2026

DRILLING PROGRAMME

ZENITH

PCD

CRUING
thinking beyond

PCD AND HM CUTTING TOOLS FOR OVER 60 YEARS

Production facilities and Research & Development centers in Europe and North America enable Cruing to deliver tested and award-winning products worldwide.

CHALLENGERS WINNER 2008

JEC WINNER OF 2013 INNOVATION AWARD JECeurope

JEC WINNER OF 2013 INNOVATION AWARD JECamericas

BG-PRÜFZERT HO 082004 Sicherheit geprüft tested safety

BG-PRÜFZERT HO 082007 Sicherheit geprüft tested safety

DGUV Test HO 122002 Sicherheit geprüft tested safety

Patent AN2014A000107

EXPERIENCE COMPOSITES INNOVATION AWARDS 2016

Institut für Werkzeugmaschinen

Universität Stuttgart

Fraunhofer IPA

HBG Holz-Berufsgenossenschaft

DGUV Test

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001 Cruing Italy

For over 50 years, Cruing has been delivering innovative woodworking solutions, offering a comprehensive range of PCD cutting tools designed for virtually every sector and application in furniture production, woodworking, and residential construction.

Whatever the project — whether furniture, kitchens, flooring, or windows, and whether in chipboard, MDF, solid wood, fiber cement, plastics, or resins — Cruing offers high-performance solutions, complemented by professional service and specialized application advice.

STANDARD AND SPECIAL CUTTING TOOLS

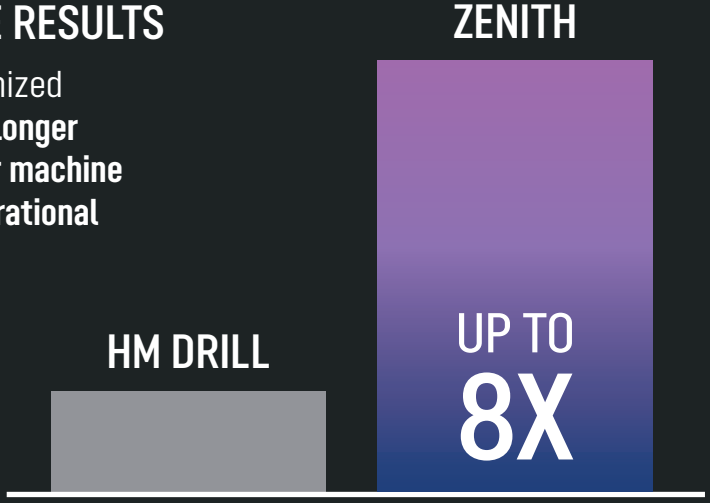
Cruing offers a full range of standard cutting tools and develops tailor-made solutions to meet specific needs. Innovative designs and concepts are constantly refined to deliver the latest in cutting-edge technology.

UNRIVALLED DURABILITY: DISCOVER THE ZENITH PROGRAM

Designed to meet the highest standards in woodworking drilling, **Zenith** sets a new benchmark in **durability** and **quality**. Every detail is engineered to **resist wear**, delivering **consistent performance** even in the most demanding industrial applications.

MEASURABLE PERFORMANCE, RELIABLE RESULTS

Thanks to its innovative surface coating and optimized geometries, Zenith delivers tool life up to **8 times longer** than conventional carbide drills. This means **fewer machine stoppages**, **reduced replacements**, and **greater operational efficiency**.



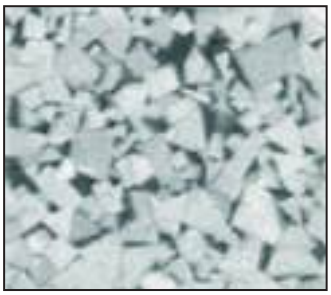
FRICTION UNDER CONTROL

The coating maintains a friction coefficient below 0.10, reducing heat and wear.
This results in cleaner finishes, improved chip evacuation, and extended tool life.

DESIGNED WITH PRECISION

Made from **sub-micrograin carbide**, Zenith delivers a finer, more consistent cutting edge than conventional standards. The result is **cleaner**, more **uniform** machining—perfect for applications demanding uncompromising high-quality finishes.

