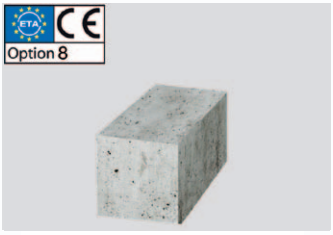
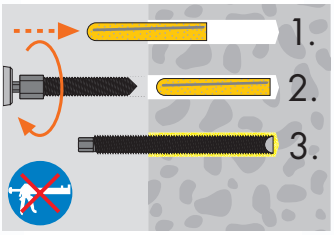
# MVA Resin Capsule

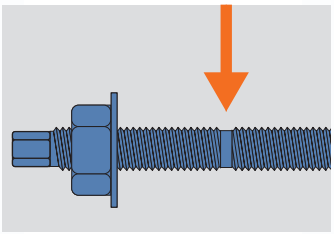




**European Technical Approval**

European Technical Approval
Option 8 for non-cracked concrete




**Quick and simple installation**



**MVA-S / MVA-Sr**

Setting depth mark for correct installation


**Temperature resistance**

from -40°C up to +80°C.

# **MVA** Resin Capsule, Epoxy-Acrylate

## Features

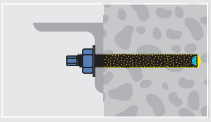
- European Technical Approval Option 8 for non-cracked concrete
- Small edge and spacing distances
- Temperature range short term: -40°C - +80°C
- Temperature range long term: -40°C - +50°C
- Anchor rod with 45° end
- Indoor (zinc plated) and outdoor (stainless steel) applications


Option 8

## Applications

steel constructions, cable trays, guard rails, substructures, machines





## Technical Data

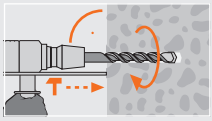
| | Concrete C20/25 tension load (kN) galv. 5.8 | Concrete C20/25 tension load (kN) A4-70 | Concrete C20/25 shear load (kN) galv. 5.8 | Concrete C20/25 shear load (kN) A4-70 | Bending moment (Nm) galv. 5.8 | Bending moment (Nm) A4-70 | Distance betw. anchors mm s | Edge distance mm c | Min. distance betw. anchors mm $s_{min}$ | Min. edge distance mm $c_{min}$ | Minimum thickness of concrete member mm $h_{min}$ | Installation torque (Nm) $T_{inst}$ | Wrench size SW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M8 | 8 | 8 | 5 | 6 | 10.8 | 11.9 | 240 | 120 | 40 | 40 | 110 | 10 | 13 |
| M10 | 12 | 12 | 8 | 9 | 21.1 | 23.8 | 180 | 90 | 45 | 45 | 120 | 20 | 17 |
| M12 | 16 | 16 | 12 | 13 | 37.1 | 42.1 | 220 | 110 | 55 | 55 | 140 | 40 | 19 |
| M14 | 18 | 18 | 16 | 18 | 51.8 | 58.1 | 240 | 120 | 60 | 60 | 150 | 60 | 22 |
| M16 | 20 | 20 | 22 | 25 | 94.9 | 106.7 | 250 | 125 | 65 | 65 | 160 | 80 | 24 |
| M20/135 | 24 | 24 | 35 | 39 | 185.7 | 207.9 | 280 | 140 | 85 | 85 | 220 | 120 | 30 |
| M20/175 | 30 | 30 | 35 | 39 | 185.7 | 207.9 | 340 | 170 | 85 | 85 | 220 | 120 | 30 |
| M24 | 36 | 36 | 50 | 57 | 320.6 | 359.4 | 420 | 210 | 105 | 105 | 260 | 180 | 36 |
| M30 | 60 | 60 | 80 | 80 | 642 | 720 | 560 | 280 | 140 | 140 | 340 | 300 | 46 |

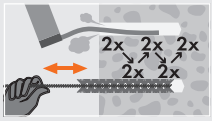
The partial safety factors of the resistances as well as a partial safety factor of the load of γF = 1.4 are considered / M14 + M20/135 + M30; Not part of the approval / The technical data is only valid for single fixings without consideration of edge and anchor distances / 1 kN ≈ 100 kg

