conical countersink 90° solid carbide

application:
for 90° screw head countersinking or deburring holes.

advantage:
- very wide range
- many shaft designs and shapes
- very long service life through high-quality solid carbide cutting material

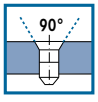
VHM

		P 700 N/mm²	P 1000 N/mm²	P 1300 N/mm²	M	N	K	S	H	H 65HRC		page
11501705-724	Conical countersink, 90°, solid carbide, triple cutter, extremely uneven pitch For universal use up to 60 HRC	●	●	●	●	●	●	○	○	○		105
11500230-285	Conical countersink 90° solid carbide, three-edge For universal use up to 1300 N/mm²	●	●	●	●	●	●	○				105-106
11535	Conical countersink, 90°, solid carbide, multi-flute cutter For universal use up to 60 HRC	●	●	●	●	○	○	●	●	●		106-107
11536	Conical countersink, 90°, solid carbide, multi-flute cutter For universal use up to 60 HRC	●	●	●	●	○	○	●	●	●		107

conical countersink 90° HSS / HSSE

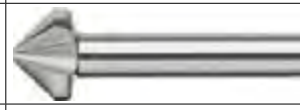
application:
for 90° screw head countersinking or deburring holes.

advantage:
- very wide range
- many cutting materials available
- many shaft designs and shapes



HSS HSSE

		P 700 N/mm²	P 1000 N/mm²	P 1300 N/mm²	M	N	K	S	H	H 65HRC		page
11500006-138	Conical countersink 90° HSS, three-edge For universal use up to 1000 N/mm2	●	○	○		●	○					108
11500601-648	Conical countersink 90° HSS-TiNAlOX, three-edge For universal use up to 1000 N/mm2	●	○	○	○	●	○		○			108
11501006-138	90° conical countersink, HSS, triple cutter for universal use up to 1000 N/mm2	●	○	○		●	○					108

		P 700 N/ mm²	P 1000 N/ mm²	P 1300 N/ mm²	M	N	K	S	H	H 65HRC		page
11501146-218	Conical countersink, 90°, HSSE-TiN, triple cutter for universal use up to 1000 N/mm2	●	○	○		●	○					108
11501800-825	Conical countersink, 90°, HSSE-TiN, triple cutter for universal use up to 1000 N/mm2	●	○	○		●	○					108
11501826-853	Conical countersink, 90°, HSS TiALN, triple-edge cutter For universal use up to 1000 N/mm2	●	○	○		●	○					108
11501637-661	Conical countersink, 90°, HSS, triple cutter, extremely uneven pitch For universal use up to 1000 N/mm²	●	●	●	○	○	●		○			109-110
11500698-750	90° conical countersink, HSSE, triple cutter for universal use up to 1300 N/mm²	●	●	○	●	●	○	○				110-111
11501506-565	90° conical countersink HSS triple cutter with 3-edge shank for universal use up to 1000 N/mm²	●	○	○		●	○					111
11501235-242	Conical countersink, 90°, HSS, triple-blade, extremely uneven pitch, long design For universal use up to 1300 N/mm²	●	●	●	○	○	●		○			112
11501300-455	90° conical countersink, HSS, triple cutter, extra-long for universal use up to 1000 N/mm2	●	○	○		○	○					112-113
11492	Conical countersink, 90°, HSS, with bit holder For universal use up to 1000 N/mm²	●	●	○		●	○					113
11531	Conical countersink, 90°, HSSE, multi-flute cutter For universal use up to 1300 N/mm²	●	●	●	●	○	○	●				114
11516010-050	Conical countersink, 90°, HSSE-TiN, single-bladed cutter for universal use up to 1300 N/mm2	●	●	○	○	●	○					-
11515210-230	Conical countersink, 90°, HSSE, extra-long single flute cutter For universal use up to 1300 N/mm²	●	●	○	○	●	○					-

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.

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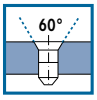
ICON RIDGE

conical countersink 60° solid carbide

Application:
for 60° screw head countersinking or deburring holes.

Advantage:
- Very long service life thanks to high-quality cemented carbide cutting material



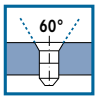
VHM

		P 700 N/mm²	P 1000 N/mm²	P 1300 N/mm²	M	N	K	S	H	H 65HRC		page
11498308-325	Conical countersink 60° solid carbide, three-edge For universal use up to 1300 N/mm²	●	●	●	●	●	●	○				116

Conical countersink 60°, HSS/HSSE

Application:
For countersinking 60° screw heads or deburring of bores.

Advantage:
- Very wide range
- Different cutting materials available
- Many shaft types and designs



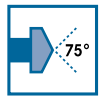
HSS

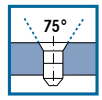
HSSE

		P 700 N/mm²	P 1000 N/mm²	P 1300 N/mm²	M	N	K	S	H	H 65HRC		page
11501219-225	HSS 60° conical countersink, three flutes, extremely uneven pitch For universal use up to 1300 N/mm²	●	●	●	○	○	●		○			117
11498206-225	Conical countersink 60° HSS-TiN, three-edge For universal use up to 1000 N/mm²	●	○	○		●	○					118
11495308-320	Conical countersink, 60°, HSS, multi-flute cutter For universal use up to 1000 N/mm²	●	○	○		○	○					119
11495330-360	Conical countersink, 60°, HSS, multi-flute cutter For universal use up to 1000 N/mm²	●	○	○		○	○					119
11498226-263	60° conical countersink, HSS, triple cutter for universal use up to 1000 N/mm²	●	●	○		●	●					119-120
11497405-430	Conical countersink, 60°, HSSE, single-bladed cutter For universal use up to 1300 N/mm²	●	●	○		●	○					120

conical countersink HSS 75°

application:
for 75° screw head countersinking or deburring holes.





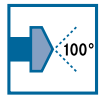
HSS

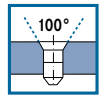
Countersinks 75° HSS

		P 700 N/mm²	P 1000 N/mm²	P 1300 N/mm²	M	N	K	S	H	H 65HRC		page
11499008-025	Conical countersink 75° HSS, three-edge For universal use up to 1000 N/mm²	●	○	○		○	○					120-121

Countersinks 100° HSS

Application:
For countersinking 100° rivet and screw heads or deburring of bores.





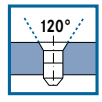
HSS

Countersinks 100° HSS

		P 700 N/mm²	P 1000 N/mm²	P 1300 N/mm²	M	N	K	S	H	H 65HRC		page
11501861-867	HSS 100° conical countersink, three-flute cutter For universal use up to 1000 N/mm²	●	●	○	○	●	○					121

conical countersink HSS 120°

application:
for 120° screw head countersinking or deburring holes.



HSS

		P 700 N/mm²	P 1000 N/mm²	P 1300 N/mm²	M	N	K	S	H	H 65HRC		page
11502106-126	120° conical countersink, HSS, triple cutter for universal use up to 1000 N/mm2	●	○	○		○	○					-
11502231-250	Conical countersink 120° HSS, three-edge For universal use up to 1000 N/mm²	●	○	○		○	○					121

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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ICON RIDGE

conical countersink 90° solid carbide

application:
for 90° screw head countersinking or deburring holes.

advantage:
- very wide range
- many shaft designs and shapes
- very long service life through high-quality solid carbide cutting material

90° | 90° | VHM

ATORN® SC 90° conical countersink, three flutes, extremely uneven pitch

For universal use up to 60 HRC

90° | VHM | TiN/ZrN | Z 3 | HA

Application:
For producing 90° counterbores

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- Solid carbide cutting material for high service life requirements
- Uneven pitch ensures excellent surfaces without chatter marks and minimisation of cutting forces
- radial relief ensures optimum chip breaking

Argument no. 3:
Extremely variable pitch

① ②

Optimised sinking
① Standard countersink
② EUC speed

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501705-724	60	50	40	30	30	60	80	70	70	70	70	70	25	45	15	20	15	12	8

mm	mm	mm	mm	Surface f steel 1300 ● (mm/U)	TiN/ZrN 11501... Ident. No.	
6.3	1.5	5	45	0.06	705	●
8.3	2	6	50	0.08	709	●
10.4	2.5	6	50	0.08	712	●
12.4	2.8	8	56	0.08	714	●
16.5	3.2	10	60	0.10	717	●
20.5	3.5	10	63	0.14	719	●
25	3.8	10	67	0.18	721	●
31	4.2	12	71	0.18	724	●

Prod. Gr. 114

ATORN® Solid carbide 90° conical countersink, three-flute cutter

For universal use up to 1300 N/mm²

90° | VHM | Z 3 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking
- solid carbide cutting material for high service life requirements

Notes:
Diameter 6-8.3 mm = solid carbide Diameter 10-31 mm = solid carbide head and steel shank

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11500230-285	60	45	20	20	15	80	150	120	100	80	60	60		40	20	20	20		

mm	mm	mm	mm	Surface f steel 1300 ● (mm/U)	Uncoated 11500... Ident. No.	
6	2.0	5	40	0.06	230	●
6.3	2.0	5	40	0.06	233	●
8	2	6	45	0.06	235	●
8.3	2	6	45	0.08	237	●
10	2.5	8	46	0.08	240	●
10.4	2.5	8	46	0.09	242	●
11.5	2.8	8	56	0.1	245	●
12.4	2.8	8	56	0.1	250	●
15	3.2	10	60	0.12	255	●
16.5	3.2	10	60	0.12	260	●
20.5	3.5	10	63	0.13	270	●
25	3.8	10	67	0.14	280	●
31	4.2	12	71	0.16	285	●

Prod. Gr. 114

ORION® Solid carbide 90° conical countersink, three-flute cutter

For universal use up to 1300 N/mm²

90° | VHM | Z 3 | HA

Application:
For producing 90° counterbores up to 1000 N/mm².

