

## Section 1. PRODUCT DESCRIPTION

### SLEEVE STRAIGHT/ROUND/EYE-BOLT/PIG-TAIL HOOK ANCHOR – LHP/LHS/LHO/LHH

Steel sleeve anchor LHP/LHS/LHO/LHH comprises a pin threaded over a part of its length terminated with straight/round/eye-bolt/pig-tail hook, screwed into expansion cone nut with female thread, steel drop-in sleeve with notch over a part of its length and washer and nut. Corrosion protection is ensured by galvanized zinc coating. Fixing is executed by tightening the hook with adequate torque which causes sliding of the sleeve over the expansion cone, pulling notched portions of the sleeve apart, and creates a permanent anchorage. Anchor is used for fixing of interior finish products.

#### Recommended for substrates:

- non-cracked reinforced and non-reinforced concrete of C20/25 ÷ C50/60 strength class

#### Advantages:

- fast and simple installation by driving the anchor and tightening
- ready to carry full capacity instantly
- delivered as factory integrated



LHP



LHS



LHO



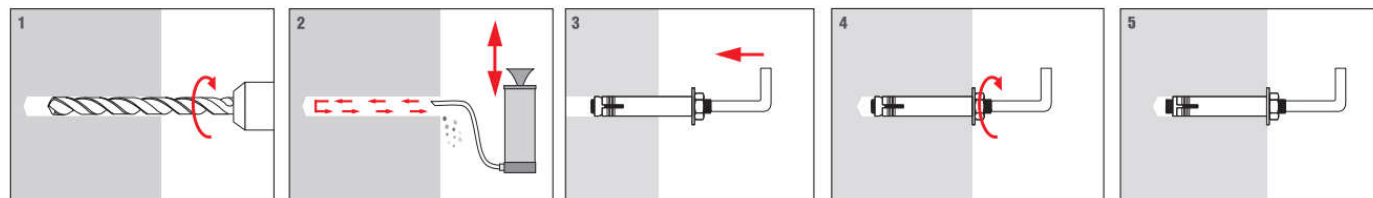
LHH



Steel anchors hold National Technical Assessment: ITB-KOT-2018/0377 Rev. 1

## Section 2. METHOD OF INSTALLATION

1. Original mechanical anchors delivered by the manufacturer can be used only
2. Before installation check whether parameters of the substrate (where anchors are to be installed) conform to parameters of the substrate used in testing, based on which characteristic loading resistances of connections were determined
3. Install anchors so that reinforcement of the substrate is not damaged
4. Before installation, indicate the drilling points where anchors are to be installed in accordance with installation guidelines
5. Then drill the holes in accordance with the parameters selected (diameter and depth of the hole), perpendicularly to the substrate
6. Clean holes with SCF brush (3x) and blow out clean with PCF pump (3x)
7. Drive anchor into the hole by light hits of a hammer and then tighten the hook by applying an adequate torque ( $T_{inst}$ ) using torque wrench
8. Note that after the anchor is expanded, the washer under the nut should be pressed against the fixed member



