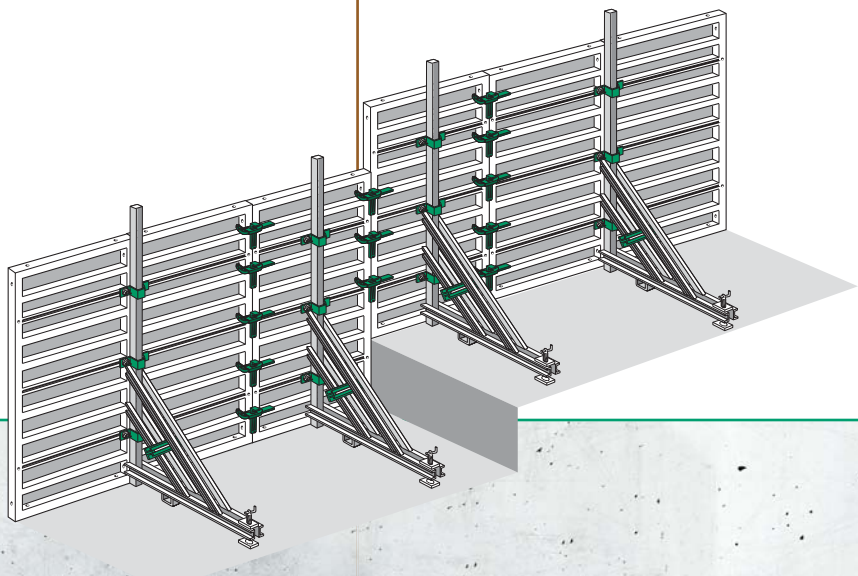
Single-faced and conical formwork

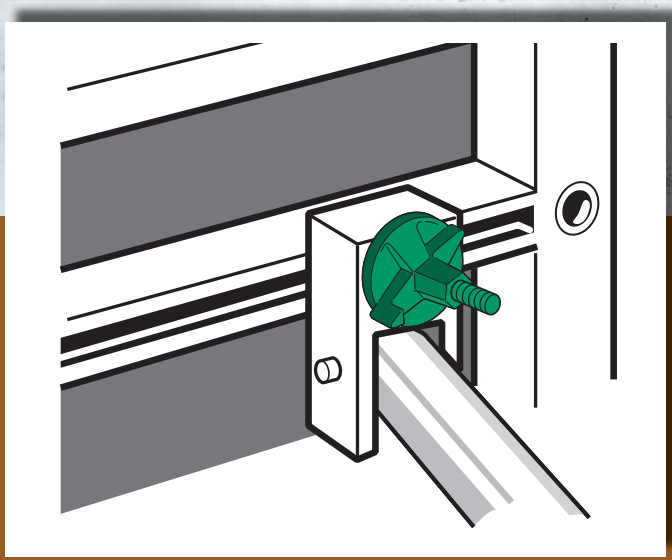


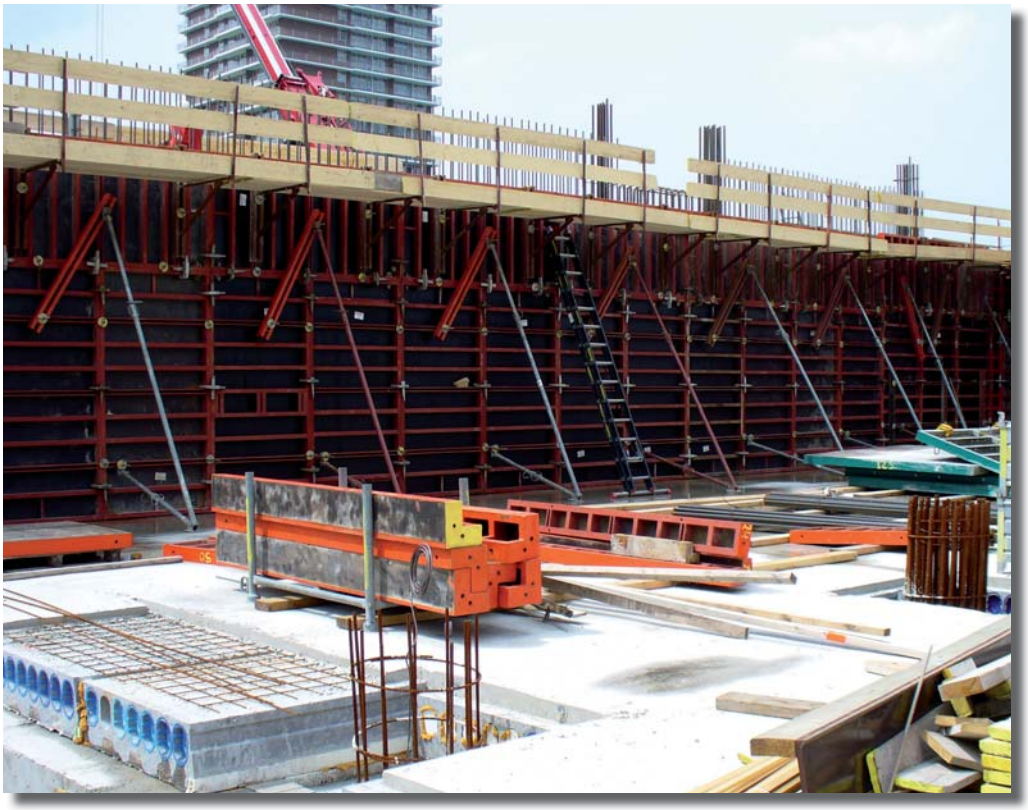
The FEBE cantilever truss is the backbone of single-faced formwork. It is secured directly to the formwork elements and does not require long set-up times.

An adjustment spindle lets you adapt the cantilever truss to various inclinations of the formwork wall. Differences in ground level can be compensated directly at the base of the cantilever truss.

The cantilever truss matches all FEBE formwork elements.



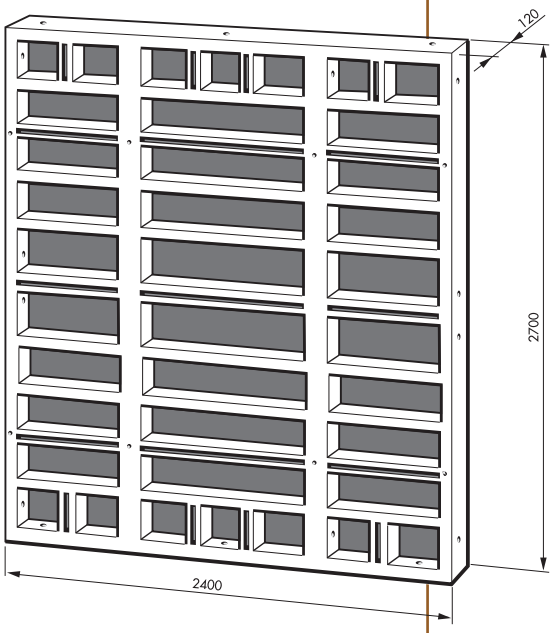




Formwork for large areas

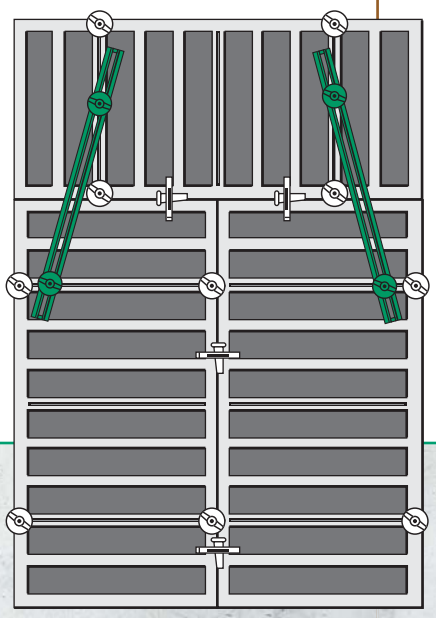
Any desired wall height can be set up with stack-up FEBE formwork elements. The flexibility, but also the predictable economy of the building performance results from:

