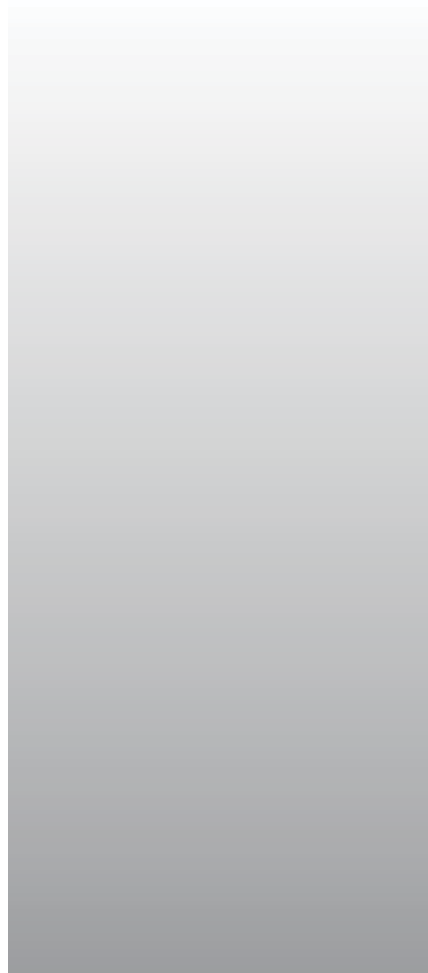




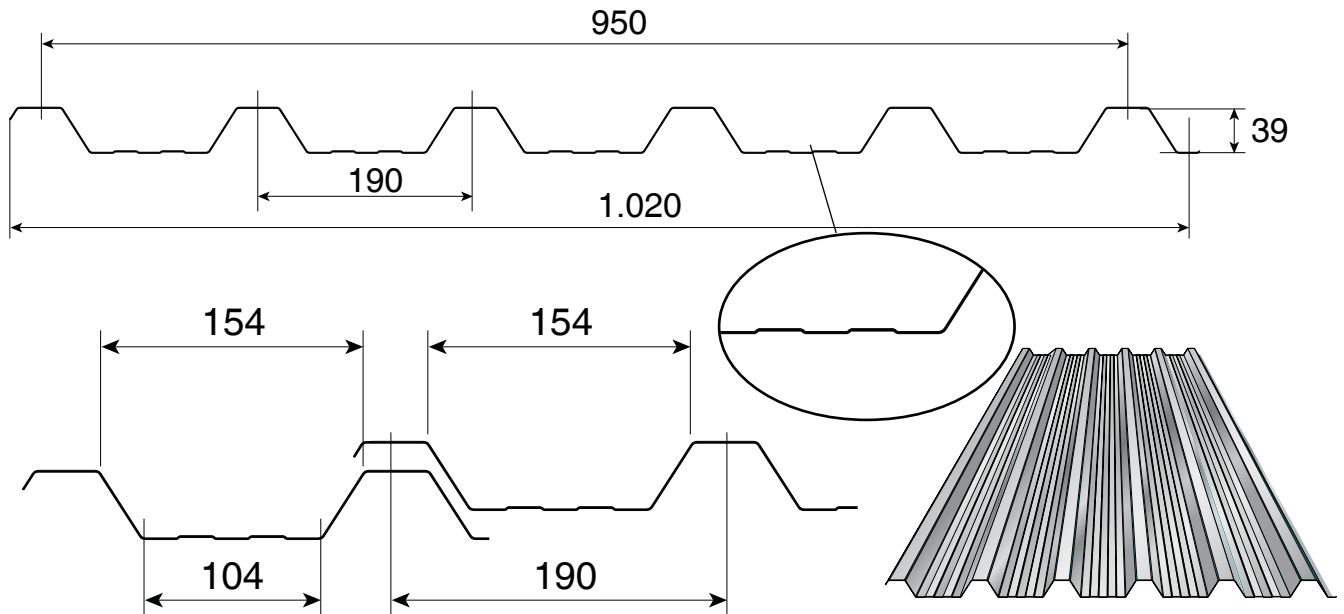
**PROFILO**  
*Alubel* **40**



# Alubel 40 profile

 Made in: **Aluminium**

TECHNICAL DATA SHEET



## TECHNICAL SPECIFICATIONS OF THE ALUBEL 40 ALUMINIUM PROFILE

s	p	J	W	EJ	M max	<b>Symbols</b> s = sheet thickness p = unit weight J = moment of inertia W = modulus of bending resistance EJ = bending stiffness M max = permitted bending moment ( $\sigma_{perm.} = 6,5 \text{ kN/cm}^2$ ) i = centre distance between supports $\sigma_{perm.}$ = unit safety load f perm. = maximum permitted straining
[mm]	[kg/m <sup>2</sup> ]	[cm <sup>4</sup> /m]	[cm <sup>3</sup> /m]	[kN cm <sup>2</sup> /m]	[kN cm/m]	
0,6	2,02	17,61	6,21	83.300	40,37	
0,7	2,35	20,55	7,21	96.805	46,87	
0,8	2,69	23,49	8,21	110.240	53,37	
1,0	3,36	29,36	10,18	136.835	66,17	

