



HSS Bohrer

E HSS drills

I HSS punte elicoidali



HSS Bohrer
HSS drills
HSS punte elicoidali

D **Übersicht**
Zentrierbohrer,
NC-Anbohrer

E **Overview**
Centre drills,
NC-centre drills

I **Sommario**
Punte da centro,
Punte NC

D Die Schnittwerte für alle Werkzeuge entnehmen Sie bitte unserem separaten Zerspanungshandbuch.

E You will find the cutting conditions for all tools in our separate cutting manual.

I Per i parametri di lavorazione per tutti gli utensili richiedete il nostro manuale tecnico.



Norm / Standard	DIN 333		WN			
Typ / Type / Tipo	RN, Form A	RN, Form R	RN	RN	RN	RN
Bohrtiefe / Depth of drilling / Profondità foro						
Schneidstoff / Cutting material / Acciaio punta	HSS	HSS	HSS-Co5	HSS-Co5	HSS-Co5	HSS-Co5
Beschichtung / Coating / Rivestimento				ALUNIT®		ALUNIT®
Spitzenwinkel / Lip angle / Angolo affilatura	118° / 60°	120°	90°	90°	120°	120°
Sonderanschliff / Special point shape / Affilatura speciale						
Ø mm	1-10	1-6,3	5-20	5-20	5-20	5-20
Code / Codice	021	031	554	564	555	565
Seite / Page / Pagina	224	224	225	225	226	226

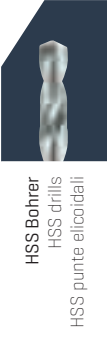
Geeignet für / Suitable for / Adatte per						
	Stähle < 400 N/mm² Steels < 400 N/mm² Acciai < 400 N/mm²					
	Stähle < 850 N/mm² Steels < 850 N/mm² Acciai < 850 N/mm²					
	Stähle < 1.100 N/mm² Steels < 1.100 N/mm² Acciai < 1.100 N/mm²					
	Stähle < 1.300 N/mm² Steels < 1.300 N/mm² Acciai < 1.300 N/mm²					
	Stähle > 45 HRC Steels > 45 HRC Acciai > 45 HRC					
	Rostfreie Stähle < 850 N/mm² Stainless steels < 850 N/mm² Acciai inossidabili < 850 N/mm²					
	Rostfreie Stähle > 850 N/mm² Stainless steels > 850 N/mm² Acciai inossidabili > 850 N/mm²					
	Grauguss, Temperguss Cast iron, malleable cast iron Ghisa grigia, ghisa malleabile					
	Titan- und Titanlegierung Titanium and titanium alloys Titanio e leghe di Titanio					
	Kupfer, Messing Copper, brass Rame, ottone					
	Aluminium Aluminium Alluminio					
	Kunststoffe Plastics Materie plastiche					

D Übersicht
HSS-Spiralbohrer

E Overview
HSS twist drills

I Sommario
Punte elicoidali HSS

HPT									
DIN 1897			DIN 338						
PZ	PZ	Forte	RN	RW	RH	RN	RN	RN	R-AS
3xd	3xd	3xd	5xd	5xd	5xd	5xd	5xd	5xd	5xd
HSS-Co5	HSS-Co5	HSS-E/PM	HSS	HSS	HSS	HSS-Co5	HSS-Co5	HSS-Co5	HSS-Co5
	TiN	ALUNIT*					TiN	ALUNIT*	
130°	130°	130°	118°	130°	118°	130°	130°	130°	130°
C	C	B	AC			C	C	C	C
1-13	1-13	2,8-12	0,2-20	1-13	1-13	1-16	1-16	1-13	2-13
901	907	900	601	651	661	603	607	630	663
226	226	229	230	232	234	235	235	238	239



D **Übersicht**
HSS-Spiralbohrer

E **Overview**
HSS twist drills

I **Sommario**
Punte elicoidali HSS

D Die Schnittwerte für alle Werkzeuge entnehmen Sie bitte unserem separaten Zerspanungshandbuch.

E You will find the cutting conditions for all tools in our separate cutting manual.

I Per i parametri di lavorazione per tutti gli utensili richiedete il nostro manuale tecnico.
































Norm / Standard	DIN 338		WN	DIN 340	
Typ / Type / Tipo	Forte	Forte	H	RN	RN
Bohrtiefe / Depth of drilling / Profondità foro	8xd	8xd	3xd	10xd	10xd
Schneidstoff / Cutting material / Acciaio punta	HSS-Co5	HSS-Co5	HSS-Co5	HSS	HSS-Co5
Beschichtung / Coating / Rivestimento		ALUNIT®			
Spitzenwinkel / Lip angle / Angolo affilatura	130°	130°	135°	118°	118°
Sonderanschliff / Special point shape / Affilatura speciale	AC	AC	C	AC	AC
Ø mm	1-13	1-13	2-13	0,5-16	1-12
Code / Codice	611	627	638	501	503
Seite / Page / Pagina	240	240	242	243	244

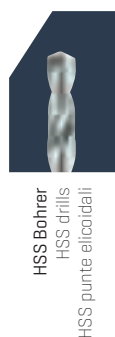
Geeignet für / Suitable for / Adatte per	DIN 338 (Forte)	DIN 338 (Forte)	WN (H)	DIN 340 (RN)	DIN 340 (RN)
 Stähle < 400 N/mm² Steels < 400 N/mm² Acciai < 400 N/mm²					
 Stähle < 850 N/mm² Steels < 850 N/mm² Acciai < 850 N/mm²					
 Stähle < 1.100 N/mm² Steels < 1.100 N/mm² Acciai < 1.100 N/mm²					
 Stähle < 1.300 N/mm² Steels < 1.300 N/mm² Acciai < 1.300 N/mm²					
 Stähle > 45 HRC Steels > 45 HRC Acciai > 45 HRC					
 Rostfreie Stähle < 850 N/mm² Stainless steels < 850 N/mm² Acciai inossidabili < 850 N/mm²					
 Rostfreie Stähle > 850 N/mm² Stainless steels > 850 N/mm² Acciai inossidabili > 850 N/mm²					
 Grauguss, Temperguss Cast iron, malleable cast iron Ghisa grigia, ghisa malleabile					
 Titan- und Titanlegierung Titanium and titanium alloys Titanio e leghe di Titanio					
 Kupfer, Messing Copper, brass Rame, ottone					
 Aluminium Aluminium Alluminio					
 Kunststoffe Plastics Materie plastiche					

D **Übersicht**
HSS-Spiralbohrer

E **Overview**
HSS twist drills

I **Sommario**
Punte elicoidali HSS

								
DIN 340	DIN 1869						WN	DIN 345
Forte	R1, RN	R2, RN	R3, RN	R1, Forte	R2, Forte	R3, Forte	Forte	RN
10xd	>10xd	>10xd	>10xd	>10xd	>10xd	>10xd	10xd	5xd
HSS-Co5	HSS	HSS	HSS	HSS-Co5	HSS-Co5	HSS-Co5	HSS-Co5	HSS
							ALUNIT-S*	
130°	118°	118°	118°	130°	130°	130°	118°	118°
AC	AC	AC	AC	AC	AC	AC	C	A / AC
1-14	2-13	3-13	3,5-13	3-13	3-13	3,5-13	3-10	5-70
511	101	111	121	201	211	221	141, 151	202
245	246	247	248	249	250	250	251, 252	253
								
								
								
								
								
								
								
								
								
								
								
								
								



d1 _{k12} mm	d2 _{h7} mm	l1 mm	für / for / per (1) Ø mm	Code 031 Art.-Nr.	
1,00	3,15	31,50	6-8	00 031001001 00	10
1,25	3,15	31,50	8-10	00 031001251 00	10
1,60	4,00	35,50	10-15	00 031001601 00	10
2,00	5,00	40,00	15-20	00 031002001 00	10
2,50	6,30	45,00	20-30	00 031002501 00	10
3,15	8,00	50,00	30-40	00 031003151 00	10
4,00	10,00	56,00	40-63	00 031004001 00	10
5,00	12,50	63,00	63-100	00 031005001 00	10
6,30	16,00	71,00	100-150	00 031006301 00	1

(1) Werkstück / Workpiece / Utensile

D NC-Anbohrer, 90°

Einsatzbereich:

5% kobaltlegierter NC-Anbohrer für genaues und schnelles Anbohren, Zentrieren und Anfasen, auch für Gewindebohrungen.



E NC-centre drills, 90°

Range of application:

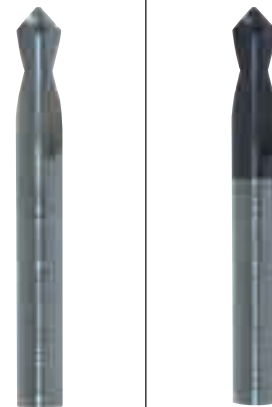
5% cobalt-alloyed NC-drills for precise and fast drilling-work, for centering and chamfering of center-holes.



I Punte a centrare NC, 90°

Impiego:

Punte NC 5% Co, esecuzione di prefori nelle lavorazioni di alta precisione e di fori per maschiatura.



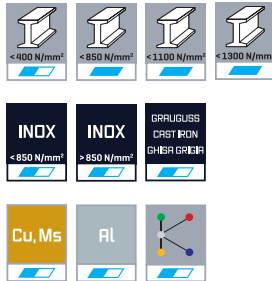
ALUNIT®

Ø _{h8} mm	l1 mm	l2 mm	Code 554 Art.-Nr.		Code 564 Art.-Nr.	
5,00	62	26,50	00 554005001 00	10	00 564005001 00	1
6,00	66	30,00	00 554006001 00	10	00 564006001 00	1
8,00	79	33,00	00 554008001 00	10	00 564008001 00	1
10,00	89	35,00	00 554010001 00	10	00 564010001 00	1
12,00	102	40,00	00 554012001 00	1	00 564012001 00	1
16,00	115	40,00	00 554016001 00	1	00 564016001 00	1
20,00	131	55,00	00 554020001 00	1	00 564020001 00	1

HSS Bohrer
HSS drills
HSS punte elicoidali

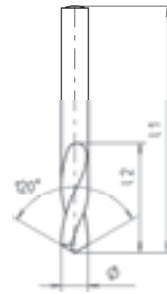
D NC-Anbohrer, 120°

Einsatzbereich:
5% kobaltlegierter NC-Anbohrer für genaues und schnelles Anbohren, Zentrieren und Anfasen, auch für Gewindebohrungen.



E NC-centre drills, 120°

Range of application:
5% cobalt-alloyed NC-drills for precise and fast drilling-work, for centering and chamfering of center-holes.



I Punte a centrare NC, 120°

Impiego:
Punte NC 5% Co, esecuzione di prefori nelle lavorazioni di alta precisione e di fori per maschiatura.

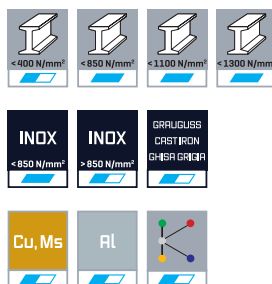


ALUNIT®

\emptyset_{h8} mm	l1 mm	l2 mm	Code 555 Art.-Nr.		Code 565 Art.-Nr.	
5,00	62	26,50	00 555005001 00	10	00 565005001 00	1
6,00	66	30,00	00 555006001 00	10	00 565006001 00	1
8,00	79	33,00	00 555008001 00	10	00 565008001 00	1
10,00	89	35,00	00 555010001 00	10	00 565010001 00	1
12,00	102	40,00	00 555012001 00	1	00 565012001 00	1
16,00	115	40,00	00 555016001 00	1	00 565016001 00	1
20,00	131	55,00	00 555020001 00	1	00 565020001 00	1

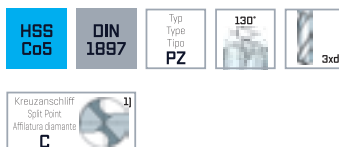
**D Spiralbohrer
extra kurz, DIN 1897 PZ**

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit verstärktem Kerndurchmesser. Besonders geeignet für zähe und harte Werkstoffe wie rost- und säurebeständige Chrom-Nickelstähle. Durch die kurze Bauweise sehr gut für Handbohrmaschinen geeignet.



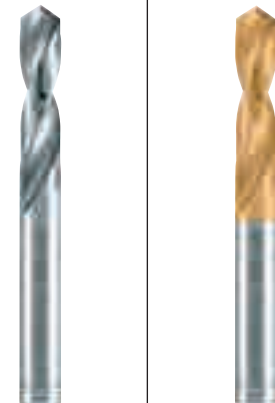
**E Stub drills
extra short series, DIN 1897 PZ**

Range of application:
5% cobalt-alloyed high-efficiency drills with re-inforced web. Specially suitable for drilling stainless steel, acid-resisting steel, spring-steel. Best for hand held operations.





**I Punte elicoidali
serie extra corta, DIN 1897 PZ**

Impiego:
Punte HSS 5% Co con nucleo rinforzato, adatte per foratura di materiali plastici, acciai inox, acciai resistenti agli acidi, acciai al Nickel Cromo. Punte particolarmente stabili adatte per torni a revolver ed automatici.



