

building movement solutions



SEISMIC PAN EXPANSION JOINT SYSTEM FOR FLOORS

seismatec range

 VEXCOLT



VEXCOLT

building movement solutions



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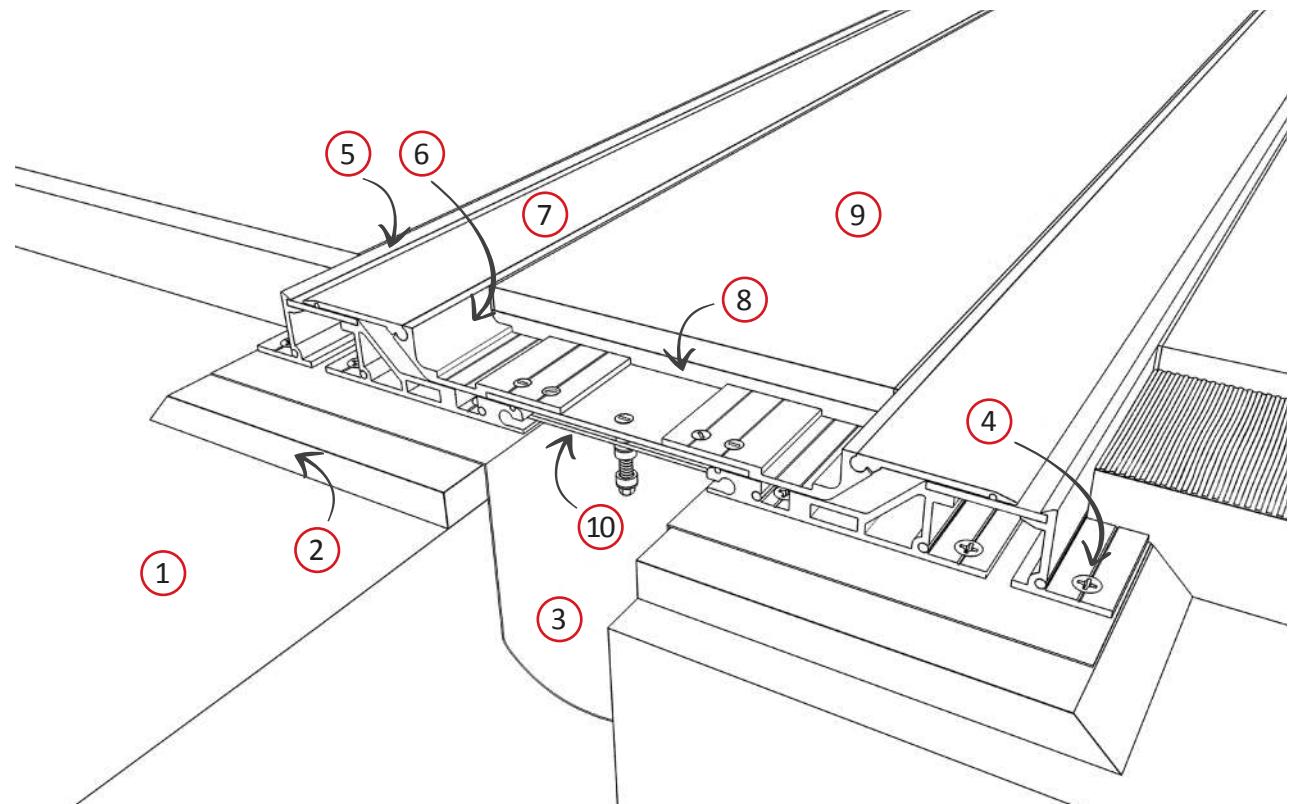


seismatec

seismic pan expansion joint system for floors

Typical Components

- (1) Concrete slab
- (2) High strength (>40N/mm²) levelling bed (by others)
- (3) Optional 1.14mm thick Vexcolt EPDM membrane or torch applied waterproofing membrane (by others)
- (4) M6 x 75mm galvanise dipped, carbon steel, self-tapping concrete screws
- (5) Continuous 6063 aluminium floor frame
- (6) Continuous 6063 aluminium central pan
- (7) Aluminium pivot plates to allow escape by people suffering from disabilities during a seismic event. These plates form ADA Compliant ramps if the pan lifts during an earthquake.
- (8) High strength (>60N/mm²) epoxy mortar bed (by others)
- (9) Finishes/wearing surfaces
- (10) Centering bar
- (11) Reinforcing mesh (by others)



