

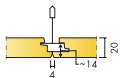
Ecophon Focus™ Ds

Ecophon Focus™ Ds has a concealed grid and symmetrical bevelled edge with an even appearance. Increases assembly ease and integration of light fittings and ventilation. For applications where a suspended ceiling with a concealed grid is required, but individual tiles must be easily demountable.

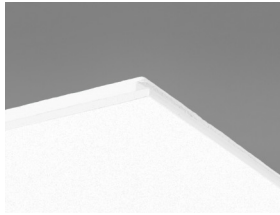


Lunds Tingstift., Sweden

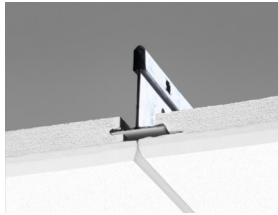
SYSTEM RANGE



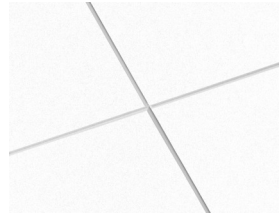
Size, mm	600x600	1200x600	1200x1200	XL 1600x600	XL 1800x600	XL 2000x600	XL 2400x600
T24	•	•	•	•	•	•	•
Thickness (THK)	20	20	20	20	20	20	20
Inst. Diagr.	M206, M208, M394, M400	M206, M208, M394, M400	M207	M206, M208, M238	M206, M208, M238	M206, M208, M238	M206, M208, M238



Focus Ds tile



Section of Focus Ds system with Connect T24 Main runner HD



Focus Ds system



The individual tiles are easily demountable

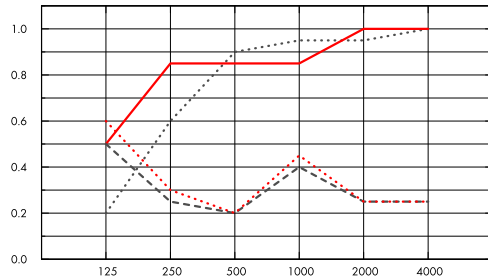
Acoustic



Sound Absorption:

Test results according to EN ISO 354. Classification according to EN ISO 11654, and the single value ratings for Noise Reduction Coefficient, NRC and Sound Absorption Average, SAA according to ASTM C 423.

α_p , Practical sound absorption coefficient



Frequency Hz

- Focus Ds 20 mm, 65 mm o.d.s.
- Focus Ds 20 mm, 200 mm o.d.s.
- - - Focus Ds gamma 20 mm, 200 mm o.d.s.
- · - · Focus Ds gamma 20 mm + Extra Bass 50 mm, 200 mm o.d.s.

o.d.s = overall depth of system

	THK mm	o.d.s. mm	α_p , Practical sound absorption coefficient						α_{wv}	Sound absorption class
			125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz		
-	20	65	0.20	0.60	0.90	0.95	0.95	1.00	0.90	A
-	20	200	0.50	0.85	0.85	0.85	1.00	1.00	0.90	A
gamma	20	200	0.50	0.25	0.20	0.40	0.25	0.25	0.25	E
gamma + Extra Bass	70	200	0.60	0.30	0.20	0.45	0.25	0.25	0.25	E

	THK mm	o.d.s. mm	NRC	SAA
-	20	65	0.90	0.89
gamma	20	200	0.30	0.28
gamma + Extra Bass	70	200	0.30	0.29
-	20	400	0.80	0.82

THK mm	AC(1.5) Articulation Class, ASTM E1111, ASTM E1110	D_{nfw} Weighted normalized flanking level difference, ISO 10848-2	CAC dB Ceiling Attenuation Class, ASTM 1414, ASTM E413
20	180	24	25

Indoor Air Quality



Certificate / Label	
Eurofins Indoor Air Comfort®	IAC
French VOC	A
Finnish M1	•





Circularity

Minimum post-consumer recycled content	57%
Recyclability	Fully recyclable



Environmental Footprint

	kg CO ₂ equiv/m ²	Life-cycle stages A1 to C4 from EPD, in conformity with ISO 14025 / EN 15804
Focus Ds	4,60	



Fire safety

Country	Class		The glass wool core of the tiles is tested and classified as non-combustible according to EN ISO 1182.
Europe	EN 13501-1	A2-s1,d0	



Humidity Resistance

Class C, relative humidity 95% and 30°C, according to EN 13964:2014



Visual appearance

White Frost, nearest NCS colour sample S 0500-N, 85% light reflectance. Gloss < 1.