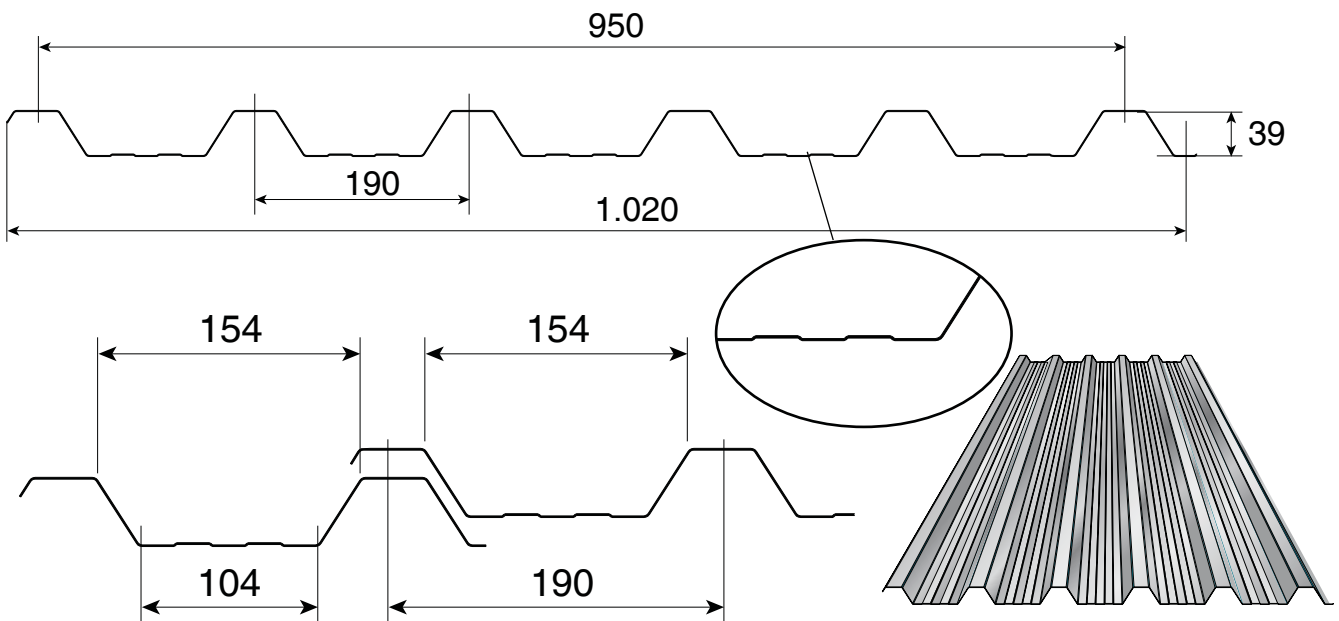
## PERMITTED UNIFORM LOAD [kg/m<sup>2</sup>] ON 4 SUPPORTS\*

i [m]	1,00		1,20		1,40		1,60		1,80	
	$\sigma_{perm}$	f amm	$\sigma_{perm}$	f perm	$\sigma_{perm}$	f perm	$\sigma_{perm}$	f perm	$\sigma_{perm}$	f perm
0,6	412	544	286	315	210	198	161	133	127	93
0,7	478	632	332	366	244	230	187	154	148	108
0,8	545	719	378	416	278	262	213	176	168	123
1,0	675	893	469	517	344	325	264	218	208	153

\*(it is calculated in the dual hypothesis of  $\sigma_{perm.} = 6,5 \text{ kN/cm}^2$  and  $f_{perm.} = i/200$ )

The contents of this calculation table are to be considered approximate and purely indicative. The structural calculation is the task of the designer and/or user in each single case that also has to determine the application design specifications for the roofing in question

# Alubel 40 profile

 Made in: **Steel**


TECHNICAL DATA SHEET

## TECHNICAL SPECIFICATIONS OF THE ALUBEL 40 STEEL PROFILE

s	p	J	W	EJ	M max	<b>Symbols</b> s = sheet thickness p = unit weight J = moment of inertia W = modulus of bending resistance EJ = bending stiffness M max = permitted bending moment ( $\sigma_{perm.} = 13,73 \text{ kN/cm}^2$ ) i = centre distance between supports $\sigma_{perm.}$ = unit safety load $f_{perm.}$ = maximum permitted strain
[mm]	[kg/m <sup>2</sup> ]	[cm <sup>4</sup> /m]	[cm <sup>3</sup> /m]	[kN cm <sup>2</sup> /m]	[kN cm/m]	
0,5	4,81	14,67	3,43	302.202	47,09	
0,6	5,77	17,61	6,21	362.766	62,61	
0,7	6,73	20,55	7,21	423.330	80,46	
0,8	7,69	23,49	8,21	483.894	100,23	
1,0	9,61	29,36	10,18	604.816	140,18	

## PERMITTED UNIFORM LOAD [kg/m<sup>2</sup>] ON 4 SUPPORTS\*

i [m]	1,00		1,25		1,50		1,75		2,00		2,25		2,50		2,75		3,00	
s [mm]	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$	$\sigma_{perm}$	$f_{perm}$
0,5	480	1.971	307	1.009	213	584	157	368	120	246	95	173	77	126	63	95	53	73
0,6	638	2.367	409	1.212	284	701	208	442	160	296	126	208	102	151	84	114	71	88
0,7	820	2.762	525	1.414	365	818	268	515	205	345	162	242	131	177	108	133	91	102
0,8	1.022	3.157	654	1.616	454	935	334	589	256	395	202	277	164	202	135	152	114	117
1,0	1.429	3.946	915	2.020	635	1.169	467	736	357	493	282	346	229	252	189	190	159	146

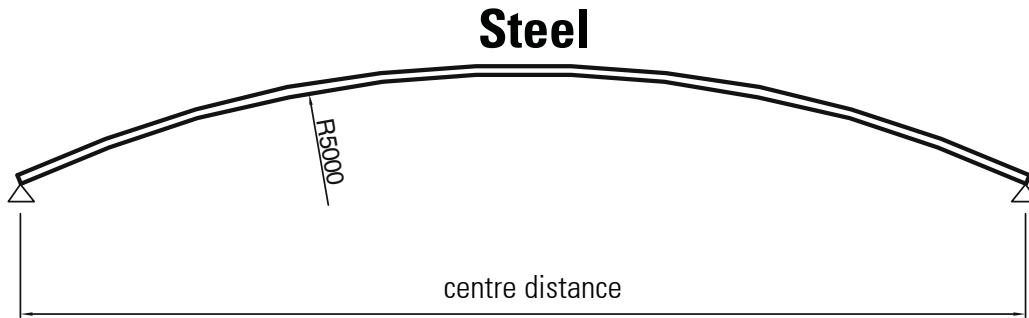
\*(it is calculated in the dual hypothesis of  $\sigma_{perm.} = 1.400 \text{ kg/cm}^2 = 13,73 \text{ kN/cm}^2$  and  $f_{perm.} = i/200$ )

The contents of this calculation table are to be considered approximate and purely indicative. The structural calculation is the task of the designer and/or user in each single case that also has to determine the application design specifications for the roofing in question

