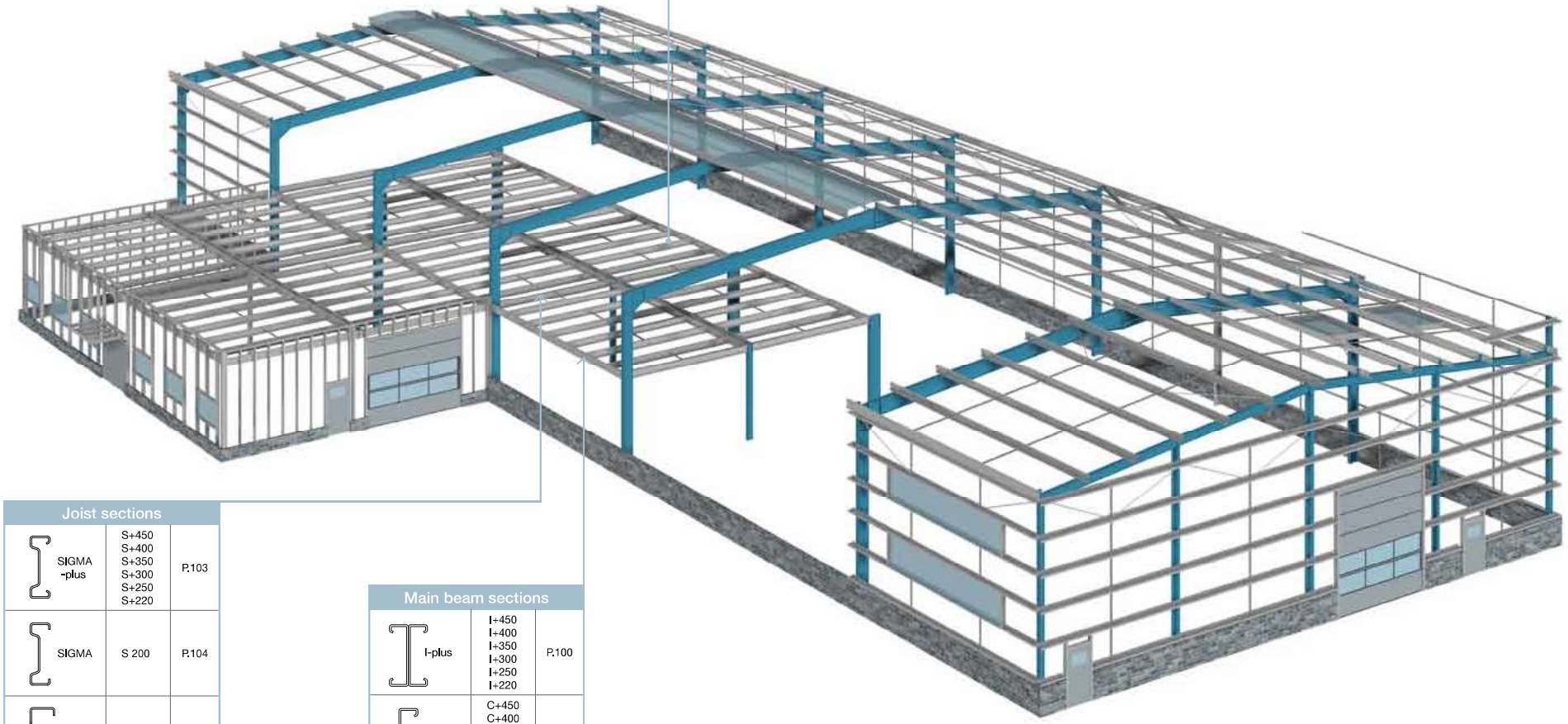
FLOOR FRAMES

OVERVIEW



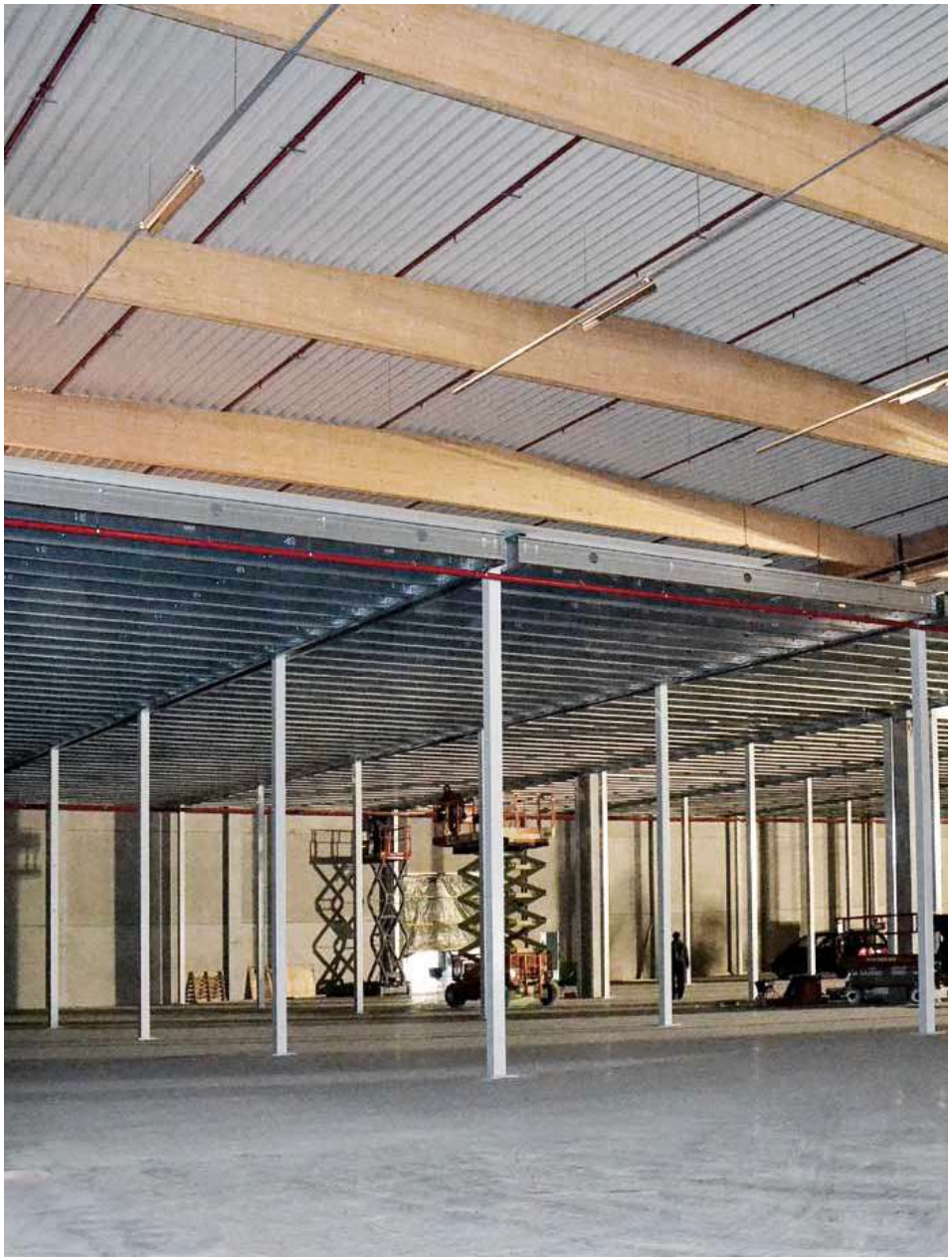
FLOOR FRAMES

Joist sections

SIGMA -plus	S+450 S+400 S+350 S+300 S+250 S+220	P.103
SIGMA	S 200	P.104
CEE	C 170 C 150	P.106
SE	SE 200 SE 250 SE 330	P.104

Main beam sections

I-plus	I+450 I+400 I+350 I+300 I+250 I+220	P.100
CEE-plus	C+450 C+400 C+350 C+300 C+250 C+220	P.101
CEE	C 200	P.106



READY-TO-ASSEMBLE BUILDING COMPONENTS FOR FLOORING

A floor frame can be realised in an easy and competitive way by using SADEF-building profiles:

- Made by a unique production process
- Main features:
  - No cleats required
  - Bolting reduced by 50 %
  - Fast and cost effective assembly
  - Service holes integrated on request