Cleanability

Daily dusting and vacuum cleaning. Weekly wet wiping.



Accessibility

The tiles in size 600x600 and 1200x600 are easily demountable. The tiles in size 1200x1200 and XL sizes are demountable. Minimum demounting depth according to installation diagrams.



Installation

Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification. The systems are not recommended for small rooms (approximately 2x2 m²). Ceilings with a large amount of integrations require careful planning, design and installation.



System weight

The weight of the system (including suspension grid) should be approximately 3-4 kg/m².



Mechanical properties

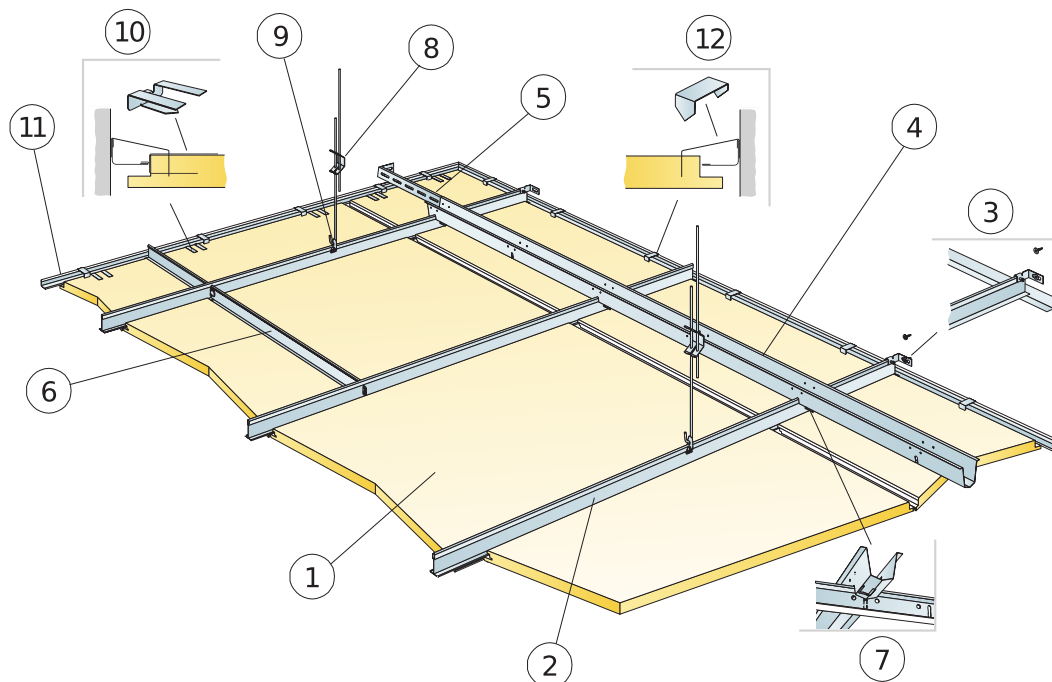
See table about Max live load and Min load bearing capacity and Functional demands, Mechanical properties at www.ecophon.com.



CE

Ecophon ceiling systems are CE marked according to the European harmonized standard EN13964:2014. CE marked construction products are covered by a Declaration of Performance (DOP) which enables customers and users to easily compare performance of products available on the European market.

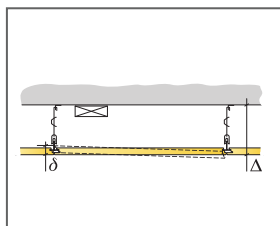
INSTALLATION DIAGRAM (M206) FOR ECOPHON FOCUS DS 600X600, 1200X600 MM AND ECOPHON FOCUS DS XL. SUSPENDED INSTALLATION



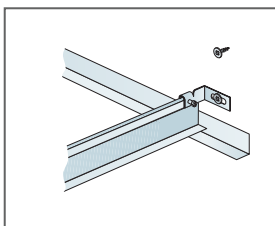
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QUANTITY SPECIFICATION [EXCL. WASTAGE]