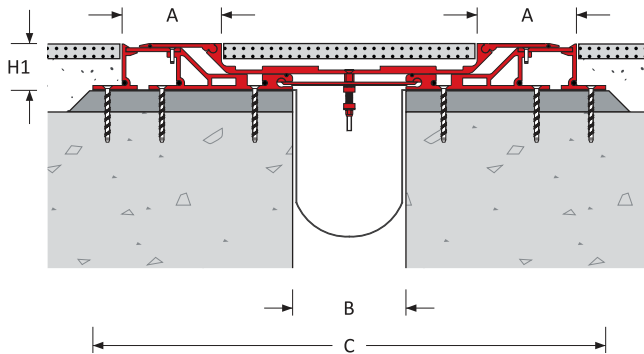
SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall

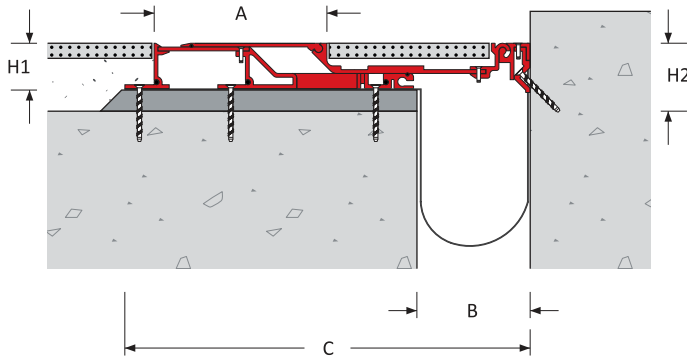
100 - 500 mm (4 - 20") Expansion Gaps

Seismatec 400 : A01-A02

Seismatec 400 : A01



Seismatec 400 : A02



Expansion Joint Selection Criteria

Load Rating

Product Details

Joint Location	Gap Width B (mm)	Movement Capacity (mm)				Eurocode Rating				Product Dimensions				Product Number
		Thermal		Seismic						Height		Sightline	Blockout	
		±	[Total]	±	[Total]					H1 (mm)	H2 (mm)	A (mm)	C (mm)	
Floor - Floor	100	± 25.0	[50]	±50.0	[100]					50: 60	-	118	600	400-A01-100-(H1)
	150			±75.0	[150]							132	678	400-A01-150-(H1)
	200			±100	[200]							152	769	400-A01-200-(H1)
	250			±125	[250]	10 kN	46 kN	177	911			400-A01-250-(H1)		
	300			±150	[300]			202	1018			400-A01-300-(H1)		
	400			±200	[400]	5 kN	36 kN	252	1319			400-A01-400-(H1)		
	500			±250	[500]			300	1565			400-A01-500-(H1)		
Floor - Wall	100	± 25.0	[50]	±50.0	[100]					50: 60	66	189	437	400-A02-100-(H1)
	150			±75.0	[150]							229	537	400-A02-150-(H1)
	200			±100	[200]							304	677	400-A02-200-(H1)
	250			±125	[250]	10 kN	46 kN	329	777			400-A02-250-(H1)		
	300			±150	[300]			379	907			400-A02-300-(H1)		
	400			±200	[400]	5 kN	36 kN	479	1157			400-A02-400-(H1)		
	500			±250	[500]			579	1407			400-A02-500-(H1)		

- a. 50mm deep systems are only suitable for the installation of 10mm deep paving within the central pan
b. 60mm deep systems are suitable for the installation of paving up to 20mm deep within the central pan

Features

Surface

Smooth transit central pan system.

