Hexagon flange head self-drilling screw

Drill point and thread for fastening in one operation. Dimensions and tolerances refer to the stated execution; materials, finishes and drilling conditions are described separately.

DIN 7504 K

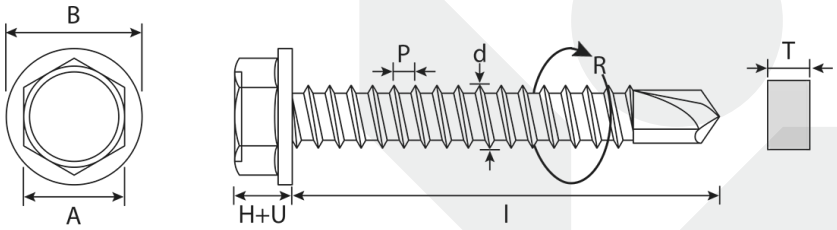
Reference: DIN 7504 K · Thread: Self-drilling · Drive: External hexagon · Units: mm



Representative geometry photograph. Material and finish are specified separately.

Technical drawing and legend

Ambrovit reference execution 81170



A	Width across flats
B	Flange or wafer head diameter
H+U	Combined head and flange height
d	External thread diameter
P	Thread pitch
R	Indicative driving speed (rpm)
T	Drilling capacity for the specified execution
l	Required length, to be specified in the quotation

Drawing not to scale.

Dimensions

Dimensions in mm, except drive size. Min./Max. and approximate values (~) follow the Ambrovit catalogue for this execution and do not automatically apply to other versions. * Diameter identified by the manufacturer as having a thread-forming thread.

Nominal diameter	Limit	A	B	H+U	d	P
3,5	Min.	5,32	7,60	3,20	3,43	~1,27
3,5	Max	5,50	8,30	3,45	3,53	~1,27
3,9	Min.	5,32	7,60	3,20	3,78	~1,34
3,9	Max	5,50	8,30	3,45	3,91	~1,34
4,2	Min.	6,78	8,20	4,00	4,09	~1,41
4,2	Max	7,00	8,80	4,25	4,22	~1,41
4,8	Min.	7,78	9,80	4,15	4,65	~1,59
4,8	Max	8,00	10,50	4,45	4,80	~1,59
5,5 *	Min.	7,78	10,00	5,15	5,31	~1,81
5,5 *	Max	8,00	11,00	5,45	5,46	~1,81
6,3 *	Min.	9,78	12,20	6,15	6,10	~1,80
6,3 *	Max	10,00	13,20	6,45	6,25	~1,80

Materials and finishes

Executions documented by the named suppliers. Dueemme confirms material, coating and actual availability in the quotation. Not every combination applies to every diameter or geometry.

Material	Finish / execution	Reference
C1022 steel	zinc plating with Cr3 passivation	Ambrovit 81170
Stainless steel A2 / A4	To be specified in the quotation	King
Stainless steel A1 / A2; A4	Executions for soft metals; finish to be specified	Tobsteel K
1018-1022 steel	Cr3 zinc plating	Kilton 045
Bimetal: A2 stainless body, case-hardened carbon steel point	Steel Saver / Silver	Tecfi BIM02

Documentation

Document	Status
Declaration of conformity	Subject to order agreement
Material certificate	Subject to order agreement
EN 10204 2.2 test report	Subject to order agreement
EN 10204 3.1 inspection certificate	Subject to order agreement
Dimensional inspection report	Subject to order agreement
Coating report	Subject to order agreement
Other documentation	Subject to order agreement

Batch documents are not automatically included: specify your requirements in the RFQ.

Drilling and application conditions

The R and T values below apply only to the Ambrovit C1022 steel execution. R is an indicative laboratory value: speed, substrate thickness and strength must be checked for the application. Where T depends on length, capacity is specified for the requested execution.

Diameter	R (rpm)	T (mm) / condition
3,5	2.000	To be determined from the point and required length
3,9	2.000	To be determined from the point and required length
4,2	2.000	To be determined from the point and required length
4,8	2.000	To be determined from the point and required length
5,5 *	2.000	4,00
6,3 *	2.000	6,00

Declared hardness for Ambrovit 81170: surface HV ≥ 560; core HV 330-425. For diameter 6.3: core HV 270-425. Solid stainless executions for soft metals, such as aluminium, do not inherit case-hardened steel drilling values. Bimetallic screws require separate verification of the body and drill point. Tecfi AB01 additionally documents a zinc plated case-hardened steel execution: maximum capacity 8 mm, minimum substrate 2 mm, speed 1000-1800 rpm. These data apply specifically to Tecfi and do not replace the Ambrovit table. For the specific Tecfi BIM02 bimetallic version: maximum capacity 6 mm, minimum substrate 2 mm, speed 1000-1800 rpm. Dimensions and performance must be confirmed against the Tecfi sheet for the requested execution.

Family references: DIN 7504 K; UNI 8117; ISO 15480. Check the edition and execution when ordering: catalogue references do not imply interchangeability of every dimension.

Technical references

Ambrovit 81170 · King · Tobsteel · Kilton 045 · Tecfi BIM02 · Inoxmare · Bossard BN 33019 · Tecfi AB01