



MIGUPREN

CORRUGATED JOINTING SYSTEM



**FOR FLAT ROOFS
AND COVERED
AREAS**

**MULTI-DIRECTIONAL
MOVEMENTS**





EXPANSION JOINT SYSTEMS

be regarded as a high standard since more than 50 years of service and are well known for their fully developed designs.

Over 10 million metres of profiles have been performing to complete satisfaction of Architects, Builders and Owners through out decades of use.

This is our assurance of high quality standard and lasting peace in mind.

Our dedicated and innovative engineering department ensures that you will get exactly the expansion joint system you need, independent if a profile from our standard program or a special construction is required.

Several certificates about e.g. load capacity, duration or skid resistance of well known, independent institutes in Germany and foreign countries confirm our commitment.

Our experience, our advanced engineering department and our passion are your guarantee for expansion joint systems on the highest possible standard.



Our advice as to applications and other recommendations are based on comprehensive research work and years of experience. They are, however without liability (also in respect of third parties) and do not relieve our customers of the responsibility to check the suitability of our products and processes for their intended purposes.

We reserve the right to make technical changes without prior notice.

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CATALOGUE NO 4

MIGUPREN

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Our Catalogue No.3 – **MIGUTAN-Expansion Joint Systems** – informs you on watertight systems for car parks, ramps, garages, pedestrian bridges, canteen kitchens and swimming-pool-areas.
Please order on request.

WATERTIGHT EXPANSION JOINT SYSTEMS

IN ACCORDANCE WITH DIN 18195 (for sealing against non-pressing water)

MIGUPREN

CORRUGATED JOINTING PROFILE WFB 550 MOVEMENT IN THE THIRD DIMENSION

TEST CERTIFICATE

Official test certificates on the bond between the bituminous layers and the corrugated jointing system by means of break test is available and can be forwarded on request.

QUALITY

Our corrugated jointing system WFB 550 has been used for more than 20 years (Flat roofs, covered areas, e.g. underground parking, tunnel, etc.).

A large number of reference projects can be provided.

IMPORTANT NOTES

We ensure a perfect fit by taking measurement on site (complete systems including all intersections, transitions and connections will be done in our works).

It might be possible that systems of more than approx. 25 m length has to be supplied in more than one part. In this case a site-vulcanization has to be done. Please see page 16 for further information.

The shown fixing constructions (loose- and fixed-flanges) and the covers are not part of our supply.

If the corrugated jointing system is used in yards underneath paved floors and/or grassed areas over underground car parks, the corrugations has to be covered to ensure the movement capacity of the system.

The shown examples has to be rechecked and fixed for each single case according to site conditions.

We did not show the layer of the floor zones. They has to be executed according to the latest technical advances.

Please ask for our separate installation instructions and technical advice.

MATERIAL

For good reason, "Polychloroprene" synthetic rubber (Neoprene, Baypren) was choosen as the material for the MIGUPREN corrugated jointing system. The use of this material guarantees an almost constant elasticity over a wide temperature range (day, night, summer and winter)It has excellent ageing properties due to its resistance to ozone, light, UV-rays and to usual weather factors. MIGUPREN polychloroprene profiles are resistant to temperatures from -40°C up to short-time +180°C.

The material has excellent resistance to bitumen, oils, greases and other mineral oil products.

Polychloroprene is well known for its good abrasion resistance and its resistance to mechanical stresses. It shows only very slight permanent deformation (compression set) even after long-term loading. The compression set is approx. 5%.

LAYOUT

Material:	Polychloropren
Total Width of Profile:	550 mm
Joint width:	max. 120 mm
Total Movement:	± 25 mm in all three directions
Colour:	black

SPECIAL PROPERTIES

Absorption of joint movements in three directions.

The special design of the MIGUPREN corrugated jointing system, which is based on the concertina principle, ensures that stresses, which occur as a result of longitudinal movements of the structure, are absorbed by the corrugations. As the material is not in a permanently stressed condition, the load transferred onto the roof layers is very low. The MIGUPREN corrugated jointing system not only absorbs longitudinal but also transverse and vertical movements in the corrugated area without high stresses being created in the sealing connection area.

The clamping dimensions to both sides of corrugations are according to the dimensions of the flange construction acc. to DIN 18195.

Vertical outside and inside corners can easily be installed without the use of prefabricated intersections and without deformations (please see page 9 for details).

Fabrication of intersections and transitions even for most complicated joint systems possible. (please see page 10-14 for details).

The special design of the corrugations produces stability which makes the fitting of additional supports unnecessary.

MIGUPREN corrugated jointing profile can be rolled up without deformation and can thus be economically transported, stored and applied in long lengths.

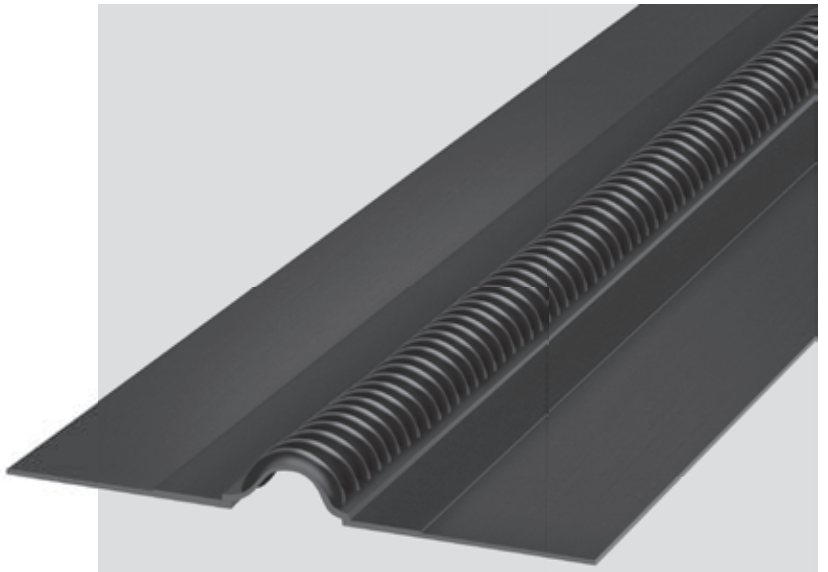
The material "Polychloroprene" has a very high temperature resistance and ensures an excellent bond between the connection flanges and bituminous sealing layer.

CORRUGATED JOINTING PROFILE WFB 550

FOR SEALING JOINTS WITHOUT HYDROSTATIC PRESSURE DIN 18195

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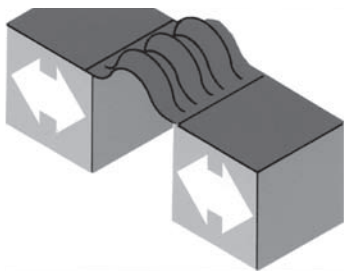
- EXCELLENT BOND
(OFFICIAL TEST CERTIFICATE)
- PROFILE ABSORBS MOVEMENT
IN THREE DIRECTIONS
- FOR JOINT WIDTHS UP 120 MM
- LARGE MOVEMENT CAPACITY



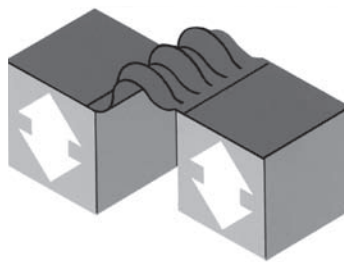
MULTI-DIRECTIONAL MOVEMENTS

Movement joints require special care both in design and construction, particularly, if they are in sealing areas.

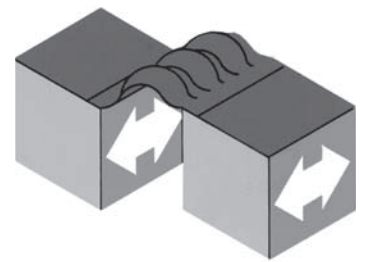
First one must find out of kind, scope and frequency of the movements to be expected
The edges of the joint might displace themselves in one or all of the following directions.