During a seismic event the central pan lifts and the winged side frames rotate to provide safe egress to people with mobility difficulties.

Fully Americans with Disabilities Act (ADA) compliant across the entire movement cycle

Movement

Seismic movement capacity

ASTM E-1399 Class I: Thermal

Class II: Wind

Class III: Seismic

Thermal & Wind movement: +/-25mm

Seismic movement: +/-50% of expansion gap width

Traffic Frequency per day

				
> 25,000	≤ 1,000	≤ 1,000	≤ 100	-

System Options

Gap width(s)	100, 150, 200, 250, 300, 400, 500 mm
Height(s)	50, 60 mm
Metal type(s)	6063 T5 & 6063 T6 aluminium
Seal colour(s)	NA
Fire barrier	120-240 minutes
Waterproofing	Waterproofing membrane
Pre-assembly in factory	Contact Vexcolt

SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall
100 - 500 mm (4 - 20") Expansion Gaps

Seismatec 400 : A01-A02



APPLICATIONS

Airport Terminals | Educational | Exhibition Centres
Department Stores | Distribution & Retail Warehouses
Factories | Hospitals | Museums | Offices & Hotels
Parking | Places of Worship | Residential Buildings
Rail, Metros & Elevated Rail Stations | Roads & Bridges
Shopping Centres | Sports Stadiums | Supermarkets

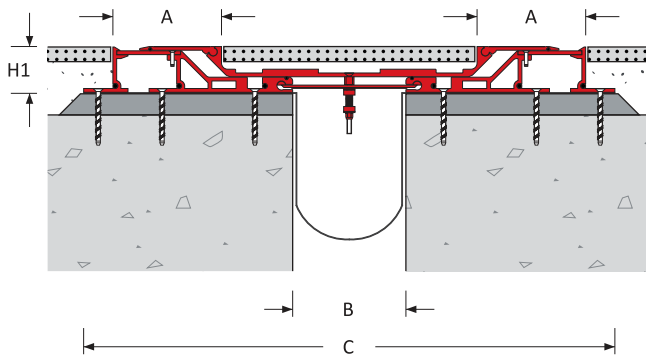
SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall

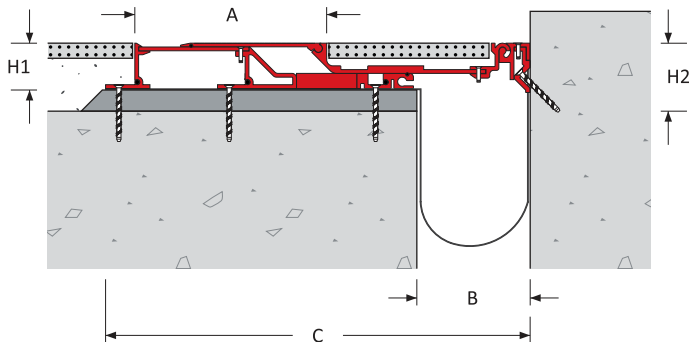
100 - 500 mm (4 - 20") Expansion Gaps

Seismatec 410 : A01-A02

Seismatec 410 : A01



Seismatec 410 : A02



Expansion Joint Selection Criteria

Load Rating

Product Details

Joint Location	Gap Width B (mm)	Movement Capacity (mm)				Eurocode Rating				Product Dimensions				Product Number
		Thermal		Seismic						Height		Sightline	Blockout	
		±	[Total]	±	[Total]					H1 (mm)	H2 (mm)	A (mm)	C (mm)	
Floor - Floor	100	± 50	[100]	±50.0	[100]	10 kN	46 kN			50: 60	-	130	625	410-A01-100-(H1)
	150			±75.0	[150]							144	703	410-A01-150-(H1)
	200			±100	[200]							165	794	410-A01-200-(H1)
	250			±125	[250]							190	937	410-A01-250-(H1)
	300			±150	[300]							214	1036	410-A01-300-(H1)
	400			±200	[400]	264	1344	410-A01-400-(H1)						
	500			±250	[500]	313	1590	410-A01-500-(H1)						
Floor - Wall	100	± 50	[100]	±50.0	[100]	10 kN	46 kN			50: 60	66	214	462	410-A02-100-(H1)
	150			±75.0	[150]							254	564	410-A02-150-(H1)
	200			±100	[200]							329	702	410-A02-200-(H1)
	250			±125	[250]							354	802	410-A02-250-(H1)
	300			±150	[300]							404	932	410-A02-300-(H1)
	400			±200	[400]	504	1182	410-A02-400-(H1)						
	500			±250	[500]	604	1432	410-A02-500-(H1)						