TiN

	Ø _{h8} mm	l1 mm	l2 mm	Code 901 Art.-Nr.		Code 907 Art.-Nr.	
New	1,00	26	6	00 901001001 00	10	00 907001001 00	1
New	1,10	28	7	00 901001101 00	10	00 907001101 00	1
New	1,20	30	8	00 901001201 00	10	00 907001201 00	1
New	1,30	30	8	00 901001301 00	10	00 907001301 00	1
New	1,40	32	9	00 901001401 00	10	00 907001401 00	1
New	1,50	32	9	00 901001501 00	10	00 907001501 00	1
New	1,60	34	10	00 901001601 00	10	00 907001601 00	1
New	1,70	34	10	00 901001701 00	10	00 907001701 00	1
New	1,80	36	11	00 901001801 00	10	00 907001801 00	1
New	1,90	36	11	00 901001901 00	10	00 907001901 00	1
	2,00	38	12	00 901002001 00	10	00 907002001 00	1
New	2,10	38	12	00 901002101 00	10	00 907002101 00	1
New	2,20	40	13	00 901002201 00	10	00 907002201 00	1
New	2,30	40	13	00 901002301 00	10	00 907002301 00	1
New	2,40	43	14	00 901002401 00	10	00 907002401 00	1
	2,50	43	14	00 901002501 00	10	00 907002501 00	1
New	2,60	43	14	00 901002601 00	10	00 907002601 00	1
New	2,70	46	16	00 901002701 00	10	00 907002701 00	1
	2,80	46	16	00 901002801 00	10	00 907002801 00	1
New	2,90	46	16	00 901002901 00	10	00 907002901 00	1
	3,00	46	16	00 901003001 00	10	00 907003001 00	1
New	3,10	49	18	00 901003101 00	10	00 907003101 00	1
	3,20	49	18	00 901003201 00	10	00 907003201 00	1
	3,30	49	18	00 901003301 00	10	00 907003301 00	1
	3,40	52	20	00 901003401 00	10	00 907003401 00	1
	3,50	52	20	00 901003501 00	10	00 907003501 00	1
New	3,60	52	20	00 901003601 00	10	00 907003601 00	1
New	3,70	52	20	00 901003701 00	10	00 907003701 00	1
	3,80	55	22	00 901003801 00	10	00 907003801 00	1
New	3,90	55	22	00 901003901 00	10	00 907003901 00	1
	4,00	55	22	00 901004001 00	10	00 907004001 00	1
	4,10	55	22	00 901004101 00	10	00 907004101 00	1
	4,20	55	22	00 901004201 00	10	00 907004201 00	1
	4,30	58	24	00 901004301 00	10	00 907004301 00	1
New	4,40	58	24	00 901004401 00	10	00 907004401 00	1
	4,50	58	24	00 901004501 00	10	00 907004501 00	1
New	4,60	58	24	00 901004601 00	10	00 907004601 00	1
New	4,70	58	24	00 901004701 00	10	00 907004701 00	1
New	4,80	62	26	00 901004801 00	10	00 907004801 00	1
New	4,90	62	26	00 901004901 00	10	00 907004901 00	1
	5,00	62	26	00 901005001 00	10	00 907005001 00	1
	5,10	62	26	00 901005101 00	10	00 907005101 00	1
New	5,20	62	26	00 901005201 00	10	00 907005201 00	1
New	5,30	62	26	00 901005301 00	10	00 907005301 00	1
New	5,40	66	28	00 901005401 00	10	00 907005401 00	1
	5,50	66	28	00 901005501 00	10	00 907005501 00	1
New	5,60	66	28	00 901005601 00	10	00 907005601 00	1
New	5,70	66	28	00 901005701 00	10	00 907005701 00	1
New	5,80	66	28	00 901005801 00	10	00 907005801 00	1
New	5,90	66	28	00 901005901 00	10	00 907005901 00	1
	6,00	66	28	00 901006001 00	10	00 907006001 00	1
New	6,10	70	31	00 901006101 00	10	00 907006101 00	1
New	6,20	70	31	00 901006201 00	10	00 907006201 00	1
New	6,30	70	31	00 901006301 00	10	00 907006301 00	1
New	6,40	70	31	00 901006401 00	10	00 907006401 00	1
	6,50	70	31	00 901006501 00	10	00 907006501 00	1
New	6,60	70	31	00 901006601 00	10	00 907006601 00	1
New	6,70	70	31	00 901006701 00	10	00 907006701 00	1
	6,80	74	34	00 901006801 00	10	00 907006801 00	1
New	6,90	74	34	00 901006901 00	10	00 907006901 00	1

¹⁾ ≥ Ø 2,0 mm



HSS Bohrer
HSS drills
HSS punte elicoidali

TiN

	Ø _{h8} mm	l1 mm	l2 mm	Code 901 Art.-Nr.		Code 907 Art.-Nr.	
	7,00	74	34	00 901007001 00	10	00 907007001 00	1
New	7,10	74	34	00 901007101 00	10	00 907007101 00	1
New	7,20	74	34	00 901007201 00	10	00 907007201 00	1
New	7,30	74	34	00 901007301 00	10	00 907007301 00	1
New	7,40	74	34	00 901007401 00	10	00 907007401 00	1
	7,50	74	34	00 901007501 00	10	00 907007501 00	1
New	7,60	79	37	00 901007601 00	10	00 907007601 00	1
New	7,70	79	37	00 901007701 00	10	00 907007701 00	1
New	7,80	79	37	00 901007801 00	10	00 907007801 00	1
New	7,90	79	37	00 901007901 00	10	00 907007901 00	1
	8,00	79	37	00 901008001 00	10	00 907008001 00	1
New	8,10	79	37	00 901008101 00	10	00 907008101 00	1
	8,20	79	37	00 901008201 00	10	00 907008201 00	1
New	8,30	79	37	00 901008301 00	10	00 907008301 00	1
New	8,40	79	37	00 901008401 00	10	00 907008401 00	1
	8,50	79	37	00 901008501 00	10	00 907008501 00	1
New	8,60	84	40	00 901008601 00	10	00 907008601 00	1
New	8,70	84	40	00 901008701 00	10	00 907008701 00	1
New	8,80	84	40	00 901008801 00	10	00 907008801 00	1
New	8,90	84	40	00 901008901 00	10	00 907008901 00	1
	9,00	84	40	00 901009001 00	10	00 907009001 00	1
New	9,10	84	40	00 901009101 00	10	00 907009101 00	1
New	9,20	84	40	00 901009201 00	10	00 907009201 00	1
New	9,30	84	40	00 901009301 00	10	00 907009301 00	1
New	9,40	84	40	00 901009401 00	10	00 907009401 00	1
	9,50	84	40	00 901009501 00	10	00 907009501 00	1
New	9,60	89	43	00 901009601 00	10	00 907009601 00	1
New	9,70	89	43	00 901009701 00	10	00 907009701 00	1
New	9,80	89	43	00 901009801 00	10	00 907009801 00	1
New	9,90	89	43	00 901009901 00	10	00 907009901 00	1
	10,00	89	43	00 901010001 00	10	00 907010001 00	1
	10,20	89	43	00 901010201 00	1	00 907010201 00	1
	10,50	89	43	00 901010501 00	1	00 907010501 00	1
	11,00	95	47	00 901011001 00	1	00 907011001 00	1
	11,50	95	47	00 901011501 00	1	00 907011501 00	1
	12,00	102	51	00 901012001 00	1	00 907012001 00	1
	12,50	102	51	00 901012501 00	1	00 907012501 00	1
	13,00	102	51	00 901013001 00	1	00 907013001 00	1

D HPT- Spiralbohrer
extra kurz, DIN 1897

Hochleistungs-Spiralbohrer mit Forte-Sonderprofil für optimierte Spanbildung. Besonders geeignet für den Einsatz auf Bearbeitungszentren und Drehautomaten. Breiter Anwendungsbereich in allen, vorzugsweise langspanenden, Werkstoffen bis ca. 1.300 N/mm², auch für rostfreie-austenitische Stähle. Geeignet für die Trockenbearbeitung in Stahlwerkstoffen.



E HPT- stub drills
extra short series, DIN 1897

Range of application: High-performance-twist drills with FORTE-special profile for optimized chipping. Especially suitable for machining-centres and automatic lathes. Wide range of application for all materials up to approx. 1.300 N/mm², predominately long chipping materials as well as for stainless-austenitic steels. Suitable for dry cutting steels.



ALUNIT®

I HPT- punte elicoidali
serie extra corta, DIN 1897

Impiego: Punta ad alto rendimento con profilo FORTE per ottimale asportazione del truciolo. Adatte per centri di lavorazione e torni automatici. Vasto campo d'impiego per tutti i metalli a truciolo lungo fino a ca. 1.300 N/mm² e acciai inox e austenitici. Adatte per lavorazioni a secco di materiali ferrosi.

Pulverstahl
Powder steel
Acciaio da polveri



ALUNIT®

Ø h8 mm	l1 mm	l2 mm	Code 900 Art.-Nr.	
2,80	49*	18*	00 900002801 00	1
2,90	49*	18*	00 900002901 00	1
3,00	49*	18*	00 900003001 00	1
3,10	52*	20*	00 900003101 00	1
3,20	52*	20*	00 900003201 00	1
3,30	52*	20*	00 900003301 00	1
3,40	55*	22*	00 900003401 00	1
3,50	55*	22*	00 900003501 00	1
3,60	55*	22*	00 900003601 00	1
3,70	55*	22*	00 900003701 00	1
3,80	55	22	00 900003801 00	1
3,90	55	22	00 900003901 00	1
4,00	55	22	00 900004001 00	1
4,10	55	22	00 900004101 00	1
4,20	55	22	00 900004201 00	1
4,30	58	24	00 900004301 00	1
4,40	58	24	00 900004401 00	1
4,50	58	24	00 900004501 00	1
4,60	58	24	00 900004601 00	1
4,65	58	24	00 900004651 00	1
4,70	58	24	00 900004701 00	1
4,80	62	26	00 900004801 00	1
4,90	62	26	00 900004901 00	1
5,00	62	26	00 900005001 00	1
5,10	62	26	00 900005101 00	1
5,20	62	26	00 900005201 00	1
5,30	62	26	00 900005301 00	1
5,40	66	28	00 900005401 00	1
5,50	66	28	00 900005501 00	1
5,55	66	28	00 900005551 00	1
5,60	66	28	00 900005601 00	1
5,70	66	28	00 900005701 00	1
5,80	66	28	00 900005801 00	1
5,90	66	28	00 900005901 00	1
6,00	66	28	00 900006001 00	1
6,10	70	31	00 900006101 00	1


Ø h8 mm	l1 mm	l2 mm	Code 900 Art.-Nr.	
6,20	70	31	00 900006201 00	1
6,30	70	31	00 900006301 00	1
6,40	70	31	00 900006401 00	1
6,50	70	31	00 900006501 00	1
6,60	70	31	00 900006601 00	1
6,70	70	31	00 900006701 00	1
6,80	74	34	00 900006801 00	1
6,90	74	34	00 900006901 00	1
7,00	74	34	00 900007001 00	1
7,10	74	34	00 900007101 00	1
7,20	74	34	00 900007201 00	1
7,30	74	34	00 900007301 00	1
7,40	74	34	00 900007401 00	1
7,50	74	34	00 900007501 00	1
7,60	79	37	00 900007601 00	1
7,70	79	37	00 900007701 00	1
7,80	79	37	00 900007801 00	1
7,90	79	37	00 900007901 00	1
8,00	79	37	00 900008001 00	1
8,10	79	37	00 900008101 00	1
8,20	79	37	00 900008201 00	1
8,30	79	37	00 900008301 00	1
8,40	79	37	00 900008401 00	1
8,50	79	37	00 900008501 00	1
8,60	84	40	00 900008601 00	1
8,70	84	40	00 900008701 00	1
8,80	84	40	00 900008801 00	1
8,90	84	40	00 900008901 00	1
9,00	84	40	00 900009001 00	1
9,10	84	40	00 900009101 00	1
9,20	84	40	00 900009201 00	1
9,30	84	40	00 900009301 00	1
9,40	84	40	00 900009401 00	1
9,50	84	40	00 900009501 00	1
9,60	89	43	00 900009601 00	1
9,70	89	43	00 900009701 00	1

* Entspricht nicht der DIN / Not corresponding to DIN / Non secondo DIN




HSS Bohrer
HSS drills
HSS punte elicoidali

ALUNIT®

Ø h8 mm	l1 mm	l2 mm	Code 900 Art.-Nr.	
9,80	89	43	00 900009801 00	1
9,90	89	43	00 900009901 00	1
10,00	89	43	00 900010001 00	1
10,20	89	43	00 900010201 00	1

ALUNIT®

Ø h8 mm	l1 mm	l2 mm	Code 900 Art.-Nr.	
10,50	89	43	00 900010501 00	1
11,00	95	47	00 900011001 00	1
11,50	95	47	00 900011501 00	1
12,00	102	51	00 900012001 00	1

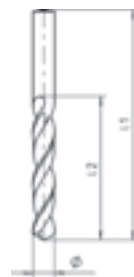
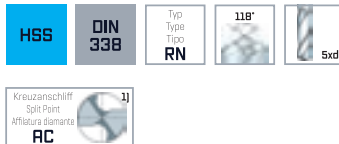
D Spiralbohrer
kurz, DIN 338 RN

Einsatzbereich:
Spiralbohrer präzisionsgeschliffen, zum Bohren von legierten und unlegierten Stählen, Grauguss, Temperguss, Kupferlegierungen, Neusilber, Graphit, Sintereisen.



E Jobber drills
short series, DIN 338 RN

Range of application:
Premium quality twist drills for drilling steel and steel castings, alloy and plain carbon, grey iron castings, copper-alloys, nickel-silver, graphite and similar materials.





I Punte elicoidali
serie corta, DIN 338 RN

Impiego:
Foratura di acciai legati, non legati, ghisa, ghisa grigia, ghisa malleabile, leghe rame, alpaca, grafite, acciai sinterizzati.




