

HOR

Description: **SCREWS FOR CONCRETE**

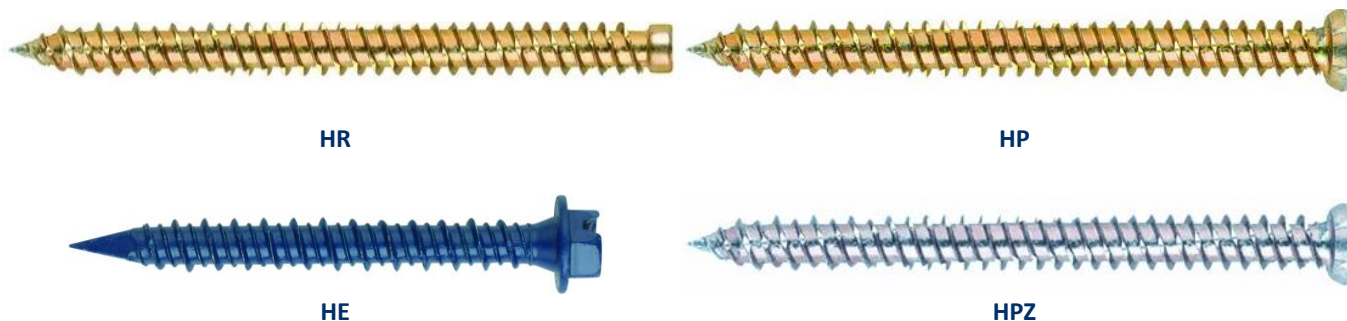
Codes: **HR, HP, HPZ, HE**

Denomination: **FT HOR-en**

Date: **08/06/15**

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CHARACTERISTICS

- Cylindrical head HR, countersunk HP, HPZ or hexagonal with stamped washer HE.
- Tx recess (HR, HP and HPZ screws) and hexagonal + slotted (HE screw)
- Special high-low 60° / 30° grooved thread (HP, HPZ and HR screws) and high-low 60° / 40°, grooved thread (HE screw).
- Covering: zinc plated yellow passivated (HR and HP screws), zinc plated (HPZ screw) and blue ruspert (HE screw) which provides a higher corrosion resistance.
- It does not transmit expansion forces to concrete.
- Requires pilot hole.
- Grooves under the head of HP and HPZ screws, which allows a direct countersunk in soft materials during drilling
- Optional: black or brown cap for HP and HPZ screws.
- Optional: galvanized EPDM washer $\varnothing 16$ mm for HE screw to ensure watertightness.

APPLICATIONS

For fixing elements (sándwich pannels, door and window frames, etc...)directly to concrete, solid bricks or wood (HR, HP and HPZ screws), and to concrete, solid bricks, blocks or premanufactured panels (HE screw).

Web datasheet:



HP / HPZ / HR



HE

BASE MATERIALS



EXAMPLE OF APPLICATION



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1. RANGE

ITEM	PICTURE	CODE	SIZE	MATERIAL
1		HR	7.5 x 72 Ø6 7.5 x 92 Ø6 7.5 x 112 Ø6 7.5 x 132 Ø6	Zinc plated yellow passivated hardened steel ISO 4042 A1K Hexalobular Tx 25 recess round head
2		HP	7.5 x 72 Ø6 7.5 x 92 Ø6 7.5 x 112 Ø6 7.5 x 132 Ø6 7.5 x 152 Ø6 7.5 x 182 Ø6	Zinc plated yellow passivated hardened steel ISO 4042 A1K Hexalobular Tx 30 recess countersunk head
3		HPZ	7.5 x 72 Ø6 7.5 x 92 Ø6 7.5 x 112 Ø6 7.5 x 132 Ø6 7.5 x 152 Ø6 7.5 x 182 Ø6 7.5 x 212 Ø6	Zinc plated hardened steel ISO 4042 A2J Hexalobular Tx 30 recess countersunk head
4		HE	6.5 x 32 Ø5 6.5 x 45 Ø5 6.5 x 57 Ø5 6.5 x 70 Ø5 6.5 x 80 Ø5 6.5 x 100 Ø5 6.5 x 125 Ø5	Blue Ruspert hardened Steel, diamond point shape. #8 Hexagonal slotted head and stamped washer.

