YOU FIRST. MIGUA®

SEISMIC EXPANSION JOINT SYSTEMS

DESIGNED FOR EXTREMELY HIGH MOVEMENTS,
EASY INSTALLATION, ALL TYPES OF FINISHES,
FLEXIBLE USE AND EARTHQUAKE SEISMIC PROTECTION

MIGUMAX

YOU FIRST.

MIGUA is one of Europe's leading experts in the design, manufacture and installation of expansion joint systems. MIGUA expansion joint systems serve to cover, close and conseal expansion joints. Our products satisfy the most rigorous standards in quality and safety and are widely used in large-scale construction projects such as airports, train stations, industrial plants, parking structures, shopping centres and hospitals. Every day, our experienced team do their utmost to ensure that our outstanding product quality and innovative approach make your building project successful. We are not satisfied until you are satisfied. Because our guiding principle is:
MIGUA – you first.

Over 600 products for one purpose: Yours
With five brands and a total of over 600 proven expansion joint systems, we've got the diverse structural needs of today's construction projects covered. We confront problems such as heavy traffic loads and meet exacting standards in water resistance or hygiene. Floors, walls or roofs, MIGUA offers the perfect solution for any surface. Products of the highest quality are fundamental to our business; yet our ultimate priority is always customer satisfaction.

MIGUTEC

JOINT COVERS FOR
EXPANSION JOINTS

MIGUTRANS

HEAVY-DUTY ALL-METAL
JOINT SOLUTIONS FOR LARGE
TRAFFIC LOADS

MIGUTAN

WATERTIGHT EXPANSION
JOINT SOLUTIONS

MIGUPREN

EXPANSION JOINT STRIPS TO SEAL JOINTS
WITH THREE-DIMENSIONAL MOVEMENT

MIGUMAX

SEISMIC RESISTANT
EXPANSION JOINT SOLUTIONS

360°

MIGUA 360° SERVICE

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THE COMPREHENSIVE PRODUCT RANGE OF SEISMIC EXPANSION JOINT SYSTEMS **EXPANSION JOINT SYSTEMS**

Expansion joint profiles are mostly made of aluminium or steel, either solid metal or assembled together with rubber inserts or gaskets in rubber. They are designed to accommodate the large movements of a construction, including settlement and, sometimes seismic deflections.
Movements may be caused by temperature and drying shrinkage, the supporting substrate, winds forcing the structure to sway or earthquake activity beneath the structure.

The most important criteria when selecting an expansion joint system are the following:

- Gap – the structural engineer has to indicate the anticipated movement of the structure and as a result the joint width based on the static calculation and dynamic analysis.
- Load bearing capacity – knowing the maximum loading the expansion joint system has to withstand is of utmost importance. Exceeding the load capacity of the system will cause it to fail. Loads are specified in DIN 1055 and DIN 1072.
- Movement capacity – precondition of selecting the correct profile is knowing the horizontal and/or vertical movement/s. Consideration must be given to the foundations and settlement in mining and seismic zones. In addition to this information it is important to consider water-tightness and chemical reaction requirements.

Apart from those decisive criteria it is also important to know about requirements on watertightness, chemical attack, etc.

EARTHQUAKES

Earthquakes mainly occur at the boundaries of the tectonic plates forming the Earth´s crust. Hence, they are not only categorized by their magnitude but also by the place where they occur.
The world is divided into more than 700 regions, the more active regions being divided into smaller sub-regions. The less active regions are sub-divided into larger zones.

Over long periods of time the movement of tectonic plates creates severe stress. The plates move continually making it virtually impossible to predict short or medium term earthquakes. The movement of the plates strains or deforms the rocks along the plate boundaries until the rocks can no longer sustain the strain. Then a sudden slip along the faults releases energy that causes earthquake shaking.

Fortunately most earthquake-prone areas occur in sparsely populated regions. However, some densely populated and rapidly growing cities such as San Francisco and Tokyo are in areas of high seismic actvity.

Specifications regarding the load capacity

Pictogram					
Meaning	Pedestrians	Private cars	Lorries DIN 1072	Forklift trucks DIN 1055	Hard castors

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 speak to us.

Alternatively, information can be downloaded from **www.migua.com**.

All information given refers to the joint width by the time of installation. The potential margin amounts to +/- 10 mm.

Please note that we subdivide all general information into thermal and seismic movement.
The very load bearing capacity mentioned refers to thermal movement only.

We reserve the right to make technical changes.

If you have any questions about our products, we would be happy to help.
+ 49 2058 774 0 or info@migua.de

MEASURING EARTHQUAKES

Earthquakes are recorded by so called seismometers – the absolute magnitude of a quake is determined by the ground motion for specific seismic waves and recorded by numbers on the Moment magnitude scale (formerly Richter scale).

The report of the magnitude scale is logarithmic, i.e. an earth-quake of magnitude 8 is 10 times the amplitude of a tremor of magnitude 7 and 100 times the amplitude for a tremor of 6. Much more impressive when comparing the energy generated: an earthquake of magnitude 8 radiates 30 times the energy of an event of magnitude 7 and 900 times the energy of an event of magnitude 6.

EARTHQUAKE DAMAGE

Major effects created by earthquakes are shaking and ground rupture. As a result varying degrees of damage occurs to buildings and other rigid structures, depending on the combination of magnitude (strength and duration of shaking), distance from the epicenter and the local geological conditions.

Strength decreases rapidly with distance from the epicenter – it becomes half as strong at a distance of 8 miles and a quarter as strong at a distance of 17 miles. In terms of geological conditions, shaking is increased in soft, thick, wet soils.

WORLD-WIDE EARTHQUAKES AND THEIR CONSEQUENCES

Scientists evaluate around 500.000 earthquakes each year, from which 100.000 can actually be felt. The major part and even the largest one´s take place in the 40.000 km long circum-Pacific seismic belt, well known as the Pacific Ring of Fire.

In the U.S. earthquakes are most common in California and Alaska, but also in Hawaii, Montana, Nevada, Washington, Quebec, etc.

Affected states have already adopted codes requiring some level of protection. As a result of such legislation buildings constructed to the required standards have life saving and damage avoidance/ limitation features not found in older buildings.

The various national codes set minimum standards to ensure life safety, but do not reflect on specific damage and loss of function. Today, there are different ways to protect and prepare from severe damage: earthquake engineering, earthquake preparedness, household seismic safety, seismic retrofit (including special fasteners, materials and techniques). Seismic retrofitting means modification of existing structures to make them more resistant to seismic activity, ground motion or soil failure due to earthquakes.

Among others, preparedness can be achieved by using seismic expansion joint systems, particularly in multi-storey buildings where joints become wider on upper floors in reaction to the increased seismic sway.

EXPANSION JOINTS ACCORDING TO AREAS OF APPLICATION

Floor expansion joint systems
(Floor)

Migua seismic floor expansion joints systems are especially designed to cope with large movements typical for earthquakes. At the same time, they accomodate day- and nighttime as well as seasonally conditioned thermal movements. Migua seismic expansion joint covers are characterized by their aesthetic design and ensure a maximum of comfort. Not least, they are cost-efficient due to their high quality, easy installation and longevity.

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Wall expansion joint systems
(Wall)

Migua seismic wall expansion joint systems are made to exceed even the highest demands. The design provides for a seamless transition from floor to wall expansion joints that ensures a harmoneous architectonic impression. The most innovative product in this range is the WSP that can be tailor-made to perfectly to suit your individual needs.

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Roof expansion joint systems
(Roof)

Migua roof expansion joints feature highest functionality. The designs allows for both the absoprtion of three-dimensional thermal as well as seismic motion. Moreover, all Migua roof expansion joint systems are specifically optimized for fast and easy installation.

Product	Page
RTC	28
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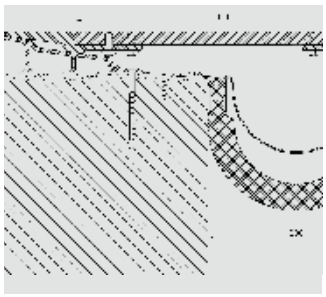

Fire barrier, fire protection
(Miscellaneous)

In addition to MIGUMAX expansion joint cover range, we offer professional accessories such as firebarriers, sealing foils and many more. Due to the vast variety of solutions on offer, we have chosen to show some examples only. In case you are in search of individual solutions, we are only to pleased to be of help.

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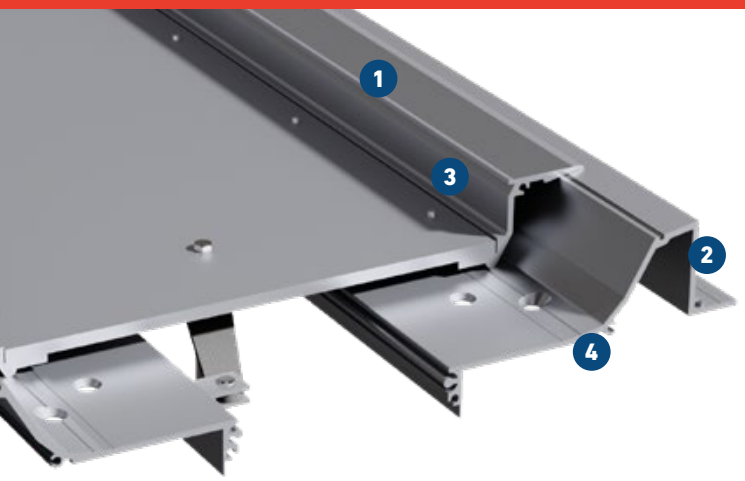
Fire barrier, fire protection	30