Execution:
- profile-ground three-edge countersink with straight cutting edge

Advantage:
- precision grinding for high dimensional accuracy requirements
- Solid carbide cutting material for high service life requirements

Notes:
Diameter 6–8.3mm = solid carbide, diameter 10–31 mm = solid carbide head and steel shank

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11500231-286	60	45	20	20	15	80	150	120	100	80	60	60		40	20	20	20		

mm	mm	mm	mm	Surface f steel 1300 ● (mm/U)	Uncoated 11500... Ident. No.	
6	1.5	6	45	0.06	231	●
6.3	1.5	6	45	0.06	234	●
8	2	6	50	0.08	236	●
8.3	2	6	50	0.08	238	●
10	2.5	6	50	0.09	241	●
10.4	2.5	6	50	0.09	243	●
11.5	2.8	8	56	0.1	246	●
12.4	2.8	8	56	0.1	251	●
15	3.2	10	60	0.12	256	●
16.5	3.2	10	60	0.12	261	●
20.5	3.5	10	63	0.13	271	●
25	3.8	10	67	0.14	281	●
31	4.2	12	71	0.16	286	●

Prod. Gr. 103

ATORN® Conical countersink, 90°, solid carbide, multi-flute cutter

For universal use up to 63 HRC

90° | HM | Z 4 | Z 5 | HA

Application:
For countersinking 90° in the material groups steel, stainless steel, (non-ferrous metals), (cast materials) and special alloys up to a strength of 60 HRC.

Execution:
- profile-ground multi-edge countersink with radial relief

Advantage:
- excellent service life characteristics in Hardox 400 and 500, Creusabro, Inconel, Nimonic, Hastelloy, Monel, manganese-hardened steel, hardened steels up to 60 HRC, titanium and titanium alloy materials
- innovative and patented cutter geometry with a large number of cutters ensures excellent cutting performance and good surface qualities

Notes:
Solid carbide head and steel shank

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11535	60	50	30	20	15	120	150	100	90	90	70			4	20	20	20	10	7

mm	mm	mm	mm	Number of cutting edges (PCS)	f steel 1300 ● (mm/U)	11535... Ident. No.	
10.4	4	46	8	4	0.04	104	●
12.4	4	56	8	5	0.05	124	●
16.5	4.5	60	10	5	0.06	165	●
20.5	5	63	10	5	0.08	205	●

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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ICON RIDGE

mm	mm	mm	mm	Number of cutting edges (PCS)	f steel 1300 ● (mm/U)	11535... Ident. No.	
25	5.5	67	10	5	0.09	250	●
31	6	71	12	5	0.1	310	●

Prod. Gr. 114

ATORN® Solid carbide 90° conical countersink, multi-flute cutter

For universal use up to 60 HRC

90° | HM | Z 5 | MK

Application:
For producing 90° counterbores up to 60 HRC.

Execution:
- profile-ground triple-edge countersink with patented grind

Advantage:
- excellent service life characteristics in Hardox 400 and 500, Creusabro, Inconel, Nimonic, Hastelloy, Monel, manganese-hardened steel, hardened steels up to 60 HRC, titanium and titanium alloy materials
- innovative and patented cutter geometry with a large number of cutters ensures excellent cutting performance and good surface qualities

Notes:
Diameter 31 mm= solid carbide head and steel shank / from 40 mm diameter = steel carrier with soldered carbide panels

mm	mm	mm		Number of cutting edges (PCS)	f steel 1300 ● (mm/U)	11536... Ident. No.	
31	6	108	MK 2	5	0.1	310	●
40	14	137	MK 3	5	0.12	400	●
50	18	147	MK 3	5	0.14	500	●

Prod. Gr. 114

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11536	60	50	30	20	15	120	150	100	90	90	70			4	20	20	20	10	7

conical countersink 90° HSS / HSSE

application:
for 90° screw head countersinking or deburring holes.

advantage:
- very wide range
- many cutting materials available
- many shaft designs and shapes

90° | 90° | HSS | HSSE

ATORN® ORION® Countersinks 90° HSS (DIN 335)

for universal use

90° | HSS | TiNAlOX | TiN | TiAlN | Z 3 | HA

Application:
For producing 90° counterbores up to 1000 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking
- **No. 11500 601–11500 649:** TiNAlOX coating for increased service life requirements
- **No. 11501 826–11501 854:** TiAlN coating for increased service life requirements

No. 11500 006–11500 138, 11501 006–11501 138

No. 11500 601–11500 649

No. 11501 146–11501 825

No. 11501 826–11501 854

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11500006-138	30	20	10	8		40	70	60	50	40	30	30		15					
11500601-648	30	20	10	10	8	40	70	60	50	40	30	30		15	8			20	
11501006-138	30	20	10	8		40	70	60	50	40	30	30		15					
11501146-218	30	20	10	10		40	70	60	50	40	30	30		15	8				
11501800-825	30	20	10	8		40	70	60	50	40	30	30		15					
11501826-853	30	20	10	8		40	70	60	50	40	30	30		15					

					ATORN®				ORION®				ATORN®			
				Surface	Uncoated		TiNALOX		Uncoated		TiN		TiN		TiAlN	
mm	mm	mm	mm	f steel 700 ● (mm/U)	11500... Ident. No.		11500... Ident. No.		11501... Ident. No.		11501... Ident. No.		11501... Ident. No.		11501... Ident. No.	
4.3	1.3	4	40	0.06	006	●	601	●	006	●	146	●	800	●	826	●
5	1.5	4	40	0.07	011	●	602	●	011	●	151	●	801	●	827	●
5.3	1.5	4	40	0.07	013	●	604	●	013	●	153	●	802	●	828	●
5.8	1.5	5	45	0.08	016	●	606	●	016	●	155	●	803	●	829	●
6	1.5	5	45	0.08	021	●	608	●	021	●	157	●	804	●	830	●
6.3	1.5	5	45	0.08	026	●	611	●	026	●	161	●	805	●	831	●
7	1.8	6	50	0.09	031	●	612	●	031	●	163	●	806	●	832	●
7.3	1.8	6	50	0.09	036	●	614	●	036	●	165	●	807	●	833	●
8	2	6	50	0.1	041	●	616	●	041	●	167	●	808	●	834	●
8.3	2	6	50	0.1	046	●	618	●	046	●	171	●	809	●	835	●
9.4	2.2	6	50	0.11	048	●	621	●	048	●	173	●	810	●	836	●
10	2.5	6	50	0.12	051	●	622	●	051	●	168	●	811	●	837	●
10.4	2.5	6	50	0.12	056	●	624	●	056	●	177	●	812	●	838	●
11.5	2.8	8	56	0.13	061	●	626	●	061	●	179	●	813	●	839	●
12.4	2.8	8	56	0.13	071	●	628	●	071	●	181	●	814	●	841	●
13.4	2.9	8	56	0.13	076	●	631	●	076	●	186	●	815	●	842	●
15	3.2	10	60	0.14	081	●	632	●	081	●	191	●	816	●	843	●
16.5	3.2	10	60	0.14	096	●	634	●	096	●	196	●	817	●	844	●
19	3.5	10	63	0.15	101	●	636	●	101	●	198	●	818	●	846	●
20.5	3.5	10	63	0.16	114	●	638	●	114	●	201	●	819	●	847	●
23	3.8	10	67	0.17	121	●	640	●	121	●	206	●	820	●	848	●
25	3.8	10	67	0.18	131	●	642	●	131	●	211	●	821	●	849	●
28	4	12	71	0.19	132	●	644	●	136	●	216	●	822	●	851	●
30	4.2	12	71	0.2	136	●	646	●	137	●	217	●	823	●	852	●
31	4.2	12	71	0.21	138	●	648	●	138	●	218	●	824	●	853	●
40	10	12	75	0.25	-	-	649	●	-	-	-	-	825	●	854	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

ATORN® ORION® HSS/HSSE 90° conical countersink sets (DIN 335)

for universal use

90° | HSS | HSSE | TiN | TiNAlOX | Z 3 | HA

Application:
Ident. No. 010–620: For producing 90° counterbores up to 1000 N/mm².
Ident. No. 700–720: For producing 90° counterbores up to 1300 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking
- **Ident. No. 480, 490, 500, 510, 520, 530:** TiN coating for increased service life requirements
- **Ident. No. 600–620:** TiNAlOX coating for increased requirements in service life

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11507010-061	30	20	10	8		40	70	60	50	40	30	30		15					
11507015-065	30	20	10	8		40	70	60	50	40	30	30		15					
11507480-530	30	20	10	8		40	70	60	50	40	30	30		15					
11507485-535	30	20	10	8		40	70	60	50	40	30	30		15					
11507700-720	30	20	10	8	6	40	70	60	50	40	30	30		15					

		ATORN®		ORION®		ATORN®		ORION®		ATORN®			
	Cutting material	HSS		HSS		HSS		HSS		HSS		HSSE	
	Surface	Uncoated		Uncoated		TiN		TiN		TiNALOX		Uncoated	
Composition of set	Number of pieces in assortment/set (PCS)	11507... Ident. No.		11507... Ident. No.		11507... Ident. No.		11507... Ident. No.		11507... Ident. No.		11507... Ident. No.	
8/10/11.5/15	4	010	●	015	●	480	●	485	●	-	-	-	-
10.4/16.5/20.5/25	4	020	●	025	●	490	●	495	●	-	-	-	-
6/8/10/11.5/15/19	6	031	●	035	●	500	●	505	●	600	●	700	●
6/8/10/11.5/15/19/25	7	041	●	045	●	510	●	515	●	-	-	-	-
6.3/8.3/10.4/12.4/16.5/20.5	6	051	●	055	●	520	●	525	●	620	●	720	●
6.3/8.3/10.4/12.4/16.5/20.5/25	7	061	●	065	●	530	●	535	●	-	-	-	-

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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ICON RIDGE

ATORN® ORION® HSS 90° conical countersink set (DIN 335)

for universal use

90° | HSS | TiN | TiNAlOX | Z 3 | HA

Application:
For producing 90° counterbores up to 1000 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking
- **Ident. No. 020:** TiN coating for increased requirements in service life
- **Ident. No. 030:** TiNAlOX coating for increased requirements in service life

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11512011	30	20	10	8		40	70	60	50	40	30	30		15					
11512015	30	20	10	8		40	70	60	50	40	30	30		15					
11512020	30	20	10	8		40	70	60	50	40	30	30		15					
11512025	30	20	10	8		40	70	60	50	40	30	30		15					
11512030	30	20	10	8		40	70	60	50	40	30	30		15					

