

Überlange Spiralbohrer mit Morsekegel

- rechtsschneid. mit Morsekegel Typ N
- ISO 3291, HSS, Spitzen-∠ 118°, Spiral-∠ 28°
- Hauptanwendung: Stahl u. Gusseis.

Mèches cône morse série extra longue

- Coupe à droite, queue cône Morse, type N, DIN 346,
- HSS, ∠ pointe 118°, ∠ hélice 28°
- application principale: acier et fonte

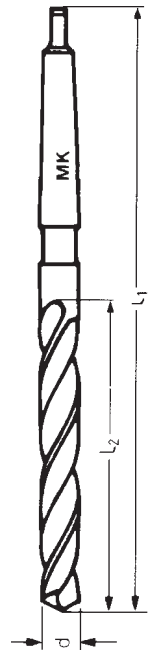
Extra long twist drills with tapered morse shank

- right hand cutting with tapered morse shank type N, ISO 3291, HSS
- head-∠ 118°, helix-∠ 28°
- main application: steel and cast iron

4356EL..
ISO 3291

4356EL115						4356EL115						4356EL115					
d [mm]	I2	I1	MK	Best.Nr./order no. no.cde.	CHF	d [mm]	I2	I1	MK	Best.Nr./order no. no.cde.	CHF	d [mm]	I2	I1	MK	Best.Nr./order no. no.cde.	CHF
8.00	120	200	1	4356EL.0800	50.50	12.00	* 250	400	2	4356EL.1220	140.40	18.00	215	315	2	4356EL.1800	161.60
8.00	* 125	200	1	4356EL.0805	53.90	12.00	300	400	2	4356EL.1225	138.10	18.00	300	400	2	4356EL.1805	185.50
8.00	* 160	250	1	4356EL.0810	59.00	12.50	170	250	1	4356EL.1250	105.10	19.00	215	315	2	4356EL.1905	175.20
8.00	170	250	1	4356EL.0815	56.50	12.50	215	218	2	4356EL.1255	123.80	19.00	* 250	400	2	4356EL.1910	183.30
8.00	235	315	1	4356EL.0820	66.40	12.50	300	400	2	4356EL.1260	138.10	19.00	300	400	2	4356EL.1915	218.90
8.00	170	250	1	4356EL.0850	73.30	13.00	170	250	2	4356EL.1305	103.10	19.00	* 315	500	2	4356EL.1920	151.70
9.00	170	250	1	4356EL.0900	74.70	13.00	* 200	315	2	4356EL.1310	68.00	20.00	215	315	2	4356EL.2000	178.00
9.00	* 200	315	1	4356EL.0910	67.10	13.00	215	315	2	4356EL.1315	121.40	20.00	300	400	2	4356EL.2005	231.10
9.00	235	315	1	4356EL.0915	87.90	13.00	* 250	400	2	4356EL.1320	145.50	21.00	215	315	2	4356EL.2100	194.10
10.00	* 160	250	1	4356EL.1000	59.00	13.00	300	400	2	4356EL.1325	146.60	21.00	315	400	2	4356EL.2110	238.00
10.00	170	250	1	4356EL.1005	93.70	13.50	170	250	2	4356EL.1350	112.10	21.00	* 315	500	2	4356EL.2115	254.20
10.00	235	315	1	4356EL.1010	105.70	13.50	215	315	2	4356EL.1355	132.00	22.00	215	315	2	4356EL.2205	196.50
10.00	320	400	1	4356EL.1015	123.60	13.50	300	400	2	4356EL.1360	146.60	22.00	300	400	2	4356EL.2210	260.10
10.50	170	250	1	4356EL.1020	97.20	14.00	170	250	2	4356EL.1400	108.80	22.00	* 315	500	2	4356EL.2215	265.60
10.50	235	315	1	4356EL.1055	114.50	14.00	215	315	2	4356EL.1405	128.20	23.00	215	315	2	4356EL.2300	214.60
10.50	320	400	1	4356EL.1060	133.30	14.00	300	400	2	4356EL.1410	146.80	23.00	300	400	2	4356EL.2310	262.60
11.00	170	250	1	4356EL.1100	95.60	14.50	215	315	2	4356EL.1450	150.60	23.00	* 315	500	2	4356EL.2315	269.50
11.00	* 200	315	1	4356EL.1105	89.20	14.50	300	400	2	4356EL.1455	146.80	24.00	275	400	3	4356EL.2400	265.50
11.00	235	315	1	4356EL.1110	112.30	15.00	215	315	2	4356EL.1500	134.80	25.00	275	400	3	4356EL.2500	268.10
11.00	* 250	400	1	4356EL.1115	129.10	15.00	300	400	2	4356EL.1505	159.70	26.00	275	400	3	4356EL.2600	283.90
11.00	320	400	1	4356EL.1120	133.30	15.50	215	315	2	4356EL.1550	155.00	27.00	275	400	3	4356EL.2700	296.80
11.50	170	250	1	4356EL.1150	100.80	15.50	300	400	2	4356EL.1555	159.70	27.00	* 375	500	3	4356EL.2705	227.50
11.50	235	315	1	4356EL.1155	118.50	16.00	215	315	2	4356EL.1600	140.70	28.00	* 250	400	3	4356EL.2800	246.70
11.50	* 300	400	1	4356EL.1160	134.00	16.00	300	400	2	4356EL.1605	168.30	28.00	275	400	3	4356EL.2805	309.90
11.50	320	400	1	4356EL.1165	140.90	17.00	* 160	250	2	4356EL.1700	83.50	29.00	* 250	400	3	4356EL.2900	265.60
12.00	170	250	1	4356EL.1200	100.80	17.00	215	315	2	4356EL.1710	150.60	29.00	275	400	3	4356EL.2905	328.20
12.00	* 200	315	2	4356EL.1210	65.90	17.00	* 250	400	2	4356EL.1715	171.80	29.00	* 315	500	3	4356EL.2910	324.90
12.00	215	315	2	4356EL.1215	118.50	17.00	300	400	2	4356EL.1720	177.60	30.00	275	400	3	4356EL.3005	334.80