PRODUCT DATA SHEET – LHP/LHS/LHO/LHH

Section 3. TECHNICAL DATA

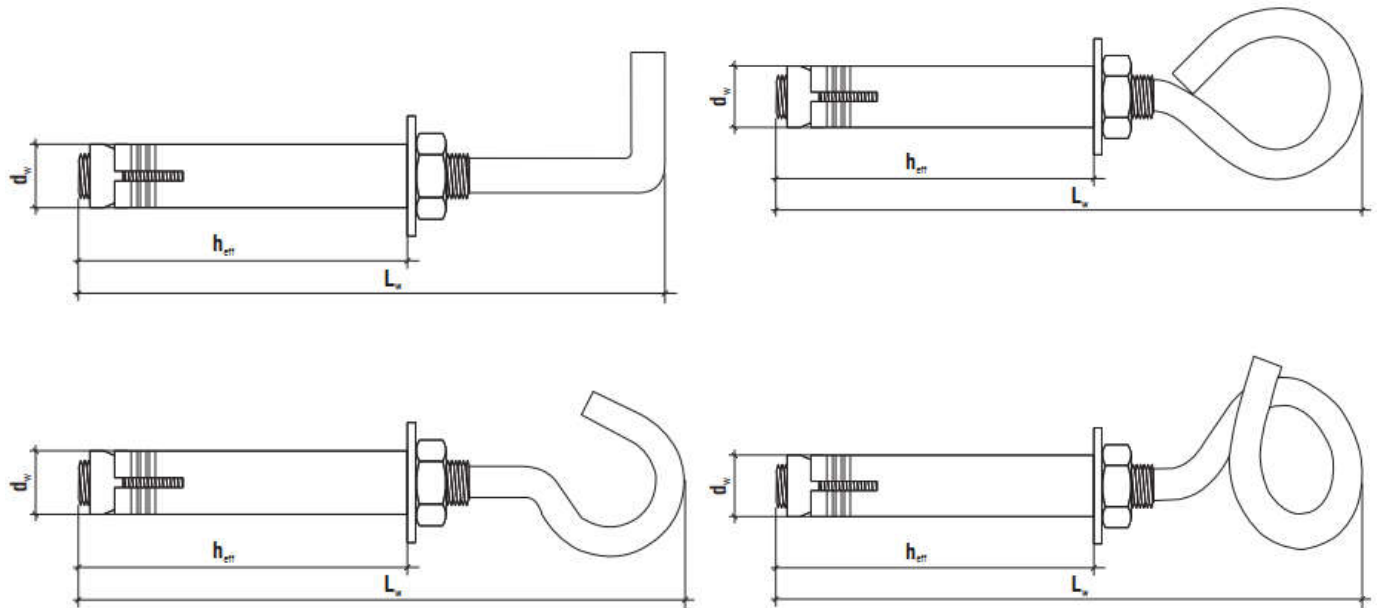


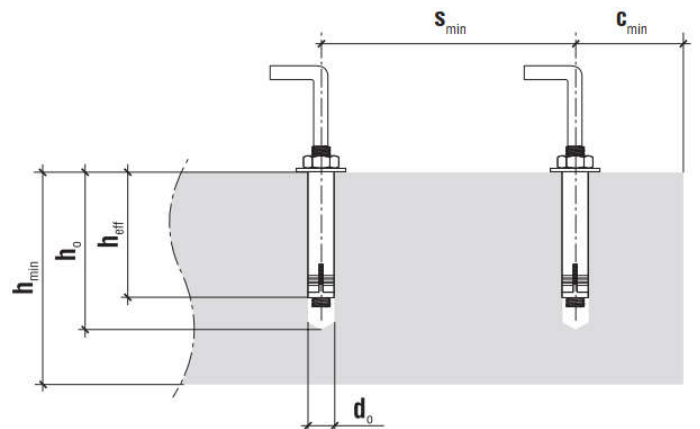
TABLE 1. TECHNICAL PARAMETERS AND INSTALLATION DATA

Parameters			Anchor size			
			M8	M10	M12	M14
Anchor diameter	$d_w$	[mm]	8	10	12	14
Hole diameter	$d_o$	[mm]	8	10	12	14
Fixed member hole diameter	$d_f$	[mm]	-	-	-	-
Min. anchorage depth	$h_{eff}$	[mm]	35	60	65	70
Min. hole depth	$h_o$	[mm]	45	70	75	90
Min. substrate thickness	$h_{min}$	[mm]	100	120	130	140
Min. spacing between anchors	$s_{min}$	[mm]	105	180	195	210
Min. distance from substrate edge	$c_{min}$	[mm]	53	90	98	105
Torque	$T_{inst}$	[Nm]	10	15	30	60
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TABLE 2. RESISTANCE

Type	Min. anchorage depth	Non-cracked concrete C20/25	
		Characteristic pull-out strength	Characteristic shear strength
	$h_{eff}$ [mm]	$N_{R,k}$ [kN]	$V_{R,k}$ [kN]
LH-8	35	0.75	0.75
LH-10	60	1.5	1.5
LH-12	65	3.5	3.5
LH-14	70	5.5	5.5

\*Recommended partial safety factor of:  
 2.52 (pull-out) / 1.25 (shear)



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TABLE 3. SELECTION TABLE					
Product code	Anchor diameter and length	Max. thickness of fixed member	Thread	Nut head type	Pieces per pack
	$d_w \times L_w$ [mm]	$t_{fix}$ [mm]	[-]	[-]	[pcs.]
LHP-10090	10 x 90	-	M6	SW-10	20
LHP-12120	12 x 120	-	M8	SW-13	25
LHS-08085	8 x 85	-	M5	SW-8	25
LHS-10115	10 x 115	-	M6	SW-10	30
LHS-12130	12 x 130	-	M8	SW-13	15
LHO-12140	12 x 140	-	M8	SW-13	15
LHO-14195	14 x 195	-	M10	SW-17	20
LHH-12140	12 x 140	-	M8	SW-13	15

**Section 4. REMARKS**

1. All previous versions of this Product Data Sheet shall cease to be valid
2. Data given in this Product Data Sheet is in accordance with current knowledge and published in good faith. KLIMAS Sp. z o.o. is not responsible for correctness and quality of the fixing if recommendations regarding method of use and installation are not followed.