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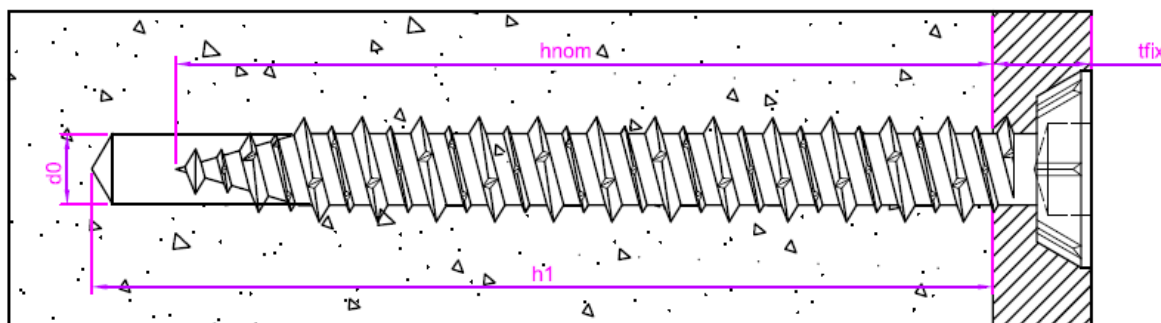
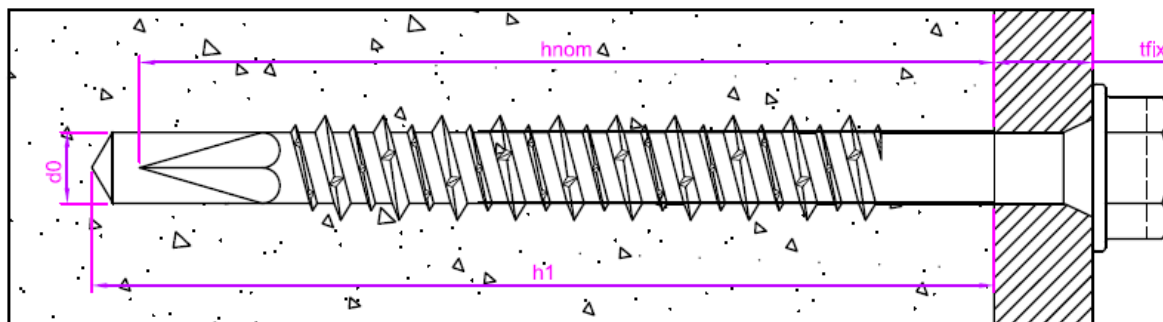
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2. INSTALLATION DATA



CODE	Head diameter d_k [mm]	Head thickness k [mm]	Thread diameter D [mm]	Length l [mm]	Fixture thickness t_{fix} [mm] ≤	Maximum torque T_{ins} [Nm]	Embedment depth h_c [mm] ≥	Pilot hole d_0 [mm]	Recess
HR75072	8	3	7.5	72	32	15	40	6	Tx 25 (PUTO025)
HR75092				92	52				
HR75112				112	72				
HR75132				132	92				
HP75072	11	3	7.5	72	32	20	40	6	Tx 30 (PUTO030)
HP75092				92	52				
HP75112				112	72				
HP75132				132	92				
HP75152				152	112				
HP75182				182	142				
HP75212				212	172				
HPZ75072	11	3	7.5	72	32	20	40	6	Tx 30 (PUTO030)
HPZ75092				92	52				
HPZ75112				112	72				
HPZ75132				132	92				
HPZ75152				152	112				
HPZ75182				182	142				
HPZ75212				212	172				
HE65032	Slotted hexagonal head with stamped washer $\varnothing$ 11.3	5	6.5	32	2	12	30	5	Hexagonal magnetic bit (BOCA008) and flat screwdriver
HE65045				45	15				
HE65057				57	27				
HE65070				70	40				
HE65080				80	50				
HE65100				100	70				
HE65125				125	95				

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3. RECOMMENDED LOADS

Maximum recommended load in C20/25* concrete for an isolated screw (nor spacing neither edge distance effects) is as per this table:

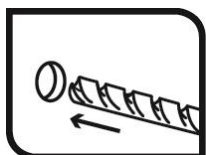
CODE		TENSION LOAD [KN]
	HR75XXX	1.00
	HP75XXX	
	HPZ75XXX	
	HE65XXX	0.65

1KN ≈ 100 Kg

* C20/25 concrete as per ENV206: characteristic resistance for ≥ 28 days old:

- Cylindrical sample specimen Ø 150 mm. x 300 height ≥ 200 N/mm²
- Cubic simple specimen 150 mm. side ≥ 250 N/mm²

4. PRODUCT INSTALLATION



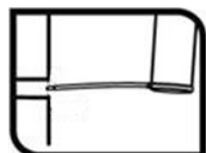
1. DRILL THE HOLE

Check that the concrete is compact and porosity insignificant.

To be used in dry, wet and flooded holes.

Both drilling and hammering modes must be turned on in the drilling machine.

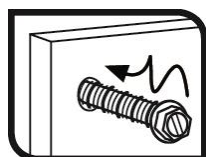
Hole diameter and length specified must be used.



2. BLOW AND CLEAN

It is necessary to clean the holes thoroughly free of dust and debris.

Air pump and brush must be used.



3. INSTALLATION

Thread the screw until the head reaches the material to fix.