Bolt anchor IMC

Affordable express anchor bolt for a secure hold. Approved for concrete (uncracked).

Long Description

The Upat express anchor bolt IMC is a true powerhouse and a cost-effective alternative among bolt anchors. This steel anchor is particularly suitable for fastening medium to heavy loads in uncracked concrete and dense natural stone. The express anchor bolt IMC is commonly used for fastening barriers, benches and pumps, for example.

Characteristics

- Certification/Approval: ETA Option 7 Concrete uncracked
- Load Range: Tension load 2.9-25.2 kN, shear load 6.9-38.6 kN
- Material: Stainless Steel (R), zinc plated steel (zp)
- Variant: Standard, Short (K), large washer (GS)
- Feature: Thread M6-M20, usable length 5-300mm
- Accessories: Blow-out pump UPM AB

Applications

- Bike racks
- Benches
- Barrier
- Support feet
- Stadium seats
- Pumps

Advantages

- Secure anchoring: ETA approval Option 7. Versatile use for secure anchoring in uncracked concrete
- Near-edge fastening: The unit of cone and expansion clip allows for minimal edge and axial distances
- Easy installation: Shaft with optimized diameter for low insertion energy.
- Protected thread: Pronounced insertion pin protects the thread from damage during installation
- Secure post-installation inspection: The head embossing allows for post-installation inspection

Materials

Approved for:

- Concrete C20/25 to C50/60, uncracked

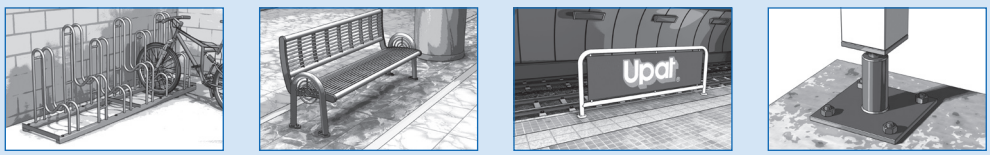
Also suitable for:

