

THE SYSTEM EXPANSION JOINT CONSTRUCTIONS

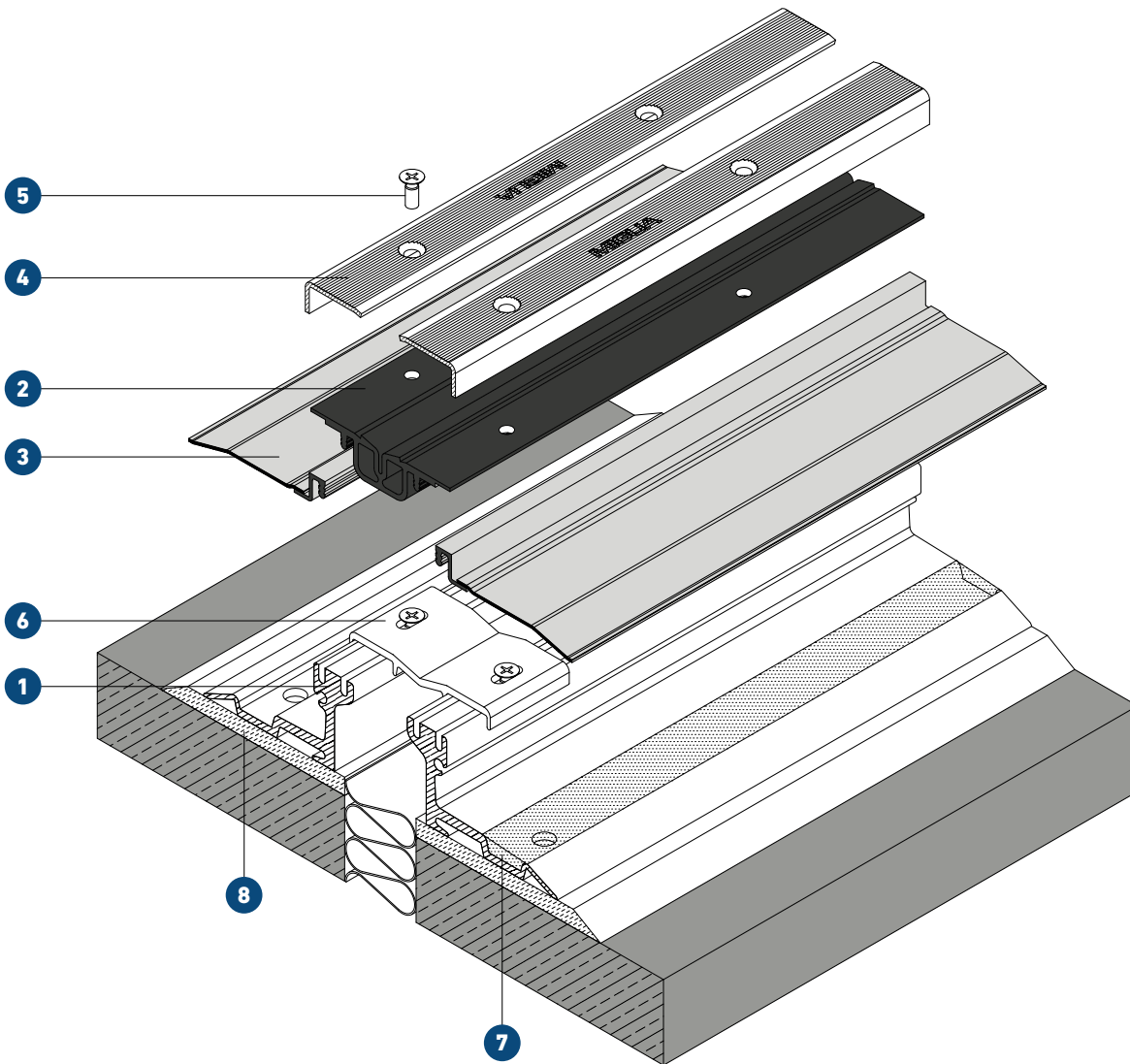
Applies similarly to MIGUTAN long sheets, short sheets, XA and BNI.