SPJ

FOR LARGE MOVEMENTS

MIGUMAX

SEISMIC RESISTANT EXPANSION JOINT SOLUTIONS



1 Solid all-metal expansion joint cover
Maintenance-free, hard wearing and long-lasting, no non-shrink seal required

2 Vertical side walls
No diagonal cutting of stoneware necessary.

3 Multi-dimensional movement capability

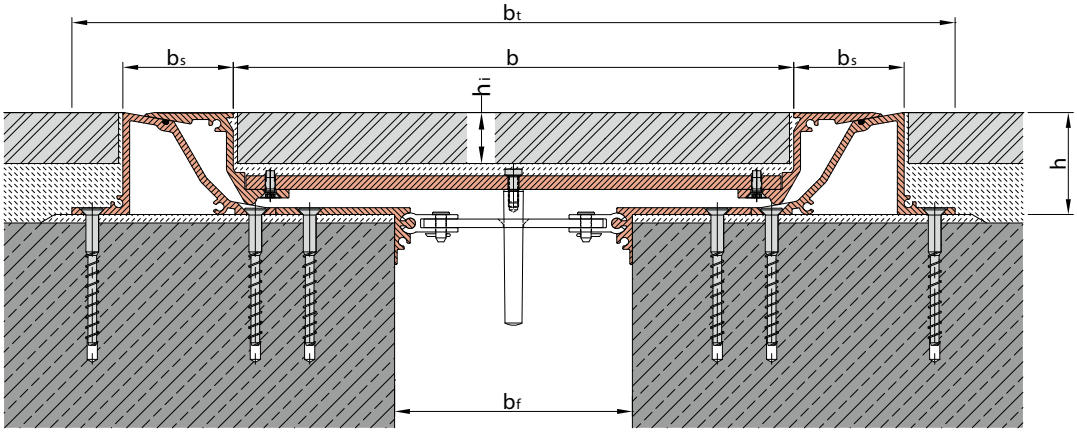
4 Connection pins
Ensure even installation with respect to both, height and width

Striated Surface
Higher Safety by means of improved skid resistance

Easy to install
Optimized design allows for easy and safe installation of the centring bar

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width * b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SPJ 100	100	40 (±20)	185 (+150/-35)	65	280	470	60	30	pedestrians
SPJ 150	150	40 (±20)	235 (+150/-85)	65	330	520	60	30	pedestrians
SPJ 200	200	40 (±20)	285 (+150/-135)	65	380	570	60	30	pedestrians
SPJ 300	300	40 (±20)	385 (+150/-235)	65	480	670	60	30	pedestrians
SPJ 400	400	40 (±20)	535 (+200/-335)	65	580	770	60	30	pedestrians
SPJ 500	500	40 (±20)	685 (+250/-435)	65	740	930	60	30	pedestrians

* each side
Joint width by the time of installation. Potential tolerance: ± 10 mm
Further joint widths available on demand.
Standard colour: Aluminium
Production length: 4 m



WALL CONNECTIONS
CORNER VERSIONS

Solid all-metal expansion joint cover
Maintenance-free, hard wearing and long-lasting, no non-shrink seal required

Vertical side walls
No diagonal cutting of stoneware necessary.

Multi-dimensional movement capability

Connection pins
Ensure even installation with respect to both, height and width

Striated Surface
Higher Safety by means of improved skid resistance

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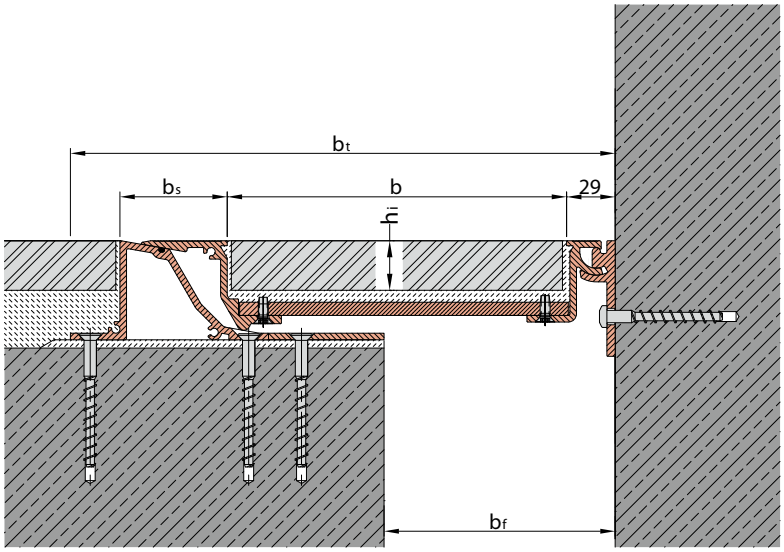
Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SPJ 100/E3	100	20 (±10)	165 (+75/-90)	65	162	286	60	30	pedestrians
SPJ 150/E3	150	20 (±10)	215 (+75/-140)	65	212	336	60	30	pedestrians
SPJ 200/E3	200	20 (±10)	265 (+75/-190)	65	262	386	60	30	pedestrians
SPJ 300/E3	300	20 (±10)	365 (+75/-290)	65	362	486	60	30	pedestrians
SPJ 400/E3	400	20 (±10)	490 (+100/-390)	65	462	586	60	30	pedestrians
SPJ 500/E3	500	20 (±10)	615 (+125/-490)	65	592	716	60	30	pedestrians

Joint width by the time of installation. Potential tolerance: ± 10 mm
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Standard colour: Aluminium
Production length: 4 m



SDPP

DESIGNED FOR EXTREMELY HIGH MOVEMENTS

MIGUMAX

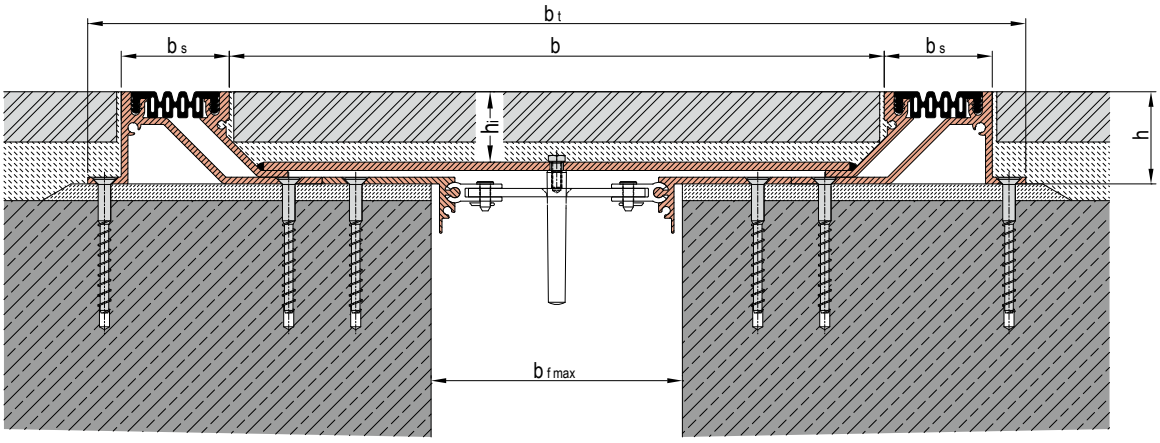
SEISMIC RESISTANT EXPANSION JOINT SOLUTIONS

1. **High movement capacity**
   ideal for seismic applications
2. **MIGUMAX PopUp system,**
   i.e. cover returns and resets after movement
3. **Ideal for use of all types of finishes**
   (granite, marble, ceramic, carpet, vinyl)

Reduced sightline
minimally visible

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width * b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installa-tion height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SDPP 100	100	44 (±22)	235 (+200/-35)	65	340	510	55	38	pedestrians
SDPP 150	150	44 (±22)	285 (+200/-85)	65	390	560	55	38	pedestrians
SDPP 200	200	44 (±22)	335 (+200/-135)	65	440	610	55	38	pedestrians
SDPP 300	300	44 (±22)	435 (+200/-235)	65	540	710	55	38	pedestrians
SDPP 400	400	44 (±22)	535 (+200/-335)	65	640	810	55	38	pedestrians
SDPP 500	500	44 (±22)	635 (+200/-435)	65	740	910	55	38	pedestrians

* each side
Joint width by the time of installation. Potential tolerance: ± 10 mm
Side plates and middle section made of solid aluminium with flexible Synca inserts.
Corner versions will be designed individually. Details submitted project-wise on request. Further joint widths available on demand.
Production length: 4 m
Standard colors: black, grey, beige

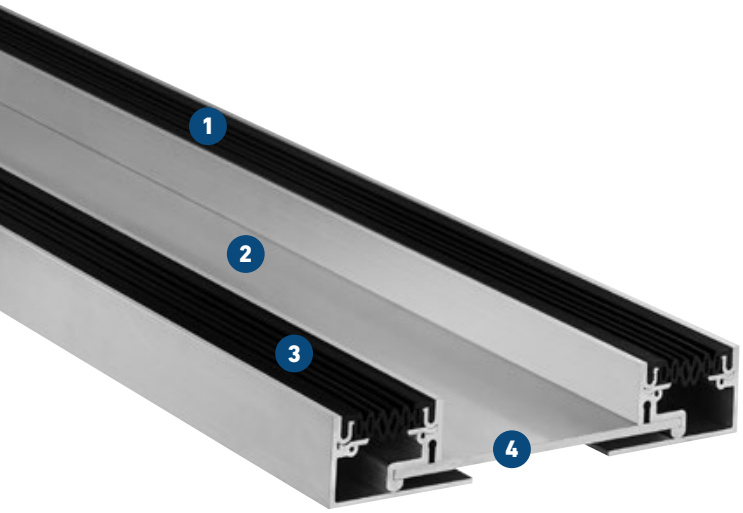


SDF 65

DESIGNED FOR EASY INSTALLATION

MIGUMAX

SEISMIC RESISTANT EXPANSION JOINT SOLUTIONS



1. **Full movement capability**
   with minimum visibility
2. **Flush joint cover**
   concealed in the surrounding floor
3. **Inserts replaceable**
   at any time
4. **Sturdy middle section with bearing**
   for horizontal and vertical movement

Absorption of settlement possible

Ideal for use of all types of finishes

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width * b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SDF 150 65	150	44 (±22)	100 (±50)	65	230	360	55	38	pedestrians
SDF 200 65	200	44 (±22)	100 (±50)	65	280	410	55	38	pedestrians
SDF 300 65	300	44 (±22)	100 (±50)	65	380	510	55	38	pedestrians
SDF 400 65	400	44 (±22)	100 (±50)	65	480	610	55	38	pedestrians
SDF 500 65	500	44 (±22)	100 (±50)	65	580	710	55	38	pedestrians

* each side

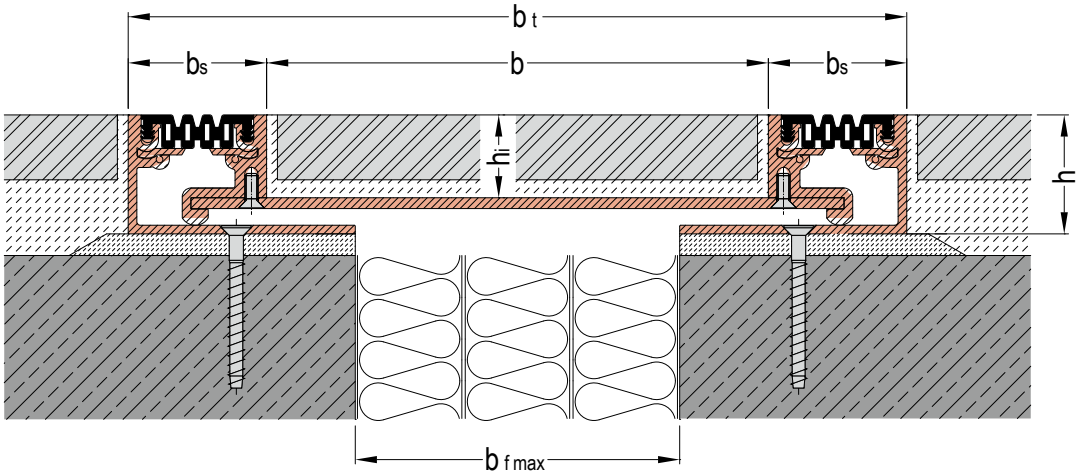
Side plates and middle section made of solid aluminium with flexible Synca inserts.