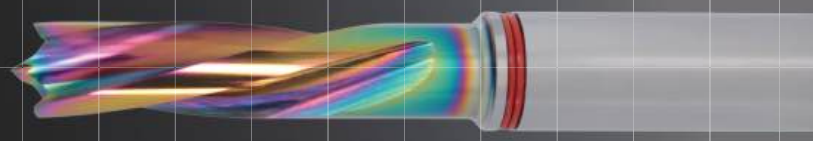
Traditional carbide
1.4 - 3.4 µm



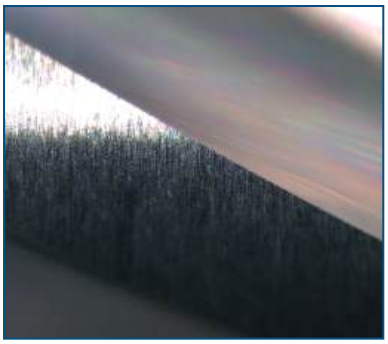
Sub-micrograin carbide
0.5 - 0.9 µm

MAXIMUM PRECISION, MINIMAL TOLERANCE

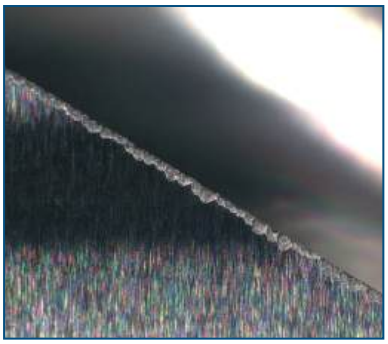
With a run-out below 0.003 mm Zenith ensures **perfect concentricity**.



This precision ensures **stable drilling**, enhances **hole quality**, and contributes to **long-term reliability**.



Zenith cutting edge finish

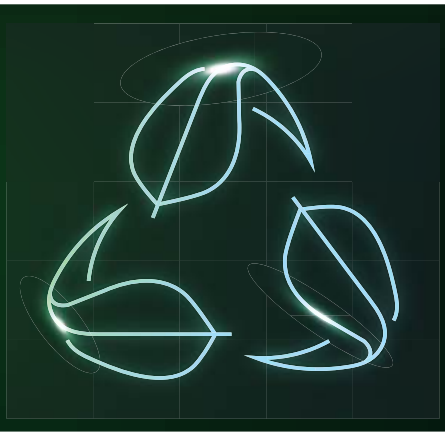


Competitor cutting edge finish

Microscopic images reveal the striking difference in surace finish: Zenith drills boast a smooth, **flawless surface**, delivering unmatched cutting precision and superior stability over the competition.

ENGINEERED FOR LONGEVITY

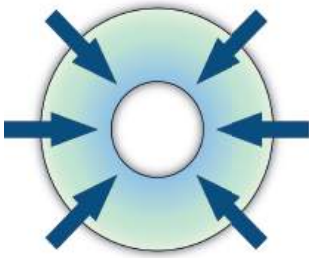
Zenith is designed for long-term use: each tool can be **reground and recoated up to 5 times**, ensuring consistent performance throughout its entire life cycle and delivering a tangible return on investment.



THERMAL SHRINK-FIT TOOLHOLDING

The hot shrink-fit process ensures uniform and precise clamping of the tool, improving concentricity and reducing vibration. This results in greater machining stability and extended spindle life.

HEATING EXPANDS THE INNER DIAMETER



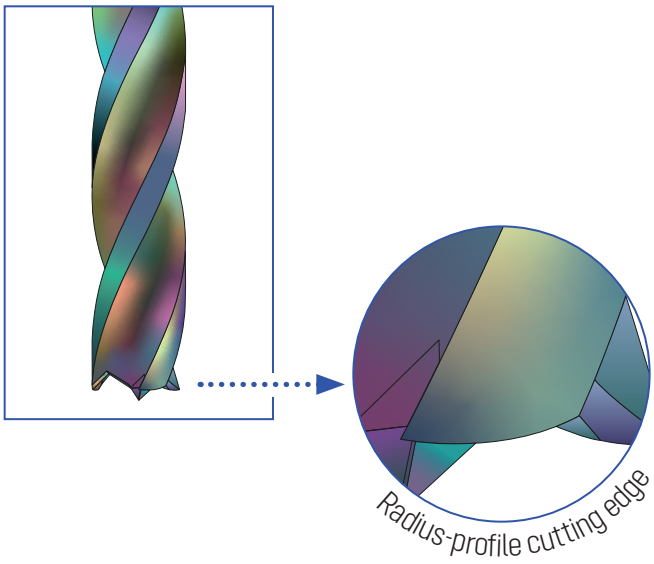
COOLING CONTRACTS THE INNER DIAMETER

ZENITH FOR BLIND HOLES

ROUNDED-GEOMETRY GROOVER

The rounded cutting-edge geometry reduces wear, enhancing tool durability and allowing for a higher number of holes to be drilled with consistent performance.