		ATORN®		ORION®		ATORN®		ORION®		ATORN®	
	Cutting material	HSS		HSS		HSS		HSS		HSS	
	Surface	Uncoated		Uncoated		TiN		TiN		TiNALOX	
Composition of set	Number of pieces in assortment/ set (PCS)	11512... Ident. No.		11512... Ident. No.		11512... Ident. No.		11512... Ident. No.		11512... Ident. No.	
4.3/5.0/6.0/6.3/7.0/8.0/8.3/10.0/10.4/11.5/12.4/15.0/16.5/19.0/20.5/23.0/25.0	17	011	●	015	●	020	●	025	●	030	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

ATORN® HSS 90° conical countersink, three flutes, extremely uneven pitch (DIN 335)

for universal use up to 1000 N/mm²

90° | HSS | TiN/ ZrN | Z 3 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief, with extremely uneven pitch

Advantage:
- radial relief ensures optimum chip breaking
- Uneven pitch ensures excellent surfaces without chatter marks and minimisation of cutting forces
- **Ident. No. 670–685:** 3-sided shaft ensures very good power transmission and prevents the tool from spinning in the drill chuck or cordless drill

Ident. No. 637–661

Ident. No. 670–685

Argument no. 3:
Extremely variable pitch

① ②

Optimised sinking
① Standard countersink
② EUC speed

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501637-661	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	
11501670-685	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	

					ATORN®			
				Tool holding device	HA parallel shank		Parallel shank with three tightening surfaces	
				Surface	TiN/ZrN		TiN/ZrN	
mm	mm	mm	mm	f steel 700 ● (mm/U)	11501... Ident. No.		11501... Ident. No.	
4.3	1.3	4	40	0.06	637	●	670	●
6	1.5	5	45	0.08	641	●	671	●
6.3	1.5	5	45	0.08	642	●	672	●
8	2	6	50	0.1	645	●	673	●
8.3	2	6	50	0.1	646	●	674	●
10	2.5	6	50	0.1	648	●	675	●
10.4	2.5	6	50	0.1	649	●	676	●
11.5	2.8	8	56	0.1	650	●	677	●
12.4	2.8	8	56	0.1	651	●	678	●
15	3.2	10	60	0.12	653	●	679	●
16.5	3.2	10	60	0.12	654	●	680	●
19	3.5	10	63	0.14	655	●	681	●

					ATORN®			
				Tool holding device	HA parallel shank		Parallel shank with three tightening surfaces	
				Surface	TiN/ZrN		TiN/ZrN	
mm	mm	mm	mm	f steel 700 ● (mm/U)	11501... Ident. No.		11501... Ident. No.	
20.5	3.5	10	63	0.18	656	●	682	●
23	3.8	10	67	0.18	657	●	683	●
25	3.8	10	67	0.18	658	●	684	●
31	4.2	12	71	0.22	661	●	685	●

Prod. Gr. 1EB

ATORN® HSS 90° conical countersink set, three flutes, extremely uneven pitch (DIN 335)

for universal use up to 1000 N/mm²

90° | HSS | TiN/ZrN | Z 3 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Execution:
- **Ident. No. 244–245:** Profile-ground triple-edge countersink with radial relief, with extremely uneven pitch
- **Ident. No. 662–686:** profile-ground triple-edge countersink with radial relief, with extremely uneven pitch

Advantage:
- Uneven pitch ensures excellent surfaces without chatter marks and minimisation of cutting forces
- **Ident. No. 244, 686:** 3-sided shaft design for excellent power transmission and prevents the tool from spinning in the drill chuck and cordless drill
- **Ident. No. 244–245:** Radial relief ensures optimum chip breaking
- **Ident. No. 662–686:** radial relief ensures optimum chip breaking

Ident. No. 244

Ident. No. 245

Ident. No. 662

Ident. No. 686

Argument no. 3:
Extremely variable pitch

Optimised sinking
① Standard countersink
② EUC speed

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plastics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501244	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	
11501245	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	
11501662	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	
11501686	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	

		ATORN®			
	Tool holding device	Parallel shank with three tightening surfaces		HA parallel shank	
	Cutting material	HSS		HSS	
	Surface	TiN/ZrN		TiN/ZrN	
Composition of set	Number of pieces in assortment/set (PCS)	11501... Ident. No.		11501... Ident. No.	
6.3/10.4/12.4/16.5/20.5	5	244	●	245	●
6.3/10.4/16.5/20.5/25	5	686	●	662	●

Prod. Gr. 1EB

ATORN® HSSE 90° conical countersink, three-flute cutter (DIN 335)

For universal use up to 1300 N/mm²

90° | HSSE | Z 3 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Advantage:
- radial relief ensures optimum chip breaking

Execution:
- profile-ground triple-edge countersink with radial relief

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plastics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11500698-750	40	30	12	10	8	40	70	60	50	40	30	30		15	10	10			

				Surface	Uncoated	
mm	mm	mm	mm	f steel 1000 ● (mm/U)	11500... Ident. No.	
4.3	1.3	4	40	0.07	698	●
5	1.5	4	40	0.07	699	●
5.3	1.5	4	40	0.07	700	●
6	1.5	5	45	0.08	702	●
6.3	1.5	5	45	0.08	705	●

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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mm	mm	mm	mm	Surface f steel 1000 ● (mm/U)	Uncoated 11500... Ident. No.	
7	1.8	6	50	0.09	706	●
8	2	6	50	0.1	710	●
8.3	2	6	50	0.1	712	●
9.4	2.2	6	50	0.11	715	●
10	2.5	6	50	0.12	720	●
10.4	2.5	6	50	0.12	722	●
11.5	2.8	8	56	0.13	723	●
12.4	2.8	8	56	0.13	725	●
15	3.2	10	60	0.14	730	●
16.5	3.2	10	60	0.14	735	●
19	3.5	10	63	0.15	736	●
20.5	3.5	10	63	0.16	740	●
23	3.8	10	67	0.17	741	●
25	3.8	10	67	0.18	745	●
31	4.2	12	71	0.21	750	●
40	10.0	12	75	0.21	751	●

Prod. Gr. 1EB

ATORN® HSS 90° conical countersink, three-flute cutter and shank with 3 flats

For universal use up to 1000 N/mm²

90° | HSS | Z 3

Application:
For producing 90° counterbores up to 1000 N/mm².

Execution:
- profile-ground triple-edge countersink with three-edge shank with radial relief

Advantage:
- radial relief ensures optimum chip breaking
- three-edge shank ensures excellent power transmission in the chuck

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501506-565	30	20	10	8		40	70	60	50	40	30	30		15					

mm	mm	mm	mm	Tool holding device: Parallel shank with three tightening surfaces; Surface f steel 700 ● (mm/U)	Uncoated 11501... Ident. No.	
11.5	2.8	8	56	0.13	506	●
12.4	2.8	8	56	0.13	511	●
13.4	2.9	8	56	0.13	516	●
15	3.2	10	60	0.14	521	●
16.5	3.2	10	60	0.14	526	●
19	3.5	10	63	0.15	532	●
20.5	3.5	10	63	0.16	536	●
23	3.8	10	67	0.17	542	●
25	3.8	10	67	0.18	547	●
28	4	12	71	0.19	551	●
30	4.2	12	71	0.2	556	●
31	4.2	12	71	0.21	561	●

Prod. Gr. 1EB

ATORN® Conical countersink, 90°, HSS, triple-blade, extremely uneven pitch, long design

For universal use up to 1300 N/mm²

90° | HSS | TiN/ ZrN | Z 3 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Execution:
- Profile-ground triple-flute countersink with radial relief, with extremely uneven pitch

Advantage:
- Radial relief ensures optimum chip breaking
- Uneven pitch ensures excellent surfaces without chatter marks and minimisation of cutting forces
- Simple countersinking of deep-seated countersinks

Argument no. 3:
Extremely variable pitch

① ②

Optimised sinking
① Standard countersink
② EUC speed

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501235-242	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	

mm	mm	mm	mm	Cutting material f steel 700 ● (mm/U)	ATORN HSS 11501... Ident. No.	
6.3	1.5	104	5	0.08	235	●
8.3	2	105	6	0.1	236	●
10.4	2.5	107	6	0.1	237	●
12.4	2.8	108	8	0.1	238	●
16.5	3.2	111	10	0.12	239	●
20.5	3.5	114	10	0.18	240	●
25	3.8	118	10	0.18	241	●
31	4.2	140	12	0.22	242	●

Prod. Gr. 1EB

ATORN® Conical countersink, 90°, HSS, triple-blade set, extremely uneven pitch, long design (DIN 335)

For universal use up to 1300 N/mm²

90° | HSS | TiN/ ZrN | Z 3 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Execution:
- Profile-ground triple-flute countersink with radial relief, with extremely uneven pitch

Advantage:
- Radial relief ensures optimum chip breaking
- Uneven pitch ensures excellent surfaces without chatter marks and minimisation of cutting forces
- Simple countersinking of deep-seated countersinks

Argument no. 3:
Extremely variable pitch

Optimised sinking
① Standard countersink
② EUC speed

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501243	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	

Composition of set	Shaft length (mm)	ATORN 11501... Ident. No.	
6.3/8.3/10.4/12.4/16.5/20.5	100	243	●

Prod. Gr. 1EB

ATORN® HSS 90° conical countersinks, extra-long

For universal use up to 1000 N/mm²

90° | HSS | Z 3 | HA

Application:
For producing deep-set 90° counterbores up to 1000 N/mm².

