

CMT ORANGE TOOLS®

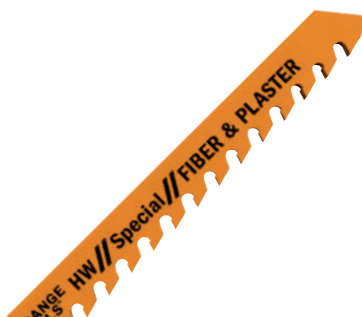
THE WIDEST TOOLING RANGE

CATALOGUE ENGLISH EDITION 2018

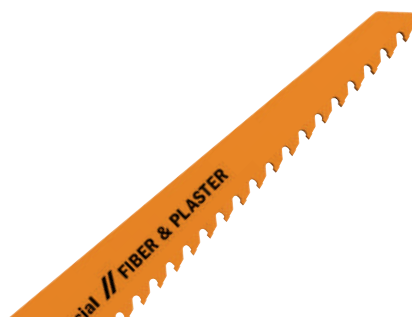
Saw Blades



Jig Saw Blades



Sabre Saw Blades



Tools for Multi-Cutters



Tools with Bore & Knives



Router Bits & Sets



CNC Router Cutters & Chucks



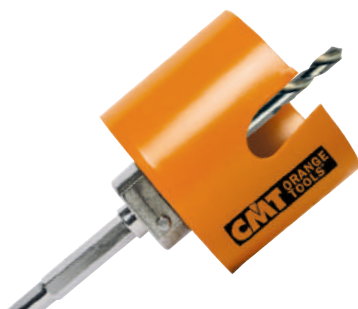
Industrial Dowel Drills



Bits for Hand Power Tools



Hole Saws



Power Tools



Accessories



WOOD Magazine
Best Overall
ROUTER BITS

CMT Overall Rating **10!**
Top Performing Router Bits

Welcome to the 2018 catalogue

Dear Customer,

Thank you for your interest in CMT products.

Take a moment to browse our new catalogue and choose from an even wider range of innovative and state-of-the-art woodworking tools, from router bits, saw blades, jig and sabre saw blades, hole saws, and boring bits to oscillating tools, CNC cutters, cutter heads, chucks, power tools, and so much more!

A detailed list of spare parts on each product category is also provided to guide you through your purchase.

We continually strive to develop our technical know-how and make significant investments in research and development, but our greatest priority is customer care.

A satisfied customer is worth more than any other achievement; therefore, each page of this catalogue contains CMT's highest commitment to the professional woodworker.

Should you not find a product that suits your needs, please let us know.

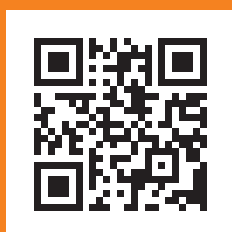
Our highly skilled engineers and design technicians are always keen to assist you with your woodworking operations.

Thank you for your interest in CMT Orange Tools.

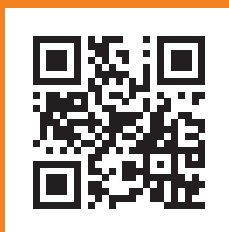
Your CMT Team



www.cmtutensili.com

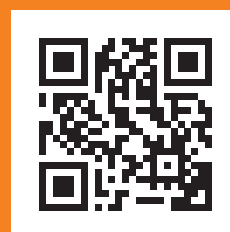


Join us on our **You Tube** channel



Youtube: CMT Orange Tools

Find us on 



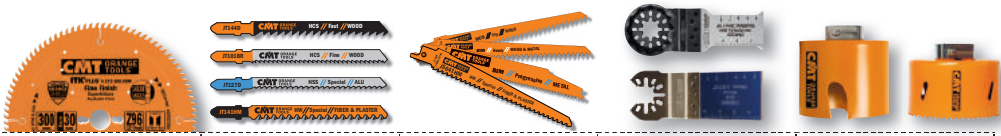
Facebook: CMT Orange Tools

Abbreviations

A	= Cutting angle	L	= Overall length
α	= Hook angle	L₁	= Working length
ATB	= Alternate top bevel grind	LB	= Adjusting length
B	= Bore diameter	LH	= Left-hand rotation
β	= Type of grind	MATB	= Alternate top bevel with chamfer grind
COMBI3	= Pin-Hole 2/7/42 + 2/9/46,4 + 2/10/60	MTCG	= Triple chip grind (trapezoidal) with chamfer
COMBI5	= Pin-Hole 2/7/110 + 2/8,4/130 + 2/14/110 + 4/9/100 + 4/19/120	mm	= Millimeters
COMBI7	= Pin-Hole 2/10/80 + 1/11/85 + 2/11/115 + 2/11/148 + 2/14/100 + 2/14/125 + 2/19/120	P	= Plate thickness
d	= Small cutting diameter	Pack Qty.	= Dispatch package quantity
D	= Diameter	PTFE	= Non-stick industrial coating, black and orange
D₂	= Overall diameter	R, R₁	= Radius
D₃	= For shank diameter	RH	= Right-hand rotation
$\emptyset$	= Diameter	RPM	= Round per minute
FFT	= Flat flat trapezoidal	S, S₁	= Shank diameter
FTG	= Flat top grind	T₁	= Thickness / Maximum joint thickness
FWF	= Flat with alternate chamfer	TCG	= Triple chip grind (trapezoidal)
H	= Cutting depth	TS	= Tooth spacing
HDF	= Hollow ground teeth	TPI	= Teeth per inch
I	= Cutting length	V	= Spurs
I₁	= Short cutting length	W	= Width
K	= Kerf thickness	Z	= Number of teeth
		$\square$	= On request
		$\bullet$	= Solid tungsten carbide

THE RIGHT TOOLS FOR THE BEST RESULTS!

Quick reference charts and pictograms help you choose the right tools for your application.



	SAW BLADES	JIG SAW BLADES	SABRE SAW BLADES	MULTI-CUTTERS	HOLE SAWS
WOOD					CARBIDE
WOOD & METAL		✓	✓	✓	
METAL					BI-METAL
ALUMINIUM					
MULTI-MATERIAL					
PLASTIC					
MASONRY					DIAMOND
SPECIAL					



SAW BLADES

5~50



JIG SAW BLADES

51~57



SABRE SAW BLADES

59~68



TOOLS FOR MULTI-CUTTERS

69~91



TOOLS WITH BORE & KNIVES

93~136



ROUTER BITS & SET

137~234



CNC ROUTER CUTTERS & CHUCKS

235~274



INDUSTRIAL DOWEL DRILLS

275~300



BITS FOR HAND POWER TOOLS

301~319



HOLE SAWS

320~332



POWER TOOLS, JIGS & ACCESSORIES

333~365



DISPLAY CABINETS

366~375



SPARE PARTS

376~380

SINCE 1962 - MADE IN ITALY THEN, STILL MADE IN ITALY TODAY

By now, the story has been told. After over 50 years of success and quality in manufacturing woodworking tools - orange woodworking tools, to be precise - word just sort of gets around. We have grown and we have changed, but one thing still remains the same: our commitment to making only the highest quality woodworking tools.



Pesaro, Italy



Greensboro, United States



Valencia, Spain

OUR CHANNELS
www.cmtutensili.com

 Join us on our **You Tube** channel

 Youtube: **CMT Orange Tools**

 Find us on 

 Facebook: **CMT Orange Tools**

OUR TOOLS So, what does it take to make a CMT tool? Like all things of quality, it's not only what you do but how you do it. And anyone who works wood knows that you get out of a piece only what you put into it, and it is no different when manufacturing a tool. You choose your designs and materials carefully and you work using all of your skill and know-how. You'll be happy to know that's what we do at CMT too.

DESIGN

Everything starts with a clear idea and having the potential to express it. We have both. At CMT, our technical department uses the best of both worlds - computer technology and hands-on experience - to engineer and design each tool so that it performs flawlessly each time you use it, and to guarantee that you'll be using it for a long, long time.

MATERIALS

Turning a design into a finished product means finding the right material that will do the job and that lives up to the specifications set out in the design - quality performance from the final product depends on it. When it comes to selecting raw materials, we don't cut corners. At CMT, we know that high quality tools come only from high quality raw materials, so we use only solid bar stock steel and specially formulated micrograin carbide to manufacture our bits and blades.