DAMPFANGELASSEN¹⁾
STEAM TEMPERED²⁾
VAPORIZZATA²⁾

Ø h8 mm	l1 mm	l2 mm	Code 601 Art.-Nr.	
0,20	19	2,5	00 601000201 00	10
0,30	19	3	00 601000301 00	10
0,35	19	4	00 601000351 00	10
0,40	20	5	00 601000401 00	10
0,50	22	6	00 601000501 00	10
0,55	24	7	00 601000551 00	10
0,60	24	7	00 601000601 00	10
0,65	26	8	00 601000651 00	10
0,70	28	9	00 601000701 00	10
0,75	28	9	00 601000751 00	10
0,80	30	10	00 601000801 00	10
0,85	30	10	00 601000851 00	10
0,90	32	11	00 601000901 00	10
0,95	32	11	00 601000951 00	10
1,00	34	12	00 601001001 00	10
1,05	34	12	00 601001051 00	10
1,10	36	14	00 601001101 00	10
1,15	36	14	00 601001151 00	10
1,20	38	16	00 601001201 00	10
1,25	38	16	00 601001251 00	10
1,30	38	16	00 601001301 00	10
1,35	40	18	00 601001351 00	10
1,40	40	18	00 601001401 00	10
1,45	40	18	00 601001451 00	10


Ø h8 mm	l1 mm	l2 mm	Code 601 Art.-Nr.	
1,50	40	18	00 601001501 00	10
1,55	43	20	00 601001551 00	10
1,60	43	20	00 601001601 00	10
1,65	43	20	00 601001651 00	10
1,70	43	20	00 601001701 00	10
1,75	46	22	00 601001751 00	10
1,80	46	22	00 601001801 00	10
1,85	46	22	00 601001851 00	10
1,90	46	22	00 601001901 00	10
1,95	49	24	00 601001951 00	10
2,00	49	24	00 601002001 00	10
2,05	49	24	00 601002051 00	10
2,10	49	24	00 601002101 00	10
2,15	53	27	00 601002151 00	10
2,20	53	27	00 601002201 00	10
2,25	53	27	00 601002251 00	10
2,30	53	27	00 601002301 00	10
2,35	53	27	00 601002351 00	10
2,40	57	30	00 601002401 00	10
2,45	57	30	00 601002451 00	10
2,50	57	30	00 601002501 00	10
2,55	57	30	00 601002551 00	10
2,60	57	30	00 601002601 00	10
2,65	57	30	00 601002651 00	10

¹⁾ ≥ Ø 4,0 mm / ²⁾ ≥ Ø 1,0 mm

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA


Ø h8 mm	l1 mm	l2 mm	Code 601 Art.-Nr.	
2,70	61	33	00 601002701 00	10
2,75	61	33	00 601002751 00	10
2,80	61	33	00 601002801 00	10
2,85	61	33	00 601002851 00	10
2,90	61	33	00 601002901 00	10
2,95	61	33	00 601002951 00	10
3,00	61	33	00 601003001 00	10
3,10	65	36	00 601003101 00	10
3,20	65	36	00 601003201 00	10
3,25	65	36	00 601003251 00	10
3,30	65	36	00 601003301 00	10
3,40	70	39	00 601003401 00	10
3,50	70	39	00 601003501 00	10
3,60	70	39	00 601003601 00	10
3,70	70	39	00 601003701 00	10
3,75	70	39	00 601003751 00	10
3,80	75	43	00 601003801 00	10
3,90	75	43	00 601003901 00	10
4,00	75	43	00 601004001 00	10
4,10	75	43	00 601004101 00	10
4,20	75	43	00 601004201 00	10
4,25	75	43	00 601004251 00	10
4,30	80	47	00 601004301 00	10
4,40	80	47	00 601004401 00	10
4,50	80	47	00 601004501 00	10
4,60	80	47	00 601004601 00	10
4,70	80	47	00 601004701 00	10
4,75	80	47	00 601004751 00	10
4,80	86	52	00 601004801 00	10
4,90	86	52	00 601004901 00	10
5,00	86	52	00 601005001 00	10
5,10	86	52	00 601005101 00	10
5,20	86	52	00 601005201 00	10
5,25	86	52	00 601005251 00	10
5,30	86	52	00 601005301 00	10
5,40	93	57	00 601005401 00	10
5,50	93	57	00 601005501 00	10
5,60	93	57	00 601005601 00	10
5,70	93	57	00 601005701 00	10
5,75	93	57	00 601005751 00	10
5,80	93	57	00 601005801 00	10
5,90	93	57	00 601005901 00	10
6,00	93	57	00 601006001 00	10
6,10	101	63	00 601006101 00	10
6,20	101	63	00 601006201 00	10
6,25	101	63	00 601006251 00	10
6,30	101	63	00 601006301 00	10
6,40	101	63	00 601006401 00	10
6,50	101	63	00 601006501 00	10
6,60	101	63	00 601006601 00	10
6,70	101	63	00 601006701 00	10
6,75	109	69	00 601006751 00	10
6,80	109	69	00 601006801 00	10
6,90	109	69	00 601006901 00	10
7,00	109	69	00 601007001 00	10
7,10	109	69	00 601007101 00	10
7,20	109	69	00 601007201 00	10
7,25	109	69	00 601007251 00	10
7,30	109	69	00 601007301 00	10
7,40	109	69	00 601007401 00	10

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA


Ø h8 mm	l1 mm	l2 mm	Code 601 Art.-Nr.	
7,50	109	69	00 601007501 00	10
7,60	117	75	00 601007601 00	10
7,70	117	75	00 601007701 00	10
7,75	117	75	00 601007751 00	10
7,80	117	75	00 601007801 00	10
7,90	117	75	00 601007901 00	10
8,00	117	75	00 601008001 00	10
8,10	117	75	00 601008101 00	10
8,20	117	75	00 601008201 00	10
8,25	117	75	00 601008251 00	10
8,30	117	75	00 601008301 00	10
8,40	117	75	00 601008401 00	10
8,50	117	75	00 601008501 00	10
8,60	125	81	00 601008601 00	10
8,70	125	81	00 601008701 00	10
8,75	125	81	00 601008751 00	10
8,80	125	81	00 601008801 00	10
8,90	125	81	00 601008901 00	10
9,00	125	81	00 601009001 00	10
9,10	125	81	00 601009101 00	10
9,20	125	81	00 601009201 00	10
9,25	125	81	00 601009251 00	10
9,30	125	81	00 601009301 00	10
9,40	125	81	00 601009401 00	10
9,50	125	81	00 601009501 00	10
9,60	133	87	00 601009601 00	10
9,70	133	87	00 601009701 00	10
9,75	133	87	00 601009751 00	10
9,80	133	87	00 601009801 00	10
9,90	133	87	00 601009901 00	10
10,00	133	87	00 601010001 00	10
10,10	133	87	00 601010101 00	5
10,20	133	87	00 601010201 00	5
10,25	133	87	00 601010251 00	5
10,30	133	87	00 601010301 00	5
10,40	133	87	00 601010401 00	5
10,50	133	87	00 601010501 00	5
10,60	133	87	00 601010601 00	5
10,70	142	94	00 601010701 00	5
10,75	142	94	00 601010751 00	5
10,80	142	94	00 601010801 00	5
10,90	142	94	00 601010901 00	5
11,00	142	94	00 601011001 00	5
11,10	142	94	00 601011101 00	5
11,20	142	94	00 601011201 00	5
11,25	142	94	00 601011251 00	5
11,30	142	94	00 601011301 00	5
11,40	142	94	00 601011401 00	5
11,50	142	94	00 601011501 00	5
11,60	142	94	00 601011601 00	5
11,70	142	94	00 601011701 00	5
11,75	142	94	00 601011751 00	5
11,80	142	94	00 601011801 00	5
11,90	151	101	00 601011901 00	5
12,00	151	101	00 601012001 00	5
12,10	151	101	00 601012101 00	5
12,20	151	101	00 601012201 00	5
12,25	151	101	00 601012251 00	5
12,30	151	101	00 601012301 00	5
12,40	151	101	00 601012401 00	5

HSS Bohrer
HSS drills
HSS punte elicoidali

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

Ø h8 mm	l1 mm	l2 mm	Code 601 Art.-Nr.	
12,50	151	101	00 601012501 00	5
12,60	151	101	00 601012601 00	5
12,70	151	101	00 601012701 00	5
12,75	151	101	00 601012751 00	5
12,80	151	101	00 601012801 00	5
12,90	151	101	00 601012901 00	5
13,00	151	101	00 601013001 00	5
13,25	160	108	00 601013251 00	1
13,50	160	108	00 601013501 00	1
13,75	160	108	00 601013751 00	1
14,00	160	108	00 601014001 00	1
14,25	169	114	00 601014251 00	1
14,50	169	114	00 601014501 00	1
14,75	169	114	00 601014751 00	1

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

Ø h8 mm	l1 mm	l2 mm	Code 601 Art.-Nr.	
15,00	169	114	00 601015001 00	1
15,25	178	120	00 601015251 00	1
15,50	178	120	00 601015501 00	1
15,75	178	120	00 601015751 00	1
16,00	178	120	00 601016001 00	1
16,50	184	125	00 601016501 00	1
17,00	184	125	00 601017001 00	1
17,50	191	130	00 601017501 00	1
18,00	191	130	00 601018001 00	1
18,50	198	135	00 601018501 00	1
19,00	198	135	00 601019001 00	1
19,50	205	140	00 601019501 00	1
20,00	205	140	00 601020001 00	1

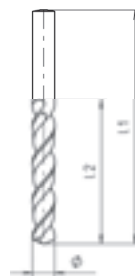
D Spiralbohrer kurz, DIN 338 RW

Einsatzbereich:
Kurzdrillbohrer für weiche und zähe,
langspanende Werkstoffe wie Aluminium,
Aluminiumlegierungen, Magnesiumlegierungen,
weiche Thermoplaste, Hartholz usw.



E Jobber drills short series, DIN 338 RW

Range of application:
Fast spiral drills for soft and tough materials
giving long chips e. g. aluminium, aluminium
alloys, magnesium alloys, soft thermoplastics,
hard wood etc.





I Punte elicoidali serie corta, DIN 338 RW


Impiego:
Foratura di materiali plastici e dolci a truciolo lungo,
quali alluminio, leghe di alluminio, leghe di magnesio,
materiali termoplastici dolci, legno duro.



Ø h8 mm	l1 mm	l2 mm	Code 651 Art.-Nr.	
1,00	34	12	00 651001001 00	10
1,10	36	14	00 651001101 00	10
1,20	38	16	00 651001201 00	10
1,30	38	16	00 651001301 00	10
1,40	40	18	00 651001401 00	10
1,50	40	18	00 651001501 00	10
1,60	43	20	00 651001601 00	10
1,70	43	20	00 651001701 00	10
1,80	46	22	00 651001801 00	10
1,90	49	24	00 651001901 00	10
2,00	49	24	00 651002001 00	10
2,10	49	24	00 651002101 00	10
2,20	53	27	00 651002201 00	10
2,30	53	27	00 651002301 00	10
2,40	57	30	00 651002401 00	10
2,50	57	30	00 651002501 00	10

Ø h8 mm	l1 mm	l2 mm	Code 651 Art.-Nr.	
2,60	57	30	00 651002601 00	10
2,70	61	33	00 651002701 00	10
2,80	61	33	00 651002801 00	10
2,90	61	33	00 651002901 00	10
3,00	61	33	00 651003001 00	10
3,10	65	36	00 651003101 00	10
3,20	65	36	00 651003201 00	10
3,30	65	36	00 651003301 00	10
3,40	70	39	00 651003401 00	10
3,50	70	39	00 651003501 00	10
3,60	70	39	00 651003601 00	10
3,70	70	39	00 651003701 00	10
3,80	75	43	00 651003801 00	10
3,90	75	43	00 651003901 00	10
4,00	75	43	00 651004001 00	10
4,10	75	43	00 651004101 00	10

\varnothing_{h8} mm	l1 mm	l2 mm	Code 651 Art.-Nr.	
4,20	75	43	00 651004201 00	10
4,30	80	47	00 651004301 00	10
4,40	80	47	00 651004401 00	10
4,50	80	47	00 651004501 00	10
4,60	80	47	00 651004601 00	10
4,70	80	47	00 651004701 00	10
4,80	86	52	00 651004801 00	10
4,90	86	52	00 651004901 00	10
5,00	86	52	00 651005001 00	10
5,10	86	52	00 651005101 00	10
5,20	86	52	00 651005201 00	10
5,30	86	52	00 651005301 00	10
5,40	93	57	00 651005401 00	10
5,50	93	57	00 651005501 00	10
5,60	93	57	00 651005601 00	10
5,70	93	57	00 651005701 00	10
5,80	93	57	00 651005801 00	10
5,90	93	57	00 651005901 00	10
6,00	93	57	00 651006001 00	10
6,10	101	63	00 651006101 00	10
6,20	101	63	00 651006201 00	10
6,30	101	63	00 651006301 00	10
6,40	101	63	00 651006401 00	10
6,50	101	63	00 651006501 00	10
6,60	101	63	00 651006601 00	10
6,70	101	63	00 651006701 00	10
6,80	109	69	00 651006801 00	10
6,90	109	69	00 651006901 00	10
7,00	109	69	00 651007001 00	10
7,10	109	69	00 651007101 00	10
7,20	109	69	00 651007201 00	10
7,30	109	69	00 651007301 00	10
7,40	109	69	00 651007401 00	10

\varnothing_{h8} mm	l1 mm	l2 mm	Code 651 Art.-Nr.	
7,50	109	69	00 651007501 00	10
7,60	117	75	00 651007601 00	10
7,70	117	75	00 651007701 00	10
7,80	117	75	00 651007801 00	10
7,90	117	75	00 651007901 00	10
8,00	117	75	00 651008001 00	10
8,10	117	75	00 651008101 00	10
8,20	117	75	00 651008201 00	10
8,30	117	75	00 651008301 00	10
8,40	117	75	00 651008401 00	10
8,50	117	75	00 651008501 00	10
8,60	125	81	00 651008601 00	10
8,70	125	81	00 651008701 00	10
8,80	125	81	00 651008801 00	10
8,90	125	81	00 651008901 00	10
9,00	125	81	00 651009001 00	10
9,10	125	81	00 651009101 00	10
9,20	125	81	00 651009201 00	10
9,30	125	81	00 651009301 00	10
9,40	125	81	00 651009401 00	10
9,50	125	81	00 651009501 00	10
9,60	133	87	00 651009601 00	10
9,70	133	87	00 651009701 00	10
9,80	133	87	00 651009801 00	10
9,90	133	87	00 651009901 00	10
10,00	133	87	00 651010001 00	10
10,20	133	87	00 651010201 00	5
10,50	133	87	00 651010501 00	5
11,00	142	94	00 651011001 00	5
11,50	142	94	00 651011501 00	5
12,00	151	101	00 651012001 00	5
12,50	151	101	00 651012501 00	5
13,00	151	101	00 651013001 00	5



HSS Bohrer
HSS drills
HSS punte elicoideali

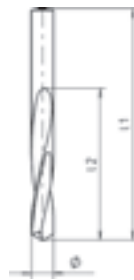
D **Spiralbohrer**
kurz, DIN 338 RH

Einsatzbereich:
Langdrallbohrer für harte und zähhar-
te, kurzspanende Werkstoffe wie Messing,
Leichtmetall-Kolbenlegierung, harte Duroplaste,
Schichtpressstoffe, Schiefer, Glimmer usw.