Transverse direction



Vertical direction

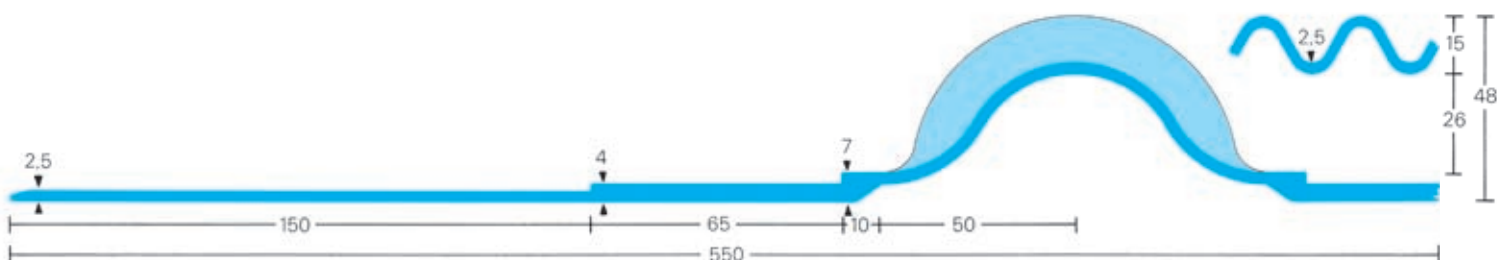


Lengthwise direction

Material description, important notes and special properties = Page 2

Further usage = Page 4 – 7

Terminations / Intersections = Page 10 – 14

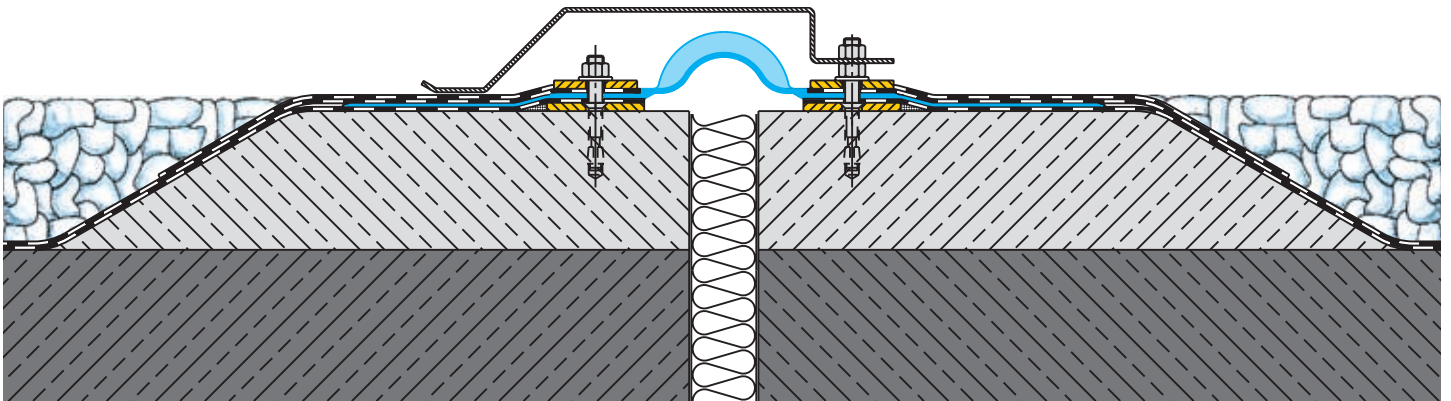


INSTALLATION EXAMPLES

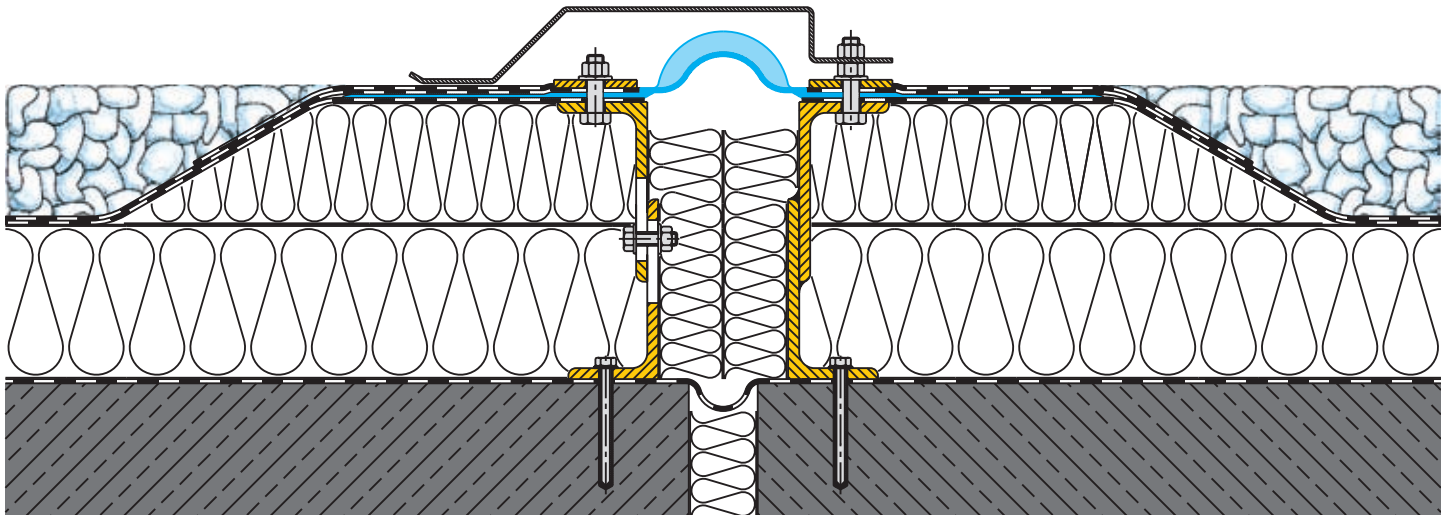
Flat Roofs

MIGUPREN

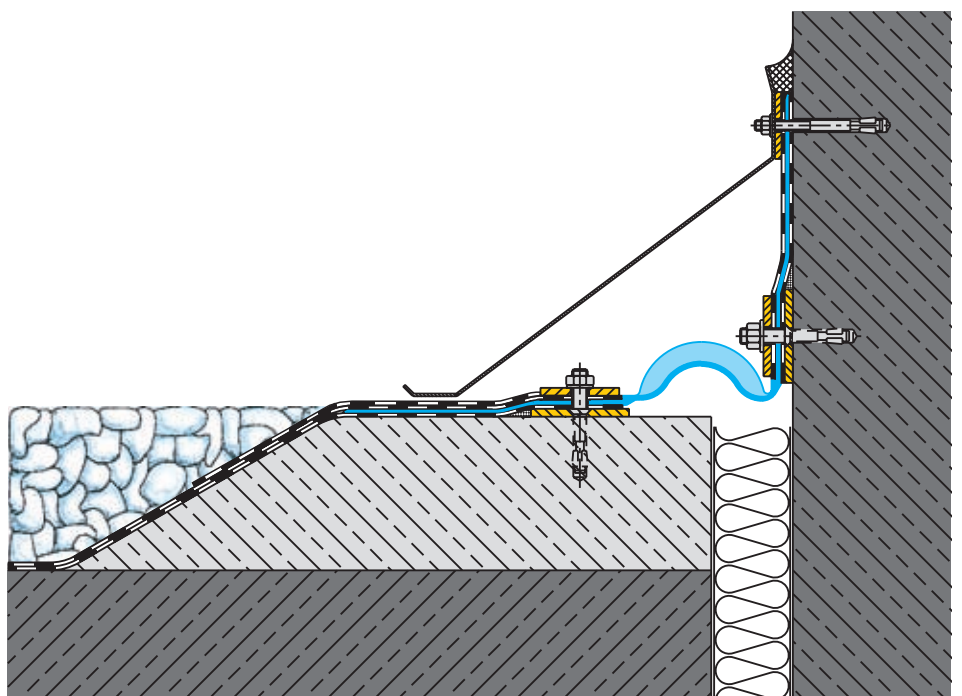
Method 1: Fixing by flanges in accordance DIN 18195 part 9