Execution:
- **Ident. No. 300–445:** profile-ground extra-long triple-edge countersink
- **Ident. No. 450–541:** Profile-ground extra-long triple-edge countersink

Advantage:
- **Ident. No. 300–445:**
  - radial relief ensures optimum chip breaking
  - deep-set countersinks are made easy for the user
- **Ident. No. 450–541:**
  - Radial relief ensures optimum chip breaking
  - Deep-set countersinks are made easy for the user

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501300-455	30	20	10	10		40	70	60	50	40	30	30		15					

mm	mm	mm	mm	Cutting material f steel 700 ● (mm/U)	HSS 11501... Ident. No.	
5.8	1.5	104	5	0.08	300	●
6.3	1.5	104	5	0.08	305	●
6.3	1.5	154	5	0.08	405	●
8.3	2	105	6	0.1	310	●

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
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mm	mm	mm	mm	Cutting material f steel 700 ● (mm/U)	HSS 11501... Ident. No.	
8.3	2	155	6	0.1	410	●
9.4	2.2	106	6	0.11	315	●
10.4	2.5	107	6	0.12	320	●
10.4	2.5	157	6	0.12	420	●
11.5	2.8	108	6	0.13	325	●
12.4	2.8	108	8	0.13	330	●
12.4	2.8	158	8	0.13	430	●
15	3.2	109	10	0.14	335	●
15	3.2	159	10	0.14	435	●
16.5	3.2	111	10	0.14	340	●
16.5	3.2	161	10	0.14	440	●
16.5	3.2	261	10	0.14	541	●
20.5	3.5	114	10	0.16	345	●
20.5	3.5	164	10	0.16	445	●
25	3.8	118	10	0.18	350	●
25	3.8	168	10	0.18	450	●
31	4.2	140	12	0.21	355	●
31	4.2	190	12	0.21	455	●

Prod. Gr. 1EB

ATORN® HSSE 90° conical countersink sets, extra-long

For universal use up to 1000 N/mm²

90° | HSS | Z 3 | HA

Application:
For producing deep-set 90° counterbores up to 1000 N/mm².

Execution:
- profile-ground extra-long triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking
- deep-set countersinks are made easy for the user

Ident. No. 390

Ident. No. 490

Composition of set	Shaft length (mm)	ATORN® 11501... Ident. No.	
6.3/8.3/10.4/12.4/16.5/20.5	100	390	●
6.3/8.3/10.4/12.4/16.5/20.5	150	490	●

Prod. Gr. 1EB

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501390	30	20	10	8		40	70	60	50	40	30	30		15					
11501490	30	20	10	8		40	70	60	50	40	30	30		15					

ORION® HSS 90° conical countersink with bit holder

For universal use up to 1000 N/mm²

HSS | 90° | Z 3

Application:
For countersinking, chamfering and deburring. For use in hand-held bit holders, electric hand drills and electric screwdrivers.

Execution:
- profile-ground

Advantage:
- Hexagonal shank, 1/4" provides a user-friendly tool chuck in the bit holder

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11492	●	●	○	○		●	●	●	●	●	●	●	○	○					

Suitable for screw thread	Spot-facer Ø (mm)	Tip Ø (mm)	Shaft length (mm)	Length (mm)	11492... Ident. No.	
M3	6.3	1.5	20	31	063	●
M4	8.3	2.0	20	31	083	●
M5	10.4	2.5	20	34	104	●
M6	12.4	2.8	20	35	124	●
M8	16.5	3.2	20	40	165	●
M10	20.5	3.5	20	41	205	●

Prod. Gr. 1EH

ORION® HSS 90° conical countersink set with bit holder

For universal use up to 1000 N/mm²

90° | HSS | Z 3

Application:
For countersinking, chamfering and deburring. For use in hand-held bit holders, electric hand drills and electric screwdrivers.

Execution:
- profile-ground

Advantage:
- Hexagonal shank, 1/4“ provides a user-friendly tool chuck in the bit holder

Composition of set		1 each of countersink 6.3/8.3/10.4/12.4/16.5/20.5
Number of pieces in assortment/set (PCS)		6
11493...	Ident. No.	520 ●

Prod. Gr. 1EH

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11493	●	●	○	○		●	●	●	●	●	●	●	○	○					

ATORN® Conical countersink, 90°, HSSE, multi-flute cutter

For universal use up to 1300 N/mm²

90° | HSSE | Z 4 | Z 5 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Execution:
- Profile-ground multi-edge countersink with patented special grind

Advantage:
- excellent service life for Hardox 400, Creusabro, Inconel, Nimonic, Hastelloy, Monel, titanium and titanium alloy materials
- radial relief ensures optimum chip breaking
- innovative cutting geometry with greater number of cutters provides excellent cutting performance and good surface quality

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11531	35	25	15	12	10	40	70	60	50	40	30			20	12	12	12		

mm	mm	mm	mm	Number of cutting edges (PCS)	11531... Ident. No.	
10.4	4	50	6	4	104	●
12.4	4	56	8	5	124	●
16.5	4.5	60	10	5	165	●
20.5	5	63	10	5	205	●
25	5.5	67	10	5	250	●
31	6	71	12	5	310	●

Prod. Gr. 1EB

ATORN® HSS 90° conical countersink, multi-flute cutter (DIN 335)

For universal use up to 1000 N/mm²

90° | HSS | Z 5 | Z 7 | HA

Application:
For producing 90° counterbores up to 1000 N/mm².

Execution:
- profile-ground multi-edge countersink with straight cutting edge

Advantage:
- high number of cutting edges for quiet cutting performance
- very good cutting performance and surface quality (chatter-free)

mm	mm	mm	mm	Number of cutting edges (PCS)	f steel 700 ● (mm/U)	11495... Ident. No.	
8	1.5	48	8	5	0.1	408	●
12.5	2	48	8	5	0.13	412	●
16	3.2	56	10	7	0.14	416	●
20	5	60	10	7	0.16	420	●

Prod. Gr. 1EB

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11495408-420	30	20	10	10	15	40	70	40	40	60	60	30		20	20	20	20		

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
www.iconridge.com
ICON RIDGE

ATORN® ORION® HSS/HSSE 90° conical countersink, three-way cutter (DIN 335)

for universal use

90° | HSS | HSSE | Z 3 | MK

Application:
Ident. No. 312–373, 382–393, 402–403, 412–413, 422–423, 432–433, 442–443: For producing 90° counterbores up to 1000 N/mm².
Ident. No. 381, 401, 411, 421, 431, 441: For producing 90° counterbores up to 1300 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11500312-442	30	20	10	10		40	70	60	50	40	30	30		15					
11500353-443	30	20	10	10		40	70	60	50	40	30	30		15					
11500381-441	40	30	15	10	8	40	70	60	50	40	30	30		25	10	10			

mm	mm	mm		Cutting material f steel 700 ● (mm/U)	ATORN® HSS 11500... Ident. No.		ORION® HSS 11500... Ident. No.		ATORN® HSSE 11500... Ident. No.	
15	3.2	85	MK 1	0.14	312	●	-	-	-	-
16.5	3.2	85	MK 1	0.14	322	●	-	-	-	-
20.5	3.5	100	MK 2	0.16	337	●	-	-	-	-
25	3.8	106	MK 2	0.18	352	●	353	●	-	-
28	4	112	MK 2	0.19	367	●	-	-	-	-
30	4.2	112	MK 2	0.2	372	●	373	●	-	-
31	4.2	112	MK 2	0.21	382	●	383	●	381	●
34	4.5	118	MK 2	0.22	392	●	393	●	-	-
37	4.8	118	MK 2	0.24	402	●	403	●	401	●
40	10	140	MK 3	0.25	412	●	413	●	411	●
50	14	150	MK 3	0.28	422	●	423	●	421	●
63	16	180	MK 4	0.33	432	●	433	●	431	●
80	22	190	MK 4	0.33	442	●	443	●	441	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

ATORN® HSS 90° conical countersink, multi-flute cutter (DIN 335)

For universal use up to 1000 N/mm²

90° | HSS | Z 9 | Z 11 | Z 13 | Z 15 | MK

Application:
For producing 90° counterbores up to 1000 N/mm².

Execution:
- profile-ground multi-edge countersink with straight cutting edge

Advantage:
- high number of cutting edges for quiet cutting performance
- very good cutting performance and surface quality (chatter-free)

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11495430-470	30	20	10	10		40	70	60	50	40	30	30		15					

mm	mm	mm		Number of cutting edges (PCS)	f steel 700 ● (mm/U)	11495... Ident. No.	
25	7	118	MK 2	9	0.18	430	●
31.5	9	122	MK 2	9	0.21	440	●
40	12	150	MK 3	11	0.25	450	●
50	16	155	MK 3	13	0.28	460	●
63	20	185	MK 4	15	0.33	470	●

Prod. Gr. 1EB

ATORN® ORION® HSSE 90° conical countersink and deburring tool

For universal use up to 1000 N/mm²

90° | HSSE | Z 1 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

Execution:
- **Ident. No. 605–651:** profile-ground single-edge countersink with radial relief
- **Ident. No. 905–951:** profile-ground single-edge countersink

Advantage:
- radial relief ensures optimum chip breaking
- deep and wide flute provides optimum chip removal
- **Ident. No. 605–651:** special geometry ensures vibration-free and accurate countersinking with high finish quality

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11497605-651	30	20	10	8	7	40	70	50	40	35	30	30		15	8				
11497905-951	30	20	10	8	7	40	70	50	40	35	30	30		15	8				

mm	Min./max. cutting edge Ø	mm	mm	f steel 1000 ● (mm/U)	ATORN® 11497... Ident. No.		ORION® 11497... Ident. No.	
5	1-5 mm	5	50	0.07	605	●	905	●
10	1-10 mm	10	60	0.12	610	●	910	●
15	2-15 mm	10	65	0.14	615	●	915	●
20	2-20 mm	10	73	0.16	620	●	920	●
25	2-25 mm	10	80	0.18	625	●	925	●
30	3-30 mm	12	82	0.2	630	●	930	●
40	3-40 mm	15	92	0.25	640	●	940	●
40	3-40 mm	12	92	0.25	641	●	941	●
50	3-50 mm	15	100	0.28	650	●	950	●
50	3-50 mm	12	100	0.30	651	●	951	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

conical countersink 60° solid carbide

Application:
for 60° screw head countersinking or deburring holes.

Advantage:
- Very long service life thanks to high-quality cemented carbide cutting material

60° | 60° | VHM

ATORN® Solid carbide 60° conical countersink, three-flute cutter (DIN 334)

For universal use up to 1300 N/mm²

60° | HM | Z 3 | HA

Application:
For producing 60° counterbores up to 1300 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking

Notes:
Diameter 8 mm = solid carbide / diameter 10-25 mm = solid carbide head and steel shank

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11498308-325	60	45	20	20	15	80	150	120	100	80	60	60		40	20	20	20		

mm	mm	mm	mm	Surface f steel 1300 ● (mm/U)	Uncoated 11498... Ident. No.	
8	2	6	50	0.08	308	●
10	2.5	8	50	0.09	310	●
12.5	3.2	8	56	0.1	312	●
16	4	10	63	0.12	316	●
20	5	10	67	0.13	320	●
25	6.3	10	71	0.14	325	●

Prod. Gr. 114

Conical countersink 60°, HSS/HSSE

Application:
For countersinking 60° screw heads or deburring of bores.

