



non cracked  
concrete

# Vorpa VE.A

Steel anchor

products group



VE.A

**Suitable for**  
• concrete

**To fix**

- steel beams
- sections
- plates
- heavy structural works
- plants engineering
- railings and balustrades
- gates



VE.A INOX A2



VE.A INOX A4



VE.A ZG  
Geomet



VE.A M  
VE.A M INOX A2  
with internal thread



Test report available



product information

**Characteristics**

- through steel anchor composed of steel pin, nut, washer and expansion clip
- the version with internal thread VE.A M to be used with bolts of any metrical length
- high load values and fast setting
- VE.A ZG for outdoor use and damp conditions
- reduced hole diameter
- suitable for through-setting applications in concrete
- thread diameter and hole diameter are the same
- reinforced anchor's head to avoid damaging the thread during the installation

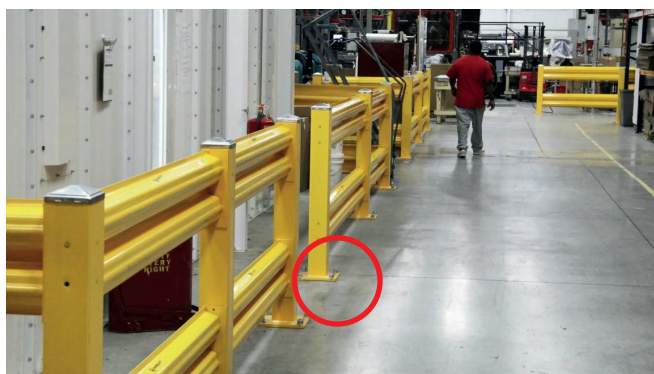
**Installation**

- through-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**

Examples of applications



heavy duty anchors

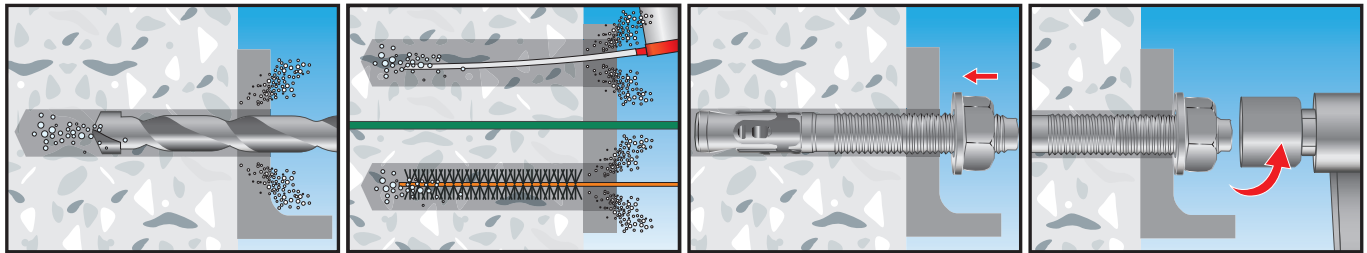
# Vorpa VE.A

Steel anchor

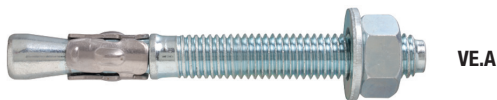


non cracked concrete

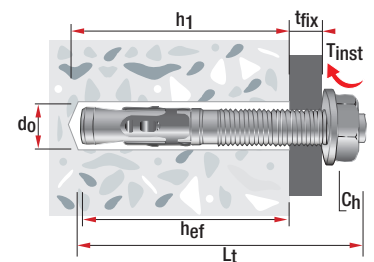
installation sequence



product code and technical data



Code	Description	$L_t$ mm	$d_o$ mm	$h_1$ mm	$t_{fix}$ max mm	$T_{inst}$ Nm	Ch
1601	VE.A 6/5-50	50	6	35	6	10	10
1594	VE.A 6/7-55	55	6	40	7	10	10
1602	VE.A 6/10-65	65	6	50	10	10	10
1625	VE.A 6/25-80	80	6	50	25	10	10
1603	VE.A 6/40-100	100	6	55	40	10	10
1639	VE.A 6/70-130	130	6	55	70	10	10
1621	VE.A 8/1-50	50	8	40	1	20	13
1604	VE.A 8/5-55	55	8	40	5	20	13
51604	VE.A 8/10-60	60	8	40	10	20	13
1605	VE.A 8/15-75	75	8	55	15	20	13
1618	VE.A 8/25-90	90	8	55	25	20	13
1606	VE.A 8/50-115	115	8	55	50	20	13
51605	VE.A 8/70-130	130	8	55	70	20	13
51606	VE.A 8/100-160	160	8	55	100	20	13
51607	VE.A 8/120-180	180	8	55	120	20	13
51609	VE.A 8/140-200	200	8	55	140	20	13
51630	VE.A 8/180-240	240	8	55	180	20	13