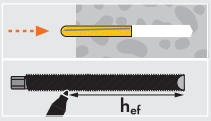
## Temperatures

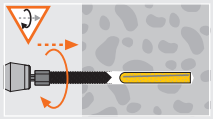
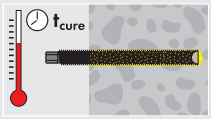
| | ≥ -5°C | ≥ +0°C | ≥ +5°C | ≥ +10°C | ≥ +20°C | ≥ +30°C | ≥ +35°C |
|---|---|---|---|---|---|---|---|
| Curing time, dry in minutes ($t_{cure}$) | 5 h | 5 h | 1 h | 1 h | 20 | 10 | 10 |
| Curing time, wet in minutes ($t_{cure}$) | 10 h | 10 h | 2 h | 2 h | 40 | 20 | 20 |

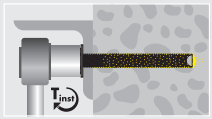
## Installation










| Article code | For MVA-S(r) | Capsule length mm L | Drilling hole ∅ mm $d_0$ | Drilling depth mm $h_0$ | Box content | Outer carton |
|---|---|---|---|---|---|---|
| [8] 1610008 | M8 | 80 | 10 | 80 | 10 | 500 |
| [8] 1610010 | M10 | 80 | 12 | 90 | 10 | 500 |
| [8] 1610012 | M12 | 95 | 14 | 110 | 10 | 200 |
| 1610014 | M14 | 95 | 16 | 120 | 10 | 200 |
| [8] 1610016 | M16 | 95 | 18 | 125 | 10 | 200 |
| 1602211 | M20 | 135 | 24 | 140 | 6 | 60 |
| [8] 1610020 | M20 | 175 | 25 | 170 | 6 | 60 |
| [8] 1610024 | M24 | 210 | 28 | 210 | 6 | 60 |
| 1610030 | M30 | 270 | 35 | 280 | 6 | 30 |

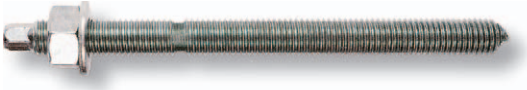
[8] European Technical Approval with MVA-S, MVA-Sr

**MVA** Resin Capsule, Epoxy-Acrylate


| Article code | Thread d | Thread length mm $L_G$ | Usable length mm $t_{fix}$ | Hex-nut SW | Drive SW | Box content |
|---|---|---|---|---|---|---|
| 1650008 | M8 | 110 | 15 | 13 | 5 | 10 |
| 1651508 | M8 | 150 | 55 | 13 | 5 | 10 |
| 1650010 | M10 | 130 | 20 | 17 | 6 | 10 |
| 1651710 | M10 | 170 | 65 | 17 | 6 | 10 |
| 1650012 | M12 | 160 | 30 | 19 | 8 | 10 |
| 1652212 | M12 | 220 | 90 | 19 | 8 | 10 |
| 1652612 | M12 | 260 | 130 | 19 | 8 | 10 |
| 1653012 | M12 | 300 | 170 | 19 | 8 | 10 |
| 1650014 | M14 | 170 | 40 | 22 | 10 | 10 |
| 1650016 | M16 | 190 | 40 | 24 | 10/12 | 10 |
| 1652316 | M16 | 230 | 80 | 24 | 10/12 | 10 |
| 1652616 | M16 | 260 | 110 | 24 | 10/12 | 10 |
| 1653016 | M16 | 300 | 150 | 24 | 10/12 | 10 |
| 1652020 | M20 | 230 | 40 | 30 | - | 6 |
| 1652026 | M20 | 260 | 70 | 30 | - | 6 |
| 1652430 | M24 | 300 | 65 | 36 | - | 6 |
| 1653038 | M30 | 380 | 70 | 46 | - | 1 |

Each box of Anchor Rods incl. a setting tool (M8-M16)
M8 to M16 with external hexagon socket