- a. 50mm deep systems are only suitable for the installation of 10mm deep paving within the central pan
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Features

Surface

Smooth transit central pan system.

During a seismic event the central pan lifts and the winged side frames rotate to provide safe egress to people with mobility difficulties.

Fully Americans with Disabilities Act (ADA) compliant across the entire movement cycle

Movement

Seismic movement capacity

ASTM E-1399 Class I: Thermal

Class II: Wind

Class III: Seismic

Thermal & Wind movement: ± 50 mm

Seismic movement: $\pm 50\%$ of expansion gap width

Traffic Frequency per day

				
> 25,000	$\leq 1,000$	$\leq 1,000$	≤ 100	-

System Options

Gap width(s)	100, 150, 200, 250, 300, 400, 500 mm
Height(s)	50, 60 mm
Metal type(s)	6063 T5 & 6063 T6 aluminium
Seal colour(s)	NA
Fire barrier	120-240 minutes
Waterproofing	Waterproofing membrane
Pre-assembly in factory	Contact Vexcolt

SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall
100 - 500 mm (4 - 20") Expansion Gaps

Seismatec 410 : A01-A02



APPLICATIONS

Airport Terminals | Educational | Exhibition Centres
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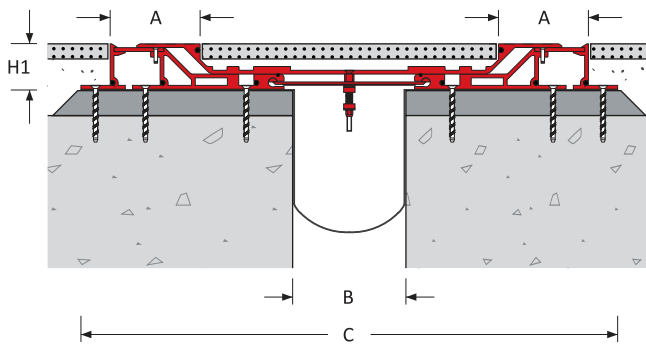
SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall

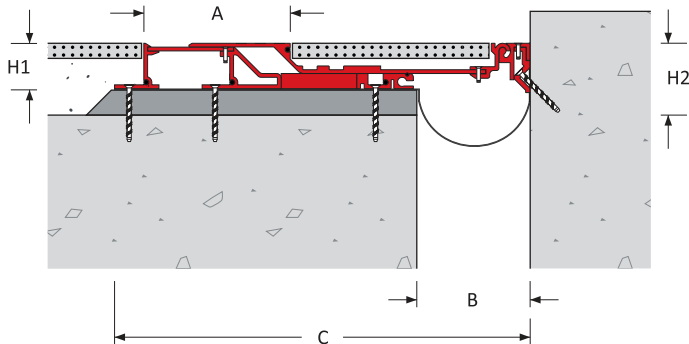
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 420 : A01-A02

