

>> SPIRALBOHRER, EXTRA KURZ, DIN 1897 RN

STUB DRILLS, DIN 1897 RN

PUNTE ELICOIDALI, SERIE EXTRA CORTA, DIN 1897 RN

Einsatzbereich:

Spiralbohrer präzisionsgeschliffen, zum Bohren von legierten und unlegierten Stählen. Besonders geeignet für dünnwandige Materialien.

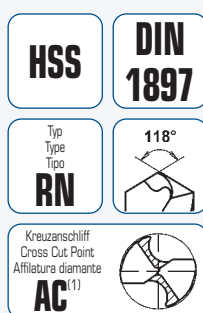
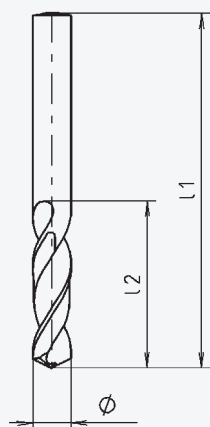
Range of application:

Premium quality twist drills for drilling steel and steel castings, alloy and plain carbon. Specially suitable for drilling thin sections and sheet-metal.

Impiego:

Foratura acciai legati, non legati, particolarmente adatte per materiali sottili, lamiere.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm	Code 391 Art.-Nr.		€
2,00	38	12	00 391002001 00	10	1,49
2,10	38	12	00 391002101 00	10	2,13
2,20	40	13	00 391002201 00	10	2,13
2,30	40	13	00 391002301 00	10	2,19
2,40	43	14	00 391002401 00	10	2,19
2,50	43	14	00 391002501 00	10	1,69
2,60	43	14	00 391002601 00	10	2,26
2,70	46	16	00 391002701 00	10	2,26
2,80	46	16	00 391002801 00	10	2,26
2,90	46	16	00 391002901 00	10	2,26
3,00	46	16	00 391003001 00	10	1,69
3,10	49	18	00 391003101 00	10	2,26
3,20	49	18	00 391003201 00	10	2,13
3,30	49	18	00 391003301 00	10	2,19
3,40	52	20	00 391003401 00	10	2,77
3,50	52	20	00 391003501 00	10	1,89
3,60	52	20	00 391003601 00	10	2,77
3,70	52	20	00 391003701 00	10	2,77
3,80	55	22	00 391003801 00	10	2,77
3,90	55	22	00 391003901 00	10	2,77
4,00	55	22	00 391004001 00	10	1,97
4,10	55	22	00 391004101 00	10	2,35
4,20	55	22	00 391004201 00	10	2,35
4,30	58	24	00 391004301 00	10	3,60
4,40	58	24	00 391004401 00	10	3,60

⁽¹⁾ ≥ Ø 4,0 mm



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>> SPIRALBOHRER, EXTRA KURZ, DIN 1897 RN

STUB DRILLS, DIN 1897 RN

PUNTE ELICOIDALI, SERIE EXTRA CORTA, DIN 1897 RN

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			dampfangelassen steam tempered vaporizzata		
Ø _{h8} mm	l1 mm	l2 mm	Code 391 Art.-Nr.		€
4,50	58	24	00 391004501 00	10	2,35
4,60	58	24	00 391004601 00	10	3,75
4,70	58	24	00 391004701 00	10	3,75
4,80	62	26	00 391004801 00	10	3,75
4,90	62	26	00 391004901 00	10	3,75
5,00	62	26	00 391005001 00	10	2,54
5,10	62	26	00 391005101 00	10	3,83
5,20	62	26	00 391005201 00	10	3,83
5,30	62	26	00 391005301 00	10	3,83
5,40	66	28	00 391005401 00	10	4,39
5,50	66	28	00 391005501 00	10	2,54
5,60	66	28	00 391005601 00	10	4,39
5,70	66	28	00 391005701 00	10	4,39
5,80	66	28	00 391005801 00	10	4,39
5,90	66	28	00 391005901 00	10	4,39
6,00	66	28	00 391006001 00	10	3,33
6,20	70	31	00 391006201 00	10	4,65
6,50	70	31	00 391006501 00	10	4,03
6,80	74	34	00 391006801 00	10	6,14
7,00	74	34	00 391007001 00	10	4,86
7,20	74	34	00 391007201 00	10	6,99
7,50	74	34	00 391007501 00	10	5,29
7,80	79	37	00 391007801 00	10	8,46
8,00	79	37	00 391008001 00	10	5,50
8,20	79	37	00 391008201 00	10	9,65
8,50	79	37	00 391008501 00	10	7,83
9,00	84	40	00 391009001 00	10	7,35
9,20	84	40	00 391009201 00	10	13,28
9,50	84	40	00 391009501 00	10	11,87
10,00	89	43	00 391010001 00	10	8,68
10,20	89	43	00 391010201 00	1	15,18
10,50	89	43	00 391010501 00	1	15,96
11,00	95	47	00 391011001 00	1	15,96
11,50	95	47	00 391011501 00	1	17,03
12,00	102	51	00 391012001 00	1	20,54
12,50	102	51	00 391012501 00	1	21,60
13,00	102	51	00 391013001 00	1	22,15
13,50	107	54	00 391013501 00	1	25,14
14,00	107	54	00 391014001 00	1	25,43
15,00	111	56	00 391015001 00	1	28,15
16,00	115	58	00 391016001 00	1	31,32



>> SPIRALBOHRER, EXTRA KURZ, DIN 1897 PZ

STUB DRILLS, DIN 1897 PZ

PUNTE ELICOIDALI, SERIE EXTRA CORTA, DIN 1897 PZ

Einsatzbereich:

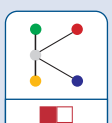
5% kobaltlegierter Spiralbohrer mit verstärktem Kerndurchmesser. Besonders geeignet für zähe und harte Werkstoffe wie rost- und säurebeständige Chrom-Nickelstähle. Durch die kurze Bauweise sehr gut für Handbohrmaschinen geeignet.

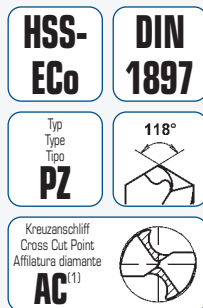
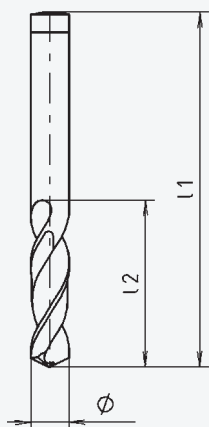
Range of application:

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.

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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blank | bright | lucida



TiN

Ø _{h8} mm	l1 mm	l2 mm	Code 901 Art.-Nr.		€	Code 907 Art.-Nr.		€
1,00	26	6	00 901001001 00	10	2,86	00 907001001 00	1	8,31
1,10	28	7	00 901001101 00	10	2,93	00 907001101 00	1	8,48
1,20	30	8	00 901001201 00	10	3,21	00 907001201 00	1	9,32
1,30	30	8	00 901001301 00	10	3,01	00 907001301 00	1	8,70
1,40	32	9	00 901001401 00	10	2,86	00 907001401 00	1	8,31
1,50	32	9	00 901001501 00	10	2,67	00 907001501 00	1	7,74
1,60	34	10	00 901001601 00	10	2,86	00 907001601 00	1	8,31
1,70	34	10	00 901001701 00	10	2,93	00 907001701 00	1	8,48
1,80	36	11	00 901001801 00	10	2,86	00 907001801 00	1	8,31
1,90	36	11	00 901001901 00	10	2,93	00 907001901 00	1	8,48
2,00	38	12	00 901002001 00	10	2,43	00 907002001 00	1	7,05
2,10	38	12	00 901002101 00	10	3,08	00 907002101 00	1	8,92
2,20	40	13	00 901002201 00	10	3,08	00 907002201 00	1	8,92
2,30	40	13	00 901002301 00	10	3,08	00 907002301 00	1	8,92
2,40	43	14	00 901002401 00	10	3,15	00 907002401 00	1	9,10
2,50	43	14	00 901002501 00	10	2,57	00 907002501 00	1	7,45
2,60	43	14	00 901002601 00	10	3,21	00 907002601 00	1	9,32
2,70	46	16	00 901002701 00	10	3,21	00 907002701 00	1	9,32
2,80	46	16	00 901002801 00	10	3,30	00 907002801 00	1	9,58
2,90	46	16	00 901002901 00	10	3,30	00 907002901 00	1	9,58
3,00	46	16	00 901003001 00	10	2,57	00 907003001 00	1	7,45
3,10	49	18	00 901003101 00	10	3,38	00 907003101 00	1	9,79
3,20	49	18	00 901003201 00	10	2,86	00 907003201 00	1	8,31
3,30	49	18	00 901003301 00	10	2,93	00 907003301 00	1	8,48
3,40	52	20	00 901003401 00	10	3,58	00 907003401 00	1	10,32

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⁽¹⁾ ≥ Ø 2,0 mm



>> SPIRALBOHRER, EXTRA KURZ, DIN 1897 PZ

STUB DRILLS, DIN 1897 PZ

PUNTE ELICOIDALI, SERIE EXTRA CORTA, DIN 1897 PZ

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			blank bright lucida			TiN		
Ø _{h8} mm	l1 mm	l2 mm	Code 901 Art.-Nr.		€	Code 907 Art.-Nr.		€
3,50	52	20	00 901003501 00	10	2,86	00 907003501 00	1	8,31
3,60	52	20	00 901003601 00	10	3,63	00 907003601 00	1	10,51
3,70	52	20	00 901003701 00	10	3,73	00 907003701 00	1	10,80
3,80	55	22	00 901003801 00	10	3,73	00 907003801 00	1	10,80
3,90	55	22	00 901003901 00	10	3,86	00 907003901 00	1	11,22
4,00	55	22	00 901004001 00	10	3,08	00 907004001 00	1	8,92
4,10	55	22	00 901004101 00	10	3,86	00 907004101 00	1	11,22
4,20	55	22	00 901004201 00	10	3,95	00 907004201 00	1	11,42
4,30	58	24	00 901004301 00	10	3,95	00 907004301 00	1	11,42
4,40	58	24	00 901004401 00	10	4,02	00 907004401 00	1	11,62
4,50	58	24	00 901004501 00	10	4,02	00 907004501 00	1	11,62
4,60	58	24	00 901004601 00	10	4,21	00 907004601 00	1	12,21
4,70	58	24	00 901004701 00	10	4,21	00 907004701 00	1	12,21
4,80	62	26	00 901004801 00	10	4,28	00 907004801 00	1	12,42
4,90	62	26	00 901004901 00	10	4,46	00 907004901 00	1	12,93
5,00	62	26	00 901005001 00	10	3,80	00 907005001 00	1	11,02
5,10	62	26	00 901005101 00	10	4,46	00 907005101 00	1	12,93
5,20	62	26	00 901005201 00	10	4,53	00 907005201 00	1	13,09
5,30	62	26	00 901005301 00	10	4,60	00 907005301 00	1	13,32
5,40	66	28	00 901005401 00	10	4,95	00 907005401 00	1	14,32
5,50	66	28	00 901005501 00	10	5,37	00 907005501 00	1	11,80
5,60	66	28	00 901005601 00	10	5,08	00 907005601 00	1	14,77
5,70	66	28	00 901005701 00	10	5,08	00 907005701 00	1	14,77
5,80	66	28	00 901005801 00	10	5,08	00 907005801 00	1	14,77
5,90	66	28	00 901005901 00	10	5,08	00 907005901 00	1	14,77
6,00	66	28	00 901006001 00	10	5,03	00 907006001 00	1	14,59
6,10	70	31	00 901006101 00	10	5,64	00 907006101 00	1	16,39
6,20	70	31	00 901006201 00	10	5,64	00 907006201 00	1	16,39
6,30	70	31	00 901006301 00	10	5,64	00 907006301 00	1	16,39
6,40	70	31	00 901006401 00	10	6,15	00 907006401 00	1	17,82
6,50	70	31	00 901006501 00	10	5,64	00 907006501 00	1	16,39
6,60	70	31	00 901006601 00	10	6,15	00 907006601 00	1	17,82
6,70	70	31	00 901006701 00	10	6,15	00 907006701 00	1	17,82
6,80	74	34	00 901006801 00	10	6,74	00 907006801 00	1	19,50
6,90	74	34	00 901006901 00	10	6,74	00 907006901 00	1	19,50
7,00	74	34	00 901007001 00	10	5,94	00 907007001 00	1	17,20
7,10	74	34	00 901007101 00	10	8,10	00 907007101 00	1	20,24
7,20	74	34	00 901007201 00	10	8,10	00 907007201 00	1	20,24
7,30	74	34	00 901007301 00	10	8,10	00 907007301 00	1	20,24
7,40	74	34	00 901007401 00	10	8,10	00 907007401 00	1	20,24
7,50	74	34	00 901007501 00	10	6,30	00 907007501 00	1	15,77
7,60	79	37	00 901007601 00	10	9,65	00 907007601 00	1	21,22
7,70	79	37	00 901007701 00	10	9,65	00 907007701 00	1	21,22
7,80	79	37	00 901007801 00	10	9,65	00 907007801 00	1	21,22
7,90	79	37	00 901007901 00	10	9,65	00 907007901 00	1	21,22
8,00	79	37	00 901008001 00	10	7,81	00 907008001 00	1	17,17
8,10	79	37	00 901008101 00	10	9,65	00 907008101 00	1	21,22
8,20	79	37	00 901008201 00	10	10,23	00 907008201 00	1	22,51
8,30	79	37	00 901008301 00	10	10,23	00 907008301 00	1	22,51
8,40	79	37	00 901008401 00	10	10,67	00 907008401 00	1	23,50
8,50	79	37	00 901008501 00	10	7,73	00 907008501 00	1	17,00
8,60	84	40	00 901008601 00	10	11,45	00 907008601 00	1	25,19
8,70	84	40	00 901008701 00	10	11,45	00 907008701 00	1	25,19
8,80	84	40	00 901008801 00	10	12,25	00 907008801 00	1	26,94

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>> SPIRALBOHRER, EXTRA KURZ, DIN 1897 PZ

STUB DRILLS, DIN 1897 PZ

PUNTE ELICOIDALI, SERIE EXTRA CORTA, DIN 1897 PZ

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			blank bright lucida			TiN		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 901 Art.-Nr.		€	Code 907 Art.-Nr.		€
8,90	84	40	00 901008901 00	10	12,82	00 907008901 00	1	28,18
9,00	84	40	00 901009001 00	10	10,01	00 907009001 00	1	22,02
9,10	84	40	00 901009101 00	10	13,62	00 907009101 00	1	29,94
9,20	84	40	00 901009201 00	10	14,39	00 907009201 00	1	31,66
9,30	84	40	00 901009301 00	10	14,76	00 907009301 00	1	32,46
9,40	84	40	00 901009401 00	10	16,18	00 907009401 00	1	35,59
9,50	84	40	00 901009501 00	10	11,83	00 907009501 00	1	26,02
9,60	89	43	00 901009601 00	10	16,54	00 907009601 00	1	36,40
9,70	89	43	00 901009701 00	10	16,54	00 907009701 00	1	36,40
9,80	89	43	00 901009801 00	10	16,54	00 907009801 00	1	36,40
9,90	89	43	00 901009901 00	10	16,54	00 907009901 00	1	36,40
10,00	89	43	00 901010001 00	10	11,45	00 907010001 00	1	28,62
10,20	89	43	00 901010201 00	1	16,18	00 907010201 00	1	35,59
10,50	89	43	00 901010501 00	1	16,54	00 907010501 00	1	41,37
11,00	95	47	00 901011001 00	1	18,34	00 907011001 00	1	45,86
11,50	95	47	00 901011501 00	1	23,28	00 907011501 00	1	34,92
12,00	102	51	00 901012001 00	1	26,46	00 907012001 00	1	39,68
12,50	102	51	00 901012501 00	1	31,51	00 907012501 00	1	47,25
13,00	102	51	00 901013001 00	1	33,91	00 907013001 00	1	50,88



>> HPT-SPIRALBOHRER, EXTRA KURZ, DIN 1897

HPT STUB DRILLS, DIN 1897

HPT PUNTE ELICOIDALI, SERIE EXTRA CORTA, DIN 1897

Einsatzbereich:

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.**

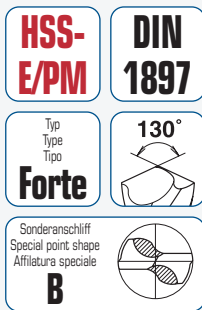
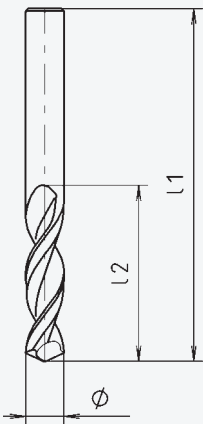
Range of application:

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.**

Impiego:

Punte 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.**

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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ALUNIT®

Ø _{h8} mm	L1 mm	L2 mm	Code 900 Art.-Nr.		€
2,80	49*	18*	00 900002801 00	1	12,88
2,90	49*	18*	00 900002901 00	1	12,06
3,00	49*	18*	00 900003001 00	1	10,70
3,10	52*	20*	00 900003101 00	1	14,06
3,20	52*	20*	00 900003201 00	1	14,06
3,30	52*	20*	00 900003301 00	1	13,74
3,40	55*	22*	00 900003401 00	1	16,07
3,50	55*	22*	00 900003501 00	1	15,02
3,60	55*	22*	00 900003601 00	1	16,07
3,70	55*	22*	00 900003701 00	1	16,07
3,80	55	22	00 900003801 00	1	16,07
3,90	55	22	00 900003901 00	1	16,07
4,00	55	22	00 900004001 00	1	12,50
4,10	55	22	00 900004101 00	1	14,71
4,20	55	22	00 900004201 00	1	14,71
4,30	58	24	00 900004301 00	1	16,61
4,40	58	24	00 900004401 00	1	16,61
4,50	58	24	00 900004501 00	1	16,61
4,60	58	24	00 900004601 00	1	16,61
4,65	58	24	00 900004651 00	1	19,32
4,70	58	24	00 900004701 00	1	16,61
4,80	62	26	00 900004801 00	1	16,61
4,90	62	26	00 900004901 00	1	16,61
5,00	62	26	00 900005001 00	1	13,85
5,10	62	26	00 900005101 00	1	16,58

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



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>> **HPT -SPIRALBOHRER,
EXTRA KURZ, DIN 1897**

**HPT STUB DRILLS,
DIN 1897**

**HPT PUNTE ELICOIDALI,
SERIE EXTRA CORTA,
DIN 1897**

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			ALUNIT®		
Ø _{h8} mm	l1 mm	l2 mm	Code 900 Art.-Nr.		€
5,20	62	26	00 900005201 00	1	16,58
5,30	62	26	00 900005301 00	1	16,58
5,40	66	28	00 900005401 00	1	16,25
5,50	66	28	00 900005501 00	1	16,20
5,55	66	28	00 900005551 00	1	20,55
5,60	66	28	00 900005601 00	1	16,20
5,70	66	28	00 900005701 00	1	16,20
5,80	66	28	00 900005801 00	1	16,20
5,90	66	28	00 900005901 00	1	16,20
6,00	66	28	00 900006001 00	1	14,73
6,10	70	31	00 900006101 00	1	18,07
6,20	70	31	00 900006201 00	1	18,07
6,30	70	31	00 900006301 00	1	18,07
6,40	70	31	00 900006401 00	1	18,07
6,50	70	31	00 900006501 00	1	17,68
6,60	70	31	00 900006601 00	1	23,11
6,70	70	31	00 900006701 00	1	23,11
6,80	74	34	00 900006801 00	1	22,59
6,90	74	34	00 900006901 00	1	23,11
7,00	74	34	00 900007001 00	1	20,54
7,10	74	34	00 900007101 00	1	29,54
7,20	74	34	00 900007201 00	1	29,54
7,30	74	34	00 900007301 00	1	29,54
7,40	74	34	00 900007401 00	1	29,54
7,50	74	34	00 900007501 00	1	29,48
7,60	79	37	00 900007601 00	1	30,17
7,70	79	37	00 900007701 00	1	30,17
7,80	79	37	00 900007801 00	1	30,17
7,90	79	37	00 900007901 00	1	30,17
8,00	79	37	00 900008001 00	1	26,83
8,10	79	37	00 900008101 00	1	35,17
8,20	79	37	00 900008201 00	1	35,17
8,30	79	37	00 900008301 00	1	34,43
8,40	79	37	00 900008401 00	1	34,43
8,50	79	37	00 900008501 00	1	34,43
8,60	84	40	00 900008601 00	1	34,43
8,70	84	40	00 900008701 00	1	34,43
8,80	84	40	00 900008801 00	1	37,72
8,90	84	40	00 900008901 00	1	37,72
9,00	84	40	00 900009001 00	1	31,26
9,10	84	40	00 900009101 00	1	37,72
9,20	84	40	00 900009201 00	1	37,72
9,30	84	40	00 900009301 00	1	37,72
9,40	84	40	00 900009401 00	1	37,72
9,50	84	40	00 900009501 00	1	39,29
9,60	89	43	00 900009601 00	1	39,29
9,70	89	43	00 900009701 00	1	39,29
9,80	89	43	00 900009801 00	1	39,29
9,90	89	43	00 900009901 00	1	39,29
10,00	89	43	00 900010001 00	1	35,75
10,20	89	43	00 900010201 00	1	49,17
10,50	89	43	00 900010501 00	1	53,59
11,00	95	47	00 900011001 00	1	44,67
11,50	95	47	00 900011501 00	1	58,97
12,00	102	51	00 900012001 00	1	53,59



>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

Einsatzbereich:

Spiralbohrer präzisionsgeschliffen, zum Bohren von legierten und unlegierten Stählen, Grauguss, Temperguss, Kupferlegierungen, Neu-silber, Graphit, Sinterisen.

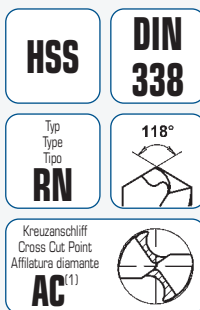
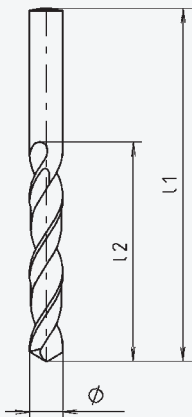
Range of application:

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.