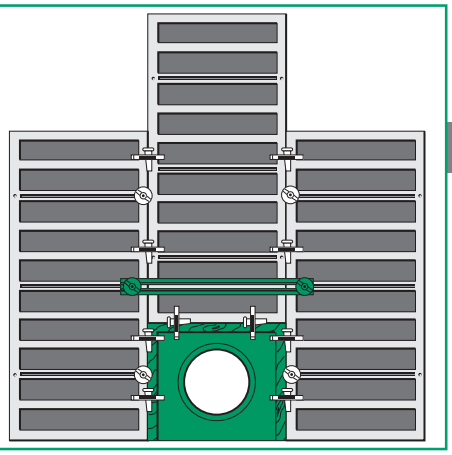
- The option of using all elements vertically or horizontally.
- The use of quick-fastening clamps, which can be placed anywhere on the frame, independently of screen points.
- Variable additional stabilizers using cross beams within the formwork C-profiles.
- Safe crane displacement of element assemblies.
- Elements assemblies built with bolts and wedges can be stacked up.



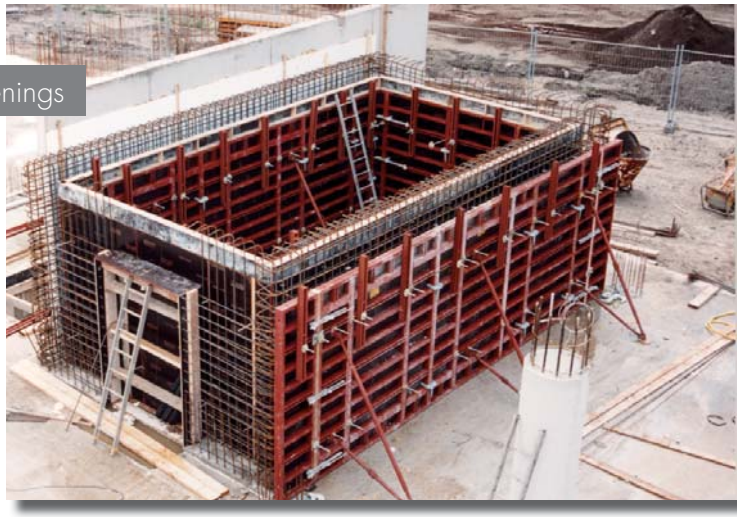
The largest elements of the XT line measure 250 x 250 and 240 x 270 cm.

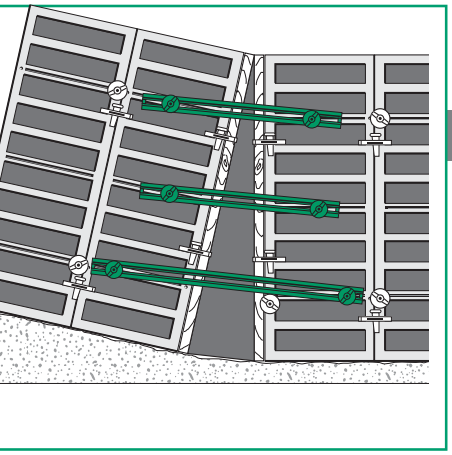
This corresponds to 6.25 or 6.5 m^2 per element. The fastening points are arranged so that the XT large-panel formwork elements can be placed either vertically ("portrait") or horizontally ("landscape").





Wall openings

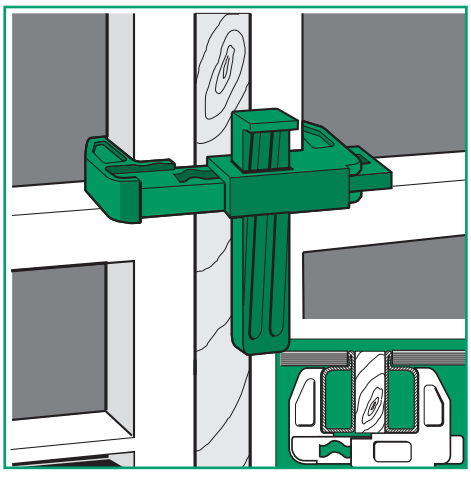




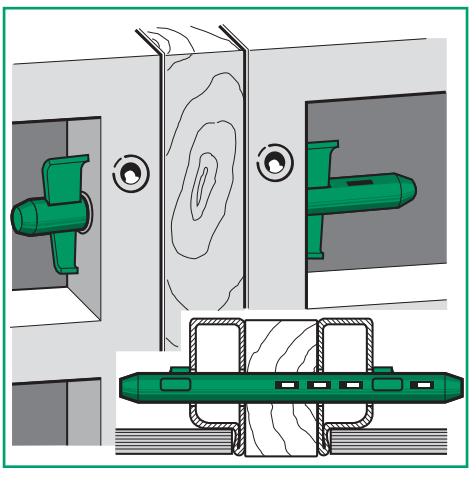
Soil inclinations

Length compensation

The FEBE quick-fastening clamps allow users to compensate for up to 10 cm on XT / AT systems and up to 8 cm on SL systems without requiring any accessories.



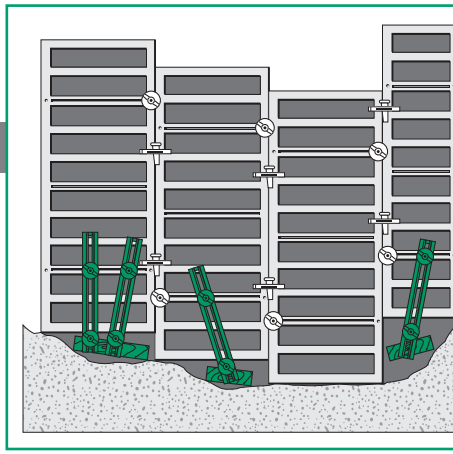
Compensation with wedge and FEBE 6-hole pin, stackable