MANUFACTURING

Like we said, it's not just what you do but how you do it. Over the years we have continuously invested in the latest technology in CNC machining equipment and innovative software to manufacture our tools. The result is that now our entire manufacturing process, from turning and milling the steel shanks to brazing and sharpening the carbide cutting tips, is completely automated. And since a machine is only as intelligent as the person using it, everything is operated by specifically trained operators.

THE FINAL TOUCH

A tool simply wouldn't be a CMT tool if it didn't have the trademark orange color non-stick PTFE coating on it. This unique industrial-strength surface coating is designed to withstand the physical stresses the tool undergoes during use while protecting it from residue build-up and burning. And we really like the orange color too.



QUALITY CONTROL

Nobody's perfect, but we're trying. CMT uses rigorous quality control programs and equipment to ensure that each bit has been manufactured with precision and accuracy and that it will give the long-lasting performance you expect from a CMT orange tool. CMT is in the process of adopting the directives set out in ISO 9001 which will give SPC quality control by an independent party under the Common Market Directives ISO 9001. Quality control is the final step of the production process, but it's just as important as the first.

WE RECYCLE

The water used during production must be pure and free from contaminants or hard minerals like iron or calcium which can build up and damage the machinery. CMT filters and purifies its water using a reverse osmosis system located inside the plant. Also the oil used in grinding and machining our tools must be clean and absolutely free of contaminants. Clean oil, after enough use, gets dirty, so we filter and reprocess dirty oil on the premises. This is our way of guaranteeing the quality of the oil we use, as well as contributing to help protect the environment.

OUR TRADEMARK COLOR ORANGE

As the story goes, we began small. We also put orange color surface coating on our tools, then we put our tools on the market and soon our orange tools were all over the world. Now, any woodworker anywhere in the world can tell you that orange tools means CMT, and that CMT means quality. Here at CMT we know we produce quality. You should too. That's why we have trademarked the color orange on woodworking tools - it's your guarantee that you are getting a genuine high-quality CMT product.

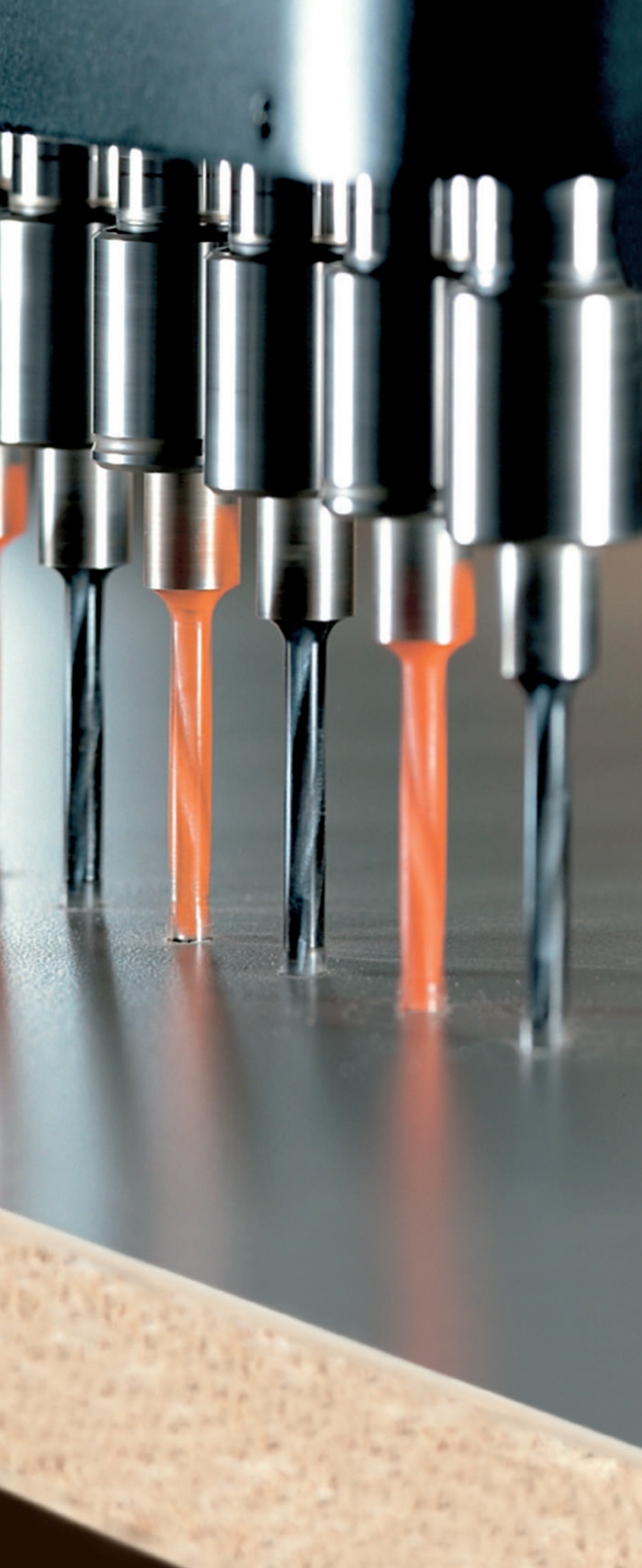


Loading the automated multi-axis CNC sharpening machines.



Fully automated assembly and marking.

INDUSTRIAL DOWEL DRILLS



PRODUCTS	PAGE
Adaptors	276~278
XTreme Solid Carbide Boring Bits	279~281
XTreme Boring Bits	282-283
Solid Carbide Twist Drills	284-285
2 Flute Dowel Drills	286-287
4 Flute Dowel Drills	288~290
Dowel Drills with Countersink	291
Through Hole Dowel Drills	292-293
Countersinks	294
Hinge Boring Bits	295~297
Dowel Drills with Threaded Shank	298~300





301

RH LH

B mm	D mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8	16	M8	10	301.080.01	301.080.02
10	19,5	M8	10	301.000.01	301.000.02

FOR USE ON THE FOLLOWING MACHINES:
Nottmeyer (older models).

Spare parts



990.006.00 991.062.00



302

RH LH

B mm	D mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8	16	M10	10	302.080.01	302.080.02
10	19,5	M10	10	302.000.01	302.000.02

FOR USE ON THE FOLLOWING MACHINES:
Ayen, Holzma, Knoevenagel, Mayer, Torwegge.

Spare parts



990.006.00 991.062.00



303

RH LH

B mm	D mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8	16	M10/30°	10	303.080.01	303.080.02
10	19,5	M10/30°	10	303.000.01	303.000.02

FOR USE ON THE FOLLOWING MACHINES:
Alberti (older models).
Balestrini, Bilek, Busellato (older models).
Schleicher, Vitap (older models).

Spare parts



990.006.00 991.062.00



304

RH LH

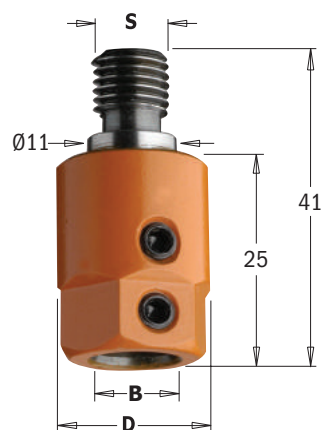
B mm	D mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8	16	M8/20° 48'	10	304.080.01	304.080.02
10	19,5	M8/20° 48'	10	304.000.01	304.000.02

FOR USE ON THE FOLLOWING MACHINES:
Balestrini, Bilek.

Spare parts



990.006.00 991.062.00



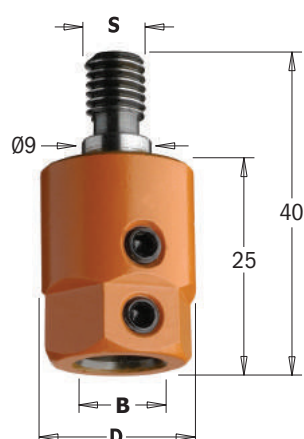
305

RH LH

B mm	D mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8	16	M10/11	10	305.080.01	305.080.02
10	19,5	M10/11	10	305.000.01	305.000.02

FOR USE ON THE FOLLOWING MACHINES:
Biesse (older models).
Masterwood (Zangheri & Boschetti).
Morbidelli, Torwegge, Vitap (new design).
Weeke.