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen⁽²⁾ | steam tempered⁽²⁾
vaporizzata⁽²⁾

Ø _{h8} mm	l1 mm	l2 mm	Code 601 Art.-Nr.		€
0,30	19	3	00 601000301 00	10	4,36
0,35	19	4	00 601000351 00	10	3,77
0,40	20	5	00 601000401 00	10	3,05
0,45	20	5	00 601000451 00	10	2,83
0,50	22	6	00 601000501 00	10	2,54
0,55	24	7	00 601000551 00	10	3,47
0,60	24	7	00 601000601 00	10	2,41
0,65	26	8	00 601000651 00	10	3,25
0,70	29	9	00 601000701 00	10	2,26
0,75	28	9	00 601000751 00	10	2,41
0,80	30	10	00 601000801 00	10	2,13
0,85	30	10	00 601000851 00	10	2,19
0,90	32	11	00 601000901 00	10	2,05
0,95	32	11	00 601000951 00	10	2,19
1,00	34	12	00 601001001 00	10	2,05
1,05	34	12	00 601001051 00	10	2,05
1,10	36	14	00 601001101 00	10	1,97
1,15	36	14	00 601001151 00	10	2,05
1,20	38	16	00 601001201 00	10	2,05
1,25	38	16	00 601001251 00	10	1,97
1,30	38	16	00 601001301 00	10	1,89
1,35	40	18	00 601001351 00	10	1,89
1,40	40	18	00 601001401 00	10	1,84
1,45	40	18	00 601001451 00	10	1,78
1,50	40	18	00 601001501 00	10	1,69

⁽¹⁾ ≥ Ø 4,0 mm

⁽²⁾ ≥ Ø 1,0 mm



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>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

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			dampfangelassen steam tempered vaporizzata		
Ø _{h8} mm	l1 mm	l2 mm	Code 601 Art.-Nr.		€
1,55	43	20	00 601001551 00	10	1,69
1,60	43	20	00 601001601 00	10	1,55
1,65	43	20	00 601001651 00	10	1,55
1,70	43	20	00 601001701 00	10	1,55
1,75	46	22	00 601001751 00	10	1,69
1,80	46	22	00 601001801 00	10	1,41
1,85	46	22	00 601001851 00	10	1,49
1,90	46	22	00 601001901 00	10	1,41
1,95	49	24	00 601001951 00	10	1,49
2,00	49	24	00 601002001 00	10	1,20
2,05	49	24	00 601002051 00	10	1,41
2,10	49	24	00 601002101 00	10	1,41
2,15	53	27	00 601002151 00	10	1,49
2,20	53	27	00 601002201 00	10	1,49
2,25	53	27	00 601002251 00	10	1,49
2,30	53	27	00 601002301 00	10	1,49
2,35	53	27	00 601002351 00	10	2,05
2,40	57	30	00 601002401 00	10	1,49
2,45	57	30	00 601002451 00	10	2,05
2,50	57	30	00 601002501 00	10	1,49
2,55	57	30	00 601002551 00	10	2,13
2,60	57	30	00 601002601 00	10	1,55
2,65	57	30	00 601002651 00	10	2,26
2,70	61	33	00 601002701 00	10	1,55
2,75	61	33	00 601002751 00	10	1,84
2,80	61	33	00 601002801 00	10	1,55
2,85	61	33	00 601002851 00	10	2,13
2,90	61	33	00 601002901 00	10	1,55
2,95	61	33	00 601002951 00	10	1,84
3,00	61	33	00 601003001 00	10	1,34
3,10	65	36	00 601003101 00	10	1,69
3,20	65	36	00 601003201 00	10	1,69
3,25	65	36	00 601003251 00	10	1,69
3,30	65	36	00 601003301 00	10	1,78
3,40	70	39	00 601003401 00	10	1,69
3,50	70	39	00 601003501 00	10	1,49
3,60	70	39	00 601003601 00	10	1,89
3,70	70	39	00 601003701 00	10	1,97
3,75	70	39	00 601003751 00	10	1,97
3,80	75	43	00 601003801 00	10	2,05
3,90	75	43	00 601003901 00	10	2,13
4,00	75	43	00 601004001 00	10	1,55
4,10	75	43	00 601004101 00	10	2,19
4,20	75	43	00 601004201 00	10	1,97
4,25	75	43	00 601004251 00	10	2,26
4,30	80	47	00 601004301 00	10	2,26
4,40	80	47	00 601004401 00	10	2,26
4,50	80	47	00 601004501 00	10	2,05
4,60	80	47	00 601004601 00	10	2,26
4,70	80	47	00 601004701 00	10	2,35
4,75	80	47	00 601004751 00	10	2,96
4,80	86	52	00 601004801 00	10	2,35
4,90	86	52	00 601004901 00	10	2,46
5,00	86	52	00 601005001 00	10	2,05

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>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm	Code 601 Art.-Nr.		€
5,10	86	52	00 601005101 00	10	2,46
5,20	86	52	00 601005201 00	10	2,54
5,25	86	52	00 601005251 00	10	3,47
5,30	86	52	00 601005301 00	10	2,54
5,40	93	57	00 601005401 00	10	2,88
5,50	93	57	00 601005501 00	10	2,83
5,60	93	57	00 601005601 00	10	2,96
5,70	93	57	00 601005701 00	10	2,96
5,75	93	57	00 601005751 00	10	4,46
5,80	93	57	00 601005801 00	10	3,05
5,90	93	57	00 601005901 00	10	3,10
6,00	93	57	00 601006001 00	10	2,83
6,10	101	63	00 601006101 00	10	3,33
6,20	101	63	00 601006201 00	10	3,33
6,25	101	63	00 601006251 00	10	4,79
6,30	101	63	00 601006301 00	10	3,40
6,40	101	63	00 601006401 00	10	3,60
6,50	101	63	00 601006501 00	10	3,47
6,60	101	63	00 601006601 00	10	3,75
6,70	101	63	00 601006701 00	10	3,83
6,75	109	69	00 601006751 00	10	4,46
6,80	109	69	00 601006801 00	10	4,46
6,90	109	69	00 601006901 00	10	4,46
7,00	109	69	00 601007001 00	10	4,09
7,10	109	69	00 601007101 00	10	4,60
7,20	109	69	00 601007201 00	10	4,71
7,25	109	69	00 601007251 00	10	6,49
7,30	109	69	00 601007301 00	10	4,71
7,40	109	69	00 601007401 00	10	4,86
7,50	109	69	00 601007501 00	10	4,54
7,60	117	75	00 601007601 00	10	5,17
7,70	117	75	00 601007701 00	10	5,17
7,75	117	75	00 601007751 00	10	7,41
7,80	117	75	00 601007801 00	10	5,29
7,90	117	75	00 601007901 00	10	5,37
8,00	117	75	00 601008001 00	10	4,54
8,10	117	75	00 601008101 00	10	5,50
8,20	117	75	00 601008201 00	10	5,64
8,25	117	75	00 601008251 00	10	6,14
8,30	117	75	00 601008301 00	10	6,14
8,40	117	75	00 601008401 00	10	6,14
8,50	117	75	00 601008501 00	10	5,93
8,60	125	81	00 601008601 00	10	6,79
8,70	125	81	00 601008701 00	10	6,79
8,75	125	81	00 601008751 00	10	10,10
8,80	125	81	00 601008801 00	10	6,91
8,90	125	81	00 601008901 00	10	7,21
9,00	125	81	00 601009001 00	10	6,49
9,10	125	81	00 601009101 00	10	7,21
9,20	125	81	00 601009201 00	10	7,21
9,25	125	81	00 601009251 00	10	8,34
9,30	125	81	00 601009301 00	10	7,35
9,40	125	81	00 601009401 00	10	7,35
9,50	125	81	00 601009501 00	10	7,35

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>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

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			dampfangelassen steam tempered vaporizzata		
Ø _{h8} mm	l1 mm	l2 mm	Code 601 Art.-Nr.		€
9,60	133	87	00 601009601 00	10	7,99
9,70	133	87	00 601009701 00	10	7,99
9,75	133	87	00 601009751 00	10	9,31
9,80	133	87	00 601009801 00	10	8,68
9,90	133	87	00 601009901 00	10	8,68
10,00	133	87	00 601010001 00	10	7,76
10,10	133	87	00 601010101 00	5	9,54
10,20	133	87	00 601010201 00	5	9,75
10,25	133	87	00 601010251 00	5	11,37
10,30	133	87	00 601010301 00	5	11,57
10,40	133	87	00 601010401 00	5	11,57
10,50	133	87	00 601010501 00	5	10,10
10,60	133	87	00 601010601 00	5	12,07
10,70	142	94	00 601010701 00	5	13,90
10,75	142	94	00 601010751 00	5	13,90
10,80	142	94	00 601010801 00	5	13,90
10,90	142	94	00 601010901 00	5	14,41
11,00	142	94	00 601011001 00	5	11,57
11,10	142	94	00 601011101 00	5	14,41
11,20	142	94	00 601011201 00	5	14,41
11,25	142	94	00 601011251 00	5	14,88
11,30	142	94	00 601011301 00	5	14,88
11,40	142	94	00 601011401 00	5	14,88
11,50	142	94	00 601011501 00	5	12,63
11,60	142	94	00 601011601 00	5	14,88
11,70	142	94	00 601011701 00	5	15,39
11,75	142	94	00 601011751 00	5	15,39
11,80	142	94	00 601011801 00	5	16,17
11,90	151	101	00 601011901 00	5	17,14
12,00	151	101	00 601012001 00	5	14,12
12,10	151	101	00 601012101 00	5	18,14
12,20	151	101	00 601012201 00	5	18,63
12,25	151	101	00 601012251 00	5	18,14
12,30	151	101	00 601012301 00	5	17,14
12,40	151	101	00 601012401 00	5	19,42
12,50	151	101	00 601012501 00	5	15,90
12,60	151	101	00 601012601 00	5	20,17
12,70	151	101	00 601012701 00	5	17,14
12,75	151	101	00 601012751 00	5	20,96
12,80	151	101	00 601012801 00	5	20,96
12,90	151	101	00 601012901 00	5	22,65
13,00	151	101	00 601013001 00	5	17,44
13,25	160	108	00 601013251 00	1	25,20
13,50	160	108	00 601013501 00	1	20,17
13,75	160	108	00 601013751 00	1	28,72
14,00	160	108	00 601014001 00	1	22,15
14,25	169	114	00 601014251 00	1	31,76
14,50	169	114	00 601014501 00	1	23,71
14,75	169	114	00 601014751 00	1	33,28
15,00	169	114	00 601015001 00	1	25,75
15,25	178	120	00 601015251 00	1	42,40
15,50	178	120	00 601015501 00	1	28,27
15,75	178	120	00 601015751 00	1	45,43
16,00	178	120	00 601016001 00	1	30,25

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>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

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dampfangelassen | steam tempered
vaporizzata

$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 601 Art.-Nr.		€
16,50	184	125	00 601016501 00	1	33,78
17,00	184	125	00 601017001 00	1	35,83
17,50	191	130	00 601017501 00	1	39,36
18,00	191	130	00 601018001 00	1	41,89
18,50	198	135	00 601018501 00	1	45,88
19,00	198	135	00 601019001 00	1	48,91
19,50	205	140	00 601019501 00	1	51,89
20,00	205	140	00 601020001 00	1	56,96



>> SPIRALBOHRER, KURZ, DIN 338 RW

Einsatzbereich:

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

JOBBER DRILLS, DIN 338 RW

Range of application:

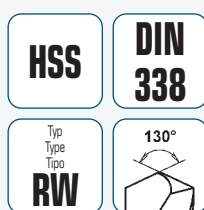
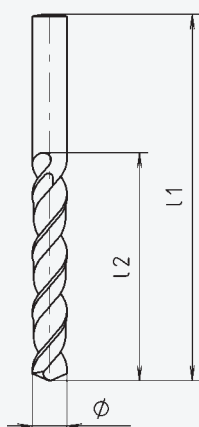
Fast spiral drills for soft and tough materials giving long chips e. g. aluminium, aluminium alloys, magnesium alloys, soft thermoplastics, hard wood etc.

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
--	--	--	--	---	--	--	---------------------------------------	-----------	---------------	-----------	---



blank | bright | lucida

Ø _{h8} mm	l1 mm	l2 mm	Code 651 Art.-Nr.		€
1,00	34	12	00 651001001 00	10	2,48
1,10	36	14	00 651001101 00	10	2,64
1,20	38	16	00 651001201 00	10	2,64
1,30	38	16	00 651001301 00	10	2,64
1,40	40	18	00 651001401 00	10	2,64
1,50	40	18	00 651001501 00	10	2,48
1,60	43	20	00 651001601 00	10	2,39
1,70	43	20	00 651001701 00	10	2,46
1,80	46	22	00 651001801 00	10	2,42
1,90	49	24	00 651001901 00	10	2,42
2,00	49	24	00 651002001 00	10	1,98
2,10	49	24	00 651002101 00	10	2,28
2,20	53	27	00 651002201 00	10	2,28
2,30	53	27	00 651002301 00	10	2,28
2,40	57	30	00 651002401 00	10	2,39
2,50	57	30	00 651002501 00	10	2,04
2,60	57	30	00 651002601 00	10	2,42
2,70	61	33	00 651002701 00	10	2,46
2,80	61	33	00 651002801 00	10	2,73
2,90	61	33	00 651002901 00	10	2,73
3,00	61	33	00 651003001 00	10	2,19
3,10	65	36	00 651003101 00	10	2,73
3,20	65	36	00 651003201 00	10	2,46
3,30	65	36	00 651003301 00	10	2,46
3,40	70	39	00 651003401 00	10	2,77

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>> SPIRALBOHRER, KURZ, DIN 338 RW

JOBBER DRILLS, DIN 338 RW

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RW

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			blank bright lucida		
Ø _{h8} mm	l1 mm	l2 mm	Code 651 Art.-Nr.		€
3,50	70	39	00 651003501 00	10	2,57
3,60	70	39	00 651003601 00	10	2,77
3,70	70	39	00 651003701 00	10	2,82
3,80	75	43	00 651003801 00	10	3,06
3,90	75	43	00 651003901 00	10	3,06
4,00	75	43	00 651004001 00	10	2,64
4,10	75	43	00 651004101 00	10	3,06
4,20	75	43	00 651004201 00	10	2,73
4,30	80	47	00 651004301 00	10	3,73
4,40	80	47	00 651004401 00	10	3,73
4,50	80	47	00 651004501 00	10	3,34
4,60	80	47	00 651004601 00	10	3,73
4,70	80	47	00 651004701 00	10	3,73
4,80	86	52	00 651004801 00	10	3,73
4,90	86	52	00 651004901 00	10	3,73
5,00	86	52	00 651005001 00	10	3,64
5,10	86	52	00 651005101 00	10	3,98
5,20	86	52	00 651005201 00	10	4,10
5,30	86	52	00 651005301 00	10	4,10
5,40	93	57	00 651005401 00	10	4,41
5,50	93	57	00 651005501 00	10	4,10
5,60	93	57	00 651005601 00	10	4,79
5,70	93	57	00 651005701 00	10	4,79
5,80	93	57	00 651005801 00	10	4,79
5,90	93	57	00 651005901 00	10	4,79
6,00	93	57	00 651006001 00	10	4,22
6,10	101	63	00 651006101 00	10	4,79
6,20	101	63	00 651006201 00	10	4,79
6,30	101	63	00 651006301 00	10	5,15
6,40	101	63	00 651006401 00	10	5,15
6,50	101	63	00 651006501 00	10	4,95
6,60	101	63	00 651006601 00	10	5,87
6,70	101	63	00 651006701 00	10	5,87
6,80	109	69	00 651006801 00	10	6,22
6,90	109	69	00 651006901 00	10	6,22
7,00	109	69	00 651007001 00	10	5,65
7,10	109	69	00 651007101 00	10	7,81
7,20	109	69	00 651007201 00	10	7,81
7,30	109	69	00 651007301 00	10	7,81
7,40	109	69	00 651007401 00	10	7,81
7,50	109	69	00 651007501 00	10	6,55
7,60	117	75	00 651007601 00	10	8,59
7,70	117	75	00 651007701 00	10	8,59
7,80	117	75	00 651007801 00	10	8,59
7,90	117	75	00 651007901 00	10	9,83
8,00	117	75	00 651008001 00	10	7,23
8,10	117	75	00 651008101 00	10	10,19
8,20	117	75	00 651008201 00	10	10,57
8,30	117	75	00 651008301 00	10	11,15
8,40	117	75	00 651008401 00	10	11,15
8,50	117	75	00 651008501 00	10	8,34
8,60	125	81	00 651008601 00	10	11,15
8,70	125	81	00 651008701 00	10	12,42
8,80	125	81	00 651008801 00	10	12,42

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>> SPIRALBOHRER, KURZ, DIN 338 RW

JOBBER DRILLS, DIN 338 RW

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RW

Fortsetzung von Seite V/21 | Continued from page V/21 |
Segue da pagina V/21

			blank bright lucida		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 651 Art.-Nr.		€
8,90	125	81	00 651008901 00	10	12,61
9,00	125	81	00 651009001 00	10	9,11
9,10	125	81	00 651009101 00	10	13,89
9,20	125	81	00 651009201 00	10	13,89
9,30	125	81	00 651009301 00	10	13,89
9,40	125	81	00 651009401 00	10	13,89
9,50	125	81	00 651009501 00	10	10,57
9,60	133	87	00 651009601 00	10	15,76
9,70	133	87	00 651009701 00	10	16,01
9,80	133	87	00 651009801 00	10	16,01
9,90	133	87	00 651009901 00	10	16,34
10,00	133	87	00 651010001 00	10	11,15
10,20	133	87	00 651010201 00	5	16,71
10,50	133	87	00 651010501 00	5	13,77
11,00	142	94	00 651011001 00	5	16,34
11,50	142	94	00 651011501 00	5	18,34
12,00	151	101	00 651012001 00	5	20,05
12,50	151	101	00 651012501 00	5	20,05
13,00	151	101	00 651013001 00	5	23,79



>> SPIRALBOHRER, KURZ DIN 338 RH

JOBBER DRILLS, DIN 338 RH

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RH

Einsatzbereich:

Langdrillbohrer für harte und zähnharte, kurzspanende Werkstoffe wie Messing, Leichtmetall-Kolbenlegierung, harte Duroplaste, Schichtpressstoffe, Schiefer, Glimmer usw.

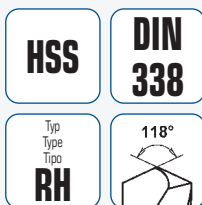
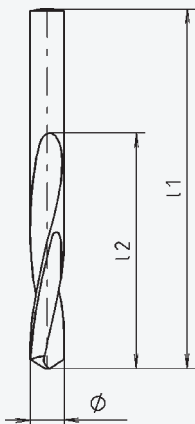
Range of application:

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.

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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Ø _{h8} mm	L1 mm	L2 mm	Code 661 Art.-Nr.		€
1,00	34	12	00 661001001 00	10	2,48
1,10	36	14	00 661001101 00	10	2,64
1,20	38	16	00 661001201 00	10	2,64
1,30	38	16	00 661001301 00	10	2,64
1,40	40	18	00 661001401 00	10	2,64
1,50	40	18	00 661001501 00	10	2,48
1,60	43	20	00 661001601 00	10	2,39
1,70	43	20	00 661001701 00	10	2,46
1,80	46	22	00 661001801 00	10	2,42
1,90	49	24	00 661001901 00	10	2,42
2,00	49	24	00 661002001 00	10	1,98
2,10	49	24	00 661002101 00	10	2,28
2,20	53	27	00 661002201 00	10	2,28
2,30	53	27	00 661002301 00	10	2,28
2,40	57	30	00 661002401 00	10	2,39
2,50	57	30	00 661002501 00	10	2,04
2,60	57	30	00 661002601 00	10	2,42
2,70	61	33	00 661002701 00	10	2,46
2,80	61	33	00 661002801 00	10	2,73
2,90	61	33	00 661002901 00	10	2,73
3,00	61	33	00 661003001 00	10	2,19
3,10	65	36	00 661003101 00	10	2,73
3,20	65	36	00 661003201 00	10	2,46
3,30	65	36	00 661003301 00	10	2,46
3,40	70	39	00 661003401 00	10	2,77

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>> SPIRALBOHRER, KURZ DIN 338 RH

JOBBER DRILLS, DIN 338 RH

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RH

Fortsetzung von Seite V/23 | Continued from page V/23 |
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			blank bright lucida		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 661 Art.-Nr.		€
3,50	70	39	00 661003501 00	10	2,57
3,60	70	39	00 661003601 00	10	2,77
3,70	70	39	00 661003701 00	10	2,82
3,80	75	43	00 661003801 00	10	3,06
3,90	75	43	00 661003901 00	10	3,06
4,00	75	43	00 661004001 00	10	2,64
4,10	75	43	00 661004101 00	10	3,06
4,20	75	43	00 661004201 00	10	2,73
4,30	80	47	00 661004301 00	10	3,73
4,40	80	47	00 661004401 00	10	3,73
4,50	80	47	00 661004501 00	10	3,34
4,60	80	47	00 661004601 00	10	3,73
4,70	80	47	00 661004701 00	10	3,73
4,80	86	52	00 661004801 00	10	3,73
4,90	86	52	00 661004901 00	10	3,73
5,00	86	52	00 661005001 00	10	3,64
5,10	86	52	00 661005101 00	10	3,98
5,20	86	52	00 661005201 00	10	4,10
5,30	86	52	00 661005301 00	10	4,10
5,40	93	57	00 661005401 00	10	4,41
5,50	93	57	00 661005501 00	10	4,10
5,60	93	57	00 661005601 00	10	4,79
5,70	93	57	00 661005701 00	10	4,79
5,80	93	57	00 661005801 00	10	4,79
5,90	93	57	00 661005901 00	10	4,79
6,00	93	57	00 661006001 00	10	4,22
6,10	101	63	00 661006101 00	10	4,79
6,20	101	63	00 661006201 00	10	4,79
6,30	101	63	00 661006301 00	10	5,15
6,40	101	63	00 661006401 00	10	5,15
6,50	101	63	00 661006501 00	10	4,95
6,60	101	63	00 661006601 00	10	5,87
6,70	101	63	00 661006701 00	10	5,87
6,80	109	69	00 661006801 00	10	6,22
6,90	109	69	00 661006901 00	10	6,22
7,00	109	69	00 661007001 00	10	5,65
7,10	109	69	00 661007101 00	10	7,81
7,20	109	69	00 661007201 00	10	7,81
7,30	109	69	00 661007301 00	10	7,81
7,40	109	69	00 661007401 00	10	7,81
7,50	109	69	00 661007501 00	10	6,55
7,60	117	75	00 661007601 00	10	8,59
7,70	117	75	00 661007701 00	10	8,59
7,80	117	75	00 661007801 00	10	8,59
7,90	117	75	00 661007901 00	10	9,83
8,00	117	75	00 661008001 00	10	7,23
8,10	117	75	00 661008101 00	10	10,19
8,20	117	75	00 661008201 00	10	10,57
8,30	117	75	00 661008301 00	10	11,15
8,40	117	75	00 661008401 00	10	11,15
8,50	117	75	00 661008501 00	10	8,34
8,60	125	81	00 661008601 00	10	11,15
8,70	125	81	00 661008701 00	10	12,42
8,80	125	81	00 661008801 00	10	12,42

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>> SPIRALBOHRER, KURZ DIN 338 RH

JOBBER DRILLS, DIN 338 RH

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RH

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			blank bright lucida		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 661 Art.-Nr.		€
8,90	125	81	00 661008901 00	10	12,61
9,00	125	81	00 661009001 00	10	9,11
9,10	125	81	00 661009101 00	10	13,89
9,20	125	81	00 661009201 00	10	13,89
9,30	125	81	00 661009301 00	10	13,89
9,40	125	81	00 661009401 00	10	13,89
9,50	125	81	00 661009501 00	10	10,57
9,60	133	87	00 661009601 00	10	15,76
9,70	133	87	00 661009701 00	10	16,01
9,80	133	87	00 661009801 00	10	16,01
9,90	133	87	00 661009901 00	10	16,34
10,00	133	87	00 661010001 00	10	11,15
10,20	133	87	00 661010201 00	5	16,71
10,50	133	87	00 661010501 00	5	13,77
11,00	142	94	00 661011001 00	5	16,34
11,50	142	94	00 661011501 00	5	18,34
12,00	151	101	00 661012001 00	5	20,05
12,50	151	101	00 661012501 00	5	20,05
13,00	151	101	00 661013001 00	5	23,79



>> 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.

JOBBER DRILLS, DIN 338 RN

Range of application:

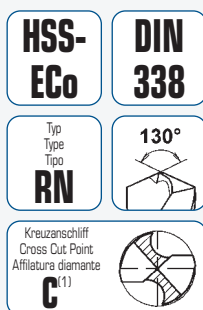
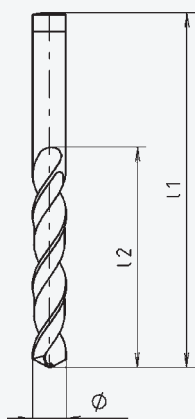
5% cobalt-alloyed jobber drills with high heat resistance for drilling steels with tensile strength over 800 N/mm², specially suitable for high alloyed steels, bearing-steels, hot/cold-rolled steels.

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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TiN

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 2,67	00 607001001 00	1 5,87
1,10		36	14	00 603001101 00	10 2,67	00 607001101 00	1 5,87
1,19	3/64	38	16	00 603001191 00	10 2,86	00 607001191 00	1 6,30
1,20		38	16	00 603001201 00	10 2,93	00 607001201 00	1 6,45
1,30		38	16	00 603001301 00	10 2,79	00 607001301 00	1 6,15
1,40		40	18	00 603001401 00	10 2,67	00 607001401 00	1 5,87
1,50		40	18	00 603001501 00	10 2,43	00 607001501 00	1 5,36
1,59	1/16	43	20	00 603001591 00	10 2,67	00 607001591 00	1 5,87
1,60		43	20	00 603001601 00	10 2,67	00 607001601 00	1 5,87
1,70		43	20	00 603001701 00	10 2,74	00 607001701 00	1 6,01
1,80		46	22	00 603001801 00	10 2,67	00 607001801 00	1 5,87
1,90		46	22	00 603001901 00	10 2,74	00 607001901 00	1 6,01
1,98	5/64	49	24	00 603001981 00	10 2,67	00 607001981 00	1 5,87
2,00		49	24	00 603002001 00	10 2,22	00 607002001 00	1 4,90
2,10		49	24	00 603002101 00	10 2,86	00 607002101 00	1 6,30
2,20		53	27	00 603002201 00	10 2,86	00 607002201 00	1 6,30
2,30		53	27	00 603002301 00	10 2,86	00 607002301 00	1 6,30
2,38	3/32	57	30	00 603002381 00	10 2,50	00 607002381 00	1 6,30
2,40		57	30	00 603002401 00	10 2,86	00 607002401 00	1 6,30
2,50		57	30	00 603002501 00	10 2,38	00 607002501 00	1 5,21
2,60		57	30	00 603002601 00	10 2,93	00 607002601 00	1 6,45
2,70		61	33	00 603002701 00	10 2,93	00 607002701 00	1 6,45
2,78	7/64	61	33	00 603002781 00	10 2,67	00 607002781 00	1 5,87
2,80		61	33	00 603002801 00	10 3,01	00 607002801 00	1 6,60
2,90		61	33	00 603002901 00	10 3,01	00 607002901 00	1 6,60