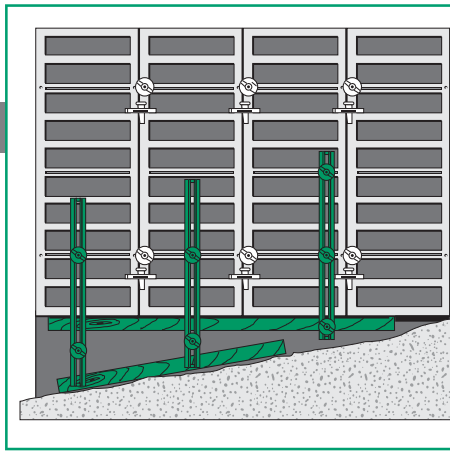
Length and height compensation

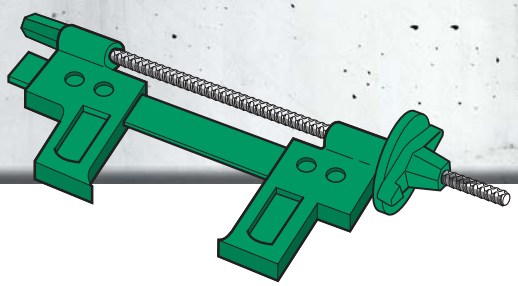
Height compensation …

… using cross beams

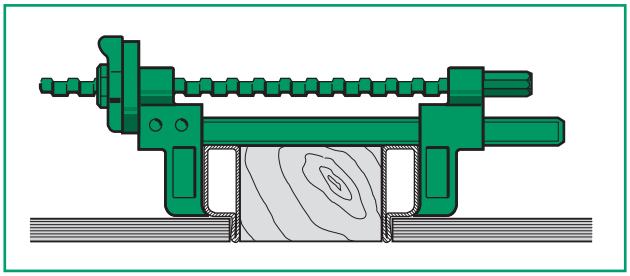


Alignment with soil profile

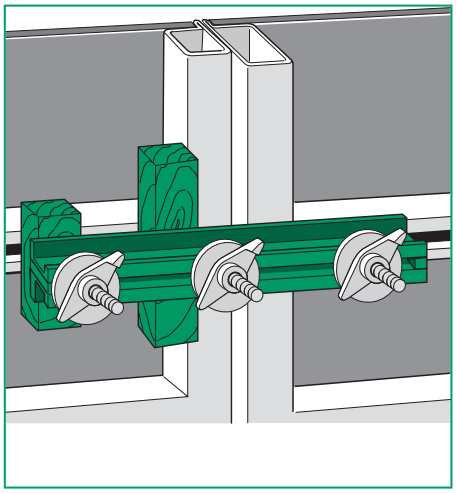


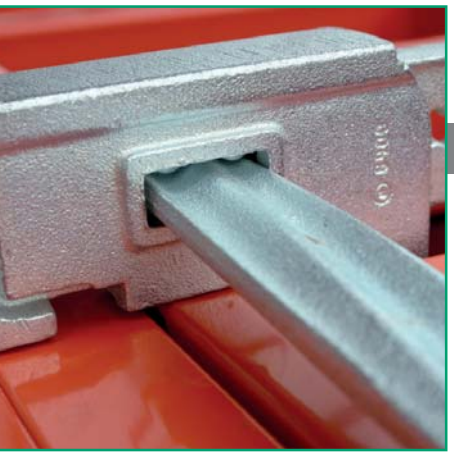


The alignment clamp permits alignment adjustments of up to 35 cm.



If joining clamps are not available, height differences can be compensated for onsite using cross beams and squared timber.



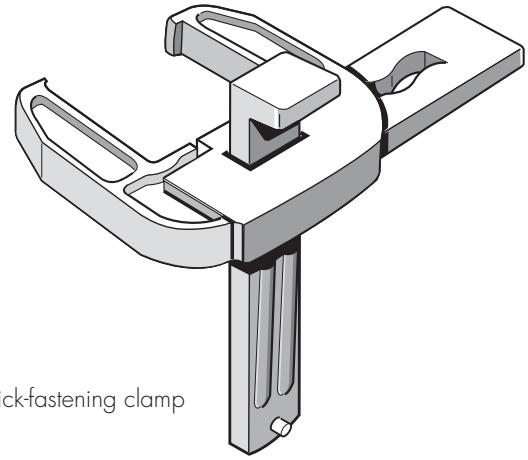


Quick-fastening clamps

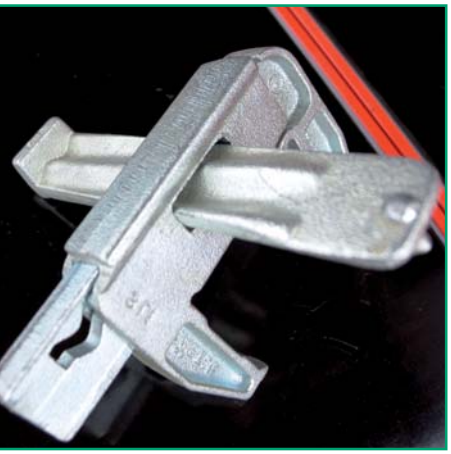
With the new FEBE quick-fastening clamps, all individual module elements are connected quickly, accurately and tightly.

They offer all the flexibility required on a construction site:

- one universal accurate and tight connection, close to the concrete side of the frame profile.
- a single component does the job
- one hammer blow and the connector is placed at any desired point of the framework
- free space for further placement of alignment supports and fastening nuts
- compensation for different frame heights
- variable compensation of lengths up to 10 cm (or 8 cm, depending on system)
- steady, reliable connection between FEBE systems and system generations
- quick clear-up
- easy storage
- reliable disposal



Quick-fastening clamp

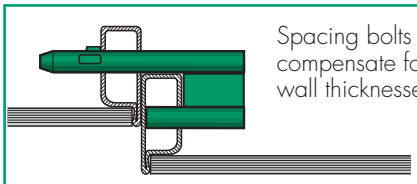


One size fits all...

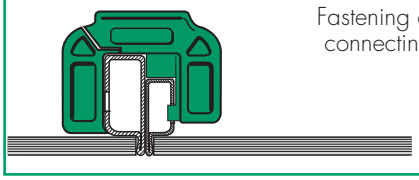
As usual, the clamp is tensioned with a forceful blow to the wedge. The clamp grips the front of the framework section - this means it's as close as possible to the concrete side.

- for all systems
- for all system generations
- for rigid corners
- for adjustable corners
- for curved formwork elements

Quick and reliable connections



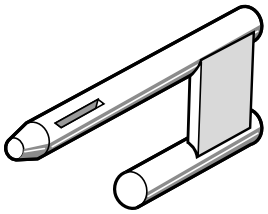
Spacing bolts used to compensate for different wall thicknesses



Fastening clamps for connecting systems:
SL and XT
SL and AT
AT and XT

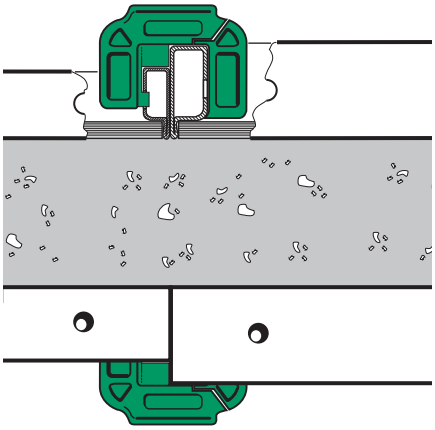
Bolt and wedge: stackable

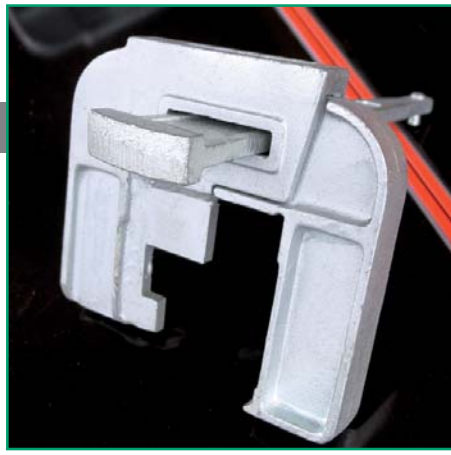
FEBE wall formwork elements can of course also be traditionally connected by means of bolt and wedge on 3 points each and securely provide the required, rated green concrete pressure.

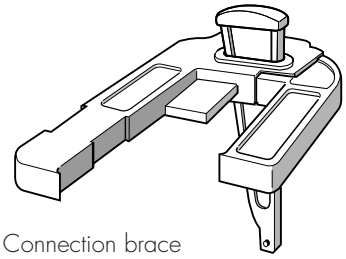


Older SL elements were finished with straight profiles. A specially designed fastening clamp is available for the fast connection of these old SL elements to XT or AT units. It grips the fastening point of the SL element on one side and the profile of the XT or AT on the other. The elements are aligned accurately and tightly, and different framework heights are compensated for.