Spare parts



358

RH LH

B mm	D mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8	16	M8/9	10	358.080.01	358.080.02
10	19,5	M8/9	10	358.000.01	358.000.02

FOR USE ON THE FOLLOWING MACHINES:
Masterwood (Zangheri & Boschetti).
Morbidelli, Nottmeyer (new design).

Spare parts



359

RH LH

B mm	D mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
10	19,5	M10	10	359.000.01	359.000.02

FOR USE ON THE FOLLOWING MACHINES:
Scheer.

Spare parts



360.001

RH LH

B mm	d mm	D mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
10	20	15	10	360.001.01	360.001.02

FOR USE ON THE FOLLOWING MACHINES:
For Biesse machines with quick drill change attachment.

Spare parts



**360.101**RH
LH

B mm	d mm	D mm	PACK QTY.	ORDER NO. Right-hand & Left-hand rotation
10	17,5	18	10	360.101.00

FOR USE ON THE FOLLOWING MACHINES:
Vitap.

Spare parts



990.015.00

991.062.00

**360.201**RH
LH

B mm	d mm	D mm	PACK QTY.	ORDER NO. Right-hand & Left-hand rotation
10	19,5	20	10	360.201.00

FOR USE ON THE FOLLOWING MACHINES:
Morbideili.

Spare parts



990.009.00

991.067.00

**360.301**RH
LH

B mm	d mm	D mm	PACK QTY.	ORDER NO. Right-hand & Left-hand rotation
10	19,5	20	10	360.301.00

FOR USE ON THE FOLLOWING MACHINES:
Masterwood, Maggi, Griggio.

Spare parts



990.015.00

991.062.00

**360.401**RH
LH

B mm	d mm	D mm	PACK QTY.	ORDER NO. Right-hand & Left-hand rotation
10	20	17	10	360.401.00

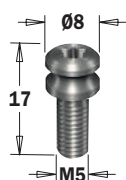
FOR USE ON THE FOLLOWING MACHINES:
Weeke.

Spare parts

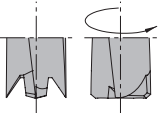
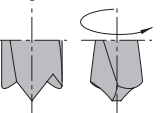
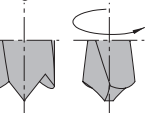
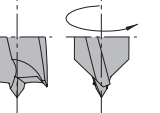


990.009.00

991.067.00

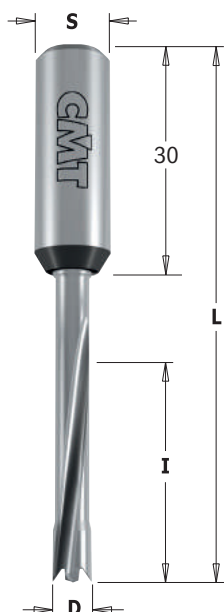
**990.088**RH
LH

DESCRIPTION	PACK QTY.	ORDER NO. Right-hand & Left-hand rotation
Retaining screw for Weeke machines	10	990.088.00

LINE	XTREME FLAT	XTREME	XTREME	INDUSTRIAL
PERFORMANCE	SUPERIOR ★★★★★	SUPERIOR ★★★★★	EXCELLENT ★★★★★	VERY GOOD ★★★
BIT				
DESCRIPTION	Designed for heavy duty drilling in Large-Scale Industrial Manufacturing ensuring high impact resistance and greater durability.	Designed for heavy duty drilling in Large-Scale Industrial Manufacturing ensuring high impact resistance and greater durability.	Designed for heavy-duty to medium-duty drilling in large-scale to medium-scale industrial manufacturing ensuring high impact resistance and greater durability.	Designed for medium-duty to light-duty drilling in medium-scale to small-scale industrial manufacturing ensuring rigorous impact resistance and good durability.
USER	LARGE-SCALE INDUSTRIAL MANUFACTURING	LARGE-SCALE INDUSTRIAL MANUFACTURING	LARGE-SCALE TO MEDIUM-SCALE INDUSTRIAL MANUFACTURING	MEDIUM-SCALE TO SMALL-SCALE INDUSTRIAL MANUFACTURING
RECOMMENDED USE	INDUSTRIAL PRODUCTION	INDUSTRIAL PRODUCTION	INDUSTRIAL/REMODELER	REMODELER
MATERIALS	Ideal for chipboard, MDF, HDF and laminates. Nonprotruding center-point and spurs make this tool perfect for low-thickness panels.	Ideal for chipboard, MDF, HDF and laminates.	Excellent for both hard and soft wood. Great for chipboard, MDF, HDF and laminates.	Excellent for both hard and soft wood. Good for chipboard, MDF, and laminates.
SHARPENING & MAINTENANCE	Flat edges with reinforced spurs allow perfect finishing and prolonged drilling.  Xtreme Flat Sharpening	Specially designed reinforced spurs allow for impeccable finishing during operations involving high-speed cutting feed.  Xtreme Sharpening	Specially designed reinforced spurs allow for impeccable finishing during operations involving high-speed cutting feed.  Xtreme Sharpening	Standard design with negatively ground spurs providing good quality finishing without chipping.  Negatively Ground Spurs
CARBIDE	INDUSTRIAL CHROMIUM MICROGRAIN CARBIDE The premium quality carbide produces clean bores with no rough edges and maintains a balanced center point. In addition to its safety features, Chromium Micrograin Carbide guarantees exceptional resistance to fatigue and abrasion and allows for an infinite number of resharpenings.	INDUSTRIAL CHROMIUM MICROGRAIN CARBIDE The special chromium enhanced carbide produces clean bores with no rough edges and maintains a balanced center point. In addition to its safety features, Chromium Micrograin Carbide guarantees exceptional resistance to fatigue and abrasion and allows for an infinite number of resharpenings.	INDUSTRIAL SINTERHIP HI-DENSITY CARBIDE The unique tip is made of high quality carbide enhanced via Sinterhip (hot isostatic pressing). This process guarantees long lasting performance and exceptionally clean bores.	INDUSTRIAL GRADE CARBIDE Fine and medium grain carbide grade guarantee reliable prolonged use.
COATING	 SOLID TUNGSTEN CARBIDE	 SOLID TUNGSTEN CARBIDE	C.M.T.'S P.T.F.E COATING Provides a non-stick surface preventing resin, glue or sludge residue accumulation on the bit body. Baked at 420°, this unique industrial material is specifically designed to fit woodworking tool requirements.	C.M.T.'S P.T.F.E COATING Provides a non-stick surface preventing resin, glue or sludge residue accumulation on the bit body. Baked at 420°, this unique industrial material is specifically designed to fit woodworking tool requirements.
PRICE RANGE	HIGH	HIGH	MEDIUM/HIGH	MEDIUM

Solid Carbide Dowel Drills

new



311.71/72 XTREME FLAT SHARPENING

HWM LONG LIFE Z2 V2 RH LH

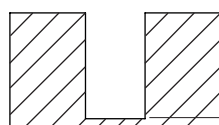
D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	30	70	10x30	50	311.050.71	311.050.72
8	30	70	10x30	50	311.080.71	311.080.72

TECHNICAL DETAILS:

- Premium quality super strength steel for improved resistance and durability
- Premium quality HWM spiral portion
- 2 cutting edges [Z2] + 2 curved ground spurs [V2]
- 2 spiral flutes
- Parallel shank with driving flat and adjustable screw length
- Recommended feed speed 1÷ 4m/minute -RPM 6000

APPLICATION:

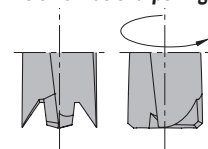
ideal for use with chipboard, MDF, HDF and laminates.
Best for boring holes in low thickness panels - no center-point or spurs.
For use with chucks and boring adaptors on boring machines



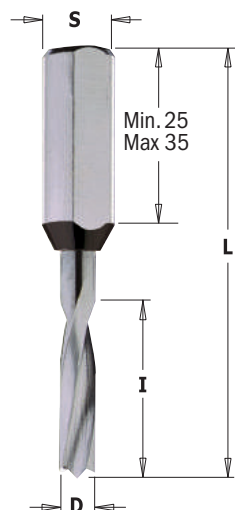
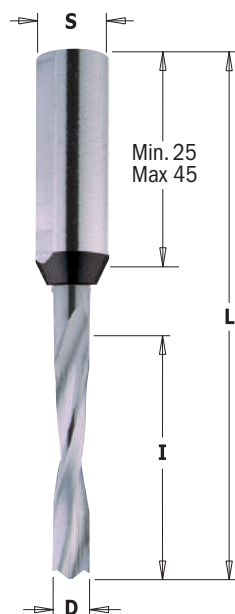
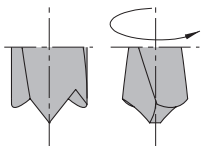
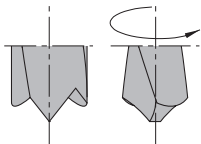
Flat sharpening with no center-point or spurs

Spare parts	Optional
 990.003.00	 990.088.00

Xtreme Flat Sharpening



CMT's new high quality dowel drills guarantee excellent performance and extra-long life!