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⁽¹⁾ ≥ Ø 2,0 mm

>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

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				blank bright lucida			TiN		
Ø _{h8} mm	Ø _{h8} inch	l1 mm	l2 mm	Code 603 Art.-Nr.		€	Code 607 Art.-Nr.		€
3,00		61	33	00 603003001 00	10	2,38	00 607003001 00	1	5,21
3,10		65	36	00 603003101 00	10	3,08	00 607003101 00	1	6,79
3,17	1/8	65	36	00 603003171 00	10	2,43	00 607003171 00	1	6,79
3,20		65	36	00 603003201 00	10	2,67	00 607003201 00	1	6,79
3,30		65	36	00 603003301 00	10	2,67	00 607003301 00	1	6,79
3,40		70	39	00 603003401 00	10	3,30	00 607003401 00	1	7,26
3,50		70	39	00 603003501 00	10	2,67	00 607003501 00	1	5,87
3,57	9/64	70	39	00 603003571 00	10	3,01	00 607003571 00	1	6,60
3,60		70	39	00 603003601 00	10	3,38	00 607003601 00	1	7,43
3,70		70	39	00 603003701 00	10	3,38	00 607003701 00	1	7,43
3,80		75	43	00 603003801 00	10	3,43	00 607003801 00	1	7,56
3,90		75	43	00 603003901 00	10	3,58	00 607003901 00	1	7,83
3,97	5/32	75	43	00 603003971 00	10	3,30	00 607003971 00	1	7,26
4,00		75	43	00 603004001 00	10	2,86	00 607004001 00	1	6,30
4,10		75	43	00 603004101 00	10	3,58	00 607004101 00	1	7,83
4,20		75	43	00 603004201 00	10	3,58	00 607004201 00	1	7,83
4,30		80	47	00 603004301 00	10	3,58	00 607004301 00	1	7,83
4,37	11/64	80	47	00 603004371 00	10	3,63	00 607004371 00	1	7,98
4,40		80	47	00 603004401 00	10	3,63	00 607004401 00	1	7,98
4,50		80	47	00 603004501 00	10	3,63	00 607004501 00	1	7,34
4,60		80	47	00 603004601 00	10	3,86	00 607004601 00	1	8,51
4,70		80	47	00 603004701 00	10	3,86	00 607004701 00	1	8,51
4,76	3/16	86	52	00 603004761 00	10	3,73	00 607004761 00	1	8,20
4,80		86	52	00 603004801 00	10	3,95	00 607004801 00	1	8,66
4,90		86	52	00 603004901 00	10	4,02	00 607004901 00	1	8,82
5,00		86	52	00 603005001 00	10	3,50	00 607005001 00	1	7,57
5,10		86	52	00 603005101 00	10	4,02	00 607005101 00	1	8,82
5,16	13/64	86	52	00 603005161 00	10	4,02	00 607005161 00	1	8,82
5,20		86	52	00 603005201 00	10	4,08	00 607005201 00	1	9,00
5,30		86	52	00 603005301 00	10	4,15	00 607005301 00	1	9,12
5,40		93	57	00 603005401 00	10	4,53	00 607005401 00	1	9,96
5,50		93	57	00 603005501 00	10	4,86	00 607005501 00	1	9,06
5,56	7/32	93	57	00 603005561 00	10	4,53	00 607005561 00	1	9,96
5,60		93	57	00 603005601 00	10	4,65	00 607005601 00	1	10,24
5,70		93	57	00 603005701 00	10	4,65	00 607005701 00	1	10,24
5,80		93	57	00 603005801 00	10	4,65	00 607005801 00	1	10,24
5,90		93	57	00 603005901 00	10	4,65	00 607005901 00	1	10,24
5,95	15/64	93	57	00 603005951 00	10	4,65	00 607005951 00	1	10,24
6,00		93	57	00 603006001 00	10	4,60	00 607006001 00	1	9,06
6,10		101	63	00 603006101 00	10	5,17	00 607006101 00	1	11,37
6,20		101	63	00 603006201 00	10	5,17	00 607006201 00	1	11,37
6,30		101	63	00 603006301 00	10	5,17	00 607006301 00	1	11,37
6,35	1/4	101	63	00 603006351 00	10	5,17	00 607006351 00	1	11,37
6,40		101	63	00 603006401 00	10	5,59	00 607006401 00	1	12,30
6,50		101	63	00 603006501 00	10	5,17	00 607006501 00	1	10,05
6,60		101	63	00 603006601 00	10	5,59	00 607006601 00	1	12,30
6,70		101	63	00 603006701 00	10	5,59	00 607006701 00	1	12,30
6,75	17/64	109	69	00 603006751 00	10	6,08	00 607006751 00	1	13,39
6,80		109	69	00 603006801 00	10	6,08	00 607006801 00	1	13,39
6,90		109	69	00 603006901 00	10	6,08	00 607006901 00	1	13,39
7,00		109	69	00 603007001 00	10	5,43	00 607007001 00	1	11,30
7,10		109	69	00 603007101 00	10	7,38	00 607007101 00	1	14,76
7,14	9/32	109	69	00 603007141 00	10	7,38	00 607007141 00	1	14,76
7,20		109	69	00 603007201 00	10	7,38	00 607007201 00	1	14,76

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>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

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				blank bright lucida			TiN		
$\varnothing_{h8}$ mm	$\varnothing_{h8}$ inch	l1 mm	l2 mm	Code 603 Art.-Nr.		€	Code 607 Art.-Nr.		€
7,30		109	69	00 603007301 00	10	7,38	00 607007301 00	1	14,76
7,40		109	69	00 603007401 00	10	7,38	00 607007401 00	1	14,76
7,50		109	69	00 603007501 00	10	5,73	00 607007501 00	1	11,47
7,54	19/64	117	75	00 603007541 00	10	7,73	00 607007541 00	1	15,46
7,60		117	75	00 603007601 00	10	8,80	00 607007601 00	1	17,61
7,70		117	75	00 603007701 00	10	8,80	00 607007701 00	1	17,61
7,80		117	75	00 603007801 00	10	8,80	00 607007801 00	1	17,61
7,90		117	75	00 603007901 00	10	8,80	00 607007901 00	1	17,61
7,94	5/16	117	75	00 603007941 00	10	8,80	00 607007941 00	1	17,61
8,00		117	75	00 603008001 00	10	7,16	00 607008001 00	1	14,30
8,10		117	75	00 603008101 00	10	8,80	00 607008101 00	1	15,84
8,20		117	75	00 603008201 00	10	9,30	00 607008201 00	1	18,60
8,30		117	75	00 603008301 00	10	9,30	00 607008301 00	1	18,60
8,33	21/64	117	75	00 603008331 00	10	9,65	00 607008331 00	1	19,29
8,40		117	75	00 603008401 00	10	9,65	00 607008401 00	1	19,29
8,50		117	75	00 603008501 00	10	7,03	00 607008501 00	1	14,06
8,60		125	81	00 603008601 00	10	10,41	00 607008601 00	1	20,79
8,70		125	81	00 603008701 00	10	10,41	00 607008701 00	1	20,79
8,73	11/32	125	81	00 603008731 00	10	10,75	00 607008731 00	1	19,33
8,80		125	81	00 603008801 00	10	11,10	00 607008801 00	1	19,98
8,90		125	81	00 603008901 00	10	11,67	00 607008901 00	1	21,02
9,00		125	81	00 603009001 00	10	9,19	00 607009001 00	1	16,51
9,10		125	81	00 603009101 00	10	12,40	00 607009101 00	1	22,30
9,13	23/64	125	81	00 603009131 00	10	12,76	00 607009131 00	1	22,96
9,20		125	81	00 603009201 00	10	13,11	00 607009201 00	1	23,61
9,30		125	81	00 603009301 00	10	13,44	00 607009301 00	1	24,21
9,40		125	81	00 603009401 00	10	14,69	00 607009401 00	1	26,43
9,50		125	81	00 603009501 00	10	10,75	00 607009501 00	1	19,33
9,52	3/8	133	87	00 603009521 00	10	12,40	00 607009521 00	1	22,30
9,60		133	87	00 603009601 00	10	15,06	00 607009601 00	1	27,09
9,70		133	87	00 603009701 00	10	15,06	00 607009701 00	1	27,09
9,80		133	87	00 603009801 00	10	15,06	00 607009801 00	1	27,09
9,90		133	87	00 603009901 00	10	15,06	00 607009901 00	1	27,09
9,92	25/64	133	87	00 603009921 00	10	15,06	00 607009921 00	1	27,09
10,00		133	87	00 603010001 00	10	10,41	00 607010001 00	1	18,71
10,20		133	87	00 603010201 00	5	14,69	00 607010201 00	1	26,43
10,32	13/32	133	87	00 603010321 00	5	12,53	00 607010321 00	1	22,58
10,50		133	87	00 603010501 00	5	15,06	00 607010501 00	1	27,09
11,00		142	94	00 603011001 00	5	16,68	00 607011001 00	1	30,02
11,11	7/16	142	94	00 603011111 00	5	18,63	00 607011111 00	1	33,53
11,50		142	94	00 603011501 00	5	21,13	00 607011501 00	1	38,06
11,51	29/64	142	94	00 603011511 00	5	21,13	00 607011511 00	1	38,06
11,91	15/32	151	101	00 603011911 00	5	23,99	00 607011911 00	1	43,19
12,00		151	101	00 603012001 00	5	23,99	00 607012001 00	1	43,19
12,30	31/64	151	101	00 603012301 00	5	28,66	00 607012301 00	1	51,58
12,50		151	101	00 603012501 00	5	28,66	00 607012501 00	1	51,58
12,70	1/2	151	101	00 603012701 00	5	28,66	00 607012701 00	1	51,58
13,00		151	101	00 603013001 00	5	30,81	00 607013001 00	1	55,46
13,50		160	108	00 603013501 00	1	35,49			
14,00		160	108	00 603014001 00	1	40,50			
14,50		169	114	00 603014501 00	1	49,80			
15,00		169	114	00 603015001 00	1	50,88			
16,00		178	120	00 603016001 00	1	61,64			



>> 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.

JOBBER DRILLS, DIN 338 RN

Range of application:

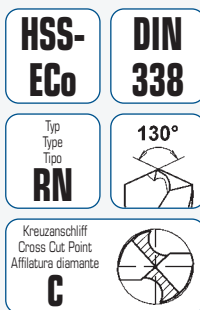
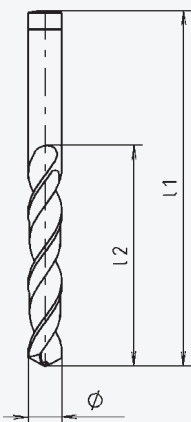
Universal 5% cobalt-alloyed high-performance twist drills for drilling hard machinable, high-strength materials such as steels up to approx. 1.300 N/mm², stainless steels and titanium alloys.

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



ALUNIT®



Ø _{h8} mm	l1 mm	l2 mm	Code 630 Art.-Nr.		€
1,00	34	12	00 630001001 00	1	11,14
1,50	40	18	00 630001501 00	1	11,90
1,60	43	20	00 630001601 00	1	11,90
2,00	49	24	00 630002001 00	1	12,00
2,50	57	30	00 630002501 00	1	12,03
3,00	61	33	00 630003001 00	1	12,44
3,20	65	36	00 630003201 00	1	12,46
3,30	65	36	00 630003301 00	1	12,46
3,50	70	39	00 630003501 00	1	12,47
3,70	70	39	00 630003701 00	1	12,52
3,80	75	43	00 630003801 00	1	12,50
4,00	75	43	00 630004001 00	1	14,71
4,20	75	43	00 630004201 00	1	14,89
4,30	80	47	00 630004301 00	1	14,89
4,50	80	47	00 630004501 00	1	14,89
4,60	80	47	00 630004601 00	1	14,89
4,80	86	52	00 630004801 00	1	15,08
5,00	86	52	00 630005001 00	1	15,08
5,10	86	52	00 630005101 00	1	15,30
5,50	93	57	00 630005501 00	1	15,53
5,70	93	57	00 630005701 00	1	15,77
5,80	93	57	00 630005801 00	1	15,81
6,00	93	57	00 630006001 00	1	15,61
6,50	101	63	00 630006501 00	1	19,92
6,80	109	69	00 630006801 00	1	20,12

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>> SPIRALBOHRER, KURZ, DIN 338 RN

JOBBER DRILLS, DIN 338 RN

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 RN

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			ALUNIT®		
Ø _{h8} mm	l1 mm	l2 mm	Code 630 Art.-Nr.		€
7,00	109	69	00 630007001 00	1	20,45
7,50	109	69	00 630007501 00	1	20,72
7,80	117	75	00 630007801 00	1	21,54
8,00	117	75	00 630008001 00	1	23,63
8,20	117	75	00 630008201 00	1	26,13
8,50	117	75	00 630008501 00	1	26,13
9,00	125	81	00 630009001 00	1	26,75
9,50	125	81	00 630009501 00	1	27,27
10,00	133	87	00 630010001 00	1	28,27
10,20	133	87	00 630010201 00	1	31,95
10,50	133	87	00 630010501 00	1	32,90
11,00	142	94	00 630011001 00	1	33,98
11,20	142	94	00 630011201 00	1	38,72
11,50	142	94	00 630011501 00	1	35,17
12,00	151	101	00 630012001 00	1	36,88
12,50	151	101	00 630012501 00	1	39,80
13,00	151	101	00 630013001 00	1	40,61



>> SPIRALBOHRER, KURZ, DIN 338 R-AS

JOBBER DRILLS, DIN 338 R-AS

PUNTE ELICOIDALI, SERIE CORTA, 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.

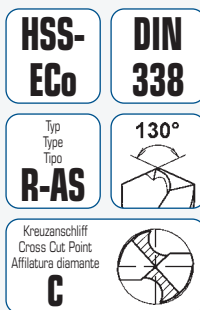
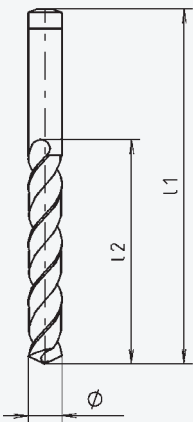
Range of application:

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

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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Ø _{h8} mm	l1 mm	l2 mm	Code 663 Art.-Nr.		€
2,00	49	24	00 663002001 00	10	3,40
2,10	49	24	00 663002101 00	10	4,22
2,20	53	27	00 663002201 00	10	4,22
2,30	53	27	00 663002301 00	10	4,22
2,40	57	30	00 663002401 00	10	4,29
2,50	57	30	00 663002501 00	10	3,53
2,60	57	30	00 663002601 00	10	4,46
2,70	61	33	00 663002701 00	10	4,46
2,80	61	33	00 663002801 00	10	4,54
2,90	61	33	00 663002901 00	10	4,54
3,00	61	33	00 663003001 00	10	3,53
3,10	65	36	00 663003101 00	10	4,60
3,20	65	36	00 663003201 00	10	3,97
3,30	65	36	00 663003301 00	10	4,03
3,40	70	39	00 663003401 00	10	4,86
3,50	70	39	00 663003501 00	10	3,97
3,60	70	39	00 663003601 00	10	5,03
3,70	70	39	00 663003701 00	10	5,08
3,80	75	43	00 663003801 00	10	5,08
3,90	75	43	00 663003901 00	10	5,37
4,00	75	43	00 663004001 00	10	4,22
4,10	75	43	00 663004101 00	10	5,37
4,20	75	43	00 663004201 00	10	5,43
4,30	80	47	00 663004301 00	10	5,43
4,40	80	47	00 663004401 00	10	5,59

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>> SPIRALBOHRER, KURZ, DIN 338 R-AS

JOBBER DRILLS, DIN 338 R-AS

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 R-AS

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			blank bright lucida		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 663 Art.-Nr.		€
4,50	80	47	00 663004501 00	10	5,50
4,60	80	47	00 663004601 00	10	5,80
4,70	80	47	00 663004701 00	10	5,86
4,80	86	52	00 663004801 00	10	5,93
4,90	86	52	00 663004901 00	10	6,07
5,00	86	52	00 663005001 00	10	5,29
5,10	86	52	00 663005101 00	10	6,07
5,20	86	52	00 663005201 00	10	6,22
5,30	86	52	00 663005301 00	10	6,28
5,40	93	57	00 663005401 00	10	6,84
5,50	93	57	00 663005501 00	10	6,59
5,60	93	57	00 663005601 00	10	6,99
5,70	93	57	00 663005701 00	10	6,99
5,80	93	57	00 663005801 00	10	6,99
5,90	93	57	00 663005901 00	10	6,99
6,00	93	57	00 663006001 00	10	6,34
6,10	101	63	00 663006101 00	10	7,69
6,20	101	63	00 663006201 00	10	7,76
6,30	101	63	00 663006301 00	10	7,76
6,40	101	63	00 663006401 00	10	8,40
6,50	101	63	00 663006501 00	10	7,69
6,60	101	63	00 663006601 00	10	8,40
6,70	101	63	00 663006701 00	10	8,40
6,80	109	69	00 663006801 00	10	9,24
6,90	109	69	00 663006901 00	10	9,24
7,00	109	69	00 663007001 00	10	8,11
7,10	109	69	00 663007101 00	10	11,08
7,20	109	69	00 663007201 00	10	11,08
7,30	109	69	00 663007301 00	10	11,08
7,40	109	69	00 663007401 00	10	11,08
7,50	109	69	00 663007501 00	10	8,61
7,60	117	75	00 663007601 00	10	13,28
7,70	117	75	00 663007701 00	10	13,28
7,80	117	75	00 663007801 00	10	13,28
7,90	117	75	00 663007901 00	10	13,28
8,00	117	75	00 663008001 00	10	10,71
8,10	117	75	00 663008101 00	10	13,28
8,20	117	75	00 663008201 00	10	14,05
8,30	117	75	00 663008301 00	10	14,05
8,40	117	75	00 663008401 00	10	14,61
8,50	117	75	00 663008501 00	10	10,58
8,60	125	81	00 663008601 00	10	15,68
8,70	125	81	00 663008701 00	10	15,68
8,80	125	81	00 663008801 00	10	16,81
8,90	125	81	00 663008901 00	10	17,58
9,00	125	81	00 663009001 00	10	13,76
9,10	125	81	00 663009101 00	10	18,63
9,20	125	81	00 663009201 00	10	19,76
9,30	125	81	00 663009301 00	10	20,23
9,40	125	81	00 663009401 00	10	22,15
9,50	125	81	00 663009501 00	10	16,23
9,60	133	87	00 663009601 00	10	22,65
9,70	133	87	00 663009701 00	10	22,65
9,80	133	87	00 663009801 00	10	22,65

Fortsetzung auf Seite V/33 | Continued on page V/33 | Segue a pagina V/33



>> SPIRALBOHRER, KURZ, DIN 338 R-AS

JOBBER DRILLS, DIN 338 R-AS

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 R-AS

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			blank bright lucida		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 663 Art.-Nr.		€
9,90	133	87	00 663009901 00	10	22,65
10,00	133	87	00 663010001 00	10	15,68
10,20	133	87	00 663010201 00	5	22,15
10,50	133	87	00 663010501 00	5	22,65
11,00	142	94	00 663011001 00	5	25,14
11,50	142	94	00 663011501 00	5	31,89
12,00	151	101	00 663012001 00	5	36,26
12,50	151	101	00 663012501 00	5	43,21
13,00	151	101	00 663013001 00	5	46,44



>> 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 Bauwesen, wie z.B. HARDOX 400, HARDOX 500 sowie XAR 320 und XAR 400 und ähnliche Werkstoffe.

JOBBER DRILLS FOR INOX SHEET METALS AND HAR- DOX

Range of application:

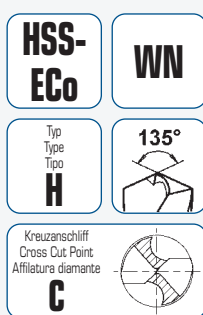
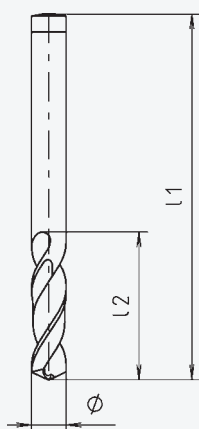
Specially suitable for drilling stainless steel, acid-resisting steel, spring-steel as well as extremely hard materials such as manganese steel, high-tensile fine grained machinery steel (Hardox 400/500) and similar materials.

PUNTE ELICOIDALI PER LAMIERE 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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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Ø _{h8} mm	L1 mm	L2 mm	Code 638 Art.-Nr.		€
2,00	49	12	00 638002001 00	10	2,66
2,50	57	14	00 638002501 00	10	2,66
3,00	61	16	00 638003001 00	10	3,05
3,20	65	18	00 638003201 00	10	3,15
3,30	65	19	00 638003301 00	10	3,15
3,50	70	20	00 638003501 00	10	3,22
4,00	75	22	00 638004001 00	10	4,38
4,20	75	22	00 638004201 00	10	4,38
4,50	80	24	00 638004501 00	10	4,57
5,00	86	26	00 638005001 00	10	4,85
5,50	93	28	00 638005501 00	10	5,14
6,00	93	28	00 638006001 00	10	5,50
6,50	101	31	00 638006501 00	10	5,60
6,80	101	31	00 638006801 00	10	6,56
7,00	109	34	00 638007001 00	10	6,46
8,00	117	37	00 638008001 00	5	8,16
8,50	117	37	00 638008501 00	5	8,91
9,00	125	40	00 638009001 00	5	9,59
10,00	133	43	00 638010001 00	5	11,40
10,20	133	43	00 638010201 00	5	12,13
11,00	142	47	00 638011001 00	5	13,86
12,00	151	51	00 638012001 00	5	16,70

>> SPIRALBOHRER, KURZ, DIN 338 FORTE

JOBBER DRILLS, DIN 338 FORTE

PUNTE ELICOIDALI, SERIE CORTA, 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.

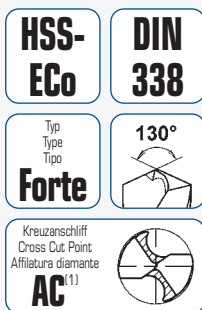
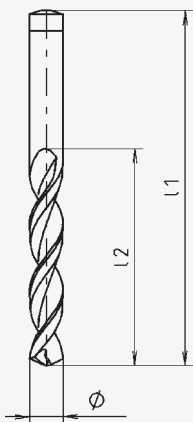
Range of application:

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.

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



fasennitriert⁽²⁾ | nitrided lands⁽²⁾
fascette nitrurate⁽²⁾



ALUNIT®



Ø _{h8} mm	l1 mm	l2 mm	Code 611 Art.-Nr.		€	Code 627 Art.-Nr.		€
1,00	34	12	00 611001001 00	10	3,15	00 627001001 00	1	8,81
1,10	36	14	00 611001101 00	10	3,15	00 627001101 00	1	8,81
1,20	38	16	00 611001201 00	10	3,50	00 627001201 00	1	9,67
1,30	38	16	00 611001301 00	10	3,30	00 627001301 00	1	9,23
1,40	40	18	00 611001401 00	10	3,15	00 627001401 00	1	8,81
1,50	40	18	00 611001501 00	10	2,93	00 627001501 00	1	8,03
1,60	43	20	00 611001601 00	10	3,15	00 627001601 00	1	8,81
1,70	43	20	00 611001701 00	10	3,21	00 627001701 00	1	9,02
1,80	46	22	00 611001801 00	10	3,15	00 627001801 00	1	8,81
1,90	49	24	00 611001901 00	10	3,21	00 627001901 00	1	9,02
2,00	49	24	00 611002001 00	10	2,67	00 627002001 00	1	7,35
2,10	49	24	00 611002101 00	10	3,38	00 627002101 00	1	9,47
2,20	53	27	00 611002201 00	10	3,38	00 627002201 00	1	9,47
2,30	53	27	00 611002301 00	10	3,38	00 627002301 00	1	9,47
2,40	57	30	00 611002401 00	10	3,43	00 627002401 00	1	9,47
2,50	57	30	00 611002501 00	10	2,79	00 627002501 00	1	7,82
2,60	57	30	00 611002601 00	10	3,50	00 627002601 00	1	9,67
2,70	61	33	00 611002701 00	10	3,50	00 627002701 00	1	9,67
2,80	61	33	00 611002801 00	10	3,58	00 627002801 00	1	9,92
2,90	61	33	00 611002901 00	10	3,58	00 627002901 00	1	9,92
3,00	61	33	00 611003001 00	10	2,79	00 627003001 00	1	7,82
3,10	65	36	00 611003101 00	10	3,63	00 627003101 00	1	10,16
3,20	65	36	00 611003201 00	10	3,15	00 627003201 00	1	10,18
3,30	65	36	00 611003301 00	10	3,15	00 627003301 00	1	10,18
3,40	70	39	00 611003401 00	10	3,95	00 627003401 00	1	10,90

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⁽¹⁾ ≥ Ø 2,0 mm | ⁽²⁾ ≥ Ø 3,0 mm

>> SPIRALBOHRER, KURZ, DIN 338 FORTE

JOBBER DRILLS, DIN 338 FORTE

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 FORTE

Fortsetzung von Seite V/35 | Continued from page V/35 |
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			fasennitriert nitrided lands Fascette nitrate			ALUNIT®		
Ø _{h8} mm	l1 mm	l2 mm	Code 611 Art.-Nr.		€	Code 627 Art.-Nr.		€
3,50	70	39	00 611003501 00	10	3,15	00 627003501 00	1	8,81
3,60	70	39	00 611003601 00	10	4,02	00 627003601 00	1	11,15
3,70	70	39	00 611003701 00	10	4,02	00 627003701 00	1	11,15
3,80	75	43	00 611003801 00	10	4,08	00 627003801 00	1	11,36
3,90	75	43	00 611003901 00	10	4,21	00 627003901 00	1	11,77
4,00	75	43	00 611004001 00	10	3,38	00 627004001 00	1	9,47
4,10	75	43	00 611004101 00	10	4,21	00 627004101 00	1	11,77
4,20	75	43	00 611004201 00	10	4,28	00 627004201 00	1	11,77
4,30	80	47	00 611004301 00	10	4,28	00 627004301 00	1	11,77
4,40	80	47	00 611004401 00	10	4,38	00 627004401 00	1	11,98
4,50	80	47	00 611004501 00	10	4,38	00 627004501 00	1	10,99
4,60	80	47	00 611004601 00	10	4,60	00 627004601 00	1	12,79
4,70	80	47	00 611004701 00	10	4,65	00 627004701 00	1	12,79
4,80	86	52	00 611004801 00	10	4,65	00 627004801 00	1	12,99
4,90	86	52	00 611004901 00	10	4,79	00 627004901 00	1	13,24
5,00	86	52	00 611005001 00	10	4,15	00 627005001 00	1	11,37
5,10	86	52	00 611005101 00	10	4,79	00 627005101 00	1	13,24
5,20	86	52	00 611005201 00	10	4,86	00 627005201 00	1	13,48
5,30	86	52	00 611005301 00	10	5,03	00 627005301 00	1	13,68
5,40	93	57	00 611005401 00	10	5,43	00 627005401 00	1	14,91
5,50	93	57	00 611005501 00	10	5,87	00 627005501 00	1	13,61
5,60	93	57	00 611005601 00	10	5,51	00 627005601 00	1	15,38
5,70	93	57	00 611005701 00	10	5,51	00 627005701 00	1	15,38
5,80	93	57	00 611005801 00	10	5,51	00 627005801 00	1	15,38
5,90	93	57	00 611005901 00	10	5,51	00 627005901 00	1	15,38
6,00	93	57	00 611006001 00	10	5,43	00 627006001 00	1	13,61
6,10	101	63	00 611006101 00	10	6,15	00 627006101 00	1	17,05
6,20	101	63	00 611006201 00	10	6,15	00 627006201 00	1	17,05
6,30	101	63	00 611006301 00	10	6,15	00 627006301 00	1	17,05
6,40	101	63	00 611006401 00	10	6,74	00 627006401 00	1	18,44
6,50	101	63	00 611006501 00	10	6,15	00 627006501 00	1	15,09
6,60	101	63	00 611006601 00	10	6,74	00 627006601 00	1	18,44
6,70	101	63	00 611006701 00	10	6,74	00 627006701 00	1	18,44
6,80	109	69	00 611006801 00	10	7,30	00 627006801 00	1	20,09
6,90	109	69	00 611006901 00	10	7,30	00 627006901 00	1	20,09
7,00	109	69	00 611007001 00	10	6,51	00 627007001 00	1	16,96
7,10	109	69	00 611007101 00	10	8,80	00 627007101 00	1	22,12
7,20	109	69	00 611007201 00	10	8,80	00 627007201 00	1	22,12
7,30	109	69	00 611007301 00	10	8,80	00 627007301 00	1	22,12
7,40	109	69	00 611007401 00	10	8,80	00 627007401 00	1	22,12
7,50	109	69	00 611007501 00	10	6,88	00 627007501 00	1	17,20
7,60	117	75	00 611007601 00	10	10,53	00 627007601 00	1	26,41
7,70	117	75	00 611007701 00	10	10,53	00 627007701 00	1	26,41
7,80	117	75	00 611007801 00	10	10,53	00 627007801 00	1	26,41
7,90	117	75	00 611007901 00	10	10,53	00 627007901 00	1	26,41
8,00	117	75	00 611008001 00	10	8,51	00 627008001 00	1	21,46
8,10	117	75	00 611008101 00	10	10,53	00 627008101 00	1	23,77
8,20	117	75	00 611008201 00	10	11,17	00 627008201 00	1	27,91
8,30	117	75	00 611008301 00	10	11,17	00 627008301 00	1	27,91
8,40	117	75	00 611008401 00	10	11,59	00 627008401 00	1	28,94
8,50	117	75	00 611008501 00	10	8,45	00 627008501 00	1	21,09
8,60	126	81	00 611008601 00	10	12,46	00 627008601 00	1	31,19
8,70	126	81	00 611008701 00	10	12,46	00 627008701 00	1	31,19
8,80	126	81	00 611008801 00	10	13,32	00 627008801 00	1	29,98