AutoConnectMiddle STANDARD POSSIBILITIES									
MAIN BEAM				JOIST				ACM	
Section	A (mm)	B (mm)	Ø (mm)	Section	Notch	V (mm)	W (mm)	Type	P (mm)
C+450xt$_1$	75	300	18	S+450xt$_2$	Double	40	120	**ACM200**	225
				S+400xt$_2$	Single			**ACM200**	200
				S+350xt$_2$				**ACM200**	175
				S+300xt$_2$				**ACM150**	150
				S+250xt$_2$				**ACM100**	125
C+400xt$_1$	75	250	18	S+400xt$_2$	Double	40	110	**ACM200**	200
				S+350xt$_2$	Single			**ACM200**	175
				S+300xt$_2$				**ACM150**	150
				S+250xt$_2$				**ACM100**	125
C+350xt$_1$	75	200	18	S+350xt$_2$	Double	35	100	**ACM200**	175
				S+300xt$_2$	Single			**ACM150**	150
				S+250xt$_2$				**ACM100**	125
				S+220xt$_2$				**ACM100**	110
				S200xt$_2$				**ACM100**	100
				C170xt$_2$				**ACM100**	100
C+300xt$_1$	75	150	18	S+300xt$_2$	Double	30*	90	**ACM150**	150
				S+250xt$_2$	Single			**ACM100**	125
				S+220xt$_2$				**ACM100**	110
				S200xt$_2$				**ACM100**	100
				C170xt$_2$				**ACM100**	100
C+250xt$_1$	75	100	18	S+250xt$_2$	Double	30*	80	**ACM100**	125
				S+220xt$_2$				**ACM100**	110
				S200xt$_2$	Single			**ACM100**	100
				C170xt$_2$				**ACM100**	100
C+220xt$_1$	55	110	14	S+220xt$_2$	Double	30	80	**ACM100**	110
				S200xt$_2$				**ACM100**	100
				C170xt$_2$	Single			**ACM100**	100
C200xt$_1$	55	90	14	S200xt$_2$	Double	30	80	**ACM100**	100
				C170xt$_2$	Single			**ACM100**	100

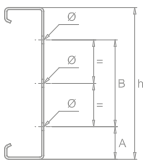
* For t$_1$ = 5mm: V = 35mm

PREPIERCING POSSIBILITIES

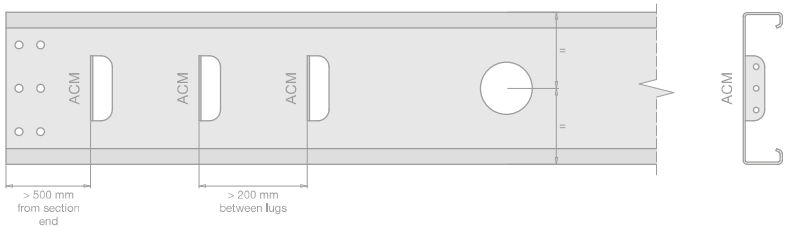
- Big size holes can be prepierced in webs of beams and joists. See table:

Large perforations	
Section depth	Hole size
h ≥ 350	Ø150
250 ≤ h ≤ 300	Ø120
h ≤ 220	100x70

- Recommended perforations

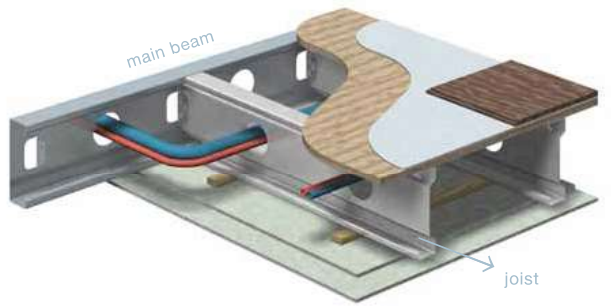


- Minimum distance between the lugs and minimum distance beween lug and the end of the profile.