Advantage:
- Very wide range
- Different cutting materials available
- Many shaft types and designs

60° | 60° | HSS | HSSE

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
www.iconridge.com
ICON RIDGE

HSS 60° conical countersink, three flutes, extremely uneven pitch (DIN 334)

For universal use up to 1300 N/mm²

60° | HSS | TiN/ ZrN | Z 3 | HA

Application:
For producing 60° counterbores up to 1300 N/mm².

Execution:
- Profile-ground triple-edge countersink with radial relief, with extremely uneven pitch

Advantage:
- Radial relief ensures optimum chip breaking
- Uneven pitch ensures excellent surfaces without chatter marks and minimisation of cutting forces
- 3-sided shaft ensures very good power transmission and prevents the tool from spinning in the drill chuck or even in the cordless drill

Optimised sinking
① Standard countersink
② EUC speed

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501219-225	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	

					ATORN®			
				Tool holding device	Parallel shank with three tightening surfaces		HA parallel shank	
				Surface	TiN/ZrN		TiN/ZrN	
mm	mm	mm	mm	f steel 700 ● (mm/U)	11501... Ident. No.		11501... Ident. No.	
6.3	1.6	5	45	0.08	219	●	227	●
8	2	6	50	0.1	220	●	228	●
10	2.5	6	50	0.1	221	●	229	●
12.5	3.2	8	56	0.1	222	●	230	●
16	4	10	63	0.12	223	●	231	●
20	5	10	67	0.18	224	●	232	●
25	6.3	10	71	0.18	225	●	233	●

Prod. Gr. 1EB

HSS 60° conical countersink set, three flutes, extremely uneven pitch (DIN 334)

For universal use up to 1300 N/mm²

60° | HSS | TiN/ ZrN | Z 3 | HA

Application:
For producing 90° counterbores up to 1300 N/mm².

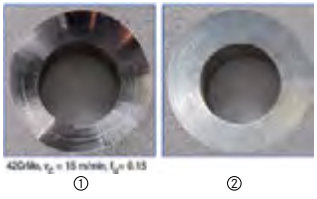
Execution:
- Profile-ground triple-edge countersink with radial relief, with extremely uneven pitch

Advantage:
- Radial relief ensures optimum chip breaking
- Uneven pitch ensures excellent surfaces without chatter marks and minimisation of cutting forces
- **Ident. No. 226:** 3-sided shaft design for excellent power transmission and prevents the tool from spinning in the drill chuck and cordless drill

Ident. No. 226

Ident. No. 234

Ident. No. 234



Optimised sinking
① Standard countersink
② EUC speed

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501226	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	
11501234	40	30	12	15	15	40	50	40	40	40	40	40		20	10			6	

		ATORN®			
	Tool holding device	Parallel shank with three tightening surfaces		HA parallel shank	
	Cutting material	HSS		HSS	
	Surface	TiN/ZrN		TiN/ZrN	
Composition of set	Number of pieces in assortment/set (PCS)	11501... Ident. No.		11501... Ident. No.	
6.3/10.0/12.5/16.0/20.0	5	226	●	234	●

Prod. Gr. 1EB

ATORN® ORION® HSS 60° conical countersink, three-flute cutter (DIN 334)

For universal use up to 1000 N/mm²

60° | HSS | TiN | Z 3 | HA

Application:
For producing 60° counterbores up to 1000 N/mm².

Execution:
- **Ident. No. 106–225:** profile-ground triple-edge countersink with radial relief
- **Ident. No. 506–725:** profile-ground triple-edge countersink with standard relief

Advantage:
- radial relief ensures optimum chip breaking
- **Ident. No. 706–725:** TiN coating for increased service life requirements

Ident. No. 106–126, 506–525

Ident. No. 206–225, 706–725

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plastics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11498106-126	30	20	10	8		40	70	60	50	40	30	30		15					
11498206-225	30	20	10	8		40	70	60	50	40	30	30		15					
11498506-525	30	20	10	8		40	70	60	50	40	30	30		15					
11498706-725	30	20	10	8		40	70	60	50	40	30	30		15					

					ATORN®				ORION®			
				Surface	Uncoated		TiN		Uncoated		TiN	
mm	mm	mm	mm	f steel 700 ● (mm/U)	11498... Ident. No.		11498... Ident. No.		11498... Ident. No.		11498... Ident. No.	
6.3	1.6	5	45	0.08	106	●	206	●	506	●	706	●
8	2	6	50	0.1	108	●	208	●	508	●	708	●
10	2.5	6	50	0.12	110	●	210	●	510	●	710	●
12.5	3.2	8	56	0.13	112	●	212	●	512	●	712	●
16	4	10	63	0.14	117	●	216	●	516	●	716	●
20	5	10	67	0.16	121	●	220	●	520	●	720	●
25	6.3	10	71	0.18	126	●	225	●	525	●	725	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

ATORN® ORION® HSSE 60° conical countersink set, three-flute cutter (DIN 334)

For universal use up to 1000 N/mm²

60° | HSS | TiN | Z 3 | HA

Application:
For producing 60° counterbores up to 1000 N/mm².

Execution:
- **Ident. No. 900, 910, 920, 930:** profile-ground triple-edge countersink with radial relief
- **Ident. No. 905, 915, 925, 935:** profile-ground triple-edge countersink with standard relief

Advantage:
- radial relief ensures optimum chip breaking

Ident. No. 900–905, 920–925

Ident. No. 910–915, 935

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11498900	30	20	10	8		40	70	60	50	40	30	30		15					
11498905	30	20	10	8		40	70	60	50	40	30	30		15					
11498910	30	20	10	8		40	70	60	50	40	30	30		15					
11498915	30	20	10	8		40	70	60	50	40	30	30		15					
11498920	30	20	10	8		40	70	60	50	40	30	30		15					
11498925	30	20	10	8		40	70	60	50	40	30	30		15					
11498930	30	20	10	8		40	70	60	50	40	30	30		15					
11498935	30	20	10	8		40	70	60	50	40	30	30		15					

		ATORN®		ORION®		ATORN®		ORION®	
	Cutting material	HSS		HSS		HSS		HSS	
	Surface	Uncoated		Uncoated		TiN		TiN	
Composition of set	Number of pieces in assortment/set (PCS)	11498... Ident. No.		11498... Ident. No.		11498... Ident. No.		11498... Ident. No.	
8.0/10.0/12.5/16.0/20.0	5	900	●	905	●	910	●	915	●
6.3/8.0/10.0/12.5/16.0/20.0/25.0	7	920	●	925	●	930	●	935	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

ATORN® Conical countersink, 60°, HSS, multi-flute cutter (DIN 334)

For universal use up to 1000 N/mm²

60° | HSS | Z 5 | Z 7 | HA

Application:
For producing 60° counterbores up to 1000 N/mm².

Execution:
- profile-ground multi-edge countersink with straight cutting edge

Advantage:
- high number of cutting edges for quiet cutting performance
- very good cutting performance and surface quality (chatter-free)

mm	mm	mm	mm	Number of cutting edges (PCS)	f steel 700 ● (mm/U)	11495... Ident. No.	
8	1.5	50	8	5	0.1	308	●
12.5	2	50	8	5	0.13	312	●
16	3.2	60	10	7	0.14	316	●
20	5	63	10	7	0.16	320	●

Prod. Gr. 1EB

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11495308-320	30	20	10	10		40	70	40	40	60	60	30		20					

ATORN® Conical countersink, 60°, HSS, multi-flute cutter (DIN 334)

For universal use up to 1000 N/mm²

60° | HSS | Z 9 | Z 11 | Z 13 | MK

Application:
For producing 60° counterbores up to 1000 N/mm².

Execution:
- profile-ground multi-edge countersink with straight cutting edge

Advantage:
- high number of cutting edges for quiet cutting performance
- very good cutting performance and surface quality (chatter-free)

mm	mm	mm		Number of cutting edges (PCS)	f steel 700 ● (mm/U)	11495... Ident. No.	
25	7	125	MK 2	9	0.18	330	●
31.5	9	132	MK 2	9	0.21	340	●
40	12	160	MK 3	11	0.25	350	●
50	16	170	MK 3	13	0.28	360	●

Prod. Gr. 1EB

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11495330-360	30	20	10	10		40	70	60	50	40	30	30		15					

ATORN® HSS 60° conical countersink, three-flute cutter (DIN 334)

For universal use up to 1000 N/mm²

60° | HSS | Z 3 | MK

Application:
For producing 60° counterbores up to 1000 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11498226-263	30	20	10	10		40	70	60	50	40	30	30		15					

mm	mm	mm		Cutting material f steel 700 ● (mm/U)	ATORN® HSS 11498... Ident. No.	
25	6.3	112	MK 2	0.18	226	●
31.5	10	118	MK 2	0.21	231	●
40	12.5	150	MK 3	0.25	240	●
50	16	160	MK 3	0.28	250	●
63	20	190	MK 4	0.33	263	●

Prod. Gr. 1EB

ATORN® ORION® HSSE 60° conical countersink, single-flute cutter

For universal use up to 1300 N/mm²

60° | HSSE | Z 1 | HA

Application:
For producing 60° counterbores up to 1300 N/mm².

Execution:
- profile-ground single-edge countersink

Advantage:
- radial relief ensures optimum chip breaking
- deep and wide flute provides optimum chip removal
- **Ident. No. 405–430:** special geometry ensures vibration-free and accurate countersinking with high finish quality

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11497405-430	30	20	10	8		40	70	60	50	40	30	30		15	8				
11497705-730	30	20	10	8		40	70	60	50	40	30	30		15	8				

mm	Min./max. cutting edge Ø	mm	mm	f steel 1000 ● (mm/U)	ATORN® 11497... Ident. No.		ORION® 11497... Ident. No.	
5	1-5 mm	5	50	0.07	405	●	705	●
10	1-10 mm	10	60	0.12	410	●	710	●
15	2-15 mm	10	65	0.14	415	●	715	●
20	2-20 mm	10	73	0.16	420	●	720	●
25	2-25 mm	10	80	0.16	425	●	-	-
30	3-30 mm	12	82	0.2	430	●	730	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

conical countersink HSS 75°

application:
for 75° screw head countersinking or deburring holes.