**MVA-S** Anchor Rod, zinc plated, steel quality 5.8
with hex-nut and washer DIN 125A



## **MVA-Sr** Anchor Rod, stainless steel A4-70/316 with hex-nut and washer DIN 125A

| Article code | Thread d | Thread length mm $l_G$ | Usable length mm $t_{fix}$ | Hex-nut SW | Drive SW | Box content |
|---|---|---|---|---|---|---|
| 1660008 | M8 | 110 | 15 | 13 | 5 | 10 |
| 1661508 | M8 | 150 | 55 | 13 | 5 | 10 |
| 1660010 | M10 | 130 | 20 | 17 | 6 | 10 |
| 1661710 | M10 | 170 | 65 | 17 | 6 | 10 |
| 1660012 | M12 | 160 | 30 | 19 | 8 | 10 |
| 1662212 | M12 | 220 | 90 | 19 | 8 | 10 |
| 1662612 | M12 | 260 | 130 | 19 | 8 | 10 |
| 1663012 | M12 | 300 | 170 | 19 | 8 | 10 |
| 1660016 | M16 | 190 | 40 | 24 | 10/12 | 10 |
| 1662316 | M16 | 230 | 80 | 24 | 10/12 | 10 |
| 1662616 | M16 | 260 | 110 | 24 | 10/12 | 10 |
| 1663016 | M16 | 300 | 150 | 24 | 10/12 | 10 |
| 1662020 | M20 | 230 | 40 | 30 | - | 6 |
| 1662026 | M20 | 260 | 70 | 30 | - | 6 |
| 1662430 | M24 | 300 | 65 | 36 | - | 6 |
| 1663038 | M30 | 380 | 70 | 46 | - | 1 |

Each box of Anchor Rods incl. a setting tool (M8-M16)
M8 to M16 with external hexagon socket

## **MVA-WZ** Setting Tool for rods without drive

| Article code | For | Box content |
|---|---|---|
| 1665008 | M8 | 1 |
| 1665010 | M10 | 1 |
| 1665012 | M12 | 1 |
| 1665014 | M14 | 1 |
| 1665016 | M16 | 1 |
| 1665020 | M20 | 1 |
| 1665024 | M24 | 1 |
| 1665030 | M30 | 1 |

## **MVA-I** Anchor Sleeve with internal thread, steel quality 5.8

| Article code | Internal thread d | Capsule | Drilling hole ∅ mm $d_0$ | Drilling depth mm $h_0$ | Min. screw in mm $hs_{min}$ | Max. screw in mm $hs_{max}$ | Installation torque (Nm) $T_{inst}$ max | Box content FS |
|---|---|---|---|---|---|---|---|---|
| 1670008 | M8 | M12 | 15 | 90 | 12 | 30 | 6 | 10 01 |
| 1670010 | M10 | M16 | 18 | 90 | 15 | 35 | 12 | 10 01 |
| 1670012 | M12 | M16 | 22 | 90 | 18 | 40 | 20 | 10 21 |
| 1670016 | M16 | M20/135 | 28 | 125 | 24 | 40 | 45 | 10 21 |
| 1670020 | M20 | M24 | 35 | 180 | 40 | 60 | 100 | 10 51 |

## **MVA-Ir** Anchor Sleeve with internal thread, stainless steel A4/316

| Article code | Internal thread d | Capsule | Drilling hole ∅ mm $d_0$ | Drilling depth mm $h_0$ | Min. screw in mm $hs_{min}$ | Max. screw in mm $hs_{max}$ | Installation torque (Nm) $T_{inst}$ max | Box content FS |
|---|---|---|---|---|---|---|---|---|
| 1670108 | M8 | M12 | 15 | 90 | 12 | 30 | 6 | 10 01 |
| 1670110 | M10 | M16 | 18 | 90 | 15 | 35 | 12 | 10 01 |
| 1670112 | M12 | M16 | 22 | 90 | 18 | 40 | 20 | 10 21 |
| 1670116 | M16 | M20/135 | 28 | 125 | 24 | 40 | 45 | 10 21 |
| 1670120 | M20 | M24 | 35 | 180 | 40 | 60 | 100 | 10 51 |