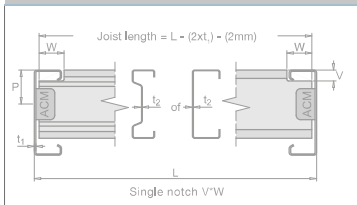
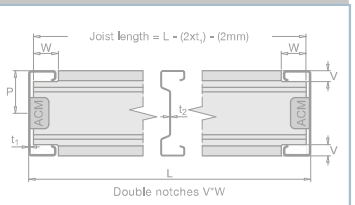
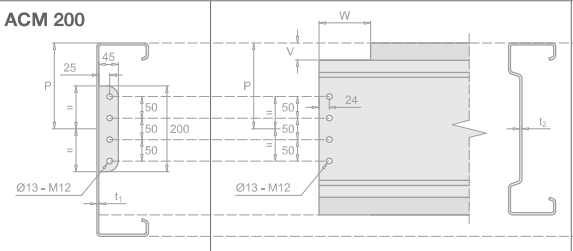
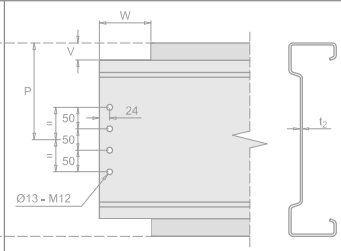
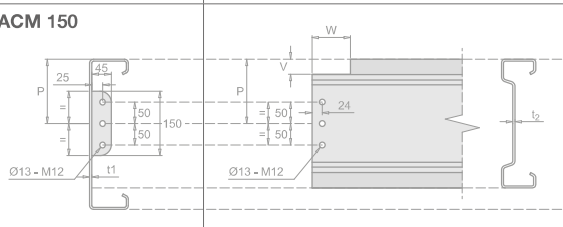
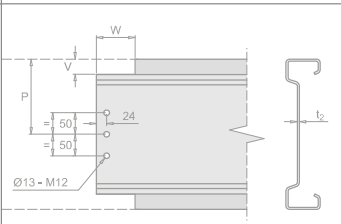
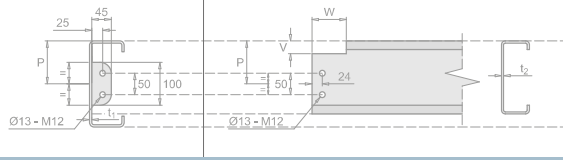
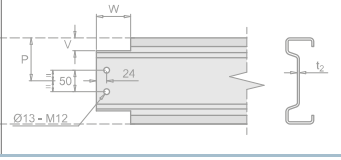


ACM - AutoConnectMiddle-SYSTEM

Floor frame with connections for SIGMA-joist integrated with main CEE-beam.



SADEF PATENTED

MAIN BEAM	JOIST	
	Smaller than main beam	Same depth as main beam
		
	Single notch V*W	Double notches V*W
ACM 200		
ACM 150		
ACM 100		

Sections with AutoConnectEnd (ACE):
- 1.5 mm < t_2 < 4 mm
- AutoConnectEnd (and AutoNotch) to be identical at both ends.
- Perforation of big holes in the web of the main beam and joist: See table at the bottom of p.56
- Minimum length: 800 mm.
- F = 30 mm.

ACE + AutoNotch (AN)						
MAIN BEAM	JOIST					
Section	Section	A (mm)	B (mm)	V (mm)	W1 (mm)	Ø (mm)
C+450xt$_1$	C+350xt$_2$	75	200	40	120	18
	C+300xt$_2$		150			
	C+250xt$_2$		100			
C+400xt$_1$	C+350xt$_2$	75	200	40	110	18
	C+300xt$_2$		150			
	C+250xt$_2$		100			
C+350xt$_1$	C+300xt$_2$	75	150	35	100	18
	C+250xt$_2$		100			
C+300xt$_1$	C+250xt$_2$	75	100	30*	90	18
	C+220xt$_2$	55	110			14
	C 200xt$_2$		90			
	C 170xt$_2$		60			
C+250xt$_1$	C+220xt$_2$	55	110	30*	80	14
	C 200xt$_2$		90			
	C 170xt$_2$		60			
C+220xt$_1$	C 200xt$_2$	55	90	30	80	14
	C 170xt$_2$		60			
C 200xt$_1$	C 170xt$_2$	55	60	30	80	14
	C 150xt$_2$		40			