Corner versions will be designed individually. Details submitted project-wise on request.

Further joint widths available on demand.

Production length: 4 m

Standard colors: black, grey, beige



WALL CONNECTIONS
CORNER VERSIONS

Full movement capability
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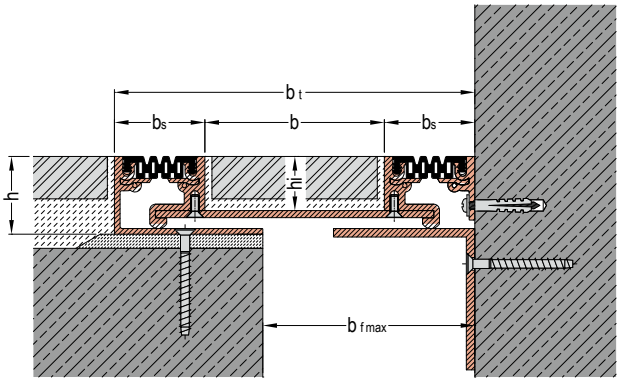
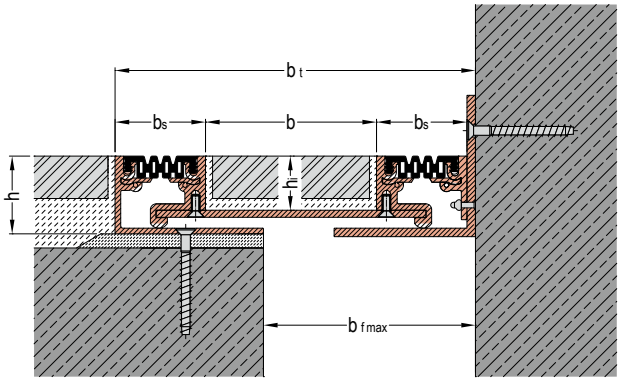
Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width * b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SDF 150 65 E3	150	44 (±22)	100 (±50)	65	125	255	55	38	pedestrians
SDF 150 65 E4	150	44 (±22)	100 (±50)	65	120	255	55	38	pedestrians
SDF 200 65 E3	200	44 (±22)	100 (±50)	65	175	305	55	38	pedestrians
SDF 200 65 E4	200	44 (±22)	100 (±50)	65	170	305	55	38	pedestrians
SDF 300 65 E3	300	44 (±22)	100 (±50)	65	275	405	55	38	pedestrians
SDF 300 65 E4	300	44 (±22)	100 (±50)	65	270	405	55	38	pedestrians
SDF 400 65 E3	400	44 (±22)	100 (±50)	65	375	505	55	38	pedestrians
SDF 400 65 E4	400	44 (±22)	100 (±50)	65	370	505	55	38	pedestrians
SDF 500 65 E3	500	44 (±22)	100 (±50)	65	475	605	55	38	pedestrians
SDF 500 65 E4	500	44 (±22)	100 (±50)	65	470	605	55	38	pedestrians

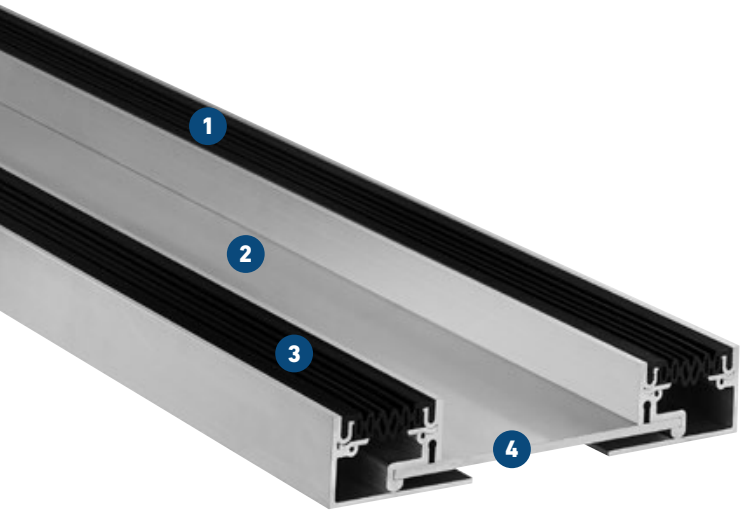
* each side

SDF 65 E3



SDF 65 E4





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Absorption of settlement possible

Ideal for use of all types of finishes

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width * b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SDF 150 85	150	60 (±30)	125 (+50/-75)	83	264	429	55	38	pedestrians
SDF 200 85	200	60 (±30)	125 (+50/-75)	83	314	479	55	38	pedestrians
SDF 300 85	300	60 (±30)	125 (+50/-75)	83	414	579	55	38	pedestrians
SDF 400 85	400	60 (±30)	125 (+50/-75)	83	514	679	55	38	pedestrians
SDF 500 85	500	60 (±30)	125 (+50/-75)	83	614	779	55	38	pedestrians

* each side

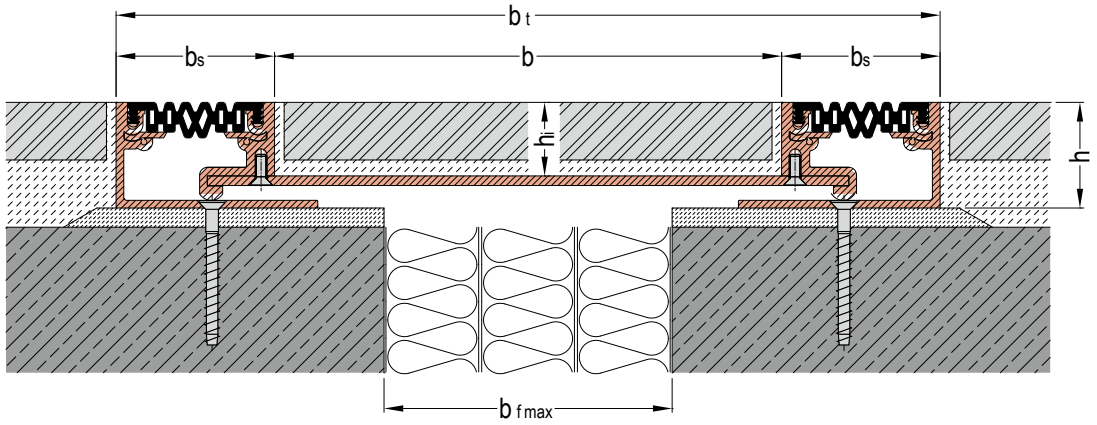
Side plates and middle section made of solid aluminium with flexible Synca inserts.

Corner versions will be designed individually. Details submitted project-wise on request.

Further joint widths available on demand.

Production length: 4 m

Standard colors: black, grey



WALL CONNECTIONS
CORNER VERSIONS

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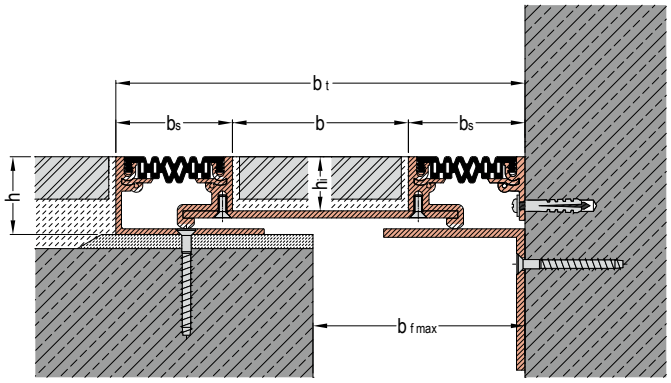
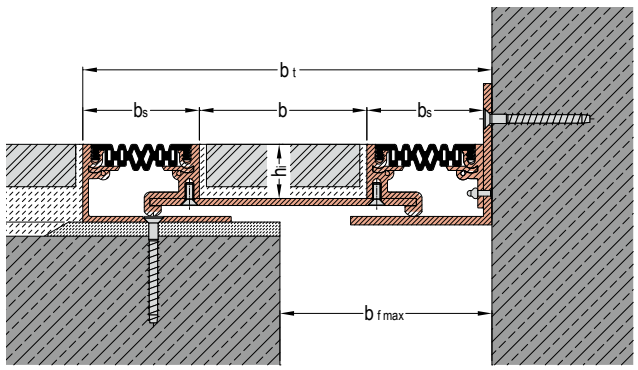
SDF 150 85 E3	150	60 (±30)	125 (+50/-75)	85	124	290	55	38	pedestrians
SDF 150 85 E4	150	60 (±30)	125 (+50/-75)	85	119	290	55	38	pedestrians
SDF 200 85 E3	200	60 (±30)	125 (+50/-75)	85	174	340	55	38	pedestrians
SDF 200 85 E4	200	60 (±30)	125 (+50/-75)	85	169	340	55	38	pedestrians
SDF 300 85 E3	300	60 (±30)	125 (+50/-75)	85	274	440	55	38	pedestrians
SDF 300 85 E4	300	60 (±30)	125 (+50/-75)	85	269	440	55	38	pedestrians
SDF 400 85 E3	400	60 (±30)	125 (+50/-75)	85	374	540	55	38	pedestrians
SDF 400 85 E4	400	60 (±30)	125 (+50/-75)	85	369	540	55	38	pedestrians
SDF 500 85 E3	500	60 (±30)	125 (+50/-75)	85	474	640	55	38	pedestrians
SDF 500 85 E4	500	60 (±30)	125 (+50/-75)	85	469	640	55	38	pedestrians