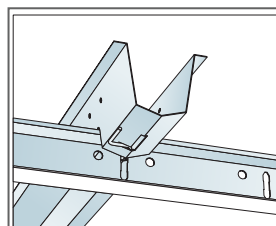
	Size, mm					
	600x600	1200x600	1600x600	1800x600	2000x600	2400x600
1 Focus Ds	2,8/m ²	1,4/m ²	1,05/m ²	0,95/m ²	0,85/m ²	0,7/m ²
2 Connect T24 Main Runner HD, installed at 600 mm centres	1,7m/m ²	1,7m/m ²	1,7m/m ²	1,7m/m ²	1,7m/m ²	1,7m/m ²
3 Connect Wall Bracket for T-profiles	1/suspended row of Main runner					
4 Connect Space Bar, installed at 1500 mm centres (max. distance from wall 300 mm)	0,7m/m ²	0,7m/m ²	0,7m/m ²	0,7m/m ²	0,7m/m ²	0,7m/m ²
5 Connect Wall Bracket, L=700 mm, for Connect Space Bar	1/row of Space bar					
6 Connect T24 Cross Tee, L=600 mm	2/row of Main runner					
7 Connect Space Bar Winch, installed one per joint Connect Main Runner/Connect Space Bar	1,4/m ²	1,4/m ²	1,4/m ²	1,4/m ²	1,4/m ²	1,4/m ²
8 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²
9 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²
10 Connect Support clip Dg20	1pc/300-400 mm on every cut perimeter tile with only 1 supporting edge					
11 Connect Angle trim 15/22, fixed at 300 mm centres	as required	as required	as required	as required	as required	as required
12 Connect Perimeter tile clip	1/300-400mm on any cut edge					
Δ Min. overall depth of system: 115 mm	-	-	-	-	-	-
δ Min. demounting depth: 30 mm	-	-	-	-	-	-
For luminaire integration in panels use Connect Bridging	-	-	-	-	-	-