* only for beams where t1 ≤ 4mm

Joist connected to beam inner side

AutoConnectEnd (ACE)						
MAIN BEAM	JOIST					
Section	Section	A (mm)	B (mm)	V (mm)	W2 (mm)	Ø (mm)
≥ C+350xt$_1$	C+350xt$_2$	50	250	5	15+t$_2$	18
≥ C+300xt$_1$	C+300xt$_2$	50	200	5	15+t$_2$	18
≥ C+250xt$_1$	C+250xt$_2$	50	150	5	15+t$_2$	18
≥ C+220xt$_1$	C+220xt$_2$	50	120	5	15+t$_2$	14
≥ C+200xt$_1$	C+200xt$_2$	50	100	5	15+t$_2$	14
≥ C+150xt$_1$	C+150xt$_2$	45	60	5	15+t$_2$	14
≥ C200xt$_1$	C 200xt$_2$	50	100	5	15+t$_2$	14
≥ C 170xt$_1$	C 170xt$_2$	50	70	5	15+t$_2$	14
≥ C 150xt$_1$	C 150xt$_2$	50	50	5	15+t$_2$	14
≥ C 100xt$_1$	C 100xt$_2$	25	50	5	15+t$_2$	14

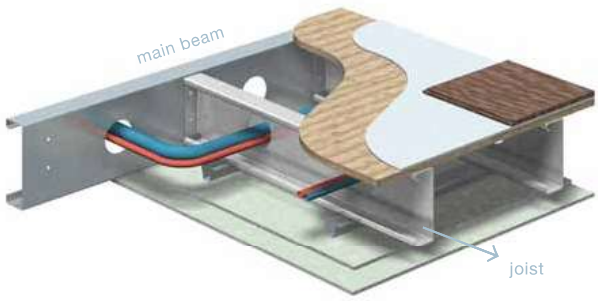
Joist connected to beam outer face

For additional information, prepiercing possibilities and minimum production batches: please contact SADEF.

ACE - AutoConnectEnd-SYSTEM

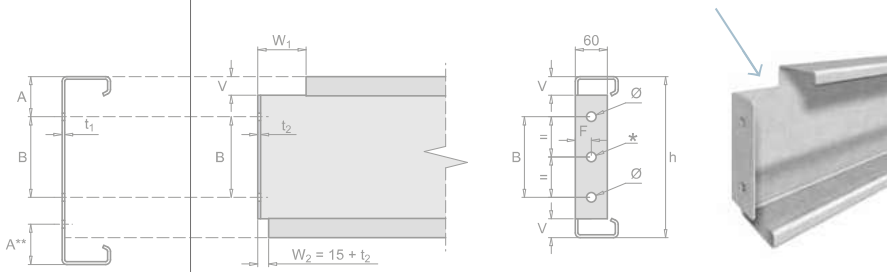
Floor system with integrated connection piece in the CEE-plus joists.

Both main beams and joists are CEE-profiles.



MAIN BEAM	JOIST

AutoConnectEnd (ACE) + AutoNotch (AN)

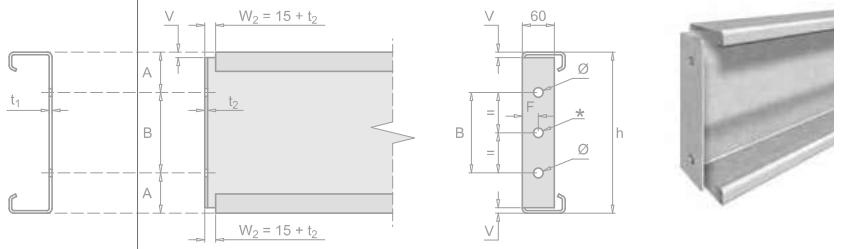


AutoNotch (Notch with length W1), cut-out in top flange only.

* Possibility of an additional hole for section depth > 200 mm.

** Optional : extra holes for beam to column connection.

AutoConnectEnd (ACE)



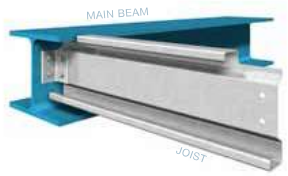
* Additional hole for section depth > 200 mm.