* solange Vorrat / jusqu'à épuisement du stock/as long stock will last



Zentrierbohrer HSS m. Radius Foret à centrer à rayon

- Verstärkte Ausführung im Vergleich mit 4.375A (60°)
- Radius reduziert Bruchgefahr und erzeugt exakten Sitz
- Plus robuste que le foret à centrer à 60°
- Rayon supprime l'amorce de rupture et assure une portée précise de la contre pointe

Spotting drill with radius

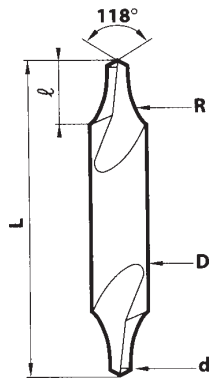
- reinforced execution in comparison with 4375A.. (60°)
- radius reduces danger of crash and generates a precision seat

Rabatte:10 % ab 10 Stück/Durchm. Remise:10% dès 10 pièces/diam.

Discounts:10 % from 10 pcs./diam.

4.375R112						Best.Nr./order no.						Best.Nr./order no.					
D x d	L	R	I	no.cde	CHF	D x d	L	R	I	no.cde	CHF	D x d	L	R	I	no.cde	CHF
3.00 x 0.50	31	2.0	2.3-2.6	4375R.010	13.60	8.00 x 3.00	50	8.0	8.0-8.5	4375R.170	9.40	10.00 x 3.00	55	10.0	8.9-9.4	4375R.190	12.10
3.15* x 0.50	25	2.0	2.3-2.6	4375R.020	6.50	8.00 x 3.15	50	8.0	8.0-8.5	4375R.180	12.30	10.00 x 3.15	55	10.0	8.9-9.4	4375R.200	12.10
3.15* x 0.80	25	2.5	2.6-2.9	4375R.030	9.80	10.00 x 4.00	55	10.0	10.0-10.6	4375R.210	16.30	12.00 x 4.00	63	11.5	10.7-11.3	4375R.220	20.70
3.15 x 1.00	31	2.9	3.0-3.3	4375R.040	9.80	12.00 x 5.00	63	11.5	11.4-12.0	4375R.230	20.70	12.00 x 5.00	63	11.5	11.2-11.8	4375R.240	20.70
3.15 x 1.25	31	3.2	3.3-3.6	4375R.050	9.80	12.50 x 4.00	63	12.5	12.5-13.1	4375R.250	27.30	12.50 x 5.00	63	12.5	12.5-13.1	4375R.260	27.00
3.50 x 0.75	35	3.4	2.8-3.0	4375R.060	7.70	14.00 x 5.00	69	13.4	12.8-13.4	4375R.270	30.50	16.00 x 5.00	71	16.0	14.4-15.0	4375R.280	25.70
4.00 x 1.00	35	3.9	3.3-3.6	4375R.070	7.75	16.00 x 6.30	71	16.0	16.0-16.6	4375R.290	44.40	18.00 x 6.00	77	17.8	16.6-17.2	4375R.300	60.30
4.00 x 1.25	35	4.0	3.7-4.1	4375R.080	7.00	20.00 x 6.30	80	20.0	17.8-19.0	4375R.310	55.80	20.00 x 8.00	80	20.0	20.0-20.7	4375R.330	96.40
4.00 x 1.60	35	4.0	4.2-4.7	4375R.090	9.80	25.00 x 10.00	100	25.0	25.0-25.7	4375R.350	228.40	31.50 x 12.50	125	31.5	31.5-32.5		
5.00 x 1.50	40	5.0	4.5-4.9	4375R.100	7.70												
5.00 x 1.60	40	5.0	4.5-4.9	4375R.110	7.70												
5.00 x 2.00	40	5.0	5.0-5.4	4375R.120	10.50												
6.00 x 2.00	45	5.8	5.4-5.8	4375R.130	9.35												
6.30 x 2.00	45	6.3	5.6-6.0	4375R.140	8.60												
6.30 x 2.50	45	6.3	6.3-6.8	4375R.150	8.00												
8.00 x 2.50	50	8.0	7.5-8.0	4375R.160	9.40												