See Quantity Specification



Secured Main runner at wall with Connect Wall bracket

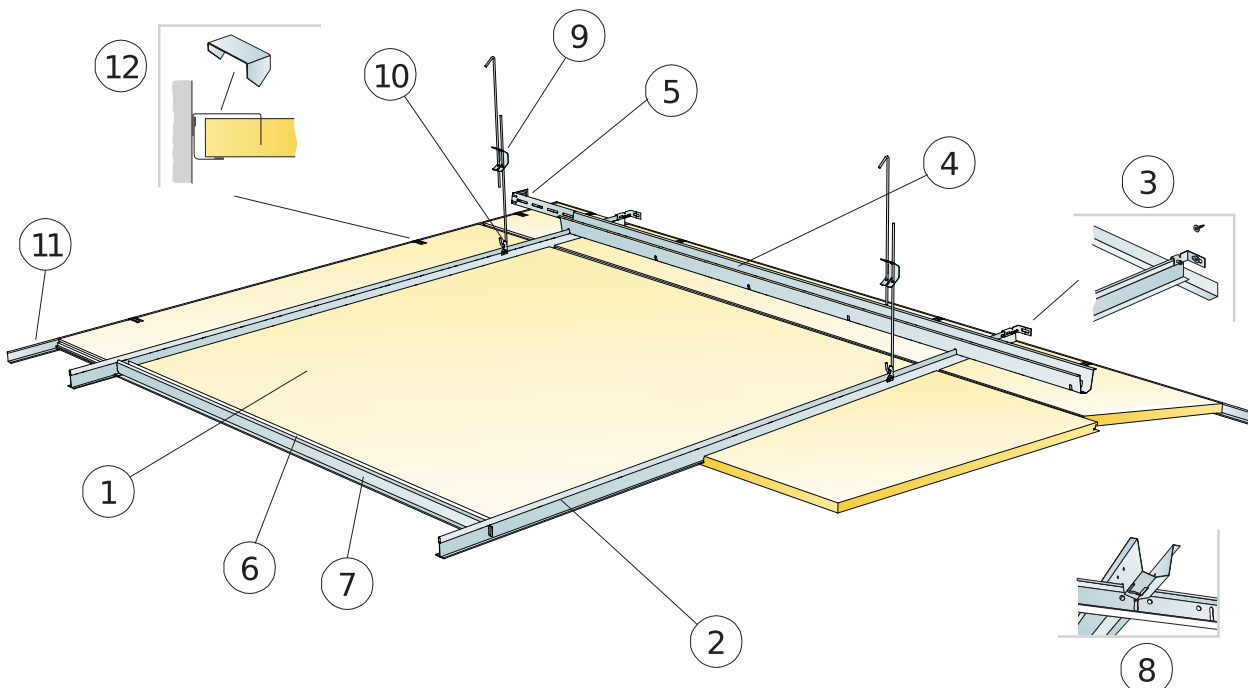


Connection between profiles with space bar winch

Size, mm	Max live load (N)	Min load bearing capacity (N)
600x600x20	50	160
1200x600x20	50	160
1600x600x20	50	160
1800x600x20	50	160
2000x600x20	50	160
2400x600x20	50	160

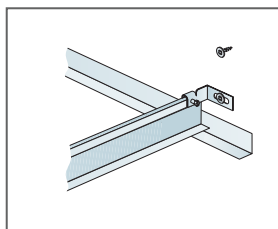
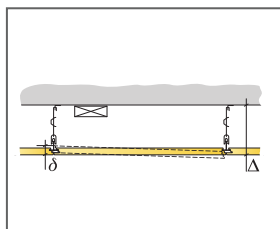
Live load/load bearing capacity

INSTALLATION DIAGRAM (M207) FOR ECOPHON FOCUS DS 1200X1200 MM

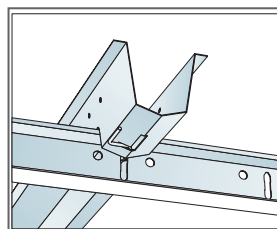


QUANTITY SPECIFICATION (EXCL. WASTAGE)

	Size, mm
	1200x1200
1 Focus Ds	0,7/m ²
2 Connect T24 Main runner HD, installed at 1200 mm centres (max. distance from wall 600 mm, can be extended up to 1200 mm if no live load between Main runner and wall).	0,9m/m ²
3 Connect Wall Bracket for T-profiles	1/suspended row of Main runner
4 Connect Space Bar, installed at 1500 mm centres (max. distance from wall 300 mm)	0,7m/m ²
5 Connect Wall Bracket, L=700 mm, for Connect Space Bar	1/row of Space bar
6 Connect Edge stiffener	1,4/m ²
7 Connect T24 Cross tee, L=1200 mm	2/row of Main runner
8 Connect Space Bar Winch, installed one per joint Connect Main Runner/Connect Space Bar	0,7/m ²
9 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²
10 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²
11 Connect Angle trim 15/22, fixed at 300 mm centres	as required
12 Connect Perimeter tile clip	1/300-400mm on any cut edge
Δ Min. overall depth of system: 115 mm	-
δ Min. demounting depth: 50 mm	-
For luminaire integration in panels use Connect Bridging	-