E **Jobber drills**
short series, DIN 338 RH

Range of application:
Slow spiral drill for drilling harder and tough-hard,
short-chip materials such as brass, light metal
piston alloys, hard durable plastics, laminated
synthetic materials etc.




I **Punte elicoidali**
serie corta, DIN 338 RH


Impiego:
Foratura di materiali tenaci, plastici duri a truciolo
corto quali ottone, leghe leggere per pistoni, materie
plastiche termoindurenti, materiali sintetici laminati,
scisti, mica



Ø _{h8} mm	l1 mm	l2 mm	Code 661 Art.-Nr.	
1,00	34	12	00 661001001 00	10
1,10	36	14	00 661001101 00	10
1,20	38	16	00 661001201 00	10
1,30	38	16	00 661001301 00	10
1,40	40	18	00 661001401 00	10
1,50	40	18	00 661001501 00	10
1,60	43	20	00 661001601 00	10
1,70	43	20	00 661001701 00	10
1,80	46	22	00 661001801 00	10
1,90	49	24	00 661001901 00	10
2,00	49	24	00 661002001 00	10
2,10	49	24	00 661002101 00	10
2,20	53	27	00 661002201 00	10
2,30	53	27	00 661002301 00	10
2,40	57	30	00 661002401 00	10
2,50	57	30	00 661002501 00	10
2,60	57	30	00 661002601 00	10
2,70	61	33	00 661002701 00	10
2,80	61	33	00 661002801 00	10
2,90	61	33	00 661002901 00	10
3,00	61	33	00 661003001 00	10
3,10	65	36	00 661003101 00	10
3,20	65	36	00 661003201 00	10
3,30	65	36	00 661003301 00	10
3,40	70	39	00 661003401 00	10
3,50	70	39	00 661003501 00	10
3,60	70	39	00 661003601 00	10
3,70	70	39	00 661003701 00	10
3,80	75	43	00 661003801 00	10
3,90	75	43	00 661003901 00	10
4,00	75	43	00 661004001 00	10
4,10	75	43	00 661004101 00	10
4,20	75	43	00 661004201 00	10
4,30	80	47	00 661004301 00	10
4,40	80	47	00 661004401 00	10
4,50	80	47	00 661004501 00	10
4,60	80	47	00 661004601 00	10
4,70	80	47	00 661004701 00	10

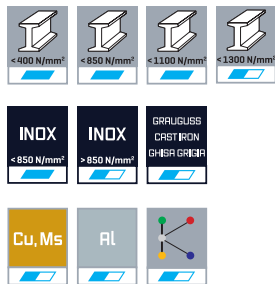
Ø _{h8} mm	l1 mm	l2 mm	Code 661 Art.-Nr.	
4,80	86	52	00 661004801 00	10
4,90	86	52	00 661004901 00	10
5,00	86	52	00 661005001 00	10
5,10	86	52	00 661005101 00	10
5,20	86	52	00 661005201 00	10
5,30	86	52	00 661005301 00	10
5,40	93	57	00 661005401 00	10
5,50	93	57	00 661005501 00	10
5,60	93	57	00 661005601 00	10
5,70	93	57	00 661005701 00	10
5,80	93	57	00 661005801 00	10
5,90	93	57	00 661005901 00	10
6,00	93	57	00 661006001 00	10
6,10	101	63	00 661006101 00	10
6,20	101	63	00 661006201 00	10
6,30	101	63	00 661006301 00	10
6,40	101	63	00 661006401 00	10
6,50	101	63	00 661006501 00	10
6,60	101	63	00 661006601 00	10
6,70	101	63	00 661006701 00	10
6,80	109	69	00 661006801 00	10
6,90	109	69	00 661006901 00	10
7,00	109	69	00 661007001 00	10
7,10	109	69	00 661007101 00	10
7,20	109	69	00 661007201 00	10
7,30	109	69	00 661007301 00	10
7,40	109	69	00 661007401 00	10
7,50	109	69	00 661007501 00	10
7,60	117	75	00 661007601 00	10
7,70	117	75	00 661007701 00	10
7,80	117	75	00 661007801 00	10
7,90	117	75	00 661007901 00	10
8,00	117	75	00 661008001 00	10
8,10	117	75	00 661008101 00	10
8,20	117	75	00 661008201 00	10
8,30	117	75	00 661008301 00	10
8,40	117	75	00 661008401 00	10
8,50	117	75	00 661008501 00	10

Ø _{h8} mm	l1 mm	l2 mm	Code 661 Art.-Nr.	
8,60	125	81	00 661008601 00	10
8,70	125	81	00 661008701 00	10
8,80	125	81	00 661008801 00	10
8,90	125	81	00 661008901 00	10
9,00	125	81	00 661009001 00	10
9,10	125	81	00 661009101 00	10
9,20	125	81	00 661009201 00	10
9,30	125	81	00 661009301 00	10
9,40	125	81	00 661009401 00	10
9,50	125	81	00 661009501 00	10
9,60	133	87	00 661009601 00	10

Ø _{h8} mm	l1 mm	l2 mm	Code 661 Art.-Nr.	
9,70	133	87	00 661009701 00	10
9,80	133	87	00 661009801 00	10
9,90	133	87	00 661009901 00	10
10,00	133	87	00 661010001 00	10
10,20	133	87	00 661010201 00	5
10,50	133	87	00 661010501 00	5
11,00	142	94	00 661011001 00	5
11,50	142	94	00 661011501 00	5
12,00	151	101	00 661012001 00	5
12,50	151	101	00 661012501 00	5
13,00	151	101	00 661013001 00	5

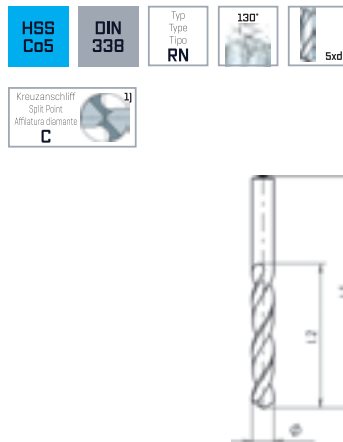
D **Spiralbohrer**
kurz, DIN 338 RN

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit sehr hoher thermischer Belastbarkeit zum Bohren von Werkstoffen mit höherem Legierungsgehalt und Festigkeit über 800 N/mm².



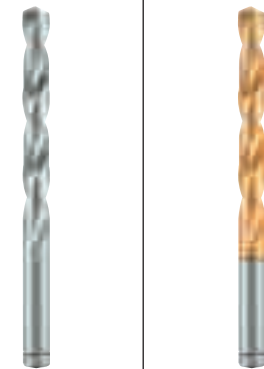
E **Jobber drills**
short series, DIN 338 RN

Range of application:
5% cobalt-alloyed jobber drills with high heat resistance for drilling steels with tensile strength over 800 N/mm², specially suitable for high alloyed steels, bearing-steels, hot/cold-rolled steels.





I **Punte elicoidali**
serie corta, DIN 338 RN

Impiego:
Punte al 5% Co ad elevata resistenza al calore adatte per la foratura di acciai altamente legati e con R > 800 N/mm².



TiN

HSS Bohrer
HSS drills
HSS punte elicoidali



Ø _{h8} mm	Ø _{h8} inch	l1 mm	l2 mm	Code 603 Art.-Nr.		Code 607 Art.-Nr.	
1,00		34	12	00 603001001 00	10	00 607001001 00	1
1,10		36	14	00 603001101 00	10	00 607001101 00	1
New 1,19	3/64	38	16	00 603001191 00	10	00 607001191 00	1
New 1,20		38	16	00 603001201 00	10	00 607001201 00	1
New 1,30		38	16	00 603001301 00	10	00 607001301 00	1
New 1,40		40	18	00 603001401 00	10	00 607001401 00	1
1,50		40	18	00 603001501 00	10	00 607001501 00	1
New 1,59	1/16	43	20	00 603001591 00	10	00 607001591 00	1
1,60		43	20	00 603001601 00	10	00 607001601 00	1
New 1,70		43	20	00 603001701 00	10	00 607001701 00	1
New 1,80		46	22	00 603001801 00	10	00 607001801 00	1
New 1,90		46	22	00 603001901 00	10	00 607001901 00	1
New 1,98	5/64	49	24	00 603001981 00	10	00 607001981 00	1

(4) ≥ Ø 2,0 mm

TiN

	Ø h8 mm	Ø h8 inch	l1 mm	l2 mm	Code 603 Art.-Nr.		Code 607 Art.-Nr.	
	2,00		49	24	00 603002001 00	10	00 607002001 00	1
New	2,10		49	24	00 603002101 00	10	00 607002101 00	1
New	2,20		53	27	00 603002201 00	10	00 607002201 00	1
New	2,30		53	27	00 603002301 00	10	00 607002301 00	1
New	2,38	3/32	57	30	00 603002381 00	10	00 607002381 00	1
New	2,40		57	30	00 603002401 00	10	00 607002401 00	1
	2,50		57	30	00 603002501 00	10	00 607002501 00	1
New	2,60		57	30	00 603002601 00	10	00 607002601 00	1
New	2,70		61	33	00 603002701 00	10	00 607002701 00	1
New	2,78	7/64	61	33	00 603002781 00	10	00 607002781 00	1
New	2,80		61	33	00 603002801 00	10	00 607002801 00	1
New	2,90		61	33	00 603002901 00	10	00 607002901 00	1
	3,00		61	33	00 603003001 00	10	00 607003001 00	1
New	3,10		65	36	00 603003101 00	10	00 607003101 00	1
New	3,17	1/8	65	36	00 603003171 00	10	00 607003171 00	1
	3,20		65	36	00 603003201 00	10	00 607003201 00	1
	3,30		65	36	00 603003301 00	10	00 607003301 00	1
New	3,40		70	39	00 603003401 00	10	00 607003401 00	1
	3,50		70	39	00 603003501 00	10	00 607003501 00	1
New	3,57	9/64	70	39	00 603003571 00	10	00 607003571 00	1
New	3,60		70	39	00 603003601 00	10	00 607003601 00	1
New	3,70		70	39	00 603003701 00	10	00 607003701 00	1
New	3,80		75	43	00 603003801 00	10	00 607003801 00	1
New	3,90		75	43	00 603003901 00	10	00 607003901 00	1
New	3,97	5/32	75	43	00 603003971 00	10	00 607003971 00	1
	4,00		75	43	00 603004001 00	10	00 607004001 00	1
New	4,10		75	43	00 603004101 00	10	00 607004101 00	1
	4,20		75	43	00 603004201 00	10	00 607004201 00	1
New	4,30		80	47	00 603004301 00	10	00 607004301 00	1
New	4,37	11/64	80	47	00 603004371 00	10	00 607004371 00	1
New	4,40		80	47	00 603004401 00	10	00 607004401 00	1
	4,50		80	47	00 603004501 00	10	00 607004501 00	1
New	4,60		80	47	00 603004601 00	10	00 607004601 00	1
New	4,70		80	47	00 603004701 00	10	00 607004701 00	1
New	4,76	3/16	86	52	00 603004761 00	10	00 607004761 00	1
New	4,80		86	52	00 603004801 00	10	00 607004801 00	1
New	4,90		86	52	00 603004901 00	10	00 607004901 00	1
	5,00		86	52	00 603005001 00	10	00 607005001 00	1
New	5,10		86	52	00 603005101 00	10	00 607005101 00	1
New	5,16	13/64	86	52	00 603005161 00	10	00 607005161 00	1
New	5,20		86	52	00 603005201 00	10	00 607005201 00	1
New	5,30		86	52	00 603005301 00	10	00 607005301 00	1
New	5,40		93	57	00 603005401 00	10	00 607005401 00	1
	5,50		93	57	00 603005501 00	10	00 607005501 00	1
New	5,56	7/32	93	57	00 603005561 00	10	00 607005561 00	1
New	5,60		93	57	00 603005601 00	10	00 607005601 00	1
New	5,70		93	57	00 603005701 00	10	00 607005701 00	1
New	5,80		93	57	00 603005801 00	10	00 607005801 00	1
New	5,90		93	57	00 603005901 00	10	00 607005901 00	1
New	5,95	15/64	93	57	00 603005951 00	10	00 607005951 00	1
	6,00		93	57	00 603006001 00	10	00 607006001 00	1
New	6,10		101	63	00 603006101 00	10	00 607006101 00	1
New	6,20		101	63	00 603006201 00	10	00 607006201 00	1
New	6,30		101	63	00 603006301 00	10	00 607006301 00	1
New	6,35	1/4	101	63	00 603006351 00	10	00 607006351 00	1
New	6,40		101	63	00 603006401 00	10	00 607006401 00	1
	6,50		101	63	00 603006501 00	10	00 607006501 00	1
New	6,60		101	63	00 603006601 00	10	00 607006601 00	1
New	6,70		101	63	00 603006701 00	10	00 607006701 00	1
New	6,75	17/64	109	69	00 603006751 00	10	00 607006751 00	1