**Xtreme Sharpening****Xtreme Sharpening****310.21/22** XTREME

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
1,3	5	57,5	10x30	50	310.013.20*	
2	12	57,5	10x27	50	310.020.21	310.020.22
3	9	57,5	10x35	50	310.530.21	310.530.22
3	18	57,5	10x25	50	310.030.21	310.030.22
4	20	57,5	10x25	50	310.040.21	310.040.22
5	22	57,5	10x27	50	310.050.21	310.050.22
6	22	57,5	10x27	50	310.060.21	310.060.22
6,35 (1/4")	22	57,5	10x27	50	310.064.21	310.064.22
8	22	57,5	10x25	50	310.080.21	310.080.22
10	22	57,5	10x25	50	310.100.21	310.100.22

* Boring bit for panel preboring.
Suitable for both right-hand and left-hand rotation.

Spare parts

990.003.00

Optional

990.088.00

311.21/22 XTREME

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
1,3	5	70	10x45	50	311.013.20*	
2	12	70	10x40	50	311.020.21	311.020.22
3	18	70	10x40	50	311.030.21	311.030.22
4	27	70	10x28	50	311.040.21	311.040.22
5	30	70	10x28	50	311.050.21	311.050.22
6	30	70	10x27	50	311.060.21	311.060.22
6,35 (1/4")	30	70	10x30	50	311.064.21	311.064.22
8	35	70	10x25	50	311.080.21	311.080.22
10	35	70	10x25	50	311.100.21	311.100.22

* Boring bit for panel preboring.
Suitable for both right-hand and left-hand rotation.

Spare parts

990.003.00

Optional

990.088.00

TECHNICAL DETAILS:

- Premium quality super-strength steel.
- HWM spiral portion with centre point.
- 2 cutting edges [Z2].
- 2 spiral flutes.
- 2 curved, negatively ground spurs [V2].
- Parallel shank with driving flat and adjustable screw length.

APPLICATION:

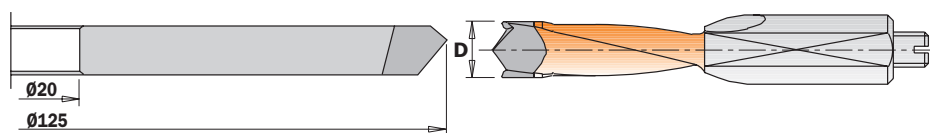
used on boring machines separately or with chucks for drilling blind holes in solid wood, wood composites, plastic and laminated materials.

Perfect for all materials and long-lasting performance!

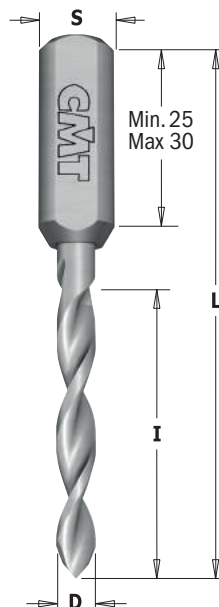
Grinding Wheels for Xtreme Sharpening

**01.02**

D mm	DESCRIPTION	DIMENSION mm	B mm	PACK QTY.	ORDER NO.
Ø3 a 7	Grinding wheel for reshaping	Ø125x5,5	Ø20	1	01.02.0316
Ø8 a 10	Grinding wheel for reshaping	Ø125x7	Ø20	1	01.02.0317



Solid Carbide Dowel Drills for Through Holes



314.21/22 **X-TREME**



D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
3	27	70	10x30	50	314.030.21	314.030.22
4	35	70	10x26	50	314.040.21	314.040.22
5	35	70	10x26	50	314.050.21	314.050.22
6	35	70	10x26	50	314.060.21	314.060.22
8	35	70	10x26	50	314.080.21	314.080.22
10	35	70	10x27	50	314.100.21	314.100.22

For panels with maximum 20-30mm in thickness

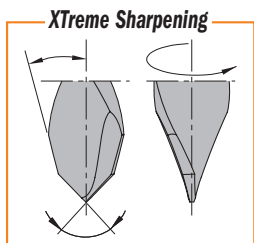
TECHNICAL DETAILS:

- Premium quality super-strength steel.
- HWM spiral portion with centre point.
- 2 precision ground cutting edges [Z2].
- Double angle.
- 2 spiral flutes.
- Parallel shank with driving flat and adjustable screw length.

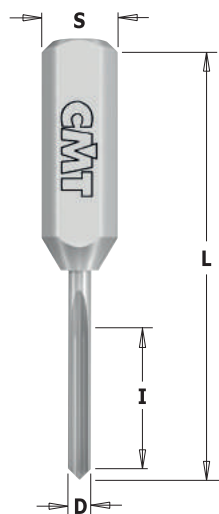
APPLICATION:

used on boring machines and dowel drilling devices.
Use for drilling through holes in solid wood, wood composites, plastic and laminated materials.

Spare parts	Optional
	
990.008.00	990.088.00



Solid Carbide Dowel Drills



382 **X-TREME**



D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand & Left-hand rotation
2	12	57,5	10x30	50	382.2057
2	12	70	10x42,5	50	382.2070
2,5	16	57,5	10x24	50	382.2557
2,5	16	70	10x35	50	382.2570
3	15	57,5	10x26	50	382.3057
3	25	70	10x26	50	382.3070
3,5	18	57,5	10x24	50	382.3557
3,5	18	70	10x36	50	382.3570
5	25	57,5	10x25	50	382.5057
5	35	70	10x25	50	382.5070

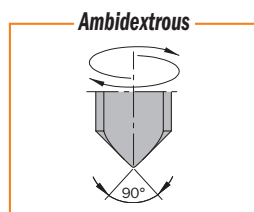
TECHNICAL DETAILS:

- Premium quality HWM.
- Cutting head with precision balanced centre point.
- 1 cutting edge [Z1].
- Parallel shank with driving flat and length adjusting screw.

APPLICATION:

for drilling blind holes on solid wood, wood composites, plastic and laminated materials. For use on machining centres, point to point machines, CNC routers and hand-held routers equipped with chucks or adaptors.

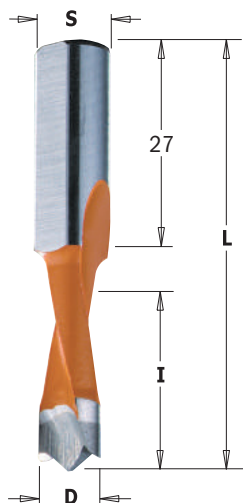
Spare parts	Optional
	
990.003.00	990.088.00



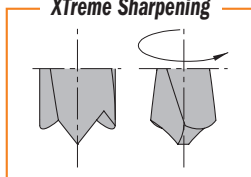
SECURITY TIPS:

These boring bits require more power compared to tradition dowel drills.
The number of boring bits to be used in a single drilling unit depends on the machine power.

Dowel Drills



Xtreme Sharpening



310.41/42 XTREME



D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	27	57,5	10x27	50	310.050.41	310.050.42
6	27	57,5	10x27	50	310.060.41	310.060.42
7	27	57,5	10x27	50	310.070.41	310.070.42
8	27	57,5	10x27	50	310.080.41	310.080.42
9	27	57,5	10x27	50	310.090.41	310.090.42
10	27	57,5	10x27	50	310.100.41	310.100.42

TECHNICAL DETAILS:

- Premium quality super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- Extra-fine micrograin carbide spiral portion with centre point.
- 2 cutting edges [Z2].
- 2 spiral flutes.
- 2 curved, negatively ground spurs [V2].
- Parallel shank with driving flat and adjustable screw length.