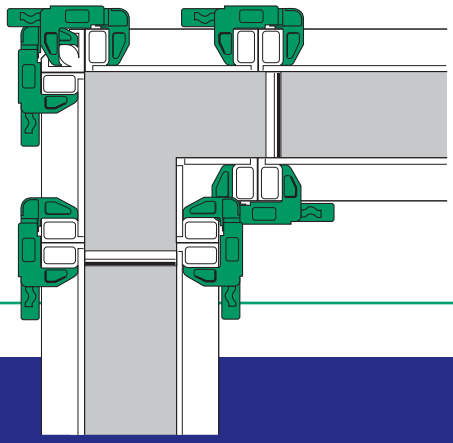
Connecting clamp







Connection brace



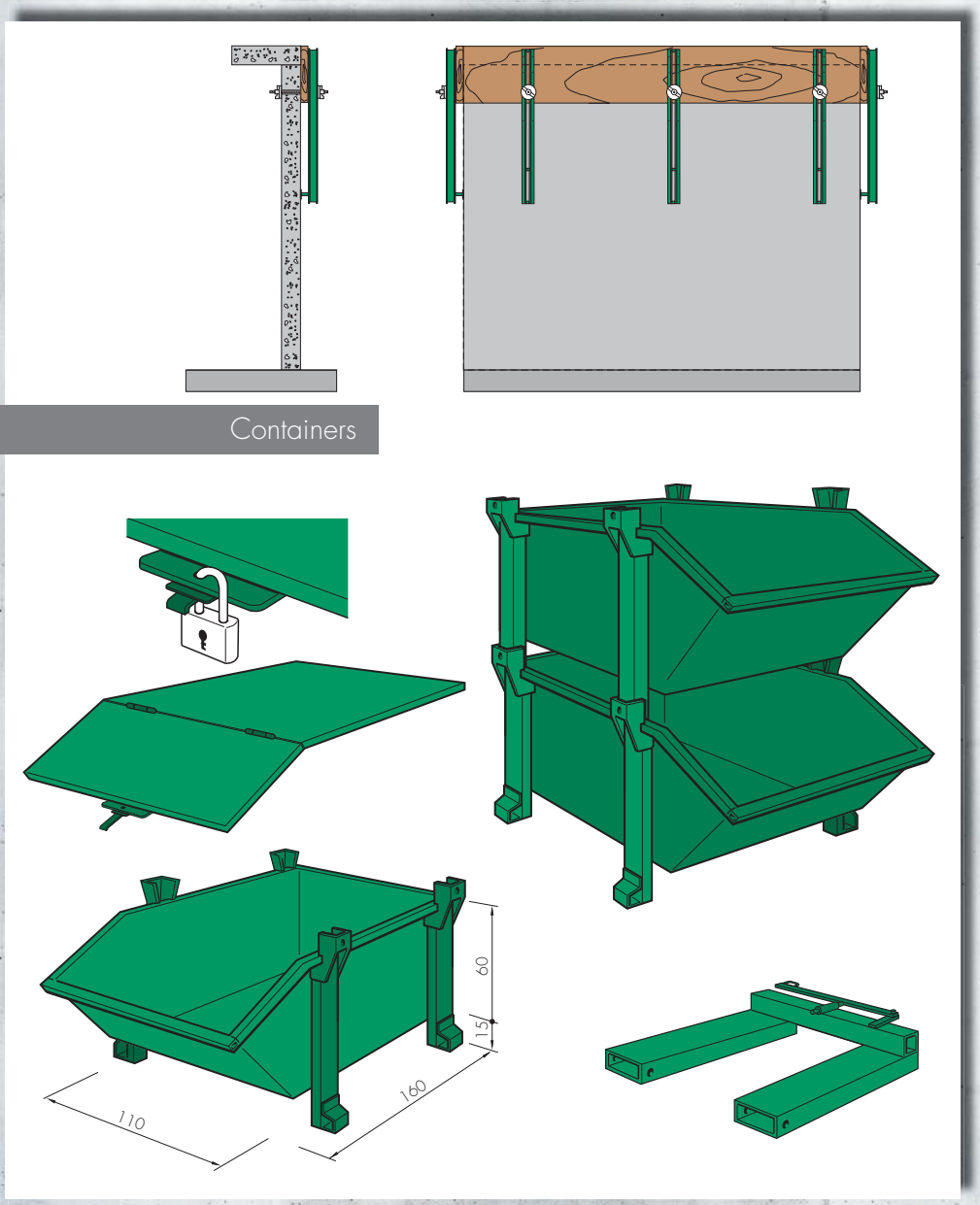
Steady corners

The rigid outer corners are made of a heavy-duty extruded aluminum profile; its smooth profile allows the quick-fastening clamps to be placed anywhere.

Floorslab edge formwork

The floorslab edge formwork track is handled in much the same way as a brace bar. It is braced by threaded rods which are fed through the fastening points produced during shuttering work.

A plank is nailed to one end of the brace bar through the holes in the bar. The spacer at the other end of the bar compensates for the thickness of the plank while ensuring an even distribution of compressive force during concreting work.



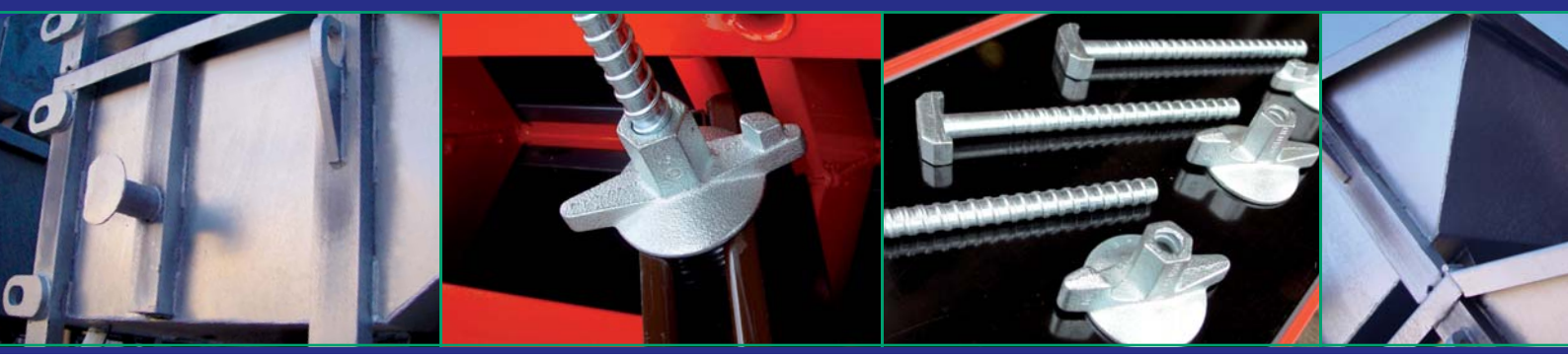
Containers

The all-purpose container can be used for transportation, disposal and general on-site purposes. It is a space-saving alternative for close-at-hand storage and disposal of any materials. Extremely robust, it has a loading capacity of 1.5 t and a volumetric capacity of 0.9 m³.

The container has reinforced lifting lugs, so that it can be transported easily by crane, excavator or fork-lift track and can be stacked safely with or without a cover. The container can be lifted and tipped via the matching tilting device using a fork-lift truck. All container handling operations can be controlled from the fork-lift truck. The container tilts to an angle of 90° and can be emptied completely.