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>> SPIRALBOHRER, KURZ, DIN 338 FORTE

JOBBER DRILLS, DIN 338 FORTE

PUNTE ELICOIDALI, SERIE CORTA, DIN 338 FORTE

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			fasennitriert nitrided lands fascette nitrate			ALUNIT®		
Ø _{h8} mm	l1 mm	l2 mm	Code 611 Art.-Nr.		€	Code 627 Art.-Nr.		€
8,90	126	81	00 611008901 00	10	13,97	00 627008901 00	1	31,53
9,00	126	81	00 611009001 00	10	10,96	00 627009001 00	1	24,77
9,10	126	81	00 611009101 00	10	14,83	00 627009101 00	1	33,47
9,20	126	81	00 611009201 00	10	15,69	00 627009201 00	1	35,40
9,30	126	81	00 611009301 00	10	16,10	00 627009301 00	1	36,31
9,40	126	81	00 611009401 00	10	17,61	00 627009401 00	1	39,67
9,50	126	81	00 611009501 00	10	12,89	00 627009501 00	1	29,02
9,60	133	87	00 611009601 00	10	18,04	00 627009601 00	1	40,62
9,70	133	87	00 611009701 00	10	18,04	00 627009701 00	1	40,62
9,80	133	87	00 611009801 00	10	18,04	00 627009801 00	1	40,62
9,90	133	87	00 611009901 00	10	18,04	00 627009901 00	1	40,62
10,00	133	87	00 611010001 00	10	12,46	00 627010001 00	1	28,07
10,20	133	87	00 611010201 00	5	17,61	00 627010201 00	1	39,67
10,50	133	87	00 611010501 00	5	18,04	00 627010501 00	1	40,62
11,00	142	94	00 611011001 00	5	19,98	00 627011001 00	1	45,02
11,50	142	94	00 611011501 00	5	25,37	00 627011501 00	1	57,06
12,00	151	101	00 611012001 00	5	28,79	00 627012001 00	1	64,78
12,50	151	101	00 611012501 00	5	34,43	00 627012501 00	1	77,40
13,00	151	101	00 611013001 00	5	36,94	00 627013001 00	1	83,20



>> SPIRALBOHRER, LANG, DIN 340 RN

Einsatzbereich:

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

LONG SERIES DRILLS, DIN 340 RN

Range of application:

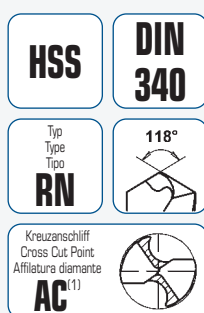
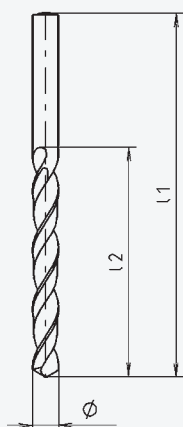
Premium quality twist drills for drilling steel and steel castings, alloy and plain carbon, grey iron castings, copper-alloys, nickel-silver, graphite and similar materials.

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen | steam tempered
vaporizzata



Ø _{h8} mm	l1 mm	l2 mm	Code 501 Art.-Nr.		€
0,80	46	25	00 501000801 00	10	7,54
1,00	56	33	00 501001001 00	10	5,86
1,10	60	37	00 501001101 00	10	5,86
1,20	65	41	00 501001201 00	10	5,59
1,30	65	41	00 501001301 00	10	5,03
1,40	70	45	00 501001401 00	10	4,65
1,50	70	45	00 501001501 00	10	4,03
1,60	76	50	00 501001601 00	10	4,16
1,70	76	50	00 501001701 00	10	4,16
1,80	80	53	00 501001801 00	10	4,16
1,90	80	53	00 501001901 00	10	4,16
2,00	85	56	00 501002001 00	10	2,83
2,10	85	56	00 501002101 00	10	3,40
2,20	90	59	00 501002201 00	10	3,40
2,30	90	59	00 501002301 00	10	3,40
2,40	95	62	00 501002401 00	10	3,40
2,50	95	62	00 501002501 00	10	2,96
2,60	95	62	00 501002601 00	10	3,53
2,70	100	66	00 501002701 00	10	3,60
2,80	100	66	00 501002801 00	10	3,60
2,90	100	66	00 501002901 00	10	3,65
3,00	100	66	00 501003001 00	10	3,05
3,10	106	69	00 501003101 00	10	3,65
3,20	106	69	00 501003201 00	10	3,18
3,30	106	69	00 501003301 00	10	3,53

⁽¹⁾ ≥ Ø 4,0 mm

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>> SPIRALBOHRER, LANG, DIN 340 RN

LONG SERIES DRILLS, DIN 340 RN

PUNTE ELICOIDALI, SERIE LUNGA, DIN 340 RN

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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm	Code 501 Art.-Nr.		€
3,40	112	73	00 501003401 00	10	3,97
3,50	112	73	00 501003501 00	10	3,53
3,60	112	73	00 501003601 00	10	3,97
3,70	112	73	00 501003701 00	10	4,03
3,80	119	78	00 501003801 00	10	4,16
3,90	119	78	00 501003901 00	10	4,39
4,00	119	78	00 501004001 00	10	3,89
4,10	119	78	00 501004101 00	10	4,54
4,20	119	78	00 501004201 00	10	3,89
4,30	126	82	00 501004301 00	10	4,71
4,40	126	82	00 501004401 00	10	4,71
4,50	126	82	00 501004501 00	10	4,39
4,60	126	82	00 501004601 00	10	4,86
4,70	126	82	00 501004701 00	10	5,08
4,80	132	87	00 501004801 00	10	5,17
4,90	132	87	00 501004901 00	10	5,17
5,00	132	87	00 501005001 00	10	4,86
5,10	132	87	00 501005101 00	10	5,29
5,20	132	87	00 501005201 00	10	5,37
5,30	132	87	00 501005301 00	10	5,43
5,40	139	91	00 501005401 00	10	5,50
5,50	139	91	00 501005501 00	10	5,71
5,60	139	91	00 501005601 00	10	5,59
5,70	139	91	00 501005701 00	10	5,64
5,80	139	91	00 501005801 00	10	5,71
5,90	139	91	00 501005901 00	10	5,86
6,00	139	91	00 501006001 00	10	6,14
6,10	148	97	00 501006101 00	10	6,22
6,20	148	97	00 501006201 00	10	6,56
6,30	148	97	00 501006301 00	10	6,84
6,40	148	97	00 501006401 00	10	7,54
6,50	148	97	00 501006501 00	10	6,62
6,60	148	97	00 501006601 00	10	7,89
6,70	148	97	00 501006701 00	10	8,25
6,80	156	102	00 501006801 00	10	9,24
6,90	156	102	00 501006901 00	10	9,24
7,00	156	102	00 501007001 00	10	7,69
7,10	156	102	00 501007101 00	10	9,65
7,20	156	102	00 501007201 00	10	9,88
7,30	156	102	00 501007301 00	10	10,01
7,40	156	102	00 501007401 00	10	10,10
7,50	156	102	00 501007501 00	10	9,04
7,60	165	109	00 501007601 00	10	10,40
7,70	165	109	00 501007701 00	10	10,52
7,80	165	109	00 501007801 00	10	10,58
7,90	165	109	00 501007901 00	10	10,71
8,00	165	109	00 501008001 00	10	9,19
8,10	165	109	00 501008101 00	10	11,08
8,20	165	109	00 501008201 00	10	10,71
8,30	165	109	00 501008301 00	10	11,57
8,40	165	109	00 501008401 00	10	12,49
8,50	165	109	00 501008501 00	10	10,52
8,60	175	115	00 501008601 00	10	13,00
8,70	175	115	00 501008701 00	10	13,76

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>> SPIRALBOHRER, LANG, DIN 340 RN

LONG SERIES DRILLS, DIN 340 RN

PUNTE ELICOIDALI, SERIE LUNGA, DIN 340 RN

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			dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 501 Art.-Nr.		€
8,80	175	115	00 501008801 00	10	14,82
8,90	175	115	00 501008901 00	10	15,39
9,00	175	115	00 501009001 00	10	11,08
9,10	175	115	00 501009101 00	10	15,68
9,20	175	115	00 501009201 00	10	15,68
9,30	175	115	00 501009301 00	10	15,68
9,40	175	115	00 501009401 00	10	15,68
9,50	175	115	00 501009501 00	10	13,28
9,60	184	121	00 501009601 00	10	16,23
9,70	184	121	00 501009701 00	10	17,58
9,80	184	121	00 501009801 00	10	17,58
9,90	184	121	00 501009901 00	10	17,58
10,00	184	121	00 501010001 00	10	13,00
10,20	184	121	00 501010201 00	1	17,58
10,50	184	121	00 501010501 00	1	18,63
11,00	195	128	00 501011001 00	1	19,13
11,50	195	128	00 501011501 00	1	21,30
12,00	205	134	00 501012001 00	1	24,07
12,50	205	134	00 501012501 00	1	24,34
13,00	205	134	00 501013001 00	1	25,43
13,50	214	140	00 501013501 00	1	27,66
14,00	214	140	00 501014001 00	1	30,88
14,50	220	144	00 501014501 00	1	36,26
15,00	220	144	00 501015001 00	1	38,41
15,50	227	149	00 501015501 00	1	49,23
16,00	227	149	00 501016001 00	1	46,44
16,50	235	154	00 501016501 00	1	63,27
17,00	235	154	00 501017001 00	1	50,74
17,50	241	158	00 501017501 00	1	68,08
18,00	241	158	00 501018001 00	1	54,02
18,50	247	162	00 501018501 00	1	102,70
19,00	247	162	00 501019001 00	1	61,06
19,50	254	166	00 501019501 00	1	108,00
20,00	254	166	00 501020001 00	1	75,62



>> SPIRALBOHRER, LANG, DIN 340 FORTE W

LONG SERIES DRILLS, DIN 340 FORTE W

PUNTE ELICOIDALI, SERIE LUNGA, DIN 340 FORTE W

Einsatzbereich:

Spiralbohrer mit spezieller Nutausbildung bei schlechter Spanabfuhr bzw. für größere Bohrtiefen, geeignet für langspanende Werkstoffe mit einer Festigkeit bis zu 500 N/mm².

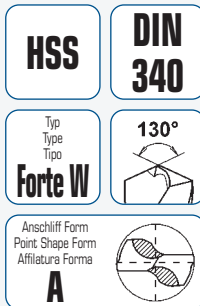
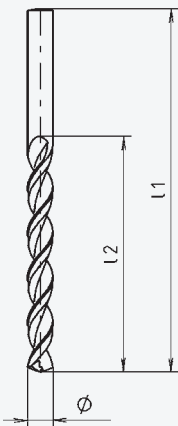
Range of application:

High efficiency drills with special designed flute profile for better chip removal and deeper holes, suitable for long chipping materials up to 500 N/mm².

Impiego:

Adatte – grazie alla particolare forma delle scanalature – per lavorazioni con difficile scarico dei trucioli, fori profondi, materiali a truciolo lungo con R fino a 500 N/mm².

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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blank | bright | lucida



Ø _{h8} mm	l1 mm	l2 mm	Code 523 Art.-Nr.		€
2,00	85	56	00 523002001 00	10	6,22
2,10	85	56	00 523002101 00	10	6,99
2,20	90	59	00 523002201 00	10	7,05
2,30	90	59	00 523002301 00	10	7,21
2,40	95	62	00 523002401 00	10	7,35
2,50	95	62	00 523002501 00	10	6,42
2,60	95	62	00 523002601 00	10	7,41
2,70	100	66	00 523002701 00	10	7,47
2,80	100	66	00 523002801 00	10	7,47
2,90	100	66	00 523002901 00	10	7,54
3,00	100	66	00 523003001 00	10	6,56
3,10	106	69	00 523003101 00	10	8,56
3,20	106	69	00 523003201 00	10	7,26
3,30	106	69	00 523003301 00	10	8,11
3,40	112	73	00 523003401 00	10	8,68
3,50	112	73	00 523003501 00	10	7,47
3,60	112	73	00 523003601 00	10	7,69
3,70	112	73	00 523003701 00	10	8,95
3,80	119	78	00 523003801 00	10	9,04
3,90	119	78	00 523003901 00	10	9,19
4,00	119	78	00 523004001 00	10	8,11
4,10	119	78	00 523004101 00	10	9,38
4,20	119	78	00 523004201 00	10	9,04
4,30	126	82	00 523004301 00	10	10,16
4,40	126	82	00 523004401 00	10	10,52

Fortsetzung auf Seite V/42 | Continued on page V/42 | Segue a pagina V/42

>> SPIRALBOHRER, LANG, DIN 340 FORTE W

LONG SERIES DRILLS, DIN 340 FORTE W

PUNTE ELICOIDALI, SERIE LUNGA, DIN 340 FORTE W

Fortsetzung von Seite V/41 | Continued from page V/41 |
Segue da pagina V/41

			blank bright lucida		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 523 Art.-Nr.		€
4,50	126	82	00 523004501 00	10	9,31
4,60	126	82	00 523004601 00	10	10,58
4,70	126	82	00 523004701 00	10	10,65
4,80	132	87	00 523004801 00	10	10,71
4,90	132	87	00 523004901 00	10	11,08
5,00	132	87	00 523005001 00	10	9,88
5,10	132	87	00 523005101 00	10	11,37
5,20	132	87	00 523005201 00	10	11,87
5,30	132	87	00 523005301 00	10	12,12
5,40	139	91	00 523005401 00	10	12,49
5,50	139	91	00 523005501 00	10	11,57
5,60	139	91	00 523005601 00	10	12,12
5,70	139	91	00 523005701 00	10	14,32
5,80	139	91	00 523005801 00	10	14,61
5,90	139	91	00 523005901 00	10	15,11
6,00	139	91	00 523006001 00	10	12,12
6,20	148	97	00 523006201 00	10	16,52
6,50	148	97	00 523006501 00	10	13,28
6,80	156	102	00 523006801 00	10	20,23
7,00	156	102	00 523007001 00	10	15,68
7,20	156	102	00 523007201 00	10	18,91
7,50	156	102	00 523007501 00	10	19,13
7,80	165	109	00 523007801 00	10	23,29
8,00	165	109	00 523008001 00	10	18,06
8,20	165	109	00 523008201 00	10	24,34
8,50	165	109	00 523008501 00	10	23,77
8,80	175	115	00 523008801 00	10	26,70
9,00	175	115	00 523009001 00	10	22,15
9,20	175	115	00 523009201 00	10	28,66
9,50	175	115	00 523009501 00	10	33,47
9,80	184	121	00 523009801 00	10	39,48
10,00	184	121	00 523010001 00	10	26,70
10,20	184	121	00 523010201 00	1	43,21
10,50	184	121	00 523010501 00	1	48,09
11,00	195	128	00 523011001 00	1	39,99
11,50	195	128	00 523011501 00	1	59,92
12,00	205	134	00 523012001 00	1	49,23
12,50	205	134	00 523012501 00	1	50,74
13,00	205	134	00 523013001 00	1	52,97



>> SPIRALBOHRER, LANG, DIN 340 RN

LONG SERIES DRILLS, DIN 340 RN

PUNTE ELICOIDALI, SERIE LUNGA, 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.

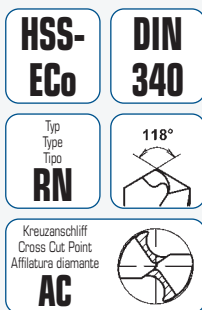
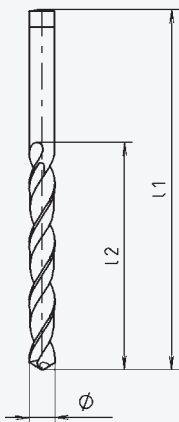
Range of application:

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.

Impiego:

Punte al 5% Co ad elevata resistenza al calore, adatte per foratura di materiali altamente legati con R > 800 N/mm².

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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blank | bright | lucida



ALUNIT®



Ø _{h8} mm	L1 mm	L2 mm	Code 503 Art.-Nr.		€	Code 500 Art.-Nr.		€
2,00	85	56	00 503002001 00	10	7,08	00 500002001 00	1	14,19
2,10	85	56	00 503002101 00	10	8,45	00 500002101 00	1	16,92
2,20	90	59	00 503002201 00	10	8,60	00 500002201 00	1	17,18
2,30	90	59	00 503002301 00	10	8,68	00 500002301 00	1	17,37
2,40	95	62	00 503002401 00	10	9,03	00 500002401 00	1	18,05
2,50	95	62	00 503002501 00	10	7,30	00 500002501 00	1	14,61
2,60	95	62	00 503002601 00	10	9,19	00 500002601 00	1	18,35
2,70	100	66	00 503002701 00	10	9,24	00 500002701 00	1	18,48
2,80	100	66	00 503002801 00	10	9,44	00 500002801 00	1	18,88
2,90	100	66	00 503002901 00	10	9,82	00 500002901 00	1	19,65
3,00	100	66	00 503003001 00	10	7,24	00 500003001 00	1	14,48
3,10	106	69	00 503003101 00	10	10,01	00 500003101 00	1	20,03
3,20	106	69	00 503003201 00	10	9,44	00 500003201 00	1	18,88
3,30	106	69	00 503003301 00	10	10,01	00 500003301 00	1	20,03
3,40	112	73	00 503003401 00	10	10,30	00 500003401 00	1	20,61
3,50	112	73	00 503003501 00	10	9,44	00 500003501 00	1	18,88
3,60	112	73	00 503003601 00	10	10,89	00 500003601 00	1	21,78
3,70	112	73	00 503003701 00	10	11,24	00 500003701 00	1	22,51
3,80	119	78	00 503003801 00	10	11,52	00 500003801 00	1	23,05
3,90	119	78	00 503003901 00	10	11,52	00 500003901 00	1	23,05
4,00	119	78	00 503004001 00	10	10,01	00 500004001 00	1	20,03
4,10	119	78	00 503004101 00	10	11,75	00 500004101 00	1	23,47
4,20	119	78	00 503004201 00	10	10,89	00 500004201 00	1	21,78
4,30	126	82	00 503004301 00	10	12,02	00 500004301 00	1	24,05
4,40	126	82	00 503004401 00	10	12,68	00 500004401 00	1	25,36

Fortsetzung auf Seite V/44 | Continued on page V/44 | Segue a pagina V/44

>> SPIRALBOHRER, LANG, DIN 340 RN

LONG SERIES DRILLS, DIN 340 RN

PUNTE ELICOIDALI, SERIE LUNGA, DIN 340 RN

Fortsetzung von Seite V/43 | Continued from page V/43 |
Segue da pagina V/43

			blank bright lucida			ALUNIT®		
Ø _{h8} mm	l1 mm	l2 mm	Code 503 Art.-Nr.		€	Code 500 Art.-Nr.		€
4,50	126	82	00 503004501 00	10	11,75	00 500004501 00	1	23,47
4,60	126	82	00 503004601 00	10	12,89	00 500004601 00	1	25,77
4,70	126	82	00 503004701 00	10	13,19	00 500004701 00	1	26,35
4,80	132	87	00 503004801 00	10	12,89	00 500004801 00	1	25,77
4,90	132	87	00 503004901 00	10	12,89	00 500004901 00	1	25,77
5,00	132	87	00 503005001 00	10	11,52	00 500005001 00	1	23,05
5,10	132	87	00 503005101 00	10	13,19	00 500005101 00	1	26,35
5,20	132	87	00 503005201 00	10	13,97	00 500005201 00	1	27,94
5,30	132	87	00 503005301 00	10	14,25	00 500005301 00	1	28,49
5,40	139	91	00 503005401 00	10	14,55	00 500005401 00	1	29,09
5,50	139	91	00 503005501 00	10	14,83	00 500005501 00	1	29,66
5,60	139	91	00 503005601 00	10	15,06	00 500005601 00	1	30,10
5,70	139	91	00 503005701 00	10	15,31	00 500005701 00	1	30,66
5,80	139	91	00 503005801 00	10	15,60	00 500005801 00	1	31,20
5,90	139	91	00 503005901 00	10	15,90	00 500005901 00	1	31,79
6,00	139	91	00 503006001 00	10	14,83	00 500006001 00	1	28,16
6,20	148	97	00 503006201 00	10	16,76	00 500006201 00	1	33,53
6,50	148	97	00 503006501 00	10	17,05	00 500006501 00	1	34,10
6,80	156	102	00 503006801 00	10	21,13	00 500006801 00	1	42,27
7,00	156	102	00 503007001 00	10	20,06	00 500007001 00	1	40,11
7,20	156	102	00 503007201 00	10	23,62	00 500007201 00	1	47,24
7,50	156	102	00 503007501 00	10	22,50	00 500007501 00	1	44,98
7,80	165	109	00 503007801 00	10	26,32	00 500007801 00	1	52,65
8,00	165	109	00 503008001 00	10	19,21	00 500008001 00	1	38,39
8,20	165	109	00 503008201 00	10	27,47	00 500008201 00	1	54,91
8,50	165	109	00 503008501 00	10	24,72	00 500008501 00	1	49,41
8,80	175	115	00 503008801 00	10	29,59	00 500008801 00	1	59,22
9,00	175	115	00 503009001 00	10	26,58	00 500009001 00	1	53,15
9,20	175	115	00 503009201 00	10	32,39	00 500009201 00	1	64,80
9,50	175	115	00 503009501 00	10	32,39	00 500009501 00	1	64,80
9,80	184	121	00 503009801 00	10	44,93	00 500009801 00	1	89,84
10,00	184	121	00 503010001 00	10	39,48	00 500010001 00	1	78,97
10,50	184	121	00 503010501 00	1	56,51	00 500010501 00	1	113,10
11,00	195	128	00 503011001 00	1	60,29	00 500011001 00	1	120,70
11,50	195	128	00 503011501 00	1	64,67	00 500011501 00	1	129,40
12,00	205	134	00 503012001 00	1	63,53	00 500012001 00	1	127,10
12,50	205	134	00 503012501 00	1	75,76	00 500012501 00	1	132,60
13,00	205	134	00 503013001 00	1	68,02	00 500013001 00	1	136,10



>> SPIRALBOHRER, LANG, DIN 340 FORTE

LONG SERIES DRILLS, DIN 340 FORTE

PUNTE ELICOIDALI, SERIE LUNGA, 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.

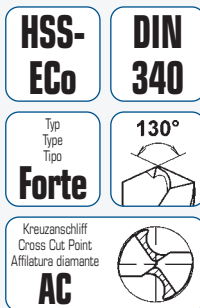
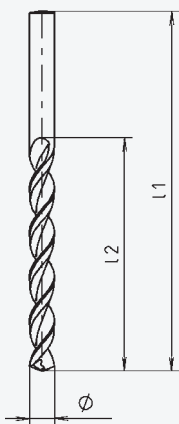
Range of application:

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.