TiN

	Ø h8 mm	Ø h8 inch	l1 mm	l2 mm	Code 603 Art.-Nr.		Code 607 Art.-Nr.	
	6,80		109	69	00 603006801 00	10	00 607006801 00	1
New	6,90		109	69	00 603006901 00	10	00 607006901 00	1
	7,00		109	69	00 603007001 00	10	00 607007001 00	1
New	7,10		109	69	00 603007101 00	10	00 607007101 00	1
New	7,14	9/32	109	69	00 603007141 00	10	00 607007141 00	1
New	7,20		109	69	00 603007201 00	10	00 607007201 00	1
New	7,30		109	69	00 603007301 00	10	00 607007301 00	1
New	7,40		109	69	00 603007401 00	10	00 607007401 00	1
	7,50		109	69	00 603007501 00	10	00 607007501 00	1
New	7,54	19/64	117	75	00 603007541 00	10	00 607007541 00	1
New	7,60		117	75	00 603007601 00	10	00 607007601 00	1
New	7,70		117	75	00 603007701 00	10	00 607007701 00	1
New	7,80		117	75	00 603007801 00	10	00 607007801 00	1
New	7,90		117	75	00 603007901 00	10	00 607007901 00	1
New	7,94	5/16	117	75	00 603007941 00	10	00 607007941 00	1
	8,00		117	75	00 603008001 00	10	00 607008001 00	1
New	8,10		117	75	00 603008101 00	10	00 607008101 00	1
New	8,20		117	75	00 603008201 00	10	00 607008201 00	1
New	8,30		117	75	00 603008301 00	10	00 607008301 00	1
New	8,33	21/64	117	75	00 603008331 00	10	00 607008331 00	1
New	8,40		117	75	00 603008401 00	10	00 607008401 00	1
	8,50		117	75	00 603008501 00	10	00 607008501 00	1
New	8,60		125	81	00 603008601 00	10	00 607008601 00	1
New	8,70		125	81	00 603008701 00	10	00 607008701 00	1
New	8,73	11/32	125	81	00 603008731 00	10	00 607008731 00	1
New	8,80		125	81	00 603008801 00	10	00 607008801 00	1
New	8,90		125	81	00 603008901 00	10	00 607008901 00	1
	9,00		125	81	00 603009001 00	10	00 607009001 00	1
New	9,10		125	81	00 603009101 00	10	00 607009101 00	1
New	9,13	23/64	125	81	00 603009131 00	10	00 607009131 00	1
New	9,20		125	81	00 603009201 00	10	00 607009201 00	1
New	9,30		125	81	00 603009301 00	10	00 607009301 00	1
New	9,40		125	81	00 603009401 00	10	00 607009401 00	1
	9,50		125	81	00 603009501 00	10	00 607009501 00	1
New	9,52	3/8	133	87	00 603009521 00	10	00 607009521 00	1
New	9,60		133	87	00 603009601 00	10	00 607009601 00	1
New	9,70		133	87	00 603009701 00	10	00 607009701 00	1
New	9,80		133	87	00 603009801 00	10	00 607009801 00	1
New	9,90		133	87	00 603009901 00	10	00 607009901 00	1
New	9,92	25/64	133	87	00 603009921 00	10	00 607009921 00	1
	10,00		133	87	00 603010001 00	10	00 607010001 00	1
	10,20		133	87	00 603010201 00	5	00 607010201 00	1
New	10,32	13/32	133	87	00 603010321 00	5	00 607010321 00	1
	10,50		133	87	00 603010501 00	5	00 607010501 00	1
	11,00		142	94	00 603011001 00	5	00 607011001 00	1
New	11,11	7/16	142	94	00 603011111 00	5	00 607011111 00	1
	11,50		142	94	00 603011501 00	5	00 607011501 00	1
New	11,51	29/64	142	94	00 603011511 00	5	00 607011511 00	1
New	11,91	15/32	151	101	00 603011911 00	5	00 607011911 00	1
	12,00		151	101	00 603012001 00	5	00 607012001 00	1
New	12,30	31/64	151	101	00 603012301 00	5	00 607012301 00	1
	12,50		151	101	00 603012501 00	5	00 607012501 00	1
New	12,70	1/2	151	101	00 603012701 00	5	00 607012701 00	1
	13,00		151	101	00 603013001 00	5	00 607013001 00	1
New	13,50		160	108	00 603013501 00	1	00 607013501 00	1
New	14,00		160	108	00 603014001 00	1	00 607014001 00	1
New	14,50		169	114	00 603014501 00	1	00 607014501 00	1
New	15,00		169	114	00 603015001 00	1	00 607015001 00	1
New	16,00		178	120	00 603016001 00	1	00 607016001 00	1



HSS Bohrer
HSS drills
HSS punte elicaoidali

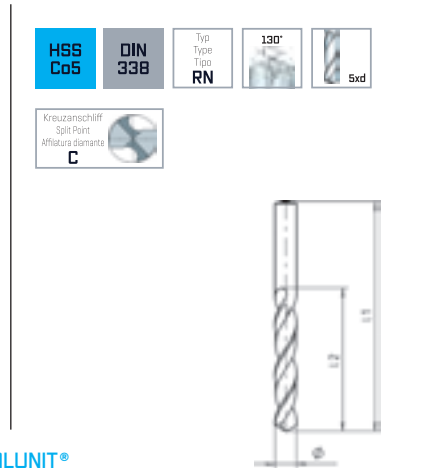
D **Spiralbohrer**
kurz, DIN 338 RN

Einsatzbereich:
Universeller 5% kobaltlegierter Hochleistungs-Spiralbohrer zur Bearbeitung schwer zerspanbarer, hochfester Werkstoffe wie z.B.: Stähle bis ca. 1.300 N/mm², rostfreie Stähle sowie Titanlegierungen.



E **Jobber drills**
short series, DIN 338 RN

Range of application:
Universal 5% cobalt-alloyed high-performance twist drills for drilling hard machinable, high-strength materials such as steels up to approx. 1.300 N/mm², stainless steels and titanium alloys.



ALUNIT®

I **Punte elicoidali**
serie corta, DIN 338 RN

Impiego:
Punte al 5% Co, adatte per foratura di acciai di difficile lavorabilità, acciai tenaci fino a 1.300 N/mm², acciai inox, leghe di Titanio.



ALUNIT®

Ø h8 mm	l1 mm	l2 mm	Code 630 Art.-Nr.	
1,00	34	12	00 630001001 00	1
1,50	40	18	00 630001501 00	1
1,60	43	20	00 630001601 00	1
2,00	49	24	00 630002001 00	1
2,50	57	30	00 630002501 00	1
3,00	61	33	00 630003001 00	1
3,20	65	36	00 630003201 00	1
3,30	65	36	00 630003301 00	1
3,50	70	39	00 630003501 00	1
4,00	75	43	00 630004001 00	1
4,20	75	43	00 630004201 00	1
4,30	80	47	00 630004301 00	1
4,50	80	47	00 630004501 00	1
4,80	86	52	00 630004801 00	1
5,00	86	52	00 630005001 00	1
5,50	93	57	00 630005501 00	1
6,00	93	57	00 630006001 00	1

Ø h8 mm	l1 mm	l2 mm	Code 630 Art.-Nr.	
6,50	101	63	00 630006501 00	1
6,80	109	69	00 630006801 00	1
7,00	109	69	00 630007001 00	1
7,50	109	69	00 630007501 00	1
7,80	117	75	00 630007801 00	1
8,00	117	75	00 630008001 00	1
8,50	117	75	00 630008501 00	1
9,00	125	81	00 630009001 00	1
9,50	125	81	00 630009501 00	1
10,00	133	87	00 630010001 00	1
10,20	133	87	00 630010201 00	1
10,50	133	87	00 630010501 00	1
11,00	142	94	00 630011001 00	1
11,50	142	94	00 630011501 00	1
12,00	151	101	00 630012001 00	1
12,50	151	101	00 630012501 00	1
13,00	151	101	00 630013001 00	1

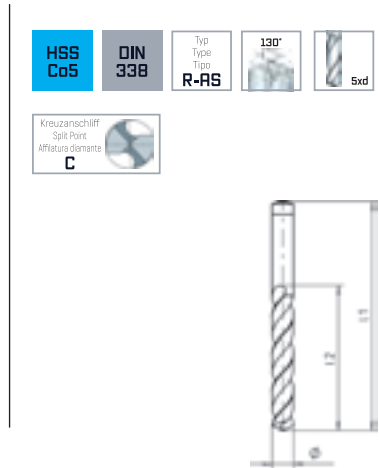
D **Spiralbohrer**
kurz, DIN 338 R-AS

Einsatzbereich:
5% kobaltlegierter Spezialbohrer in sehr stabiler Bauweise für sehr schwer zerspanbare Werkstoffe wie rost- und säurebeständige austenitische Stähle sowie hitzebeständige Stähle.



E **Jobber drills**
short series, DIN 338 R-AS

Range of application:
5% cobalt-alloyed drills in a solid sturdy construction, specially suitable for corrosion and acid resistant austenitic steels as well as heat resistant steels.



I **Punte elicoidali**
serie corta, DIN 338 R-AS


Impiego:
Punte al 5% Co, particolarmente stabili, adatte per la foratura di acciai di difficile lavorabilità, quali acciai inox, acciai austenitici, acciai resistenti al calore.




Ø _{h8} mm	l1 mm	l2 mm	Code 663 Art.-Nr.	
2,00	49	24	00 663002001 00	10
2,10	49	24	00 663002101 00	10
2,20	53	27	00 663002201 00	10
2,30	53	27	00 663002301 00	10
2,40	57	30	00 663002401 00	10
2,50	57	30	00 663002501 00	10
2,60	57	30	00 663002601 00	10
2,70	61	33	00 663002701 00	10
2,80	61	33	00 663002801 00	10
2,90	61	33	00 663002901 00	10
3,00	61	33	00 663003001 00	10
3,10	65	36	00 663003101 00	10
3,20	65	36	00 663003201 00	10
3,30	65	36	00 663003301 00	10
3,40	70	39	00 663003401 00	10
3,50	70	39	00 663003501 00	10
3,60	70	39	00 663003601 00	10
3,70	70	39	00 663003701 00	10
3,80	75	43	00 663003801 00	10
3,90	75	43	00 663003901 00	10
4,00	75	43	00 663004001 00	10
4,10	75	43	00 663004101 00	10
4,20	75	43	00 663004201 00	10
4,30	80	47	00 663004301 00	10
4,40	80	47	00 663004401 00	10
4,50	80	47	00 663004501 00	10
4,60	80	47	00 663004601 00	10
4,70	80	47	00 663004701 00	10
4,80	86	52	00 663004801 00	10
4,90	86	52	00 663004901 00	10
5,00	86	52	00 663005001 00	10
5,10	86	52	00 663005101 00	10
5,20	86	52	00 663005201 00	10
5,30	86	52	00 663005301 00	10
5,40	93	57	00 663005401 00	10
5,50	93	57	00 663005501 00	10

Ø _{h8} mm	l1 mm	l2 mm	Code 663 Art.-Nr.	
5,60	93	57	00 663005601 00	10
5,70	93	57	00 663005701 00	10
5,80	93	57	00 663005801 00	10
5,90	93	57	00 663005901 00	10
6,00	93	57	00 663006001 00	10
6,10	101	63	00 663006101 00	10
6,20	101	63	00 663006201 00	10
6,30	101	63	00 663006301 00	10
6,40	101	63	00 663006401 00	10
6,50	101	63	00 663006501 00	10
6,60	101	63	00 663006601 00	10
6,70	101	63	00 663006701 00	10
6,80	109	69	00 663006801 00	10
6,90	109	69	00 663006901 00	10
7,00	109	69	00 663007001 00	10
7,10	109	69	00 663007101 00	10
7,20	109	69	00 663007201 00	10
7,30	109	69	00 663007301 00	10
7,40	109	69	00 663007401 00	10
7,50	109	69	00 663007501 00	10
7,60	117	75	00 663007601 00	10
7,70	117	75	00 663007701 00	10
7,80	117	75	00 663007801 00	10
7,90	117	75	00 663007901 00	10
8,00	117	75	00 663008001 00	10
8,10	117	75	00 663008101 00	10
8,20	117	75	00 663008201 00	10
8,30	117	75	00 663008301 00	10
8,40	117	75	00 663008401 00	10
8,50	117	75	00 663008501 00	10
8,60	125	81	00 663008601 00	10
8,70	125	81	00 663008701 00	10
8,80	125	81	00 663008801 00	10
8,90	125	81	00 663008901 00	10
9,00	125	81	00 663009001 00	10
9,10	125	81	00 663009101 00	10

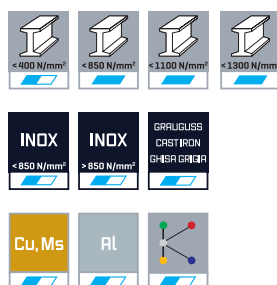


Ø _{h8} mm	l1 mm	l2 mm	Code 663 Art.-Nr.	
9,20	125	81	00 663009201 00	10
9,30	125	81	00 663009301 00	10
9,40	125	81	00 663009401 00	10
9,50	125	81	00 663009501 00	10
9,60	133	87	00 663009601 00	10
9,70	133	87	00 663009701 00	10
9,80	133	87	00 663009801 00	10
9,90	133	87	00 663009901 00	10
10,00	133	87	00 663010001 00	10
10,20	133	87	00 663010201 00	5

Ø _{h8} mm	l1 mm	l2 mm	Code 663 Art.-Nr.	
10,50	133	87	00 663010501 00	5
11,00	142	94	00 663011001 00	5
11,50	142	94	00 663011501 00	5
12,00	151	101	00 663012001 00	5
12,50	151	101	00 663012501 00	5
13,00	151	101	00 663013001 00	5

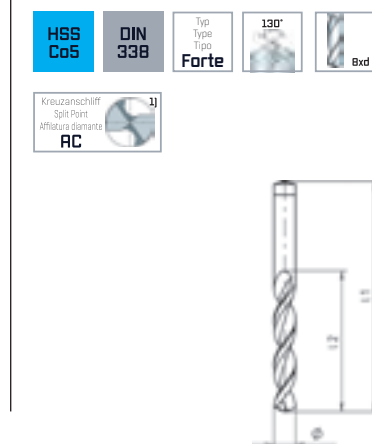
D **Spiralbohrer**
kurz, DIN 338 Forte

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit sehr hoher thermischer Belastbarkeit. Durch spezielle Nutausbildung bei schlechter Spanabfuhr bzw. für größere Bohrtiefen geeignet. Für Werkstoffe mit einer Festigkeit bis 1100 N/mm².



E **Jobber drills**
short series, DIN 338 Forte



Range of application:
5% cobalt-alloyed jobber drills with an extremely sturdy construction [re-inforced web] for drilling under difficult conditions e. g. poor chipremoval and deep holes, for use in steel and cast-iron with tensile strength up to 1100 N/mm².





I **Punte elicoidali**
serie corta, DIN 338 Forte

Impiego:
Punte al 5% Co ad elevata resistenza al calore, adatte - grazie alla speciale fascette nitrurate - per lavorazioni con difficile scarico dei trucioli, fori profondi, di materiali con R fino a 1100 N/mm².