Spare parts



990.003.00

Optional

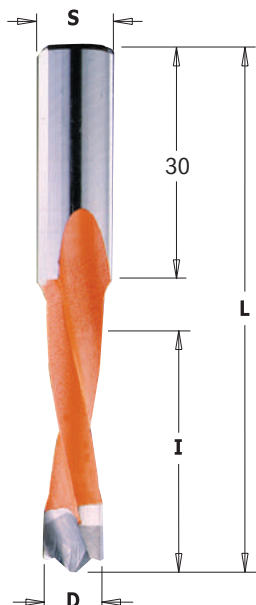


990.088.00

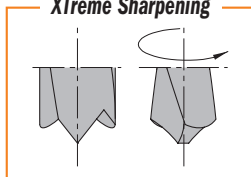
APPLICATION:

used on boring machines separately or with chucks for drilling blind holes in solid wood, wood composites, plastic and laminated materials.

Dowel Drills



Xtreme Sharpening



311.41/42 XTREME



D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	35	70	10x30	50	311.050.41	311.050.42
6	35	70	10x30	50	311.060.41	311.060.42
7	35	70	10x30	50	311.070.41	311.070.42
8	35	70	10x30	50	311.080.41	311.080.42
9	35	70	10x30	50	311.090.41	311.090.42
10	35	70	10x30	50	311.100.41	311.100.42

TECHNICAL DETAILS:

- Premium quality super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- Extra-fine micrograin carbide spiral portion with centre point.
- 2 cutting edges [Z2].
- 2 spiral flutes.
- 2 curved, negatively ground spurs [V2].
- Parallel shank with driving flat and adjustable screw length.

Spare parts



990.003.00

Optional



990.088.00

APPLICATION:

used on boring machines separately or with chucks for drilling blind holes in solid wood, wood composites, plastic and laminated materials.

Perfect for all materials and long-lasting performance!

CMT announces the new series of solid carbide boring bits, now available from their extensive industrial line. These bits are entirely made of premium quality super micrograin carbide from Ceratizit in Luxemburg.

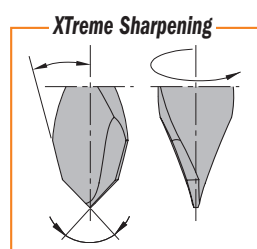
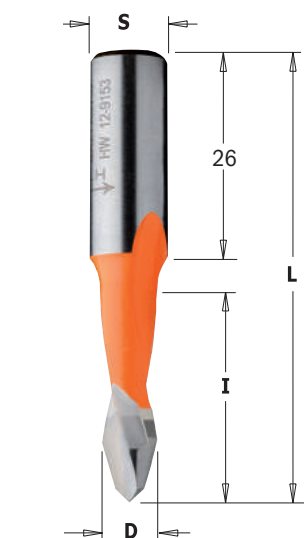
The entire series offers several design features:

- the unique tip has curved, negatively ground spurs to produce exceptionally clear bores with no rough edges. Centre point balanced;
- the cylindrical head is bigger than traditional tips and is extremely resistant to prolonged use.

It lasts longer between sharpenings;

- the plunge edge runs all the way to the centre of the bit to reduce drilling resistance and increase production speed;
- the solid carbide construction guarantees an almost infinite number of resharpenings, and since it is a solid unit of carbide, it offers extra safety features;
- ideal for hardwood and difficult composites such as particle boards, MDF and veneered wood.
- excellent performance on high-speed boring units and CNC routers.

Dowel Drills for Through Holes



313.41/42

XTREME

HW **LONG LIFE** **Z2** **RH** **LH**

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	27	57,5	10x26	50	313.050.41	313.050.42
8	27	57,5	10x26	50	313.080.41	313.080.42

For panels with maximum 20mm in thickness

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- Extra-fine micrograin carbide spiral portion with centre point.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- Double angle.
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

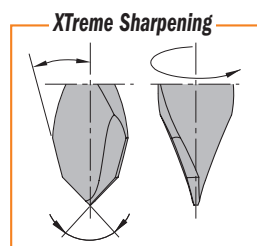


990.088.00

APPLICATION:

used on boring machines and dowel drilling devices. Use for drilling through holes in solid wood, wood composites, plastic and laminated materials.

Dowel Drills for Through Holes



314.41/42

XTREME

HW **LONG LIFE** **Z2** **RH** **LH**

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	35	70	10x26	50	314.050.41	314.050.42
6	35	70	10x26	50	314.060.41	314.060.42
7	35	70	10x26	50	314.070.41	314.070.42
8	35	70	10x26	50	314.080.41	314.080.42
10	35	70	10x26	50	314.100.41	314.100.42

For panels with maximum 30mm in thickness

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- Extra-fine micrograin carbide spiral portion with centre point.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- Double angle.
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional



990.088.00

APPLICATION:

used on boring machines and dowel drilling devices. Use for drilling through holes in solid wood, wood composites, plastic and laminated materials.

Perfect for all materials and long-lasting performance!

CMT announces the new series of solid carbide boring bits, now available from their extensive industrial line. These bits are entirely made of premium quality super micrograin carbide from Ceratizit in Luxemburg.

The entire series offers several design features:

- the unique tip has curved, negatively ground spurs to produce exceptionally clear bores with no rough edges. Centre point balanced;
- the cylindrical head is bigger than traditional tips and is extremely resistant to prolonged use.

It lasts longer between sharpenings;

- the plunge edge runs all the way to the centre of the bit to reduce drilling resistance and increase production speed;
- the solid carbide construction guarantees an almost infinite number of resharpenings, and since it is a solid unit of carbide, it offers extra safety features;
- ideal for hardwood and difficult composites such as particle boards, MDF and veneered wood.
- excellent performance on high-speed boring units and CNC routers.



364

B mm	L mm	S mm		PACK QTY.	ORDER NO.	
2	38	10x20		10	364.020.00	
2,5	38	10x20		10	364.025.00	
3	38	10x20		10	364.030.00	
3,2	38	10x20		10	364.032.00	
3,5	38	10x20		10	364.035.00	
4	38	10x20		10	364.040.00	
4,5	38	10x20		10	364.045.00	
5	38	10x20		10	364.050.00	

For use with the following items: 363 HWM

TECHNICAL DETAILS:

- Super-strength steel.
- Quick and secure assembly on twist drills.
- Precision relief.
- Parallel shank with driving flat.

APPLICATION:

for use with twist drills with common shank and bushing diameter.
Used on boring machines equipped with adaptor chucks.

Spare parts



990.001.00

991.062.00

Bushings for Twist Drills



365

B mm	L mm	S mm		PACK QTY.	ORDER NO.	
2	23	10		50	365.020.00	
2,5	23	10		50	365.025.00	
3	23	10		50	365.030.00	
3,2	23	10		50	365.032.00	
3,5	23	10		50	365.035.00	
4	23	10		50	365.040.00	
4,5	23	10		50	365.045.00	
5	23	10		50	365.050.00	
6	23	10		50	365.060.00	

new

For use with the following items: 363 HWM

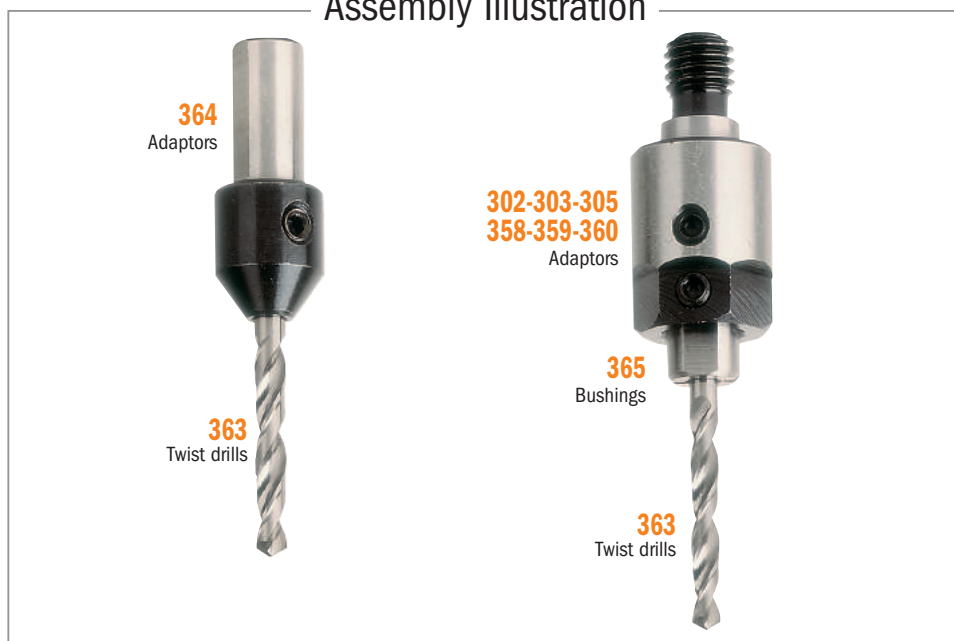
TECHNICAL DETAILS:

- Super-strength steel.
- Shank with driving flat.
- Axial cuttings for cylindrical drill clamps.