WFB 550/F



WFB 550/FWD



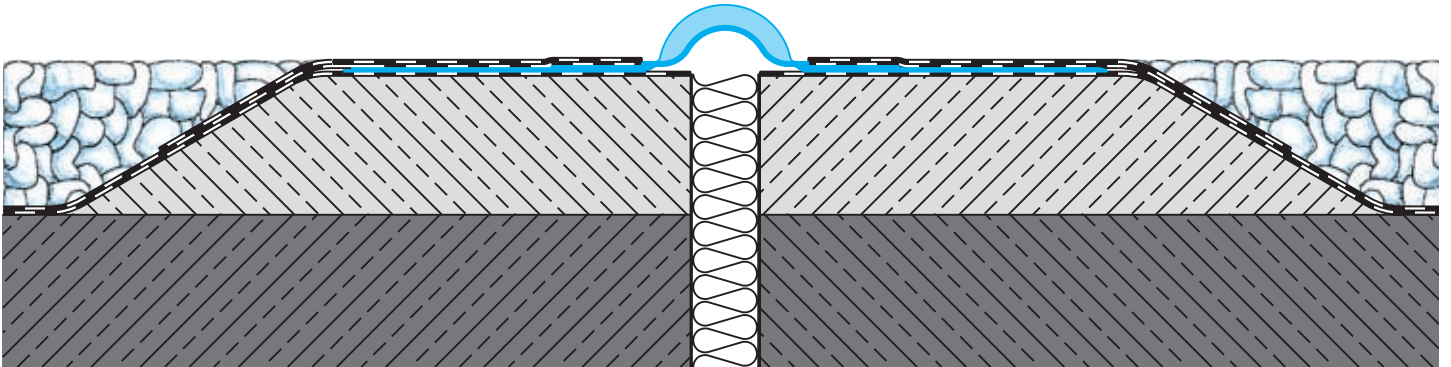
WFB 550/FE

INSTALLATION EXAMPLES

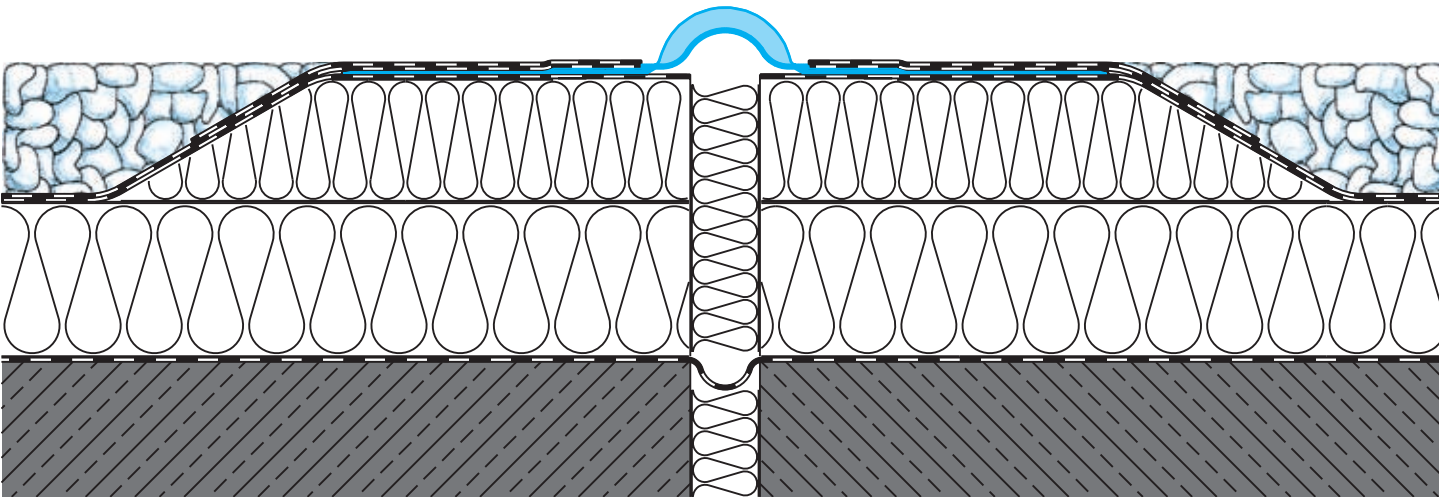
Flat Roofs

MIGUPREN

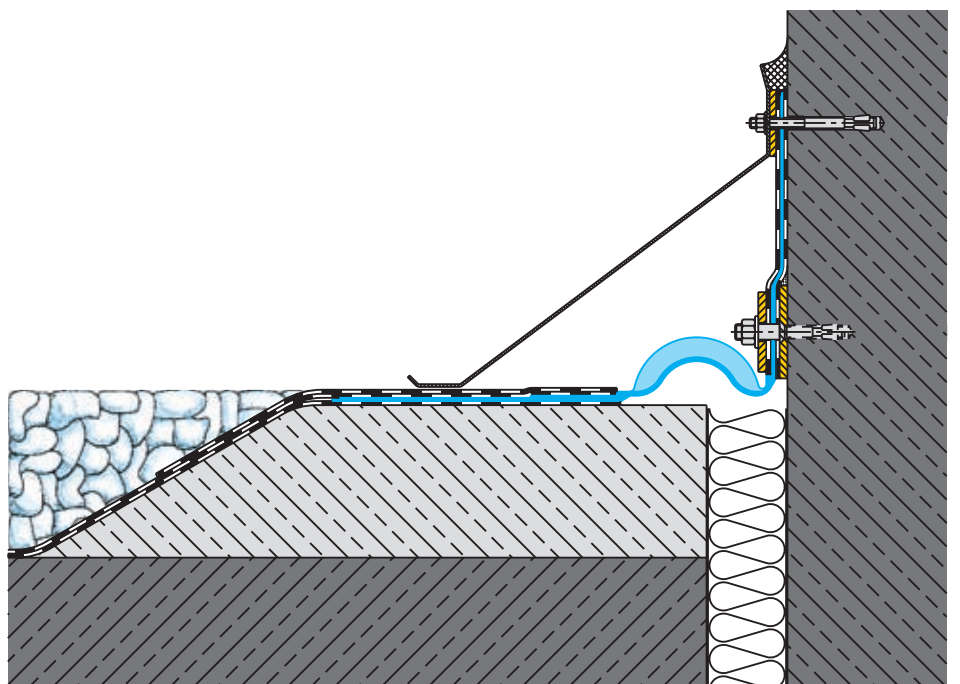
Method 2: Bonding



WFB 550/E



WFB 550/EWD

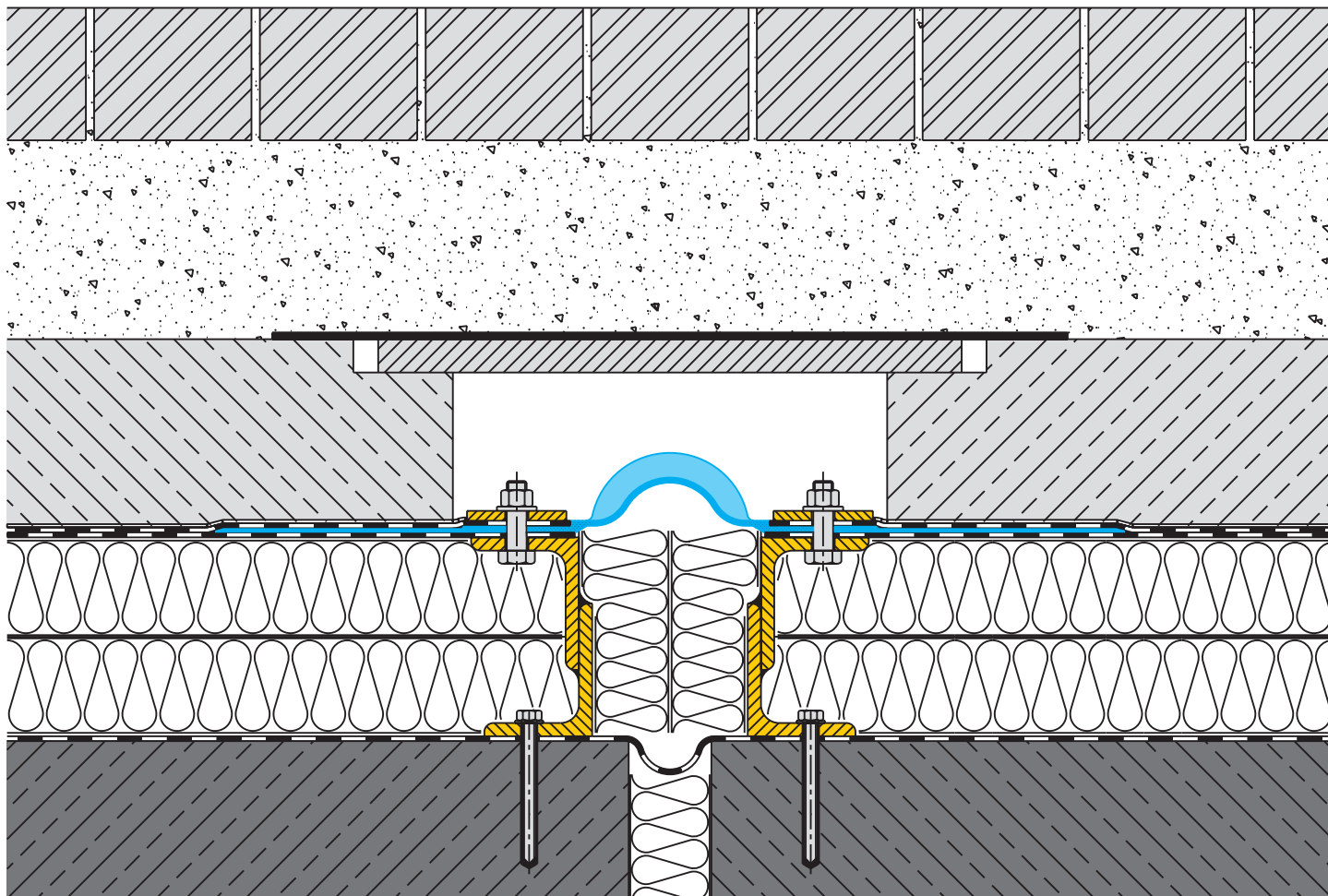


WFB 550/EE

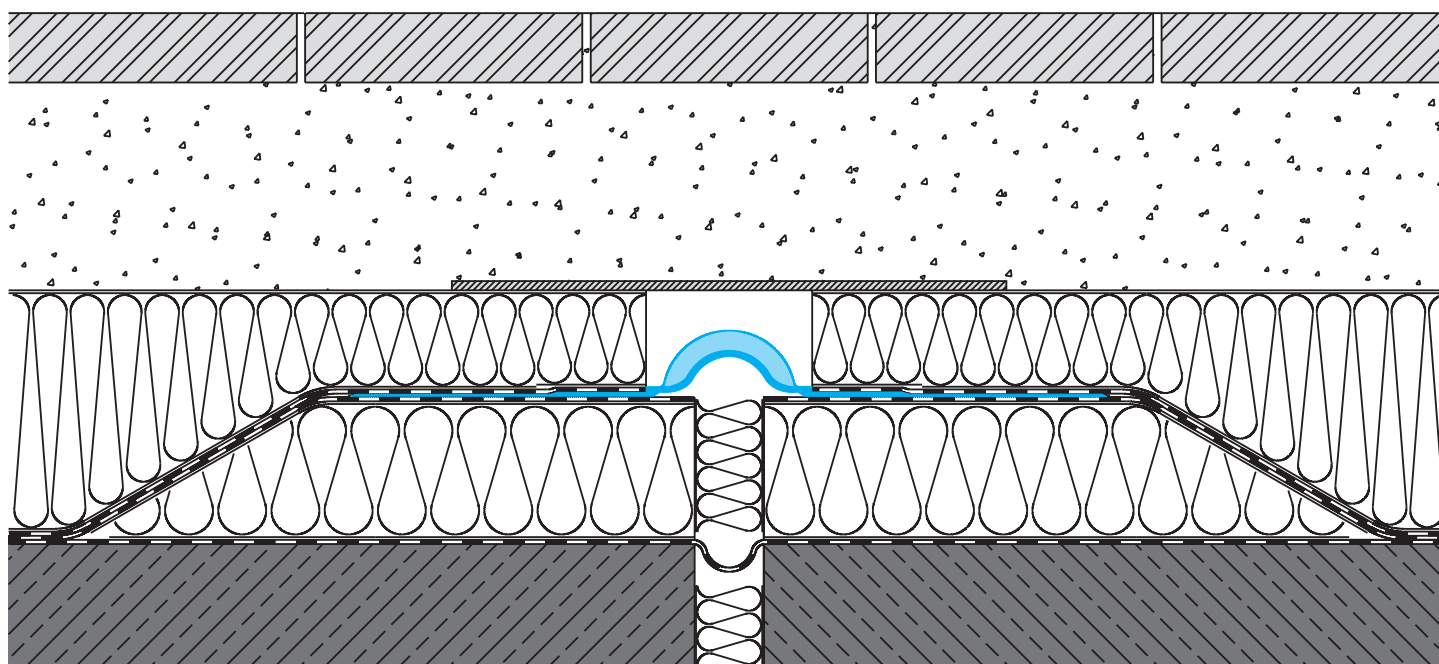
INSTALLATION EXAMPLES

Covered Areas

MIGUPREN



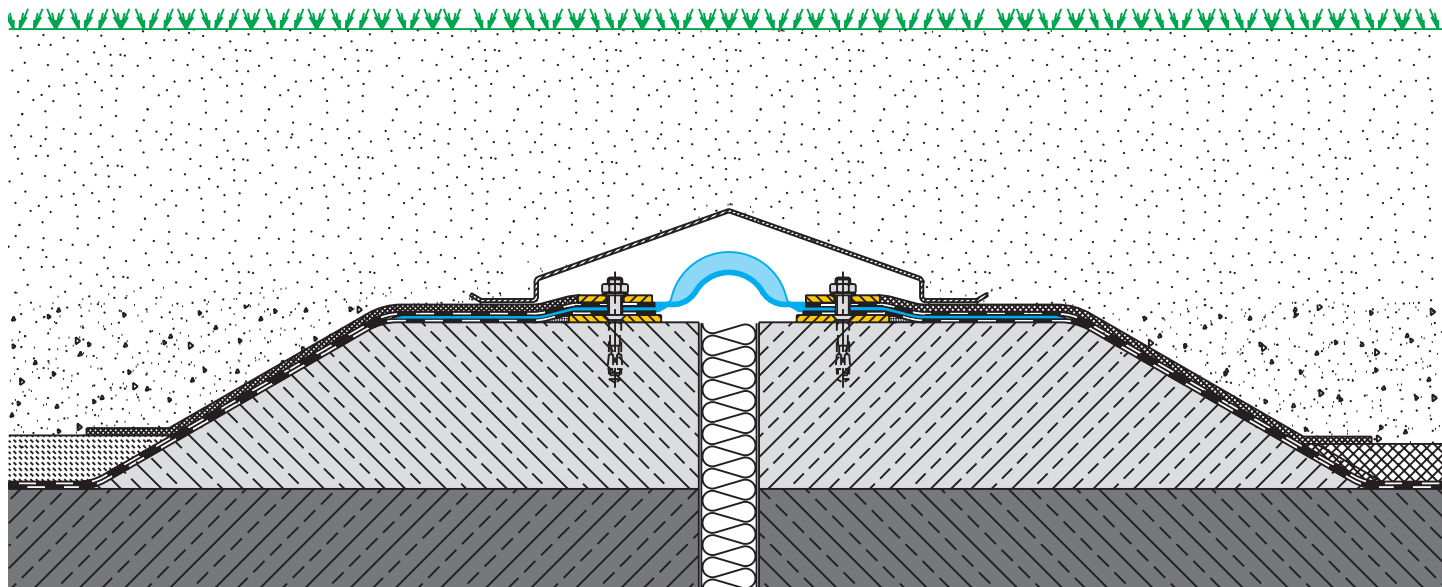
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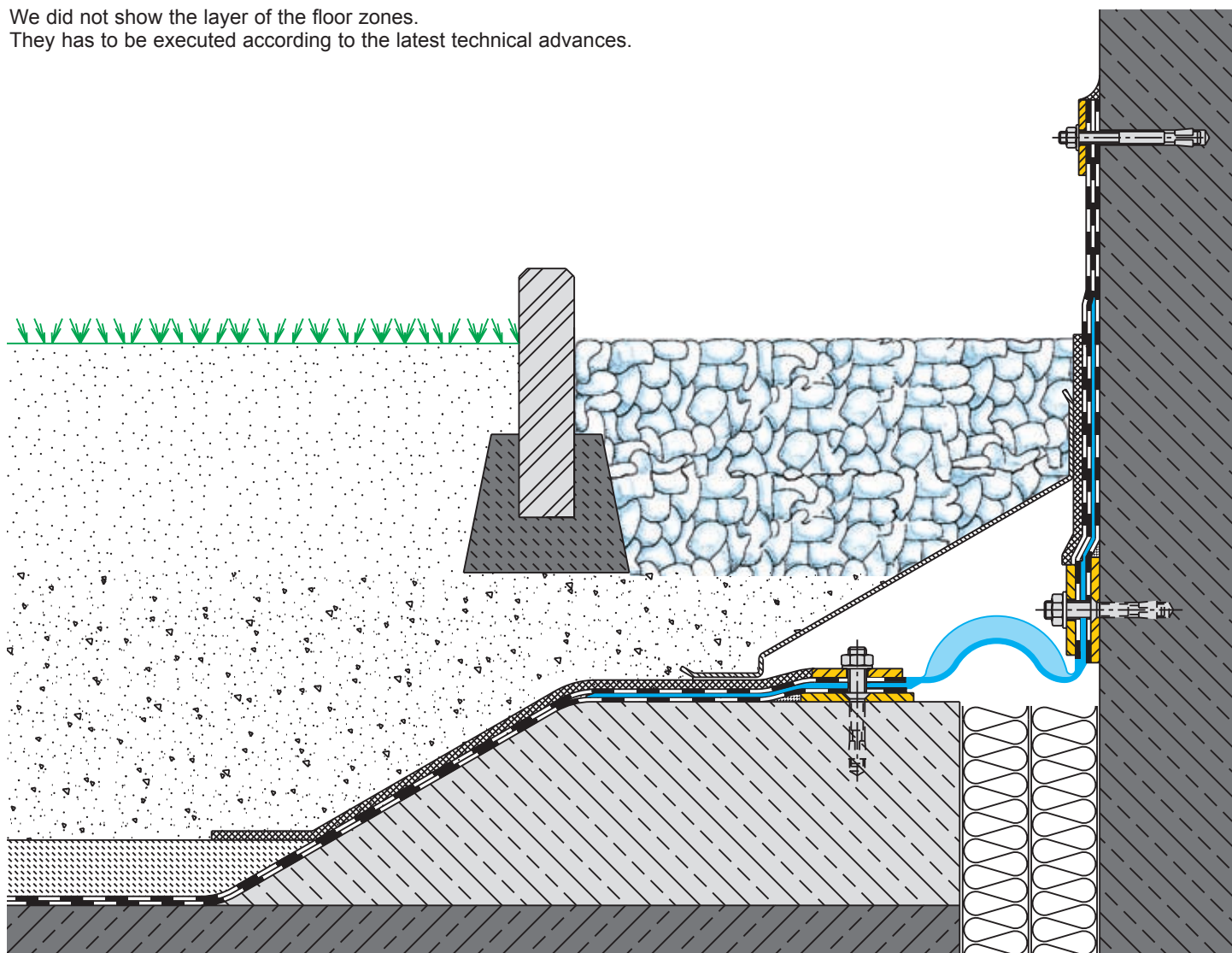
INSTALLATION EXAMPLES