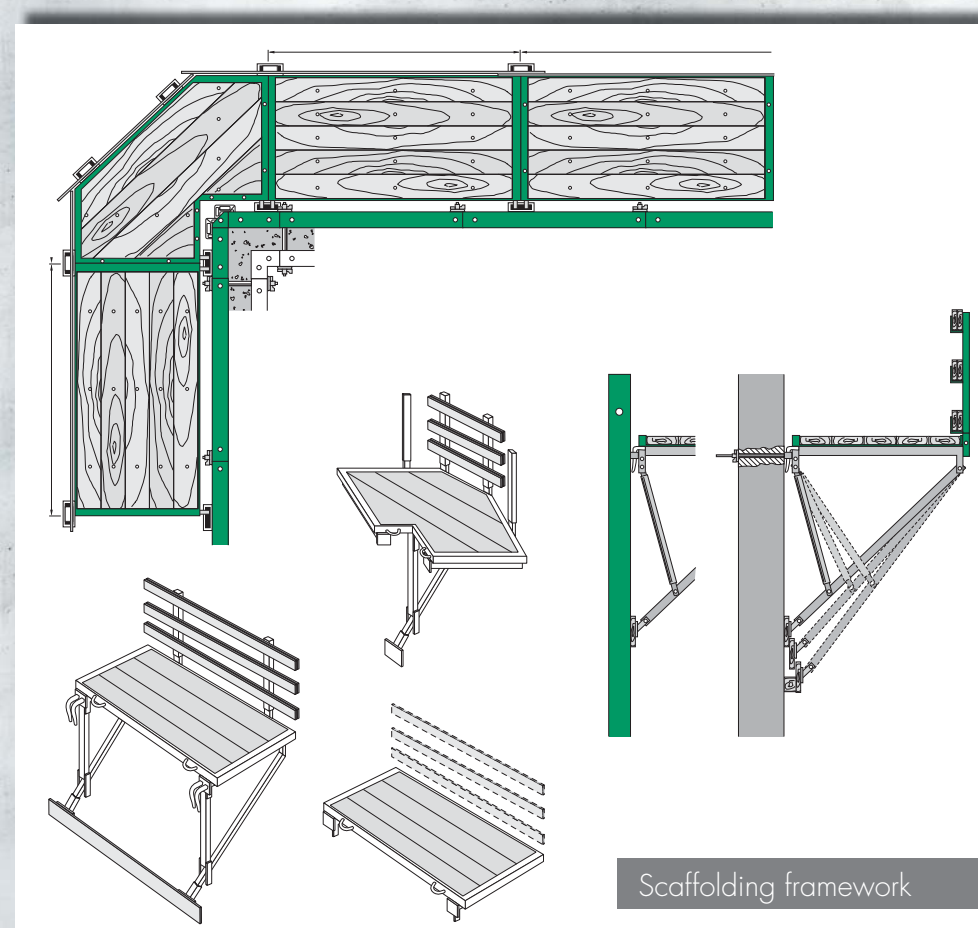
The lockable cover makes the all-purpose container ideal as a repository for expensive materials and tools on the construction site.

When multiple containers are stacked, the contents of the bottom container remain accessible even if the cover is fitted.

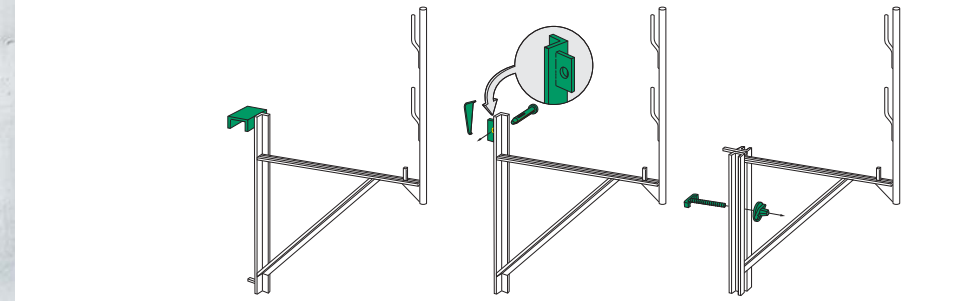


Floorslab edge formwork, folding platform and scaffolding framework

Folding platform



Scaffolding framework

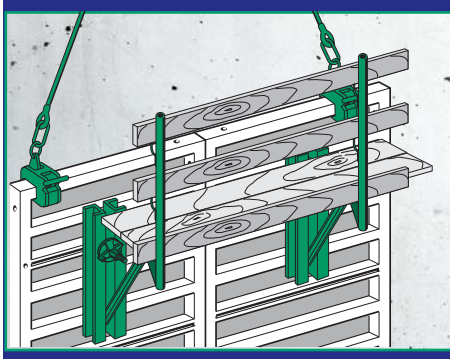


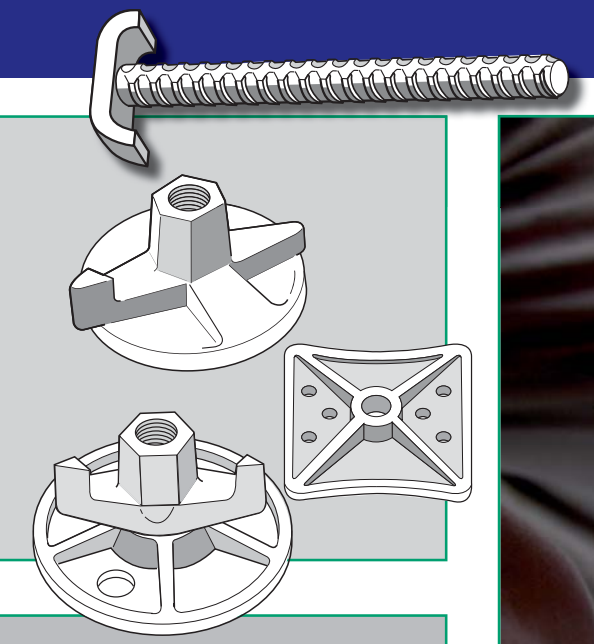
The universal folding platform is a folding cantilever scaffold which can be used as a working platform or safety scaffold. Folding platforms can be attached to existing walls or formwork.

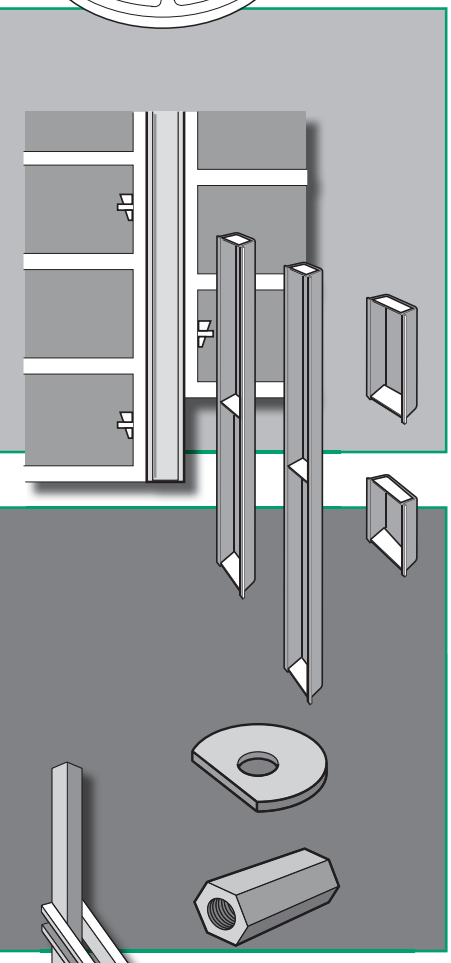
All components have a continuous welded or hot-dip galvanised steel frame laid with interchangeable 5cm thick planks. The rear protection is plugged into place, allowing even inner corners to be rebuilt without causing an obstruction.

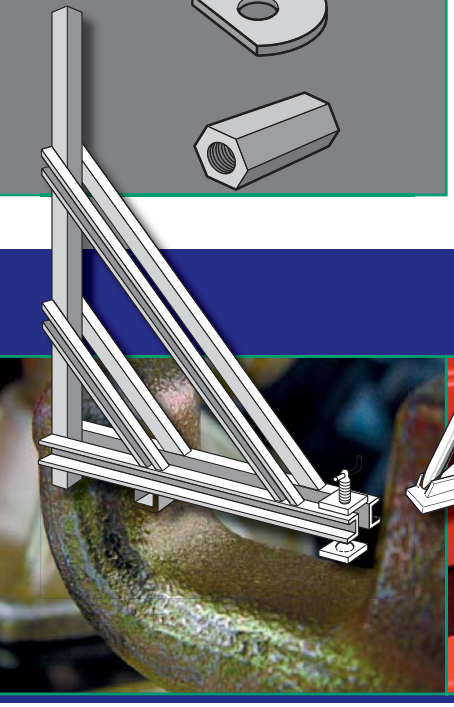
Length adjustments can be made by simply placing intermediate platforms on top of adjacent folding platforms. The base of the platform is adjustable and can be adapted to the ground conditions.

