# PERFORATED STRAP

## TWO THICKNESSES

Simple and effective system to achieve floor bracing. It is available in thicknesses of 1,5 and 3,0 mm.

### SPECIAL STEEL

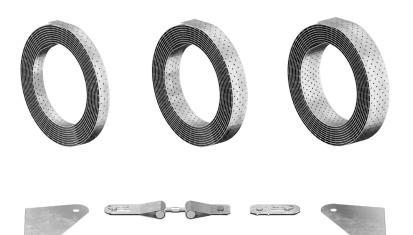
Made with S350GD high strength steel. The 1,5 mm thick version offers extreme performance to tensile forces with minimal thickness.

The CLIPFIX60 accessory allows the strap to be tensioned and anchored firmly at the ends. By using a GEKO or SKORPIO panel pullers together with the CLAMP1 accessory, the perforated strap can be tensioned.



## **USA DESIGN VALUES**

CANADA, EU and more design values available online.





### SERVICE CONDITION



### MATERIAL



**LBB 1,5 mm**: S350GD + Z275 carbon steel

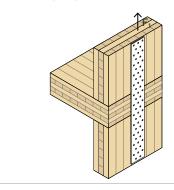


LBB 3,0 mm: S250GD + Z275 carbon steel

THICKNESS [mm] [in]

1,5 mm (0.06 in) | 3,0 mm (0.12 in)

#### **EXTERNAL LOADS**





# FIELD OF USE

Economical solution for tensile joints with small to medium stress.

Rolls of 82 ft (25 m) or 164 ft (50 m) instead allow for very long connections.

Timber-to-timber configuration.

To be used in dry condition.

Can be applied to:

- solid timber and glulam
- timber frame
- CLT and LVL panels

# ■ CODES AND DIMENSIONS

# LBB 1,5 mm

CODE	B [mm]	<b>H</b> [m]	s [mm]	B [in]	<b>H</b> [in]	s [in]	<b>n Ø5</b> <b>n Ø.20</b> [pcs]		pcs
LBB40	40	50	1,5	1 9/16	1 15/16	0.06	75/m 23 / ft.	•	1
LBB60	60	50	1,5	2 3/8	1 15/16	0.06	125/m 38 / ft.	•	1
LBB80	80	25	1,5	3 1/8	1 15/16	0.06	175/m 53 / ft.	•	1



LBB 3,0 mm

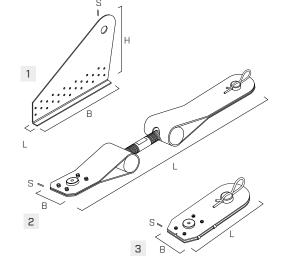
CODE	B [mm]	<b>H</b> [m]	s [mm]	<b>B</b> [in]	<b>H</b> [in]	<b>s</b> [in]	<b>n Ø5</b> <i>n Ø.20</i> [pcs]		pcs
LBB4030	40	50	3	1 9/16	1 15/16	0.12	75/m 23 / ft.	•	1



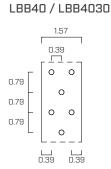
# CLIPFIX

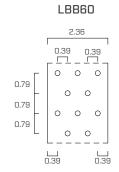
CODE	LBB type	LBB width	pcs
CLIPFIX60	LBB40   LBB60	40 mm   60 mm 1 9/16 in   2 3/8 in	1

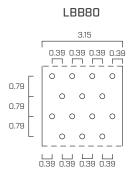
SET COMPRISED OF:	<b>B</b> [mm] [in]	<b>H</b> [mm]	<b>L</b> [mm] <i>[in]</i>	<b>s</b> [mm]	n Ø5 n Ø.20 pcs	pcs
1 Terminal plate	289 11 3/8	198 7 13/16	15 9/16	2 0.08	26	4(1)
2 Clip-Fix tensioner	60 2 3/8	-	300-350 11 3/4 - 13 3/4	2 0.08	7	2
3 Clip-Fix Terminal	60 2 3/8	-	157 <i>6 3/16</i>	2 0.08	7	2



# GEOMETRY







# **FASTENERS**

type	description			d	support
			[mm]	[in]	
LBA	high bond nail		4	0.157	27777
LBS	round head screw	(Dattitititititititi	5	0.197	27711
LBS EVO	C4 EVO round head screw	(D <b>attititititititi-</b>	5	0.197	27/11

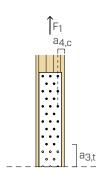
<sup>(1)</sup> The set includes two right-hand and two left-hand plates.

The Clip-Fix tensioners and terminals are compatible for installation of the LBB40 and LBB60 perforated straps.

# INSTALLATION

### MINIMUM DISTANCES

TIMBER minimum distances	nails LBA Ø4	screws LBS Ø5		
Lateral connector - unloaded edge	a <sub>4,c</sub>	[mm] [in]	10 0.39	12.5 0.49
Connector - loaded end	a <sub>3,t</sub>	[mm] [in]	40 1.57	50 1.97



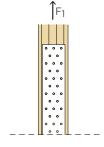
# STRUCTURAL VALUES | TIMBER-TO-TIMBER | F<sub>1</sub>

## STRENGTH OF THE SYSTEM

The tensile strength of the  $F_1$  system is the minimum between the  $F_{ax}$  plate side tensile strength and the shear resistance of the connectors used for fastening nto  $F_v$ .

If the connectors are placed in several consecutive rows and the load direction is parallel to the grain, the following sizing criteria must be applied.

$$F_1 = min \begin{cases} F_{ax} \\ n_{tot} \cdot F_v \end{cases}$$



#### TAPE - TENSILE STRENGTH

type	В		s		s net area holes	
	[mm]	[in]	[mm]	[in]	[pcs]	[lbf]
LBB 1,5 mm	40	1 9/16	1,5	0.06	2	1593
	60	2.375	1,5	0.06	3	2390
	80	3 1/8	1,5	0.06	4	3186
LBB 3,0 mm	40	1 9/16	3,0	0.12	2	2503

## CONNECTORS SHEAR RESISTANCE

For the strength  $F_v$  of the LBA Anker nails and of the LBS screws, refer to the "TIMBER SCREWS AND DECK FASTENING" catalogue.

#### **GENERAL PRINCIPLES**

- Dimensioning and verification of the timber elements must be carried out separately.
- It is recommended to place the connectors symmetrically with respect to the load direction.