* each side

SDF 85 E3



SDF 85 E4

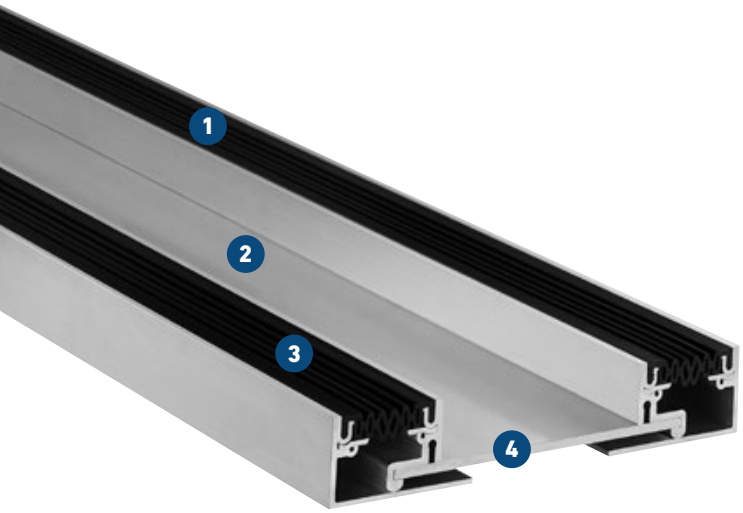


SDF 105

DESIGNED FOR EASY INSTALLATION

MIGUMAX

SEISMIC RESISTANT EXPANSION JOINT SOLUTIONS



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Absorption of settlement possible

Ideal for use of all types of finishes

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width * b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SDF 150 105	150	80 (±40)	175 (+50/-125)	110	316	535	55	38	pedestrians
SDF 200 105	200	80 (±40)	175 (+50/-125)	110	366	585	55	38	pedestrians
SDF 300 105	300	80 (±40)	175 (+50/-125)	110	466	685	55	38	pedestrians
SDF 400 105	400	80 (±40)	175 (+50/-125)	110	566	785	55	38	pedestrians
SDF 500 105	500	80 (±40)	175 (+50/-125)	110	666	885	55	38	pedestrians

* each side

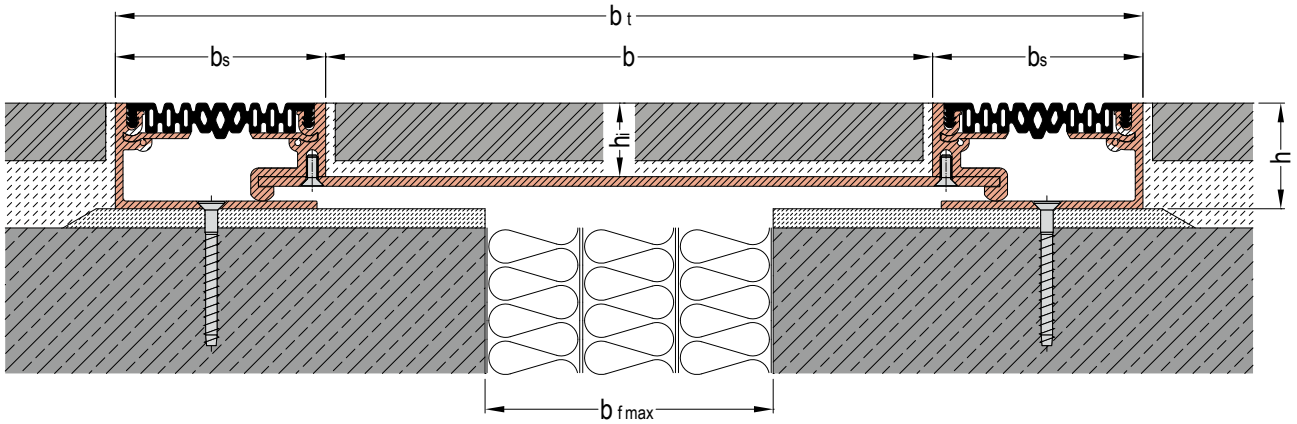
Side plates and middle section made of solid aluminium with flexible Synca inserts.

Corner versions will be designed individually. Details submitted project-wise on request.

Further joint widths available on demand.

Production length: 4 m

Standard colors: black, grey



WALL CONNECTIONS
CORNER VERSIONS

Full movement capability
with minimum visibility

Flush joint cover
concealed in the surrounding floor

Inserts replaceable
at any time

Sturdy middle section with bearing
for horizontal and vertical movement

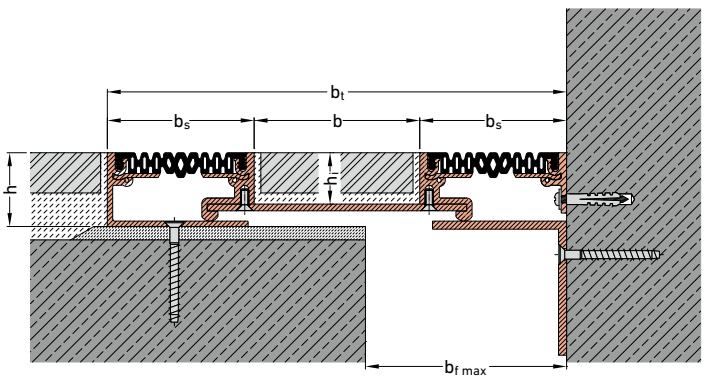
Absorption of settlement possible

Ideal for use of all types of finishes

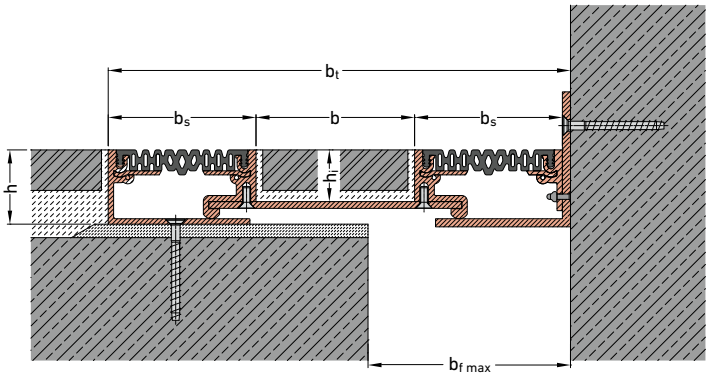
Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width * b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]	Height infill max. h_i [mm]	Load bearing capacity
SDF 150 105 E3	150	80 (±40)	175 (+50/-125)	110	122	342	55	38	pedestrians
SDF 150 105 E4	150	80 (±40)	175 (+50/-125)	110	117	342	55	38	pedestrians
SDF 200 105 E3	200	80 (±40)	175 (+50/-125)	110	172	392	55	38	pedestrians
SDF 200 105 E4	200	80 (±40)	175 (+50/-125)	110	167	392	55	38	pedestrians
SDF 300 105 E3	300	80 (±40)	175 (+50/-125)	110	272	492	55	38	pedestrians
SDF 300 105 E4	300	80 (±40)	175 (+50/-125)	110	267	492	55	38	pedestrians
SDF 400 105 E3	400	80 (±40)	175 (+50/-125)	110	372	592	55	38	pedestrians
SDF 400 105 E4	400	80 (±40)	175 (+50/-125)	110	367	592	55	38	pedestrians
SDF 500 105 E3	500	80 (±40)	175 (+50/-125)	110	475	692	55	38	pedestrians
SDF 500 105 E4	500	80 (±40)	175 (+50/-125)	110	467	692	55	38	pedestrians

* each side

SDF 105 E3



SDF 105 E4



Solid all-metal expansion joint cover
Maintenance-free, hard wearing and long-lasting

1 **Easy to install**
Optimized design allowas for easy and safe installation of the centring bar

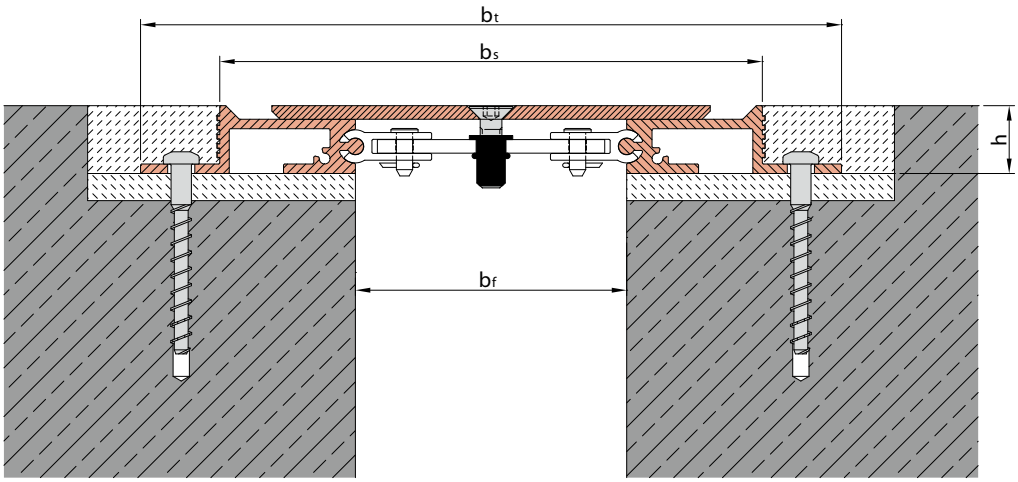
2 **Connection pins**
Ensure even installation with respect to both, height and width