Seismatec 420 : A01



Seismatec 420 : A02



Expansion Joint Selection Criteria

Load Rating

Product Details

Joint Location	Gap Width B (mm)	Movement Capacity (mm)				Eurocode Rating				Product Dimensions				Product Number
		Thermal		Seismic						Height		Sightline	Blockout	
		±	[Total]	±	[Total]									H1 (mm)
Floor - Floor	50	± 50	[100]	+50/-35	[85]	20 kN	69 kN	30 kN		50: 60	-	119	611	420-A01-050-(H1)
	75			±50.0	[100]								636	420-A01-075-(H1)
	100			±50.0	[100]								661	420-A01-100-(H1)
	150			±75.0	[150]	711	420-A01-150-(H1)							
	200			±100	[200]	761	420-A01-200-(H1)							
	250			±125	[250]	811	420-A01-250-(H1)							
	300			±150	[300]	861	420-A01-300-(H1)							
	400			±200	[400]	1061	420-A01-400-(H1)							
	500			±250	[500]	1191	420-A01-500-(H1)							
Floor - Wall	50	± 50	[100]	±50.0	[100]	20 kN	69 kN	30 kN		50: 60	66	194	417	420-A02-050-(H1)
	75			±50.0	[100]								490	420-A02-075-(H1)
	100			±50.0	[100]								500	420-A02-100-(H1)
	150			±75.0	[150]	550	420-A02-150-(H1)							
	200			±100	[200]	631	420-A02-200-(H1)							
	250			±125	[250]	706	420-A02-250-(H1)							
	300			±150	[300]	781	420-A02-300-(H1)							
	400			±200	[400]	931	420-A02-400-(H1)							
	500			±250	[500]	1081	420-A02-500-(H1)							

- a. 50mm deep systems are only suitable for the installation of 10mm deep paving within the central pan
b. 60mm deep systems are suitable for the installation of paving up to 20mm deep within the central pan

Features

Surface

Smooth transit central pan system

Movement

Seismic movement capacity

ASTM E-1399 Class I: Thermal

Class II: Wind

Class III: Seismic

Thermal & Wind movement: +/-50mm

Seismic movement: +/-50% of expansion gap width

Traffic Frequency per day

				
> 25,000	≤ 1,000	≤ 1,000	≤ 100	-

System Options

Gap width(s)	50, 75, 100, 150, 200, 250, 300, 400, 500 mm
Height(s)	50, 60 mm
Metal type(s)	6063 T5 & 6063 T6 aluminium
Seal colour(s)	NA
Fire barrier	120-240 minutes
Waterproofing	Waterproofing membrane
Pre-assembly in factory	Contact Vexcolt

SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 420 : A01-A02



APPLICATIONS

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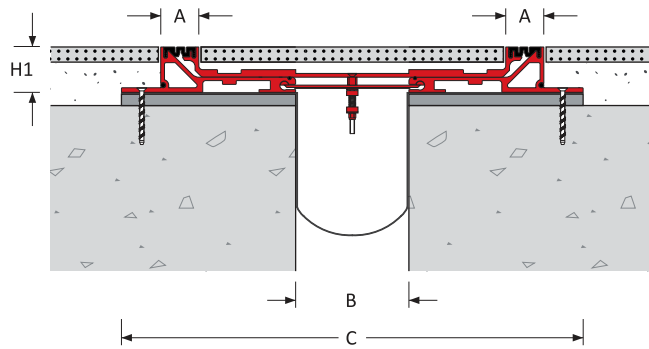
SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall

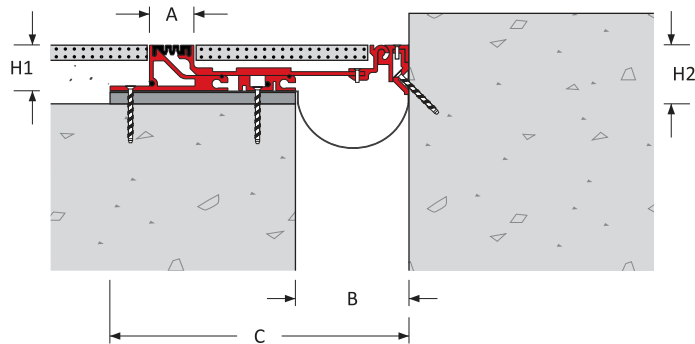
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 430 : A01-A02