51631	VE.A 8/220-280	280	8	55	220	20	13
51632	VE.A 8/260-320	320	8	55	260	20	13
1607	VE.A 10/5-65	65	10	50	5	45	17
51608	VE.A 10/10-80	80	10	60	10	45	17
1608	VE.A 10/20-90	90	10	60	20	45	17
5626	VE.A 10/30-100	100	10	60	30	45	17
1609	VE.A 10/50-120	120	10	60	50	45	17
1614	VE.A 10/70-140	140	10	60	70	45	17
1641	VE.A 10/100-170	170	10	60	100	45	17
1643	VE.A 10/140-210	210	10	60	140	45	17
1610	VE.A 12/10-75	75	12	55	10	65	19
1626	VE.A 12/15-90	90	12	65	15	65	19
5611	VE.A 12/20-100	100	12	80	20	65	19
1611	VE.A 12/20-110	110	12	80	20	65	19
1640	VE.A 12/30-120	120	12	80	30	65	19
1612	VE.A 12/50-145	145	12	85	50	65	19
1627	VE.A 12/65-160	160	12	85	65	65	19
1613	VE.A 12/85-180	180	12	85	85	65	19
1637	VE.A 12/100-200	200	12	85	100	65	19
1687	VE.A 14/10-100	100	14	85	10	85	22
5621	VE.A 14/15-110	110	14	85	15	85	22
5622	VE.A 14/30-145	145	14	110	30	85	22



- $L_t$  = Anchor length
- $h_{ef}$  = Effective anchorage depth
- $h_1$  = Min. hole depth
- $d_o$  = Hole diameter
- $t_{fix}$  = Fixture thickness
- $T_{inst}$  = Torque
- Ch = Spanner

Follows on the next page

# Vorpa VE.A

Steel anchor



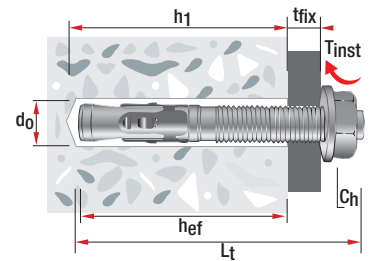
non cracked concrete

product code and technical data



VE.A

Code	Description	$L_t$ mm	$d_0$ mm	$h_1$ mm	$t_{fix}$ max mm	$T_{inst}$ Nm	Ch
5623	VE.A 14/60-175	175	14	105	60	85	22
1629	VE.A 16/5-90	90	16	70	5	115	24
1615	VE.A 16/10-110	110	16	85	10	115	24
1636	VE.A 16/20-125	125	16	90	20	115	24
1616	VE.A 16/30-145	145	16	100	30	115	24
1620	VE.A 16/60-175	175	16	100	60	115	24
1638	VE.A 16/90-200	200	16	100	90	115	24
1617	VE.A 16/105-220	220	16	100	105	115	24
1624	VE.A 20/15-145	145	20	110	15	135	30
618	VE.A 20/30-170	170	20	120	30	135	30
1644	VE.A 20/60-200	200	20	120	60	135	30
619	VE.A 20/80-220	220	20	120	80	135	30
1628	VE.A 20/130-270	270	20	120	130	135	30
1619	VE.A 24/25-180	180	24	135	25	155	36
1642	VE.A 24/100-260	260	24	135	100	155	36
1690	VE.A 24/180-350	350	24	135	180	155	36



