pre-setting heavy duty anchors

Vorpa **AVZ**

Steel anchor

concrete | natural stone | solid brick

products group

AVZ
no accessories

AVZ BU
with 8.8 hexagonal head screw

AVZ OS
with eyebolt

Suitable for
- concrete
- natural stone
- solid brick

To fix
- stairs
- window elements
- railings and balustrades
- pipes
- steel structures
- gates
- façades
- machineries
- bars

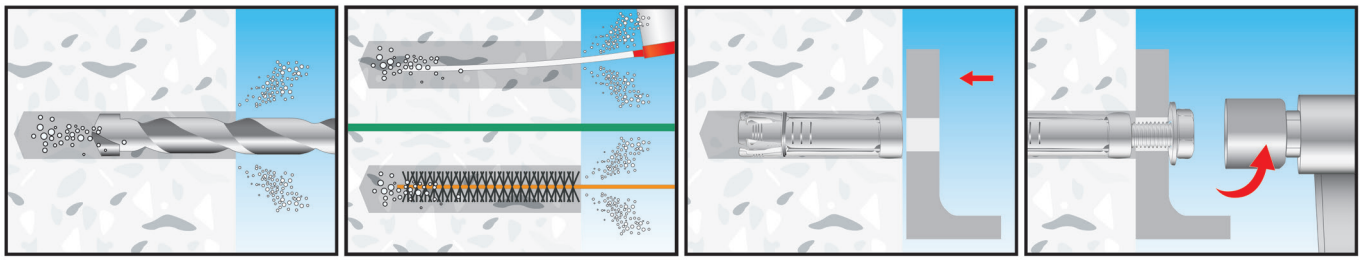
product information

Characteristics
- steel anchor composed of 4 segments anti-rotation cold formed body, expansion conical nut and accessory
- anti-rotation during the installation procedure
- smooth expansion thanks to the four segments body
- suitable for applications on poor-quality concrete and non-homogeneous materials
- high expansion and grip

Installation
- pre-setting anchor

Suggestion for use
- choose the right size of the anchor according to the load
- always check load bearing capacity values in the table
- respect the installation data
- **clean the hole before the installation**

installation sequence



Examples of applications

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product code and technical data

AVZ
no accessories

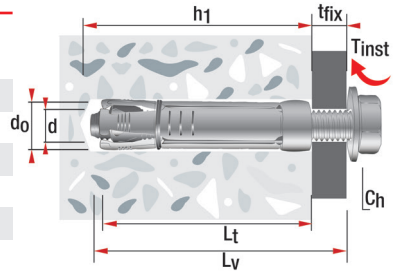
Code	Description	L_t mm	For screws mm	d_0 mm	h_1 mm
831	AVZ 6	40	M6	10	50
832	AVZ 8	50	M8	14	60
833	AVZ 10	60	M10	16	70
834	AVZ 12	80	M12	20	90
835	AVZ 16	100	M16	25	110

AVZ BU
with 8.8 hexagonal head screw

Code	Description	L_t mm	Screw d x L_v mm	d_0 mm	h_1 mm	t_{fix} max mm	T_{inst} Nm	Ch
841	AVZ 6 BU	40	M6x55	10	50	15	10	10
842	AVZ 8 BU	50	M8x70	14	60	20	25	13
843	AVZ 10 BU	60	M10x80	16	70	20	50	17
844	AVZ 12 BU	80	M12x100	20	90	20	85	19
845	AVZ 16 BU	100	M16x130	25	110	25	150	24

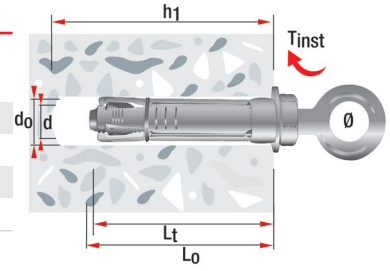
AVZ OS
with eyebolt

Code	Description	L_t mm	Eyebolt d x L_o mm	d_0 mm	h_1 mm	T_{inst} Nm	Ø
3280	AVZ 6 OS	40	M6x55	10	50	15	10±0,5
3281	AVZ 8 OS	50	M8x60	14	60	20	11,8±0,5
3282	AVZ 10 OS	60	M10x73	16	70	20	14,5±0,5
3283	AVZ 12 OS	80	M12x90	20	90	6	17±0,5



Screw length calculation:
$L_v = L_t + t_{fix}$

h_1 = Min. hole depth
L_t = Anchor length
L_v = Screw length
d_0 = Hole diameter
d = Screw diameter
t_{fix} = Fixture thickness
t_{inst} = Torque
Ch = Spanner
L_0 = Eyebolt length



AVZ

			AVZ M6	AVZ M8	AVZ M10	AVZ M12	AVZ M16
Critical axial spacing	S_{cr}	mm	200	220	260	320	440
Critical edge distance	C_{cr}	mm	100	100	130	160	220
Minimum axial spacing	S_{min}	mm	80	80	100	130	170
Minimum edge distance	C_{min}	mm	50	50	65	80	110
Minimum structural thickness	h_{min}	mm	100	100	150	160	220

Permissible loads - applications in concrete C20/25 — **1 daN≙1 kg**

AVZ BU	daN	330	450	530	750	1200
AVZ OS	daN	140	240	360	600	

- Always respect the installation parameters
- In case of axial spacings or edge distances are inferior than the critical ones, it is recommended to reduce the application load
- The table shows the permissible loads for tension, shear and combined tension and shear loads