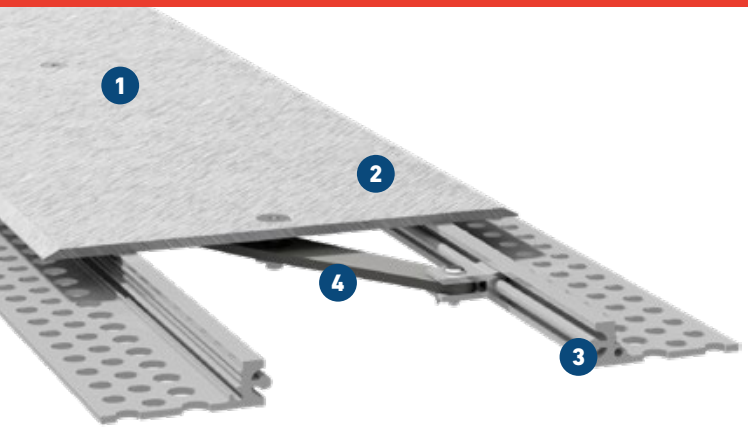
Low depth of recess
Very flat design

Striated Surface
Higher safety bey means of improved skid resistance

Expansion joint cover	Joint width max. $b_{f\ max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width b_s [mm]	Width total b_t [mm]	Installation height h [mm]	Load bearing capacity
FSJ 100	100	60 (±30)	114 (+50/-64)	200	258	25	pedestrians
FSJ 150	150	60 (±30)	194 (+80/-114)	250	308	25	pedestrians
FSJ 200	200	60 (±30)	264 (+100/-164)	300	358	25	pedestrians
FSJ 300	300	60 (±30)	414 (+150/-264)	400	458	25	pedestrians
FSJ 400	400	60 (±30)	564 (+200/-364)	500	558	25	pedestrians

Joint width by the time of installation. Potential tolerance: ± 10 mm
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Production length: 4 m
Standard colour: Aluminium





1 Solid all-metal expansion joint cover
Maintenance-free, hard wearing and long-lasting

2 Striated Surface
Higher Safety by means of improved skid resistance

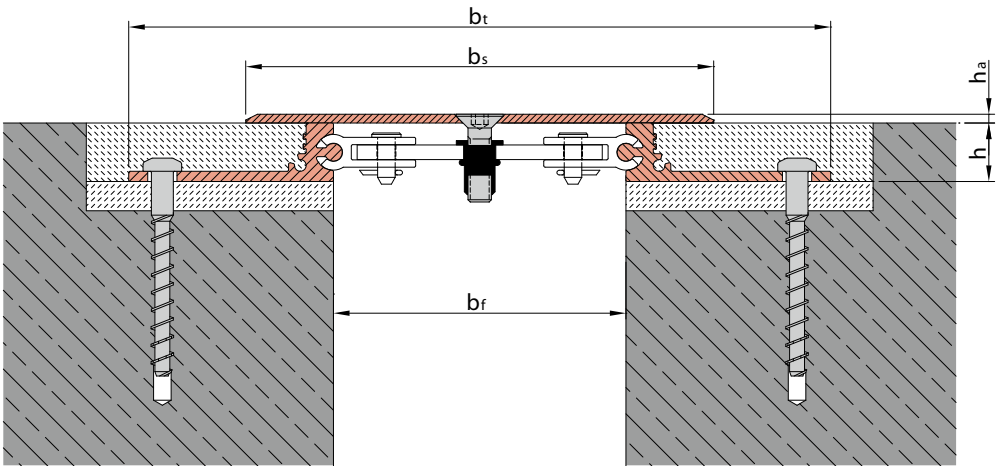
3 Low depth of recess
Very flat design

4 Connection pins
Ensure even installation with respect to both, height and width

Easy to install
Optimized design allows for easy and safe installation of the centring bar

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width b_s [mm]	Width total b_t [mm]	Installation height h [mm]	Thickness plate h_a [mm]	Load bearing capacity
BSJ 100	100	30 (±15)	110 (+50/-60)	160	240	20	3	pedestrians
BSJ 150	150	30 (±15)	185 (+75/-110)	240	290	20	5	pedestrians
BSJ 200	200	30 (±15)	264 (+100/-160)	310	340	20	5	pedestrians
BSJ 300	300	30 (±15)	410 (+150/-260)	460	440	20	6	pedestrians
BSJ 400	400	30 (±15)	560 (+200/-360)	610	540	20	8	pedestrians

Joint width by the time of installation. Potential tolerance: ± 10 mm
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Production length: 4 m
Standard colour: Aluminium

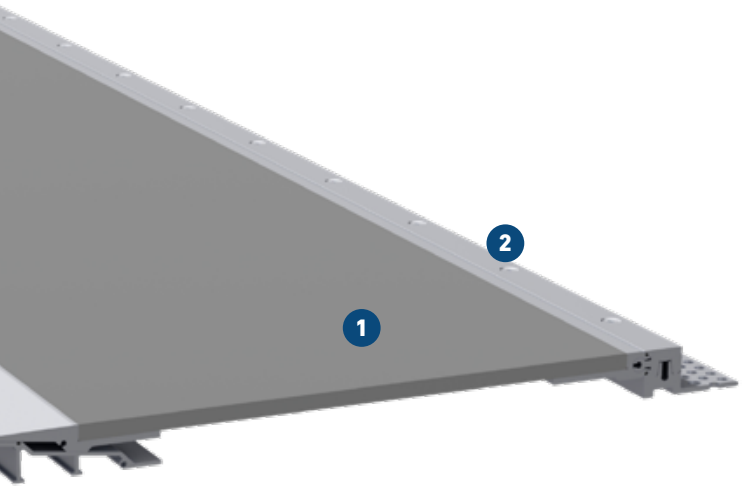


LSP

FOR LARGE MOVEMENTS, FOR CAR PARKS

MIGUMAX

SEISMIC RESISTANT EXPANSION JOINT SOLUTIONS



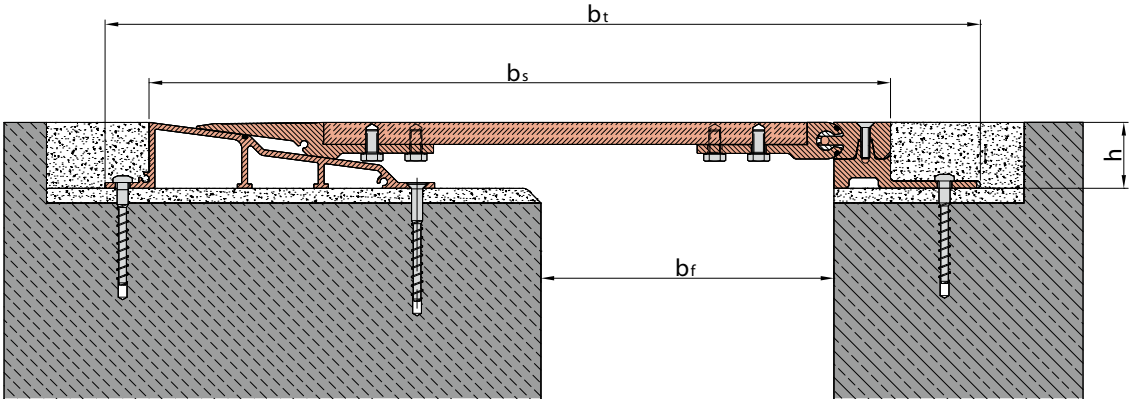
1 **Articulated telescopic system**
absorbs movement in 3 directions

2 **Solid all-metal expansion joint cover**
hard wearing, maintenance-free, long lasting

For extremely high movements
Designed for seismic loads

Expansion joint cover	Joint width max. $b_{f\ max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width b_s [mm]	Width total b_t [mm]	Installation height h [mm]	Load bearing capacity [kN]
LSP 100	100	60 (±30)	300 (+200/-100)	406	498	45	30
LSP 150	150	60 (±30)	350 (+200/-150)	456	548	45	30
LSP 200	200	60 (±30)	400 (+200/-200)	506	598	45	30
LSP 250	250	60 (±30)	450 (+200/-250)	556	648	45	30
LSP 300	300	60 (±30)	500 (+200/-300)	606	698	45	30
LSP 400	400	60 (±30)	600 (+200/-400)	706	798	45	30
LSP 500	500	60 (±30)	750 (+250/-500)	856	948	45	30

Joint width by the time of installation. Potential tolerance: ± 10 mm
Centre plate available with fine decorative finish
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Production length: 3 m
Standard colour: Aluminium; stainless steel available on demand



WALL CONNECTIONS
CORNER VERSIONS

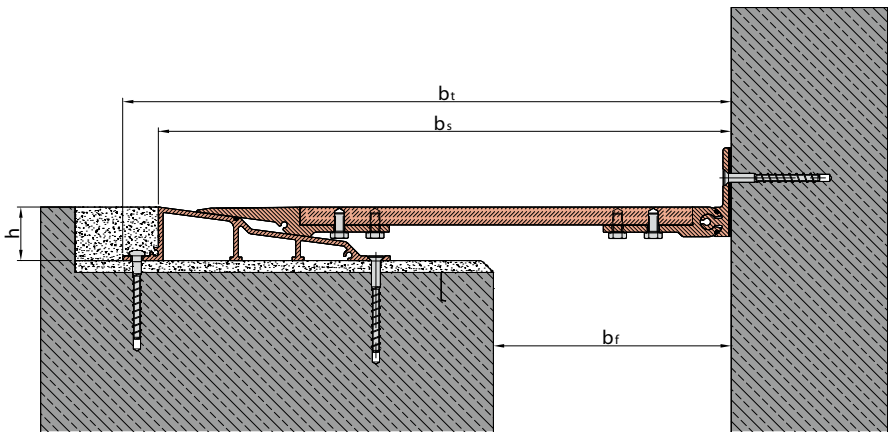
Articulated telescopic system
absorbs movement in 3 directions

Solid all-metal expansion joint cover
hard wearing, maintenance-free, long lasting

For extremely high movements
Designed for seismic loads

Expansion joint cover	Joint width max. $b_{f\ max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width b_s [mm]	Width total b_t [mm]	Installation height h [mm]	Load bearing capacity [kN]
LSP 100 E4	100	60 (±30)	300 (+200/-100)	382	412	45	30
LSP 150 E4	150	60 (±30)	350 (+200/-150)	432	462	45	30
LSP 200 E4	200	60 (±30)	400 (+200/-200)	482	512	45	30
LSP 250 E4	250	60 (±30)	450 (+200/-250)	532	562	45	30
LSP 300 E4	300	60 (±30)	500 (+200/-300)	582	612	45	30
LSP 400 E4	400	60 (±30)	600 (+200/-400)	682	712	45	30
LSP 500 E4	500	60 (±30)	750 (+250/-500)	882	862	45	30