Secured Main runner at wall with Connect Wall bracket

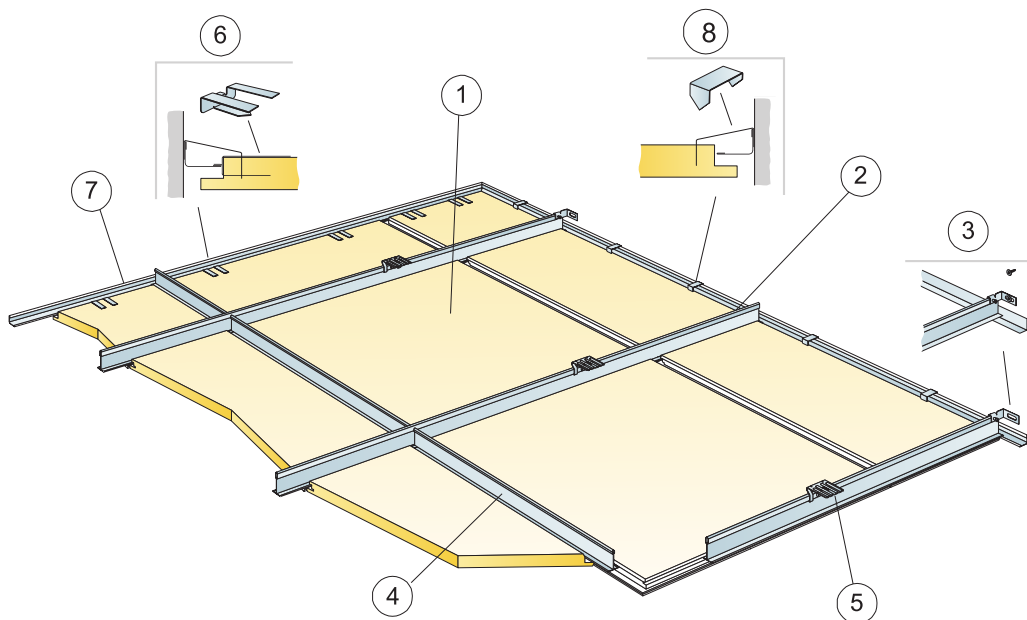


Connection between profiles with space bar winch

Size, mm	Max live load (N)	Min load bearing capacity (N)
1200x1200x20	50	160

Live load/load bearing capacity

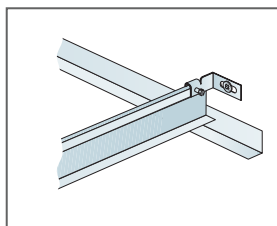
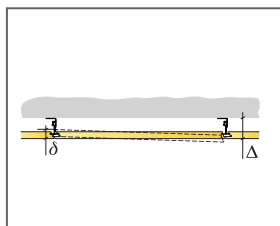
INSTALLATION DIAGRAM (M208) FOR ECOPHON FOCUS DS, DIRECT INSTALLATION



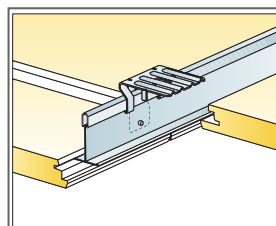
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QUANTITY SPECIFICATION (EXCL. WASTAGE)

	Size, mm					
	600x600	1200x600	1600x600	1800x600	2000x600	2400x600
1 Focus Ds	2,8/m ²	1,4/m ²	1,05/m ²	0,95/m ²	0,85/m ²	0,7/m ²
2 Connect T24 Main Runner HD, installed at 600 mm centres	1,7m/m ²	1,7m/m ²	1,7m/m ²	1,7m/m ²	1,7m/m ²	1,7m/m ²
3 Connect Wall Bracket for T-profiles	1/suspended row of Main runner					
4 Connect T24 Cross Tee, L=600	2/row of Main runner					
5 Connect Direct bracket, installed at 1500 mm centres	1,1/m ²	1,1/m ²	1,1/m ²	1,1/m ²	1,1/m ²	1,1/m ²
6 Connect Support clip Dg20	1/300-400mm on any cut edge					
7 Connect Angle trim 15/22, fixed at 300 mm centres	as required	as required	as required	as required	as required	as required
8 Connect Perimeter tile clip can be used if sufficient space is available.	1pc/300-400 mm on every cut perimeter tile with only 1 supporting edge					
Δ Min. overall depth of system: 65 mm	-	-	-	-	-	-
δ Min. demounting depth: 30 mm	-	-	-	-	-	-
For luminaire integration in panels use Connect Bridging	-	-	-	-	-	-