Furthermore, the three-flute geometry ensures excellent surface finish on the entry side, while significantly reducing chipping.



Lapped flute

ENHANCED CHIP REMOVAL

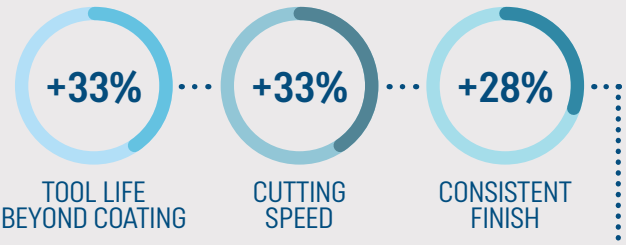
The polished flute enhances optimal chip flow, improving material evacuation and ensuring smoother, more efficient machining.

ZENITH FOR THROUGH HOLES

CLEAN HOLES, ENTRY TO EXIT

The **3-flute** geometry of Zenith through-hole versions significantly reduces exit-side chipping and improves the appearance of the entry hole. This configuration ensures **higher hole accuracy** and delivers superior **tool longevity** compared to Z2 drills.

Z3 *VS* **Z2**



OPTIMIZED CHIP MANAGEMENT

The Z3 optimized flute allows **smoother** and more **efficient chip evacuation** than Z2 configurations. This enables continuous machining even under **demanding conditions**, preventing buildup and enhancing operational stability.

COMMITMENT TO THE ENVIRONMENT

RESPONSIBLE INNOVATION, EVERY DAY

We believe excellence cannot come at the expense of the environment.

Every tool we produce is crafted through processes designed to **minimize environmental impact** and responsibly **enhance natural resources**.

SUSTAINABILITY THAT LEAVES AN IMPACT, NOT A FOOTPRINT

WE USE RENEWABLE ENERGY

60% of our production facilities are powered by renewable energy from solar panels.

RESHARPENABILITY AND WASTE REDUCTION

We create resharpenable tools designed to last, optimizing the use of raw materials to the fullest.

MINIMIZED NOISE EMISSIONS

Our machinery is optimized to ensure quiet operation and comfort in production.

MINIMIZING ENVIRONMENTAL IMPACT

Our production processes are engineered to minimize dust and harmful fumes.

EVERY CUT, A CONSCIOUS CHOICE

60% of our plant energy from solar panels

40% reduction in CO2 emissions

near-zero emissions of dust and harmful fumes

Our **low-impact** production is the result of a continuous commitment to sustainability, **certified under ISO 14001**, which attests to the quality of our processes.

Environmental Management LRQA ISO 14001:2015

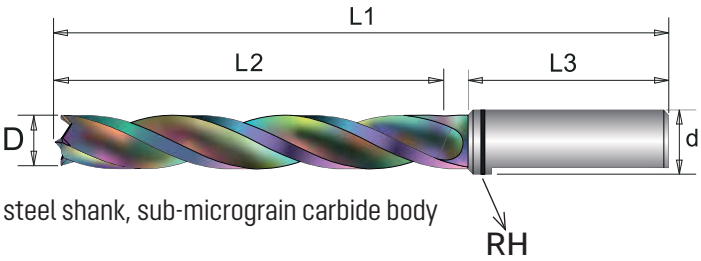
For us, innovating means creating lasting value while fully respecting the environment and future generations.

Zenith drill Z3 for blind holes

ZENITH COATING | LONG LIFE | Z3 | V3

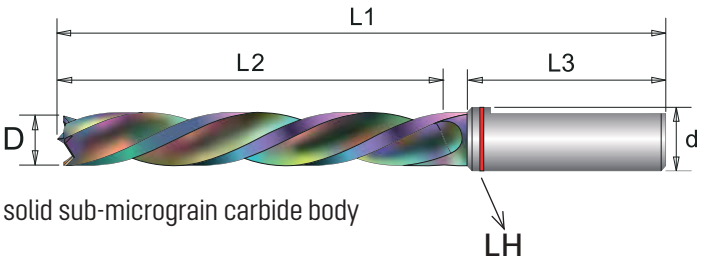
HW | RH | LH

Ø up to 6 mm



steel shank, sub-micrograin carbide body

Ø 8 - 10 mm



solid sub-micrograin carbide body

TECHNICAL FEATURES

- **Ø up to 6 mm:** steel shank, sub-micrograin carbide body
- **Ø 7 - 8 – 10 mm:** solid sub-micrograin carbide body
- 3 helical flutes
- Centering tip
- 3 cutting edges
- 3 ground spurs
- Rounded-geometry groover for extended tool life
- Cylindrical shank with flat and adjustment screw

