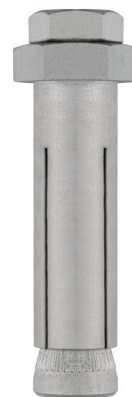




SBZ

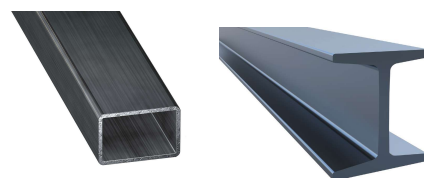


SBG

CHARACTERISTICS

- Intended use to fasten together two steel structural components, or a steel structural component and non-structural component.
- Appropriate for connecting hollow sections, when the far face of the steelwork is inaccessible.
- Suitable for rectangular, square or circular hollow sections.
- Use in static or quasi static loads.
- Easy installation.
- Require pre-drilling of the elements to be fixed.
- Available with zinc or hot dip galvanized coating.

BASE MATERIAL



SIZE

M6 - M20

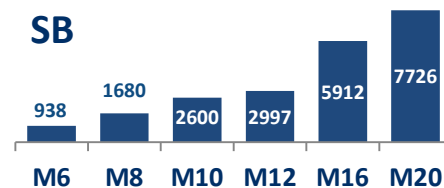
APPLICATIONS

- Fixing two steel structural components, or a steel structural component and non-structural component.
- Suitable for structural hollow sections, where the far face is inaccessible.

ASSESMENTS



MAXIMUM RECOMMENDED LOADS IN TENSION [kg]

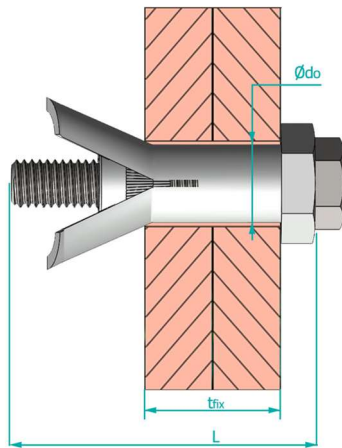


1. RANGE

ITEM	CODE	SIZE	PHOTO	COMPONENT	MATERIAL	COVERING
1	SBZ	M6 to M20		Bolt	Steel	
				Sleeve	Carbon steel	
				Cone	Carbon steel	
2	SBG	M8 to M20		Bolt	Steel	
				Sleeve	Carbon steel	
				Cone	Carbon steel	

2. INSTALLATION DATA

2.1. INSTALLATION DRAWING



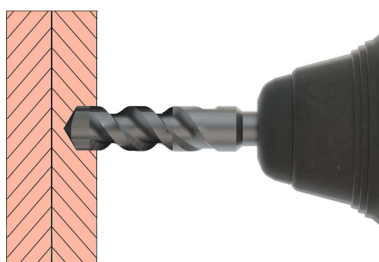
L: Anchor length
 d_0 : Hole diameter
 T_{fix} : Clamped length
 T_{ins} : Installation torque

3. INSTALLATION PARAMETERS

INSTALLATION PARAMETERS	Bolt length	Hole diameter	Clamped length		Installation torque	Socket	
			Minimum	Maximum		Sleeve	Bolt
Size	[mm]	[mm]	[mm]	[mm]	[Nm]	[-]	[-]
M6	45	10,8 - 12,0	5	23	13	17	10
M8	50	13,8 – 15,0	5	26	23	22	13
	70		26	46			
	90		46	66			
M10	50	17,8 – 19,0	5	22	45	24	17
	70		22	42			
	90		42	62			
M12	55	19,8 – 21,0	5	25	80	26	19
	80		23	50			
	100		48	70			
M16	75	25,8 – 28,0	8	35	190	36	24
	100		35	60			
	120		60	80			
M20	100	32,8 – 35,0	12	43	300	46	30
	120		43	63			
	150		63	93			