Secured Main runner at wall with Connect Wall bracket

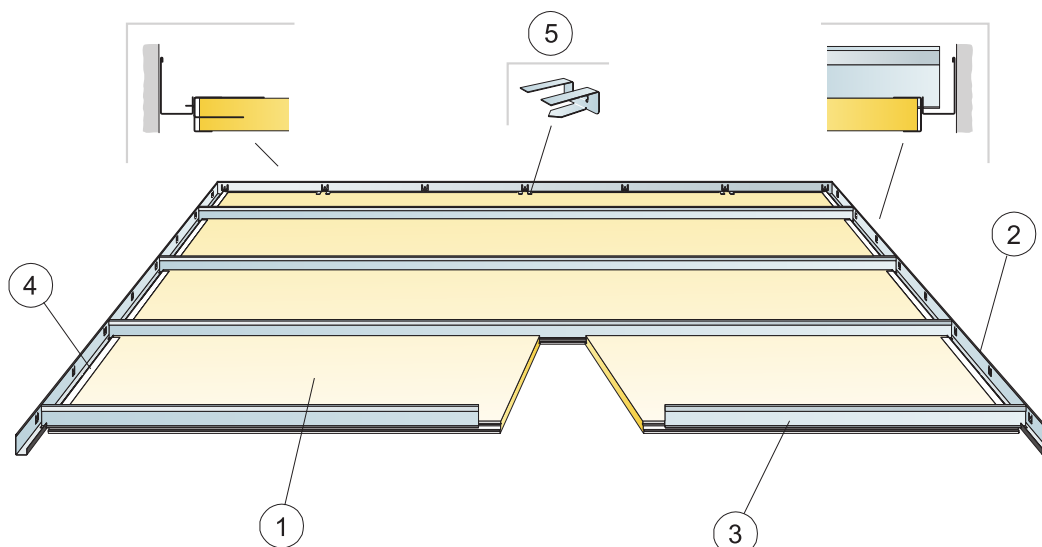


Suspension with direct fix bracket

Size, mm	Max live load (N)	Min load bearing capacity (N)
600x600x20	50	160
1200x600x20	50	160
1600x600x20	50	160
1800x600x20	50	160
2000x600x20	50	160
2400x600x20	50	160

Live load/load bearing capacity

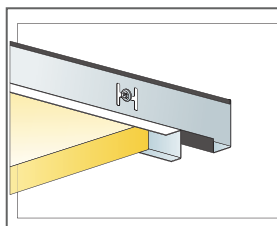
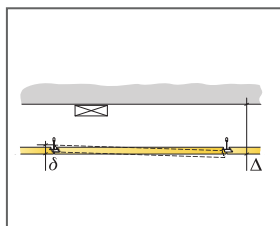
INSTALLATION DIAGRAM (M238) FOR ECOPHON FOCUS DS XL IN CORRIDORS



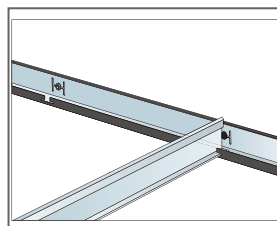
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QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm			
		1600x600	1800x600	2000x600	2400x600
1	Focus Ds XL	1,05/m ²	0,95/m ²	0,85/m ²	0,7/m ²
2	Connect Modular Wall trim	as required	as required	as required	as required
3	Connect T24 Corridor profile	1,05/m ²	0,95/m ²	0,85/m ²	0,7/m ²
4	Connect Cover trim Ds	2/tile plus end tiles			
5	Connect Support clip Dg 20	1 pc/300-400 mm on every cut perimeter tile with only 1 supporting edge			
Δ Min. overall depth of system: 55 mm		-	-	-	-
δ Min. demounting depth: 30 mm		-	-	-	-