APPLICATIONS

For blind holes in solid wood and wood derivatives, including laminated materials

Suitable for drilling systems and CNC machines

Total length: 57,5 mm

D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
3	10	57,5	18	30	**HWF57C060D**	**HWF57C060S**
4	10	57,5	18	30	**HWF57C070D**	**HWF57C070S**
5	10	57,5	20	30	**HWF57C080D**	**HWF57C080S**
6	10	57,5	20	30	**HWF57C090D**	**HWF57C090S**
7	10	57,5	22	30	**HWF57C100D**	**HWF57C100S**
8	10	57,5	22	30	**HWF57C110D**	**HWF57C110S**
10	10	57,5	22	30	**HWF57C120D**	**HWF57C120S**

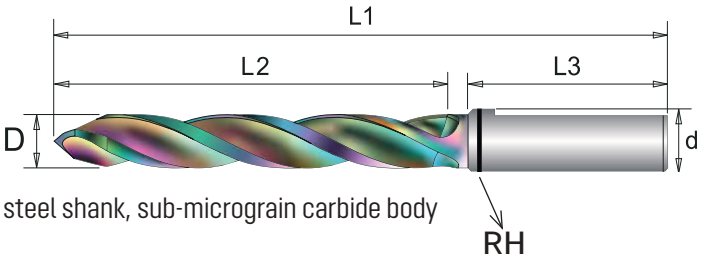
Total length: 70 mm

D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
3	10	70	30	30	**HWF70C060D**	**HWF70C060S**
4	10	70	30	30	**HWF70C070D**	**HWF70C070S**
5	10	70	32	30	**HWF70C080D**	**HWF70C080S**
6	10	70	32	30	**HWF70C090D**	**HWF70C090S**
7	10	70	35	30	**HWF70C100D**	**HWF70C100S**
8	10	70	35	30	**HWF70C110D**	**HWF70C110S**
10	10	70	35	30	**HWF70C120D**	**HWF70C120S**

Zenith drill Z3 for through holes

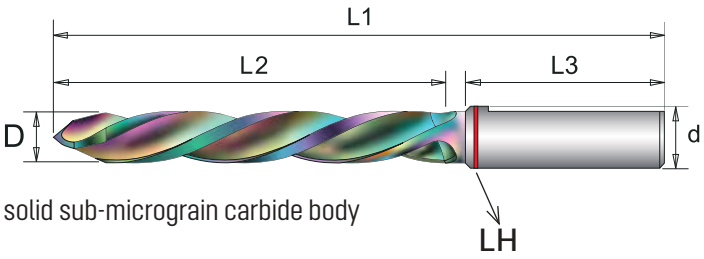
ZENITH COATING | LONG LIFE | Z3 | HW | RH | LH

Ø up to 6 mm



steel shank, sub-micrograin carbide body

Ø 8 - 10 mm



solid sub-micrograin carbide body

TECHNICAL FEATURES

- **Ø up to 6 mm**: steel shank, sub-micrograin carbide body
- **Ø 7 - 8 - 10 mm**: solid sub-micrograin carbide body
- 3 double-angle cutting edges
- 3 polished helical flutes
- Cylindrical shank with flat and adjustment screw

APPLICATIONS

For through holes in solid wood and wood derivatives, including laminated materials