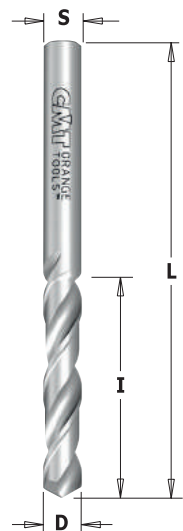
APPLICATION:

used with spiral boring bits with shank diameters equal to the bushing diameter.
Used on boring machines equipped with adaptors.

Assembly Illustration



Solid Carbide Twist Drills "V" Point Sharpening



"V" Point
120°

363

S=D mm	I mm	L mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
2	25	50	50	363.020.11	363.020.12
2,5	27	55	50	363.025.11	363.025.12
3	27	55	50	363.030.11	363.030.12
3,2	27	55	50	363.032.11	363.032.12
3,5	27	55	50	363.035.11	363.035.12
4	27	55	50	363.040.11	363.040.12
4,5	28	60	50	363.045.11	363.045.12
5	28	60	50	363.050.11	363.050.12

For use with the following items: 364-365

TECHNICAL DETAILS:

- Premium quality HWM.
- 2 precision ground cutting edges [Z2].
- 2 spiral flutes.
- Common shank and drilling diameter (S=D).

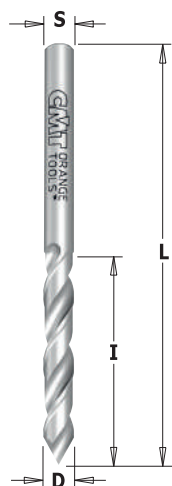
APPLICATION:

used in adaptor bushings.

HWM LONG LIFE Z2 RH LH

Solid Carbide Twist Drills "V" Point 60° Sharpening

new



"V" Point
60°

363

S=D mm	I mm	L mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
2,5	27	55	50	363.025.41	363.025.42
3	27	55	50	363.030.41	363.030.42
3,5	27	55	50	363.035.41	363.035.42
4	27	55	50	363.040.41	363.040.42

For use with the following items: 364-365

TECHNICAL DETAILS:

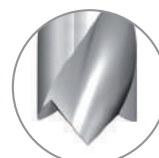
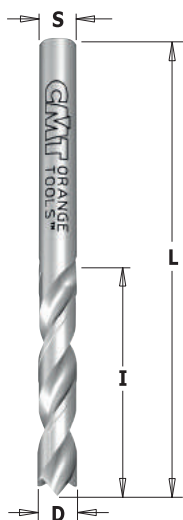
- Premium quality HWM.
- 2 precision ground cutting edges [Z2].
- 2 spiral flutes.
- Common shank and drilling diameter (S=D).

APPLICATION:

used in adaptor bushings.

HWM LONG LIFE Z2 RH LH

Solid Carbide Twist Drills Negatively Ground Spurs Sharpening



X-Treme
Sharpening

363

S=D mm	I mm	L mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
2,5	27	55	50	363.025.21	363.025.22
3	27	55	50	363.030.21	363.030.22
4	27	55	50	363.040.21	363.040.22
5	28	60	50	363.050.21	363.050.22

For use with the following items: 364-365

TECHNICAL DETAILS:

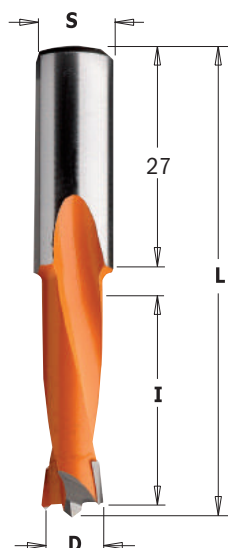
- Premium quality HWM.
- 2 precision ground cutting edges [Z2].
- 2 spiral flutes.
- Common shank and drilling diameter (S=D).

APPLICATION:

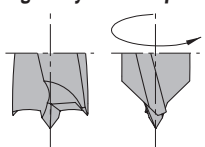
used in adaptor bushings.

HWM LONG LIFE Z2 RH LH

2 Flute Dowel Drills



Negatively Ground Spurs



310

HW Z2 V2 RH LH

D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
4	27	57,5	10x27	50	310.040.11	310.040.12
4,5	27	57,5	10x27	50	310.045.11	310.045.12
4,76	27	57,5	10x27	50	310.047.11	310.047.12
5	27	57,5	10x27	50	310.050.11	310.050.12
5,1	27	57,5	10x27	50	310.051.11	310.051.12
5,2	27	57,5	10x27	50	310.052.11	310.052.12
5,55	27	57,5	10x27	50	310.055.11	310.055.12
6	27	57,5	10x27	50	310.060.11	310.060.12
6,35	27	57,5	10x27	50	310.064.11	310.064.12
6,5	27	57,5	10x27	50	310.065.11	310.065.12
7	27	57,5	10x27	50	310.070.11	310.070.12
8	27	57,5	10x27	50	310.080.11	310.080.12
8,2	27	57,5	10x27	50	310.082.11	310.082.12
9	27	57,5	10x27	50	310.090.11	310.090.12
9,52	27	57,5	10x27	50	310.095.11	310.095.12
10	27	57,5	10x27	50	310.100.11	310.100.12
11	27	57,5	10x27	10	310.110.11	310.110.12
12	27	57,5	10x27	10	310.120.11	310.120.12
12,7	27	57,5	10x27	10	310.127.11	310.127.12
13	27	57,5	10x27	10	310.130.11	310.130.12
14	27	57,5	10x27	10	310.140.11	310.140.12
15	27	57,5	10x27	10	310.150.11	310.150.12
16	27	57,5	10x27	10	310.160.11	310.160.12

Spare parts



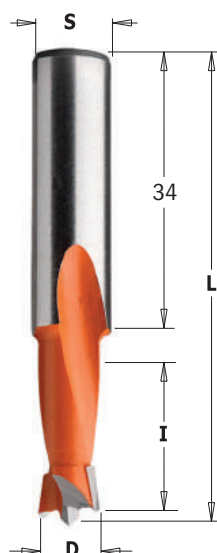
990.003.00

Optional

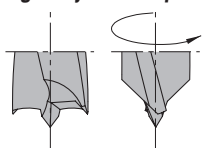


990.088.00

2 Flute Dowel Drills



Negatively Ground Spurs



361

HW Z2 V2 RH LH

D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	18	57,5	10x34	50	361.050.11	361.050.12
6	18	57,5	10x34	50	361.060.11	361.060.12
7	18	57,5	10x34	50	361.070.11	361.070.12
8	18	57,5	10x34	50	361.080.11	361.080.12
10	18	57,5	10x34	50	361.100.11	361.100.12

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 negatively ground spurs [V2]
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

APPLICATION:

used on boring machines equipped with adaptors or chucks.
Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Spare parts