Covered Areas

MIGUPREN



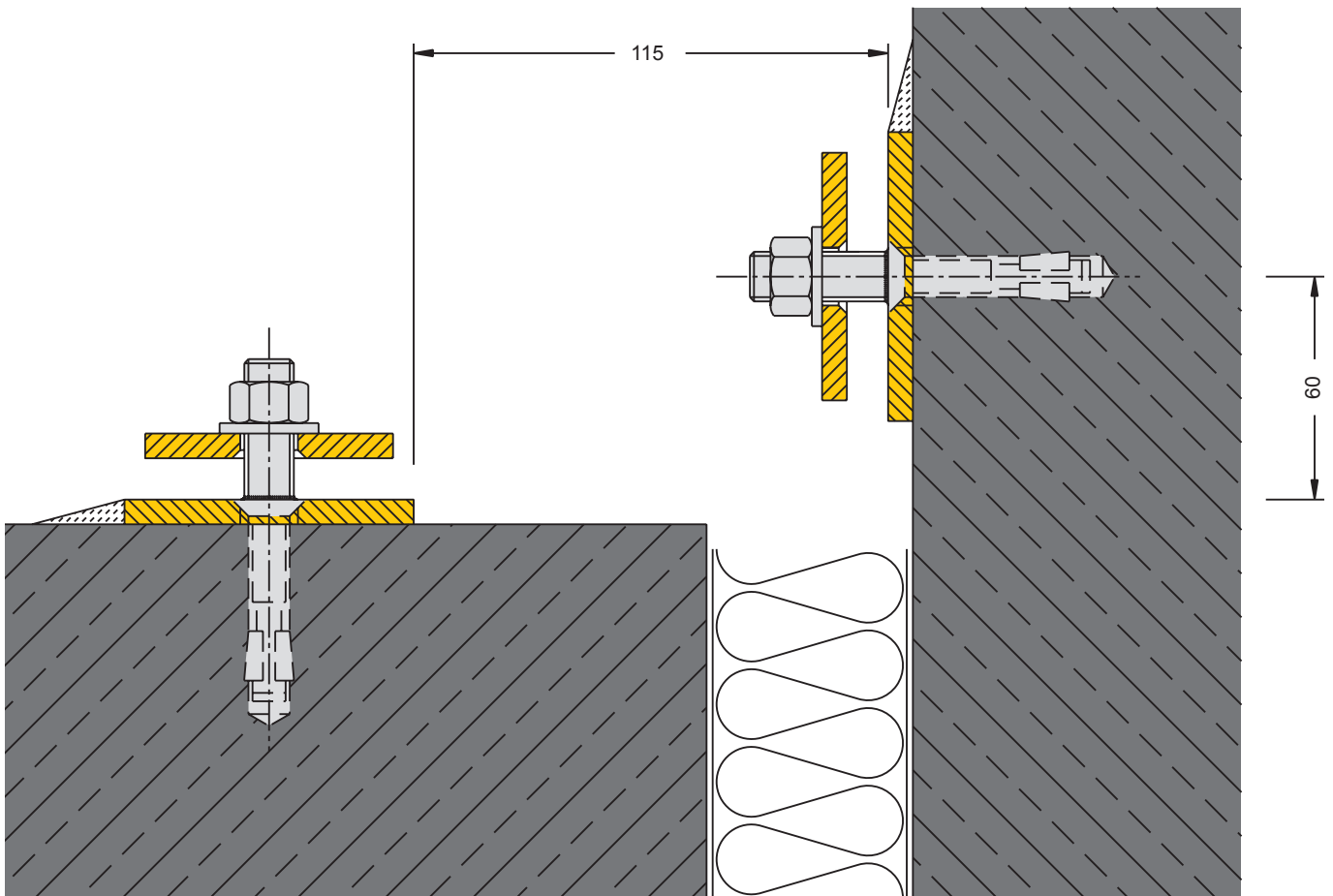
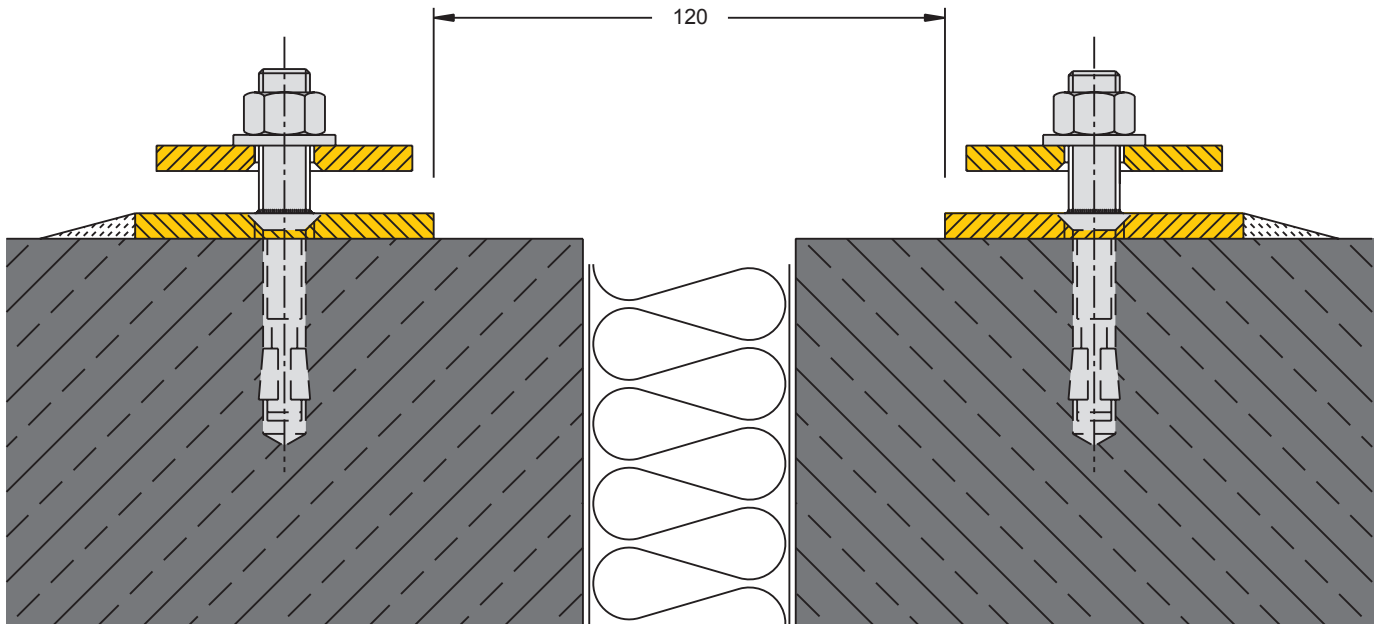
We did not show the layer of the floor zones.
They has to be executed according to the latest technical advances.



LOOSE- AND FIXED-FLANGE CONSTRUCTION

ARRANGEMENT

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STANDARD MEASURES: **Loose flange**
 Width: ≥ 60
 Thickness: ≥ 6
 Content from
 DIN 18195 part 9

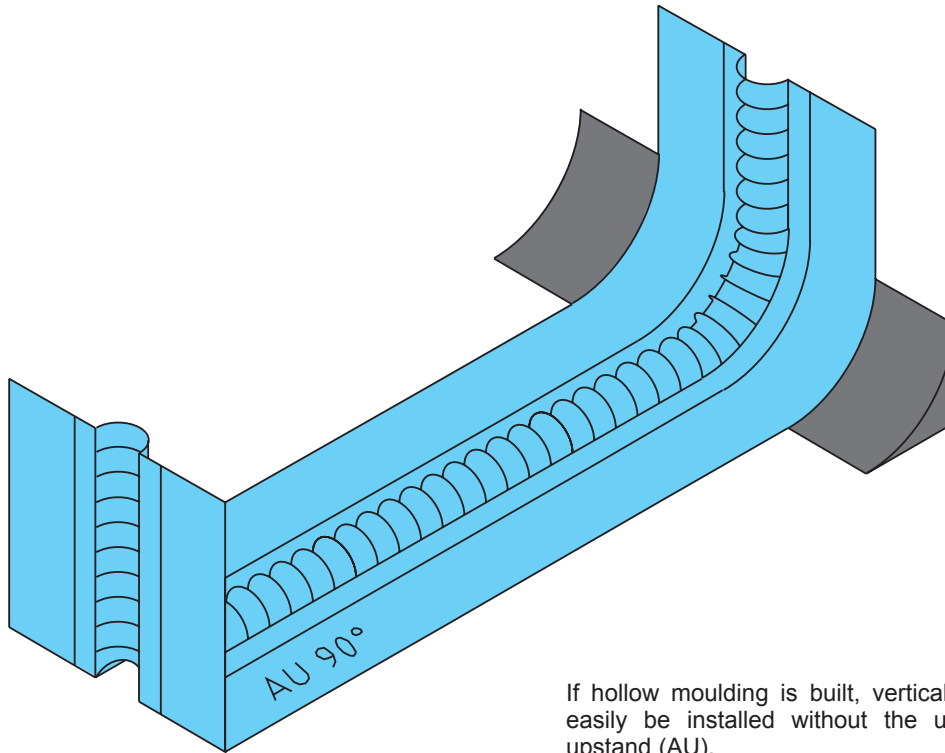
Fixed flange
 Width: ≥ 70
 Thickness: ≥ 6

Screws/Bolts
 Diameter: ≥ 12
 Distance between each: 75–150
 Distance from each end: ≤ 75