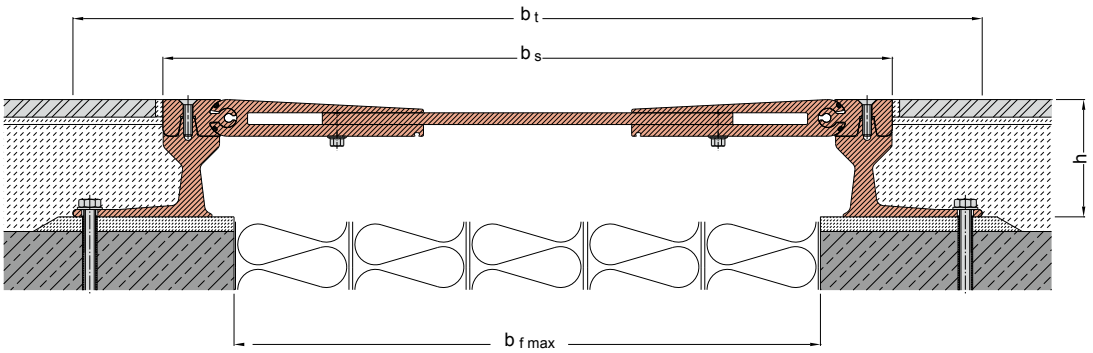
Joint width by the time of installation. Potential tolerance: ± 10 mm
Centre plate available with fine decorative finish
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Production length: 3 m
Standard colour: Aluminium; stainless steel available on demand



1. **Solid all-metal expansion joint cover**
   hard wearing, maintenance-free, long lasting
2. **Expansion joint top removable**
   at any time
3. **Mulit-dimensional movement capability**
4. **Easy and safe mounting by MultiHole sides**

Expansion joint cover	Joint width max. $b_{f\ max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width b_S [mm]	Width total b_t [mm]	Installation height h [mm]	Load bearing capacity
FSV 500/45	400	100 (±50)	200 (±100)	498	620	45	pedestrians
FSV 500/80	400	100 (±50)	200 (±100)	498	620	80	pedestrians
FSV 500/130	400	100 (±50)	200 (±100)	498	620	130	pedestrians

Joint width by the time of installation. Potential tolerance: ± 10 mm
Also available in smaller width (as FSV 280, FSV 285 and FSV 335)
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Production length: 3 m
Standard colour: Aluminium

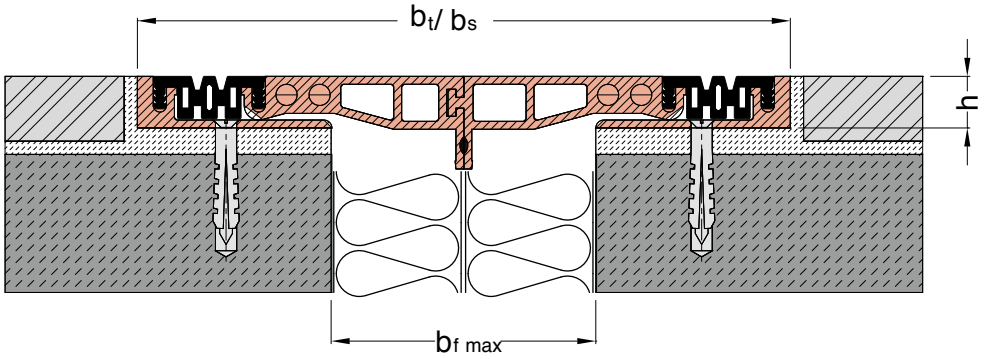


1. **Insert extensively resistant**
   to oils, acids and bitumen
2. **Absorbs horizontal and vertical movement**
3. **Standard type with 3 mm upstand of insert**
   for flush cover inlay
4. **Inserts replaceable at any time**
   Efficient load-bearing capacity by special expansion joint cover cores

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Width total b_t [mm]	Installation height h [mm]	Load bearing capacity
SP 100 55	100	32 (±16)	65 (+16/-50)	247	20	pedestrians
SP 150 55	150	32 (±16)	65 (+16/-50)	297	20	pedestrians
SP 200 55	200	32 (±16)	65 (+16/-50)	347	20	pedestrians
SP 250 55	250	32 (±16)	65 (+16/-50)	397	20	pedestrians
SP 300 55	300	32 (±16)	65 (+16/-50)	447	20	pedestrians
SP 350 55	350	32 (±16)	65 (+16/-50)	497	20	pedestrians
SP 400 55	400	32 (±16)	65 (+16/-50)	547	20	pedestrians
SP 450 55	450	32 (±16)	65 (+16/-50)	597	20	pedestrians

Side plates and middle section made of solid aluminium with flexible Synca inserts.
Corner versions will be designed individually. Details submitted project-wise on request.
This expansion joint cover is also available for different joint widths. Details on request.

Production length: 4 m
Standard colors: black, grey, beige



1 **Invisible Fixing**
Innovative clip construction

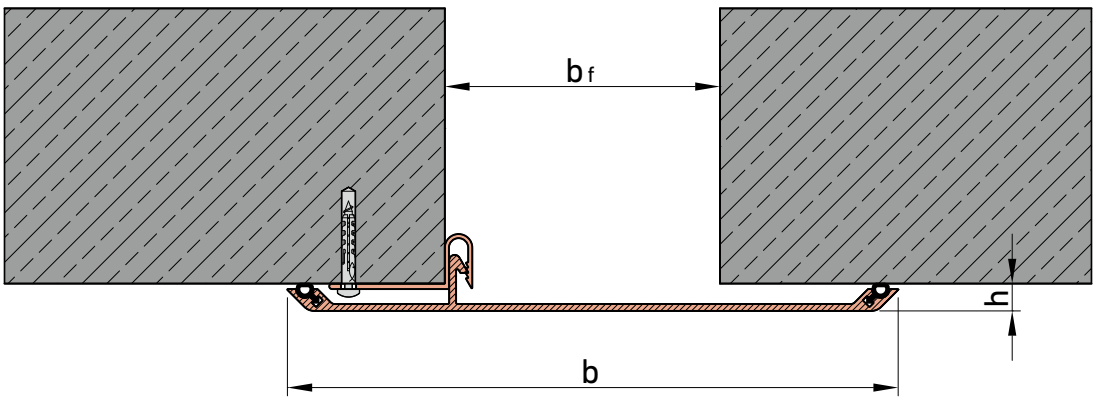
Durable
Anodised surface for long-lasting high-grade visual appearance

Easy to install
Simply adjustable and quick to fasten

2 **High-quality TPE (thermoplastic elastomer) sealing**
Compensate unevenness of wall construction

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Visible width b_S [mm]	Installation height h [mm]
WJC 50	50	65 (+25/-40)	140	10
WJC 100	100	140 (+50/-90)	222	10
WJC 150	150	215 (+75/-140)	290	10

Joint width by the time of installation. Potential tolerance: ± 10 mm
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Standard colours: aluminium, anodised. Other Colours on request
Production length: 3 m



WALL CONNECTIONS
CORNER VERSIONS

Invisible Fixing
Innovative clip construction

Durable
Anodised surface for long-lasting high-grade visual appearance

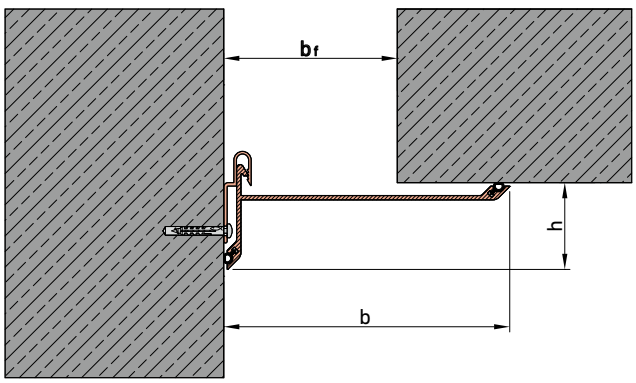
Easy to install
Simply adjustable and quick to fasten

High-quality TPE (thermoplastic elastomer) sealing
Compensate unevenness of wall construction

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Visible width b_S [mm]	Installation height h [mm]
WJC 50 E4	50	60 (+25/-35)	83	50
WJC 100 E4	100	135 (+50/-85)	165	50
WJC 150 E4	150	210 (+75/-135)	233	50

Joint width by the time of installation. Potential tolerance: ± 10 mm
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Standard colours: aluminium, anodised. Other Colours on request
Production length: 3 m

WJC E4



1 Visually appealing
The centre plate can be individually designed to match the adjacent surface. The design variation is practically infinite.

2 No visible fixing

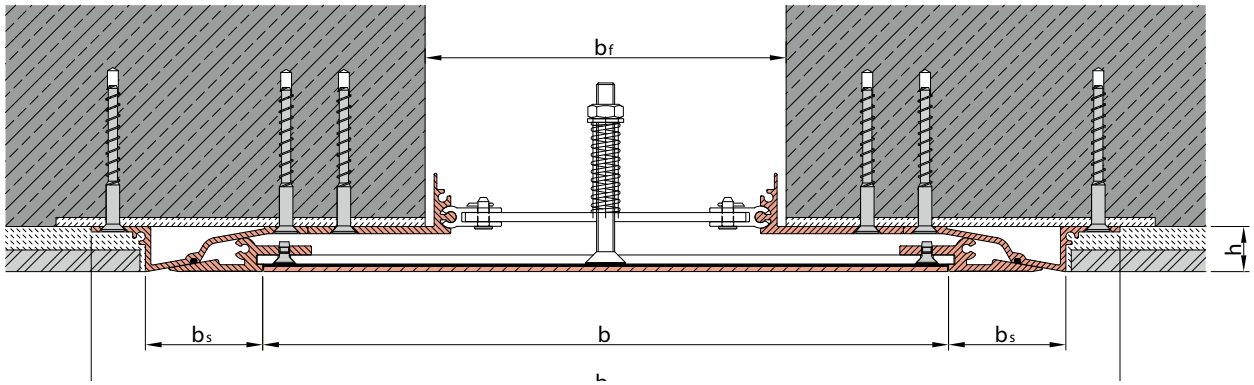
3 Easy to install
The bar construction ensures easy installation of the centring system. The centre plate is assembled after finishings are completed, thus minimizing the risk of damage by other contract work sections.