Tile and Connect Cover trim Ds

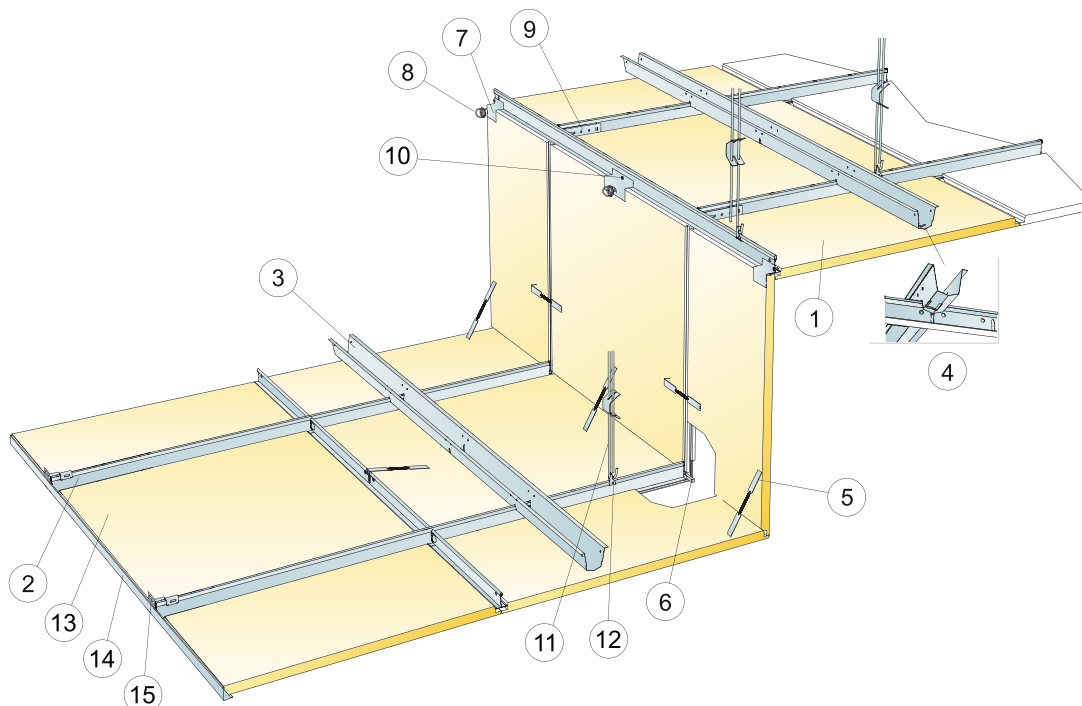


Corridor profile positioned by Modular wall trim

Size, mm	Max live load (N)	Min load bearing capacity (N)
1600x600x20	40	-
1800x600x20	20	-
2000x600x20	10	-
2400x600x20	0	-

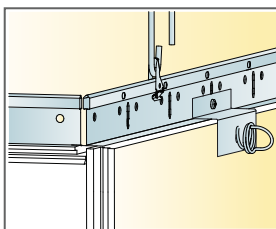
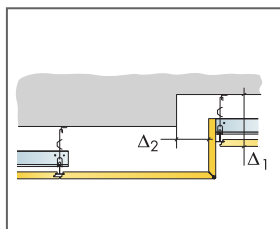
Live load/load bearing capacity

INSTALLATION DIAGRAM (M394) FOR ECOPHON FOCUS DS LEVELCHANGE

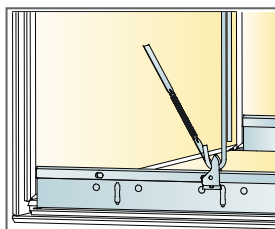


QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm	
		600x600	1200x600
1	Focus Ds	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner HD, installed at 600 mm centres	1,7/m ²	1,7/m ²
3	Connect Space bar, installed at 1500 mm centres (max. distance from Vertical tile 450 mm)	0,7/m ²	0,7/m ²
4	Connect Space Bar Winch, installed one per joint Connect Main Runner/Connect Space Bar	1,4/m ²	1,4/m ²
5	Connect Hook	3/panel	3/panel
6	Connect Distance Ds (included in Level change Ds kit)	1/panel	1/panel
7	Connect level clip Ds (included in Level change Ds kit)	1/panel	1/panel
8	Connect Spiral anchor	1/panel	1/panel
9	Connect L-coupling	1/row of Main runner HD	
10	Connect Installation screw BR	as required	as required
11	Connect Adjustable hanger, installed at 1200 mm centres (max. distance from Vertical tile 300 mm)	0,7/m ²	0,7/m ²
12	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
13	Focus Ds Perimeter tile L=300-600	as required	as required
14	Connect Wall Bracket for T-profiles	1/suspended row of Main runner	
15	Connect Angle Trim 15/22, fixed at 300 mm centres	as required	as required
Δ Min. overall depth of system: Δ1=105 mm and Δ2=80 mm from upper level		-	-
δ Min. demounting depth: Individual ceiling tiles are non-demountable		-	-
Dimension: c=600 mm, h<1180 mm		-	-