75° | 75° | HSS

ATORN® HSS 75° conical countersink, three-flute cutter

For universal use up to 1000 N/mm²

75° | HSS | Z 3 | HA

Application:
For producing 75° counterbores up to 1000 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11499008-025	30	20	10	10		40	70	60	50	40	30	30		15					

mm	mm	mm	mm	Surface f steel 700 ● (mm/U)	Uncoated 11499... Ident. No.	
8	2	6	50	0.1	008	●

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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mm	mm	mm	mm	Surface f steel 700 ● (mm/U)	Uncoated 11499... Ident. No.	
10	2.5	6	54	0.12	010	●
12.5	2.8	8	54	0.13	012	●
15	3.2	8	56	0.14	015	●
20	3.5	10	63	0.16	020	●
25	6.3	10	71	0.18	025	●

Prod. Gr. 1EB

Countersinks 100° HSS

Application:
For countersinking 100° rivet and screw heads or deburring of bores.

100° | 100° | HSS

ATORN® HSS 100° conical countersink, three-flute cutter

For universal use up to 1000 N/mm²

100° | HSS | Z 3 | HA

Application:
For producing 100° counterbores up to 1000 N/mm².

Execution:
- Profile-ground three-edge countersink with radial relief

Advantage:
- Extremely smooth running and chatter-free countersinking in 100° countersinks

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11501861-867	30	20	10	10	8	40	70	60	50	40	30	30		15					

mm	mm	mm	mm	Surface f steel 700 ● (mm/U)	Uncoated 11501... Ident. No.	
6.3	1.5	5	44	0.08	861	●
8.00	2.0	6	49	0.1	862	●
10.4	2.5	6	49	0.12	863	●
12.4	2.8	8	55	0.13	864	●
16.5	3.2	10	59	0.14	865	●
20.5	3.5	10	62	0.16	866	●
25.00	3.8	10	65	0.18	867	●

Prod. Gr. 1EB

conical countersink HSS 120°

application:
for 120° screw head countersinking or deburring holes.

120° | 120° | HSS

ATORN® HSS 120° conical countersink, three-flute cutter

For universal use up to 1000 N/mm²

120° | HSS | Z 3 | MK

Application:
For producing 120° counterbores up to 1000 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking

mm	mm	mm		Cutting material f steel 700 ● (mm/U)	HSS 11502... Ident. No.	
31.5	4.2	107	MK 2	0.21	231	●
40	10	134	MK 3	0.25	240	●
50	14	143	MK 3	0.28	250	●

Prod. Gr. 1EB

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11502231-250	30	20	10	10		40	50	20	20	40	40	30		20					

ATORN® ORION® Hand deburrers 90° HSS

With 3 flutes

90° HSS Z 3

Ident. No. 111–125

Application:
For producing 90° counterbores and for deburring up to 1000 N/mm².

Execution:
- profile-ground triple-edge countersink with radial relief

Advantage:
- radial relief ensures optimum chip breaking
- **Ident. No. 111–125:**
  - innovative cutting geometry provides excellent cutting performance and good finish quality
  - ergonomic plastic handle ensures good power transmission

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11511111-125	●	●	○	○		●	●	●	●	●	●	●	○	○					
11511211-225	●	●	○	○		●	●	●	●	●	●	●	○	○					

	ATORN®		ORION®	
Spot-facer Ø (mm)	11511... Ident. No.		11511... Ident. No.	
11.5	111	●	211	●
12.4	112	●	212	●
15	115	●	215	●
16.5	116	●	216	●
19	119	●	219	●
20.5	120	●	220	●
23	123	●	223	●
25	125	●	225	●

ATORN® = Prod. Gr. 1EB
ORION = Prod. Gr. 1EH

ATORN® HSSE 90° hand deburrer set, three-flute cutter with hexagon shank

For universal use up to 1000 N/mm²

90° HSS Z 3

Application:
For 90° counterboring and deburring for the material groups of steel, (stainless steel), non-ferrous metals and (cast iron) up to a strength of 1000 N/mm².

Execution:
- Profile-ground triple-edge countersink with radial relief on the blade

Advantage:
- Radial relief ensures optimum chip breaking
- Innovative cutting geometry provides excellent cutting performance and good finish quality

Technical data:
- Composition of set: 1 of each conical countersink 8/10/11.5/15/20.5

11511...	Ident. No.	900
		●

Prod. Gr. 1EB

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11511900	●	●	○	○		●	●	●	●	●	●	●	○	○					

ATORN® Handle with collet chuck

From hand deburrer set

11511...	Ident. No.	530
		●

Prod. Gr. 1EB

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
www.iconridge.com
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ATORN® HSS 90° hand deburring tool, three-flute cutter with hexagon shank

For universal use up to 1000 N/mm²

90° | HSS | Z 3

Application:
For 90° counterboring and deburring for the material groups of steel, (stainless steel), non-ferrous metals and (cast iron) up to a strength of 1000 N/mm² in individual part and series production.

Execution:
- profile-ground triple-edge countersink with radial back taper on the flute for the most demanding of requirements for dimensional tolerance and process reliability

Advantage:
- radial relief ensures optimum chip breaking
- precision grinding for the most demanding requirements in terms of dimensional accuracy
- innovative cutting geometry provides excellent cutting performance and good finish quality

Notes:
shaft diameter 6mm

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11511508-520	●	●	○	○		●	●	●	●	●	●	●	○	○					

Spot-facer Ø (mm)	11511... Ident. No.	
8	508	●
10	510	●
11.5	511	●
15	515	●
20.5	520	●

Prod. Gr. 1EB

ATORN® ORION® Solid carbide 90° deburrer

90° | VHM | Z 4 | HA

Application:
For producing chamfers and for deburring up to 1300 N/mm².

Execution:
- Solid carbide deburring tool with universal precision grinding

Advantage:
- **Ident. No. 040–121:**
  - Cutting edge treatment minimises micro-fractures
  - very good surface quality and dimensional accuracy
- **Ident. No. 140–221:** universal tool with an outstanding price-performance ratio

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11538040-120	60	45	35	40	30	140	180	100	80	70	60	55	40	50	20	15	15		
11538041-121	60	45	35	40	30	140	180	100	80	70	60	55	40	50	20	15	15		
11538140-220	60	45	35	40	30	140	180	100	80	70	60	55	40	50	20	15	15		
11538141-221	60	45	35	40	30	140	180	100	80	70	60	55	40	50	20	15	15		

					ATORN®				ORION®			
				Surface	Uncoated		TiAlN		Uncoated		TiAlN	
Spot-facer Ø (mm)	Countersink angle (Degree)	Length (mm)	Shaft Ø (mm)	f steel 1000 ● (mm/U)	11538... Ident. No.		11538... Ident. No.		11538... Ident. No.		11538... Ident. No.	
4	90	54	4	0.02	040	●	041	●	140	●	141	●
6	90	57	6	0.03	060	●	061	●	160	●	161	●
8	90	63	8	0.05	080	●	081	●	180	●	181	●
10	90	72	10	0.06	100	●	101	●	200	●	201	●
12	90	83	12	0.08	120	●	121	●	220	●	221	●

ORION = Prod. Gr. 103
ATORN® = Prod. Gr. 114

ATORN® Solid carbide 90° forward and reverse deburring tool TiAlN, four-flute cutter

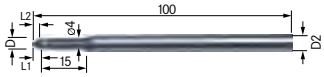
For universal use up to 1300 N/mm²

90° | VHM | TiAlN | Z 4

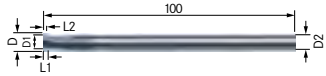
Application:
For linear and circular forwards and backwards deburring or 90° chamfering of workpieces in the steel, stainless steel, non-ferrous metals, cast and special alloy material groups up to a strength of 1300 N/mm2 in single part and series production.

Execution:
- Solid carbide TiAlN 90° tool with universal precision grinding

Advantage:
- innovative cutting geometry with greater number of flutes provides excellent cutting performance and good surface quality



Ident. No. 040–060



Ident. No. 080–120

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11539	60	45	35	40	30	140	180	100	80	70	60	55		50	20	15	15		

Construction size	D (mm)	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	f steel 1000 ● (mm/U)	11539... Ident. No.	
4	3.9	0.6	6	2	1	0.01	040	●
6	5.8	0.8	6	3.8	1.9	0.01	060	●
8	7.8	6	6	1.8	0.9	0.01	080	●
10	9.8	6	6	3.8	1.9	0.012	100	●
12	11.8	6	6	5.8	2.9	0.015	120	●

Prod. Gr. 114

ATORN® ORION® Counterbore 180° (DIN 373)

For thread core holes

HSSE | HSS | 180° | HA

Application:
For producing 180° counterbores for thread core holes in accordance with DIN 74-2, types H, J, K and DIN 974-1.

Execution:
- profile-ground with spiral blade

Advantage:
- spiral chip flutes ensure smooth cutting and the blade does not catch

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11439	30	20	10	10	10	70	80	45	40	40	40	30		15	7				

						ATORN®		ORION®	
					Cutting material	HSSE		HSS	
					Surface	Uncoated		Uncoated	
Suitable for screw thread	Spot-facer Ø (mm)	Tenon Ø (mm)	Shaft Ø (mm)	Length (mm)	Number of cutting edges (PCS)	11439... Ident. No.		11438... Ident. No.	
M3	6	2.5	5	71	3	030	●	030	●
M3	6.5	2.5	5	71	3	031	●	-	-
M4	8	3.3	5	71	3	040	●	040	●
M5	10	4.2	8	80	3	050	●	050	●
M6	11	5	8	80	3	060	●	060	●
M8	15	6.8	12.5	100	3	080	●	080	●
M10	18	8.5	12.5	100	3	100	●	100	●
M12	20	10.2	12.5	100	3	120	●	120	●

ATORN® = Prod. Gr. 1EA
ORION = Prod. Gr. 103

ATORN® ORION® Counterbore 180° (DIN 373)

For fine through hole

HSSE | HSS | TiN | 180° | HA

No. 11442–11445

No. 11451

Application:
No. 11442–11445: For producing counterbores 180° fine quality grade for through hole to DIN 74-2, forms H, J, K and DIN 974-1.
No. 11451: For producing 180° counterbores of fine quality grade for through holes in accordance with DIN 74-2, type H, J, K and DIN 974-1.