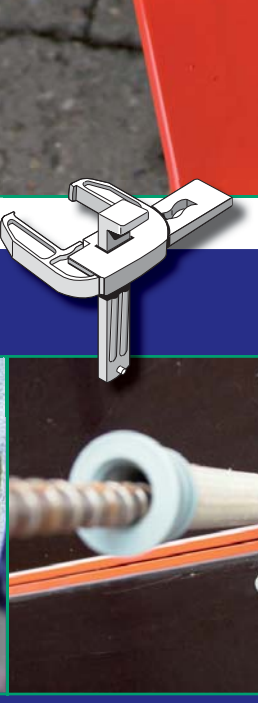
The integrated base plank bridges across window and door openings.The folding platforms can be adjusted approx. 100 cm upwards and downwards and folded for stacking to save space.







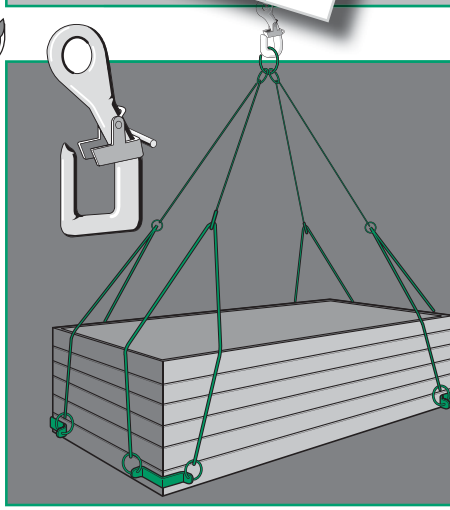


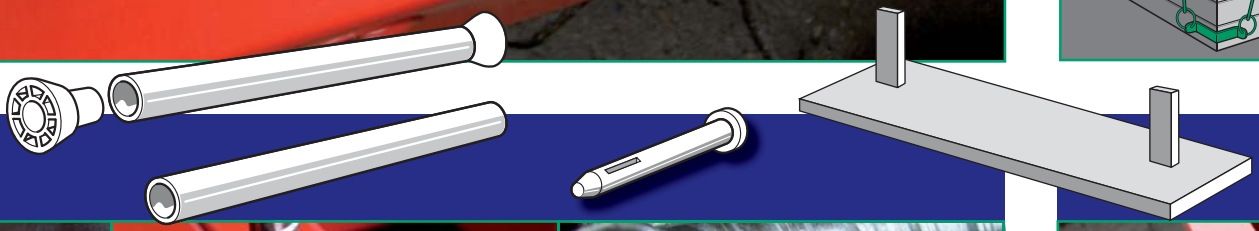


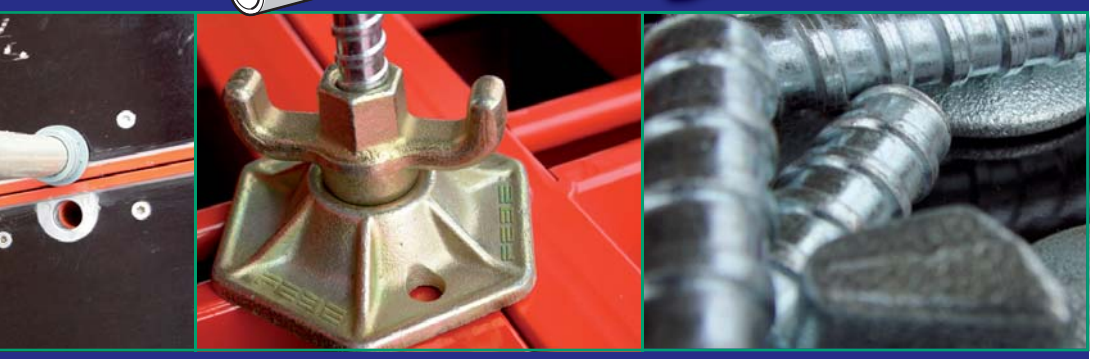
Standard accessories for all systems

A wide range of accessories is available to round out the FEBE formwork systems. With accessories specifically tuned to our systems, a professional solution for any ground plan is never far away.

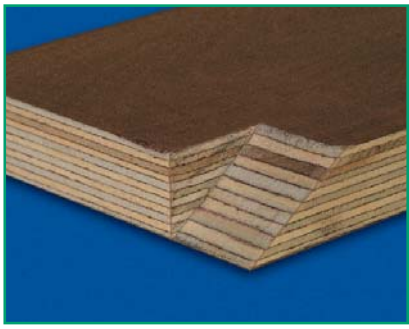
Our technical customer care service provides information on the use of the accessories as well as practical, valuable tricks and tips for working with FEBE formwork systems. This information is available on request and is free of charge.





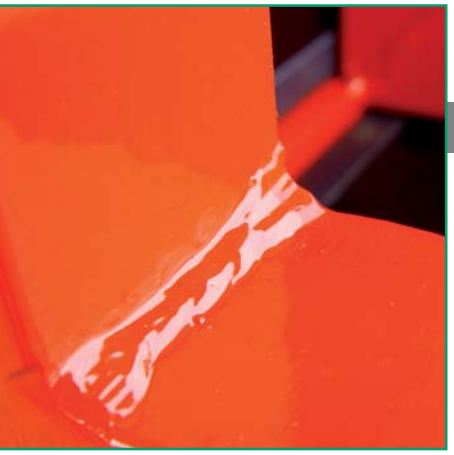


The formwork lining

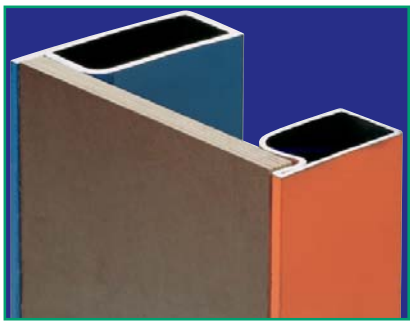


The formwork lining is a eleven-layer board, made of 15 mm thick Finnish birch with an extremely resistant phenol resin coating (167 g/m²). This gives the lining board a long service life and excellent swelling resistance. In addition, all cut edges are sealed with a specific waterproof varnish against water penetration.

- neat, smooth-looking surface of the finished concrete
- excellent material properties under mechanical loads
- easy to clean



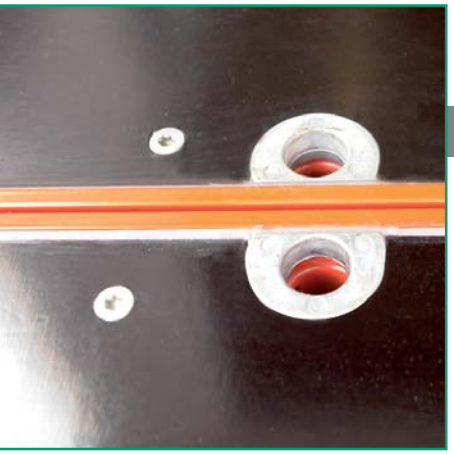
The frame



The generous frame cross section in all systems gives the element high torsional and lateral rigidity and guarantees high stability during concreting. The frame profiles and reinforcements are designed to withstand the entire pressure of the concrete; the formwork lining does nor have any loadbearing funtion. All elements are provided with continuous edge protection for the plywood boards, which are built into the frame profile to leave as little imprint as possible in the wall concrete (max. 7 mm).