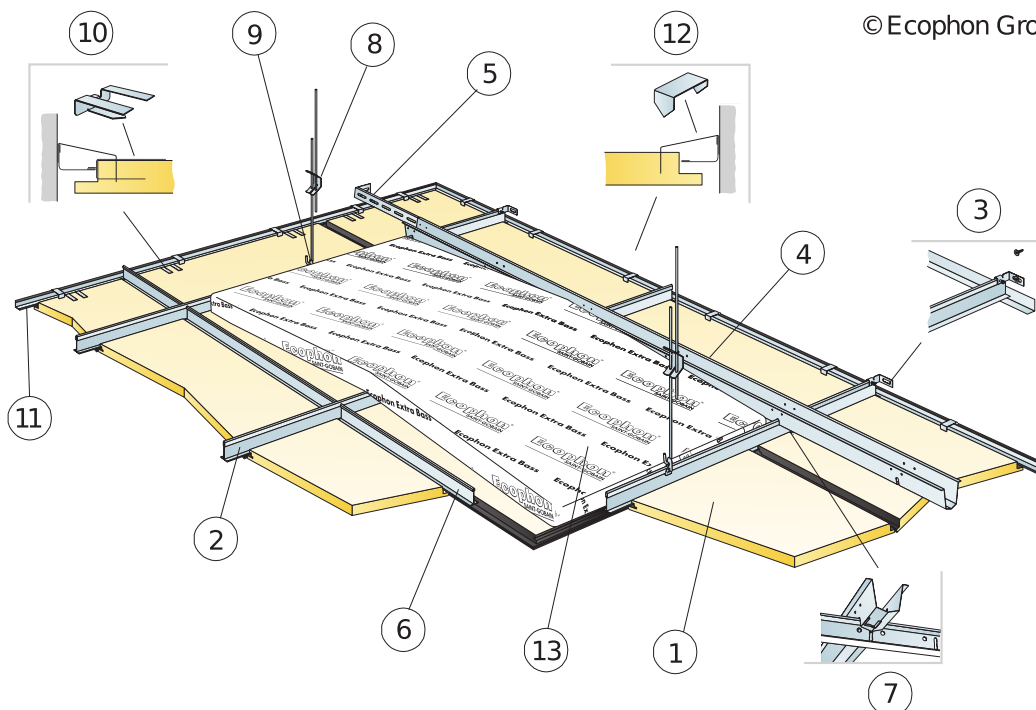
Upper level connection to Main runner HD



Lower level connection fixed with Hook

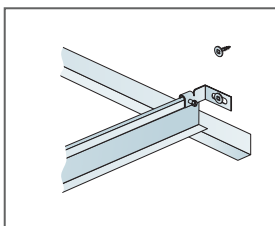
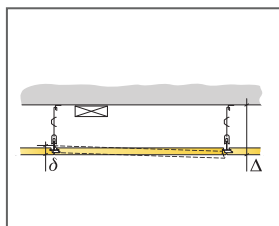
Size, mm	Max live load (N)	Min load bearing capacity (N)
600x600x20	0	160
1200x600x20	0	160

Live load/load bearing capacity

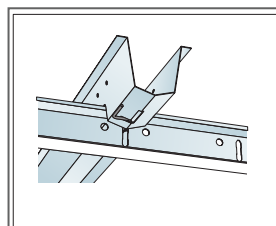


QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm	
		600x600	1200x600
1	Focus Ds	2,8/m ²	1,4/m ²
2	Connect T24 Main runner HD, installed at 600 mm centres	1,7/m ²	1,7/m ²
3	Connect Wall Bracket for T-profiles	1/suspended row of Main runner	
4	Connect Space Bar, installed at 1500 mm centres (max. distance from wall 300 mm)	0,7/m ²	0,7/m ²
5	Connect Wall Bracket, L=700 mm, for Connect Space Bar	1/row of Space bar	
6	Connect T24 Cross tee, L=600 mm	2/row of Main runner HD	
7	Connect Space Bar Winch, installed one per joint Connect Main Runner/Connect Space Bar	1,4/m ²	1,4/m ²
8	Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
9	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
10	Connect Support clip Dg20	1/300-400mm on any cut edge	
11	Connect Angle trim block, (fixed at 300 mm centres)	as required	as required
12	Connect Perimeter file clip	1/300-400mm on any cut edge	
13	Extra Bass (1200x600x50 mm)	0,7/m ²	0,7/m ²
Δ Min. overall depth of system: 115 mm		-	-
δ Min. demounting depth: 30 mm		-	-



Connection between profiles with split pin



Size, mm	Max live load (N)	Min load bearing capacity (N)
600x600x20	50	160
1200x600x20	50	160

Live load/load bearing capacity