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VE.A INOX A2



Code	Description	$L_t$ mm	$d_0$ mm	$h_1$ mm	$t_{fix}$ max mm	$T_{inst}$ Nm	Ch
2601	VE.A A2 6/10-45	45	6	30	10	10	10
2600	VE.A A2 6/5-55	55	6	45	5	10	10
2602	VE.A A2 6/10-65	65	6	50	10	10	10
2603	VE.A A2 6/20-85	85	6	60	20	10	10
52604	VE.A A2 8/1-50	50	8	40	1	20	13
2604	VE.A A2 8/5-55	55	8	40	5	20	13
2605	VE.A A2 8/15-75	75	8	55	15	20	13
2618	VE.A A2 8/25-90	90	8	55	25	20	13
2627	VE.A A2 8/30-95	95	8	55	30	20	13
2606	VE.A A2 8/50-115	115	8	55	50	20	13
52120	VE.A A2 8/140-200	200	8	55	140	20	13
2607	VE.A A2 10/5-65	65	10	50	5	45	17
2617	VE.A A2 10/10-75	75	10	60	10	45	17
2608	VE.A A2 10/20-90	90	10	60	20	45	17
2609	VE.A A2 10/50-120	120	10	60	50	45	17
2610	VE.A A2 12/10-75	75	12	55	10	65	19
2613	VE.A A2 12/20-80	80	12	50	20	65	19
5607	VE.A A2 12/15-90	90	12	80	15	65	19
5608	VE.A A2 12/20-100	100	12	80	20	65	19
2611	VE.A A2 12/25-110	110	12	80	25	65	19
2630	VE.A A2 12/30-120	120	12	80	30	65	19
2611S	VE.A A2 12/35-130	130	12	85	35	65	19
2612	VE.A A2 12/50-145	145	12	85	50	65	19
2629	VE.A A2 16/5-90	90	16	70	5	115	24
2615	VE.A A2 16/20-110	110	16	75	20	115	24
2619	VE.A A2 16/35-125	125	16	75	35	115	24
2616	VE.A A2 16/30-145	145	16	100	30	115	24
2620	VE.A A2 16/65-175	175	16	100	65	115	24



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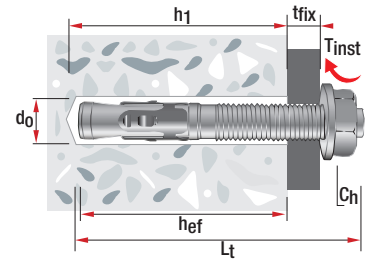
Steel anchor

product code and technical data



VE.A INOX A2

Art.	Descrizione	$L_t$ mm	$d_0$ mm	$h_1$ mm	$t_{fix}$ max mm	$T_{inst}$ Nm	Ch
2621	VE.A A2 20/20-160	160	20	120	20	155	28
2622	VE.A A2 20/40-180	180	20	120	40	155	28



VE.A INOX A4



Code	Description	$L_t$ mm	$d_0$ mm	$h_1$ mm	$t_{fix}$ max mm	$T_{inst}$ Nm	Ch
13750	VE.A A4 6/10-55	55	6	40	10	10	10
13751	VE.A A4 6/25-85	85	6	55	25	10	10
13752	VE.A A4 8/10-65	65	8	45	10	20	13
13753	VE.A A4 8/20-75	75	8	55	20	20	13
13774	VE.A A4 8/45-105	105	8	55	45	20	13
13765	VE.A A4 8/50-115	115	8	55	50	20	13
13780	VE.A A4 8/55-120	120	8	55	55	20	13
13754	VE.A A4 8/80-130	130	8	45	80	20	13
13755	VE.A A4 10/10-65	65	10	45	10	45	17
13776	VE.A A4 10/15-75	75	10	60	15	45	17
13756	VE.A A4 10/20-90	90	10	60	20	45	17
13781	VE.A A4 10/30-100	100	10	60	30	45	17
13757	VE.A A4 10/50-120	120	10	60	50	45	17
13766	VE.A A4 10/60-130	130	10	60	60	45	17
13775	VE.A A4 10/70-140	140	10	60	70	45	17
13777	VE.A A4 12/20-80	80	12	50	20	65	19
13758	VE.A A4 12/10-100	100	12	80	10	65	19
52611	VE.A A4 12/20-110	110	12	80	20	65	19
13767	VE.A A4 12/25-120	120	12	90	25	65	19
13759	VE.A A4 12/50-145	145	12	80	50	65	19
13760	VE.A A4 12/80-180	180	12	90	80	65	19
13763	VE.A A4 16/5-100	100	16	80	5	115	24
13768	VE.A A4 16/10-110	110	16	85	10	115	24
13778	VE.A A4 16/35-125	125	16	80	35	115	24
13761	VE.A A4 16/50-145	145	16	100	50	115	24
13762	VE.A A4 16/60-175	175	16	100	60	115	24
13769	VE.A A4 20/30-175	175	20	125	30	135	28

- $L_t$  = Anchor length
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- $h_1$  = Min. hole depth
- $d_0$  = Hole diameter
- $t_{fix}$  = Fixture thickness
- $T_{inst}$  = Torque
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Examples of applications