# Alubel 40 profile

TECHNICAL DATA SHEET

## LOAD TABLE FOR THE RADIUS 5 CURVED ALUBEL 40 PROFILE SHEET

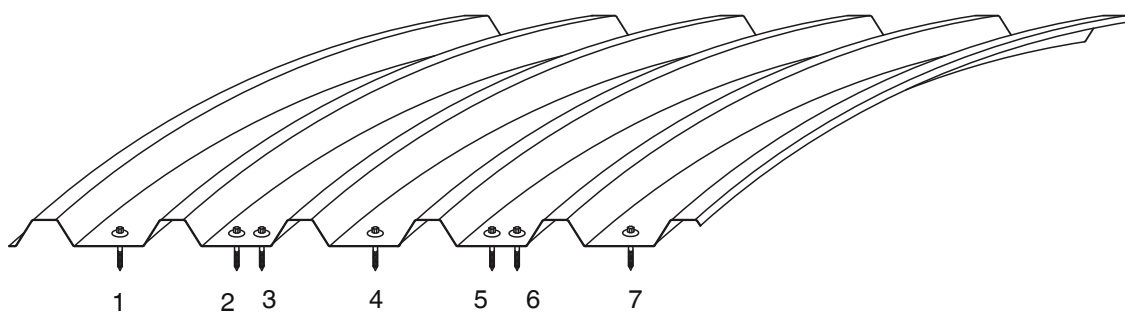


### PERMITTED LOAD TABLE FOR A CURVED STEEL ALUBEL 40 PROFILE R = 5 M WITH 7 PREDEFINED FIXINGS ON EACH SIDE

thickness	centre distance of the supports (m)		
	4,0 m	4,5 m	5,0 m
0,6 mm	141	140	132
0,7 mm	166	164	160
0,8 mm	190	186	179
1.0 mm	236	230	225

The loads have been calculated considering 7 fixings, 6 mm  $\varnothing$  on each side as illustrated below  
 Uniformly distributed load, expressed in kg/m<sup>2</sup>

The contents of this calculation table are to be considered approximate and purely indicative. The structural calculation is the task of the designer and/or user in each single case that also has to determine the application design specifications for the roofing in question

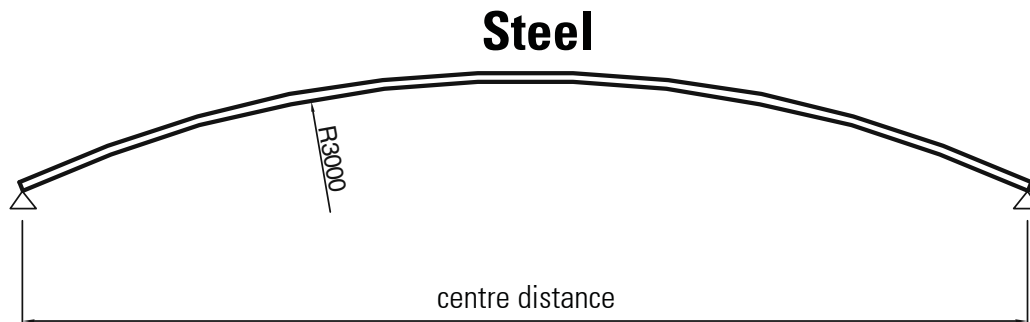


Position of the 7 fixings on each side

Fixing in the low corrugation is allowed only on "Y" beam type structures

# Alubel 40 profile

## LOAD TABLE FOR THE RADIUS 3 CURVED ALUBEL 40 PROFILE SHEET

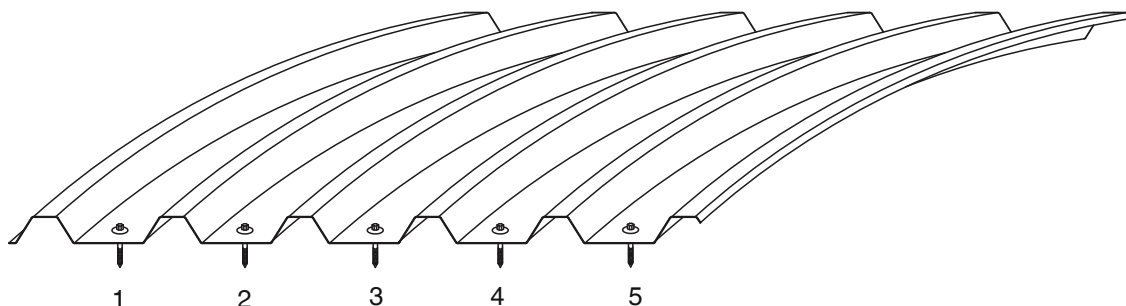


### PERMITTED LOAD TABLE FOR A CURVED STEEL ALUBEL 40 PROFILE R = 3 M WITH 5 PREDEFINED FIXINGS ON EACH SIDE

thickness	clear span (m)					
	1,5 m	2,0 m	2,5 m	3,0 m	3,5 m	4,0 m
0,6 mm	202	-	-	-	-	-
0,7 mm	235	230	220	215	-	-
0,8 mm	270	255	250	240	232	218
1.0 mm	340	320	310	302	294	280

Uniformly distributed load, expressed in kg/m<sup>2</sup>  
 $\sigma$  perm.= 1400 kg/cm<sup>2</sup>

The contents of this calculation table are to be considered approximate and purely indicative. The structural calculation is the task of the designer and/or user in each single case that also has to determine the application design specifications for the roofing in question.



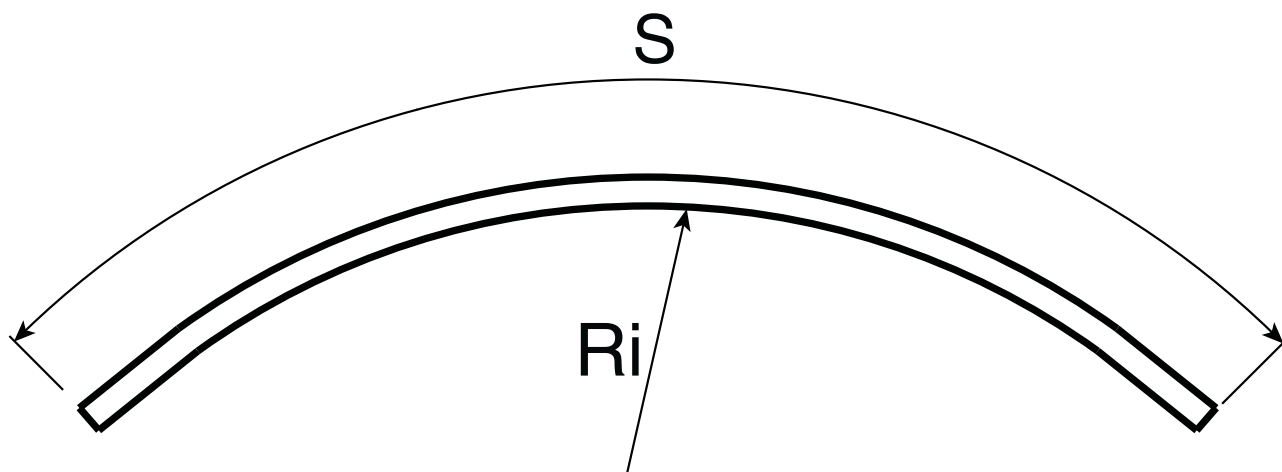
Position of the 5 fixings on each side.