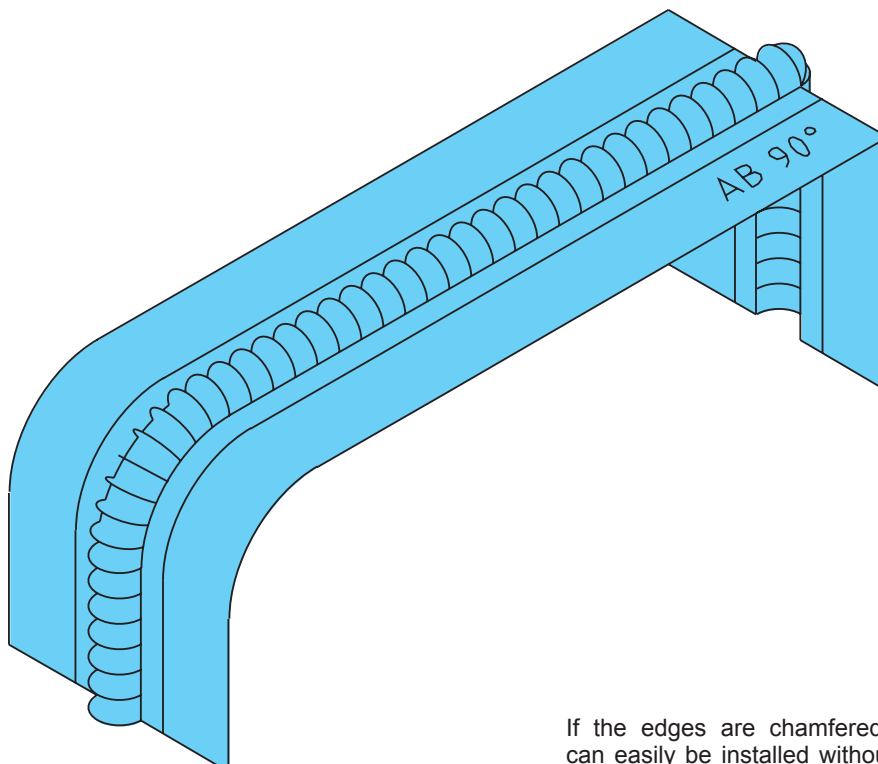
INSTALLATION EXAMPLES

CORRUGATED JOINTING PROFILE WF B550

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If hollow moulding is built, vertical inside corners can easily be installed without the use of prefabricated upstand (AU).

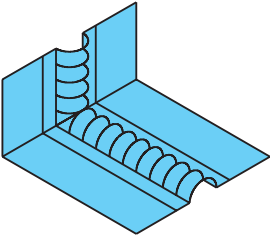
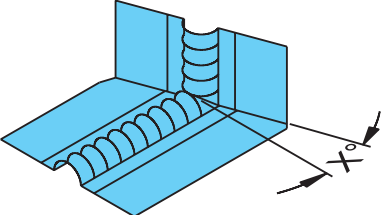
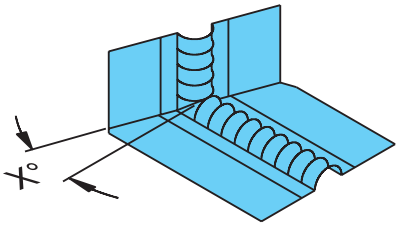
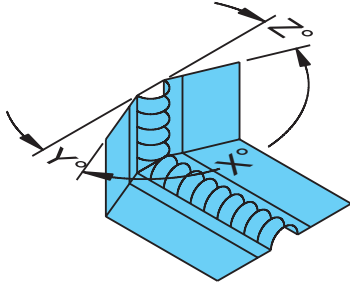
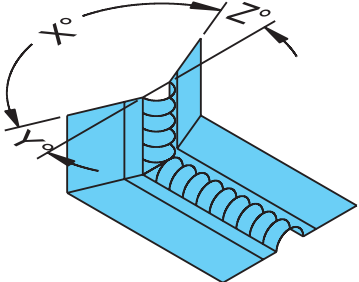
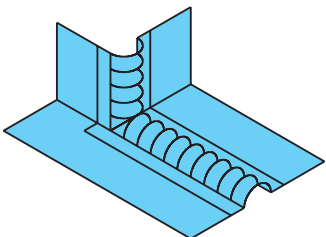
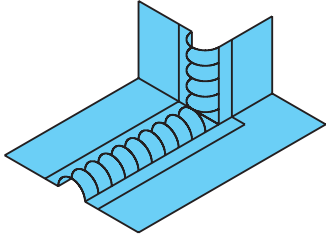
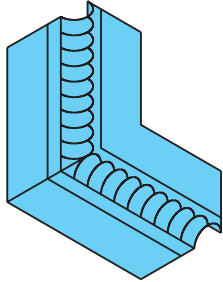
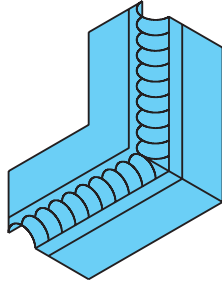
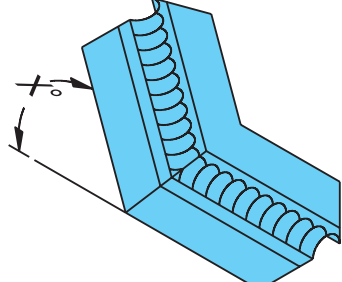
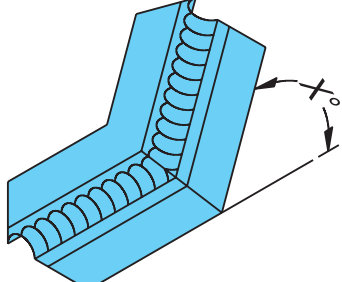
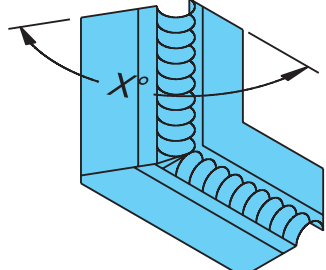
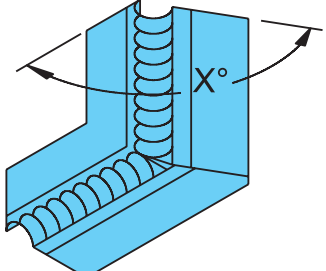
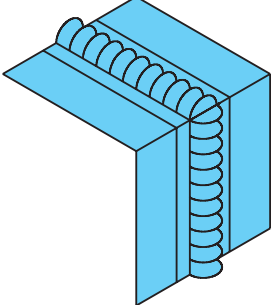
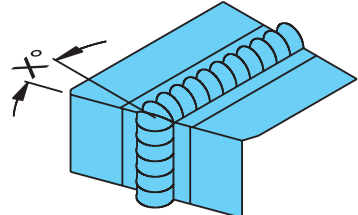


If the edges are chamfered, vertical outside corners can easily be installed without the use of prefabricated downstand (AB).

TERMINATIONS / INTERSECTIONS

EXAMPLES

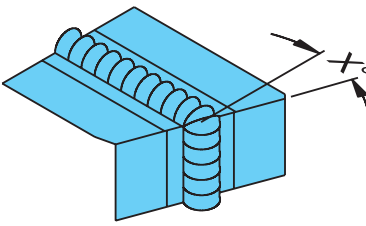
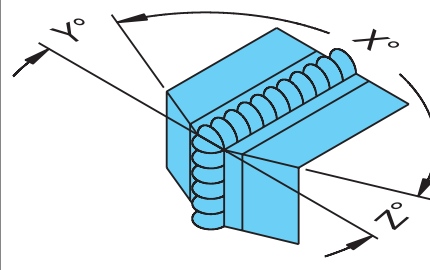
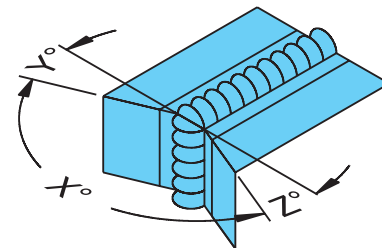
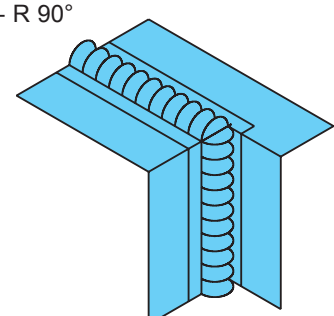
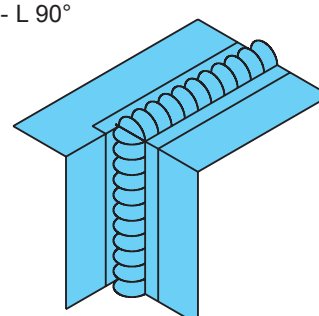
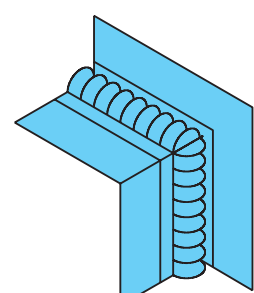
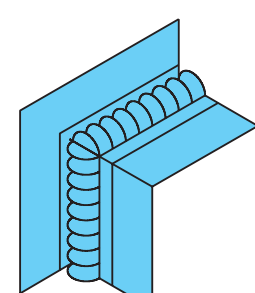
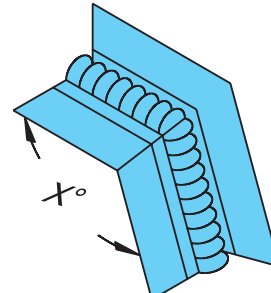
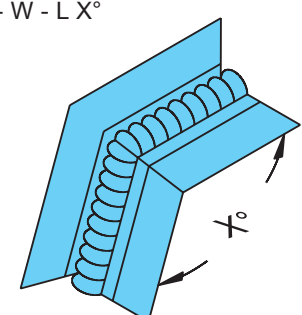
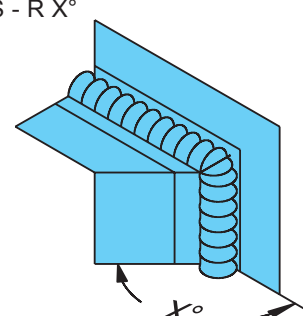
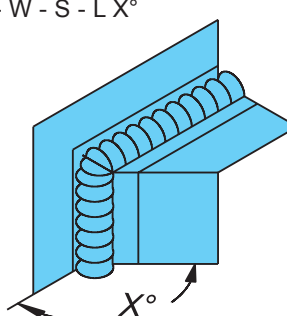
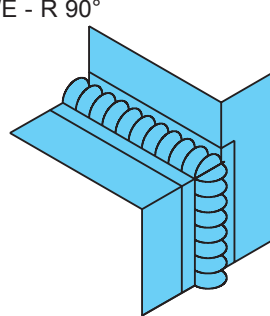
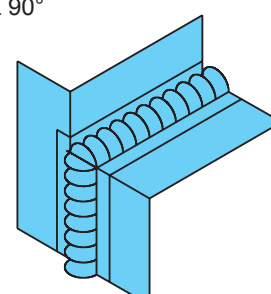
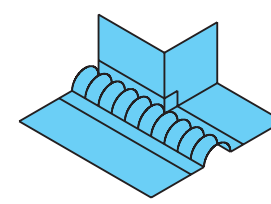
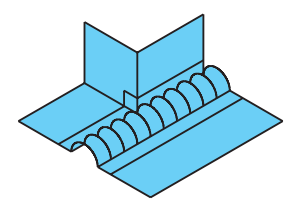
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AU - 90° 	AU - R X° 	AU - L X° 
AU - I X° 	AU - A X° 	AU - E - R 90° 
AU - E - L 90° 	AU - W - R 90° 	AU - W - L 90° 
AU - W - R X° 	AU - W - L X° 	AU - W - S - R X° 
AU - W - S - L X° 	AB - 90° 	AB - R X° 