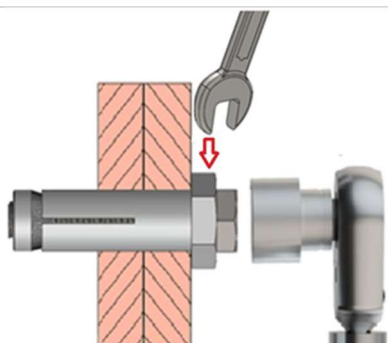
4. INSTALLATION PROCEDURE

5.1 ANCHOR INSTALLATION



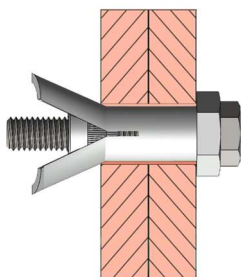
1. DRILL

Chose the anchor length considering the minimum and maximum grip lengths specified in the table above.
Check that the blind inner hollow space is enough to allocate the anchor.
Drill a hole into the steel whose dimensions are within the stated tolerance of hole diameter.
Bring into contact the faces of the components before the assembly is tightened.



2. INSTAL

Fix the hexagonal head of the sleeve with a spanner.
Select a torque wrench, with an appropriate hexagonal socket, that does exceed the installation torque T_{ins} .
An impact screw can be used for the initial tightening.
A torque wrench shall be used for final tightening to least the minimum torque value T_{ins} stated in the table above.
Do not over-tighten the anchor.



3. ANCHOR INSTALLED

The anchor fixes the components firmly after the installation.

5.RESISTANCE

5.1 CHARACTERISTIC RESISTANCE [kN]

Size	Code		Tension	Shear
	Zinc plated	HDG	N _{Rk}	V _{Rk}
M6	SBZ06045	--	16,1	20,4
M8	SBZ08050	SBG08050	28,9	36,4
	SBZ08070	SBG08070		
	SBZ08090	SBG08090		
M10	SBZ10050	SBG10050	44,7	59,2
	SBZ10070	SBG10070		
	SBZ10090	SBG10090		
M12	SBZ12055	SBG12055	51,4	80,3
	SBZ12080	SBG12080		
	SBZ12100	SBG12100		
M16	SBZ16075	SBG16075	101,5	145,6
	SBZ16100	SBG16100		
	SBZ16120	SBG16120		
M20	SBZ20100	SBG20100	132,7	229,1
	SBZ20120	SBG20120		
	SBZ20150	SBG20150		

5.2 DESIGN RESISTANCE [kN]

Size	Code		Tension	Shear
	Zinc plated	HDG	N _{Rd}	V _{Rd}
M6	SBZ06045	--	12,9	16,3
M8	SBZ08050	SBG08050	23,1	29,1
	SBZ08070	SBG08070		
	SBZ08090	SBG08090		
M10	SBZ10050	SBG10050	35,8	47,4
	SBZ10070	SBG10070		
	SBZ10090	SBG10090		
M12	SBZ12055	SBG12055	41,1	64,2
	SBZ12080	SBG12080		
	SBZ12100	SBG12100		
M16	SBZ16075	SBG16075	81,2	116,5
	SBZ16100	SBG16100		
	SBZ16120	SBG16120		
M20	SBZ20100	SBG20100	106,2	183,3
	SBZ20120	SBG20120		
	SBZ20150	SBG20150		

* Safety factor ($\gamma_{Ms} = 1,25$) .

5.3 MAXIMUM RECOMMENDED LOAD [kN] ($\gamma_F = 1,4$)

Size	Code		Tension	Shear
	Zinc plated	HDG	N _{rec}	V _{rec}
M6	SBZ06045	--	9,2	11,7
M8	SBZ08050	SBG08050	16,5	20,8
	SBZ08070	SBG08070		
	SBZ08090	SBG08090		
M10	SBZ10050	SBG10050	25,5	33,8
	SBZ10070	SBG10070		
	SBZ10090	SBG10090		
M12	SBZ12055	SBG12055	29,4	45,9
	SBZ12080	SBG12080		
	SBZ12100	SBG12100		
M16	SBZ16075	SBG16075	58,0	83,2
	SBZ16100	SBG16100		
	SBZ16120	SBG16120		
M20	SBZ20100	SBG20100	75,8	130,9
	SBZ20120	SBG20120		
	SBZ20150	SBG20150		

6. OFFICIAL DOCUMENTATION

The following documents are available on our official website www.indexfix.com:

- European assessment ETA 25/0373 for installation on structural steel elements, or on a structural steel element and another non-structural element according to guideline EAD 330001-00-0602.