Unique construction with the feature "visible surface = sealing surface"

No water penetration into the joint construction

Replaceable movement insert independent of the connecting sheets

All parts exposed to substances made of 1.4301 or better

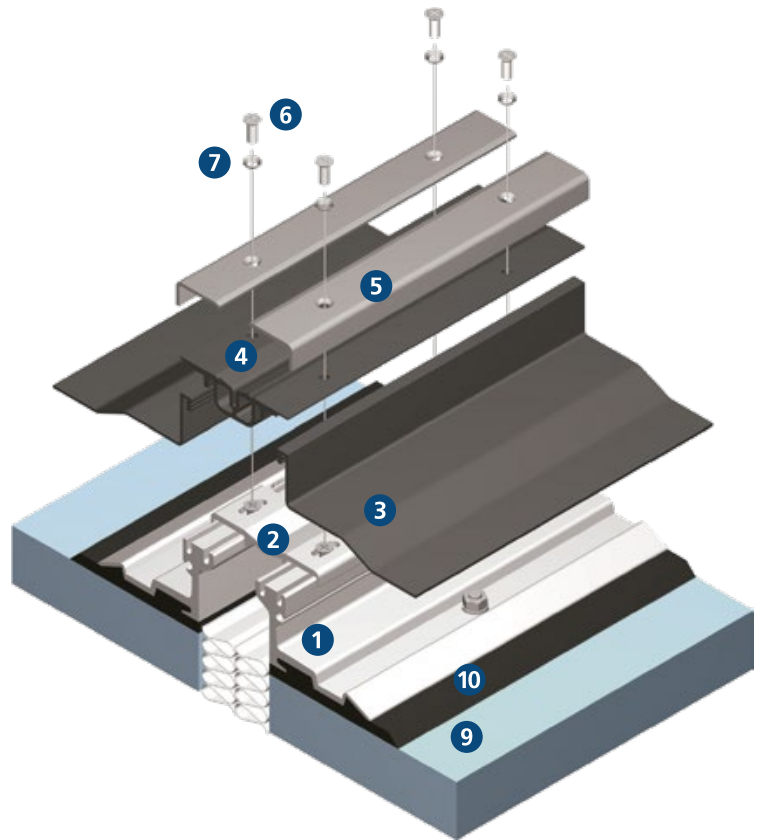


- 1 = Expansion joint substructure with supports on both sides
- 2 = MIGUFLEX sealing insert to accommodate the planned joint movement
- 3 = Connection sheet, design as short sheets, long sheets, XA (here XA)
- 4 = Stainless steel cover caps
- 5 = Stainless steel cross-slotted screws with nylon seal for screwing with torque.
Compresses nos 2 and 3.
- 6 = Installation distance gauge (spacer) to be removed after installation
- 7 = Mortar (for this type of expansion joint substructure)
- 8 = pressure-resistant and shrinkage-free mortar (e.g. epoxy resin or PCC mortar)