Fixing in the low corrugation is allowed only on "Y" beam type structures

# Alubel 40 profile

SHEET TOOLING

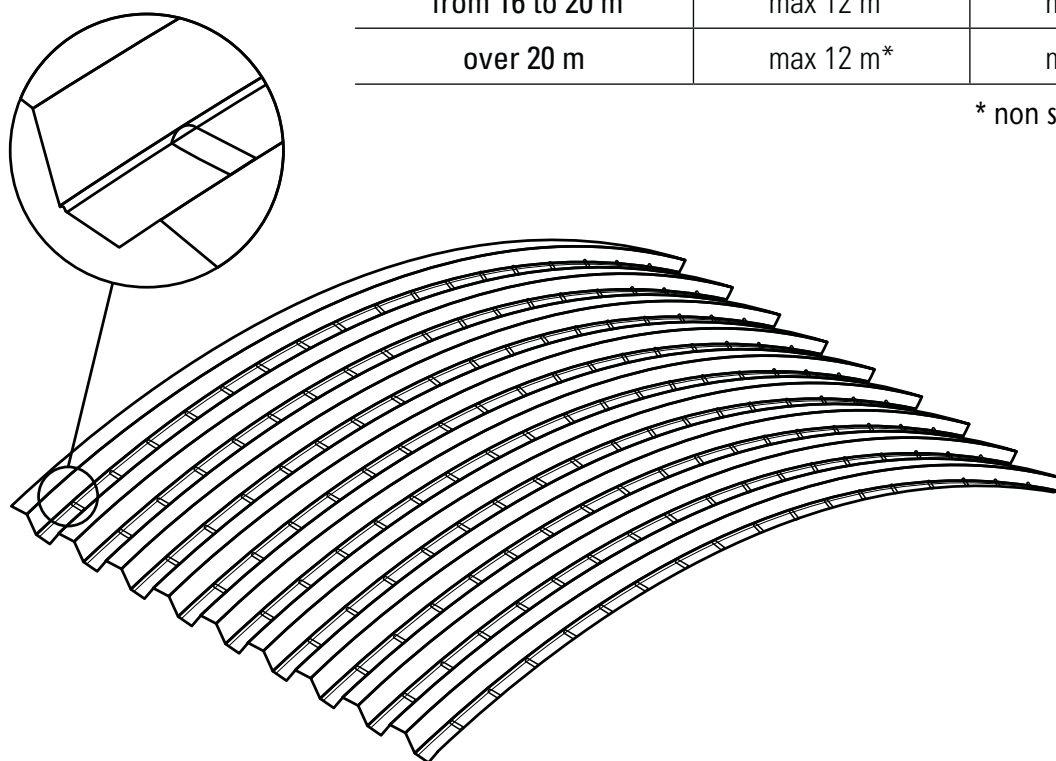
## CURVATURE BY MICRO ROLLER CURVING



## CURVATURE BY MICRO ROLLER CURVING

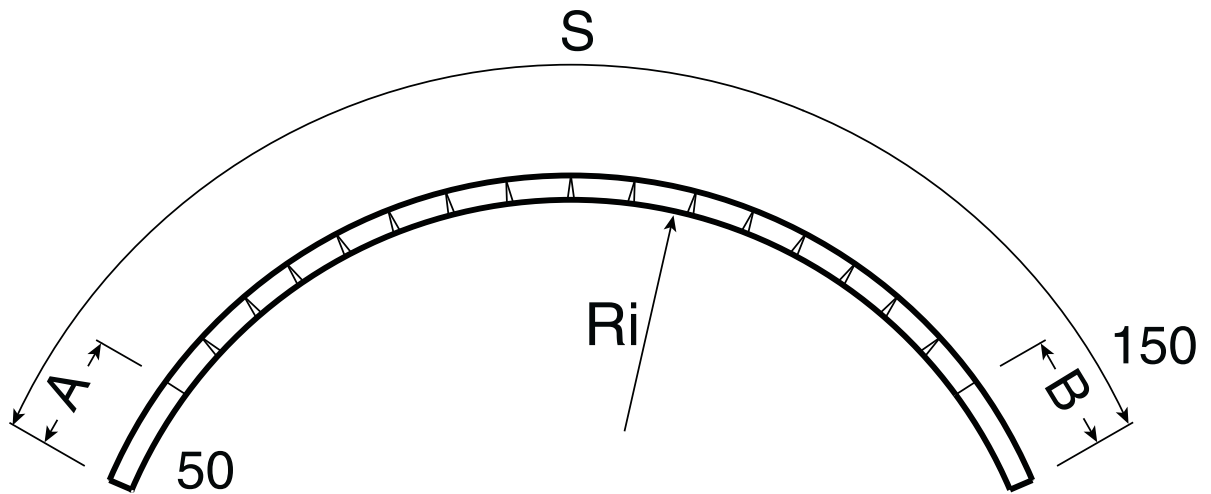
$R_i$	<b>S max sheet length</b>	
	aluminium	other materials
from 6 to 8 m	max 8 m	max 6 m
from 8 to 10 m	max 9 m*	max 7 m
from 10 to 14 m	max 10 m*	max 8 m*
from 14 to 16 m	max 11 m*	max 9 m*
from 16 to 20 m	max 12 m*	max 10 m*
over 20 m	max 12 m*	max 10 m*