Suitable for drilling systems and CNC machines

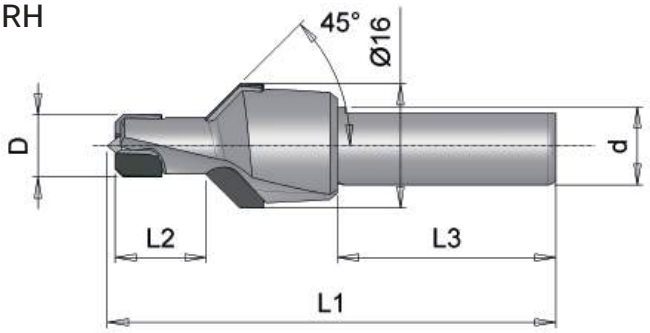
Total length: 70 mm

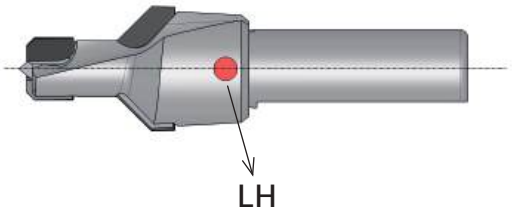
D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
3	10	70	30	30	**HWF70P060D**	**HWF70P060S**
4	10	70	30	30	**HWF70P070D**	**HWF70P070S**
5	10	70	32	30	**HWF70P080D**	**HWF70P080S**
6	10	70	32	30	**HWF70P090D**	**HWF70P090S**
7	10	70	35	30	**HWF70P100D**	**HWF70P100S**
8	10	70	35	30	**HWF70P110D**	**HWF70P110S**
10	10	70	35	30	**HWF70P120D**	**HWF70P120S**

PCD drill Z2 with countersink for blind holes

Z2 V2 LONG LIFE RH LH

RH





TECHNICAL FEATURES

- 2 PCD cutting edges
- 2 PCD ground spurs with negative axial angle
- HW centering tip
- Cylindrical shank with flat and adjustment screw
- Steel body

APPLICATIONS

For drilling and countersinking chipboard, laminated coatings, HPL, veneered panels, MDF, and hardwood.

Suitable for CNC machining centers, hinge machines, and automated drilling systems.

Total length: 57,5 mm

D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
8	10	57,5	12	28	**DCGS57110D**	**DCGS57110S**
8	10	57,5	15	25	**DCGS57113D**	**DCGS57113S**
8	10	57,5	20	20	**DCGS57116D**	**DCGS57116S**
10	10	57,5	12	28	**DCGS57120D**	**DCGS57120S**
10	10	57,5	15	25	**DCGS57123D**	**DCGS57123S**
10	10	57,5	20	20	**DCGS57126D**	**DCGS57126S**

Total length: 70 mm

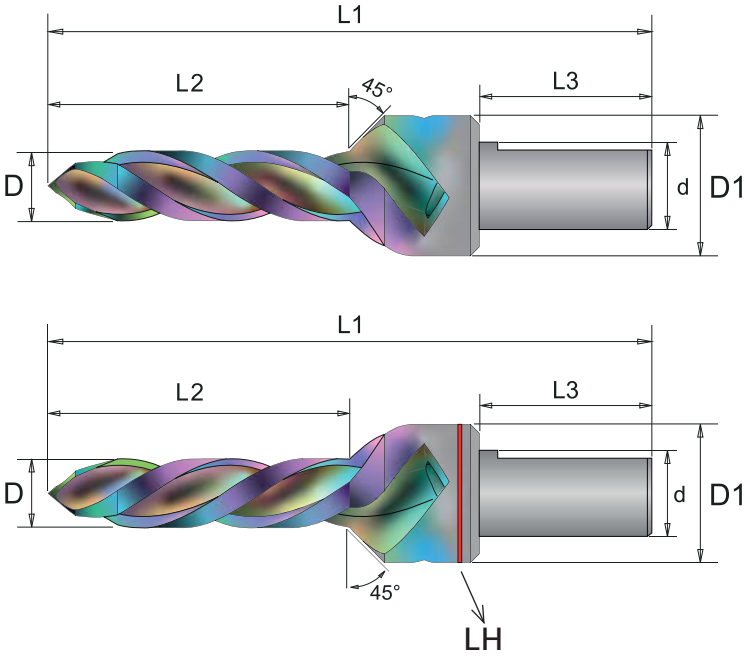
D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
8	10	70	12	41	**DCGS70110D**	**DCGS70110S**
8	10	70	15	38	**DCGS70113D**	**DCGS70113S**
8	10	70	20	33	**DCGS70116D**	**DCGS70116S**
10	10	70	12	41	**DCGS70120D**	**DCGS70120S**
10	10	70	15	38	**DCGS70123D**	**DCGS70123S**
10	10	70	20	33	**DCGS70126D**	**DCGS70126S**

HW drill Z3 with 3 countersink for through holes

ZENITH COATING | LONG LIFE | Z3 | V3

HW | RH | LH

RH



TECHNICAL FEATURES

- 3 HM cutting edges
- 3 HM ground spurs with negative axial angle
- HW centering tip
- Cylindrical shank with flat and adjustment screw
- Solid sub-micrograin carbide body

APPLICATIONS

For drilling and countersinking chipboard, laminated coatings, HPL, veneered panels, MDF, and hardwood.