MAIN BEAM	JOIST								
Section	S/SE 200	I+/S+220	I+/S+250	I+/S+300	I+/S+350	I+/S+400	I+/S+450	AutoNotch V (mm)	AutoNotch W (mm)
HEA/HEB 200	✓	-	-	-	-	-	-	35	120
HEA/HEB 220	✓	✓	-	-	-	-	-	35	120
HEA/HEB 240	✓	✓	-	-	-	-	-	35	125
HEA/HEB 260 → 280	✓	✓	✓	-	-	-	-	35	145
HEA/HEB 300	✓	✓	✓	✓	-	-	-	35	145
HEA/HEB 320 → 340	-	-	✓	✓	-	-	-	50	145
HEA/HEB 360	-	-	✓	✓	✓	-	-	50	145
HEA/HEB 400	-	-	✓	✓	✓	✓	-	50	145
HEA/HEB 450 → 700	-	-	✓	✓	✓	✓	✓	50	145
HEA/HEB 800 → 1000	-	-	✓	✓	✓	✓	✓	50	145
IPE 200	✓	-	-	-	-	-	-	35	55
IPE 220	✓	✓	-	-	-	-	-	35	55
IPE 240	✓	✓	-	-	-	-	-	35	65
IPE 270	✓	✓	✓	-	-	-	-	35	65
IPE 300 → 330	✓	✓	✓	✓	-	-	-	35	80
IPE 360	✓	✓	✓	✓	✓	-	-	35	90
IPE 400	✓	✓	✓	✓	✓	✓	-	35	90
IPE 450	✓	✓	✓	✓	✓	✓	✓	35	90
IPE 500 → 600	✓	✓	✓	✓	✓	✓	✓	35	105
UPN 200	✓	-	-	-	-	-	-	25	85
UPN 220 → 240	✓	✓	-	-	-	-	-	25	85
UPN 260	✓	✓	✓	-	-	-	-	25	85
UPN 280	✓	✓	✓	-	-	-	-	30	100
UPN 300 → 320	✓	✓	✓	✓	-	-	-	30	100
UPN 350 → 360	✓	✓	✓	✓	✓	-	-	30	100
UPN 400	✓	✓	✓	✓	✓	✓	-	35	100

RECOMMENDED PERFORATION JOIST						
Section height h	A1 (mm)	B1 (mm)	Ø1 (mm)	A2 (mm)	B2 (mm)	Ø2 (mm)
450	75	300	18	125	200	18
400	75	250	18	125	150	18
350	75	200	18	100	150	18
330				115	100	18
300	75	150	18	100	100	18
250	75	100	18	100	50	18
220	55	110	14	75	70	14
200				75	50	14

Big size holes can be prepierced in webs of main beams and joists: please turn to p. 56.

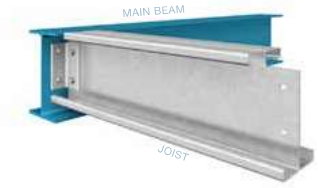
SIGMA-Joist



Main beam deeper than joist

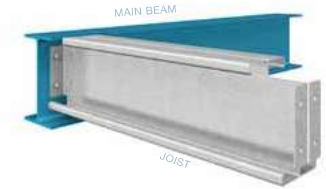
Main beam and joist have about the same depth

CEE-plus / I-plus - joist



Main beam deeper than joist

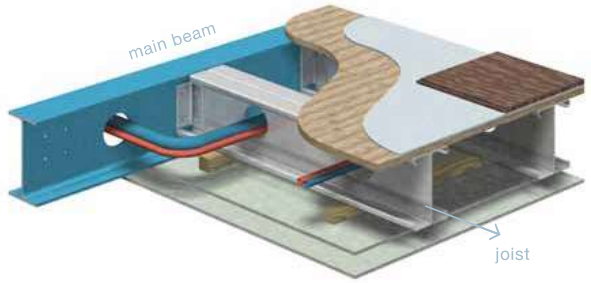
CEE-plus / I-plus - joist with AutoConnectEnd (ACE)