TERMINATIONS / INTERSECTIONS

EXAMPLES

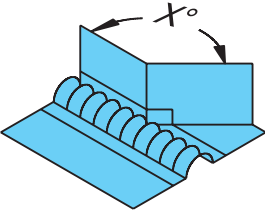
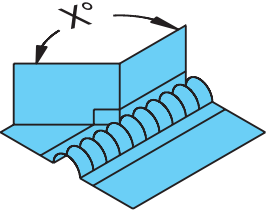
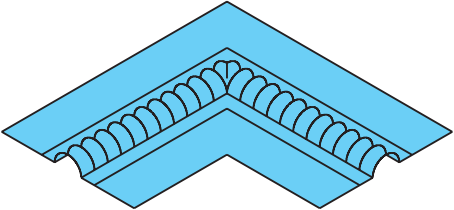
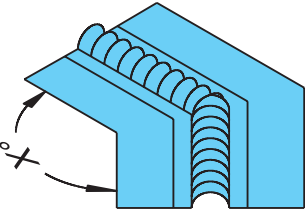
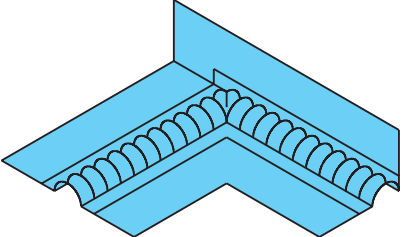
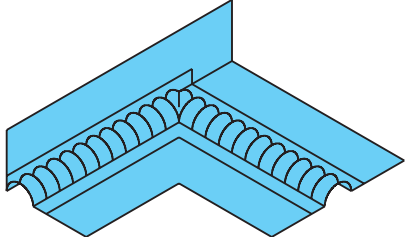
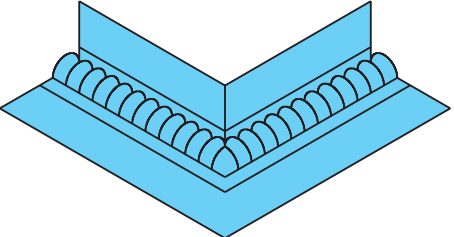
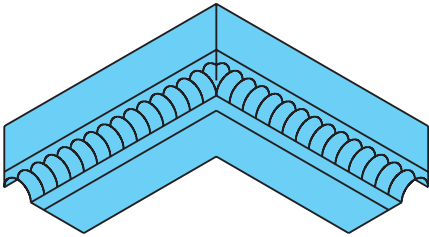
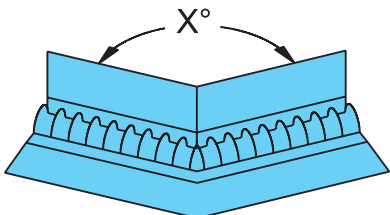
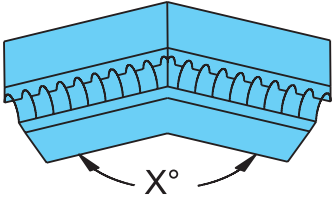
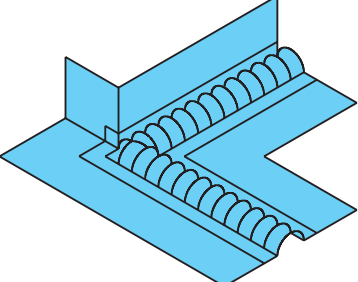
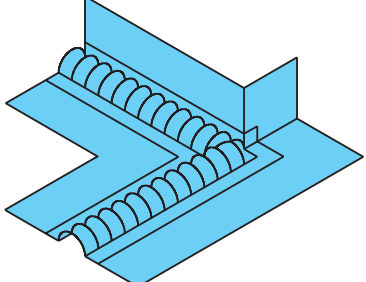
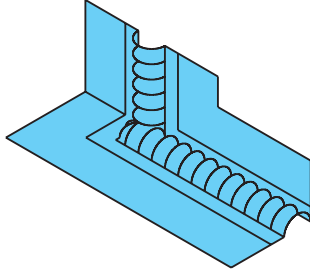
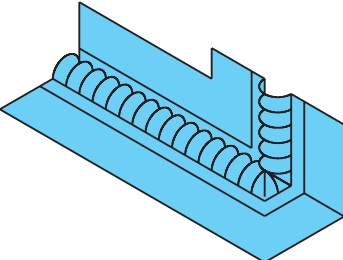
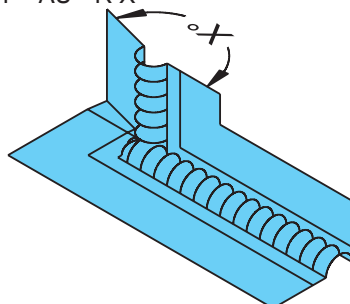
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AB - L X° 	AB - I X° 	AB - A X° 
AB - E - R 90° 	AB - E - L 90° 	AB - W - R 90° 
AB - W - L 90° 	AB - W - R X° 	AB - W - L X° 
AB - W - S - R X° 	AB - W - S - L X° 	AB - WE - R 90° 
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TERMINATIONS / INTERSECTIONS

EXAMPLES

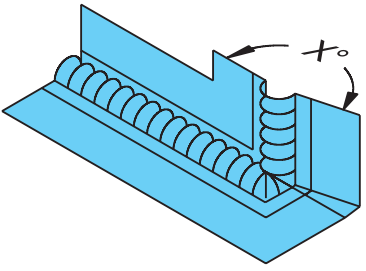
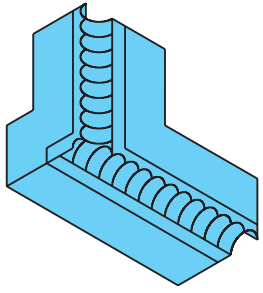
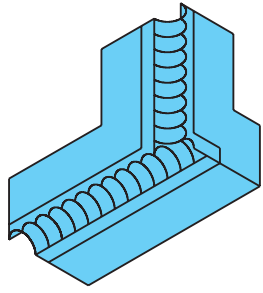
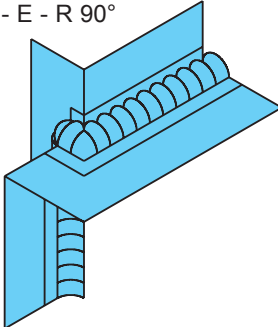
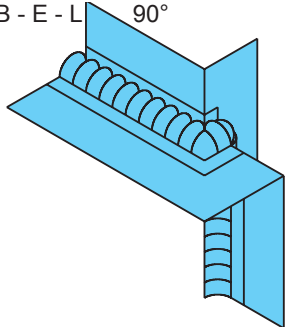
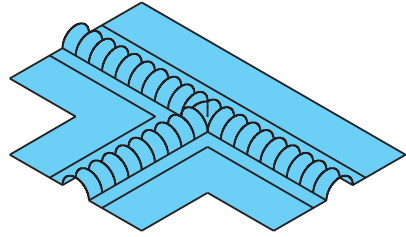
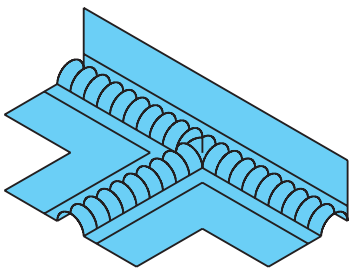
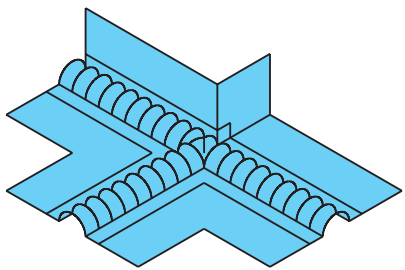
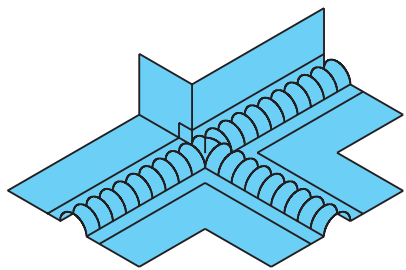
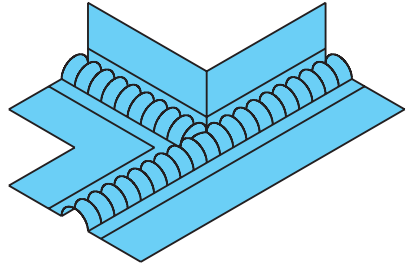
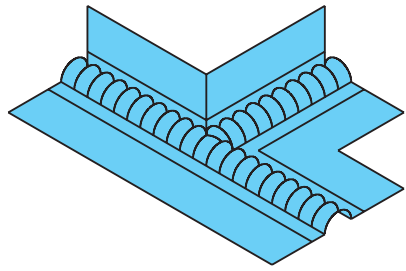
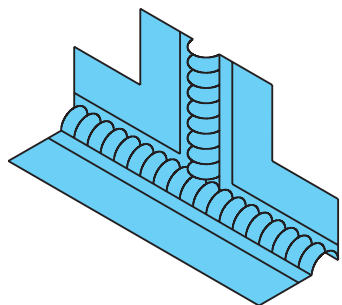
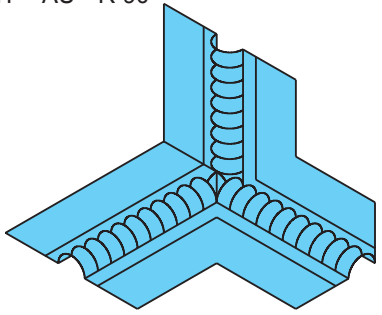
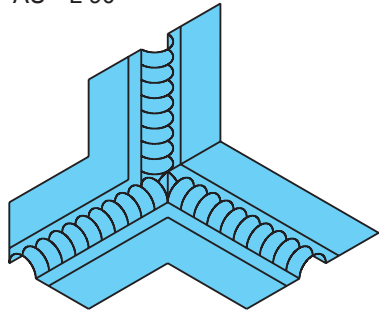
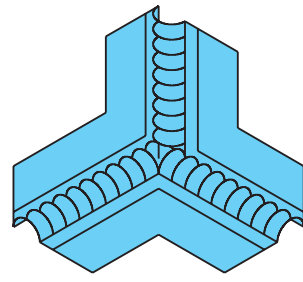
MIGUPREN

BW - R X° 	BW - L X° 	WF 90° 
WF X° 	WF - R 90° 	WF - L 90° 
WF - A 90° 	WF - I 90° 	WF - A X° 
WF - I X° 	WF - W - R 90° 	WF - W - L 90° 
WF - AU - R 90° 	WF - AU - L 90° 	WF - AU - R X° 