- Concrete C12/15
- Natural stone with dense structure

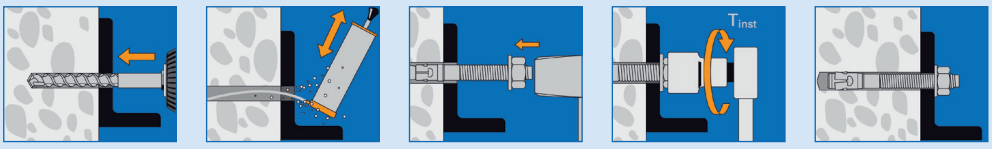
Straight to the product

upat.com/en-imc

Application examples



Assembly



Bolt anchor IMC

Product variants

Product	Art.-No. (zp)	Art.-No. (R)	Anchor length	Drill diameter	Thread	Installation torque	Max. usable length h_{ef},stand/h_{ef},min.	Min. drill hole depth for through fixings	Width across nut	Washer (outer diameter x thickness)	Anchoring depth h_{ef},stand/h_{ef},min.	ETA approval	Sales unit (zp)	Sales unit (R)
IMC 6/10	509007	509033	55	6	M6	4	10 / -	50	10	12 x 1.6	105 / 80	✓	100	100
IMC 8/5	509008	-	65	8	M8	15	5 / 15	61	13	16 x 1.6	40 / 30	✓	100	-
IMC 8/10	509009	509035	70	8	M8	15	10 / 20	66	13	16 x 1.6	40 / 30	✓	100	100
IMC 8/20	509010	-	80	8	M8	15	20 / 30	76	13	16 x 1.6	40 / 30	✓	100	-
IMC 8/30	509011	509036	90	8	M8	15	30 / 40	86	13	16 x 1.6	40 / 30	✓	100	100
IMC 8/50	509012	509037	110	8	M8	15	50 / 60	106	13	16 x 1.6	40 / 30	✓	100	100
IMC 8/100	509013	-	160	8	M8	15	100 / 110	156	13	16 x 1.6	40 / 30	✓	50	-
IMC 10/10	509014	509039	85	10	M10	30	10 / 20	78	17	20 x 2	40 / 30	✓	50	50
IMC 10/20	509015	509040	95	10	M10	30	20 / 30	88	17	20 x 2	40 / 30	✓	50	50
IMC 10/30	509016	509041	105	10	M10	30	30 / 40	98	17	20 x 2	50 / 40	✓	50	50
IMC 10/50	509017	509042	125	10	M10	30	50 / 60	118	17	20 x 2	50 / 40	✓	50	50
IMC 10/100	509018	509043	175	10	M10	30	100 / 110	168	17	20 x 2	50 / 40	✓	50	50
IMC 12/10	509019	509045	104	12	M12	50	10 / 25	95	19	18 x 2	65 / 50	✓	20	20
IMC 12/20	509020	509046	114	12	M12	50	20 / 35	105	19	18 x 2	65 / 50	✓	20	20
IMC 12/30	509021	-	124	12	M12	50	30 / 45	115	19	18 x 2	65 / 50	✓	20	-
IMC 12/50	509022	509047	144	12	M12	50	50 / 65	135	19	18 x 2	65 / 50	✓	20	20
IMC 12/100	509023	509048	194	12	M12	50	100 / 115	185	19	18 x 2	65 / 50	✓	20	20
IMC 12/120	519032	-	214	12	M12	50	120 / 135	205	19	—	65 / 50	✓	20	-
IMC 12/140	519033	-	234	12	M12	50	140 / 155	225	19	—	65 / 50	✓	20	-
IMC 12/160	519034	-	254	12	M12	50	160 / 175	245	19	—	65 / 50	✓	20	-
IMC 12/180	519035	-	274	12	M12	50	180 / 195	265	19	—	65 / 50	✓	10	-
IMC 12/200	519036	-	294	12	M12	50	200 / 215	285	19	—	65 / 50	✓	10	-
IMC 12/250	519037	-	344	12	M12	50	250 / 265	335	19	—	65 / 50	✓	10	-
IMC 16/10	-	547086*	128	16	—	80	—	—	24	—	—	—	-	10
IMC 16/25	509024	547087*	143	16	M16	100	25 / 40	129	24	30 x 3	70 / 50	✓	20	10
IMC 16/50	509025	509049	168	16	M16	100	50 / 65	154	24	30 x 3	70 / 50	✓	20	10
IMC 16/100	509026	-	218	16	M16	100	100 / 115	204	24	30 x 3	80 / 65	✓	10	-
IMC 16/140	519038	-	258	16	M16	100	140 / 155	244	24	—	80 / 65	✓	10	-
IMC 16/160	519039	-	278	16	M16	100	160 / 175	264	24	—	80 / 65	✓	10	-
IMC 16/200	519040	-	318	16	M16	100	200 / 215	304	24	—	80 / 65	✓	10	-
IMC 16/250	519041	-	368	16	M16	100	250 / 265	354	24	—	80 / 65	✓	10	-
IMC 16/300	519042	-	418	16	M16	100	300 / 315	404	24	—	80 / 65	✓	10	-
IMC 20/30	509027	-	187	20	M20	200	30 / 55	165	30	37 x 3	80 / 65	✓	10	-
IMC 20/60	509028	-	217	20	M20	200	60 / 85	195	30	37 x 3	85 / 65	✓	10	-
IMC 12/80 GS	522468	-	174	12	M12	50	80 / 95	165	19	44 x 4	65 / 50	✓	20	-
IMC 12/100 GS	522467	-	194	12	M12	50	100 / 115	185	19	44 x 4	65 / 50	✓	20	-
IMC 12/120 GS	522463	-	214	12	M12	50	120 / 135	205	19	44 x 4	65 / 50	✓	20	-
IMC 12/140 GS	522465	-	234	12	M12	50	140 / 155	225	19	44 x 4	65 / 50	✓	10	-
IMC 12/160 GS	522466	-	254	12	M12	50	160 / 175	245	19	44 x 4	65 / 50	✓	10	-
IMC 12/180 GS	522474	-	274	12	M12	50	180 / 195	265	19	44 x 4	65 / 50	✓	10	-
IMC 12/200 GS	522464	-	294	12	M12	50	200 / 215	285	19	44 x 4	65 / 50	✓	10	-
IMC 12/250 GS	522470	-	344	12	M12	50	250 / 265	335	19	44 x 4	65 / 50	✓	10	-
IMC 16/100 GS	522473	-	218	16	M16	100	100 / 115	204	24	56 x 5	80 / 65	✓	10	-
IMC 16/140 GS	522469	-	258	16	M16	100	140 / 155	244	24	56 x 5	80 / 65	✓	10	-
IMC 16/160 GS	522472	-	278	16	M16	100	160 / 175	264	24	56 x 5	80 / 65	✓	10	-
IMC 16/200 GS	522471	-	318	16	M16	100	200 / 215	304	24	56 x 5	80 / 65	✓	10	-
IMC 16/250 GS	522476	-	368	16	M16	100	250 / 265	354	24	56 x 5	80 / 65	✓	10	-
IMC 16/300 GS	522475	-	418	16	M16	100	300 / 315	404	24	56 x 5	80 / 65	✓	10	-
IMC 8/5 K	509029	509034	55	8	M8	15	5 / -	51	13	16 x 1.6	30 / -	✓	100	100
IMC 10/5 K	509030	509038	70	10	M10	30	5 / -	63	17	20 x 2	40 / -	✓	50	50
IMC 12/5 K	509031	509044	84	12	M12	50	5 / -	75	19	18 x 2	50 / -	✓	20	20
IMC 16/15 K	509032	-	118	16	M16	100	15 / -	104	24	30 x 3	65 / -	✓	20	-

Stainless steel (R/A4): For fastening outdoors or in damp rooms
Galvanised steel (zp/gvz): For fastening in dry indoor areas
Short (K): The short version of the bolt anchor reduces the drill hole depth and the risk of hitting reinforcement, enabling quick installation while saving costs
Large washer (GS): The large washer protects the surface of the attachment and prevents cutting into wood.
* Note: Available upon request. Not part of the standard product range.