Execution:
- profile-ground with spiral blade

Advantage:
- spiral chip flutes ensure smooth cutting and the blade does not catch
- precision grinding for highest requirements in terms of concentricity and dimensional accuracy

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11445	30	20	10	10	10	70	80	45	40	40	40	30		15	7				
11451	30	20	10	10	10	70	80	45	40	40	40	30		15	7				

						ATORN®				ORION®	
					Cutting material	HSSE		HSSE		HSS	
					Surface	Uncoated		TiN		Uncoated	
Suitable for screw thread	Spot-facer Ø (mm)	Tenon Ø (mm)	Shaft Ø (mm)	Length (mm)	Number of cutting edges (PCS)	11445... Ident. No.		11451... Ident. No.		11442... Ident. No.	
M3	6	3.2	5	71	3	030	●	030	●	030	●
M3	6.5	3.2	5	71	3	031	●	031	●	-	-
M4	8	4.3	5	71	3	040	●	040	●	040	●
M5	10	5.3	8	80	3	050	●	050	●	050	●
M6	11	6.4	8	80	3	060	●	060	●	060	●
M8	15	8.4	12.5	100	3	080	●	080	●	080	●
M10	18	10.5	12.5	100	3	100	●	100	●	100	●
M12	20	13	12.5	100	3	120	●	120	●	120	●

ATORN® = Prod. Gr. 1EA
ORION = Prod. Gr. 103

ORION® ATORN® Counterbore 180° (DIN 373)

For through hole, medium quality grade

HSS | HSSE | TiN | 180° | HA

Application:
For producing 180° counterbores of medium quality grade for through holes in accordance with DIN 74-2, type H, J, K and DIN 974-1.

Execution:
- profile-ground with spiral blade

Advantage:
- spiral chip flutes ensure smooth cutting and the blade does not catch

No. 11449–11452

No. 11454

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11449	30	20	10	10		70	80	45	40	40	40	30		15					
11452	30	20	10	10	10	70	80	45	40	40	40	30		15	7				
11454	30	20	10	10	10	70	80	45	40	40	40	30		15	7				

						ORION®		ATORN®			
					Cutting material	HSS		HSSE		HSSE	
					Surface	Uncoated		Uncoated		TiN	
Suitable for screw thread	Spot-facer Ø (mm)	Tenon Ø (mm)	Shaft Ø (mm)	Length (mm)	Number of cutting edges (PCS)	11449... Ident. No.		11452... Ident. No.		11454... Ident. No.	
M10	18	11	12.5	100	3	100	●	100	●	100	●
M12	20	13.5	12.5	100	3	120	●	120	●	120	●
M2	4.3	2.4	4.3	56	3	020	●	-	-	-	-
M3	6	3.4	5	71	3	030	●	030	●	030	●
M3	6.5	3.4	5	71	3	-	-	031	●	031	●
M4	8	4.5	5	71	3	040	●	040	●	040	●
M5	10	5.5	8	80	3	050	●	050	●	050	●
M6	11	6.6	8	80	3	060	●	060	●	060	●
M8	15	9	12.5	100	3	080	●	080	●	080	●

ATORN® = Prod. Gr. 1EA
ORION = Prod. Gr. 103

ATORN® ORION® HSS/HSSE counterbore sets (DIN 373)

In metal box

Application:
No. 11438: For producing 180° counterbores for thread core holes in accordance with DIN 74-2, types H, J, K and DIN 974-1.
No. 11439: For producing counterbores for thread core holes in accordance with DIN 74-2, types H, J, K and DIN 974-1.
No. 11442–11445: For producing 180° counterbores of fine quality grade for through holes in accordance with DIN 74-2, type H, J, K and DIN 974-1.
No. 11449–11452: For producing 180° counterbores of medium quality grade for through holes in accordance with DIN 74-2, type H, J, K and DIN 974-1.

Execution:
- profile-ground with spiral blade

Advantage:
- spiral chip flutes ensure smooth cutting and the blade does not catch

Technical data:
- Suitable for screw thread: M3 | M4 | M5 | M6 | M8 | M10
- Composition of set: 1 of each counterbore for M3/M4/M5/M6/M8/M10

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11438500	30	20	10	10		70	80	45	40	40	40	30		15					
11439500	30	20	10	10	10	70	80	45	40	40	40	30		15	7				
11442500	30	20	10	10		70	80	45	40	40	40	30		15					
11445500	30	20	10	10	10	70	80	45	40	40	40	30		15	7				
11449500	30	20	10	10		70	80	45	40	40	40	30		15					

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11452500	30	20	10	10	10	70	80	45	40	40	40	30		15	7				

	ATORN						ORION					
Cutting material	HSSE		HSSE		HSSE		HSS		HSS		HSS	
Version	11452... Ident. No.		11445... Ident. No.		11439... Ident. No.		11449... Ident. No.		11442... Ident. No.		11438... Ident. No.	
For clearance hole M3/M4/M5/M6/M8/M10, medium quality grade	500	●	-	-	-	-	500	●	-	-	-	-
For clearance hole M3/M4/M5/M6/M8/M10, fine quality grade	-	-	500	●	-	-	-	-	500	●	-	-
For thread core hole M3/M4/M5/M6/M8/M10	-	-	-	-	500	●	-	-	-	-	500	●

ATORN = Prod. Gr. 1EA
ORION = Prod. Gr. 103

ORION® HSS 180° counterbore, uncoated for fine through holes (DIN 373)

For universal use up to 1000 N/mm²

HSS | MK

Application:
For producing 180° counterbores of fine quality grade for through holes in accordance with DIN 74-2, type H, J, K and DIN 974-1.

Execution:
- profile-ground with spiral blade

Advantage:
- spiral chip flutes ensure smooth cutting and the blade does not catch
- precision grinding for high requirements on concentricity and dimensional accuracy

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11443	30	20	10	10		70	80	45	40	40	40	30		15	7				

Suitable for screw thread	Spot-facer Ø (mm)	Tenon Ø (mm)	Morse taper size	Length (mm)	Cutting material / Number of cutting edges (PCS)	HSS 11443... Ident. No.	
M10	18	10.5	MK 2	150	3	210	●
M12	20	13	MK 2	150	3	212	●
M14	24	15	MK 2	160	3	214	●
M16	26	17	MK 3	190	3	216	●
M20	33	21	MK 3	190	3	220	●
M24	40	25	MK 3	205	3	224	●

Prod. Gr. 103

ORION® HSS 180° counterbore, uncoated for medium through holes

For universal use up to 1000 N/mm²

HSS | 180° | MK

Application:
For producing 180° counterbores of medium quality grade for through holes in accordance with DIN 74-2, type H, J, K and DIN 974-1.

Execution:
- profile-ground with spiral blade

Advantage:
- spiral chip flutes ensure smooth cutting and the blade does not catch

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11446	30	20	10	10		70	80	45	40	40	40	30		15					

Suitable for screw thread	Spot-facer Ø (mm)	Tenon Ø (mm)	Morse taper size	Length (mm)	Cutting material / Surface / Number of cutting edges (PCS)	HSS Uncoated 11446... Ident. No.	
M10	18	11	MK 2	150	3	210	●
M12	20	13.5	MK 2	150	3	212	●
M14	24	15.5	MK 2	160	3	214	●
M16	26	17.5	MK 3	190	3	216	●
M20	33	22	MK 3	190	3	220	●
M24	40	26	MK 3	205	3	224	●

Prod. Gr. 103

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
www.iconridge.com
ICON RIDGE

ORION® HSS tapered cone drill set

For universal use up to 1000 N/mm²

HSS | TiN

Application:
For producing bores in thin sheets made from steel, non-ferrous metals and cast iron. Also suitable for all plastics, for hard paper and plywood, as well as all materials of similar structure and strength.

Execution:
- Profile-ground to meet the highest requirements for dimensional accuracy and process reliability

Advantage:
- Innovative cutting geometry: All bores are burr and chatter free
- User-friendly regrinding: Drills can be reground repeatedly
- No deformations even with the thinnest material thicknesses
- Robust metal box protects the tool from damage

	Surface	Uncoated		TiN	
Composition of set	Number of pieces in assortment/ set (PCS)	11403... Ident. No.		11404... Ident. No.	
Type 0/1/2 + drilling paste	4	010	●	010	●

Prod. Gr. 103

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11403	●	●	○	○		●	●	●	●	●	●	●	●	●					
11404	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○		

ATORN® ORION® HSS step drill with spiral

For universal use up to 1000 N/mm²

HSS | TiN

Application:
For drilling and simultaneous deburring in steel, stainless steel, non-ferrous metals and cast iron.

Execution:
- Profile-ground and twisted

Advantage:
- Twisted design ensures smooth cutting behaviour
- No catching on the cutter and low cutting forces and torques
- High variability: A wide range of bores can be covered with just one tool
- **Ident. No. 100, 200, 300:** 3-facet shank ensures good torque transfer in the chuck
- **Ident. No. 150, 250, 350:** 3-facet shank ensures good torque transfer in the chuck, TiN coating for increased service life requirements

Ident. No. 100–105, 200–205, 300–305

Ident. No. 150–155, 250–255, 350–355
Version HSS-TIN

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11405100-300	●	●	○	○		●	●	●	●	●	●	●	●	●					
11405105-305	●	●	○	○		●	●	●	●	●	●	●	●	●					
11405150-350	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				
11405155-355	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				

					ATORN®		ORION®		ATORN®		ORION®	
				Surface	Plasma-nitrated		Uncoated		TiN		TiN	
Type	Step Ø	Step length (mm)	Length (mm)	Shaft Ø (mm)	11405... Ident. No.		11405... Ident. No.		11405... Ident. No.		11405... Ident. No.	
1	4 mm | 5 mm | 6 mm | 7 mm | 8 mm | 9 mm | 10 mm | 11 mm | 12 mm	5	79	6	100	●	105	●	150	●	155	●
2	6 mm | 8 mm | 10 mm | 12 mm | 14 mm | 16 mm | 18 mm | 20 mm	4.5	71	9	200	●	205	●	250	●	255	●
3	6 mm | 8 mm | 10 mm | 12 mm | 14 mm | 16 mm | 18 mm | 20 mm | 22 mm | 24 mm | 26 mm | 28 mm | 30 mm	4	100	10	300	●	305	●	350	●	355	●

ORION = Prod. Gr. 103
ATORN® = Prod. Gr. 114

ATORN® ORION® Step drill set with spiral

Sets in box

HSS | TiN

Application:
For drilling and simultaneous deburring in steel, stainless steel, non-ferrous metals and cast iron.