Maintenance-free
No permanently elastic sealing required
Comes with plate in standard white. Any design is possible. Please contact us.

reddot design award
winner 2017

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Total movement seismic Δb_f [mm]	Visible width b_s [mm]	Width infill b [mm]	Width total b_t [mm]	Installation height h [mm]
WSP 100	100	40 (±20)	185 (+150/-35)	65	280	470	25
WSP 150	150	40 (±20)	235 (+150/-85)	65	330	520	25
WSP 200	200	40 (±20)	285 (+150/-135)	65	380	570	25
WSP 300	300	40 (±20)	385 (+150/-235)	65	480	670	25
WSP 400	400	40 (±20)	535 (+200/-335)	65	580	770	25
WSP 500	500	40 (±20)	935 (+250/-435)	65	740	930	25

Joint width by the time of installation. Potential tolerance: ± 10 mm
Further joint widths available on demand.
Standard colour: Aluminium
Production length: 3 m

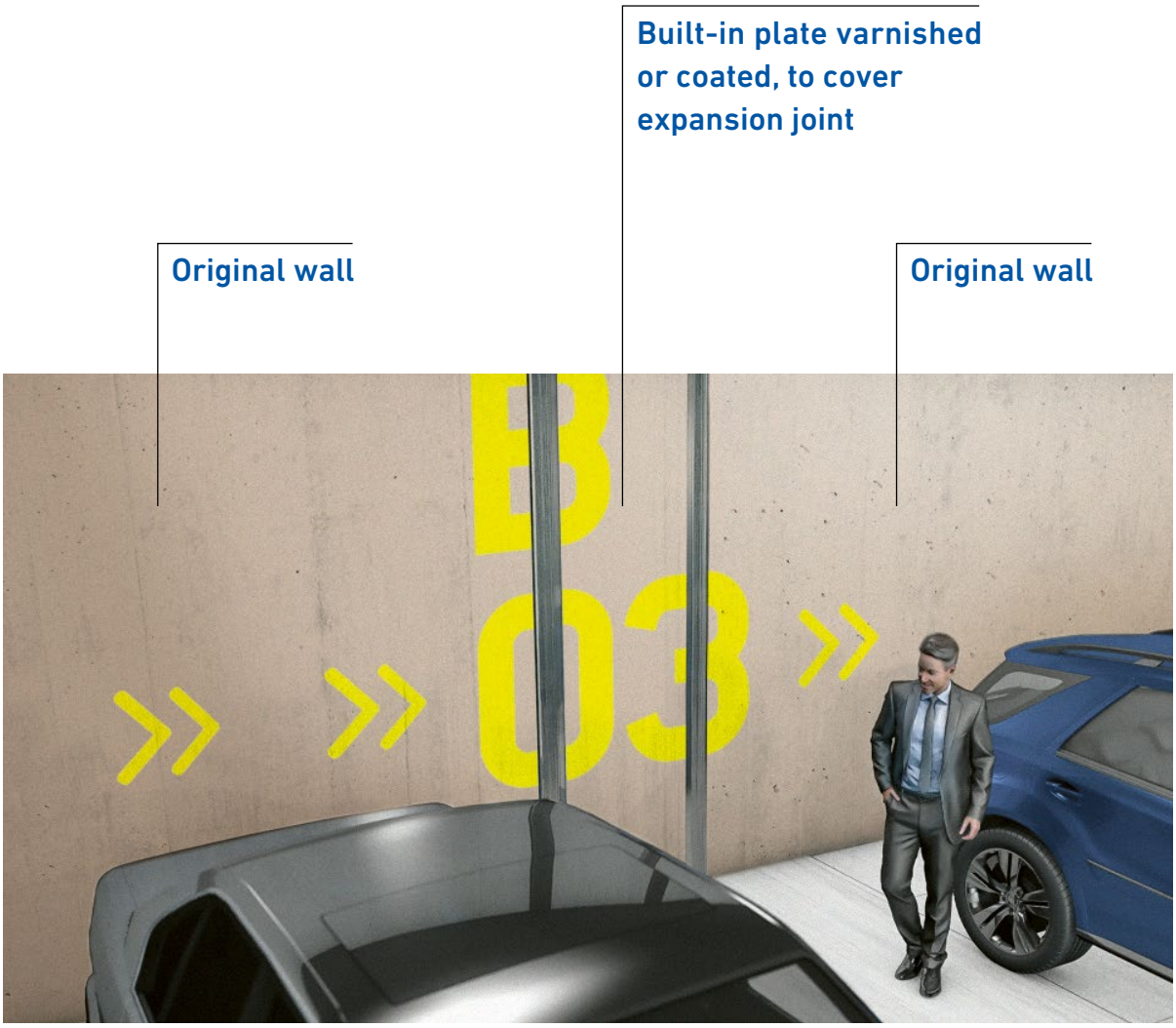


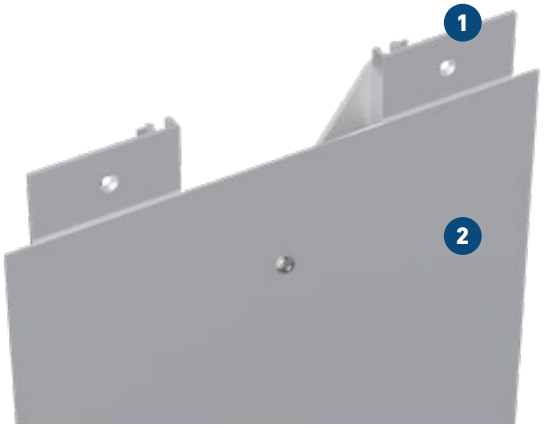
SEISMIC WALL COVER
WSP – FLEXIBLE DESIGN

With this innovative wall joint cover named WSP, Migua, created an outstanding design that the expert committee for the Red Dot Award has recognised with the internationally sought-after seal of quality.

This seismic wall joint cover WSP is setting new standards. A joint of 30 cm is covered by the WSP without any visible fastening material while its intelligent construction can accommodate ±15 cm movement non-destructively. A conventional joint cover solution would show a 62 cm wide visible surface made of metal and rubber. In contrast, the WSP reduces the visible surface to 2 x 7 cm by integrating a freely designable panel. This offers entirely new design options for architects. For the first time ever, virtually invisible wall joints can be realized, or the exact opposite can be achieved: The joint can be intentionally highlighted as a functional design element, e.g. as a part of a building guidance system.

Please contact us for further details.



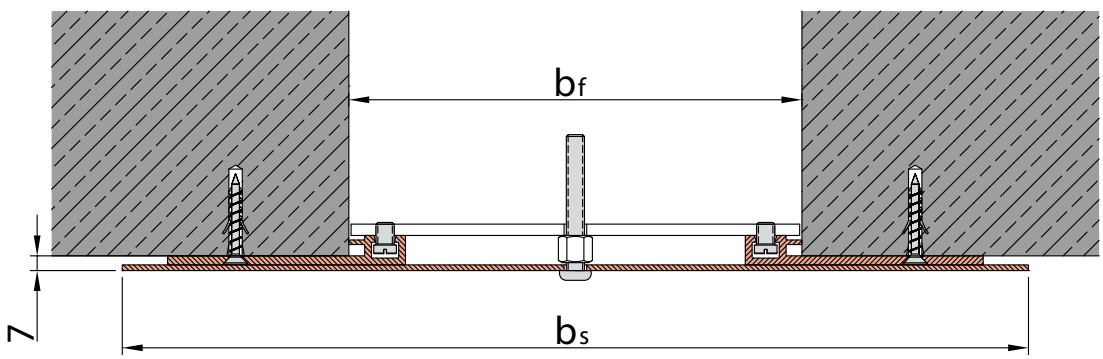


1 **Cover plate can be individually coated**
to match the adjacent wall

2 **Long-lasting aluminium surface**
with only little fixing due to larger distance of fixing holes, still ensuring perfect hold

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Visible width b_s [mm]	Installation height h [mm]
WTC 200	200	200 (±100)	400	7
WTC 250	250	275 (+125/-150)	450	7
WTC 300	300	300 (+150/-200)	500	7
WTC 400	400	500 (+200/-300)	600	7
WTC 500	500	650 (+250/-400)	700	7

Joint width by the time of installation. Potential tolerance: ± 10 mm
Further joint widths available on demand.
Standard colour: Aluminium
Production length: 3 m



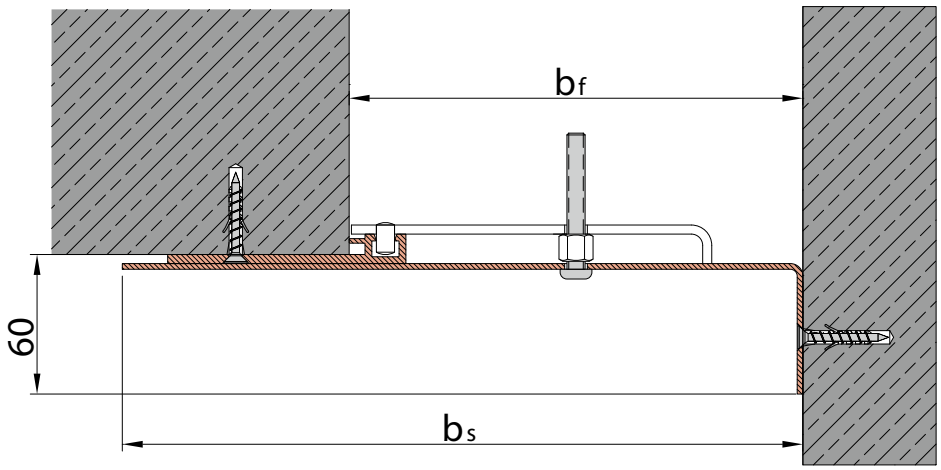
WALL CONNECTIONS
CORNER VERSIONS

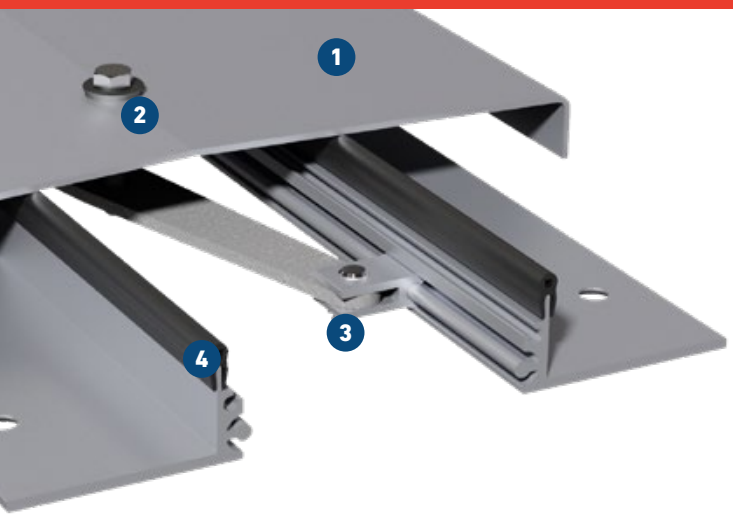
1. **Cover plate can be individually coated**
to match the adjacent wall