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



fasennitriert | nitrided lands
Fascette nitrate



Ø _{h8} mm	l1 mm	l2 mm	Code 511 Art.-Nr.		€
2,00	85	56	00 511002001 00	10	6,22
2,10	85	56	00 511002101 00	10	6,99
2,20	90	59	00 511002201 00	10	7,05
2,30	90	59	00 511002301 00	10	7,21
2,40	95	62	00 511002401 00	10	7,35
2,50	95	62	00 511002501 00	10	6,42
2,60	95	62	00 511002601 00	10	7,41
2,70	100	66	00 511002701 00	10	7,47
2,80	100	66	00 511002801 00	10	7,47
2,90	100	66	00 511002901 00	10	7,54
3,00	100	66	00 511003001 00	10	6,56
3,10	106	69	00 511003101 00	10	8,56
3,20	106	69	00 511003201 00	10	7,26
3,30	106	69	00 511003301 00	10	8,11
3,40	112	73	00 511003401 00	10	8,68
3,50	112	73	00 511003501 00	10	7,47
3,60	112	73	00 511003601 00	10	9,45
3,70	112	73	00 511003701 00	10	8,95
3,80	119	78	00 511003801 00	10	9,04
3,90	119	78	00 511003901 00	10	9,19
4,00	119	78	00 511004001 00	10	8,11
4,10	119	78	00 511004101 00	10	9,38
4,20	119	78	00 511004201 00	10	9,04
4,30	126	82	00 511004301 00	10	10,16
4,40	126	82	00 511004401 00	10	10,52

Fortsetzung auf Seite V/46 | Continued on page V/46 | Segue a pagina V/46

>> SPIRALBOHRER, LANG, DIN 340 FORTE

LONG SERIES DRILLS, DIN 340 FORTE

PUNTE ELICOIDALI, SERIE LUNGA, DIN 340 FORTE

Fortsetzung von Seite V/45 | Continued from page V/45 |
Segue da pagina V/45

			fasennitriert nitrided lands Fascette nitrate		
$\varnothing_{h8}$ mm	l1 mm	l2 mm	Code 511 Art.-Nr.		€
4,50	126	82	00 511004501 00	10	9,31
4,60	126	82	00 511004601 00	10	10,58
4,70	126	82	00 511004701 00	10	10,65
4,80	132	87	00 511004801 00	10	10,71
4,90	132	87	00 511004901 00	10	11,08
5,00	132	87	00 511005001 00	10	9,88
5,10	132	87	00 511005101 00	10	11,37
5,20	132	87	00 511005201 00	10	11,87
5,30	132	87	00 511005301 00	10	12,12
5,40	139	91	00 511005401 00	10	12,49
5,50	139	91	00 511005501 00	10	11,57
5,60	139	91	00 511005601 00	10	13,76
5,70	139	91	00 511005701 00	10	14,32
5,80	139	91	00 511005801 00	10	14,61
5,90	139	91	00 511005901 00	10	15,11
6,00	139	91	00 511006001 00	10	12,12
6,20	148	97	00 511006201 00	10	16,52
6,50	148	97	00 511006501 00	10	13,28
6,80	156	102	00 511006801 00	10	20,23
7,00	156	102	00 511007001 00	10	15,68
7,20	156	102	00 511007201 00	10	21,60
7,50	156	102	00 511007501 00	10	19,13
7,80	165	109	00 511007801 00	10	23,29
8,00	165	109	00 511008001 00	10	18,06
8,20	165	109	00 511008201 00	10	24,34
8,50	165	109	00 511008501 00	10	23,77
8,80	175	115	00 511008801 00	10	26,70
9,00	175	115	00 511009001 00	10	22,15
9,20	175	115	00 511009201 00	10	33,47
9,50	175	115	00 511009501 00	10	33,47
9,80	184	121	00 511009801 00	10	44,93
10,00	184	121	00 511010001 00	10	26,70
10,20	184	121	00 511010201 00	1	43,21
10,50	184	121	00 511010501 00	1	48,09
11,00	195	128	00 511011001 00	1	39,99
11,50	195	128	00 511011501 00	1	67,01
12,00	205	134	00 511012001 00	1	49,23
12,50	205	134	00 511012501 00	1	50,74
13,00	205	134	00 511013001 00	1	52,97



>> SPIRALBOHRER, ÜBERLANG, DIN 1869 R1 RN

EXTRA LONG SERIES DRILLS, DIN 1869 R1 RN

PUNTE ELICOIDALI, SERIE EXTRA LUNGA, DIN 1869 L1 RN

Einsatzbereich:

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

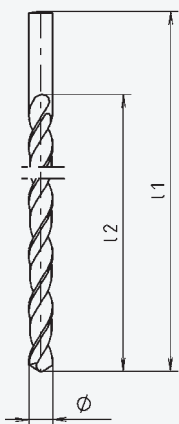
Range of application:

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

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS

DIN 1869

Reihe
Row
Lunghezza
1

Typ
Type
Tipo
RN

118°

Kreuzanschliff
Cross Cut Point
Affilatura diamante
AC



dampfangelassen | steam tempered
vaporizzata



Ø _{h8} mm	l1 mm	l2 mm	Code 101 Art.-Nr.		€
2,00	125	85	00 101002001 00	1	8,34
2,50	140	95	00 101002501 00	1	8,56
3,00	150	100	00 101003001 00	1	9,54
3,50	165	115	00 101003501 00	1	9,59
4,00	175	120	00 101004001 00	1	10,40
4,50	185	125	00 101004501 00	1	11,57
5,00	195	135	00 101005001 00	1	11,87
5,50	205	140	00 101005501 00	1	13,76
6,00	205	140	00 101006001 00	1	14,32
6,50	215	150	00 101006501 00	1	15,90
7,00	225	155	00 101007001 00	1	18,06
7,50	225	155	00 101007501 00	1	21,88
8,00	240	165	00 101008001 00	1	23,29
8,50	240	165	00 101008501 00	1	29,75
9,00	250	175	00 101009001 00	1	32,96
9,50	250	175	00 101009501 00	1	37,27
10,00	265	185	00 101010001 00	1	36,70
10,50	265	185	00 101010501 00	1	51,33
11,00	280	195	00 101011001 00	1	62,13
11,50	280	195	00 101011501 00	1	65,86
12,00	295	205	00 101012001 00	1	65,86
12,50	295	205	00 101012501 00	1	69,09
13,00	295	205	00 101013001 00	1	70,24

>> SPIRALBOHRER, ÜBERLANG, DIN 1869 R2 RN

Einsatzbereich:

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

EXTRA LONG SERIES DRILLS, DIN 1869 R2 RN

Range of application:

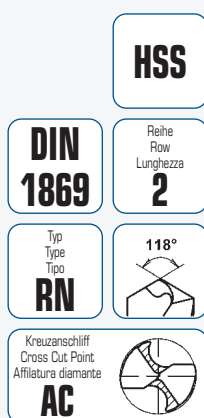
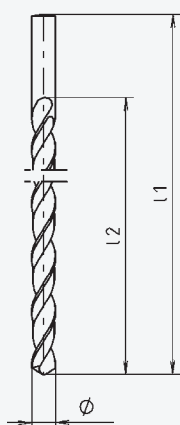
High efficiency drills for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.

PUNTE 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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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Ø _{h8} mm	L1 mm	L2 mm	Code 111 Art.-Nr.	€
3,00	190	130	00 111003001 00	12,71
3,50	210	145	00 111003501 00	13,28
4,00	220	150	00 111004001 00	14,32
4,50	235	160	00 111004501 00	15,90
5,00	245	170	00 111005001 00	16,52
5,50	260	180	00 111005501 00	19,13
6,00	260	180	00 111006001 00	21,30
6,50	275	190	00 111006501 00	23,29
7,00	290	200	00 111007001 00	25,43
7,50	290	200	00 111007501 00	29,16
8,00	305	210	00 111008001 00	30,25
8,50	305	210	00 111008501 00	41,00
9,00	320	220	00 111009001 00	42,14
9,50	320	220	00 111009501 00	50,23
10,00	340	235	00 111010001 00	49,23
10,50	340	235	00 111010501 00	68,08
11,00	365	250	00 111011001 00	71,88
11,50	365	250	00 111011501 00	76,68
12,00	375	260	00 111012001 00	80,49
12,50	375	260	00 111012501 00	83,14
13,00	375	260	00 111013001 00	85,35

>> SPIRALBOHRER, ÜBERLANG, DIN 1869 R3 RN

EXTRA LONG SERIES DRILLS, DIN 1869 R3 RN

PUNTE ELICOIDALI, SERIE EXTRA LUNGA, DIN 1869 L3 RN

Einsatzbereich:

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

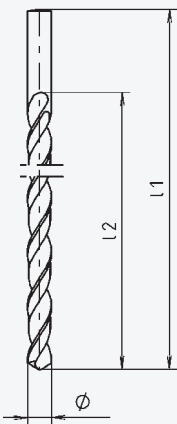
Range of application:

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

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS

**DIN
1869**

Reihe
Row
Lunghezza
3

Typ
Type
Tipo
RN

118°

Kreuzanschliff
Cross Cut Point
Affilatura diamante
AC



dampfangelassen | steam tempered
vaporizzata



Ø _{h8} mm	l1 mm	l2 mm	Code 121 Art.-Nr.		€
3,50	265	180	00 121003501 00	1	19,42
4,00	280	190	00 121004001 00	1	19,42
4,50	295	200	00 121004501 00	1	23,51
5,00	315	210	00 121005001 00	1	23,51
5,50	330	225	00 121005501 00	1	25,14
6,00	330	225	00 121006001 00	1	26,19
6,50	350	235	00 121006501 00	1	28,66
7,00	370	250	00 121007001 00	1	37,27
7,50	370	250	00 121007501 00	1	42,71
8,00	390	265	00 121008001 00	1	45,94
8,50	390	265	00 121008501 00	1	55,75
9,00	410	280	00 121009001 00	1	61,06
9,50	410	280	00 121009501 00	1	69,09
10,00	430	295	00 121010001 00	1	71,30
10,50	430	295	00 121010501 00	1	69,67
11,00	455	310	00 121011001 00	1	78,33
11,50	455	310	00 121011501 00	1	84,22
12,00	480	330	00 121012001 00	1	87,50
12,50	480	330	00 121012501 00	1	90,73
13,00	480	330	00 121013001 00	1	93,95

>> SPIRALBOHRER, ÜBERLANG, DIN 1869 R1 FORTE

Einsatzbereich:

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

EXTRA LONG SERIES DRILLS, DIN 1869 R1 FORTE

Range of application:

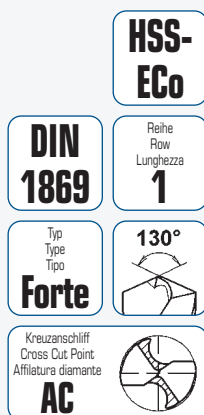
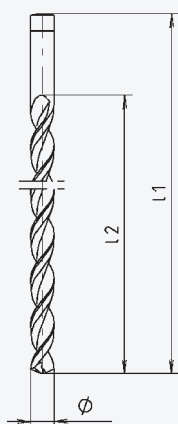
5% cobalt-alloyed high efficiency drills with reinforced web with special designed flute profile for better chip removal and deeper holes, suitable for steels up to 1100 N/mm².

PUNTE ELICOIDALI, SERIE EXTRA LUNGA, DIN 1869 L1 FORTE

Impiego:

Punte al 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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



fasennitriert | nitrided lands
fascette nitrate



Ø _{h8} mm	L1 mm	L2 mm	Code 201 Art.-Nr.		€
3,00	150	100	00 201003001 00	1	13,28
3,50	165	115	00 201003501 00	1	13,28
4,00	175	120	00 201004001 00	1	13,55
4,50	185	125	00 201004501 00	1	14,61
5,00	195	135	00 201005001 00	1	15,68
5,50	205	140	00 201005501 00	1	17,03
6,00	205	140	00 201006001 00	1	17,03
6,50	215	150	00 201006501 00	1	22,65
7,00	225	155	00 201007001 00	1	24,07
7,50	225	155	00 201007501 00	1	27,66
8,00	240	165	00 201008001 00	1	30,25
8,50	240	165	00 201008501 00	1	38,92
9,00	250	175	00 201009001 00	1	41,65
9,50	250	175	00 201009501 00	1	48,09
10,00	265	185	00 201010001 00	1	43,21

>> SPIRALBOHRER, ÜBERLANG, DIN 1869 R2 FORTE

EXTRA LONG SERIES DRILLS, DIN 1869 R2 FORTE

PUNTE ELICOIDALI, SERIE EXTRA LUNGA, DIN 1869 L2 FORTE

Einsatzbereich:

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

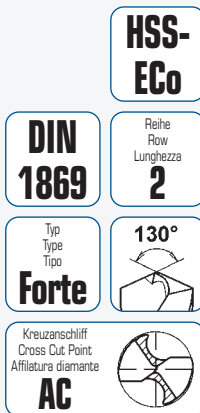
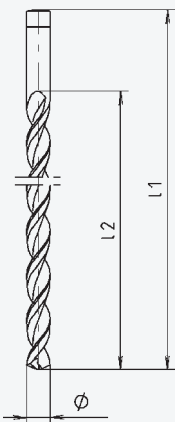
Range of application:

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.

Impiego:

Punte al 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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



fasennitriert | nitrided lands
fascette nitrate



Ø _{h8} mm	L1 mm	L2 mm	Code 211 Art.-Nr.		€
3,00	190	130	00 211003001 00	1	17,86
3,50	210	145	00 211003501 00	1	18,06
4,00	220	150	00 211004001 00	1	19,13
4,50	235	160	00 211004501 00	1	20,23
5,00	245	170	00 211005001 00	1	20,54
5,50	260	180	00 211005501 00	1	24,83
6,00	260	180	00 211006001 00	1	24,83
6,50	275	190	00 211006501 00	1	28,15
7,00	290	200	00 211007001 00	1	31,32
7,50	290	200	00 211007501 00	1	36,70
8,00	305	210	00 211008001 00	1	36,26
8,50	305	210	00 211008501 00	1	56,75
9,00	320	220	00 211009001 00	1	55,75
9,50	320	220	00 211009501 00	1	64,79
10,00	340	235	00 211010001 00	1	58,91

>> SPIRALBOHRER, ÜBERLANG, DIN 1869 R3 FORTE

Einsatzbereich:

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

EXTRA LONG SERIES DRILLS, DIN 1869 R3 FORTE

Range of application:

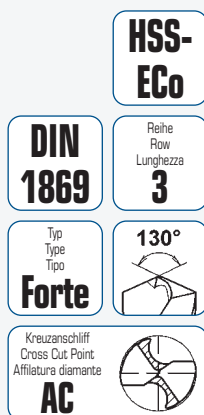
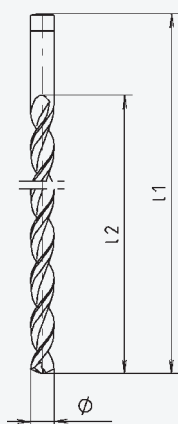
5% cobalt-alloyed high efficiency drills with reinforced web with special designed flute profile for better chip removal and deeper holes, suitable for steels up to 1100 N/mm².

PUNTE ELICOIDALI, SERIE EXTRA LUNGA, DIN 1869 L3 FORTE

Impiego:

Punte al 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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



fasennitriert | nitrided lands
fascette nitrurate



Ø _{h8} mm	L1 mm	L2 mm	Code 221 Art.-Nr.		€
3,50	265	180	00 221003501 00	1	24,34
4,00	280	190	00 221004001 00	1	24,34
4,50	295	200	00 221004501 00	1	29,16
5,00	315	210	00 221005001 00	1	29,16
5,50	330	225	00 221005501 00	1	31,32
6,00	330	225	00 221006001 00	1	33,47
6,50	350	235	00 221006501 00	1	36,26
7,00	370	250	00 221007001 00	1	46,44
7,50	370	250	00 221007501 00	1	52,97
8,00	390	265	00 221008001 00	1	54,02
8,50	390	265	00 221008501 00	1	68,59
9,00	410	280	00 221009001 00	1	74,09
9,50	410	280	00 221009501 00	1	87,01
10,00	430	295	00 221010001 00	1	86,44

>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 345 RN

SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von legierten und unlegierten Stählen und Stahlguss, Grauguss, Temperguss, Kupferlegierungen, Neusilber, Graphit, Sinterisen.

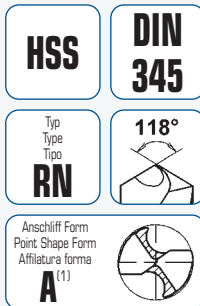
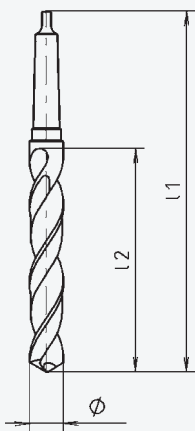
Range of application:

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.

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm		Code 202 Art.-Nr.		€
5,00	133	52	1	00 202005001 00	1	18,40
5,25	133	52	1	00 202005251 00	1	32,33
5,50	138	57	1	00 202005501 00	1	18,12
5,75	138	57	1	00 202005751 00	1	33,42
6,00	138	57	1	00 202006001 00	1	18,88
6,10	144	63	1	00 202006101 00	1	28,43
6,20	144	63	1	00 202006201 00	1	28,43
6,25	144	63	1	00 202006251 00	1	33,42
6,30	144	63	1	00 202006301 00	1	28,91
6,40	144	63	1	00 202006401 00	1	28,91
6,50	144	63	1	00 202006501 00	1	18,40
6,60	144	63	1	00 202006601 00	1	28,91
6,70	144	63	1	00 202006701 00	1	28,91
6,75	150	69	1	00 202006751 00	1	18,40
6,80	150	69	1	00 202006801 00	1	28,91
6,90	150	69	1	00 202006901 00	1	28,91
7,00	150	69	1	00 202007001 00	1	18,40
7,10	150	69	1	00 202007101 00	1	29,43
7,20	150	69	1	00 202007201 00	1	29,43
7,25	150	69	1	00 202007251 00	1	34,37
7,30	150	69	1	00 202007301 00	1	29,43
7,40	150	69	1	00 202007401 00	1	29,43
7,50	150	69	1	00 202007501 00	1	18,40
7,60	156	75	1	00 202007601 00	1	29,43
7,70	156	75	1	00 202007701 00	1	29,43

⁽¹⁾ Anschliff Form A > Ø 16,0 mm,
Anschliff Form AC ≤ Ø 16,0 mm
Point shape form A > Ø 16,0 mm,
Point shape form AC ≤ Ø 16,0 mm
Affilatura forma A > Ø 16,0 mm,
Affilatura forma AC ≤ Ø 16,0 mm



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>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 345 RN

SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

Fortsetzung von Seite V/53 | Continued from page V/53 |
Segue da pagina V/53

				dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 202 Art.-Nr.		€
7,75	156	75	1	00 202007751 00	1	34,37
7,80	156	75	1	00 202007801 00	1	29,43
7,90	156	75	1	00 202007901 00	1	29,43
8,00	156	75	1	00 202008001 00	1	17,66
8,10	156	75	1	00 202008101 00	1	27,03
8,20	156	75	1	00 202008201 00	1	27,03
8,25	156	75	1	00 202008251 00	1	27,03
8,30	156	75	1	00 202008301 00	1	27,03
8,40	156	75	1	00 202008401 00	1	27,03
8,50	156	75	1	00 202008501 00	1	20,11
8,60	162	81	1	00 202008601 00	1	27,03
8,70	162	81	1	00 202008701 00	1	27,52
8,75	162	81	1	00 202008751 00	1	27,52
8,80	162	81	1	00 202008801 00	1	28,43
8,90	162	81	1	00 202008901 00	1	28,91
9,00	162	81	1	00 202009001 00	1	19,62
9,10	162	81	1	00 202009101 00	1	30,93
9,20	162	81	1	00 202009201 00	1	30,93
9,25	162	81	1	00 202009251 00	1	30,93
9,30	162	81	1	00 202009301 00	1	30,93
9,40	162	81	1	00 202009401 00	1	30,93
9,50	162	81	1	00 202009501 00	1	21,54
9,60	168	87	1	00 202009601 00	1	30,93
9,70	168	87	1	00 202009701 00	1	30,93
9,75	168	87	1	00 202009751 00	1	30,93
9,80	168	87	1	00 202009801 00	1	30,93
9,90	168	87	1	00 202009901 00	1	30,93
10,00	168	87	1	00 202010001 00	1	20,11
10,10	168	87	1	00 202010101 00	1	28,91
10,20	168	87	1	00 202010201 00	1	22,33
10,25	168	87	1	00 202010251 00	1	25,94
10,30	168	87	1	00 202010301 00	1	28,43
10,40	168	87	1	00 202010401 00	1	28,43
10,50	168	87	1	00 202010501 00	1	20,60
10,60	168	87	1	00 202010601 00	1	28,91
10,70	175	94	1	00 202010701 00	1	28,91
10,75	175	94	1	00 202010751 00	1	25,49
10,80	175	94	1	00 202010801 00	1	25,94
10,90	175	94	1	00 202010901 00	1	26,52
11,00	175	94	1	00 202011001 00	1	21,09
11,10	175	94	1	00 202011101 00	1	27,52
11,20	175	94	1	00 202011201 00	1	27,52
11,25	175	94	1	00 202011251 00	1	24,02
11,30	175	94	1	00 202011301 00	1	27,96
11,40	175	94	1	00 202011401 00	1	28,43
11,50	175	94	1	00 202011501 00	1	24,29
11,60	175	94	1	00 202011601 00	1	28,91
11,70	175	94	1	00 202011701 00	1	29,43
11,75	175	94	1	00 202011751 00	1	25,00
11,80	175	94	1	00 202011801 00	1	29,43
11,90	182	101	1	00 202011901 00	1	29,93
12,00	182	101	1	00 202012001 00	1	22,03
12,10	182	101	1	00 202012101 00	1	29,93
12,20	182	101	1	00 202012201 00	1	30,44

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>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 345 RN

SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

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Segue da pagina V/54

dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm		Code 202 Art.-Nr.		€
12,25	182	101	1	00 202012251 00	1	25,49
12,30	182	101	1	00 202012301 00	1	30,44
12,40	182	101	1	00 202012401 00	1	30,93
12,50	182	101	1	00 202012501 00	1	23,34
12,60	182	101	1	00 202012601 00	1	30,93
12,70	182	101	1	00 202012701 00	1	25,49
12,75	182	101	1	00 202012751 00	1	25,49
12,80	182	101	1	00 202012801 00	1	30,93
12,90	182	101	1	00 202012901 00	1	30,93
13,00	182	101	1	00 202013001 00	1	24,29
13,10	182	101	1	00 202013101 00	1	31,37
13,20	182	101	1	00 202013201 00	1	31,37
13,25	189	108	1	00 202013251 00	1	26,52
13,30	189	108	1	00 202013301 00	1	31,89
13,40	189	108	1	00 202013401 00	1	31,89
13,50	189	108	1	00 202013501 00	1	27,52
13,60	189	108	1	00 202013601 00	1	32,33
13,70	189	108	1	00 202013701 00	1	32,84
13,75	189	108	1	00 202013751 00	1	27,96
13,80	189	108	1	00 202013801 00	1	33,42
13,90	189	108	1	00 202013901 00	1	33,86
14,00	189	108	1	00 202014001 00	1	25,49
14,10	212	114	2	00 202014101 00	1	34,37
14,20	212	114	2	00 202014201 00	1	34,37
14,25	212	114	2	00 202014251 00	1	34,37
14,30	212	114	2	00 202014301 00	1	34,86
14,40	212	114	2	00 202014401 00	1	34,86
14,50	212	114	2	00 202014501 00	1	26,52
14,60	212	114	2	00 202014601 00	1	34,86
14,70	212	114	2	00 202014701 00	1	35,31
14,75	212	114	2	00 202014751 00	1	36,26
14,80	212	114	2	00 202014801 00	1	37,32
14,90	212	114	2	00 202014901 00	1	39,24
15,00	212	114	2	00 202015001 00	1	28,43
15,10	218	120	2	00 202015101 00	1	40,75
15,20	218	120	2	00 202015201 00	1	40,75
15,25	218	120	2	00 202015251 00	1	33,86
15,30	218	120	2	00 202015301 00	1	40,75
15,40	218	120	2	00 202015401 00	1	41,20
15,50	218	120	2	00 202015501 00	1	30,44
15,60	218	120	2	00 202015601 00	1	41,20
15,70	218	120	2	00 202015701 00	1	41,20
15,75	218	120	2	00 202015751 00	1	30,93
15,80	218	120	2	00 202015801 00	1	41,20
15,90	218	120	2	00 202015901 00	1	41,71
16,00	218	120	2	00 202016001 00	1	30,44
16,10	223	125	2	00 202016101 00	1	41,71
16,20	223	125	2	00 202016201 00	1	41,71
16,25	223	125	2	00 202016251 00	1	41,71
16,30	223	125	2	00 202016301 00	1	42,20
16,40	223	125	2	00 202016401 00	1	42,20
16,50	223	125	2	00 202016501 00	1	32,84
16,60	223	125	2	00 202016601 00	1	43,15
16,70	223	125	2	00 202016701 00	1	44,16

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>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 345 RN

SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

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				dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 202 Art.-Nr.		€
16,75	223	125	2	00 202016751 00	1	33,86
16,80	223	125	2	00 202016801 00	1	45,61
16,90	223	125	2	00 202016901 00	1	46,56
17,00	223	125	2	00 202017001 00	1	34,37
17,10	228	130	2	00 202017101 00	1	48,09
17,20	228	130	2	00 202017201 00	1	48,60
17,25	228	130	2	00 202017251 00	1	38,27
17,30	228	130	2	00 202017301 00	1	49,04
17,40	228	130	2	00 202017401 00	1	49,55
17,50	228	130	2	00 202017501 00	1	34,86
17,60	228	130	2	00 202017601 00	1	49,99
17,70	228	130	2	00 202017701 00	1	50,50
17,75	228	130	2	00 202017751 00	1	38,72
17,80	228	130	2	00 202017801 00	1	51,50
17,90	228	130	2	00 202017901 00	1	52,97
18,00	228	130	2	00 202018001 00	1	36,83
18,10	233	135	2	00 202018101 00	1	54,91
18,20	233	135	2	00 202018201 00	1	55,43
18,25	233	135	2	00 202018251 00	1	39,24
18,30	233	135	2	00 202018301 00	1	55,94
18,40	233	135	2	00 202018401 00	1	56,39
18,50	233	135	2	00 202018501 00	1	39,68
18,60	233	135	2	00 202018601 00	1	56,87
18,70	233	135	2	00 202018701 00	1	57,39
18,75	233	135	2	00 202018751 00	1	41,71
18,80	233	135	2	00 202018801 00	1	57,91
18,90	233	135	2	00 202018901 00	1	58,40
19,00	233	135	2	00 202019001 00	1	39,68
19,10	238	140	2	00 202019101 00	1	58,84
19,20	238	140	2	00 202019201 00	1	59,85
19,25	238	140	2	00 202019251 00	1	44,16
19,30	238	140	2	00 202019301 00	1	60,29
19,40	238	140	2	00 202019401 00	1	60,80
19,50	238	140	2	00 202019501 00	1	45,61
19,60	238	140	2	00 202019601 00	1	63,27
19,70	238	140	2	00 202019701 00	1	64,22
19,75	238	140	2	00 202019751 00	1	46,07
19,80	238	140	2	00 202019801 00	1	65,75
19,90	238	140	2	00 202019901 00	1	68,64
20,00	238	140	2	00 202020001 00	1	42,20
20,10	243	145	2	00 202020101 00	1	71,12
20,20	243	145	2	00 202020201 00	1	74,03
20,25	243	145	2	00 202020251 00	1	50,50
20,30	243	145	2	00 202020301 00	1	102,00
20,40	243	145	2	00 202020401 00	1	104,00
20,50	243	145	2	00 202020501 00	1	44,67
20,60	243	145	2	00 202020601 00	1	105,90
20,70	243	145	2	00 202020701 00	1	107,90
20,75	243	145	2	00 202020751 00	1	51,07
20,80	243	145	2	00 202020801 00	1	78,98
20,90	243	145	2	00 202020901 00	1	110,90
21,00	243	145	2	00 202021001 00	1	47,57
21,10	243	145	2	00 202021101 00	1	113,80
21,20	243	145	2	00 202021201 00	1	87,76