\* non standard toolings



# Alubel 40 profile

## UNIFORM CURVATURE BY NOTCHING

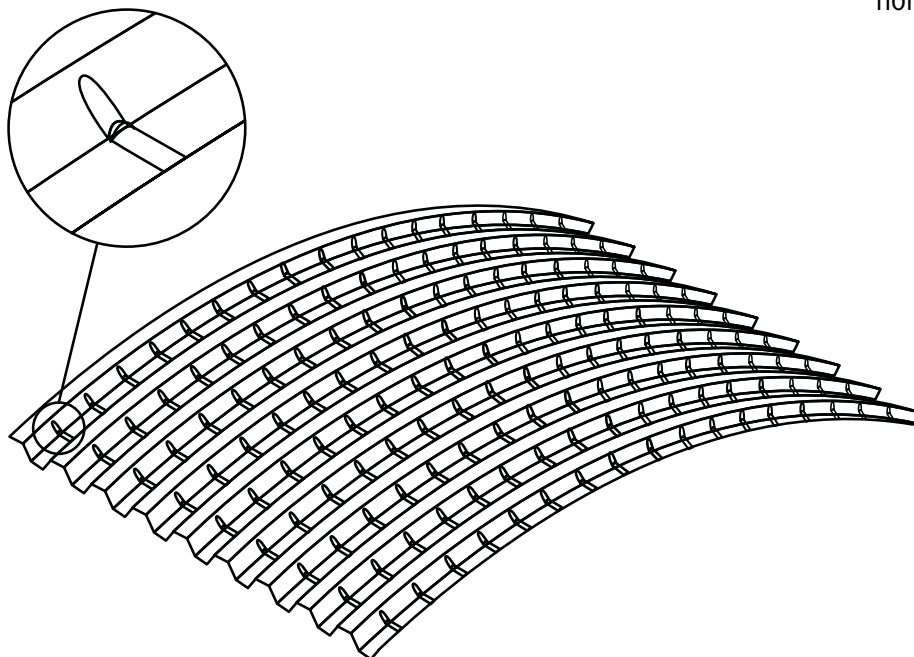


A = min 150 mm  
B = min 50 mm  
or  
A = min 50 mm  
B = min 150 mm

## UNIFORM CURVATURE BY NOTCHING

Ri	S max sheet length	
	aluminium	other materials
1 m	max 3 m	max 3 m
from 2 to 3 m	max 4 m	max 4 m
from 3 to 4 m	max 5 m	max 5 m
from 4 to 6 m	max 6 m	max 6 m
from 6 to 7 m	max 8 m	max 8 m*

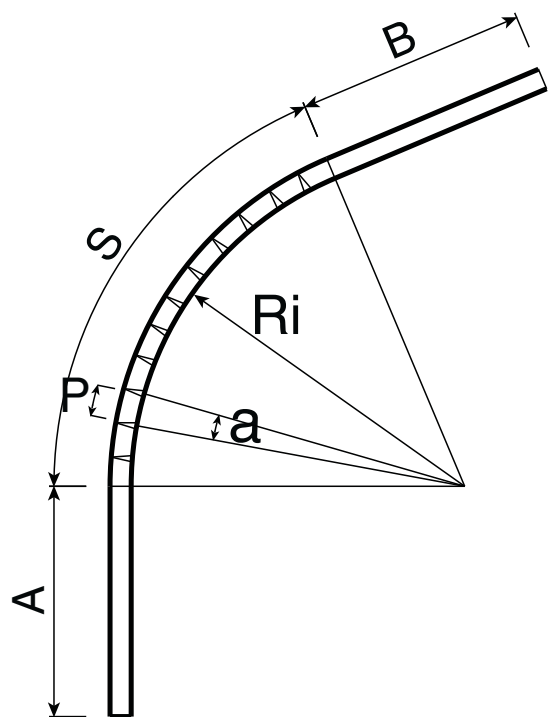
\* non standard toolings



# Alubel 40 profile

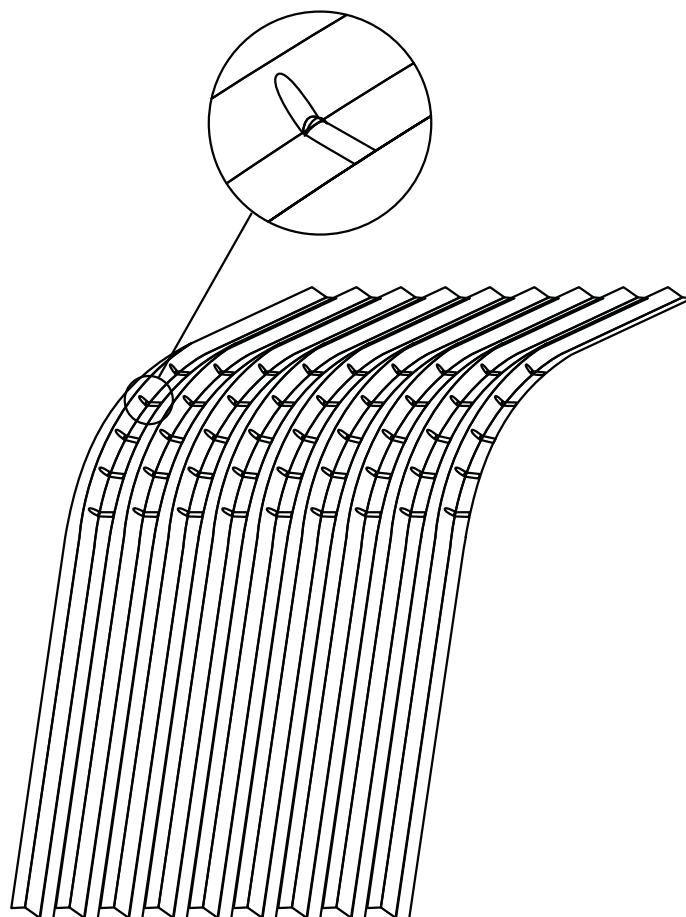
SHEET TOOLING

## PARTIAL CURVATURE BY NOTCHING



Symbols		
A	initial section	min 50 max 2000 mm
B	end section	min 50 max 2000 mm
S	curve development	min 100 mm
A+B+S	total development (aluminium)	max 5000* mm
A+B+S	total development (other materials)	max 5000* mm
Ri	inside radius	min 300 mm
P	impression distance	min 25 mm
a	deflection angle	min 1° max 6°

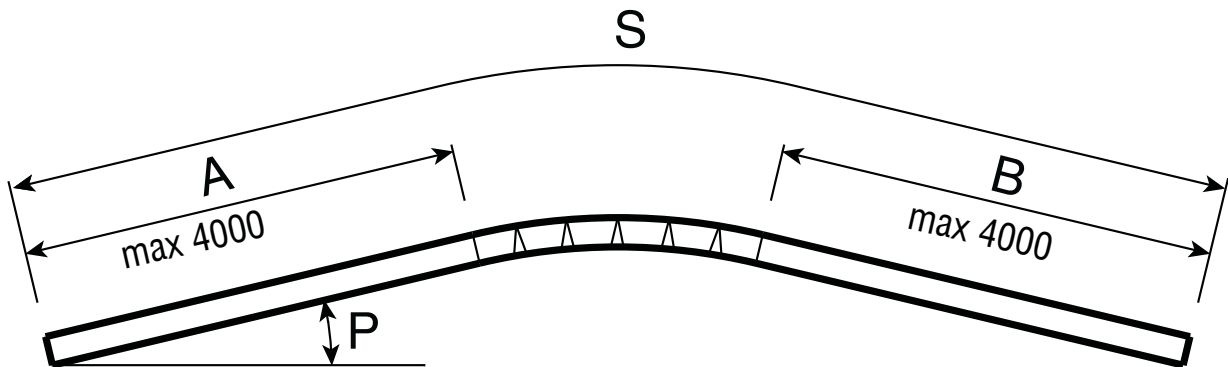
\* total variable development based on the inside radius