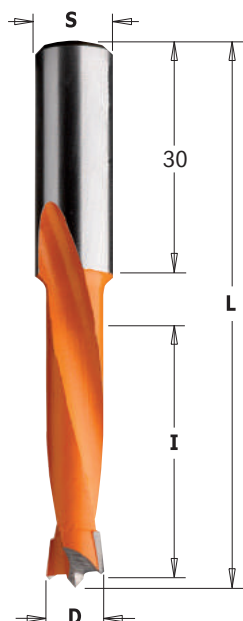
990.003.00

Optional

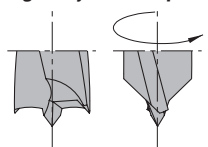


990.088.00

2 Flute Dowel Drills



Negatively Ground Spurs



311

HW Z2 V2 RH LH

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
4	35	70	10x30	50	311.040.11	311.040.12
4,5	35	70	10x30	50	311.045.11	311.045.12
4,76	35	70	10x30	50	311.047.11	311.047.12
5	35	70	10x30	50	311.050.11	311.050.12
5,1	35	70	10x30	50	311.051.11	311.051.12
5,2	35	70	10x30	50	311.052.11	311.052.12
5,55	35	70	10x30	50	311.055.11	311.055.12
6	35	70	10x30	50	311.060.11	311.060.12
6,35	35	70	10x30	50	311.064.11	311.064.12
6,5	35	70	10x30	50	311.065.11	311.065.12
7	35	70	10x30	50	311.070.11	311.070.12
8	35	70	10x30	50	311.080.11	311.080.12
8,2	35	70	10x30	50	311.082.11	311.082.12
9	35	70	10x30	50	311.090.11	311.090.12
9,52	35	70	10x30	50	311.095.11	311.095.12
10	35	70	10x30	50	311.100.11	311.100.12
11	35	70	10x30	10	311.110.11	311.110.12
11,1	35	70	10x30	10	311.111.11	311.111.12
12	35	70	10x30	10	311.120.11	311.120.12
12,7	35	70	10x30	10	311.127.11	311.127.12
13	35	70	10x30	10	311.130.11	311.130.12
14	35	70	10x30	10	311.140.11	311.140.12
15	35	70	10x30	10	311.150.11	311.150.12
16	35	70	10x30	10	311.160.11	311.160.12

Spare parts



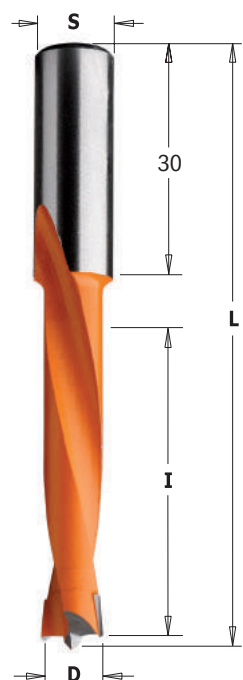
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Optional

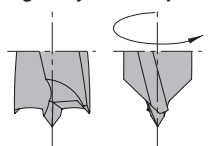


990.088.00

2 Flute Dowel Drills



Negatively Ground Spurs



362

HW Z2 V2 RH LH

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	44	77	10x30	50	362.050.11	362.050.12
6	44	77	10x30	50	362.060.11	362.060.12
7	44	77	10x30	50	362.070.11	362.070.12
8	44	77	10x30	50	362.080.11	362.080.12
10	44	77	10x30	50	362.100.11	362.100.12
12	44	77	10x30	10	362.120.11	362.120.12

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 negatively ground spurs [V2].
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

APPLICATION:

used on boring machines equipped with adaptors or chucks.
Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Spare parts



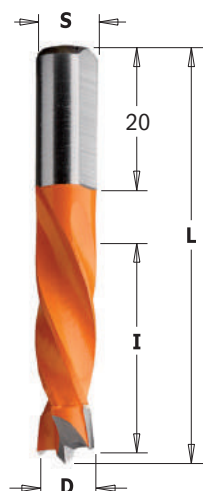
990.003.00

Optional

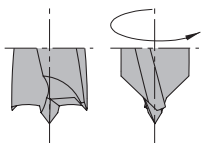


990.088.00

4 Flute Dowel Drills



Negatively Ground Spurs



306



D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
• 3	18	55,5	8x20	50	306.030.21	
5	30	55,5	8x20	50	306.050.11	306.050.12
5,55	30	55,5	8x20	50	306.055.11	306.055.12
6	30	55,5	8x20	50	306.060.11	306.060.12
6,35	30	55,5	8x20	50	306.064.11	306.064.12
7	30	55,5	8x20	50	306.070.11	306.070.12
8	30	55,5	8x20	50	306.080.11	306.080.12
9	30	55,5	8x20	50	306.090.11	306.090.12
10	30	55,5	8x20	50	306.100.11	306.100.12
12	30	55,5	8x20	50	306.120.11	306.120.12

• HWM

Spare parts



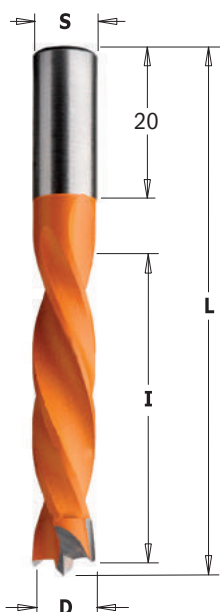
990.003.00

Optional

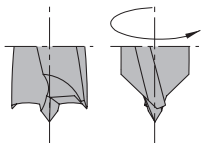


990.088.00

4 Flute Dowel Drills



Negatively Ground Spurs



307



D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	40	67	8x20	50	307.050.11	307.050.12
5,55	40	67	8x20	50	307.055.11	307.055.12
6	40	67	8x20	50	307.060.11	307.060.12
6,35	40	67	8x20	50	307.064.11	307.064.12
7	40	67	8x20	50	307.070.11	307.070.12
8	40	67	8x20	50	307.080.11	307.080.12
9	40	67	8x20	50	307.090.11	307.090.12
9,52	40	67	8x20	50	307.095.11	307.095.12
10	40	67	8x20	50	307.100.11	307.100.12
12	40	67	8x20	10	307.120.11	307.120.12

TECHNICAL DETAILS:

- Super-strength steel.
- Cutter portion coated with black or orange P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- Negatively ground spurs [V2].
- 4 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

APPLICATION:

used on boring machines equipped with adaptors or chucks.
Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Spare parts



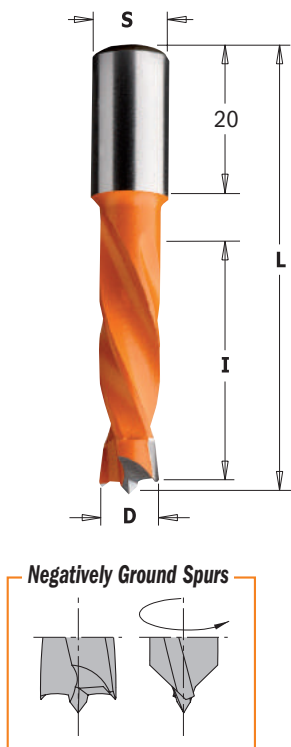
990.003.00

Optional



990.088.00

4 Flute Dowel Drills



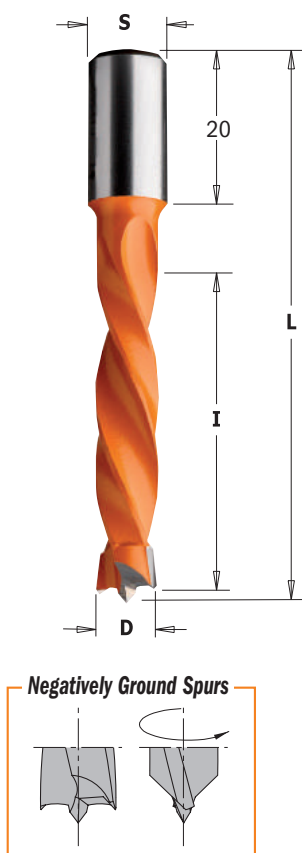
308

HW **Z2** **V2** **RH** **LH**

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
4	26	57,5	10x20	50	308.040.11	308.040.12
5	30	57,5	10x20	50	308.050.11	308.050.12
6	30	57,5	10x20	50	308.060.11	308.060.12
6,35	30	57,5	10x20	50	308.064.11	308.064.12
7	30	57,5	10x20	50	308.070.11	308.070.12
8	30	57,5	10x20	50	308.080.11	308.080.12
9	30	57,5	10x20	50	308.090.11	308.090.12
9,52	30	57,5	10x20	50	308.095.11	308.095.12
10	30	57,5	10x20	50	308.100.11	308.100.12
11	30	57,5	10x20	10	308.110.11	308.110.12
12	30	57,5	10x20	10	308.120.11	308.120.12
12,7	30	57,5	10x20	10	308.127.11	308.127.12
13	30	57,5	10x20	10	308.130.11	308.130.12
14	30	57,5	10x20	10	308.140.11	308.140.12
15	30	57,5	10x20	10	308.150.11	308.150.12
16	30	57,5	10x20	10	308.160.11	308.160.12