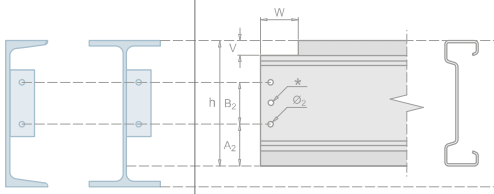
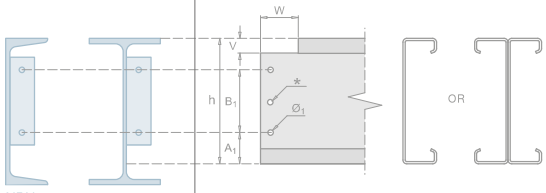
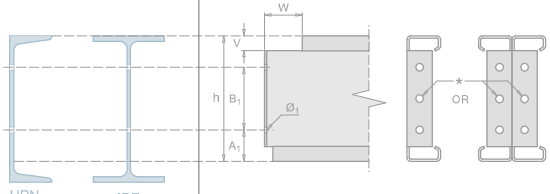


Main beam deeper than ACE-joist

MIXED-SYSTEM

Floor framing consisting of hot rolled main beams and cold rolled side beams.

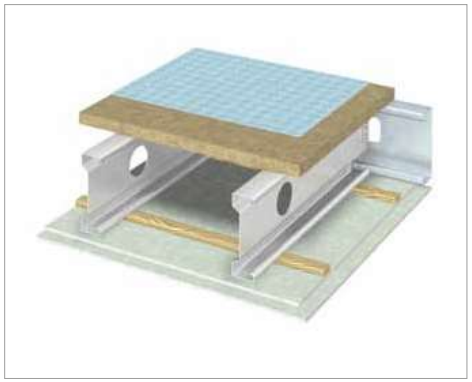


MAIN BEAM	JOIST	
Hot rolled	Smaller than main beam	Same depth as main beam
		
UPN / IPE HEA HEB	Single notch V*W	Double notches V*W
		
UPN / IPE HEA HEB	Single notch V*W	
		
UPN / IPE HEA HEB	Single notch V*W	

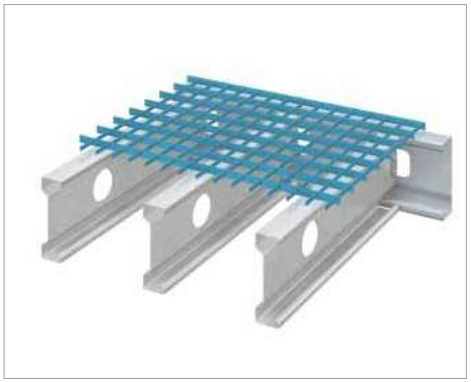
AutoNotches to be identical on both profile ends.

* Additional hole for section depth > 200 mm.

FLOOR MATERIALS FOR INDUSTRIAL BUILDINGS

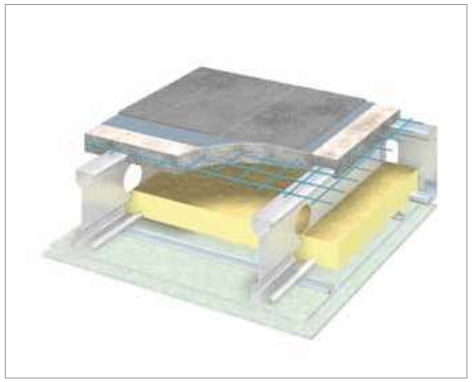


HD-Chipboard combined with fire resistant ceiling.

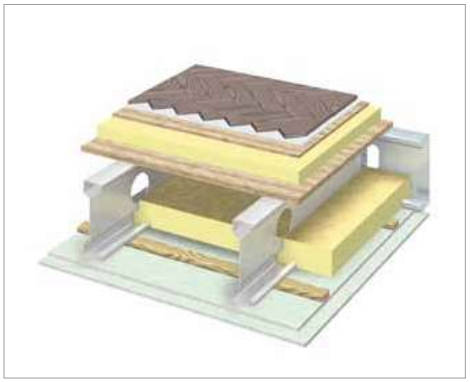


Steel gratings.

FLOOR MATERIALS FOR HOUSES AND OFFICES



Integrated concrete floor (see p. 78).



Floating floor for high acoustic performance in case of floor built up with light weight materials.

Maximum stability and strength will be achieved by screwing (or nailing…) at regular intervals of flooring material to upper flanges of beams and joists.