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SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm		Code 202 Art.-Nr.		€
21,25	248	150	2	00 202021251 00	1	52,97
21,30	248	150	2	00 202021301 00	1	115,80
21,40	248	150	2	00 202021401 00	1	118,70
21,50	248	150	2	00 202021501 00	1	54,47
21,60	248	150	2	00 202021601 00	1	121,70
21,70	248	150	2	00 202021701 00	1	123,50
21,75	248	150	2	00 202021751 00	1	54,91
21,80	248	150	2	00 202021801 00	1	92,70
21,90	248	150	2	00 202021901 00	1	123,50
22,00	248	150	2	00 202022001 00	1	52,97
22,10	248	150	2	00 202022101 00	1	98,07
22,20	248	150	2	00 202022201 00	1	103,00
22,25	248	150	2	00 202022251 00	1	56,39
22,30	248	150	2	00 202022301 00	1	108,90
22,40	248	150	2	00 202022401 00	1	114,80
22,50	253	155	2	00 202022501 00	1	56,87
22,60	253	155	2	00 202022601 00	1	115,80
22,70	253	155	2	00 202022701 00	1	115,80
22,75	253	155	2	00 202022751 00	1	57,91
22,80	253	155	2	00 202022801 00	1	115,80
22,90	253	155	2	00 202022901 00	1	115,80
23,00	253	155	2	00 202023001 00	1	62,25
23,25	276	155	3	00 202023251 00	1	64,22
23,50	276	155	3	00 202023501 00	1	61,81
23,75	281	160	3	00 202023751 00	1	75,54
24,00	281	160	3	00 202024001 00	1	64,79
24,25	281	160	3	00 202024251 00	1	78,98
24,50	281	160	3	00 202024501 00	1	67,20
24,75	281	160	3	00 202024751 00	1	82,88
25,00	281	160	3	00 202025001 00	1	71,57
25,25	286	165	3	00 202025251 00	1	84,77
25,50	286	165	3	00 202025501 00	1	74,03
25,75	286	165	3	00 202025751 00	1	86,31
26,00	286	165	3	00 202026001 00	1	82,39
26,25	286	165	3	00 202026251 00	1	91,69
26,50	286	165	3	00 202026501 00	1	78,98
26,75	291	170	3	00 202026751 00	1	111,90
27,00	291	170	3	00 202027001 00	1	81,88
27,25	291	170	3	00 202027251 00	1	100,10
27,50	291	170	3	00 202027501 00	1	84,34
27,75	291	170	3	00 202027751 00	1	107,00
28,00	291	170	3	00 202028001 00	1	89,79
28,25	296	175	3	00 202028251 00	1	109,80
28,50	296	175	3	00 202028501 00	1	110,90
28,75	296	175	3	00 202028751 00	1	111,90
29,00	296	175	3	00 202029001 00	1	97,56
29,25	296	175	3	00 202029251 00	1	113,80
29,50	296	175	3	00 202029501 00	1	100,10
29,75	296	175	3	00 202029751 00	1	113,80
30,00	296	175	3	00 202030001 00	1	97,56
30,50	301	180	3	00 202030501 00	1	118,70
31,00	301	180	3	00 202031001 00	1	115,80
31,50	301	180	3	00 202031501 00	1	131,50
32,00	334	185	4	00 202032001 00	1	121,70

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SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

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				dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 202 Art.-Nr.		€
32,50	334	185	4	00 202032501 00	1	140,30
33,00	334	185	4	00 202033001 00	1	131,50
33,50	334	185	4	00 202033501 00	1	145,20
34,00	339	190	4	00 202034001 00	1	150,10
34,50	339	190	4	00 202034501 00	1	165,80
35,00	339	190	4	00 202035001 00	1	153,00
35,50	339	190	4	00 202035501 00	1	176,60
36,00	344	195	4	00 202036001 00	1	163,80
36,50	344	195	4	00 202036501 00	1	184,40
37,00	344	195	4	00 202037001 00	1	179,50
37,50	344	195	4	00 202037501 00	1	203,00
38,00	349	200	4	00 202038001 00	1	190,30
38,50	349	200	4	00 202038501 00	1	203,00
39,00	349	200	4	00 202039001 00	1	205,90
39,50	349	200	4	00 202039501 00	1	259,90
40,00	349	200	4	00 202040001 00	1	216,80
40,50	354	205	4	00 202040501 00	1	269,70
41,00	354	205	4	00 202041001 00	1	232,40
41,50	354	205	4	00 202041501 00	1	279,50
42,00	354	205	4	00 202042001 00	1	250,10
42,50	354	205	4	00 202042501 00	1	289,30
43,00	359	210	4	00 202043001 00	1	269,70
43,50	359	210	4	00 202043501 00	1	304,00
44,00	359	210	4	00 202044001 00	1	279,50
44,50	359	210	4	00 202044501 00	1	318,70
45,00	359	210	4	00 202045001 00	1	294,20
45,50	364	215	4	00 202045501 00	1	338,30
46,00	364	215	4	00 202046001 00	1	304,00
46,50	364	215	4	00 202046501 00	1	372,60
47,00	364	215	4	00 202047001 00	1	323,60
47,50	364	215	4	00 202047501 00	1	387,40
48,00	369	220	4	00 202048001 00	1	333,40
48,50	369	220	4	00 202048501 00	1	392,20
49,00	369	220	4	00 202049001 00	1	348,10
49,50	369	220	4	00 202049501 00	1	411,80
50,00	369	220	4	00 202050001 00	1	357,90
51,00	412	225	5	00 202051001 00	1	431,40
52,00	412	225	5	00 202052001 00	1	465,70
53,00	412	225	5	00 202053001 00	1	485,40
54,00	417	230	5	00 202054001 00	1	500,20
55,00	417	230	5	00 202055001 00	1	509,90
56,00	417	230	5	00 202056001 00	1	529,50
57,00	422	235	5	00 202057001 00	1	549,10
58,00	422	235	5	00 202058001 00	1	588,40
59,00	422	235	5	00 202059001 00	1	617,70
60,00	422	235	5	00 202060001 00	1	637,90
61,00	427	240	5	00 202061001 00	1	687,20
62,00	427	240	5	00 202062001 00	1	736,50
63,00	427	240	5	00 202063001 00	1	813,70
64,00	432	245	5	00 202064001 00	1	794,80
65,00	432	245	5	00 202065001 00	1	804,90
66,00	432	245	5	00 202066001 00	1	834,00
67,00	432	245	5	00 202067001 00	1	873,20
68,00	437	250	5	00 202068001 00	1	912,50

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SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm		Code 202 Art.-Nr.		€
69,00	437	250	5	00 202069001 00	1	951,70
70,00	437	250	5	00 202070001 00	1	1.010,00
71,00	437	250	5	00 202071001 00	1	1.031,00
72,00	442	255	5	00 202072001 00	1	1.060,00
73,00	442	255	5	00 202073001 00	1	1.109,00
74,00	442	255	5	00 202074001 00	1	1.188,00
75,00	442	255	5	00 202075001 00	1	1.266,00
76,00	447	260	5	00 202076001 00	1	1.344,00



>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 346 RN

Einsatzbereich:

Hochleistungsbohrer für erhöhte Schnittdrücke beim Bearbeiten von legierten und unlegierten Stählen und Stahlguss, Grauguss, Temperguss, Kupferlegierung, Neusilber, Graphit.

SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 346 RN

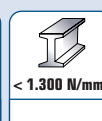
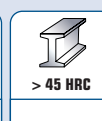
Range of application:

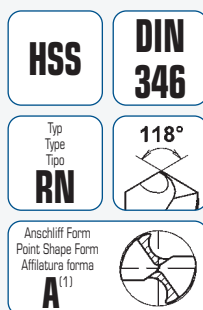
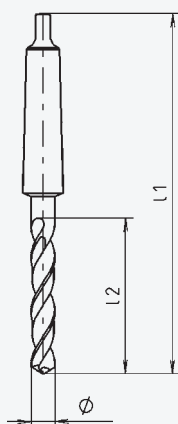
High efficiency drills for increased cutting pressures, for drilling steel and steel castings, grey iron, malleable cast iron, copper alloys, nickel silver, graphite etc.

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 346 RN

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen | steam tempered
vaporizzata



Ø _{h8} mm	L1 mm	L2 mm		Code 242 Art.-Nr.		€
11,00	192	94	2	00 242011001 00	1	35,75
11,50	192	94	2	00 242011501 00	1	34,67
12,00	199	101	2	00 242012001 00	1	35,75
12,50	199	101	2	00 242012501 00	1	34,67
13,00	199	101	2	00 242013001 00	1	35,75
13,50	206	108	2	00 242013501 00	1	42,58
14,00	206	108	2	00 242014001 00	1	36,83
18,00	251	130	3	00 242018001 00	1	59,92
18,50	256	135	3	00 242018501 00	1	59,41
19,00	256	135	3	00 242019001 00	1	58,84
19,50	261	140	3	00 242019501 00	1	72,51
20,00	261	140	3	00 242020001 00	1	67,77
20,50	266	145	3	00 242020501 00	1	79,86
21,00	266	145	3	00 242021001 00	1	76,68
21,50	271	150	3	00 242021501 00	1	83,59
22,00	271	150	3	00 242022001 00	1	82,50
22,50	276	155	3	00 242022501 00	1	97,25
26,00	314	165	4	00 242026001 00	1	113,50
27,00	319	170	4	00 242027001 00	1	135,60
27,50	319	170	4	00 242027501 00	1	148,20
28,00	319	170	4	00 242028001 00	1	140,90
28,50	324	175	4	00 242028501 00	1	187,10
29,00	324	175	4	00 242029001 00	1	161,90
29,50	324	175	4	00 242029501 00	1	179,80
30,00	324	175	4	00 242030001 00	1	153,40
31,00	329	180	4	00 242031001 00	1	174,40
31,50	329	180	4	00 242031501 00	1	191,30

⁽¹⁾ Anschliff Form A > Ø 16,0 mm
Anschliff Form AC ≤ Ø 16,0 mm
Point shape form A > Ø 16,0 mm
Point shape form AC ≤ Ø 16,0 mm
Affilatura forma A > Ø 16,0 mm
Affilatura forma AC ≤ Ø 16,0 mm

>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 345 RN

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PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

Einsatzbereich:

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

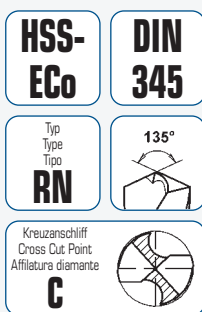
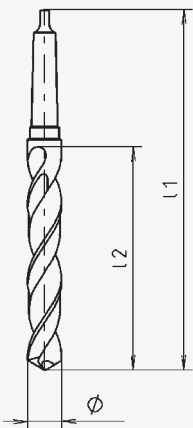
Range of application:

5% cobalt-alloyed drills with high heat resistance for drilling steels with tensile strength over 800 N/mm².

Impiego:

Punte al 5% Co ad elevata resistenza al calore, adatte per foratura di materiali altamente legati con R > 800 N/mm².

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm		Code 203 Art.-Nr.		€
8,00	156	75	1	00 203008001 00	1	40,56
8,50	156	75	1	00 203008501 00	1	42,00
9,00	162	81	1	00 203009001 00	1	42,00
9,50	162	81	1	00 203009501 00	1	44,16
10,00	168	87	1	00 203010001 00	1	43,67
10,20	168	87	1	00 203010201 00	1	47,33
10,50	168	87	1	00 203010501 00	1	45,75
10,80	175	94	1	00 203010801 00	1	58,40
11,00	175	94	1	00 203011001 00	1	47,90
11,20	175	94	1	00 203011201 00	1	58,40
11,50	175	94	1	00 203011501 00	1	54,17
11,80	175	94	1	00 203011801 00	1	62,01
12,00	182	101	1	00 203012001 00	1	50,44
12,20	182	101	1	00 203012201 00	1	63,08
12,50	182	101	1	00 203012501 00	1	52,52
12,80	182	101	1	00 203012801 00	1	65,75
13,00	182	101	1	00 203013001 00	1	55,23
13,20	182	101	1	00 203013201 00	1	73,52
13,50	189	108	1	00 203013501 00	1	67,77
13,80	189	108	1	00 203013801 00	1	104,60
14,00	189	108	1	00 203014001 00	1	59,92
14,25	212	114	2	00 203014251 00	1	83,59
14,50	212	114	2	00 203014501 00	1	67,26
14,75	212	114	2	00 203014751 00	1	81,93
15,00	212	114	2	00 203015001 00	1	70,42

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PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

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				dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 203 Art.-Nr.		€
15,25	218	120	2	00 203015251 00	1	81,93
15,50	218	120	2	00 203015501 00	1	70,42
15,75	218	120	2	00 203015751 00	1	71,43
16,00	218	120	2	00 203016001 00	1	73,52
16,25	223	125	2	00 203016251 00	1	83,59
16,50	223	125	2	00 203016501 00	1	76,24
16,75	223	125	2	00 203016751 00	1	75,68
17,00	223	125	2	00 203017001 00	1	76,68
17,25	228	130	2	00 203017251 00	1	80,93
17,50	228	130	2	00 203017501 00	1	73,52
17,75	228	130	2	00 203017751 00	1	78,83
18,00	228	130	2	00 203018001 00	1	79,41
18,25	233	135	2	00 203018251 00	1	84,03
18,50	233	135	2	00 203018501 00	1	85,10
18,75	233	135	2	00 203018751 00	1	86,75
19,00	233	135	2	00 203019001 00	1	84,60
19,25	238	140	2	00 203019251 00	1	97,69
19,50	238	140	2	00 203019501 00	1	101,90
19,75	238	140	2	00 203019751 00	1	107,20
20,00	238	140	2	00 203020001 00	1	90,35
20,25	243	145	2	00 203020251 00	1	125,10
20,50	243	145	2	00 203020501 00	1	98,77
20,75	243	145	2	00 203020751 00	1	132,40
21,00	243	145	2	00 203021001 00	1	107,20
21,25	248	150	2	00 203021251 00	1	163,90
21,50	248	150	2	00 203021501 00	1	140,90
21,75	248	150	2	00 203021751 00	1	175,60
22,00	248	150	2	00 203022001 00	1	124,00
22,25	248	150	2	00 203022251 00	1	175,60
22,50	253	155	2	00 203022501 00	1	152,40
22,75	253	155	2	00 203022751 00	1	180,80
23,00	253	155	2	00 203023001 00	1	140,90
23,50	276	155	3	00 203023501 00	1	150,30
24,00	281	160	3	00 203024001 00	1	158,70
24,50	281	160	3	00 203024501 00	1	167,10
25,00	281	160	3	00 203025001 00	1	158,70
25,50	286	165	3	00 203025501 00	1	203,90
26,00	286	165	3	00 203026001 00	1	185,90
26,50	286	165	3	00 203026501 00	1	217,60
27,00	291	170	3	00 203027001 00	1	205,90
27,50	291	170	3	00 203027501 00	1	225,90
28,00	291	170	3	00 203028001 00	1	232,30
28,50	296	175	3	00 203028501 00	1	259,60
29,00	296	175	3	00 203029001 00	1	237,40
29,50	296	175	3	00 203029501 00	1	240,60
30,00	296	175	3	00 203030001 00	1	220,60
30,50	301	180	3	00 203030501 00	1	320,50
31,00	301	180	3	00 203031001 00	1	259,60
31,50	301	180	3	00 203031501 00	1	310,00
32,00	334	185	4	00 203032001 00	1	273,30
32,50	334	185	4	00 203032501 00	1	441,30
33,00	334	185	4	00 203033001 00	1	278,40
33,50	334	185	4	00 203033501 00	1	451,70
34,00	339	190	4	00 203034001 00	1	294,20

Fortsetzung auf Seite V/63 | Continued on page V/63 | Segue a pagina V/63



>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 345 RN

SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 RN

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 RN

Fortsetzung von Seite V/62 | Continued from page V/62 |
Segue da pagina V/62

dampfangelassen | steam tempered
vaporizzata

$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 203 Art.-Nr.		€
34,50	339	190	4	00 203034501 00	1	598,90
35,00	339	190	4	00 203035001 00	1	310,00
35,50	339	190	4	00 203035501 00	1	331,00
36,00	344	195	4	00 203036001 00	1	346,80
36,50	344	195	4	00 203036501 00	1	357,20
37,00	344	195	4	00 203037001 00	1	373,00
37,50	344	195	4	00 203037501 00	1	425,50
38,00	349	200	4	00 203038001 00	1	404,50
38,50	349	200	4	00 203038501 00	1	478,00
39,00	349	200	4	00 203039001 00	1	441,30
39,50	349	200	4	00 203039501 00	1	809,90
40,00	349	200	4	00 203040001 00	1	488,50



V/63

>> HPT SPIRALBOHRER, KURZ, MIT MORSEKEGEL, DIN 345 R-AS

Einsatzbereich:

5% kobaltlegierter Hochleistungs-Sonderbohrer in geschliffener Ausführung, in stabiler, kräftiger Bauweise für zähe, schwer zerspanbare Werkstoffe bei hoher thermischer Beanspruchung. Besonders geeignet für rost- und säurebeständige austenitische Stähle, hitzebeständige Stähle, Titan und Titanlegierungen, Sonderlegierungen, Walzlagereisenstoffe ab ca. 900 N/mm².

HPT SHORT SERIES MORSE TAPER SHANK DRILLS, DIN 345 R-AS

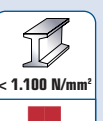
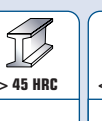
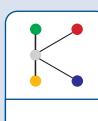
Range of application:

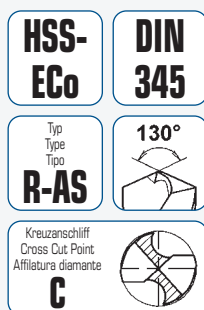
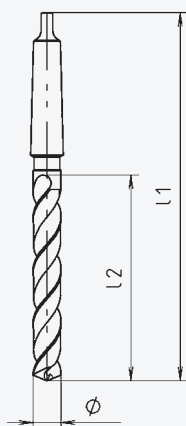
5% cobalt-alloyed high efficiency drills in a solid and sturdy construction for tough and difficult to machine materials by high temperatures. Specially suitable for corrosion and acid resistant, austenitic steels, heat resistant steels, titan and titan-alloyed steels, special alloys, roller bearing steels beginning 900 N/mm² and higher.

HPT PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE, DIN 345 R-AS

Impiego:

Punte al 5% Co esecuzione speciale, stabili, adatte per forature di materiali plastici, di difficile lavorabilità ad elevate temperature. Particolarmente consigliate per acciai inox, acciai austenitici, resistenti al calore, Titanio, leghe di Titanio, leghe speciali, acciai da cuscinetti, con R > 900 N/mm².

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
--	--	--	--	---	--	--	---------------------------------------	-----------	---------------	-----------	---



ALUNIT®



Ø _{h8} mm	L1 mm	L2 mm		Code 200 Art.-Nr.		€
10,00	168	87	1	00 200010001 00	1	55,23
10,50	168	87	1	00 200010501 00	1	57,33
11,00	175	94	1	00 200011001 00	1	59,41
11,50	175	94	1	00 200011501 00	1	65,68
12,00	182	101	1	00 200012001 00	1	61,95
12,50	182	101	1	00 200012501 00	1	64,03
13,00	182	101	1	00 200013001 00	1	66,75
13,50	189	108	1	00 200013501 00	1	79,35
14,00	189	108	1	00 200014001 00	1	71,49
14,50	212	114	2	00 200014501 00	1	86,44
15,00	212	114	2	00 200015001 00	1	89,66
15,50	218	120	2	00 200015501 00	1	89,66
16,00	218	120	2	00 200016001 00	1	92,82
16,50	233	125	2	00 200016501 00	1	95,48
17,00	233	125	2	00 200017001 00	1	95,99
17,50	228	130	2	00 200017501 00	1	92,82
18,00	228	130	2	00 200018001 00	1	98,57
18,50	233	135	2	00 200018501 00	1	104,40
19,00	233	135	2	00 200019001 00	1	103,90
19,50	238	140	2	00 200019501 00	1	121,20
20,00	238	140	2	00 200020001 00	1	109,70
20,50	243	145	2	00 200020501 00	1	118,10
21,00	243	145	2	00 200021001 00	1	126,50
21,50	248	150	2	00 200021501 00	1	160,10
22,00	248	150	2	00 200022001 00	1	143,30

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>> **HPT SPIRALBOHRER,
KURZ, MIT MORSEKEGEL,
DIN 345 R-AS**

**HPT SHORT SERIES
MORSE TAPER SHANK
DRILLS, DIN 345 R-AS**

**HPT PUNTE ELICOIDALI,
SERIE CORTA, CONO MORSE,
DIN 345 R-AS**

Fortsetzung von Seite V/64 | Continued from page V/64 |
Segue da pagina V/64

				ALUNIT®		
Ø _{h8} mm	l1 mm	l2 mm		Code 200 Art.-Nr.		€
22,50	253	155	2	00 200022501 00	1	171,60
23,00	253	155	2	00 200023001 00	1	160,10
23,50	276	155	2	00 200023501 00	1	179,10
24,00	281	160	3	00 200024001 00	1	187,30
24,50	281	160	3	00 200024501 00	1	187,40
25,00	281	160	3	00 200025001 00	1	187,40
26,00	286	165	3	00 200026001 00	1	214,90
27,00	291	170	3	00 200027001 00	1	234,80
28,00	291	170	3	00 200028001 00	1	261,10
29,00	296	175	3	00 200029001 00	1	266,30
30,00	296	175	3	00 200030001 00	1	249,50



>> SPIRALBOHRER, LANG, MIT MORSEKEGEL, DIN 341 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von legierten und unlegierten Stählen und Stahlguss, Grauguss, Temperguss, Kupferlegierungen, Neusilber, Graphit, Sintereisen.

LONG SERIES MORSE TAPER SHANK DRILLS, DIN 341 RN

Range of application:

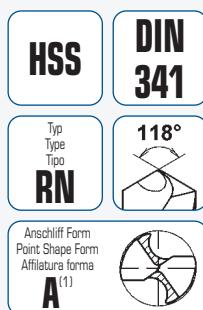
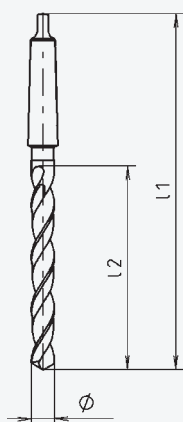
High efficiency drills for drilling steel and steel castings, alloy and plain carbon, grey iron castings, copper-alloys, nickel-silver, graphite and similar materials.