The frames of the steel formwork consist of highly resistant, powder-coated roll-forged steel, immersion primed with a special rustproof paint.

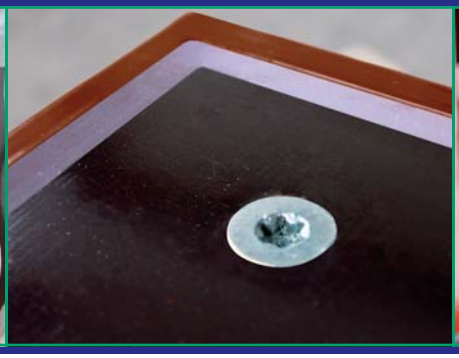
The frames of the aluminum formwork are made only of quality extruded aluminum with a wall thickness of 5 mm. Any and all aluminum elements are powder coated upon welding.



The fastening point

The elements are fastened via the frame and formwork lining; this is where the greatest loads occur during assembly. In order to avoid the spacer damaging the plywood, the wood is cut away in this area. An aluminum protector inserted from the rear functions as a support surface: the formwork lining is protected and the fastening points remain neatly circular even after intensive use.

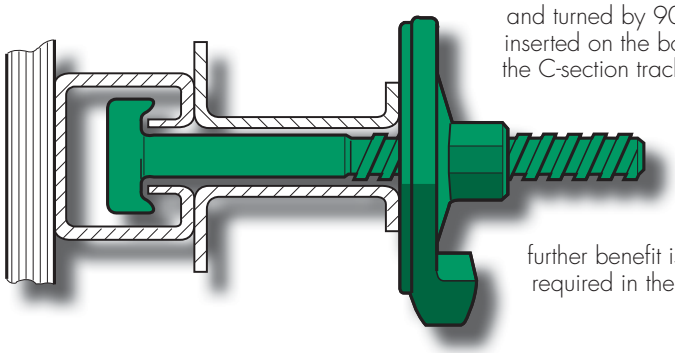
A further benefit is that holes which are not required for fastening can be closed up neatly, reducing the print left on the concrete to a bare minimum.

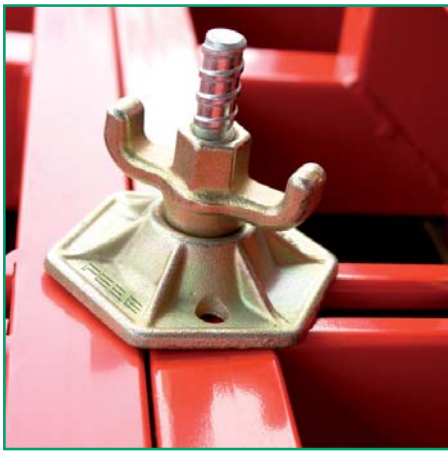



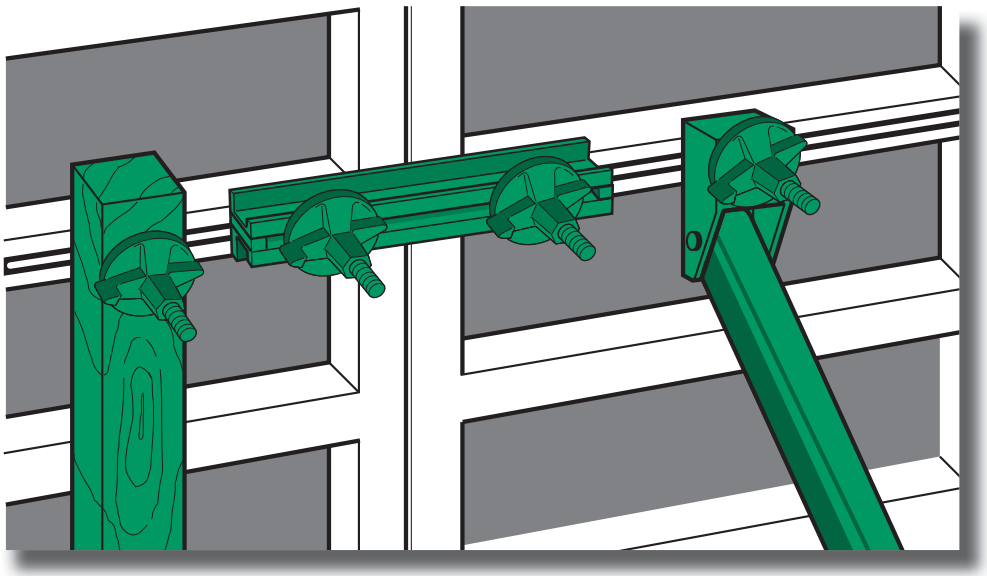
Quality properties of FEBE formwork

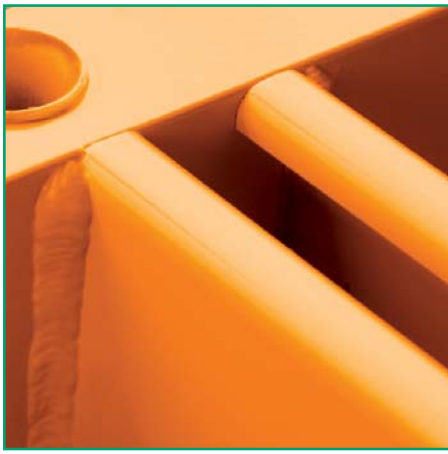
The C-section

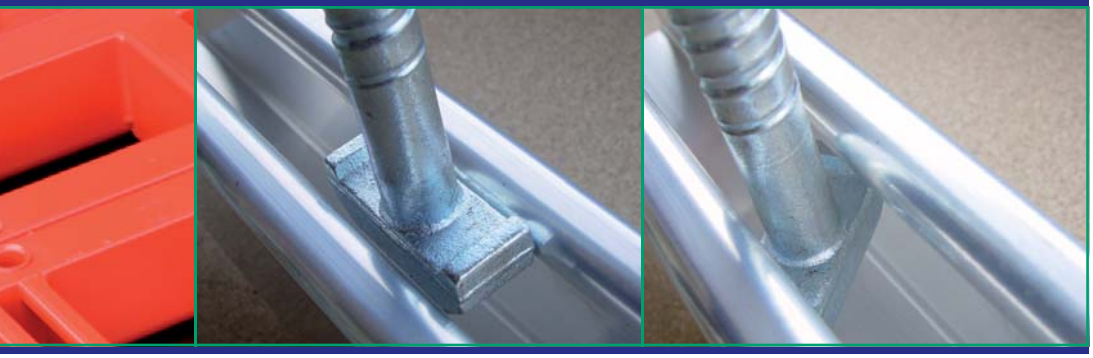
All FEBE full-hollow elements are provided with up to three open, symmetrically arranged C-section tracks on the rear side; all half-hollow elements are provided with two C-section tracks. To add accessories or other aid devices, a special threaded bolt is inserted into the C-section track and turned by 90°. The required part can then be inserted on the bolt and fastened with a nut. Since the C-section track covers the entire element width, the component placed – no matter whether scaffolding, support frame, cross beam, belting or other specific accessory – can be slid to the desired point. Quick, safe and flexible. A further benefit is that no additional openings are required in the framework, thereby reducing the chance of rust and corrosion.