2. **Long-lasting aluminium surface**
with only little fixing due to larger distance of fixing holes, still ensuring perfect hold

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement thermal Δb_f [mm]	Visible width b_s [mm]	Installation height h [mm]
WTC 200 E4	200	100 (±50)	300	7
WTC 250 E4	250	150 (±75)	350	7
WTC 300 E4	300	200 (±100)	400	7
WTC 400 E4	400	300 (±150)	500	7
WTC 500 E4	500	400 (±200)	600	7

Joint width by the time of installation. Potential tolerance: ± 10 mm
Further joint widths available on demand.
Standard colour: Aluminium
Production length: 3 m



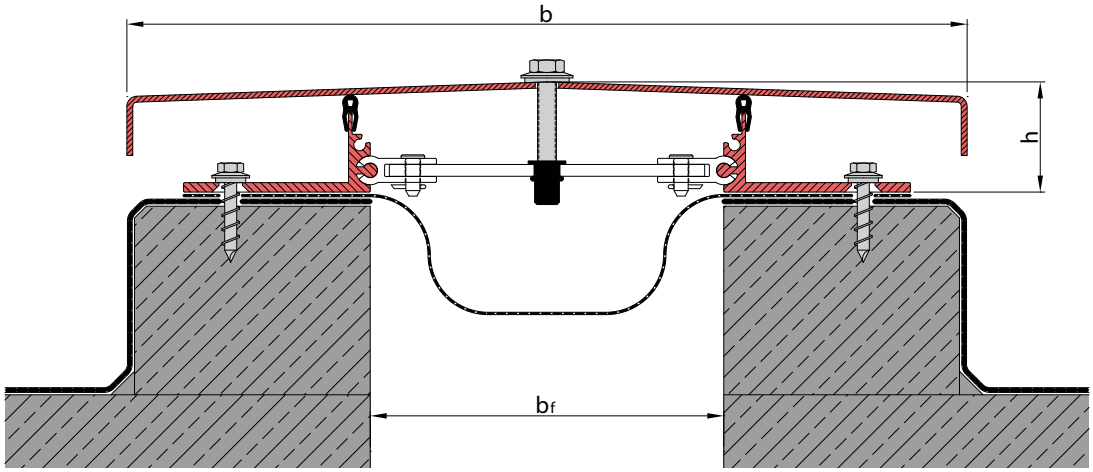


1. **Solid all-metal expansion joint cover**
   Maintenance-free, hard wearing and long-lasting
2. **Embeded on elastomer seal**
   Design minimizes noise emission in windy conditions
3. **Easy to install**
   Optimized design allows for easy and safe installation of the centring bar
4. **Multi-dimensional movement capability**

Connection pins
Ensure even installation with respect to both, height and width

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement Δb_f [mm]	Visible width b_s [mm]	Installation height h [mm]
RTC 100	100	230 (+170/-60)	307	47
RTC 150	150	280 (+170/-110)	357	47
RTC 200	200	330 (+170/-160)	407	47

Joint width by the time of installation. Potential tolerance: ± 10 mm
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Production length: 4 m
Standard colour: Aluminium



WALL CONNECTIONS
CORNER VERSIONS

Solid all-metal expansion joint cover
Maintenance-free, hard wearing and long-lasting

Embeded on elastomer seal
Design minimizes noise emission in windy conditions

Easy to install
Optimized design allows for easy and safe installation of the centring bar

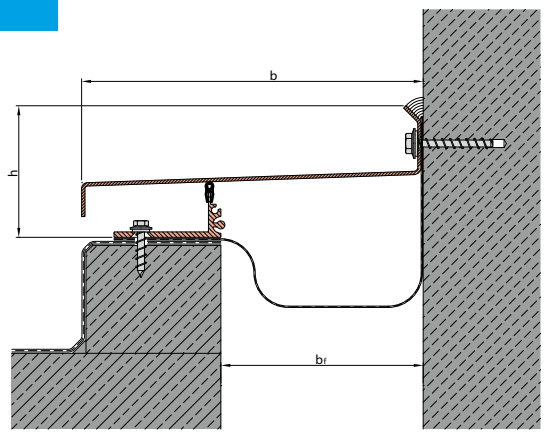
Multi-dimensional movement capability

Connection pins
Ensure even installation with respect to both, height and width

Expansion joint cover	Joint width max. $b_{f\,max}$ [mm]	Total movement Δb_f [mm]	Visible width b_S [mm]	Installation height h [mm]
RTC 100 E4	100	180 (+85/-85)	203	98
RTC 150 E4	150	230 (+85/-145)	253	98
RTC 200 E4	200	185(+85/-100)	303	98

Joint width by the time of installation. Potential tolerance: ± 10 mm
Corner versions will be designed individually. Details submitted project-wise on request.
Further joint widths available on demand.
Production length: 4 m
Standard colour: Aluminium

RTC E4



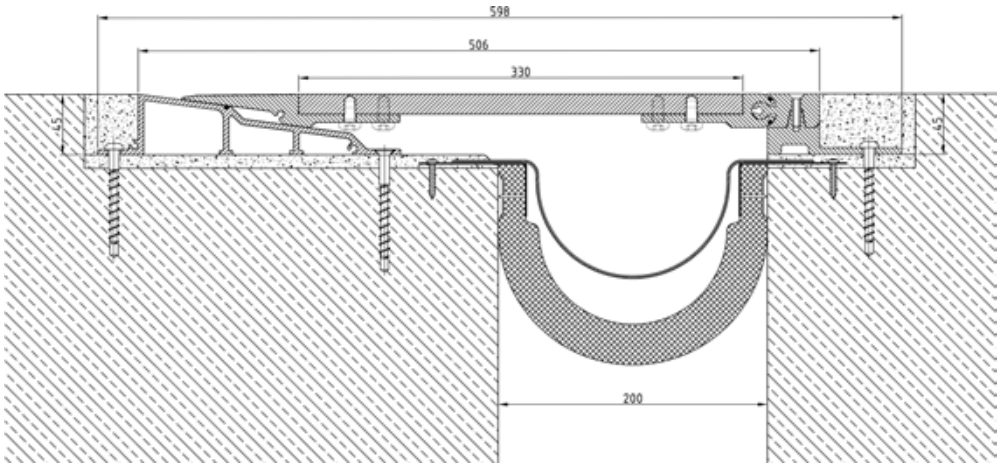
FIRE BARRIERS
FOR ALL KINDS OF EXPANSION JOINTS

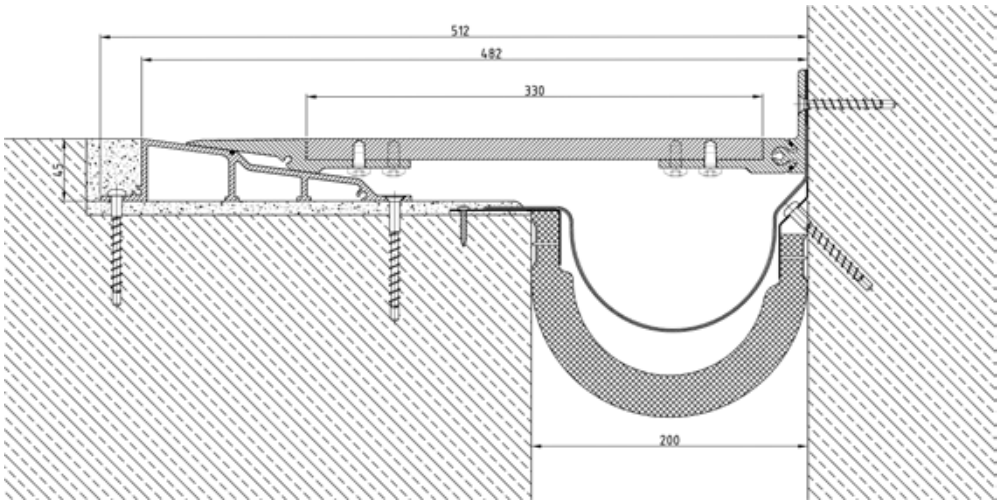
MIGUA offers fire barriers for all kinds of expansion joints. This fire barrier is a blanket type fire barrier, tested and proven to provide a 2-hour fire resistant rating, minimize smoke passage and accomodate dynamic movement without degradation of the material. Desigend for expansion joints ranging from 1 " to 20" for floor and wall applications.

Technical Data
- UL 2079 - 2 hour rating
- 50% Dynamic movement

Key Features
- Accomodates dynamic movement
- Can be integrated with most of the expansion joint cover models.
- Caulk-free application
- Factory formed transitions
- Easy to install.

Application
- Designed for floor and wall joint gaps
- For 2 hour fire rated requirement
- Suitable for gap sizes from 1" to 20"





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LEGAL NOTES

All specifications in this catalogue, in particular the suggestions for processing and use of our products correspond to our current knowledge state. Despite the greatest possible care, we are not able to guarantee that the non-binding information is without errors.

Further, the installation details shown in this catalogue are theoretical in nature and do not represent real objects. We reserve the right to make technical changes.

The current version requested from us or downloaded from www.migua.com applies.

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