* einseitig/d'un seul côté



Zentrierbohrer HSS mit Radius lange Ausführung

Foret à centrer à rayon série extra longue

Spotting drill HSS with radius long execution

4375R-SL..
DIN 333-R

4.375R-SL112						Best.Nr./order no.						Best.Nr./order no.					
D x d	L	R	I	no.cde.	CHF	D x d	L	R	I	no.cde.	CHF	D x d	L	R	I	no.cde.	CHF
4.00 x 1.00	120	3.9	3.3-3.6	4375R.SL.010	49.10	8.00 x 3.15	120	8.0	7.5-3.6	4375R.SL.040	46.40	10.00 x 3.00	120	10.0	8.9-9.4	4375R-SL.050	64.70
3.15* x 0.50	120	5.0	4.5-4.9	4375R-SL.020	48.20	10.00 x 3.15	120	10.0	10.0-10.6	4375R-SL.060	64.70						
3.15* x 0.80	120	5.8	5.4-5.8	4375R-SL.030	48.20												



4375A.SL.. Zentrierbohrer 60° lange Ausführung
DIN 333

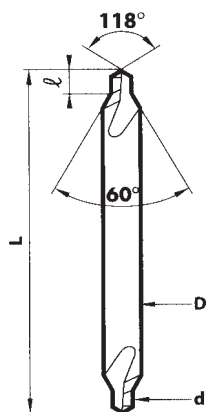
- Lange Ausführung Form A, DIN 333 rechtsschneidend,
- HSS
Toleranzen: D h8, d k12, Winkel 60° -30', 118° ± 2°

Foret à centrer 60° série longue

- *Exécution longue forme A selon DIN 333, coupe à droite, HSS*
- *tol.générales: D h8, d k12, angle 60° -30', 118° ± 2°*

Spotting drill 60° long execution

- long execution form A, DIN 333 right hand cutting, HSS
- tolerances: D h8, d k12, angles 60° -30', 118° ± 2°



d	D	L	l	Best. Nr./order no.		d	D	L	l	Best. Nr./order no.	
mm	mm	mm	mm	no. de cde	CHF	mm	mm	mm	mm	no. de cde	CHF
0.75	3.50	120	1.0-1.2	4375A.SL. 010	43.80	3.00	8.00	120	3.9-4.4	4375A.SL. 130	35.00
0.75	3.50	60	1.0-1.2	4375A.SL. 020	14.20	3.00	8.00	80	3.9-4.4	4375A.SL. 140	18.00
1.00	4.00	120	1.3-1.6	4375A.SL. 030	31.00	3.15	8.00	200	3.9-4.4	4375A.SL. 150	71.70
1.00	4.00	60	1.3-1.6	4375A.SL. 040	14.10	3.00	10.00	100	3.9-4.4	4375A.SL. 160	24.70
1.50	5.00	120	2.0-2.4	4375A.SL. 050	30.50	3.00	10.00	120	3.9-4.4	4375A.SL. 170	40.60
1.50	5.00	60	2.0-2.4	4375A.SL. 060	14.70	4.00	10.00	100	5.0-5.6	4375A.SL. 180	24.70
2.00	5.00	200	2.5-2.9	4375A.SL. 070	77.50	4.00	10.00	120	5.0-5.6	4375A.SL. 190	40.60
2.00	6.00	120	2.5-2.9	4375A.SL. 080	31.90	4.00	10.00	200	5.0-5.6	4375A.SL. 200	78.10
2.00	6.00	80	2.5-2.9	4375A.SL. 090	15.50	4.00	12.00	100	5.0-5.6	4375A.SL. 210	32.00
2.50	6.30	200	3.1-3.6	4375A.SL. 100	76.10	4.00	12.00	120	5.0-5.6	4375A.SL. 220	49.40
2.50	8.00	120	3.1-3.6	4375A.SL. 110	35.00	4.00	12.00	150	5.0-5.6	4375A.SL. 225	58.40
2.50	8.00	80	3.1-3.6	4375A.SL. 120	18.00	5.00	14.00	120	6.3-6.9	4375A.SL. 230	60.90