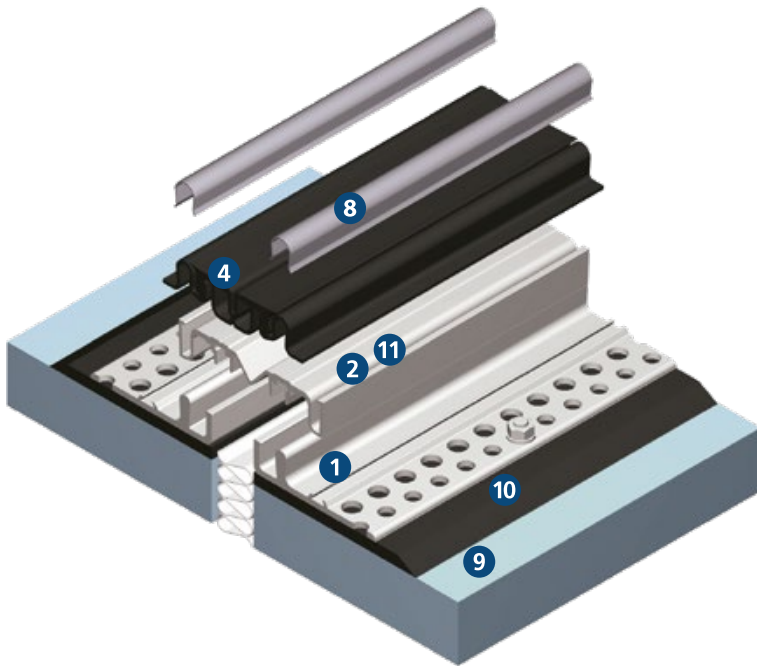
SYSTEM STRUCTURE

MIGUTAN expansion joint covers

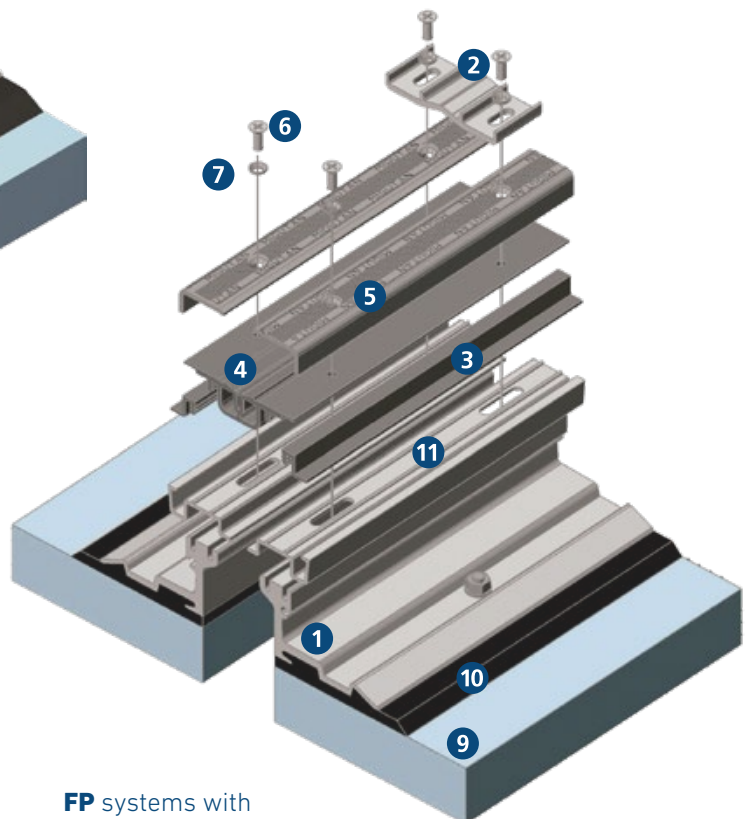
- 1 = Aluminium sub-structure
- 2 = Installation spacer
- 3 = MIGUFLEX-AAS sheet
- 4 = MIGUFLEX seal insert
- 5 = Stainless steel cover caps
- 6 = Stainless steel cross-headed screws
- 7 = Nylon seal
- 8 = Strip
- 9 = Load-bearing surface
- 10 = Pressure-bearing and shrinkage-free cement (e.g. epoxy resin or PCC cement)
- 11 = Connection joint cut-out expansion joint cover AAP



FP systems with long AAS sheets



FPL systems



FP systems with short AAS sheets

Test certificates

After extensive testing, MIGUA was awarded an AbP (general building authority test certificate) for our watertight expansion joint covers. This AbP covers the entire MIGUTAN programme including all joint cover heights and -widths as well as all connections to bituminous sealing layer, coatings and liquid plastics.

This makes MIGUA the first manufacturer of expansion joint covers to subject its complete range of watertight expansion joint covers through these tests and has been granted an AbP (exception: FPL, FPSG). According to German building law, the AbP is proof of usability and is mandatory for all buildings in the legal area of the state building regulations. This AbP is therefore the only possibility to meet the requirements stipulated in the call for bids with standardised tests.

The AbP is available for download on our website migua.com

For the joint covers specified in the AbP, proof of direct traversability was provided with 500,000 traverses.



Specifications regarding the load capacity

Picto-gramm					
Meaning	Pedestrians	Private cars	Lorries DIN 1072	Forklift trucks DIN 1055	Solid plastic tyres

The load specifications of air-filled and solid plastic tyre trucks apply to a wheel contact patch of 200 x 200 mm.

Note regarding installation

Assembly and installation instructions are available on request. Please contact us. Alternatively, all information is ready for download from www.migua.com.



When installing the MIGUTAN joint constructions in mastic asphalt pavements, please request our technical advice.

Standard mounting list

A detailed list of standard mountings is available on our website.



Fixture/dowelling

For the fixture of expansion joint heights 25mm, 35 mm and 45 mm in conjunction with long AAS sheets and fleece laminated sheets (XA sheets), counter-sunk screws are to be used.