PUNTE ELICOIDALI CONO MORSE, SERIE LUNGA, DIN 341 RN

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen | steam tempered
vaporizzata



Ø _{h8} mm	L1 mm	L2 mm		Code 222 Art.-Nr.		€
8,00	181	100	1	00 222008001 00	1	25,94
8,25	181	100	1	00 222008251 00	1	39,41
8,50	181	100	1	00 222008501 00	1	25,94
8,75	188	107	1	00 222008751 00	1	40,56
9,00	188	107	1	00 222009001 00	1	28,35
9,25	188	107	1	00 222009251 00	1	44,73
9,50	188	107	1	00 222009501 00	1	31,08
9,75	197	116	1	00 222009751 00	1	46,76
10,00	197	116	1	00 222010001 00	1	30,49
10,25	197	116	1	00 222010251 00	1	35,75
10,50	197	116	1	00 222010501 00	1	30,49
10,75	206	125	1	00 222010751 00	1	39,93
11,00	206	125	1	00 222011001 00	1	31,51
11,25	206	125	1	00 222011251 00	1	39,41
11,50	206	125	1	00 222011501 00	1	31,51
11,75	206	125	1	00 222011751 00	1	35,75
12,00	215	134	1	00 222012001 00	1	31,51
12,25	215	134	1	00 222012251 00	1	36,26
12,50	215	134	1	00 222012501 00	1	32,08
12,75	215	134	1	00 222012751 00	1	39,93
13,00	215	134	1	00 222013001 00	1	32,08
13,25	223	142	1	00 222013251 00	1	49,40
13,50	223	142	1	00 222013501 00	1	35,75
13,75	223	142	1	00 222013751 00	1	50,44
14,00	223	142	1	00 222014001 00	1	36,26

⁽¹⁾ Anschliff Form A > Ø 16,0 mm,
Anschliff Form AC ≤ Ø 16,0 mm
Point shape form A > Ø 16,0 mm,
Point shape form AC ≤ Ø 16,0 mm
Affilatura forma A > Ø 16,0 mm,
Affilatura forma AC ≤ Ø 16,0 mm

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>> SPIRALBOHRER, LANG, MIT MORSEKEGEL, DIN 341 RN

LONG SERIES MORSE TAPER SHANK DRILLS, DIN 341 RN

PUNTE ELICOIDALI CONO MORSE, SERIE LUNGA, DIN 341 RN

Fortsetzung von Seite V/66 | Continued from page V/66 |
Segue da pagina V/66

dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm		Code 222 Art.-Nr.		€
14,25	245	147	2	00 222014251 00	1	49,40
14,50	245	147	2	00 222014501 00	1	45,75
14,75	245	147	2	00 222014751 00	1	49,40
15,00	245	147	2	00 222015001 00	1	45,75
15,25	251	153	2	00 222015251 00	1	49,40
15,50	251	153	2	00 222015501 00	1	44,16
15,75	251	153	2	00 222015751 00	1	49,93
16,00	251	153	2	00 222016001 00	1	47,33
16,25	257	159	2	00 222016251 00	1	56,23
16,50	257	159	2	00 222016501 00	1	49,93
16,75	257	159	2	00 222016751 00	1	53,59
17,00	257	159	2	00 222017001 00	1	49,40
17,25	263	165	2	00 222017251 00	1	61,57
17,50	263	165	2	00 222017501 00	1	56,75
17,75	263	165	2	00 222017751 00	1	60,92
18,00	263	165	2	00 222018001 00	1	56,23
18,25	269	171	2	00 222018251 00	1	72,51
18,50	269	171	2	00 222018501 00	1	63,08
18,75	269	171	2	00 222018751 00	1	69,36
19,00	269	171	2	00 222019001 00	1	62,01
19,25	275	177	2	00 222019251 00	1	76,24
19,50	275	177	2	00 222019501 00	1	71,43
19,75	275	177	2	00 222019751 00	1	85,10
20,00	275	177	2	00 222020001 00	1	67,77
20,25	282	184	2	00 222020251 00	1	94,09
20,50	282	184	2	00 222020501 00	1	85,10
20,75	282	184	2	00 222020751 00	1	94,54
21,00	282	184	2	00 222021001 00	1	77,77
21,25	289	191	2	00 222021251 00	1	107,20
21,50	289	191	2	00 222021501 00	1	91,37
21,75	289	191	2	00 222021751 00	1	107,20
22,00	289	191	2	00 222022001 00	1	85,10
22,25	289	191	2	00 222022251 00	1	109,30
22,50	296	198	2	00 222022501 00	1	93,51
22,75	296	198	2	00 222022751 00	1	116,70
23,00	296	198	2	00 222023001 00	1	88,28
23,50	319	198	3	00 222023501 00	1	107,20
24,00	327	206	3	00 222024001 00	1	108,20
24,50	327	206	3	00 222024501 00	1	115,60
25,00	327	206	3	00 222025001 00	1	109,30
25,50	335	214	3	00 222025501 00	1	130,40
26,00	335	214	3	00 222026001 00	1	125,10
26,50	335	214	3	00 222026501 00	1	133,50
27,00	343	222	3	00 222027001 00	1	134,60
27,50	343	222	3	00 222027501 00	1	162,90
28,00	343	222	3	00 222028001 00	1	149,20
28,50	351	230	3	00 222028501 00	1	189,20
29,00	351	230	3	00 222029001 00	1	169,20
29,50	351	230	3	00 222029501 00	1	189,20
30,00	351	230	3	00 222030001 00	1	168,10
31,00	360	239	3	00 222031001 00	1	203,90
32,00	397	248	4	00 222032001 00	1	218,60
33,00	397	248	4	00 222033001 00	1	218,60
34,00	406	257	4	00 222034001 00	1	267,90

Fortsetzung auf Seite V/68 | Continued on page V/68 | Segue a pagina V/68



>> SPIRALBOHRER, LANG, MIT MORSEKEGEL, DIN 341 RN

LONG SERIES MORSE TAPER SHANK DRILLS, DIN 341 RN

PUNTE ELICOIDALI CONO MORSE, SERIE LUNGA, DIN 341 RN

Fortsetzung von Seite V/67 | Continued from page V/67 |
Segue da pagina V/67

				dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 222 Art.-Nr.		€
35,00	406	257	4	00 222035001 00	1	259,60
36,00	416	267	4	00 222036001 00	1	299,50
37,00	416	267	4	00 222037001 00	1	341,50
38,00	426	277	4	00 222038001 00	1	325,80
39,00	426	277	4	00 222039001 00	1	346,80
40,00	426	277	4	00 222040001 00	1	367,70
41,00	436	287	4	00 222041001 00	1	415,00
42,00	436	287	4	00 222042001 00	1	415,00
43,00	447	298	4	00 222043001 00	1	446,50
44,00	447	298	4	00 222044001 00	1	446,50
45,00	447	298	4	00 222045001 00	1	457,00
46,00	459	310	4	00 222046001 00	1	488,50
47,00	459	310	4	00 222047001 00	1	546,40
48,00	470	321	4	00 222048001 00	1	577,90
49,00	470	321	4	00 222049001 00	1	609,40
50,00	470	321	4	00 222050001 00	1	609,40



>> SPIRALBOHRER, ÜBERLANG, MIT MORSEKEGEL, DIN 1870 R1 RN

EXTRA LONG SERIES MORSE TAPER SHANK DRILLS, DIN 1870 R1 RN

PUNTE ELICOIDALI CONO MORSE, SERIE EXTRA LUNGA, DIN 1870 L1 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub und Kühlung sowie häufige Span-entleerung zu beachten sind.

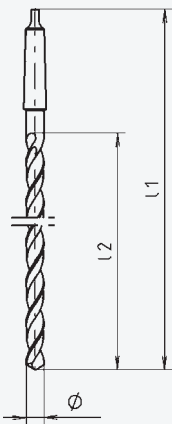
Range of application:

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

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS

DIN 1870

Reihe
Row
Lunghezza
1

Typ
Type
Tipo
RN

118°

Anschliff Form
Point Shape Form
Affilatura forma
A⁽¹⁾



dampfangelassen | steam tempered
vaporizzata



Ø _{h8} mm	I1 mm	I2 mm		Code 262 Art.-Nr.		€
8,00	265	165	1	00 262008001 00	1	53,09
8,50	265	165	1	00 262008501 00	1	53,09
9,00	275	175	1	00 262009001 00	1	53,09
9,50	275	175	1	00 262009501 00	1	56,75
10,00	285	185	1	00 262010001 00	1	55,70
10,50	285	185	1	00 262010501 00	1	64,09
11,00	300	195	1	00 262011001 00	1	64,09
11,50	300	195	1	00 262011501 00	1	69,91
12,00	310	205	1	00 262012001 00	1	68,90
12,50	310	205	1	00 262012501 00	1	68,90
13,00	310	205	1	00 262013001 00	1	68,90
13,50	325	220	1	00 262013501 00	1	73,52
14,00	325	220	1	00 262014001 00	1	71,43
14,50	340	220	2	00 262014501 00	1	83,02
15,00	340	220	2	00 262015001 00	1	86,17
15,50	355	230	2	00 262015501 00	1	91,37
16,00	355	230	2	00 262016001 00	1	89,91
16,50	355	230	2	00 262016501 00	1	89,91
17,00	355	230	2	00 262017001 00	1	100,90
17,50	370	245	2	00 262017501 00	1	109,30
18,00	370	245	2	00 262018001 00	1	106,20
18,50	370	245	2	00 262018501 00	1	108,20
19,00	370	245	2	00 262019001 00	1	112,40
19,50	385	260	2	00 262019501 00	1	119,80
20,00	385	260	2	00 262020001 00	1	126,10

Fortsetzung auf Seite V/70 | Continued on page V/70 | Segue a pagina V/70

⁽¹⁾ Anschliff Form A > Ø 16,0 mm,
Anschliff Form AC ≤ Ø 16,0 mm
Point shape form A > Ø 16,0 mm,
Point shape form AC ≤ Ø 16,0 mm
Affilatura forma A > Ø 16,0 mm,
Affilatura forma AC ≤ Ø 16,0 mm

>> SPIRALBOHRER, ÜBERLANG, MIT MORSEKEGEL, DIN 1870 R1 RN

EXTRA LONG SERIES MORSE TAPER SHANK DRILLS, DIN 1870 R1 RN

PUNTE ELICOIDALI CONO MORSE, SERIE EXTRA LUNGA, DIN 1870 L1 RN

Fortsetzung von Seite V/69 | Continued from page V/69 |
Segue da pagina V/69

				dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 262 Art.-Nr.		€
20,50	385	260	2	00 262020501 00	1	159,70
21,00	385	260	2	00 262021001 00	1	155,60
21,50	405	270	2	00 262021501 00	1	176,60
22,00	405	270	2	00 262022001 00	1	161,90
22,50	405	270	2	00 262022501 00	1	191,30
23,00	405	270	2	00 262023001 00	1	179,80
23,50	425	270	3	00 262023501 00	1	218,60
24,00	440	290	3	00 262024001 00	1	199,60
24,50	440	290	3	00 262024501 00	1	234,30
25,00	440	290	3	00 262025001 00	1	211,30
25,50	440	290	3	00 262025501 00	1	255,30
26,00	440	290	3	00 262026001 00	1	231,10
26,50	440	290	3	00 262026501 00	1	273,30
27,00	460	305	3	00 262027001 00	1	256,40
27,50	460	305	3	00 262027501 00	1	278,40
28,00	460	305	3	00 262028001 00	1	256,40
28,50	460	305	3	00 262028501 00	1	294,20
29,00	460	305	3	00 262029001 00	1	294,20
29,50	460	305	3	00 262029501 00	1	315,30
30,00	460	305	3	00 262030001 00	1	315,30
31,00	480	320	3	00 262031001 00	1	331,00
32,00	505	320	4	00 262032001 00	1	357,20
33,00	505	320	4	00 262033001 00	1	367,70
34,00	530	340	4	00 262034001 00	1	404,50
35,00	530	340	4	00 262035001 00	1	399,30
36,00	530	340	4	00 262036001 00	1	425,50
37,00	530	340	4	00 262037001 00	1	446,50
38,00	555	360	4	00 262038001 00	1	478,00
39,00	555	360	4	00 262039001 00	1	488,50
40,00	555	360	4	00 262040001 00	1	509,50



>> SPIRALBOHRER, ÜBERLANG, MIT MORSEKEGEL, DIN 1870 R2 RN

EXTRA LONG SERIES MORSE TAPER SHANK DRILLS, DIN 1870 R2 RN

PUNTE ELICOIDALI CONO MORSE, SERIE EXTRA LUNGA, DIN 1870 L2 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub und Kühlung sowie häufige Span-entleerung zu beachten sind.

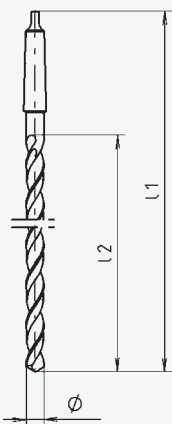
Range of application:

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

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.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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HSS

DIN 1870

Reihe
Row
Lunghezza
2

Typ
Type
Tipo
RN

118°

Anschliff Form
Point Shape Form
Affilatura forma
A⁽¹⁾



dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	L1 mm	L2 mm		Code 282 Art.-Nr.		€
8,00	330	210	1	00 262008001 00	1	53,09
8,50	330	210	1	00 262008501 00	1	53,09
9,00	345	220	1	00 262009001 00	1	53,09
9,50	345	220	1	00 262009501 00	1	56,75
10,00	360	235	1	00 262010001 00	1	55,70
10,50	360	235	1	00 262010501 00	1	64,09
11,00	375	250	1	00 262011001 00	1	64,09
11,50	375	250	1	00 262011501 00	1	69,91
12,00	395	260	1	00 262012001 00	1	68,90
12,50	395	260	1	00 262012501 00	1	68,90
13,00	395	260	1	00 262013001 00	1	68,90
13,50	410	275	1	00 262013501 00	1	73,52
14,00	410	275	1	00 262014001 00	1	71,43
14,50	425	275	2	00 262014501 00	1	83,02
15,00	425	275	2	00 262015001 00	1	86,17
15,50	445	295	2	00 262015501 00	1	91,37
16,00	445	295	2	00 262016001 00	1	89,91
16,50	445	295	2	00 262016501 00	1	89,91
17,00	445	295	2	00 262017001 00	1	100,90
17,50	465	310	2	00 262017501 00	1	109,30
18,00	465	310	2	00 262018001 00	1	106,20
18,50	465	310	2	00 262018501 00	1	108,20
19,00	465	310	2	00 262019001 00	1	112,40
19,50	490	325	2	00 262019501 00	1	119,80
20,00	490	325	2	00 262020001 00	1	126,10

Fortsetzung auf Seite V/72 | Continued on page V/72 | Segue a pagina V/72

⁽¹⁾ Anschliff Form A > Ø 16,0 mm,
Anschliff Form AC ≤ Ø 16,0 mm
Point shape form A > Ø 16,0 mm,
Point shape form AC ≤ Ø 16,0 mm
Affilatura forma A > Ø 16,0 mm,
Affilatura forma AC ≤ Ø 16,0 mm

>> SPIRALBOHRER, ÜBERLANG, MIT MORSEKEGEL, DIN 1870 R2 RN

EXTRA LONG SERIES MORSE TAPER SHANK DRILLS, DIN 1870 R2 RN

PUNTE ELICOIDALI CONO MORSE, SERIE EXTRA LUNGA, DIN 1870 L2 RN

Fortsetzung von Seite V/71 | Continued from page V/71 |
Segue da pagina V/71

				dampfangelassen steam tempered vaporizzata		
Ø _{h8} mm	l1 mm	l2 mm		Code 282 Art.-Nr.		€
20,50	490	325	2	00 262020501 00	1	159,70
21,00	490	325	2	00 262021001 00	1	155,60
21,50	515	345	2	00 262021501 00	1	176,60
22,00	515	345	2	00 262022001 00	1	161,90
22,50	515	345	2	00 262022501 00	1	191,30
23,00	515	345	2	00 262023001 00	1	179,80
23,50	535	345	3	00 262023501 00	1	218,60
24,00	535	365	3	00 262024001 00	1	199,60
24,50	555	365	3	00 262024501 00	1	234,30
25,00	555	365	3	00 262025001 00	1	211,30
25,50	555	365	3	00 262025501 00	1	255,30
26,00	555	365	3	00 262026001 00	1	231,10
26,50	555	365	3	00 262026501 00	1	273,30
27,00	580	385	3	00 262027001 00	1	256,40
27,50	580	385	3	00 262027501 00	1	278,40
28,00	580	385	3	00 262028001 00	1	256,40
28,50	580	385	3	00 262028501 00	1	294,20
29,00	580	385	3	00 262029001 00	1	294,20
29,50	580	385	3	00 262029501 00	1	315,30
30,00	580	385	3	00 262030001 00	1	315,30
31,00	610	410	3	00 262031001 00	1	331,00
32,00	635	410	4	00 262032001 00	1	357,20
33,00	635	410	4	00 262033001 00	1	367,70
34,00	665	430	4	00 262034001 00	1	404,50
35,00	665	430	4	00 262035001 00	1	399,30
36,00	665	430	4	00 262036001 00	1	425,50
37,00	665	430	4	00 262037001 00	1	446,50
38,00	695	460	4	00 262038001 00	1	478,00
39,00	695	460	4	00 262039001 00	1	488,50
40,00	695	460	4	00 262040001 00	1	509,50



>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL

SHORT SERIES MORSE TAPER SHANK DRILLS

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE

Einsatzbereich:

8% kobaltlegierter Spiralbohrer mit verstärktem Kerndurchmesser. Besonders geeignet für zähe und harte Werkstoffe, wie Manganstahl, hochfeste Feinkornstähle (Hardox 400/500) sowie Baustähle über 1100 N/mm².

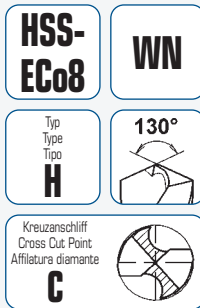
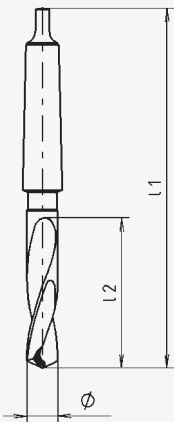
Range of application:

8% cobalt-alloyed drills with re-inforced web. Specially suitable for drilling extremely hard materials such as manganese steel, high-tensile fine grained machinery steel (Hardox 400/500) and alloyed steel over 1100 N/mm².

Impiego:

Punte 8% Co con nucleo rinforzato adatte per lavorazioni di materiali plastici, duri, quali acciai al manganese, acciai a grana fine (Hardox 400/ 500) ed acciai da costruzione con R > 1100 N/mm².

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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dampfangelassen | steam tempered
vaporizzata

Ø _{h8} mm	l1 mm	l2 mm		Code 832 Art.-Nr.		€
8,00	124	43	1	00 832008001 00	1	51,07
8,50	124	43	1	00 832008501 00	1	53,59
9,00	127	46	1	00 832009001 00	1	50,44
9,50	127	46	1	00 832009501 00	1	50,44
10,00	131	50	1	00 832010001 00	1	51,07
10,50	131	50	1	00 832010501 00	1	55,23
11,00	136	55	1	00 832011001 00	1	55,23
11,50	157	59	2	00 832011501 00	1	59,41
12,00	157	59	2	00 832012001 00	1	51,50
12,50	157	59	2	00 832012501 00	1	55,23
13,00	157	59	2	00 832013001 00	1	53,59
13,50	161	63	2	00 832013501 00	1	68,90
14,00	161	63	2	00 832014001 00	1	68,35
14,50	164	66	2	00 832014501 00	1	73,09
15,00	164	66	2	00 832015001 00	1	71,43
16,00	168	70	2	00 832016001 00	1	68,90
17,00	171	73	2	00 832017001 00	1	72,51
18,00	175	77	2	00 832018001 00	1	76,68
19,00	201	80	3	00 832019001 00	1	83,59
20,00	204	83	3	00 832020001 00	1	97,69
21,00	208	87	3	00 832021001 00	1	109,30
22,00	211	90	3	00 832022001 00	1	114,60
23,00	215	94	3	00 832023001 00	1	123,00
24,00	219	98	3	00 832024001 00	1	125,10
25,00	219	98	3	00 832025001 00	1	130,40

Fortsetzung auf Seite V/74 | Continued on page V/74 | Segue a pagina V/74



>> SPIRALBOHRER, KURZ, MIT MORSEKEGEL

SHORT SERIES MORSE TAPER SHANK DRILLS

PUNTE ELICOIDALI, SERIE CORTA, CONO MORSE

Fortsetzung von Seite V/73 | Continued from page V/73 |
Segue da pagina V/73

				dampfangelassen steam tempered vaporizzata		
$\varnothing_{h8}$ mm	l1 mm	l2 mm		Code 832 Art.-Nr.		€
26,00	224	103	3	00 832026001 00	1	177,60
27,00	256	107	4	00 832027001 00	1	190,30
28,00	256	107	4	00 832028001 00	1	194,40
29,00	261	112	4	00 832029001 00	1	201,80
30,00	261	112	4	00 832030001 00	1	212,30
31,00	266	117	4	00 832031001 00	1	254,30
32,00	271	122	4	00 832032001 00	1	273,30
33,00	271	122	4	00 832033001 00	1	315,30
34,00	277	128	4	00 832034001 00	1	352,00
35,00	277	128	4	00 832035001 00	1	336,20
36,00	282	132	4	00 832036001 00	1	441,30
37,00	282	132	4	00 832037001 00	1	504,30
38,00	288	139	4	00 832038001 00	1	567,40
39,00	288	139	4	00 832039001 00	1	673,30
40,00	288	139	4	00 832040001 00	1	756,80



>> MEHRFASEN-STUFENBOHRER, DIN 8374 RN-MITTEL, 90°

SUBLAND DRILLS, DIN 8374 RN-MEDIAL, 90°

PUNTE A GRADINO PER SEDI VITI, DIN 8374 RN MEDIA, 90°

Einsatzbereich:

Mehrfasen-Stufenbohrer mit Zylinderschaft zur Herstellung von Durchgangslöchern – Ausführung mittel – nach ISO 273, wobei gleichzeitig Schraubenkopfsenkungen (90°) der Form A und B – Ausführung mittel – nach DIN 74 Teil 1 erzeugt werden. Die Schnittgeschwindigkeit richtet sich nach dem großen Durchmesser, der Vorschub nach dem kleinen.

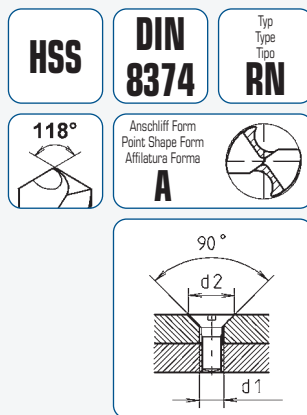
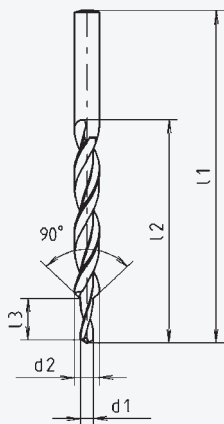
Range of application:

Subland twist drills with straight shank for drilling clearance holes – accuracy class "medium" – according to ISO 273, with the simultaneous screw-head counterboring (90°) of the shapes A and B (accuracy class "medium") according to DIN 74, Part 1. The cutting speed is governed by the larger diameter but the feed must suit the smaller.

Impiego:

Punte a gradino ad eliche indipendenti codolo cilindrico esecuzione di fori passanti finitura "media" – secondo ISO 273 – e contemporanea esecuzione della svasatura (90°) nella forma A e B finitura media secondo DIN 74 parte 1a. La velocità di taglio in funzione del diametro maggiore, l'avanzamento in funzione del diametro minore.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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blank | bright | lucida



	d1 _{h8} mm	d2 _{h8} mm	l1 mm	l2 mm	l3 mm	90°	Code 841 Art.-Nr.		€
M 5	5,50	11,00	142	94	13	90°	00 841011001 00	1	50,23
M 6	6,60	13,00	151	101	15	90°	00 841013001 00	1	76,68
M 8	9,00	17,20	191	130	19	90°	00 841017201 00	1	119,90

>> MEHRFASEN-STUFENBOHRER, DIN 8374 RN-FEIN, 90°

Einsatzbereich:

Mehrfasen-Stufenbohrer mit Zylinderschaft zur Herstellung von Durchgangslöchern – Ausführung fein – nach ISO 273, wobei gleichzeitig Schraubenkopfsenkungen (90°) der Form A, Ausführung fein (f) erzeugt werden. Die Schnittgeschwindigkeit richtet sich nach dem großen Durchmesser, der Vorschub nach dem kleinen.

SUBLAND DRILLS, DIN 8374 RN-FINE, 90°

Range of application:

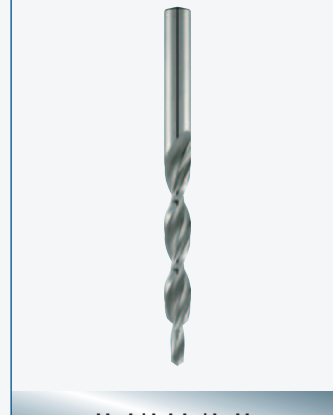
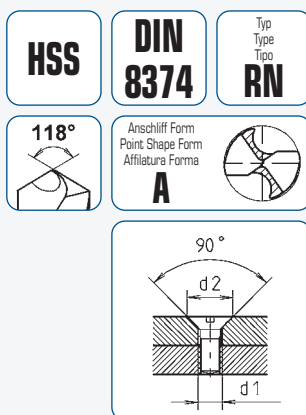
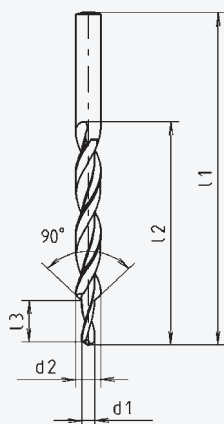
Subland twist drills with straight shank for drilling clearance holes – accuracy class “fine” – according to ISO 273, with the simultaneous countersinking for the screw head (90°) to shape A accuracy class “fine” (f). The cutting speed is governed by the larger diameter but the feed must suit the smaller.

PUNTE A GRADINO PER SEDI VITI, DIN 8374 RN FINE, 90°

Impiego:

Punte a gradino ad eliche indipendenti codolo cilindrico esecuzione di fori passanti finitura “fine” – secondo ISO 273 – e contemporanea esecuzione della svasatura (90°) nella forma A finitura fine (f). La velocità di taglio in funzione del diametro maggiore, l'avanzamento in funzione del diametro minore.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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	d1 _{h8} mm	d2 _{h8} mm	l1 mm	l2 mm	l3 mm	90°	Code 841 Art.-Nr.		€
M 3	3,20	6,00	93	57	9	90°	00 841006001 00	1	30,25
M 4	4,30	8,00	117	75	11	90°	00 841008001 00	1	35,70
M 5	5,30	10,00	133	87	13	90°	00 841010001 00	1	44,30
M 6	6,40	11,50	142	94	15	90°	00 841011501 00	1	50,23
M 8	8,40	15,00	169	114	19	90°	00 841015001 00	1	83,14
M10	10,50	19,00	198	135	23	90°	00 841019001 00	1	128,60

>> MEHRFASEN-STUFENBOHRER, DIN 8376 RN-MITTEL, 180°

SUBLAND DRILLS, DIN 8376 RN-MEDIAL, 180°

PUNTE A GRADINO PER SEDI VITI, DIN 8376 RN MEDIA, 180°

Einsatzbereich:

Mehrfasen-Stufenbohrer mit Zylinderschaft zur Herstellung von Durchgangslöchern – Ausführung mittel – nach ISO 273, wobei gleichzeitig Schraubenkopfsenkungen (180°) der Form H, J, H3, J3 und K3 – Ausführung mittel – nach DIN 74 Teil 2 erzeugt werden. Die Schnittgeschwindigkeit richtet sich nach dem großen Durchmesser, der Vorschub nach dem kleinen.