Ø _{h8} mm	l1 mm	l2 mm	Code 611 Art.-Nr.		Code 627 Art.-Nr.	
1,00	34	12	00 611001001 00	10	00 627001001 00	1
1,10	36	14	00 611001101 00	10		
1,20	38	16	00 611001201 00	10	00 627001201 00	1
1,30	38	16	00 611001301 00	10		
1,40	40	18	00 611001401 00	10		
1,50	40	18	00 611001501 00	10	00 627001501 00	1
1,60	43	20	00 611001601 00	10		
1,70	43	20	00 611001701 00	10	00 627001701 00	1
1,80	46	22	00 611001801 00	10	00 627001801 00	1
1,90	49	24	00 611001901 00	10		
2,00	49	24	00 611002001 00	10	00 627002001 00	1
2,10	49	24	00 611002101 00	10		
2,20	53	27	00 611002201 00	10		
2,30	53	27	00 611002301 00	10		
2,40	57	30	00 611002401 00	10		
2,50	57	30	00 611002501 00	10	00 627002501 00	1
2,60	57	30	00 611002601 00	10		
2,70	61	33	00 611002701 00	10		
2,80	61	33	00 611002801 00	10	00 627002801 00	1
2,90	61	33	00 611002901 00	10		

⁽¹⁾ ≥ Ø 2,0 mm / ⁽²⁾ ≥ Ø 3,0 mm

Ø _{H8} mm	l1 mm	l2 mm	FASENNITRIERT NITRIDED LANDS FASCETTEINTRURATE		ALLUNIT®	
			Code 611 Art.-Nr.		Code 627 Art.-Nr.	
3,00	61	33	00 611003001 00	10	00 627003001 00	1
3,10	65	36	00 611003101 00	10	00 627003101 00	1
3,20	65	36	00 611003201 00	10	00 627003201 00	1
3,30	65	36	00 611003301 00	10	00 627003301 00	1
3,40	70	39	00 611003401 00	10	00 627003401 00	1
3,50	70	39	00 611003501 00	10	00 627003501 00	1
3,60	70	39	00 611003601 00	10		
3,70	70	39	00 611003701 00	10		
3,80	75	43	00 611003801 00	10	00 627003801 00	1
3,90	75	43	00 611003901 00	10		
4,00	75	43	00 611004001 00	10	00 627004001 00	1
4,10	75	43	00 611004101 00	10		
4,20	75	43	00 611004201 00	10	00 627004201 00	1
4,30	80	47	00 611004301 00	10		
4,40	80	47	00 611004401 00	10		
4,50	80	47	00 611004501 00	10	00 627004501 00	1
4,60	80	47	00 611004601 00	10		
4,70	80	47	00 611004701 00	10		
4,80	86	52	00 611004801 00	10	00 627004801 00	1
4,90	86	52	00 611004901 00	10		
5,00	86	52	00 611005001 00	10	00 627005001 00	1
5,10	86	52	00 611005101 00	10		
5,20	86	52	00 611005201 00	10	00 627005201 00	1
5,30	86	52	00 611005301 00	10		
5,40	93	57	00 611005401 00	10		
5,50	93	57	00 611005501 00	10	00 627005501 00	1
5,60	93	57	00 611005601 00	10		
5,70	93	57	00 611005701 00	10		
5,80	93	57	00 611005801 00	10	00 627005801 00	1
5,90	93	57	00 611005901 00	10		
6,00	93	57	00 611006001 00	10	00 627006001 00	1
6,10	101	63	00 611006101 00	10		
6,20	101	63	00 611006201 00	10		
6,30	101	63	00 611006301 00	10	00 627006301 00	1
6,40	101	63	00 611006401 00	10		
6,50	101	63	00 611006501 00	10	00 627006501 00	1
6,60	101	63	00 611006601 00	10		
6,70	101	63	00 611006701 00	10		
6,80	109	69	00 611006801 00	10	00 627006801 00	1
6,90	109	69	00 611006901 00	10		
7,00	109	69	00 611007001 00	10	00 627007001 00	1
7,10	109	69	00 611007101 00	10		
7,20	109	69	00 611007201 00	10		
7,30	109	69	00 611007301 00	10		
7,40	109	69	00 611007401 00	10		
7,50	109	69	00 611007501 00	10	00 627007501 00	1
7,60	117	75	00 611007601 00	10		
7,70	117	75	00 611007701 00	10		
7,80	117	75	00 611007801 00	10		
7,90	117	75	00 611007901 00	10		
8,00	117	75	00 611008001 00	10	00 627008001 00	1
8,10	117	75	00 611008101 00	10		
8,20	117	75	00 611008201 00	10		
8,30	117	75	00 611008301 00	10		
8,40	117	75	00 611008401 00	10		
8,50	117	75	00 611008501 00	10	00 627008501 00	1
8,60	126	81	00 611008601 00	10		
8,70	126	81	00 611008701 00	10	00 627008701 00	1
8,80	126	81	00 611008801 00	10		
8,90	126	81	00 611008901 00	10		



HSS Bohrer
HSS drills
HSS punte elicoidali

Ø h8 mm	l1 mm	l2 mm	FASENNITRIERT NITRIDED LANDS FASCETTE NITRURATE		ALLUNIT®	
			Code 611 Art.-Nr.		Code 627 Art.-Nr.	
9,00	126	81	00 611009001 00	10	00 627009001 00	1
9,10	126	81	00 611009101 00	10		
9,20	126	81	00 611009201 00	10		
9,30	126	81	00 611009301 00	10		
9,40	126	81	00 611009401 00	10		
9,50	126	81	00 611009501 00	10	00 627009501 00	1
9,60	133	87	00 611009601 00	10		
9,70	133	87	00 611009701 00	10		
9,80	133	87	00 611009801 00	10		
9,90	133	87	00 611009901 00	10		
10,00	133	87	00 611010001 00	10	00 627010001 00	1
10,20	133	87	00 611010201 00	5	00 627010201 00	1
10,50	133	87	00 611010501 00	5	00 627010501 00	1
11,00	142	94	00 611011001 00	5	00 627011001 00	1
11,50	142	94	00 611011501 00	5	00 627011501 00	1
12,00	151	101	00 611012001 00	5	00 627012001 00	1
12,50	151	101	00 611012501 00	5	00 627012501 00	1
13,00	151	101	00 611013001 00	5	00 627013001 00	1

D Spiralbohrer für INOX-
Bleche und Hardox

Einsatzbereich:

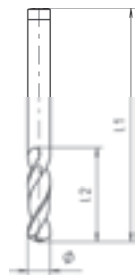
Besonders geeignet für zähe und harte Werkstoffe wie rost- und säurebeständige Chrom-Nickelstähle, sowie sämtliche verschleißbeanspruchte Bauteile, überwiegend im Baugewerbe, wie z.B. HARDOX 400, HARDOX 500 sowie XAR 320 und XAR 400 und ähnliche Werkstoffe.



E Jobber drills for INOX sheet
metals and Hardox

Range of application:

Specially suitable for drilling stainless steel, acid-resisting steel, spring-steel as well as extremely hard materials such as manganese steel, high-tensile fine grained machinery steel (Hardox 400/500) and similar materials.



I Punte elicoidali per lamiera
INOX ed Hardox

Impiego:

Particolarmente adatte per materiali plastici, duri quali acciai Nickel-Cromo resistenti alla corrosione ed agli acidi, anche per materiali sottoposti ad elevata usura nell'industria edile ad es. HARDOX 400, HARDOX 500 come XAR 320 e XAR 400 e materiali similari.



Ø h8 mm	l1 mm	l2 mm	Code 638 Art.-Nr.	
2,00	49	12	00 638002001 00	10
2,50	57	14	00 638002501 00	10
3,00	61	16	00 638003001 00	10
3,20	65	18	00 638003201 00	10
3,30	65	18	00 638003301 00	10
3,50	70	20	00 638003501 00	10
4,00	75	22	00 638004001 00	10
4,20	75	22	00 638004201 00	10
4,50	80	24	00 638004501 00	10
5,00	86	26	00 638005001 00	10
5,50	93	28	00 638005501 00	10

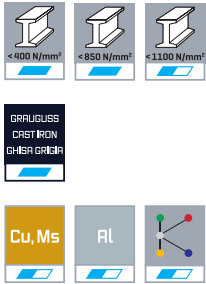
Ø h8 mm	l1 mm	l2 mm	Code 638 Art.-Nr.	
6,00	93	28	00 638006001 00	10
6,50	101	31	00 638006501 00	10
6,80	101	34	00 638006801 00	10
7,00	109	34	00 638007001 00	10
7,50	109	34	00 638007501 00	5 New
8,00	117	37	00 638008001 00	5
8,50	117	37	00 638008501 00	5
9,00	125	40	00 638009001 00	5
9,50	125	40	00 638009501 00	5 New
10,00	133	43	00 638010001 00	5
10,20	133	43	00 638010201 00	5

	Ø h8 mm	l1 mm	l2 mm	Code 638 Art.-Nr.	
New	10,50	133	43	00 638010501 00	5
	11,00	142	47	00 638011001 00	5
New	11,50	142	47	00 638011501 00	5

	Ø h8 mm	l1 mm	l2 mm	Code 638 Art.-Nr.	
	12,00	151	51	00 638012001 00	5
	12,50	151	51	00 638012501 00	5 New
	13,00	151	51	00 638013001 00	5 New

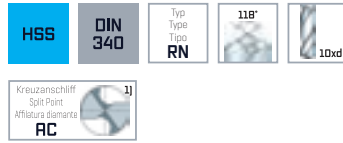
D Spiralbohrer
lang, DIN 340 RN

Einsatzbereich:
Spiralbohrer präzisionsgeschliffen, zum Bohren von legierten und unlegierten Stählen, Grauguss, Temperguss, Kupferlegierungen, Neusilber, Graphit, Sinterisenen.



E Jobber drills
long series, DIN 340 RN

Range of application:
Premium quality twist drills for drilling steel and steel castings, alloy and plain carbon, grey iron castings, copper-alloys, nickel-silver, graphite and similar materials.



I Punte elicoidali
serie lunga, DIN 340 RN

Impiego:
Foratura di acciai legati, non legati, ghisa, ghisa grigia, ghisa malleabile, leghe rame, alpaca, grafite, acciai sinterizzati.



DAMPFANGELASSEN[®]
STEM TEMPERED[®]
VAPORIZZATA[®]

DAMPFANGELASSEN[®]
STEM TEMPERED[®]
VAPORIZZATA[®]

	Ø h8 mm	l1 mm	l2 mm	Code 501 Art.-Nr.	
New	0,50*	32	12	00 501000501 00	10
	0,60*	35	15	00 501000601 00	10
	0,70*	42	21	00 501000701 00	10
	0,80	46	25	00 501000801 00	10
	1,00	56	33	00 501001001 00	10
	1,10	60	37	00 501001101 00	10
	1,20	65	41	00 501001201 00	10
	1,30	65	41	00 501001301 00	10
	1,40	70	45	00 501001401 00	10
	1,50	70	45	00 501001501 00	10
	1,60	76	50	00 501001601 00	10
	1,70	76	50	00 501001701 00	10
	1,80	80	53	00 501001801 00	10
	1,90	80	53	00 501001901 00	10
	2,00	85	56	00 501002001 00	10
	2,10	85	56	00 501002101 00	10
	2,20	90	59	00 501002201 00	10
	2,30	90	59	00 501002301 00	10
	2,40	95	62	00 501002401 00	10
	2,50	95	62	00 501002501 00	10
	2,60	95	62	00 501002601 00	10
	2,70	100	66	00 501002701 00	10
	2,80	100	66	00 501002801 00	10
	2,90	100	66	00 501002901 00	10
	3,00	100	66	00 501003001 00	10
	3,10	106	69	00 501003101 00	10
	3,20	106	69	00 501003201 00	10
	3,30	106	69	00 501003301 00	10
	3,40	112	73	00 501003401 00	10
	3,50	112	73	00 501003501 00	10

	Ø h8 mm	l1 mm	l2 mm	Code 501 Art.-Nr.	
	3,60	112	73	00 501003601 00	10
	3,70	112	73	00 501003701 00	10
	3,80	119	78	00 501003801 00	10
	3,90	119	78	00 501003901 00	10
	4,00	119	78	00 501004001 00	10
	4,10	119	78	00 501004101 00	10
	4,20	119	78	00 501004201 00	10
	4,30	126	82	00 501004301 00	10
	4,40	126	82	00 501004401 00	10
	4,50	126	82	00 501004501 00	10
	4,60	126	82	00 501004601 00	10
	4,70	126	82	00 501004701 00	10
	4,80	132	87	00 501004801 00	10
	4,90	132	87	00 501004901 00	10
	5,00	132	87	00 501005001 00	10
	5,10	132	87	00 501005101 00	10
	5,20	132	87	00 501005201 00	10
	5,30	132	87	00 501005301 00	10
	5,40	139	91	00 501005401 00	10
	5,50	139	91	00 501005501 00	10
	5,60	139	91	00 501005601 00	10
	5,70	139	91	00 501005701 00	10
	5,80	139	91	00 501005801 00	10
	5,90	139	91	00 501005901 00	10
	6,00	139	91	00 501006001 00	10
	6,10	148	97	00 501006101 00	10
	6,20	148	97	00 501006201 00	10
	6,30	148	97	00 501006301 00	10
	6,40	148	97	00 501006401 00	10
	6,50	148	97	00 501006501 00	10

(*) ≥ Ø 4,0 mm / (**) ≥ Ø 2,4 mm
* = WN




HSS Bohrer
HSS drills
HSS punte elicoidali

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

Ø h8 mm	l1 mm	l2 mm	Code 501 Art.-Nr.	
6,60	148	97	00 501006601 00	10
6,70	148	97	00 501006701 00	10
6,80	156	102	00 501006801 00	10
6,90	156	102	00 501006901 00	10
7,00	156	102	00 501007001 00	10
7,10	156	102	00 501007101 00	10
7,20	156	102	00 501007201 00	10
7,30	156	102	00 501007301 00	10
7,40	156	102	00 501007401 00	10
7,50	156	102	00 501007501 00	10
7,60	165	109	00 501007601 00	10
7,70	165	109	00 501007701 00	10
7,80	165	109	00 501007801 00	10
7,90	165	109	00 501007901 00	10
8,00	165	109	00 501008001 00	10
8,20	165	109	00 501008201 00	10
8,50	165	109	00 501008501 00	10
8,80	175	115	00 501008801 00	10

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

Ø h8 mm	l1 mm	l2 mm	Code 501 Art.-Nr.	
9,00	175	115	00 501009001 00	10
9,50	175	115	00 501009501 00	10
9,80	184	121	00 501009801 00	10
10,00	184	121	00 501010001 00	10
10,20	184	121	00 501010201 00	1
10,50	184	121	00 501010501 00	1
11,00	195	128	00 501011001 00	1
11,50	195	128	00 501011501 00	1
12,00	205	134	00 501012001 00	1
12,50	205	134	00 501012501 00	1
13,00	205	134	00 501013001 00	1
13,50	214	140	00 501013501 00	1
14,00	214	140	00 501014001 00	1
14,50	220	144	00 501014501 00	1
15,00	220	144	00 501015001 00	1
15,50	227	149	00 501015501 00	1
16,00	227	149	00 501016001 00	1

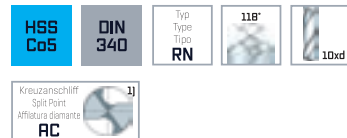
D Spiralbohrer lang, DIN 340 RN

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit sehr hoher thermischer Belastbarkeit zum Bohren von Werkstoffen mit höherem Legierungsgehalt und Festigkeit über 800 N/mm².