Execution:
- Profile-ground and twisted cutter

Advantage:
- Twisted design ensures smooth cutting behaviour
- No catching on the cutter and low cutting forces and torques
- High variability: A wide range of bores can be covered with just one tool
- **Ident. No. 800, 900:** 3-facet shank ensures good torque transfer in the chuck

Ident. No. 900–905

		ATORN®		ORION®		ATORN®		ORION®	
	Surface	Plasma-nitrated		Uncoated		TiN		TiN	
Composition of set	Number of pieces in assortment/set (PCS)	11405... Ident. No.		11405... Ident. No.		11405... Ident. No.		11405... Ident. No.	
Type 1/2/3	3	800	●	805	●	900	●	905	●

ORION = Prod. Gr. 103
ATORN® = Prod. Gr. 114

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11405800	●	●	○	○		●	●	●	●	●	●	●	●	●					
11405805	●	●	○	○		●	●	●	●	●	●	●	●	●					
11405900	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				
11405905	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				

ATORN® ORION® HSS step drill, straight groove

For universal use up to 1000 N/mm²

HSS | TiN

Application:
For drilling and simultaneous deburring in steel, stainless steel, non-ferrous metals and cast iron.

Execution:
- Profile-ground and straight

Advantage:
- High variability: A wide range of bores can be covered with just one tool
- **Ident. No. 100, 150, 200, 250, 300, 350:** 3-facet shank ensures good torque transfer in the chuck

Ident. No. 100–105, 200–205, 300–305

Ident. No. 150–155, 250–255, 350–355

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11407100-300	●	●	○	○		●	●	●	●	●	●	●	●	●					
11407105-305	●	●	○	○		●	●	●	●	●	●	●	●	●					
11407150-350	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				
11407155-355	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				

					ATORN®		ORION®		ATORN®		ORION®	
				Surface	Uncoated		Uncoated		TiN		TiN	
Type	Step Ø	Step length (mm)	Length (mm)	Shaft Ø (mm)	11407... Ident. No.		11407... Ident. No.		11407... Ident. No.		11407... Ident. No.	
1	4 mm | 5 mm | 6 mm | 7 mm | 8 mm | 9 mm | 10 mm | 11 mm | 12 mm	5	79	6	100	●	105	●	150	●	155	●
2	6 mm | 8 mm | 10 mm | 12 mm | 14 mm | 16 mm | 18 mm | 20 mm	4.5	71	9	200	●	205	●	250	●	255	●
3	6 mm | 8 mm | 10 mm | 12 mm | 14 mm | 16 mm | 18 mm | 20 mm | 22 mm | 24 mm | 26 mm | 28 mm | 30 mm	4	85	12	300	●	305	●	350	●	355	●

ORION = Prod. Gr. 103
ATORN® = Prod. Gr. 114

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
www.iconridge.com
ICON RIDGE

ATORN® ORION® HSS step drill set, straight groove

For universal use up to 1000 N/mm²

HSS | TiN

Application:
For drilling and simultaneous deburring up to a diameter of 30 mm and a material thickness of 5 mm in steel, stainless steel, non-ferrous metals and cast iron.

Execution:
- Profile-ground and straight

Advantage:
- High variability: A wide range of bores can be covered with just one tool
- **Ident. No. 800, 900:** 3-facet shank ensures good torque transfer in the chuck

Ident. No. 900

		ATORN®		ORION®		ATORN®		ORION®	
	Surface	Uncoated		Uncoated		TiN		TiN	
Composition of set	Number of pieces in assortment/set (PCS)	11407... Ident. No.		11407... Ident. No.		11407... Ident. No.		11407... Ident. No.	
Type 1/2/3	3	800	●	805	●	900	●	905	●

ORION = Prod. Gr. 103
ATORN® = Prod. Gr. 114

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11407800	●	●	○	○		●	●	●	●	●	●	●	●	●					
11407805	●	●	○	○		●	●	●	●	●	●	●	●	●					
11407900	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				
11407905	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				

ATORN® Step drill HSS, straight groove with exchange bit

For universal use up to 1000 N/mm² in general tool construction

HSS | TiN

Application:
For drilling and simultaneous deburring of holes up to a diameter of 58 mm and a material thickness of up to 4 mm in steel, non-ferrous metals and cast iron. Tool diameters are geared towards meeting the demands of general tool construction.

Execution:
- Step drill, profile-ground, with straight cutting edge

Advantage:
- High variability: A wide range of bores can be covered with just one tool
- 3-facet shank ensures good torque transfer in the chuck
- User-friendly tool changing: Bit easily replaced in case of wear

No. 11409

Type	Step Ø	Step length (mm)	Surface Length (mm)	Uncoated 11408... Ident. No.		TiN 11409... Ident. No.	
A1	9 mm | 12 mm | 15 mm | 18 mm | 21 mm | 24 mm | 27 mm | 30 mm | 33 mm | 36 mm	4	85	010	●	010	●
A2	25 mm | 28 mm | 31 mm | 34 mm | 37 mm | 40 mm | 43 mm | 46 mm | 49 mm | 52 mm | 55 mm | 58 mm	4	85	015	●	015	●

Prod. Gr. 114

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11408010-015	●	●	○	○		●	●	●	●	●	●	●	●	●					
11409010-015	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				

ATORN® Step drill HSS, straight groove with exchange bit

For the electrical industry

HSS | TiN

Application:
For drilling through holes for reinforced pipe thread in steel, stainless steel, non-ferrous metals and cast iron.

Execution:
- Step drill, profile-ground, with spiral cutting edge

Advantage:
- High variability: A wide range of bores can be covered with just one tool
- 3-facet shank ensures good torque transfer in the chuck
- User-friendly tool changing: Bit easily replaced in case of wear

No. 11408 020, 11409 020–11409 025

Type	Step Ø	Step length (mm)	Surface Length (mm)	Uncoated 11408... Ident. No.		TiN 11409... Ident. No.	
E1 through hole	12.5 mm (PG7) | 15.2 mm (PG9) | 18.6 mm (PG11) | 20.4 mm (PG13.5) | 22.5 mm (PG16) | 28.3 mm (PG21)	4	85	020	●	020	●
E2 core hole	11.4 mm (PG7) | 15 mm (PG9) | 17.25 mm (PG11) | 19 mm (PG13.5) | 21.25 mm (PG16) | 26.75 mm (PG21)	6	92	030	●	025	●

Prod. Gr. 114

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11408020	●	●	○	○		●	●	●	●	●	●	●	●	●					
11408030	●	●	○	○		●	●	●	●	●	●	●	●	●					
11409020	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				
11409025	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				

ATORN® HSS step drill, spiral groove with interchangeable bit

For universal use up to 1000 N/mm² in electrical industry MF thread

HSS | TiN

Application:
For drilling through holes and core holes for metric fine thread up to a material thickness of 4 mm in steel, stainless steel, non-ferrous metals and cast iron.

Execution:
- **No. 11408:** Step drill HSS, uncoated and profile-ground with twisted tip for highest requirements in terms of dimensional accuracy and process reliability
- **No. 11409:** Step drill HSS TiN, profile-ground and twisted tip for highest requirements in terms of dimensional accuracy and process reliability

Advantage:
- High variability: A wide range of bores can be covered with just one tool
- 3-facet shank ensures good torque transfer in the chuck
- User-friendly tool changing: Bit easily replaced in case of wear

No. 11408

No. 11409

Type	Step Ø	Step length (mm)	Surface Length (mm)	Plasma-nitrated 11408... Ident. No.		TiN 11409... Ident. No.	
E 3 S	10.5/12.5 mm (M12 x 1.5) | 14.5/16.5 mm (M16 x 1.5) | 18.5/20.5 mm (M20 x 1.5) | 23.5/25.5 mm (M25 x 1.5) | 30.5/32.5 mm (M32 x 1.5) | 38.5/40.5 mm (M40 x 1.5)	4	110	040	●	040	●

Prod. Gr. 114

Application	Steel (N/mm²)			Stainless steel		Alu		Brass		Bronze		Plas-tics	Graphite G(C)FK	GG(G) GjMW	Titan-alloy	Nickel-alloy	Super-alloy	Hard mat.	
No.	<700	<1000	<1300	marten.	austen.	short	long	short	long	short	long							<55 HRC	<65 HRC
11408040	●	●	○	○		●	●	●	●	●	●	●	●	●					
11409040	●	●	●	●	○	●	●	●	●	●	●	●	●	●	○				

ATORN® HSS exchange bit for step drill

No. 11408-11409

HSS | TiN

Application:
For use in step drill 11408 010-040 and 11409 010-040

Execution:
- **No. 11408:** Replacement bit HSS, uncoated with 118° tip angle and profile-ground, twisted tip for highest requirements in terms of dimensional accuracy and process reliability
- **No. 11409:** Replacement bit HSS-TiN, with 118° tip angle and profile-ground, twisted tip for highest requirements in terms of dimensional accuracy and process reliability

Advantage:
- Twisted design ensures smooth cutting behaviour
- User-friendly tool changing: Bit easily replaced in case of wear

Technical data:
- Type: Step drills

No. 11408
Spare drills

No. 11409
Spare drills

	Surface	Uncoated 11408... Ident. No.		TiN 11409... Ident. No.	
		110	●	110	●

Prod. Gr. 114

Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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