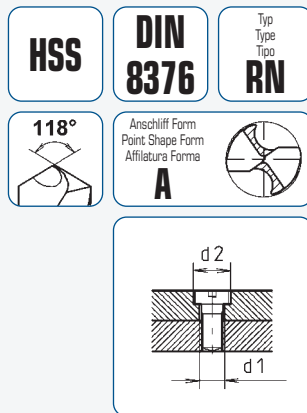
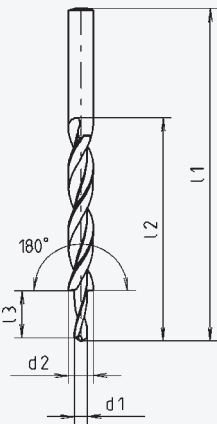
Range of application:

Subland twist drills with straight shank for drilling clearance holes – accuracy class "medium" – according to ISO 273, with the simultaneous screw-head counterboring (180°) of the shapes H, J, H3, J3 and K3 (accuracy class "medium") according to DIN 74, Part 2. The cutting speed is governed by the larger diameter but the feed must suit the smaller.

Impiego:

Punte a gradino ad eliche indipendenti codolo cilindrico esecuzione di fori passanti finitura "media" – secondo ISO 273 – e contemporanea esecuzione della svasatura (180°) nella forma H, J, H3, J3, K3 finitura media secondo DIN 74 parte 2a. La velocità di taglio in funzione del diametro maggiore, l'avanzamento in funzione del diametro minore.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



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	d1 _{h8} mm	d2 _{h8} mm	l1 mm	l2 mm	l3 mm	180°	Code 851 Art.-Nr.		€
M 3	3,40	6,00	93	57	9	180°	00 851006001 00	1	30,25
M 4	4,50	8,00	117	75	11	180°	00 851008001 00	1	35,70
M 5	5,50	10,00	133	87	13	180°	00 851010001 00	1	42,71
M 6	6,60	11,00	142	94	15	180°	00 851011001 00	1	49,23
M 8	9,00	15,00	169	114	19	180°	00 851015001 00	1	62,13
M10	11,00	18,00	191	130	23	180°	00 851018001 00	1	129,60

>> MEHRFASEN-STUFENBOHRER, DIN 8378 RN-MITTEL, 90°

Einsatzbereich:

Mehrfasen-Stufenbohrer mit Zylinderschaft zur Herstellung von Kernlochbohrungen nach DIN 336 Teil 1, wobei gleichzeitig Freisenkungen (90°) entsprechend den Durchgangslöchern – Ausführung mittel – nach ISO 273 erzeugt werden. Die Schnittgeschwindigkeit richtet sich nach dem großen Durchmesser, der Vorschub nach dem kleinen.

SUBLAND DRILLS, DIN 8378 RN-MEDIAL, 90°

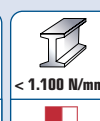
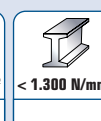
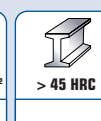
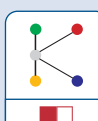
Range of application:

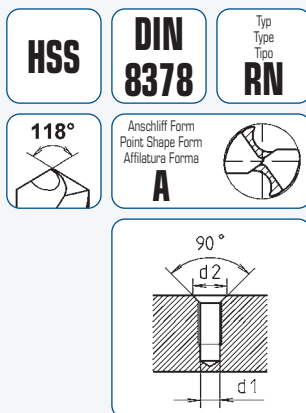
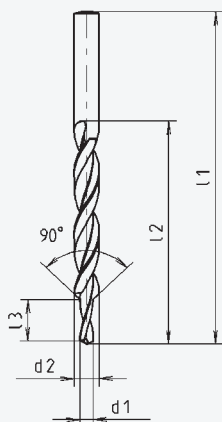
Subland twist drills with straight shank for drilling the tapping hole according to DIN 336, Part 1, with the simultaneous counterboring (90°) of the corresponding clearance hole – accuracy class "medium" – according to ISO 273. The cutting speed is governed by the larger diameter but the feed must suit the smaller.

PUNTE A GRADINO PER SEDI VITI, DIN 8378 RN MEDIA, 90°

Impiego:

Punte a gradino ad eliche indipendenti codolo cilindrico esecuzione di prefori per filettatura secondo DIN 336 parte 1a e contemporanea esecuzione della svasatura (90°), corrispondente ai fori passanti esecuzione "media" secondo ISO 273. La velocità di taglio in funzione del diametro maggiore, l'avanzamento in funzione del diametro minore.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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	d1 _{h8} mm	d2 _{h8} mm	l1 mm	l2 mm	l3 mm	90°	Code 861 Art.-Nr.		€
M 3	2,50	3,40	70	39	8,80	90°	00 861003401 00	1	25,75
M 4	3,30	4,50	80	47	11,40	90°	00 861004501 00	1	28,15
M 5	4,20	5,50	93	57	13,60	90°	00 861005501 00	1	28,66
M 6	5,00	6,60	101	63	16,50	90°	00 861006601 00	1	32,39
M 8	6,80	9,00	125	81	21,00	90°	00 861009001 00	1	37,27
M10	8,50	11,00	142	94	25,50	90°	00 861011001 00	1	47,51
M12	10,20	13,50	160	108	30,00	90°	00 861013501 00	1	61,06



>> MEHRFASEN-STUFENBOHRER MIT MORSEKEGEL, DIN 8377 RN-MITTEL, 180°

Einsatzbereich:

Mehrfasen-Stufenbohrer mit Morsekegelschaft zur Herstellung von Durchgangslöchern – Ausführung mittel – nach ISO 273, wobei gleichzeitig Schraubenkopfsenkungen (180°) der Form H, J, K, H3, J3 und K3 – Ausführung mittel – nach DIN 74 Teil 2 erzeugt werden. Die Schnittgeschwindigkeit richtet sich nach dem großen Durchmesser, der Vorschub nach dem kleinen.

SUBLAND DRILLS WITH MORSE TAPER SHANK, DIN 8377 RN-MEDIAL, 180°

Range of application:

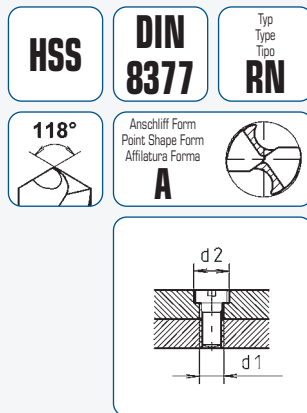
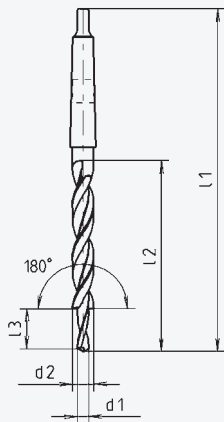
Subland twist drills with Morse Taper Shank for drilling clearance holes – accuracy class "medium" – according to ISO 273, with the simultaneous screw-head counterboring (180°) of the shapes H, J, K, H3, J3 and K3 (accuracy class "medium") according to DIN 74, Part 2. The cutting speed is governed by the larger diameter but the feed must suit the smaller.

PUNTE A GRADINO PER SEDI VITI, DIN 8377 RN MEDIA, 180°, CONO MORSE

Impiego:

Punte a gradino ad eliche indipendenti C.M. esecuzione di fori passanti finitura "media" – secondo ISO 273 – e contemporanea esecuzione della svasatura (180°) nella forma H, J, K, H3, J3, K3 finitura media secondo DIN 74 parte 2a. La velocità di taglio in funzione del diametro maggiore, l'avanzamento in funzione del diametro minore.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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	d1 _{h8} mm	d2 _{h8} mm	l1 mm	l2 mm	l3 mm	180°		Code 852 Art.-Nr.		€
M 5	5,50	10,00	168	87	13	180°	1	00 852010001 00	1	61,57
M 6	6,60	11,00	175	94	15	180°	1	00 852011001 00	1	62,13
M 8	9,00	15,00	212	114	19	180°	2	00 852015001 00	1	82,13
M10	11,00	18,00	228	130	23	180°	2	00 852018001 00	1	109,10
M12	13,50	20,00	238	140	27	180°	2	00 852020001 00	1	132,90
M14	15,50	24,00	281	160	31	180°	3	00 852024001 00	1	166,30
M16	17,50	26,00	286	165	35	180°	3	00 852026001 00	1	195,60

>> ZENTRIERBOHRER, DIN 333 FORM A

Einsatzbereich:

Zentrierbohrer zum Herstellen von Zentrierbohrungen nach DIN 332 Blatt 1, Form A (ohne Schutzsenkung).

CENTRE DRILLS, DIN 333 FORM A

Range of application:

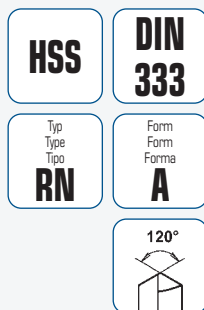
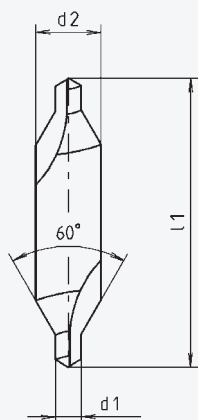
Centre-drills for the production of centre-holes according to DIN 332 sheet 1, form A (without protective chamfer).

PUNTE A CENTRARE, DIN 333 A

Impiego:

Esecuzione fori di centraggio secondo DIN 332 foglio 1 forma A (senza smusso di protezione).

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



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d1 _{k13} mm	d2 _{h9} mm	l1 mm	Code 021 Art.-Nr.		€
1,00	3,15	31,50	00 021001001 00	10	6,49
1,25	3,15	31,50	00 021001251 00	10	6,62
1,60	4,00	35,50	00 021001601 00	10	5,86
2,00	5,00	40,00	00 021002001 00	10	6,37
2,50	6,30	45,00	00 021002501 00	10	7,35
3,15	8,00	50,00	00 021003151 00	10	8,40
4,00	10,00	56,00	00 021004001 00	10	14,82
5,00	12,50	63,00	00 021005001 00	10	21,45
6,30	16,00	71,00	00 021006301 00	1	31,26
8,00	20,00	80,00	00 021008001 00	1	49,29
10,00	25,00	100,00	00 021010001 00	1	98,46



>> ZENTRIERBOHRER, DIN 333 FORM R

CENTRE DRILLS, DIN 333 FORM R

PUNTE A CENTRARE, DIN 333 R

Einsatzbereich:

Zentrierbohrer zum Herstellen von Zentrierbohrungen nach DIN 332 Blatt 1, Form R (mit Radius).

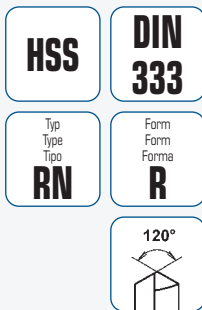
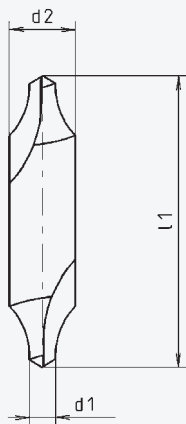
Range of application:

Centre-drills for the production of centre-holes according to DIN 332 sheet 1, form R (with radius form).

Impiego:

Esecuzione fori di centraggio secondo DIN 332 foglio 1, forma R (con raggio).

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



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d1 _{k13} mm	d2 _{h9} mm	l1 mm	Code 031 Art.-Nr.		€
1,00	3,15	31,50	00 031001001 00	10	6,49
1,25	3,15	31,50	00 031001251 00	10	6,62
1,60	4,00	35,50	00 031001601 00	10	5,86
2,00	5,00	40,00	00 031002001 00	10	6,37
2,50	6,30	45,00	00 031002501 00	10	7,35
3,15	8,00	50,00	00 031003151 00	10	8,40
4,00	10,00	56,00	00 031004001 00	10	14,82
5,00	12,50	63,00	00 031005001 00	10	21,45
6,30	16,00	71,00	00 031006301 00	1	31,26
8,00	20,00	80,00	00 031008001 00	1	49,29
10,00	25,00	100,00	00 031010001 00	1	98,46



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>> ZENTRIERBOHRER, DIN 333 FORM A MIT FLÄCHE

Einsatzbereich:

Zentrierbohrer zum Herstellen von Zentrierbohrungen nach DIN 332 Blatt 1, Form A (ohne Schutzsenkung).

CENTRE DRILLS, DIN 333 FORM A WITH SHAPE

Range of application:

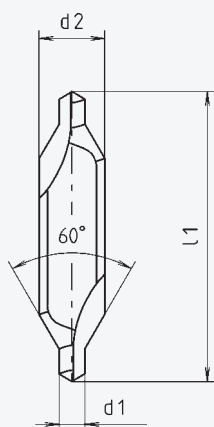
Centre-drills for the production of centre-holes according to DIN 332 sheet 1, form A (without protective chamfer).

PUNTE A CENTRARE, DIN 333 A CON PIANO

Impiego:

Esecuzione fori di centraggio secondo DIN 332 foglio 1 forma A (senza smusso di protezione).

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS-E

DIN 333

Typ
Type
Tipo
RN

Form
Form
Forma
A

120°



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d1 _{k13} mm	d2 _{h9} mm	l1 mm	Code 051 Art.-Nr.		€
2,00	5,00	40,00	00 051002001 00	10	12,38
2,50	6,30	45,00	00 051002501 00	10	13,53
3,15	8,00	50,00	00 051003151 00	10	16,17
4,00	10,00	56,00	00 051004001 00	10	25,16
5,00	12,50	63,00	00 051005001 00	10	33,51
6,30	16,00	71,00	00 051006301 00	1	53,41



>> NC-ANBOHRER, 90°

NC-CENTRE DRILLS, 90°

PUNTE A CENTRARE NC, 90°

Einsatzbereich:

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

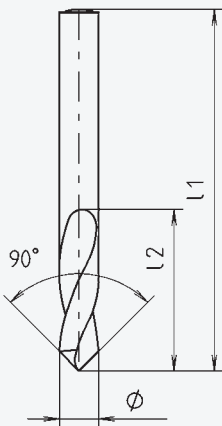
Range of application:

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

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



**HSS-
EC_o**

WN

Typ
Type
Tipo
RN

90°



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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	10,71	00 564005001 00	1	19,28
6,00	66	30,00	00 554006001 00	10	11,08	00 564006001 00	1	19,93
8,00	79	33,00	00 554008001 00	10	18,35	00 564008001 00	1	33,05
10,00	89	35,00	00 554010001 00	10	20,54	00 564010001 00	1	36,96
12,00	102	40,00	00 554012001 00	1	29,75	00 564012001 00	1	47,58
16,00	115	40,00	00 554016001 00	1	38,92	00 564016001 00	1	58,37
20,00	131	55,00	00 554020001 00	1	63,27	00 564020001 00	1	86,93



>> NC-ANBOHRER, 120°

NC-CENTRE DRILLS, 120°

PUNTE A CENTRARE NC, 120°

Einsatzbereich:

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

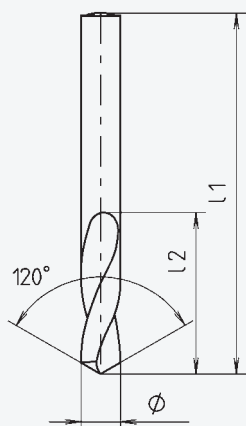
Range of application:

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

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



**HSS-
ECo**

WN

Typ
Type
Tipo
RN

120°



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ALUNIT®

Ø _{h8} mm	L1 mm	L2 mm	Code 555 Art.-Nr.		€	Code 565 Art.-Nr.		€
5,00	62	26,50	00 555005001 00	10	10,71	00 565005001 00	1	19,28
6,00	66	30,00	00 555006001 00	10	11,08	00 565006001 00	1	19,93
8,00	79	33,00	00 555008001 00	10	18,35	00 565008001 00	1	33,05
10,00	89	35,00	00 555010001 00	10	20,54	00 565010001 00	1	36,96
12,00	102	40,00	00 555012001 00	1	29,75	00 565012001 00	1	47,58
16,00	115	40,00	00 555016001 00	1	38,92	00 565016001 00	1	58,37
20,00	131	55,00	00 555020001 00	1	63,27	00 565020001 00	1	86,93



>> AUFBOHRER, ZYLINDRISCH, DIN 344

CORE DRILLS, CYLINDRICAL, DIN 344

ALLARGATORI CODOLO CILINDRICO, DIN 344

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart.
Zum Aufbohren vorgebohrter Bohrungen und Erzeugung guter Oberflächenqualität bei hoher axialer Genauigkeit. Hohe Zerspanungsleistung bei Einzel- und Serienfertigung.

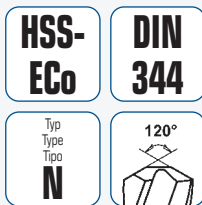
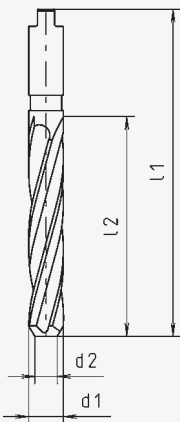
Range of application:

For ferrous and non-ferrous metals. Suitable for drilling in pre-drilled borings to obtain a high quality surface and an optimum longitudinal exactness. High efficiency in individual and mass production.

Impiego:

Adatti per tutti i materiali ferrosi, non ferrosi, plastiche termoidurenti. Allargatura di fori pre-esistenti con ottima finitura della superficie e precisione assiale. Elevata produttività sia per lavorazioni singole che di serie.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
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d1 _{h8} mm	d2 mm	l1 mm	l2 mm	Z	Code 2010 Art.-Nr.	€
4,80	3,20	108	74	3	□ 2010004801 00	19,24
5,80	3,90	116	80	3	□ 2010005801 00	19,64
6,80	4,50	133	93	3	□ 2010006801 00	21,67
7,80	5,20	142	100	3	□ 2010007801 00	25,37
8,80	5,80	151	107	3	□ 2010008801 00	26,95
9,80	6,50	162	116	3	□ 2010009801 00	28,43
10,75	7,10	173	125	3	□ 2010010751 00	34,93
11,75	7,80	184	134	3	□ 2010011751 00	36,38
12,75	8,40	184	134	3	□ 2010012751 00	44,35

Sonderausführungen siehe Seite V/94.
Special designs see on page V/94.
Esecuzioni speciali vedi pagina V/94.

>> AUFBOHRER MIT MK-SCHAFT, DIN 343

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart.
Zum Aufbohren vorgebohrter Bohrungen und Erzeugung guter Oberflächenqualität bei hoher axialer Genauigkeit. Hohe Zerspanungsleistung bei Einzel- und Serienfertigung.

CORE DRILLS WITH MT-SHANK, DIN 343

Range of application:

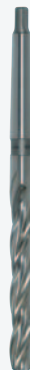
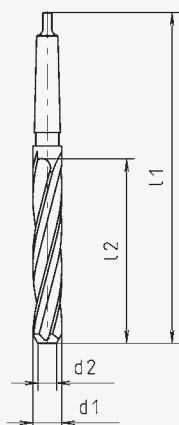
For ferrous and non-ferrous metals. Suitable for drilling in pre-drilled borings to obtain a high quality surface and an optimum longitudinal exactness. High efficiency in individual and mass production.

ALLARGATORI, CONO MORSE, DIN 343

Impiego:

Adatti per tutti i materiali ferrosi, non ferrosi, plastiche termoidurenti. Allargatura di fori pre-esistenti con ottima finitura della superficie e precisione assiale. Elevata produttività sia per lavorazioni singole che di serie.

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



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d1 _{h8} mm	d2 mm	l1 mm	l2 mm		Z	Code 2050 Art.-Nr.	€
9,80	6,50	168	87	1	3	0 2050009801 00	38,59
10,00	6,50	168	87	1	3	0 2050010001 00	38,59
10,75	7,10	175	94	1	3	0 2050010751 00	38,59
11,00	7,10	175	94	1	3	0 2050011001 00	38,59
11,75	7,80	182	101	1	3	0 2050011751 00	38,59
12,00	7,80	182	101	1	3	0 2050012001 00	38,59
12,75	8,40	182	101	1	3	0 2050012751 00	41,45
13,00	8,40	182	101	1	3	0 2050013001 00	41,45
13,75	9,10	189	108	1	3	0 2050013751 00	42,14
14,00	9,10	189	108	1	3	0 2050014001 00	42,14
14,75	9,70	212	114	2	3	0 2050014751 00	46,51
15,00	9,70	212	114	2	3	0 2050015001 00	46,51
15,75	10,40	218	120	2	3	0 2050015751 00	49,40
16,00	10,40	218	120	2	3	0 2050016001 00	49,40
16,75	11,00	223	125	2	3	0 2050016751 00	51,64
17,00	11,00	223	125	2	3	0 2050017001 00	51,64
17,75	11,70	228	130	2	3	0 2050017751 00	53,78
18,00	11,70	228	130	2	3	0 2050018001 00	53,78
18,70	12,30	233	135	2	3	0 2050018701 00	60,37
19,00	12,30	233	135	2	3	0 2050019001 00	60,37
19,70	13,00	238	140	2	3	0 2050019701 00	60,37
20,00	13,00	238	140	2	3	0 2050020001 00	60,37

Sonderausführungen siehe Seite V/94.
Special designs see on page V/94.
Esecuzioni speciali vedi pagina V/94.

>> HSS-SPIRALBOHRER-SÄTZE, DIN 338 RN

HSS DRILL ASSORTMENTS, DIN 338 RN

ASSORTIMENTI PUNTE ELICOIDALI, DIN 338 RN

Einsatzbereich:

Spiralbohrer präzisionsgeschliffen, zum Bohren von legierten und unlegierten Stählen, Grauguss, Temperguss, Kupferlegierungen, Neu-silber, Graphit, Sinterisen.

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.

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS KM 19, 19-tlg. | 19 pcs. | 19 pz.

Art.-Nr. 00 001013111 00

€ 39,31



HSS KM 25, 25-tlg. | 25 pcs. | 25 pz.

Art.-Nr. 00 001013211 00

€ 59,47



HSS KM 32, 32-tlg. | 32 pcs. | 32 pz.

Art.-Nr. 00 001003711 00

€ 79,62

Inhalt Contents Contenuto:
Code 601 Ø 1,0–10,0 x 0,5 mm

Inhalt Contents Contenuto:
Code 601 Ø 1,0–13,0 x 0,5 mm

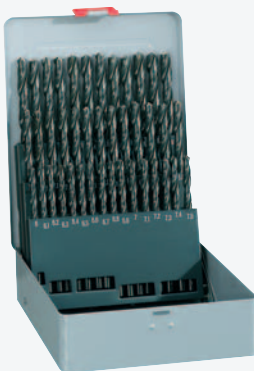
Inhalt Contents Contenuto:
Code 601 Ø 1,0–10,5 x 0,5 mm
1,9 2,2 2,6 2,9 3,2 3,3
3,7 4,2 5,1 6,7 7,9 10,2



HSS KM 50, 50-tlg. | 50 pcs. | 50 pz.

Art.-Nr. 00 001003511 00

€ 69,54



HSS KM 41, 41-tlg. | 41 pcs. | 41 pz.

Art.-Nr. 00 001003611 00

€ 160,25

Inhalt Contents Contenuto:
Code 601 Ø 1,0–5,9 x 0,1 mm

Inhalt Contents Contenuto:
Code 601 Ø 6,0–10,0 x 0,1 mm

>> HSS-ECO-SPIRALBOHRER-SÄTZE, 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.

HSS-ECO DRILL ASSORTMENTS, 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.

ASSORTIMENTI PUNTE ELICOIDALI HSS-ECO, DIN 338 FORTE

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS Cobalt Forte KM 19, 19-tlg. | 19 pcs. | 19 pz.

Art.-Nr. 00 001006191 00

€ 63,20



HSS Cobalt Forte KM 25, 25-tlg. | 25 pcs. | 25 pz.

Art.-Nr. 00 001006251 00

€ 150,17

Inhalt | Contents | Contenuto:

Code 611 Ø 1,0–10,0 x 0,5 mm

Inhalt | Contents | Contenuto:

Code 611 Ø 1,0–13,0 x 0,5 mm

>> HSS-ECO-SPIRALBOHRER-SÄTZE, DIN 338 RN

HSS-ECO DRILL ASSORTMENTS, DIN 338 RN

ASSORTIMENTI PUNTE ELICOIDALI HSS-ECO, 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.

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.

Impiego:

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

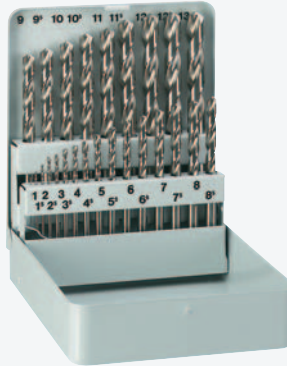
 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS Cobalt KM 19, 19-tlg. | 19 pcs. | 19 pz.

Art.-Nr. 00 001002191 00

€ 48,33



HSS Cobalt KM 25, 25-tlg. | 25 pcs. | 19 pz.

Art.-Nr. 00 001002251 00

€ 113,89

Inhalt | Contents | Contenuto:

Code 603 Ø 1,0–10,0 x 0,5 mm

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Code 603 Ø 1,0–13,0 x 0,5 mm

>> HSS-ECO-SPIRALBOHRER-SÄTZE, 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.

HSS-ECO DRILL ASSORTMENTS, 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.

ASSORTIMENTI PUNTE ELICOIDALI HSS-ECO, DIN 1897 PZ

Impiego:

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

 < 400 N/mm ²	 < 850 N/mm ²	 < 1.100 N/mm ²	 < 1.300 N/mm ²	 > 45 HRC	INOX < 850 N/mm ²	INOX > 850 N/mm ²	GRAUGUSS CAST IRON GHISA GRIGIA	Ti	Cu, Ms	Al	
											



HSS Cobalt KM PZ 10, 10-tlg. | 10 pcs. | 10 pz.

Art.-Nr. 00 00100910100

€ 32,24

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Code 901 Ø 3,0 | 3,2 | 3,5 | 4,0 | 4,2 |
4,5 | 5,0 | 6,0 | 8,0 | 10,0 mm