Suitable for CNC machining centers, hinge machines, and automated drilling systems.

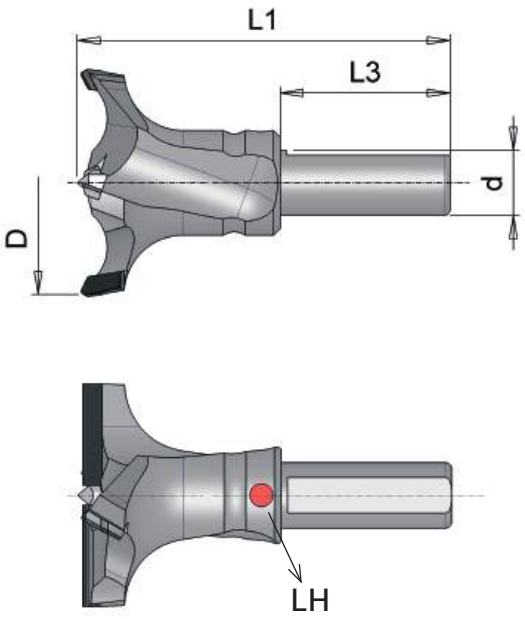
Total length: 70 mm

D mm	D1 mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
5	10	10	70	35	20	**HWF70SP080D**	**HWF70SP080S**
7	12	10	70	35	20	**HWF70SP100D**	**HWF70SP100S**
8	12	10	70	35	20	**HWF70SP110D**	**HWF70SP110S**
10	16	10	70	35	20	**HWF70SP120D**	**HWF70SP120S**

PCD drill Z2 for hinges

LONG LIFE Z2 V2 RH LH

RH



TECHNICAL FEATURES

- 2 PCD cutting edges
- 2 PCD ground spurs with negative axial angle
- HW centering tip
- Cylindrical shank with flat and adjustment screw
- Steel body

APPLICATIONS

For creating hinge seats and panel holes in chipboard, laminated coatings, HPL, veneered panels, MDF, and hardwood

Suitable for CNC machining centers, hinge machines, and automated drilling systems

Total length: 57,5 mm

D mm	d mm	L1 mm	L3 mm	CODE Right rotation	CODE Left rotation
15	10	57,5	26	**DCG5741D**	**DCG5741S**
35	10	57,5	26	**DCG574CD**	**DCG574CS**

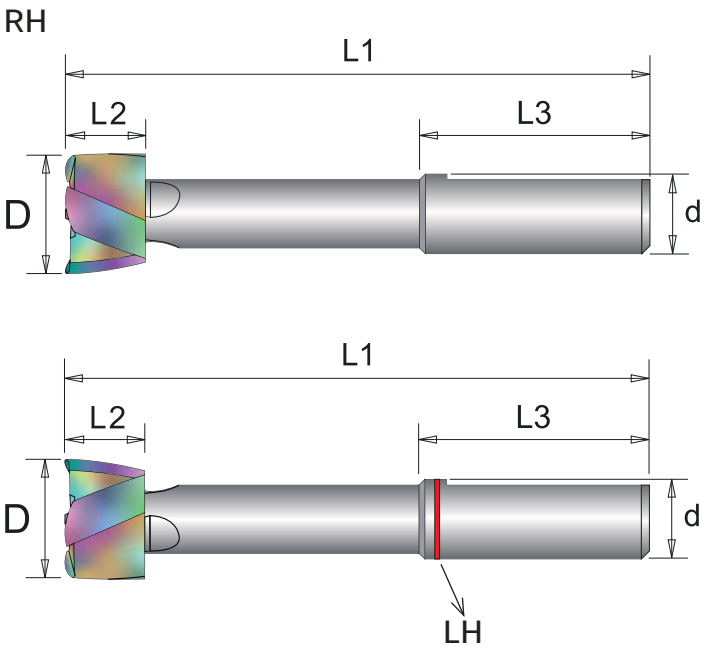
Total length: 70 mm

D mm	d mm	L1 mm	L3 mm	CODE Right rotation	CODE Left rotation
15	10	70	26	**DCG7041D**	**DCG7041S**
16	10	70	26	**DCG7042D**	**DCG7042S**
20	10	70	26	**DCG7044D**	**DCG7044S**
25	10	70	26	**DCG7047D**	**DCG7047S**
26	10	70	26	**DCG7048D**	**DCG7048S**
35	10	70	26	**DCG704CD**	**DCG704CS**