Expansion joint cover anchoring using anchor rods or loop anchors

To secure to filigree plates, the expansion joint covers may be supplied with adjustable brackets fitted at the factory.

The connection of the individual lengths on the construction site is carried out using the pins installed at the factory. This ensures the height and side transitions of the individual joint lengths are the same.

For weight reasons and due to the improved handling, we recommend axial separation when assembling MIGUTAN expansion joint covers with loop anchors.

To securely fix the expansion joint construction, the anchoring rods or loops must be welded with the reinforcement. In the upper section, alongside the stainless steel caps, a gap must be left on both sides as connection joint (approximately 10 x 20 mm) between the joint cover and the concrete. This must subsequently be filled with a suitable PU sealant to ensure it is watertight (3-flank adhesion). These connection joints can be made economically and clean using the AAP 50/20 connection joint recess profile.

SYSTEM DESCRIPTION MIGUTAN EXPANSION JOINT CONSTRUCTIONS WITH EXCHANGEABLE CENTRE SEAL

FOR SEALING AGAINST NON-PRESSURIZED WATER

Areas of application

MIGUTAN expansion joint covers have been used for more than 40 years for waterproofing in car parks, parking decks (exposed to weather), underground car parks, swimming pools, canteen kitchens, footbridges, airports etc. A large number of reference projects can be verified.

Special features

Aluminium expansion joint covers with grooved aluminium brackets, elastic centre seal and, on both sides, long, short or laminated sealing connection sheet (AAS sheets) of MIGUFLEX quality, wear-proof, weatherproof, resistant to de-icing salt, and good resistance to waste water (hydrogen sulphide, microbes, bacteria) The AAS sheets can be used with hot bitumen.

To ensure watertightness, the watertight Migutan expansion joint covers must be connected to the on-site waterproofing in accordance with DIN 18531, 18532, 18533 or to the waterproofing surface protection system. The double-sided connection sheets of the expansion joint covers are available for coating (short AAS sheets), bituminous layer (long AAS sheets, 300 mm long) as well as liquid sealings, mineral or bituminous liquid membranes/waterproofing slurry (XA sheets = Fibre fabric bonded sheets). The special design of the of the respective connecting sheets ensures the best possible bonding with the adjacent surface waterproofing.

Solid stainless steel caps Solid stainless steel caps are adapted to the requirements of the usage and are made of high-quality material 1.4301. Stainless steel 1.4571 or other material qualities are available upon request.

Screwing the stainless steel caps (Ni caps) to the profiles with a defined torque ensures that the sealing inserts are evenly compressed with the connecting sheets, thus guaranteeing permanent watertightness (see also sketch of the expansion joint cover set-up structure on page 7 and page 45). For reasons of slip resistance, the surface of the Ni caps is additionally structured.

Exchangeable centre seal: Elastic, weather-proof, petrol, oil and de-icing salt resistant, watertight weldable centre seal with double-web to ensure two-fold security against ingress of water.

If the center seal is mechanically damaged, it can be replaced even when installed without damaging the adjacent covering.

Absolutely no ingress of damp or de-icing salt through the centre seal at the level of the upper edge of the finished floor. Therefore, the expansion joints remain dry within the joint.

Full sealing elements across the entire expansion joint course, ensuring 100% watertight seal.

Fully leveled connection of the joint covers by means of connection pins or by sliding the fixing legs into each other. Factory-mounted spacer brackets ensure optimally adjusted joint covers - for economical installation and functionally reliable positioning of the joint cover construction. Factory-made pre-settings of the joint covers are available upon request - thus maximising the one-sided movement absorption.

Fire protection: The products FP 80 NI, FP 90 NI, FPG 90 NI, FP 110 NI, FPG 80, FPG 110 and FP 130 have been subjected to comprehensive fire testing at MPA NRW (Material testing institute of Northrhine-Westfalia, Germany). These tests were passed in accordance with the test certificate and test report number 230007088. In accordance with EN 13501-1, all products are classified in accordance with Bfl-s1 (flame-resistant floorings, do not burn/drip). The FP 155 was newly classified with Bfl-s2.



Intersections and connections can be made watertight even for the most complicated of expansion joints, too. We guarantee joint cover accuracy thanks to on-site measuring (factory prefabrication including all intersections, transitions and connections). Joints are correct in height, thus ensuring ongoing stability due to factory-prepared couplings in metal construction.