4375A.SL.. Sätze von 6 Zentrierbohrern-lange Ausführung -60° Winkel-Form A-HSS

Jeux de 6 forets extra longues angle 60°-Forme A-HSS

Sets of 6 spotting drills long execution 60° angle form A-HSS



Zusammensetzung:
je 1 Stück:

Composition:
1 piece de chaque:

Composition:
1 piece each:

4x1x60-5x1.5x60
6x2x80-8x2.5x80
10x3x100-12x4x100

4x1x60-5x1.5x60
6x2x80-8x2.5x80
10x3x100-12x4x100

4x1x60-5x1.5x60
6x2x80-8x2.5x80
10x3x100-12x4x100

Best.Nr. / no.cde. / order no.: 4375A.SL.900

CHF 113.80

4377.. Zentrierbohrer 60°/120°, HSS Form B mit Schutzsenkung
DIN 333B

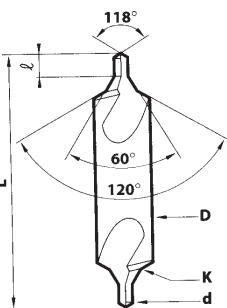
- Die Schutzsenkung verstärkt die Wirkung der Zentrierbohrung gegen Schläge und Deformationen
- Die bessere Zentrierung ermöglicht die sichere Positionierung von Teilen zwischen Spitzen auf automatischen Maschinen
Toleranzen: D h8, d k12, L ± 1, K k12, Winkel 60° -30', 120° -4', 118° ± 2°

Foret à centrer 60°/120° avec chanfrein de protection Forme B

- *Chanfrein de protection garantit le centre obtenu contre tout risk de choc et de déformation*
- *Evasement facilite la prise entre pointes des pièces sur machine à alimentation automatique*
- *Tolérances: D h8, d k12, L ± 1, K k12, Angles 60° -30', 120° -4', 118° ± 2°*

Spotting drill 60°/120°, HSS form B with protection countersink

- the protection countersink reinforces the effect of the centering hole against hits and deformations
- The better centering method enables the safe positioning of pieces between centers on automatics
- Tolerances: D h8, d k12, L ± 1, K k12, Winkel 60° -30', 120° -4', 118° ± 2°



d	D	L	K	l	Best.Nr./order no.		d	D	L	K	l	Best.Nr/orde	
mm	mm	mm	mm	mm	no.cde.	CHF	mm	mm	mm	mm	mm	no.cde.	CHF
0.75	4.00	35	2.0	1.0-1.2	4377. 010	13.60	3.00	14.00	69	7.5	3.9-4.4	4377. 100	37.40
1.50	5.00	40	3.0	2.0-2.4	4377. 015	12.70	4.00	10.00	55	8.0	5.0-5.6	4377. 114	21.30
1.00	6.00	45	2.5	1.3-1.6	4377. 020	14.20	4.00	12.00	63	9.0	5.0-5.6	4377. 118	27.90
2.00	6.00	45	2.5	1.3-1.6	4377. 025	15.30	4.00	16.00	71	10.0	5.0-5.6	4377. 120	47.60
1.25	7.1*	45	3.6	1.6-2.4	4377. 040	12.40	4.00	18.00	77	10.0	5.0-5.6	4377. 130	52.50
1.50	8.00	50	3.8	2.0-2.4	4377. 050	16.50	5.00	12.00	63	9.0	6.3-6.9	4377. 134	27.90
2.00	10.00	55	5.0	2.5-2.9	4377. 070	19.80	5.00	14.00	80	13.2	8.0-8.6	4377. 138	37.40
2.50	8.00	50	5.5	3.1-3.6	4377. 075	17.70	5.00	20.00	80	12.5	6.3-6.9	4377. 140	83.70
3.00	10.00	55	7.0	3.9-4.4	4377. 085	19.80	6.00	18.00	77	12.0	8.0-8.6	4377. 155	52.50
2.50	12.00	63	6.3	3.1-3.6	4377. 090	29.90	6.30	25.00	100	16.0	8.0-8.6	4377. 170	128.10

* solange Vorrat - jusqu'à épuisement du stock/till stock will last