# Alubel 40 profile

## NOTCHING IN THE MIDDLE

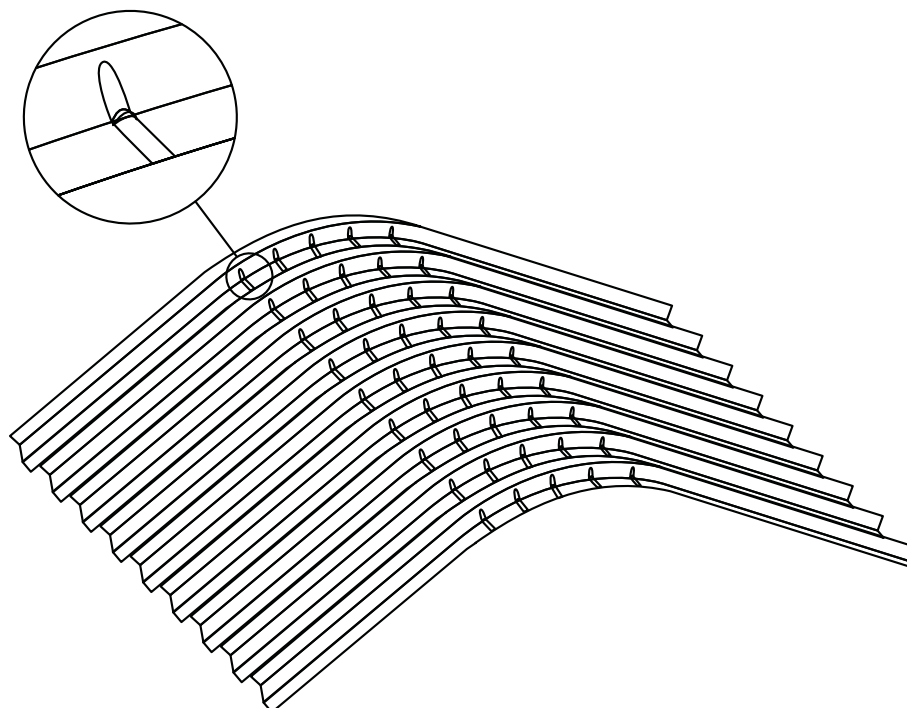


SHEET TOOLING

Sheet curved only in the centre to form the ridge and the joining of two pitches (achieved by means of a set of impressions in the middle of the sheet).

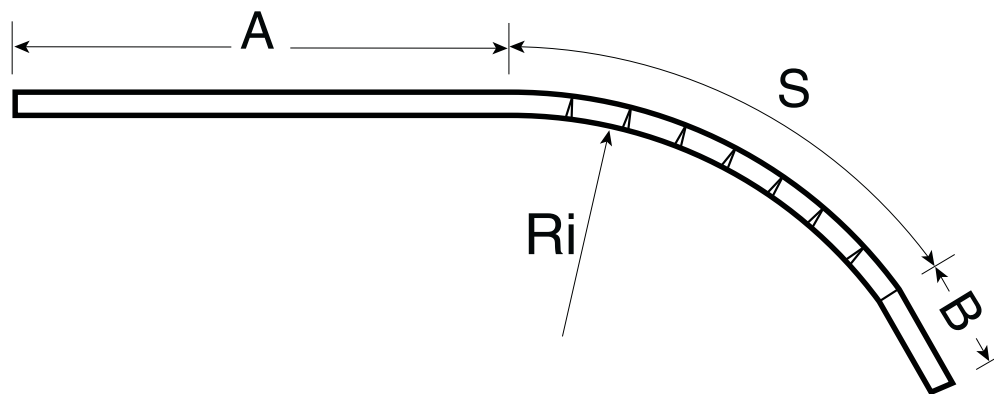
The length of the straight segments A and B varies from a minimum of 50 mm to a maximum of 4000 mm.

P	S max sheet length	
	aluminium	other materials
from 6 to 12%	max 9 m	max 6 m
from 12 to 15%	max 8 m	max 6 m
from 15 to 20%	max 6 m	max 6 m
from 20 to 25%	max 4 m	max 4 m