E Jobber drills long series, DIN 340 RN


Range of application:
5% cobalt-alloyed jobber drills with high heat resistance for drilling steels with tensile strength over 800 N/mm², specially suitable for high alloyed steels, bearing-steels, hot/cold-rolled steels.




I Punte elicoidali serie lunga, DIN 340 RN

Impiego:
Punte al 5% Co ad elevata resistenza al calore adatte per la foratura di acciai altamente legati e con R > 800 N/mm².



Ø h8 mm	l1 mm	l2 mm	Code 503 Art.-Nr.	
1,00	56	33	00 503001001 00	10
1,10	60	37	00 503001101 00	10
1,20	65	41	00 503001201 00	10
1,30	65	41	00 503001301 00	10
1,40	70	45	00 503001401 00	10
1,50	70	45	00 503001501 00	10
1,60	76	50	00 503001601 00	10
1,70	76	50	00 503001701 00	10
1,80	80	53	00 503001801 00	10
1,90	80	53	00 503001901 00	10

¹⁾ ≥ Ø 2,5 mm

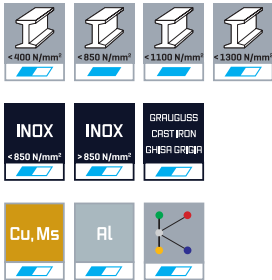
Ø h8 mm	l1 mm	l2 mm	Code 503 Art.-Nr.	
2,00	85	56	00 503002001 00	10
2,10	85	56	00 503002101 00	10
2,20	90	59	00 503002201 00	10
2,30	90	59	00 503002301 00	10
2,40	95	62	00 503002401 00	10
2,50	95	62	00 503002501 00	10
2,60	95	62	00 503002601 00	10
2,70	100	66	00 503002701 00	10
2,80	100	66	00 503002801 00	10
2,90	100	66	00 503002901 00	10

Ø _{h8} mm	l1 mm	l2 mm	Code 503 Art.-Nr.	
3,00	100	66	00 503003001 00	10
3,10	106	69	00 503003101 00	10
3,20	106	69	00 503003201 00	10
3,30	106	69	00 503003301 00	10
3,40	112	73	00 503003401 00	10
3,50	112	73	00 503003501 00	10
3,60	112	73	00 503003601 00	10
3,70	112	73	00 503003701 00	10
3,80	119	78	00 503003801 00	10
3,90	119	78	00 503003901 00	10
4,00	119	78	00 503004001 00	10
4,10	119	78	00 503004101 00	10
4,20	119	78	00 503004201 00	10
4,50	126	82	00 503004501 00	10
4,80	132	87	00 503004801 00	10
5,00	132	87	00 503005001 00	10
5,20	132	87	00 503005201 00	10
5,50	139	91	00 503005501 00	10
5,80	139	91	00 503005801 00	10

Ø _{h8} mm	l1 mm	l2 mm	Code 503 Art.-Nr.	
6,00	139	91	00 503006001 00	10
6,20	148	97	00 503006201 00	10
6,50	148	97	00 503006501 00	10
6,80	156	102	00 503006801 00	10
7,00	156	102	00 503007001 00	10
7,50	156	102	00 503007501 00	10
7,80	165	109	00 503007801 00	10
8,00	165	109	00 503008001 00	10
8,20	165	109	00 503008201 00	10
8,50	165	109	00 503008501 00	10
9,00	175	115	00 503009001 00	10
9,50	175	115	00 503009501 00	10
9,80	184	121	00 503009801 00	10
10,00	184	121	00 503010001 00	10
10,20	184	121	00 503010201 00	1
10,50	184	121	00 503010501 00	1
11,00	195	128	00 503011001 00	1
11,50	195	128	00 503011501 00	1
12,00	205	134	00 503012001 00	1

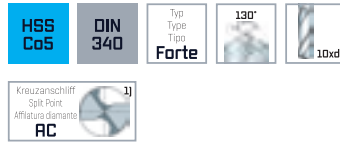
D Spiralbohrer
lang, DIN 340 Forte

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit verstärktem Kern und spezieller Nutausbildung bei schlechter Spanabfuhr bzw. für größere Bohrtiefen geeignet, für Stähle bis zu 1100 N/mm².



E Jobber drills
long series, DIN 340 Forte

Range of application:
5% cobalt-alloyed high efficiency drills with reinforced web with special designed flute profile for better chip removal and deeper holes, suitable for steels up to 1100 N/mm².



I Punte elicoidali
serie lunga, DIN 340 Forte

Impiego:
Punte 5% Co con nucleo rinforzato ed una particolare forma delle scanalature, adatte per lavorazioni con difficile scarico dei trucioli, fori profondi, materiali con R fino a 1100 N/mm².



FASENNITRIERT
NITRIDED LANOS
FASCETTE NITRURATE

FASENNITRIERT
NITRIDED LANOS
FASCETTE NITRURATE

Ø _{h8} mm	l1 mm	l2 mm	Code 511 Art.-Nr.	
1,00	56	33	00 511001001 00	10
1,10	60	37	00 511001101 00	10
1,20	65	41	00 511001201 00	10
1,30	65	41	00 511001301 00	10
1,40	70	45	00 511001401 00	10
1,50	70	45	00 511001501 00	10
1,60	76	50	00 511001601 00	10
1,70	76	50	00 511001701 00	10
1,80	80	53	00 511001801 00	10
1,90	80	53	00 511001901 00	10
2,00	85	56	00 511002001 00	10
2,10	85	56	00 511002101 00	10

Ø _{h8} mm	l1 mm	l2 mm	Code 511 Art.-Nr.	
2,20	90	59	00 511002201 00	10
2,30	90	59	00 511002301 00	10
2,40	95	62	00 511002401 00	10
2,50	95	62	00 511002501 00	10
2,60	95	62	00 511002601 00	10
2,70	100	66	00 511002701 00	10
2,80	100	66	00 511002801 00	10
2,90	100	66	00 511002901 00	10
3,00	100	66	00 511003001 00	10
3,10	106	69	00 511003101 00	10
3,20	106	69	00 511003201 00	10
3,30	106	69	00 511003301 00	10

⁽¹⁾ ≥ Ø 2,5 mm

HSS Bohrer
HSS drills
HSS punte elicoidali

FASENNITRIERT
NITRIDED LANDS
FASCETTE NITRURATE

Ø _{h8} mm	l1 mm	l2 mm	Code 511 Art.-Nr.	
3,40	112	73	00 511003401 00	10
3,50	112	73	00 511003501 00	10
3,60	112	73	00 511003601 00	10
3,70	112	73	00 511003701 00	10
3,80	119	78	00 511003801 00	10
3,90	119	78	00 511003901 00	10
4,00	119	78	00 511004001 00	10
4,20	119	78	00 511004201 00	10
4,50	126	82	00 511004501 00	10
4,80	132	87	00 511004801 00	10
5,00	132	87	00 511005001 00	10
5,20	132	87	00 511005201 00	10
5,50	139	91	00 511005501 00	10
5,80	139	91	00 511005801 00	10
6,00	139	91	00 511006001 00	10
6,20	148	97	00 511006201 00	10
6,50	148	97	00 511006501 00	10
6,80	156	102	00 511006801 00	10
7,00	156	102	00 511007001 00	10

FASENNITRIERT
NITRIDED LANDS
FASCETTE NITRURATE

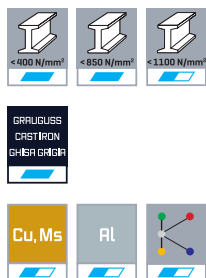
Ø _{h8} mm	l1 mm	l2 mm	Code 511 Art.-Nr.	
7,20	156	102	00 511007201 00	10
7,50	156	102	00 511007501 00	10
7,80	165	109	00 511007801 00	10
8,00	165	109	00 511008001 00	10
8,20	165	109	00 511008201 00	10
8,50	165	109	00 511008501 00	10
9,00	175	115	00 511009001 00	10
9,50	175	115	00 511009501 00	10
9,80	184	121	00 511009801 00	10
10,00	184	121	00 511010001 00	10
10,20	184	121	00 511010201 00	1
10,50	184	121	00 511010501 00	1
11,00	195	128	00 511011001 00	1
11,50	195	128	00 511011501 00	1
12,00	205	134	00 511012001 00	1
12,50	205	134	00 511012501 00	1
13,00	205	134	00 511013001 00	1
14,00	214	140	00 511014001 00	1

D Spiralbohrer

überlang, DIN 1869 R1 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub, Kühlung sowie häufige Spanentleerung zu beachten sind.

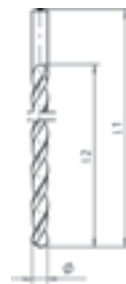


E Jobber drills

extra long series,
DIN 1869 R1 RN

Range of application:

High efficiency drills for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



I Punte elicoidali

serie extra lunga,
DIN 1869 L1 RN

Impiego:

Punte ad elevata produttività adatte per lavorazioni di fori molto profondi, per le quali tuttavia è necessario prevedere una corretta impostazione della velocità, dell'avanzamento, adeguato refrigerante ed una frequente evacuazione dei trucioli.



DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

Ø _{h8} mm	l1 mm	l2 mm	Code 101 Art.-Nr.	
2,00	125	85	00 101002001 00	1
2,50	140	95	00 101002501 00	1
3,00	150	100	00 101003001 00	1
3,50	165	115	00 101003501 00	1
4,00	175	120	00 101004001 00	1
4,20	175	120	00 101004201 00	1
4,50	185	125	00 101004501 00	1
4,80	195	135	00 101004801 00	1
4,90	195	135	00 101004901 00	1
5,00	195	135	00 101005001 00	1

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

Ø _{h8} mm	l1 mm	l2 mm	Code 101 Art.-Nr.	
5,50	205	140	00 101005501 00	1
5,80	205	140	00 101005801 00	1
6,00	205	140	00 101006001 00	1
6,20	215	150	00 101006201 00	1
6,50	215	150	00 101006501 00	1
7,00	225	155	00 101007001 00	1
7,50	225	155	00 101007501 00	1
8,00	240	165	00 101008001 00	1
8,50	240	165	00 101008501 00	1
9,00	250	175	00 101009001 00	1

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

Ø _{h8} mm	l1 mm	l2 mm	Code 101 Art.-Nr.	
9,50	250	175	00 101009501 00	1
10,00	265	185	00 101010001 00	1
10,50	265	185	00 101010501 00	1
11,00	280	195	00 101011001 00	1

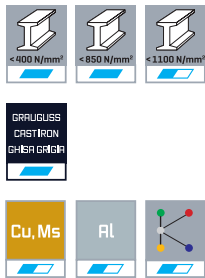
Ø _{h8} mm	l1 mm	l2 mm	Code 101 Art.-Nr.	
11,50	280	195	00 101011501 00	1
12,00	295	205	00 101012001 00	1
12,50	295	205	00 101012501 00	1
13,00	295	205	00 101013001 00	1

D Spiralbohrer

überlang, DIN 1869 R2 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub, Kühlung sowie häufige Spanentleerung zu beachten sind.



E Jobber drills

extra long series,
DIN 1869 R2 RN

Range of application:

High efficiency drills for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



I Punta elicoidali

serie extra lunga,
DIN 1869 L2 RN

Impiego:

Punte ad elevata produttività adatte per lavorazioni di fori molto profondi, per le quali tuttavia è necessario prevedere una corretta impostazione della velocità, dell'avanzamento, adeguato refrigerante ed una frequente evacuazione dei trucioli.



DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

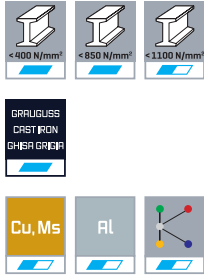
Ø _{h8} mm	l1 mm	l2 mm	Code 111 Art.-Nr.	
3,00	190	130	00 111003001 00	1
3,50	210	145	00 111003501 00	1
4,00	220	150	00 111004001 00	1
4,20	220	150	00 111004201 00	1
4,50	235	160	00 111004501 00	1
5,00	245	170	00 111005001 00	1
5,50	260	180	00 111005501 00	1
6,00	260	180	00 111006001 00	1
6,50	275	190	00 111006501 00	1
7,00	290	200	00 111007001 00	1
7,50	290	200	00 111007501 00	1

Ø _{h8} mm	l1 mm	l2 mm	Code 111 Art.-Nr.	
8,00	305	210	00 111008001 00	1
8,50	305	210	00 111008501 00	1
9,00	320	220	00 111009001 00	1
9,50	320	220	00 111009501 00	1
10,00	340	235	00 111010001 00	1
10,50	340	235	00 111010501 00	1
11,00	365	250	00 111011001 00	1
11,50	365	250	00 111011501 00	1
12,00	375	260	00 111012001 00	1
12,50	375	260	00 111012501 00	1
13,00	375	260	00 111013001 00	1

HSS Bohrer
HSS drills
HSS punte elicoidali

D **Spiralbohrer**
überlang, DIN 1869 R3 RN

Einsatzbereich:
Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub, Kühlung sowie häufige Spanentleerung zu beachten sind.