Suitability in accordance with German law of water protection

WHG § 19: For applications to be executed in accordance with WHG § 19, individual solutions are available. Please contact us, if required.

Recommendations for application

Stainless steel cover caps: Re-tighten all fastening screws of the stainless steel cover caps by means of a torque wrench (7 Nm) after approx 14 days.

Mastic asphalt: When using in mastic asphalt, joint covers in 25 mm height should be used only as end profile in the wall area (upright joint) due to their little overlap.

Coatings: in case you plan to use Migutan expansion joint covers with short sheets on open decks and with a joint cover height of 25 mm, kindly ask for our technical advice.

Minimum expansion joint widths: Due to the shape of the centre seal, minimum expansion joint widths are to be adhered to for the following expansion joint covers:

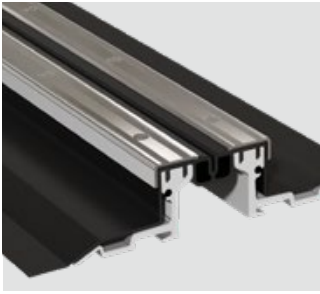
- 50 mm for FP 110/25 NI
- 75 mm for FP 130/25 NI and FP 130/35 NI
- 95 mm for FP 155/... with joint heights of less than 80 mm

Cover plates: When using expansion joint covers with cover plates, there is no absorption of settlement movements.

MIGUTAN in the swimming pool sector: In case MIGUTAN expansion joint constructions are used in swimming pool areas, the required chloride resistance call for a higher quality stainless steel alloy that has to be pickled (stained). Therefore, please mention this area of use specifically for tenders and inquiries!

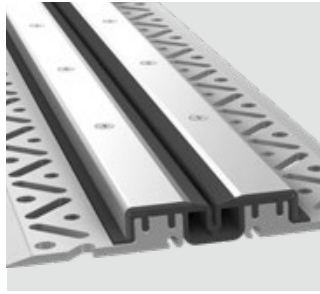
Increased hygienic requirements: For use with increased hygienic hygienic requirements in e.g. swimming pools, hospitals or retirement homes, hygienically safe, even movement inserts of the types FPG 80, FPG 90 and FPG 110 are available. This system is physiologically flawless, especially in combination with the sealing stainless steel caps.

EXPANSION JOINTS ACCORDING TO AREAS OF APPLICATION



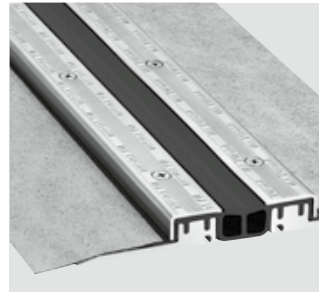
Expansion joints for bituminous seals (long AAS sheets)

Characteristic for these products are the long AAS sheets for the best-possible adhesion connection to the area seal. Upper seal insert, non-slip Stainless steels caps and extremely durable aluminium brackets are additional characteristic properties of our MIGUTAN systems.



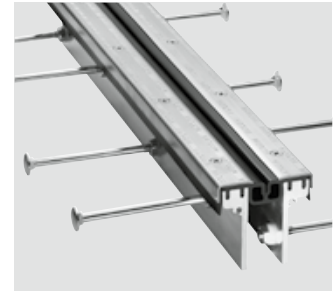
Expansion joints for coating systems (short AAS sheets)

Short Ass sheets ensure perfect watertight in connection with a surface protection system. This product category is also characterised by upper seal inserts, non-slip and structured stainless steel caps and extremely durable aluminium brackets. Systems with clip-open stainless steel protection cap (FPL) are available for particularly simple assembly.



Expansion joints for alternative seals (MIGUTRIX sheets – XA)

With this innovative MIGUA technology for liquid seals, fleece concealed AAS sheets ensure optimum attachment to a surface seal located under tiles. In conjunction with 3 different smooth seal inserts for hygienic requirements, anti-bacterial and physiologically safe. Particularly well-suited to swimming pool use in conjunction with special caps.



Expansion joints for installation in concrete (Anchor rods/loop anchors)

Expansion joint constructions with rod or loop anchors for particularly strong and flush installation in concrete ceilings with coatings. Sliding rod or loop anchors for variable welding options with reinforcing steel enable the greatest of flexibility and simple assembly. Suitable for a wide variety of loads thanks to the use of rod or loop anchors.