# Alubel 40 profile

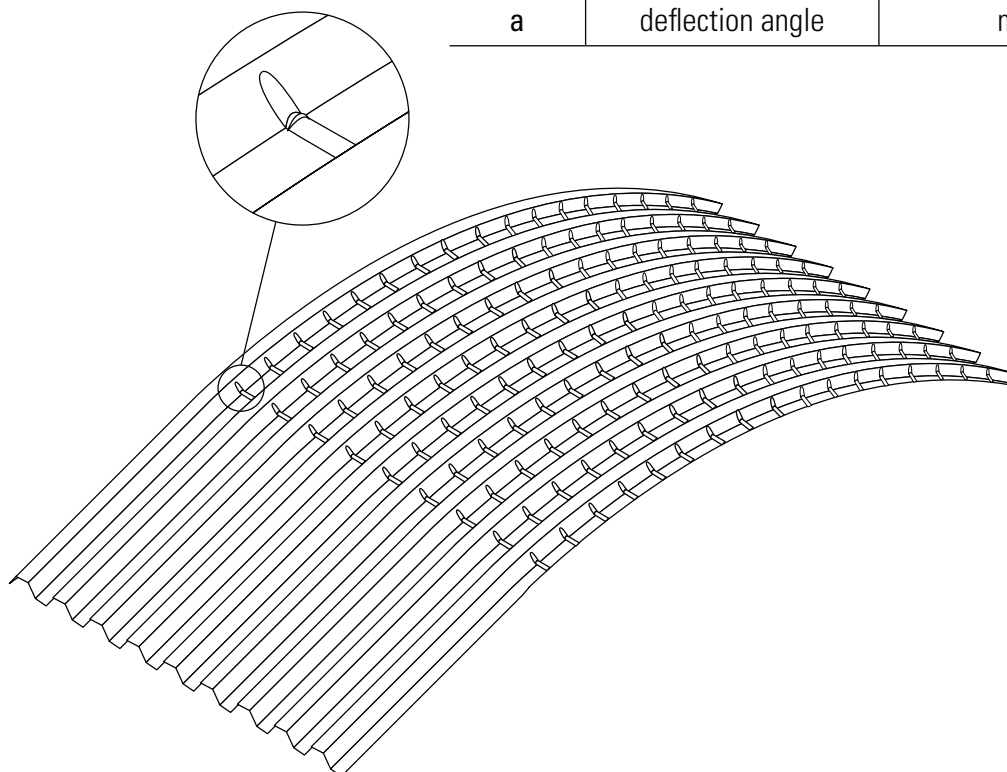
## LATERAL NOTCHING



SHEET TOOLING

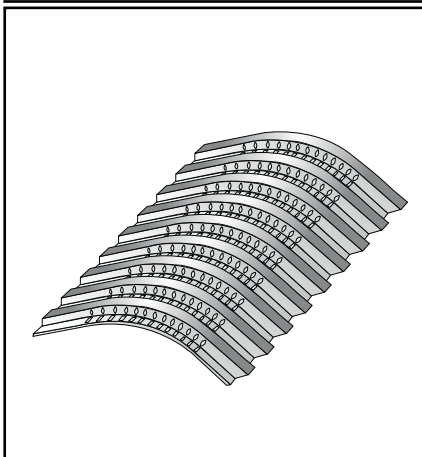
Simbologia		
A	initial section	min 50 max 2000 mm
B	end section	min 50 max 8000 mm
S	curve development	min 400 mm based on the radius
A+B+S	total development (aluminium)	max 8000 mm
A+B+S	total development (other materials)	max 8000 mm*
Ri	inside radius	min 230 mm
P	impression distance	min 25 mm
a	deflection angle	min 1° max 6°

\* non standard toolings

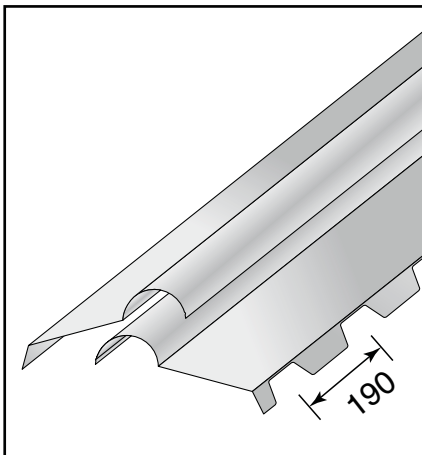
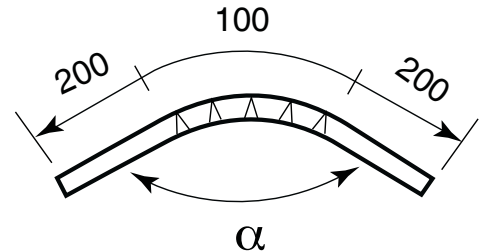


# Alubel 40 profile

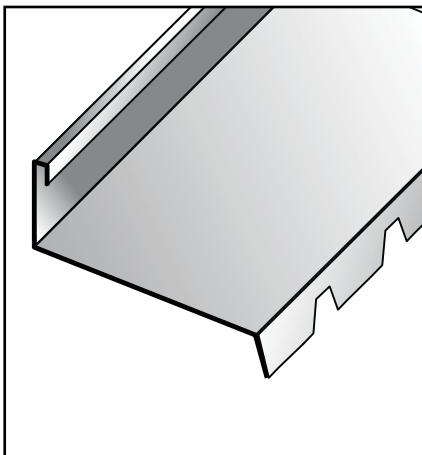
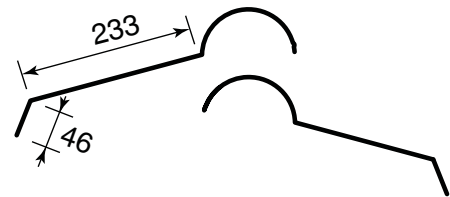
ACCESSORIES



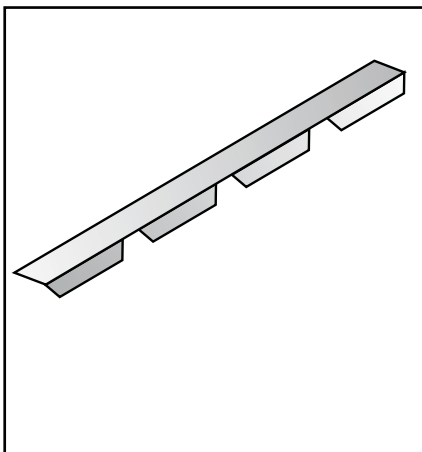
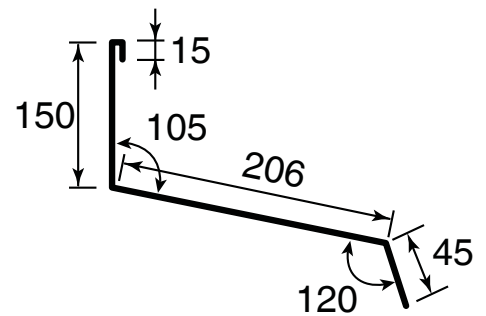
**Curved ridge**  
minimum development  
500 mm



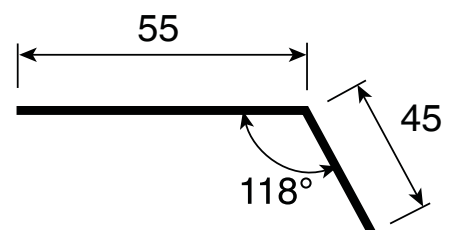
**Notched, hinged ridge**  
development 834 mm  
length 2800 mm