HW drill Z3 for hinges

ZENITH COATING | LONG LIFE | Z3 | V3

HW | RH | LH



TECHNICAL FEATURES

- 3 HM cutting edges
- 3 HM ground spurs with negative axial angle
- HW centering tip
- Cylindrical shank with flat and adjustment screw
- Steel body

APPLICATIONS

For creating hinge seats and panel holes in chipboard, laminated coatings, HPL, veneered panels, MDF, and hardwood

Suitable for CNC machining centers, hinge machines, and automated drilling systems

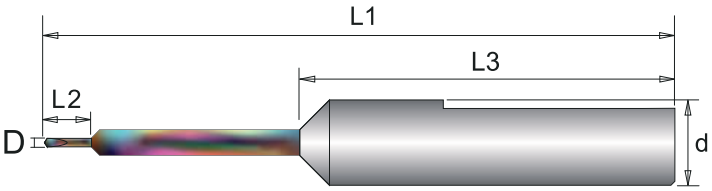
Total length: 57,5 mm

D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
12	10	57,5	13	30	**HCG5738D**	**HCG5738S**
14	10	57,5	13	30	**HCG5740D**	**HCG5740S**
15	10	57,5	13	30	**HCG5741D**	**HCG5741S**
16	10	57,5	13	30	**HCG5742D**	**HCG5742S**

Total length: 70 mm

D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Right rotation	CODE Left rotation
12	10	70	13	30	**HCG7038D**	**HCG7038S**
14	10	70	13	30	**HCG7040D**	**HCG7040S**
15	10	70	13	30	**HCG7041D**	**HCG7041S**
16	10	70	13	30	**HCG7042D**	**HCG7042S**

Zenith Z2 bidirectional drill



TECHNICAL FEATURES

- Solid sub-micrograin carbide body
- Centering tip
- 2 cutting edges
- Cylindrical shank with flat and adjustment screw

APPLICATIONS

For blind holes in solid wood and wood derivatives, laminated materials, melamine, and plastic coatings

Suitable for drilling systems, machining centers, point-to-point machines, pantographs, and CNC machines

Total length: 57,5 mm

D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Bidirectional rotation
1,3	10	57,5	5	30	**HWF57A045**
2	10	57,5	12	30	**HWF57A050**
2,5	10	57,5	16	30	**HWF57A055**
3	10	57,5	15	30	**HWF57A060**
3,5	10	57,5	18	30	**HWF57A065**
5	10	57,5	22	30	**HWF57A080**

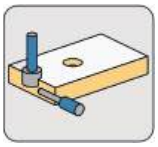
Total length: 70 mm

D mm	d mm	L1 mm	L2 mm	L3 mm	CODE Bidirectional rotation
1,3	10	70	5	30	**HWF70A045**
2	10	70	12	30	**HWF70A050**
2,5	10	70	16	30	**HWF70A055**
3	10	70	25	30	**HWF70A060**
3,5	10	70	18	30	**HWF70A065**
5	10	70	30	30	**HWF70A080**

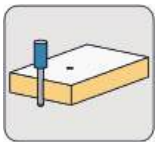
ICONS AND ABBREVIATIONS

HW	Solid carbide
RH	Right rotation
LH	Left rotation
RH LH	Bidirectional rotation
Z1	1 cutting edge
Z2	2 cutting edges
Z3	3 cutting edges
V2	2 ground spurs
V3	3 ground spurs
LONG LIFE	Extended tool life
	PCD cutting edge
ZENITH COATING	Zenith coating

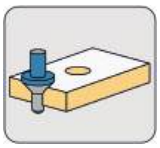
D	Maximum tool diameter
d	Shank diameter
L1	Overall length
L2	Cutting length
L3	Shank length
Z	Number of cutting edges
CNC	Computer numerical control



Drilling



Through-hole drilling



Countersinking