TERMINATIONS / INTERSECTIONS

EXAMPLES

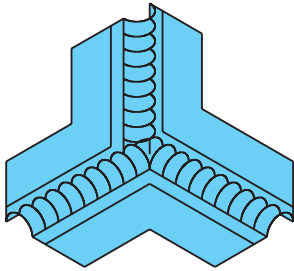
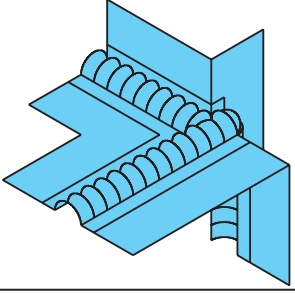
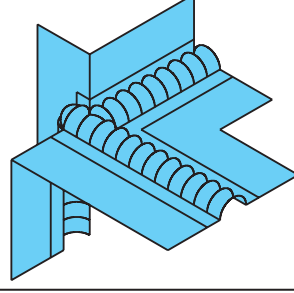
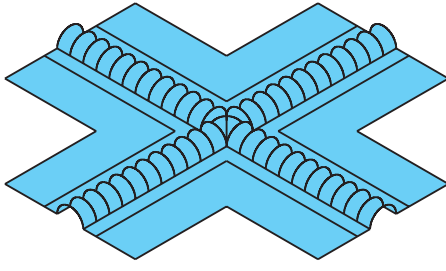
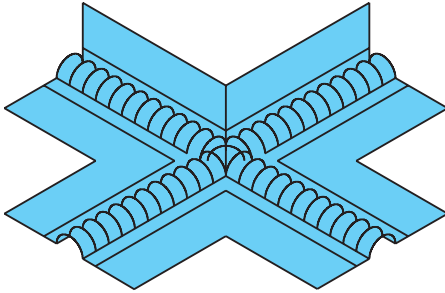
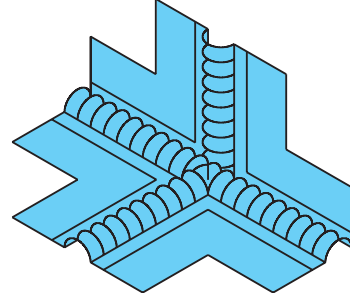
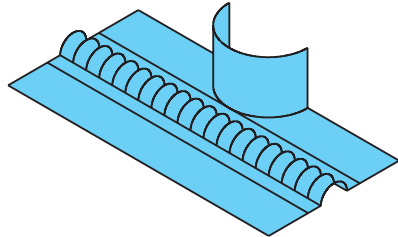
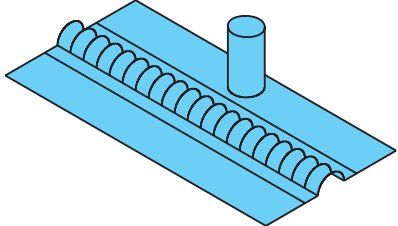
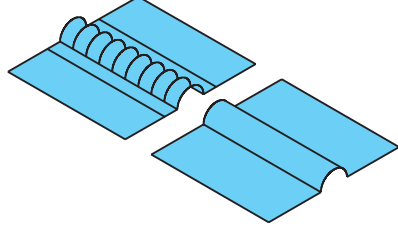
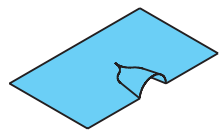
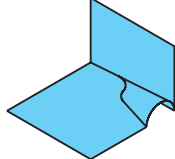
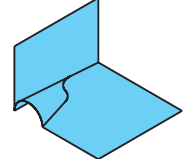
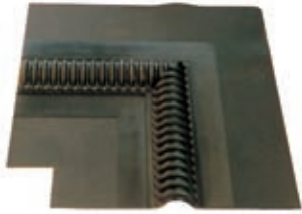
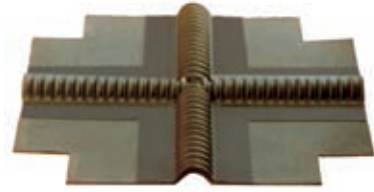
MIGUPREN

WF - AU - L X° 	WF - AU - E - R 90° 	WF - AU - E - L 90° 
WF - AB - E - R 90° 	WF - AB - E - L 90° 	TF 90° 
TF - W 90° 	TF - W1 90° 	TF - W2 90° 
TF - W3 90° 	TF - W4 90° 	TF - AU 90° 
TF - AU - R 90° 	TF - AU - L 90° 	TF - AU - E - R 90° 

TERMINATIONS / INTERSECTIONS

EXAMPLES

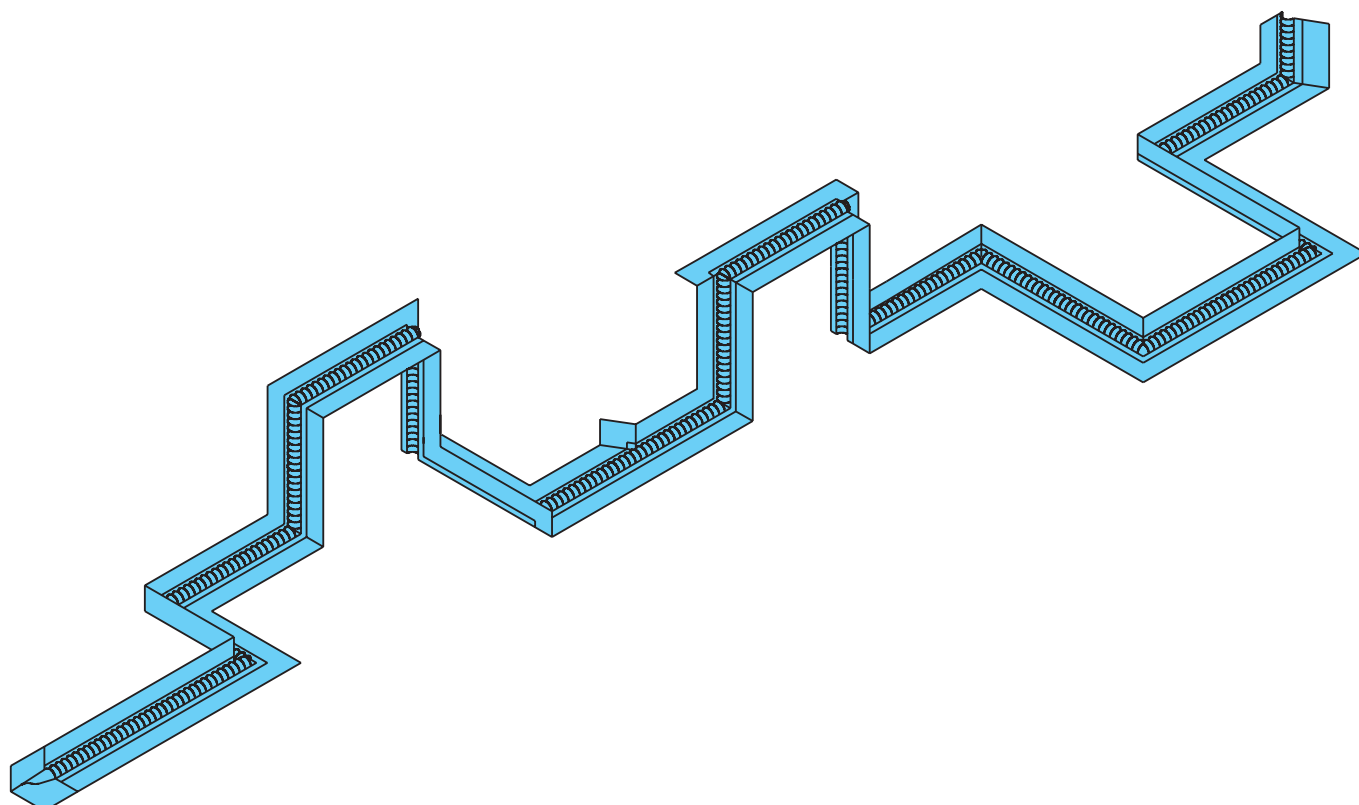
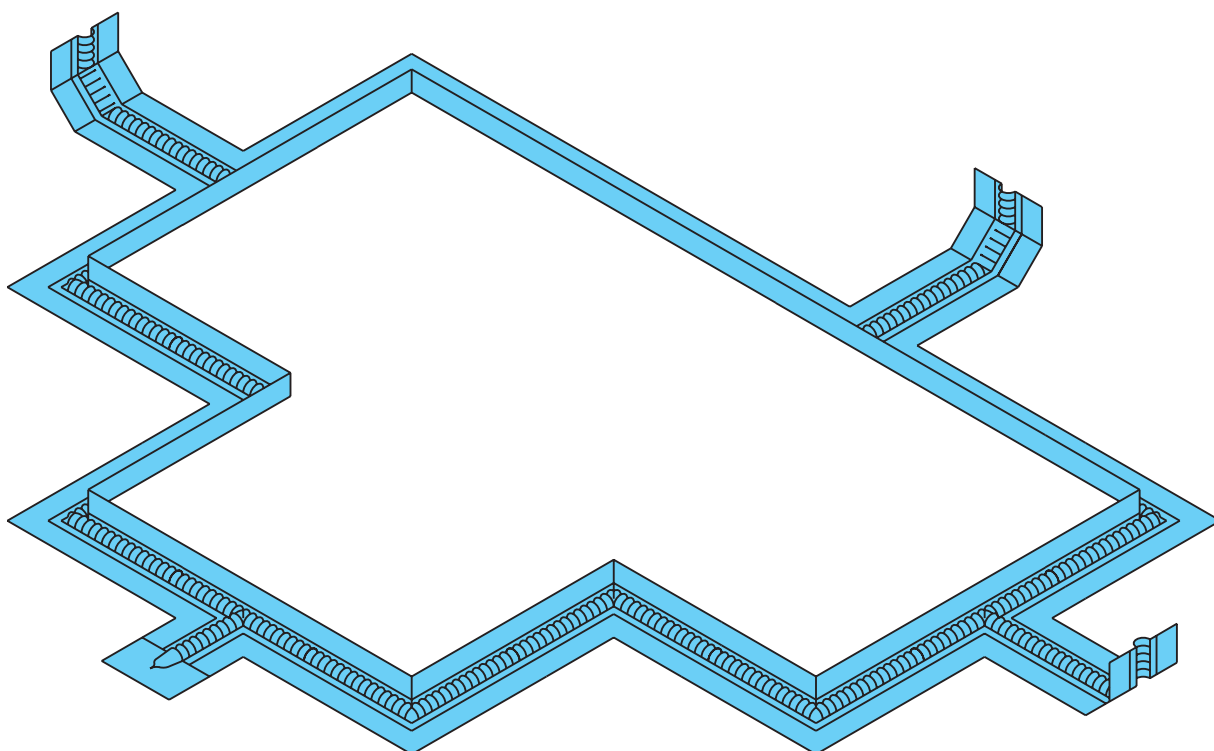
MIGUPREN

TF - AU - E - L 90° 	TF - AB - R 90° 	TF - AB - E - L 90° 
KF 90° 	KF - W 90° 	KF - AU 90° 
Säulenanschluss 	Manschette 	WFB - DK 
DKEA 	DKEA - W - R 90° 	DKEA - W - L 90° 
Typical Intersections   		

SYSTEMS

EXAMPLES

MIGUPREN



SYSTEM FABRICATION

CORRUGATED JOINTING SYSTEM WFB 550

MIGUPREN

VULCANIZATION PROCESS

From our experience, watertight movement joint constructions requires complete prefabricated joint sealing systems. These systems cannot be fabricated economically and accurately on site, they can only be prefabricated in our works. Therefore, it is safer and more economical to have complete joint sealing systems along with all necessary vertical and transverse inter-sections manufactured to detailed site measurement drawings in our works. Should the size of the application involve problems with transport and fabrication, the system has to be fabricated in several parts in our works so that only butt joints will be necessary on site, which requires a portable vulcanization machine. Vulcanization on the site can be carried out by our fitters or by staff instructed by us. Our vulcanization machine can be lent on

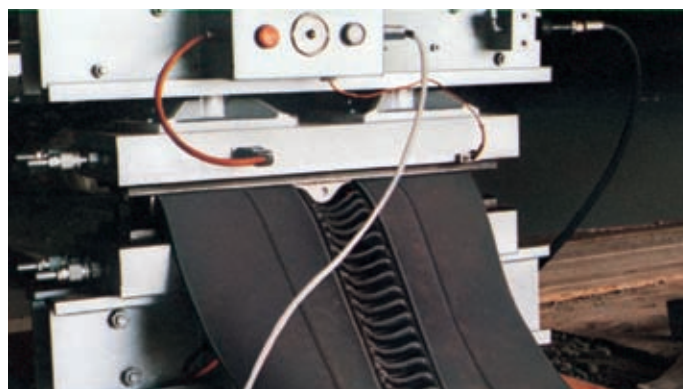
request if the fixing process is made according to our installation instructions (separately), the adhesion between the corrugated jointing system and the bituminous roof layers be very good.