**Notched wall/pitch connection**  
development 416 mm

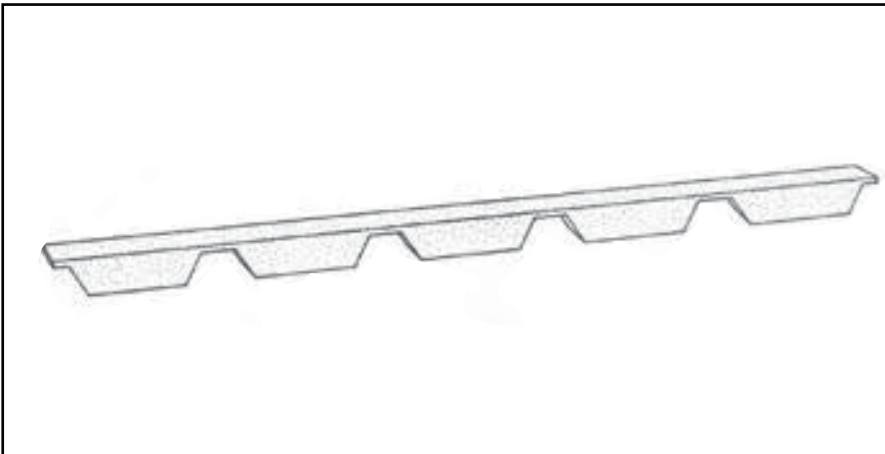


**Corrugation closure**  
development 100 mm

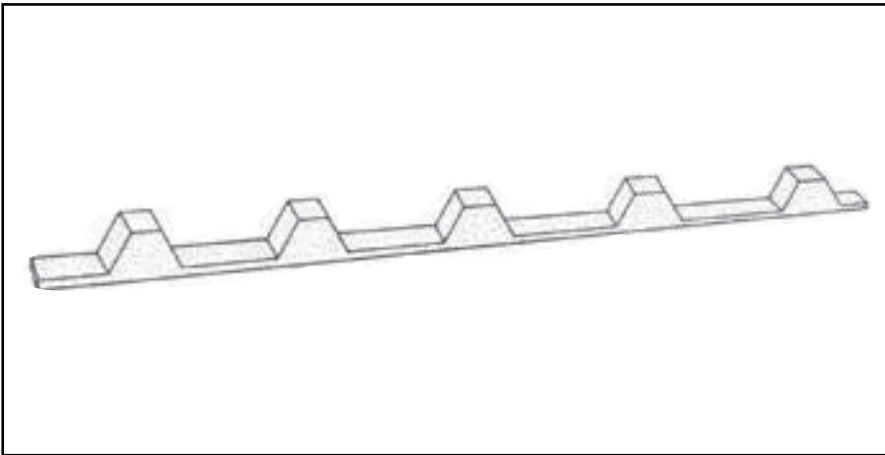


## Alubel 40 profile

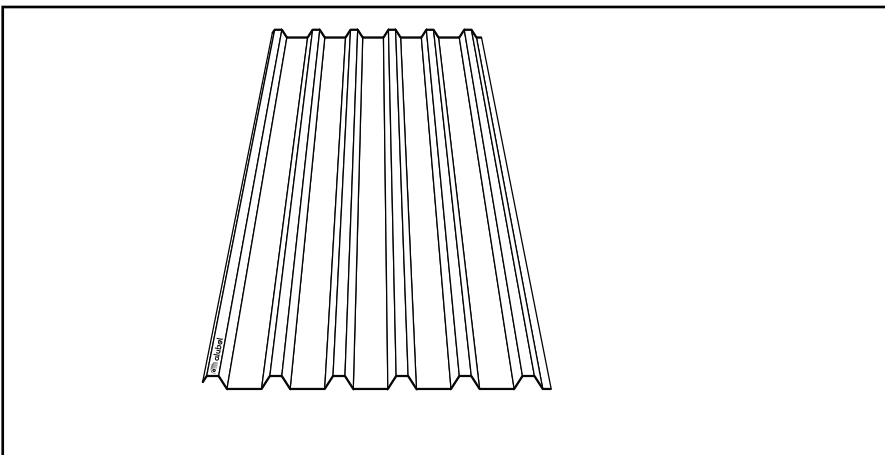
ACCESSORIES



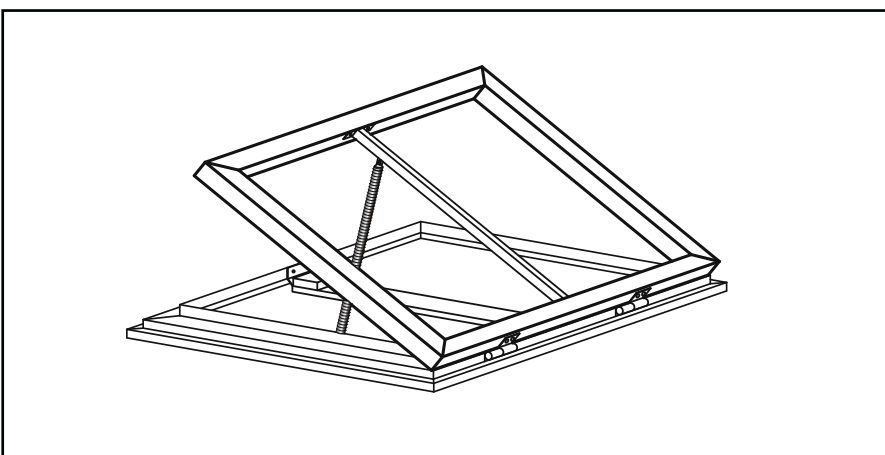
**Over corrugation seal**



**Under corrugation seal**

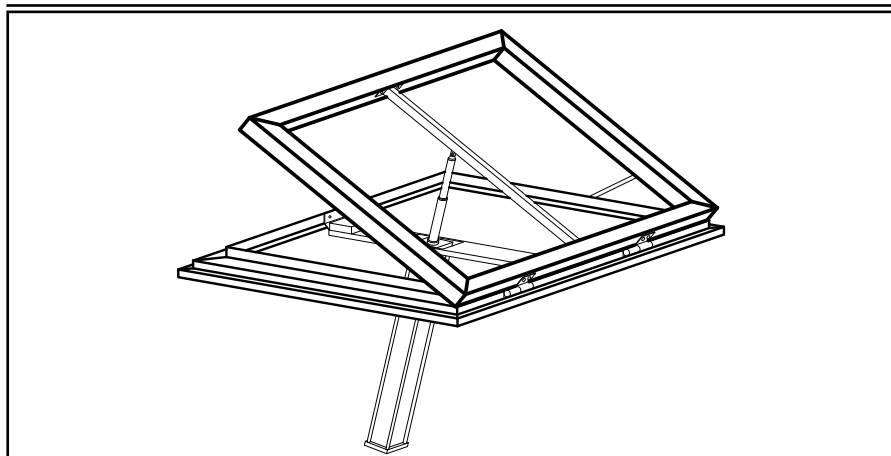


**Straight translucent sheets**  
in fibreglass with Melinex  
1,8/m<sup>2</sup> kg



**Openable frame**  
manual

## Alubel 40 profile



**Openable frame**  
electric

ACCESSORIES

# Alubel 40 profile

## OVERLAPPING VALUES

INSTALLATION INSTRUCTIONS