# Vorpa VE.A

Steel anchor



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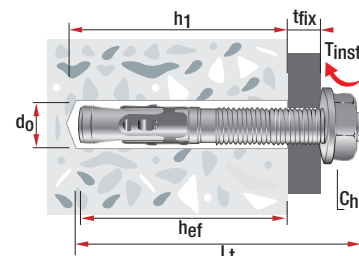
product code and technical data



VE.A ZG Geomet

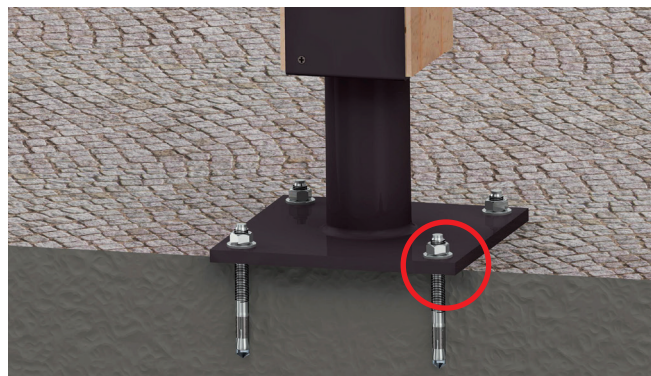
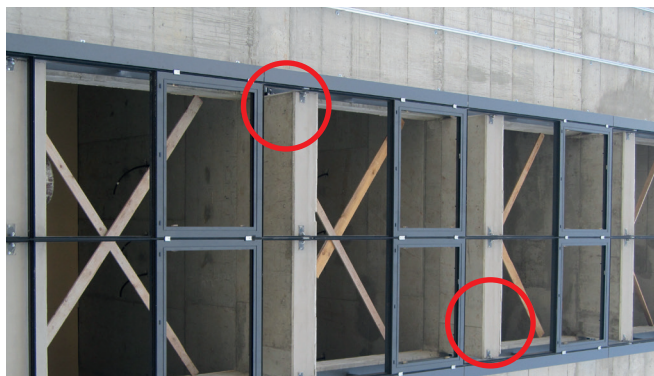
HOT DIPPED GALVANIZED

Code	Description		L <sub>t</sub> mm	d <sub>0</sub> mm	h <sub>1</sub> mm	t <sub>fix</sub> max mm	T <sub>inst</sub> Nm	Ch
54604	VE.A ZG	8/3-65	65	8	40	3	20	13
54605	VE.A ZG	8/10-80	80	8	55	10	20	13
54606	VE.A ZG	8/30-100	100	8	55	30	20	13
54620	VE.A ZG	8/50-115	115	8	55	50	20	13
54607	VE.A ZG	10/5-80	80	10	50	5	40	17
54617	VE.A ZG	10/15-90	90	10	60	15	40	17
54621	VE.A ZG	10/45-120	120	10	60	45	40	17
54611	VE.A ZG	12/20-110	110	12	80	20	50	19
54612	VE.A ZG	12/50-145	145	12	80	50	50	19
54622	VE.A ZG	12/90-180	180	12	80	90	50	19
54615	VE.A ZG	16/10-125	125	16	85	10	125	24
54616	VE.A ZG	16/35-150	150	16	100	35	125	24
54618	VE.A ZG	20/30-160	160	20	120	30	135	30
54619	VE.A ZG	24/20-180	180	24	135	20	155	36



- L<sub>t</sub> = Anchor length
- h<sub>ef</sub> = Effective anchorage depth
- h<sub>1</sub> = Min. hole depth
- d<sub>0</sub> = Hole diameter
- t<sub>fix</sub> = Fixture thickness
- T<sub>inst</sub> = Torque
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Examples of applications



VE.A

			VE.A M6	VE.A M8	VE.A M10	VE.A M12	VE.A M14	VE.A M16	VE.A M20	VE.A M24
Critical axial spacing	S <sub>cr</sub>	mm	180	190	220	300	340	380	440	520
Critical edge distance	C <sub>cr</sub>	mm	70	80	100	120	150	170	240	240
Minimum axial spacing	S <sub>min</sub>	mm	90	95	110	150	170	190	220	290
Minimum edge distance	C <sub>min</sub>	mm	35	40	50	60	75	85	105	115
Minimum structural thickness	h <sub>min</sub>	mm	100	100	100	150	180	180	210	240
Through hole in the object to be fixed		mm	7	9	12	14	16	18	22	26

Permissible loads - applications in concrete C20/25										1 daN ≈ 1 kg
VE.A	daN	245	420	520	770	850	950	1390	1850	

- 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

heavy duty anchors