Bolt anchor IMC

Product variants

Product	Art.-No. (hdg)	Anchor length	Drill diameter	Thread	Installation torque	Max. usable length $h_{ef,stand}/h_{ef,min.}$	Min. drill hole depth for through fixings	Width across nut	Washer (outer diameter x thickness)	Anchoring depth $h_{ef,stand}/h_{ef,min.}$	ETA approval	Sales unit (zp)
IMC 8/10 HDG	578095	70	8	M8	15	10 / 20	66	13	16 x 1.6	40 / 30	—	50
IMC 8/30 HDG	578096	90	8	M8	15	30 / 40	86	13	16 x 1.6	40 / 30	—	50
IMC 8/50 HDG	578098	110	8	M8	15	50 / 60	106	13	16 x 1.6	40 / 30	—	50
IMC 10/10 HDG	577883	85	10	M10	30	10 / 20	78	17	20 x 2	40 / 30	—	50
IMC 10/30 HDG	577884	105	10	M10	30	30 / 40	98	17	20 x 2	40 / 30	—	50
IMC 10/50 HDG	578087	125	10	M10	30	50 / 60	118	17	20 x 2	50 / 40	—	20
IMC 12/10 HDG	578088	104	12	M12	50	10 / 25	95	19	18 x 2	65 / 50	—	20
IMC 12/30 HDG	548514	—	—	—	—	—	—	—	—	—	—	20
IMC 12/30 HDG	578089	124	12	M12	50	30 / 45	115	19	18 x 2	65 / 50	—	20
IMC 12/50 HDG	578091	144	12	M12	50	50 / 65	135	19	18 x 2	65 / 50	—	20
IMC 16/25 HDG	578093	143	16	M16	100	25 / 40	129	24	30 x 3	70 / 50	—	10
IMC 16/50 HDG	578094	168	16	M16	100	50 / 60	154	24	30 x 3	70 / 50	—	10
IMC 8/5 K HDG	578097	55	8	M8	15	- / 5	51	13	16 x 1.6	- / 30	—	50
IMC 10/5 K HDG	577885*	70	10	M10	30	- / 5	63	17	20 x 2	40	—	50
IMC 12/5 K HDG	578090	84	12	M12	35	- / 5	—	19	18 x 2	50 / -	—	20
IMC 16/5 K HDG	578092	118	16	M16	100	- / 15	104	24	30 x 3	65 / -	—	10

Stainless steel (R/A4): For fastening outdoors or in damp rooms
Galvanised steel (zp/gvz): For fastening in dry indoor areas
Short (K): The short version of the bolt anchor reduces the drill hole depth and the risk of hitting reinforcement, enabling quick installation while saving costs
Large washer (GS): The large washer protects the surface of the attachment and prevents cutting into wood.
* Note: Available upon request. Not part of the standard product range.

Load table

Permissible loads of a single anchor[1] in normal concrete of strength class C20/25
For the design the complete current assessment ETA-10/0169 has to be considered.

Type	Material / surface[2]	Effective anchorage depth	Minimum member thickness	Installation torque	Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
		h_{ef}	h_{min}	T_{inst}	N_{perm}[3]	V_{perm}[3]	s_{min}[3]	c_{min}[3]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]
IMC 8	zp	30	100	15	2.9	6.9	40	40
	zp	40	100	15	5.9	7.6	40	40
	R	30	100	10	2.9	6.9	50	45
	R	40	100	10	5.9	7.3	40	45
IMC 10	zp	40	100	30	5.9	12	50	80
	zp	50	100	30	8.3	12	50	50
	R	40	100	20	5.9	11.6	50	80
	R	50	100	20	8.3	11.6	70	55
IMC 12	zp	50	100	50	8.3	17.9	70	100
	zp	65	120	50	12.3	17.9	70	70
	R	50	100	35	8.3	15.7	70	100
	R	65	120	35	12.3	15.7	70	70
IMC 16	zp	65	120	100	12.3	28.2	90	120
	zp	80	160	100	16.8	31.5	90	90
	R	65	120	80	12.3	28.2	90	120
	R	80	160	80	16.8	29.1	120	80
IMC 20	zp	80	160	200	16.8	38.3	120	120
	zp	105	200	200	25.2	38.3	120	120
	R	80	160	150	16.8	38.6	140	120
	R	105	200	150	25.2	19.1	120	120

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, galvanised steel zp; for damp interior stainless steel R and exterior conditions, e.g. material 1.4362, 1.4401.

[3] In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend to use our anchor design software DesignFiX.