Seismatec 430 : A01



Seismatec 430 : A02



Expansion Joint Selection Criteria

Load Rating

Product Details

Joint Location	Gap Width B (mm)	Movement Capacity (mm)				Eurocode Rating				Product Dimensions				Product Number
		Thermal		Seismic						Height		Sightline	Blockout	
		±	[Total]	±	[Total]					H1 (mm)	H2 (mm)	A (mm)	C (mm)	
Floor - Floor	50	± 12.5	[25]	±25.0	[50]	20 kN	69 kN	30 kN		50: 60	-	51	511	430-A01-050-(H1)
	75			±37.5	[75]								536	430-A01-075-(H1)
	100			±50.0	[100]								561	430-A01-100-(H1)
	150			±75.0	[150]	611	430-A01-150-(H1)							
	200			±100	[200]	661	430-A01-200-(H1)							
	250			±125	[250]	715	430-A01-250-(H1)							
	300			±150	[300]	928	430-A01-300-(H1)							
	400			±200	[400]	1028	430-A01-400-(H1)							
	500			±250	[500]	1128	430-A01-500-(H1)							
Floor - Wall	50	± 12.5	[25]	±25.0	[50]	20 kN	69 kN	30 kN		50: 60	74	59	323	430-A02-050-(H1)
	75			±37.5	[75]								336	430-A02-075-(H1)
	100			±50.0	[100]								348	430-A02-100-(H1)
	150			±75.0	[150]	395	430-A02-150-(H1)							
	200			±100	[200]	470	430-A02-200-(H1)							
	250			±125	[250]	556	430-A02-250-(H1)							
	300			±150	[300]	645	430-A02-300-(H1)							
	400			±200	[400]	795	430-A02-400-(H1)							
	500			±250	[500]	956	430-A02-500-(H1)							

- a. 50mm deep systems are only suitable for the installation of 10mm deep paving within the central pan
b. 60mm deep systems are suitable for the installation of paving up to 20mm deep within the central pan

Features

Surface

Smooth transit central pan system

Movement

Seismic movement capacity

ASTM E-1399 Class I: Thermal

Class II: Wind

Class III: Seismic

Thermal & Wind movement: +/-12.5mm

Seismic movement: +/-50% of expansion gap width

Traffic Frequency per day

				
> 25,000	≤ 1,000	≤ 1,000	≤ 100	-

System Options

Gap width(s)	50, 75, 100, 150, 200, 250, 300, 400, 500 mm
Height(s)	50, 60 mm
Metal type(s)	6063 T5 & 6063 T6 aluminium
Seal colour(s)	Black (RAL 7021) Grey (RAL 7038) Beige (RAL 1015)
Fire barrier	120-240 minutes
Waterproofing	Waterproofing membrane
Pre-assembly in factory	Contact Vexcolt

SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 430 : A01-A02



APPLICATIONS

Airport Terminals | Educational | Exhibition Centres
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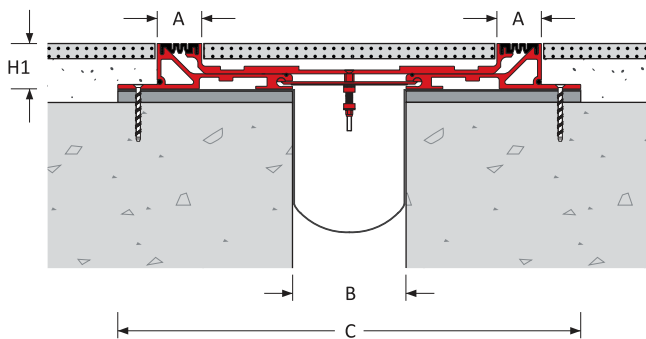
SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall

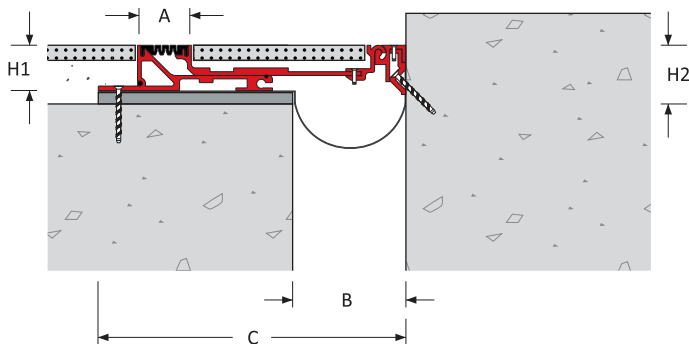
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 440 : A01-A02

Seismatec 440 : A01



Seismatec 440 : A02



Expansion Joint Selection Criteria

Load Rating

Product Details

Joint Location	Gap Width B (mm)	Movement Capacity (mm)				Eurocode Rating				Product Dimensions				Product Number
		Thermal		Seismic						Height		Sightline	Blockout	
		±	[Total]	±	[Total]					H1 (mm)	H2 (mm)	A (mm)	C (mm)	
Floor - Floor	50	± 25.0	[50]	±25.0	[50]	20 kN	69 kN			50: 60	-	59	511	440-A01-050-(H1)
	75			±37.5	[75]								536	440-A01-075-(H1)
	100			±50.0	[100]								561	440-A01-100-(H1)
	150			±75.0	[150]								611	440-A01-150-(H1)
	200			±100	[200]	10 kN	46 kN						661	440-A01-200-(H1)
	250			±125	[250]								715	440-A01-250-(H1)
	300			±150	[300]								928	440-A01-300-(H1)
	400			±200	[400]								1028	440-A01-400-(H1)
	500			±250	[500]	5 kN	36 kN						1128	440-A01-500-(H1)
Floor - Wall	50	± 25.0	[50]	±25.0	[50]	20 kN	69 kN			50: 60	74	71	343	440-A02-050-(H1)
	75			±37.5	[75]								346	440-A02-075-(H1)
	100			±50.0	[100]								363	440-A02-100-(H1)
	150			±75.0	[150]								407	440-A02-150-(H1)
	200			±100	[200]	10 kN	46 kN						506	440-A02-200-(H1)
	250			±125	[250]								557	440-A02-250-(H1)
	300			±150	[300]								657	440-A02-300-(H1)
	400			±200	[400]								807	440-A02-400-(H1)
	500			±250	[500]	5 kN	36 kN						957	440-A02-500-(H1)

- a. 50mm deep systems are only suitable for the installation of 10mm deep paving within the central pan
b. 60mm deep systems are suitable for the installation of paving up to 20mm deep within the central pan

Features

Surface

Smooth transit central pan system

Movement

Seismic movement capacity

ASTM E-1399 Class I: Thermal

Class II: Wind

Class III: Seismic

Thermal & Wind movement: +/-25.0mm

Seismic movement: +/-50% of expansion gap width

Traffic Frequency per day

				
> 25,000	≤ 1,000	≤ 1,000	≤ 100	-

System Options

Gap width(s)	50, 75, 100, 150, 200, 250, 300, 400, 500 mm
Height(s)	50, 60 mm
Metal type(s)	6063 T5 & 6063 T6 aluminium
Seal colour(s)	Black (RAL 7021) Grey (RAL 7038) Beige (RAL 1015)
Fire barrier	120-240 minutes
Waterproofing	Waterproofing membrane
Pre-assembly in factory	Contact Vexcolt

SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 440 : A01-A02



APPLICATIONS

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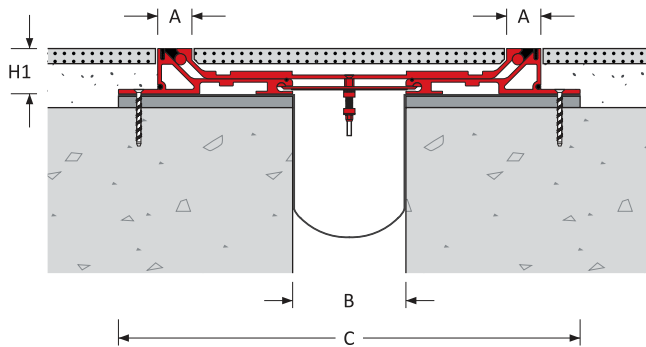
SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall

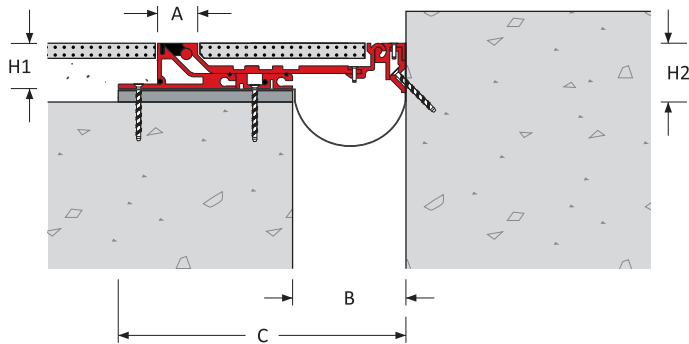
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 450 : A01-A02

Seismatec 450 : A01



Seismatec 450 : A02



Expansion Joint Selection Criteria

Load Rating

Product Details

Joint Location	Gap Width B (mm)	Movement Capacity (mm)				Eurocode Rating				Product Dimensions				Product Number
		Thermal		Seismic						Height		Sightline	Blockout	
		±	[Total]	±	[Total]					H1 (mm)	H2 (mm)	A (mm)	C (mm)	
Floor - Floor	50	± 25.0	[50]	±25.0	[50]	20 kN	69 kN	30 kN		50: 60	-	45	511	450-A01-050-(H1)
	75			±37.5	[75]								536	450-A01-075-(H1)
	100			±50.0	[100]								561	450-A01-100-(H1)
	150			±75.0	[150]	611	450-A01-150-(H1)							
	200			±100	[200]	661	450-A01-200-(H1)							
	250			±125	[250]	711	450-A01-250-(H1)							
	300			±150	[300]	940	450-A01-300-(H1)							
	400			±200	[400]	1041	450-A01-400-(H1)							
	500			±250	[500]	1141	450-A01-500-(H1)							
Floor - Wall	50	± 25.0	[50]	±25.0	[50]	20 kN	69 kN	30 kN		50: 60	66	54	333	450-A02-050-(H1)
	75			±37.5	[75]								346	450-A02-075-(H1)
	100			±50.0	[100]								348	450-A02-100-(H1)
	150			±75.0	[150]	381	450-A02-150-(H1)							
	200			±100	[200]	506	450-A02-200-(H1)							
	250			±125	[250]	556	450-A02-250-(H1)							
	300			±150	[300]	653	450-A02-300-(H1)							
	400			±200	[400]	803	450-A02-400-(H1)							
	500			±250	[500]	953	450-A02-500-(H1)							

Sealant and backer rod by other

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Smooth transit central pan system

Movement

Seismic movement capacity

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Class II: Wind

Class III: Seismic

Thermal & Wind movement: +/-25.0mm

Seismic movement: +/-50% of expansion gap width

Traffic Frequency per day

				
> 25,000	≤ 1,000	≤ 1,000	≤ 100	-

System Options

Gap width(s)	50, 75, 100, 150, 200, 250, 300, 400, 500 mm
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Waterproofing	Waterproofing membrane
Pre-assembly in factory	Contact Vexcolt

SEISMIC EXPANSION JOINT

Floor to Floor | Floor to Wall
50 - 500 mm (2 - 20") Expansion Gaps

Seismatec 450 : A01-A02



APPLICATIONS

Airport Terminals | Educational | Exhibition Centres
Department Stores | Distribution & Retail Warehouses
Factories | Hospitals | Museums | Offices & Hotels
Parking | Places of Worship | Residential Buildings
Rail, Metros & Elevated Rail Stations | Roads & Bridges
Shopping Centres | Sports Stadiums | Supermarkets

notes

for seismatec range

building movement solutions



VEXCOLT

building movement solutions

Design by The Design Factor, Belfast



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