Production

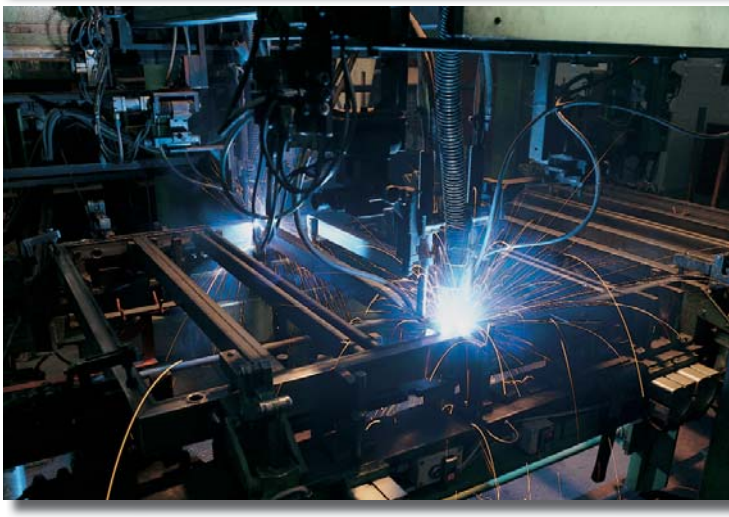
Further technical details with pictures, text, tips and tricks regarding professional formwork of standard and customized solutions can be found in the FEBE technical guidelines.

Our boards are cut to size on special-purpose CNC machines. The openings are then cut out.

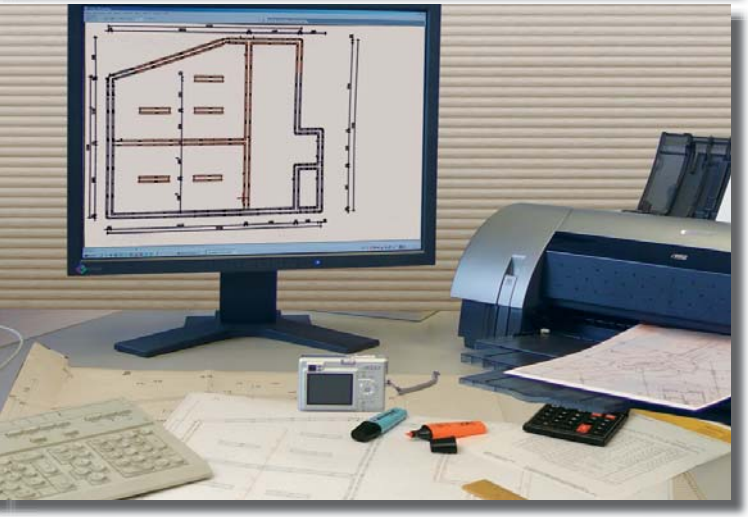
Frame elements are cut to size on a special-purpose CNC-machine. While still clamped in place the elements are mitered and the weld is prepared.

In the next work cycle the fastening points and the joining holes are drilled simultaneously. Finally, the conical pipe sleeves are pressed into place.

Modern welding machines and high-quality frame gauges are used to ensure that a consistently high standard of quality is achieved.



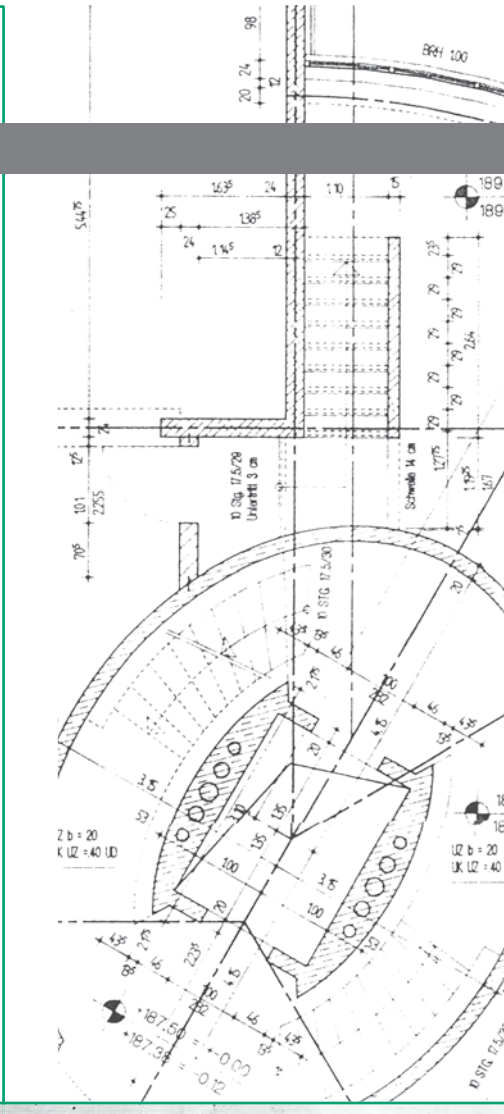
Competence in wall formwork



Technical consulting

FEBE will also help you find the best way to use formwork elements on the building site. This ensures a perfect preparation stage and no confusion on the building site.

Co-operation with FEBE service personnel at the planning stage not only helps you select the correct elements, it also guarantees considerable time saving, even with more complex ground plans.



Hire service

Hire or buy?
Ask for the the current price list of FEBE items available for hire.

Please do not hesitate to contact us at + 49 8462 2007-0 or place your order by mailing info@febe.eu

The FEBE hiring service facilitates predictable, up-to-date cost transparency, economy and flexibility of materials:

- entire formwork systems for each building site
- rounding out your own formwork stock
- hire specialised formwork elements such as circular and lift pit formwork, or custom sizes for unusua projects.

Our FEBE delivery service delivers XT, AT and SL systems serviced and cleaned direct to your building site.

Hire and repair service

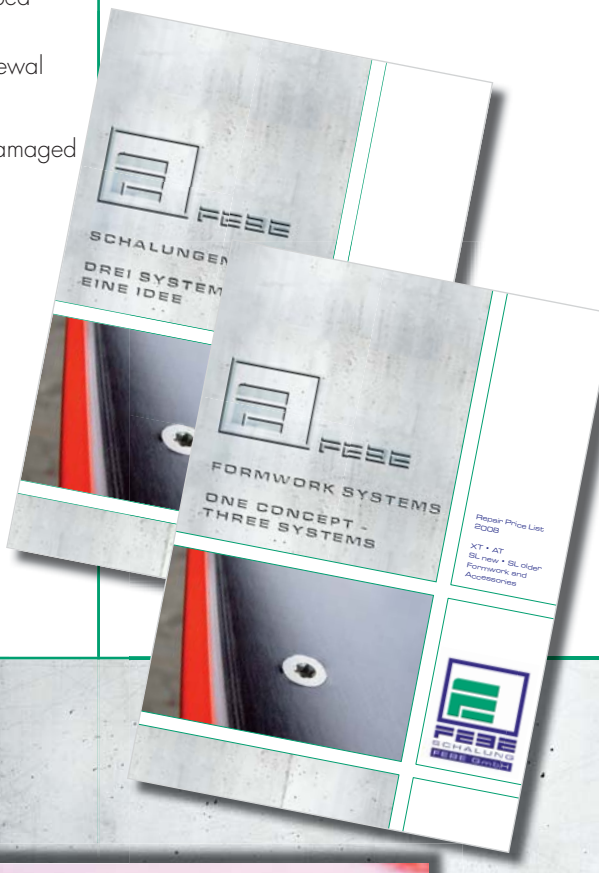
Repair service

For the professional care of the formwork elements, FEBE offers our customers a complete service spectrum:

- professional workshop cleaning
- repair of worn out parts
- realignment of warped framework
- formwork lining renewal
- sleeve replacement
- welding work on damaged or renewed parts
- painting

Professional formwork element servicing at our workshop ensures smooth and regular concreted surfaces:

please do not hesitate to contact us at:
+ 49 8462 2007-0



www.febe.eu
info@febe.eu

FEBE GmbH

Maria-Hilf-Strasse 15-21
92334 Berching
Germany
Phone +49 8462 2007-0
Fax +49 8462 2007-29

www.febe.eu
info@febe.eu