E **Jobber drills**
extra long series,
DIN 1869 R3 RN

Range of application:
High efficiency drills for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

\emptyset h8 mm	l1 mm	l2 mm	Code 121 Art.-Nr.	
3,50	265	180	00 121003501 00	1
4,00	280	190	00 121004001 00	1
4,20	280	190	00 121004201 00	1
4,50	295	200	00 121004501 00	1
5,00	315	210	00 121005001 00	1
5,50	330	225	00 121005501 00	1
6,00	330	225	00 121006001 00	1
6,20	350	235	00 121006201 00	1
6,50	350	235	00 121006501 00	1
7,00	370	250	00 121007001 00	1
7,50	370	250	00 121007501 00	1

I **Punte elicoidali**
serie extra lunga,
DIN 1869 L3 RN

Impiego:
Punte ad elevata produttività adatte per lavorazioni di fori molto profondi, per le quali tuttavia è necessario prevedere una corretta impostazione della velocità, dell'avanzamento, adeguato refrigerante ed una frequente evacuazione dei trucioli.



DAMPFANGELASSEN
STEAM TEMPERED
VAPORIZZATA

\emptyset h8 mm	l1 mm	l2 mm	Code 121 Art.-Nr.	
8,00	390	265	00 121008001 00	1
8,50	390	265	00 121008501 00	1
9,00	410	280	00 121009001 00	1
9,50	410	280	00 121009501 00	1
10,00	430	295	00 121010001 00	1
10,50	430	295	00 121010501 00	1
11,00	455	310	00 121011001 00	1
11,50	455	310	00 121011501 00	1
12,00	480	330	00 121012001 00	1
12,50	480	330	00 121012501 00	1
13,00	480	330	00 121013001 00	1

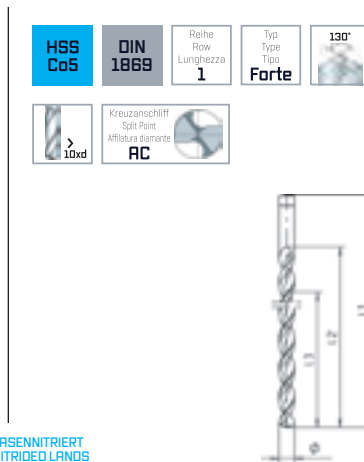
D **Spiralbohrer**
überlang, DIN 1869 R1 Forte

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit verstärktem Kern und spezieller Nutausbildung bei schlechter Spanabfuhr bzw. für größere Bohrtiefen geeignet, für Stähle bis zu 1100 N/mm².



E **Jobber drills**
extra long series,
DIN 1869 R1 Forte

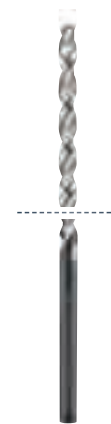
Range of application:
5% cobalt-alloyed high efficiency drills with reinforced web with special designed flute profile for better chip removal and deeper holes, suitable for steels up to 1100 N/mm².



FASENNITRIERT
NITRIDED LANDS
FASSETTE NITRURATE

I **Punte elicoidali**
serie extra lunga,
DIN 1869 L1 Forte

Impiego:
Punte 5% Co con nucleo rinforzato ed una particolare forma delle scanalature, adatte per lavorazioni con difficile scarico dei trucioli, fori profondi, materiali con R fino a 1100 N/mm².



FASENNITRIERT
NITRIDED LANDS
FASSETTE NITRURATE

Ø _{h8} mm	l1 mm	l2 mm	l3 mm	Code 201 Art.-Nr.	
3,00	150	100		00 201003001 00	1
3,50	165	115		00 201003501 00	1
4,00	175	120		00 201004001 00	1
4,50	185	125		00 201004501 00	1
5,00	195	135	90	00 201005001 00	1
5,50	205	140	93	00 201005501 00	1
6,00	205	140	93	00 201006001 00	1
6,50	215	150	100	00 201006501 00	1
7,00	225	155	103	00 201007001 00	1

Ø _{h8} mm	l1 mm	l2 mm	l3 mm	Code 201 Art.-Nr.	
7,50	225	155	103	00 201007501 00	1
8,00	240	165	110	00 201008001 00	1
8,50	240	165	110	00 201008501 00	1
9,00	250	175	117	00 201009001 00	1
9,50	250	175	117	00 201009501 00	1
10,00	265	185	123	00 201010001 00	1
11,00	280	195	130	00 201011001 00	1
12,00	295	205	137	00 201012001 00	1
13,00	295	205	137	00 201013001 00	1

Ausführung Doppelfase ≥ 5,00 mm / Double bevel design ≥ 5,00 mm / Esecuzione bifase ≥ 5,00 mm



HSS Bohrer
HSS drills
HSS punte elicoidali

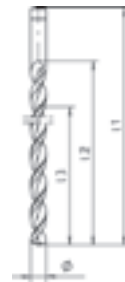
D **Spiralbohrer**
überlang, DIN 1869 R2 Forte

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit verstärktem Kern und spezieller Nutausbildung bei schlechter Spanabfuhr bzw. für größere Bohrtiefen geeignet, für Stähle bis zu 1100 N/mm².



E **Jobber drills**
extra long series,
DIN 1869 R2 Forte

Range of application:
5% cobalt-alloyed high efficiency drills with reinforced web with special designed flute profile for better chip removal and deeper holes, suitable for steels up to 1100 N/mm².

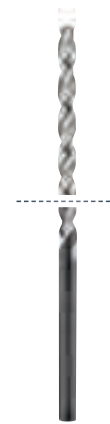


FASENNITRIERT
NITRIDED LANDS
FASCETTE NITRURATE

Ø h8 mm	l1 mm	l2 mm	l3 mm	Code 211 Art.-Nr.	
3,00	190	130		00 211003001 00	1
3,50	210	145		00 211003501 00	1
4,00	220	150		00 211004001 00	1
4,50	235	160		00 211004501 00	1
5,00	245	170	113	00 211005001 00	1
5,50	260	180	120	00 211005501 00	1
6,00	260	180	120	00 211006001 00	1
6,50	275	190	127	00 211006501 00	1
7,00	290	200	133	00 211007001 00	1

I **Punte elicoidali**
serie extra lunga,
DIN 1869 L2 Forte

Impiego:
Punte 5% Co con nucleo rinforzato ed una particolare forma delle scanalature, adatte per lavorazioni con difficile scarico dei trucioli, fori profondi, materiali con R fino a 1100 N/mm².



FASENNITRIERT
NITRIDED LANDS
FASCETTE NITRURATE

Ø h8 mm	l1 mm	l2 mm	l3 mm	Code 211 Art.-Nr.	
7,50	290	200	133	00 211007501 00	1
8,00	305	210	140	00 211008001 00	1
8,50	305	210	140	00 211008501 00	1
9,00	320	220	147	00 211009001 00	1
9,50	320	220	147	00 211009501 00	1
10,00	340	235	157	00 211010001 00	1
11,00	365	250	167	00 211011001 00	1
12,00	375	260	173	00 211012001 00	1
13,00	375	260	173	00 211013001 00	1

Ausführung Doppelfase ≥ 5,00 mm / Double bevel design ≥ 5,00 mm / Esecuzione bifase ≥ 5,00 mm

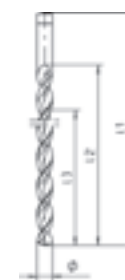
D **Spiralbohrer**
überlang, DIN 1869 R3 Forte

Einsatzbereich:
5% kobaltlegierter Spiralbohrer mit verstärktem Kern und spezieller Nutausbildung bei schlechter Spanabfuhr bzw. für größere Bohrtiefen geeignet, für Stähle bis zu 1100 N/mm².



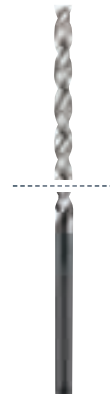
E **Jobber drills**
extra long series,
DIN 1869 R3 Forte

Range of application:
5% cobalt-alloyed high efficiency drills with reinforced web with special designed flute profile for better chip removal and deeper holes, suitable for steels up to 1100 N/mm².



I **Punte elicoidali**
serie extra lunga,
DIN 1869 L3 Forte

Impiego:
Punte 5% Co con nucleo rinforzato ed una particolare forma delle scanalature, adatte per lavorazioni con difficile scarico dei trucioli, fori profondi, materiali con R fino a 1100 N/mm².



FASENNITRIERT
NITRIDED LANDS
FASCETTE NITRURATE

FASENNITRIERT
NITRIDED LANDS
FASCETTE NITRURATE

Ø h8 mm	l1 mm	l2 mm	l3 mm	Code 221 Art.-Nr.	
3,50	265	180		00 221003501 00	1
4,00	280	190		00 221004001 00	1
5,00	315	210	140	00 221005001 00	1
6,00	330	225	150	00 221006001 00	1
7,00	370	250	167	00 221007001 00	1
8,00	390	265	177	00 221008001 00	1

Ø h8 mm	l1 mm	l2 mm	l3 mm	Code 221 Art.-Nr.	
9,00	410	280	187	00 221009001 00	1
10,00	430	295	197	00 221010001 00	1
11,00	455	310	207	00 221011001 00	1
12,00	480	330	220	00 221012001 00	1
13,00	480	330	220	00 221013001 00	1

Ausführung Doppelfase ≥ 5,00 mm / Double bevel design ≥ 5,00 mm / Esecuzione bifase ≥ 5,00 mm

D Tiefloch-Stangenbohrer, überlang, R1

E Deep hole drill, overlength, R1

I Punta per forature profonde, lunghezza maggiorata, L1

Einsatzbereich:

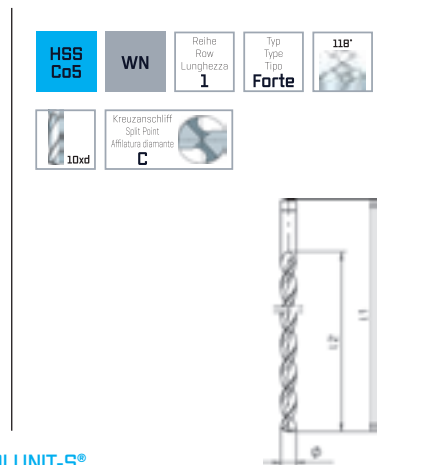
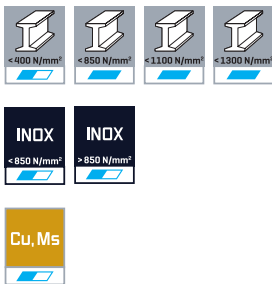
5% kobaltlegierter Spiralbohrer mit bedeutend verstärktem Kern und speziellem Nutprofil. Gesamtlänge nach DIN 1869, Spirallänge nach DIN 340. Spezielle Gleitstoff-Beschichtung, geringer Verschleiß und geringe Neigung zu Materialaufschweißung. Besonders geeignet für hochfeste, vergütete Stähle und Toolox.

Range of application:

5% cobalt alloyed twist drill with increased center web and special flute profile. Overall length according to DIN 1869, working length according to DIN 340. Special sliding coating and less wear. Especially suitable for high tensile, heat treatable steels and Toolox.

Impiego:

Punta elicoidale con contenuto di Cobalto al 5% con nocciolo rastremato e profilo dell'elica speciale. Lunghezza totale in accordo alla DIN 1869, lunghezza tagliente in accordo alla DIN 340. Rivestimento speciale per un maggior scorrimento e minor attrito. Particolarmente adatta per acciai ad alta resistenza e bonificati e Toolox.



HSS Bohrer
HSS drills
HSS punte elicoidali

ALUNIT-S®

ALUNIT-S®

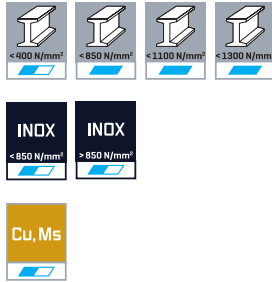
Ø h8 mm	l1 mm	l2 mm	Code 141 Art.-Nr.	
3,00	150	66	00 141003001 00	1
4,00	175	78	00 141004001 00	1
5,00	195	87	00 141005001 00	1

Ø h8 mm	l1 mm	l2 mm	Code 141 Art.-Nr.	
6,00	205	91	00 141006001 00	1
8,00	240	109	00 141008001 00	1
10,00	265	121	00 141010001 00	1

D Tiefloch-Stangenbohrer, überlang, R3

Einsatzbereich:

5% kobaltlegierter Spiralbohrer mit bedeutend verstärktem Kern und speziellem Nutprofil. Gesamtlänge nach DIN 1869, Spirallänge nach DIN 340. Spezielle Gleitstoff-Beschichtung, geringer Verschleiß und geringe Neigung zu Materialaufschweißung. Besonders geeignet für hochfeste, vergütete Stähle und Toolox.



E Deep hole drill, overlength, R3

Range of application:

5% cobalt alloyed twist drill with increased center web and special flute profile. Overall length according to DIN 1869, working length according to DIN 340. Special sliding coating and less wear. Especially suitable for high tensile, heat treatable steels and Toolox.



ALLUNIT-S®

Ø h8 mm	l1 mm	l2 mm	Code 151 Art.-Nr.	
4,00	280	78	00 151004001 00	1
5,00	315	87	00 151005001 00	1
6,00	330	91	00 151006001 00	1

I Punta per forature profonde, lunghezza maggiorata, L3

Impiego:

Punta elicoidale con contenuto di Cobalto al 5% con nocciolo rastremato e profilo dell'elica speciale. Lunghezza totale in accordo alla DIN 1869, lunghezza tagliente in accordo alla DIN 340. Rivestimento speciale per un maggior scorrimento e minor attrito. Particolarmente adatta per acciai ad alta resistenza e bonificati e Toolox.



ALLUNIT-S®

Ø h8 mm	l1 mm	l2 mm	Code 151 Art.-Nr.	
8,00	390	109	00 151008001 00	1
10,00	430	121	00 151010001 00	1