TESTS ON LOAD CAPACITY:

Tests were made by FMPA Stuttgart on the durability of the bond between the bituminous layers and the corrugated jointing systems by means of break test. The results of these tests have shown that the bond between the MIGUPREN elastomer compound and polymer bituminous layers can be so strong that any tensile stress is absorbed in the welded area of the polymer bituminous layer. In the bonding itself, the adhesion between the elastomer is almost entirely maintained.



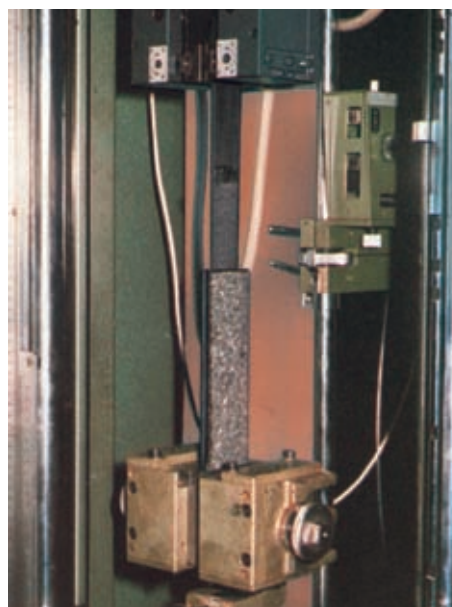
Wellfugenband WFB 550



Portable vulcanization machine



Corrugated Jointing Profile WFB 550
1 length of 150 m
rolled on a cable
drum



Breaks test
FMPA Stuttgart

EXAMPLES

CORRUGATED JOINTING SYSTEM WFB 550

MIGUPREN

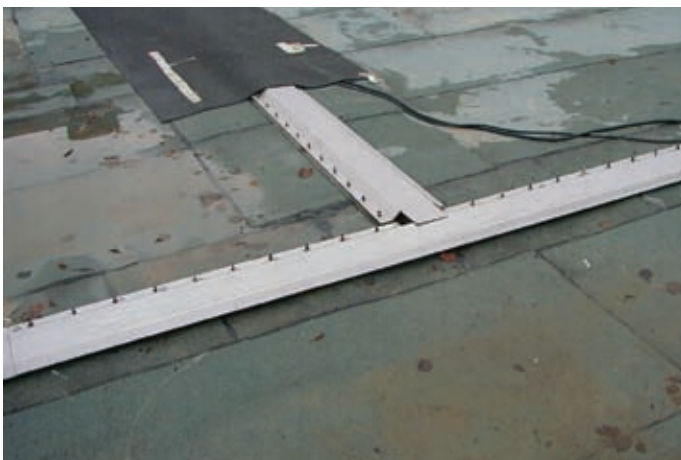


MIGUA

EXAMPLES

CORRUGATED JOINTING SYSTEM WFB 550

MIGUPREN

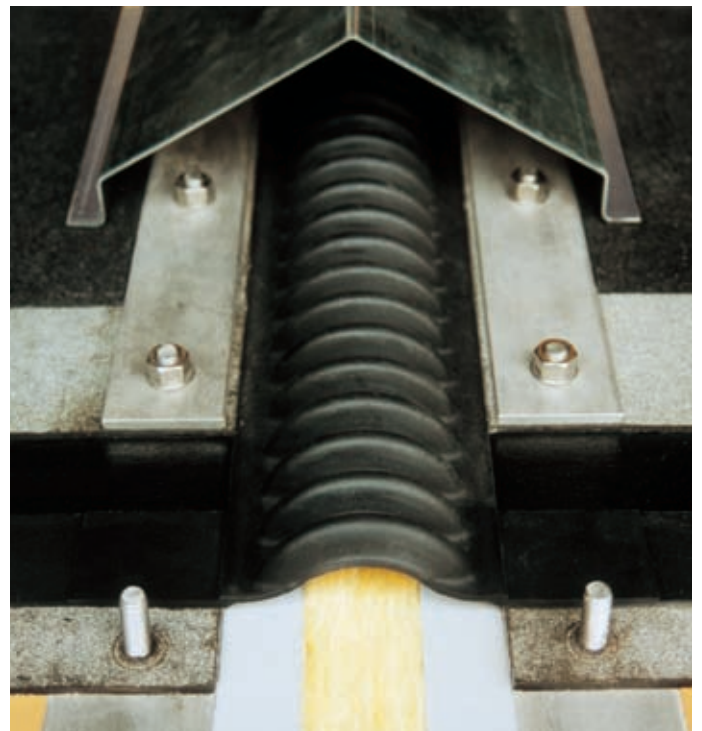


MIGUA

EXAMPLES

CORRUGATED JOINTING SYSTEM WFB 550

MIGUPREN

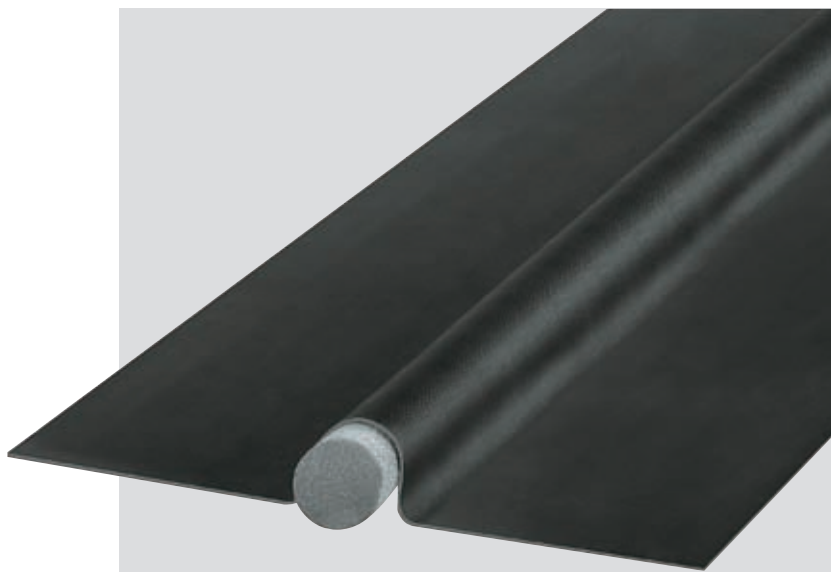


DK 550

FOR FLAT ROOFS (for sealing against non-pressing water)

MIGUPREN

- FLEXIBLE LOOP FORMATION
- LARGE MOVEMENT CAPACITY
- INTERSECTIONS, CONNECTIONS AND SYSTEMS POSSIBLE
- STRUCTURAL SEALING FLANGES



APPLICATION

Material: Polychloropren
Standard width: 550 mm
Width: 2 mm
Fabrication length: 15 m
Max. joint width: 120 mm
Movement capacity: in transverse direction ± 25 mm
In vertical direction 25 mm
Farbe: Black

It might be possible that systems of more than approx. 25 m lengths has to be supplied in more than one part. In this case a site-vulcanization has to be done. Please see page 16 for further information.

All necessary intersection will be done with the corrugated jointing system WFB 550 and vulcanized with the DK 550.

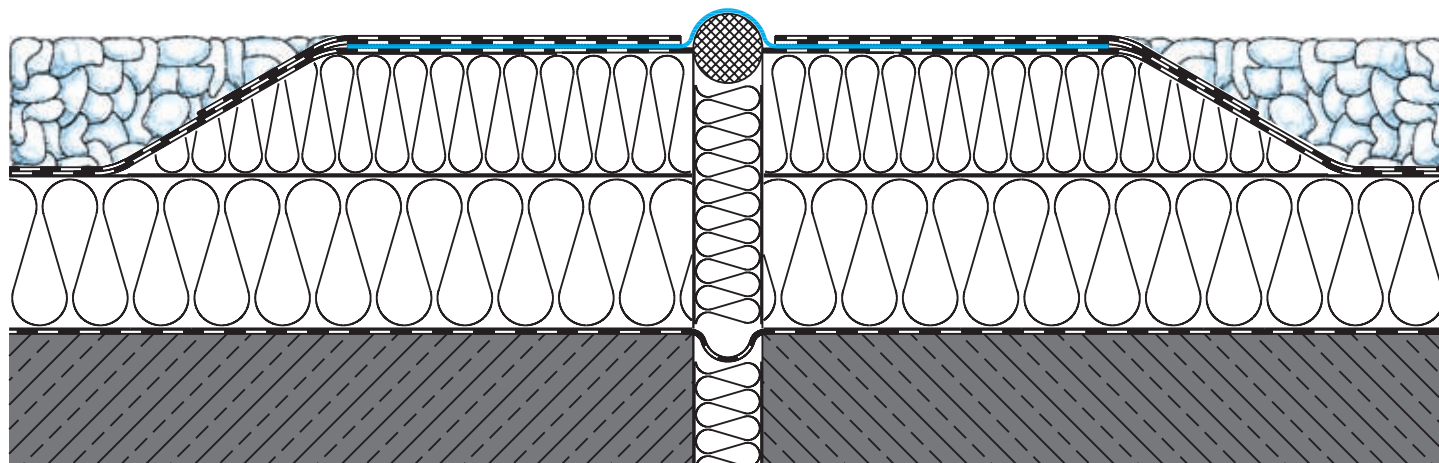
It is much important that the size of the loop which has to be built on site is in accordance with the expected movement. The loop should be supported in addition with a baker rod.

Material description, please see page 2.

Please ask for our separate installation instructions and technical advice.

IMPORTANT NOTES

We ensure a perfect fit by taking measurement on site (complete systems including all intersections, transitions and connections will be done in our works).





MIGUA
EXPANSION JOINT SYSTEMS

MIGUTRANS
HEAVY DUTY EXPANSION JOINT SYSTEMS

MIGUTAN
WATERTIGHT EXPANSION JOINT SYSTEMS

MIGUPREN
WATERTIGHT CORRUGATED JOINT SYSTEMS FOR FLAT ROOFS

MIGUNOX
SOLID STAINLESS STEEL / STEEL HEAVY DUTY SYSTEMS



WORLDWIDE

More than 10 million metres of our profiles have been performing for decades to the complete satisfaction of Architects, Builders and Owners.

Our selected Representatives and Partners all over the world
– backed by our Export and Engineering Departments in Germany –
give best advice and solutions for standard, special and unique situations.

MIGUA – over 50 years experience in manufacture and supply of expansion joint systems –
regarded as market leaders throughout Europe.

Please contact us to discuss your requirements and to obtain samples for evaluation.

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