Spare parts	Optional
990.003.00	990.088.00

4 Flute Dowel Drills



309

HW **Z2** **V2** **RH** **LH**

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
4	43	70	10x20	50	309.040.11	309.040.12
5	43	70	10x20	50	309.050.11	309.050.12
6	43	70	10x20	50	309.060.11	309.060.12
6,35	43	70	10x20	50	309.064.11	309.064.12
7	43	70	10x20	50	309.070.11	309.070.12
7,5	43	70	10x20	50	309.075.11	309.075.12
8	43	70	10x20	50	309.080.11	309.080.12
9	43	70	10x20	50	309.090.11	309.090.12
9,52	43	70	10x20	50	309.095.11	309.095.12
10	43	70	10x20	50	309.100.11	309.100.12
11	43	70	10x20	10	309.110.11	309.110.12
12	43	70	10x20	10	309.120.11	309.120.12
12,7	43	70	10x20	10	309.127.11	309.127.12
13	43	70	10x20	10	309.130.11	309.130.12
14	43	70	10x20	10	309.140.11	309.140.12
15	43	70	10x20	10	309.150.11	309.150.12
16	43	70	10x20	10	309.160.11	309.160.12

TECHNICAL DETAILS:

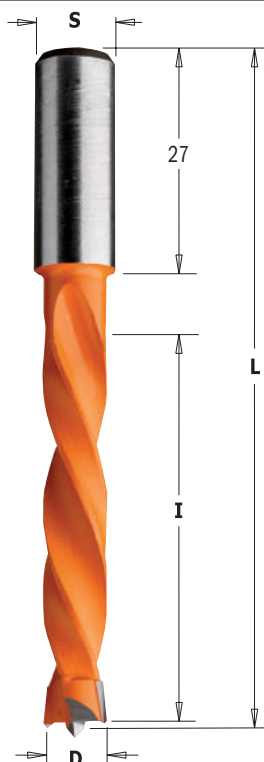
- Super-strength steel.
- Cutter portion coated with black or orange P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- Negatively ground spurs [V2].
- 4 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

APPLICATION:

used on boring machines equipped with adaptors or chucks.
Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Spare parts	Optional
990.003.00	990.088.00

4 Flute Dowel Drills



373



D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	50	85	10x27	50	373.050.11	373.050.12
6	50	85	10x27	50	373.060.11	373.060.12
7	50	85	10x27	50	373.070.11	373.070.12
8	50	85	10x27	50	373.080.11	373.080.12
10	50	85	10x27	50	373.100.11	373.100.12
12	50	85	10x27	10	373.120.11	373.120.12

TECHNICAL DETAILS:

- Super-strength steel.
- Cutter portion coated with black or orange P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- Negatively ground spurs [V2].
- 4 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

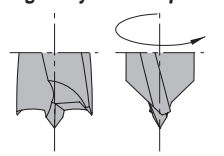


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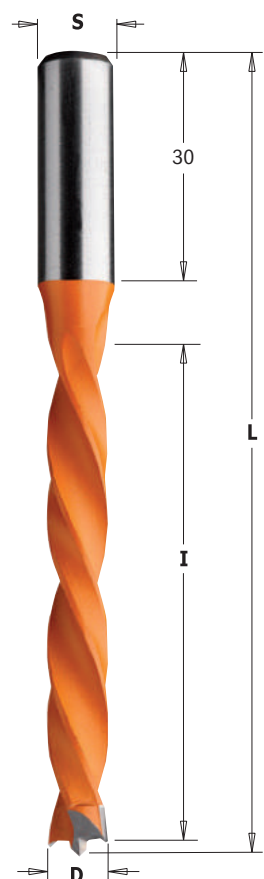
APPLICATION:

used on boring machines equipped with adaptors or chucks.
Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Negatively Ground Spurs



4 Flute Dowel Drills



372



D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	65	105	10x30	10	372.050.11	372.050.12
6	65	105	10x30	10	372.060.11	372.060.12
7	65	105	10x30	10	372.070.11	372.070.12
8	65	105	10x30	10	372.080.11	372.080.12
10	65	105	10x30	10	372.100.11	372.100.12
12	65	105	10x30	10	372.120.11	372.120.12

TECHNICAL DETAILS:

- Super-strength steel.
- Cutter portion coated with black or orange P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- Negatively ground spurs [V2].
- 4 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

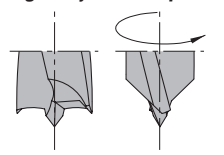


990.088.00

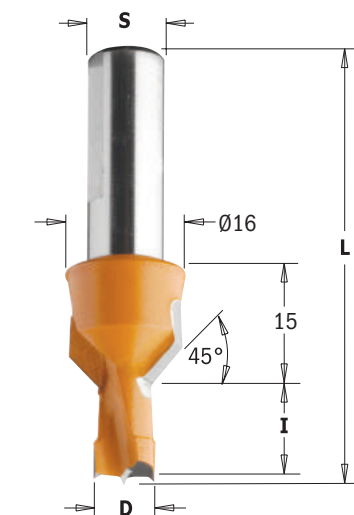
APPLICATION:

used on boring machines equipped with adaptors or chucks.
Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

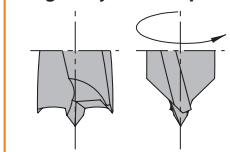
Negatively Ground Spurs



Dowel Drills with Countersink



Negatively Ground Spurs



376-377



D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8	12	57,5	10	10	376.080.11	376.080.12
8	13	57,5	10	10	376.083.11	376.083.12
8	15	57,5	10	10	376.081.11	376.081.12
8	20	57,5	10	10	376.082.11	376.082.12
10	12	57,5	10	10	376.100.11	376.100.12
10	13	57,5	10	10	376.103.11	376.103.12
10	15	57,5	10	10	376.101.11	376.101.12
10	20	57,5	10	10	376.102.11	376.102.12
8	12	70	10	10	377.080.11	377.080.12
8	13	70	10	10	377.083.11	377.083.12
8	15	70	10	10	377.081.11	377.081.12
8	20	70	10	10	377.082.11	377.082.12
10	12	70	10	10	377.100.11	377.100.12
10	13	70	10	10	377.103.11	377.103.12
10	15	70	10	10	377.101.11	377.101.12
10	20	70	10	10	377.102.11	377.102.12

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 ground spurs [V2].
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

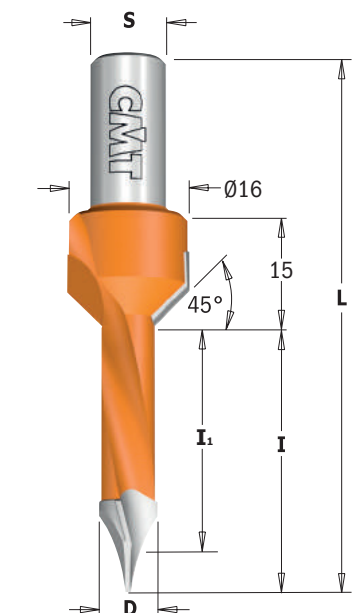


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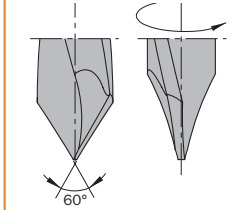
APPLICATION:

used for drilling and countersinking in solid wood, wood composites, plastic and laminated materials. Suitable for high performance speed on boring machines equipped with adaptors or chucks.

Dowel Drills for Through Holes with Countersink



60° Through Holes



378



D mm	I mm	I ₁ mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	35	31	70	10	10	378.052.11	378.052.12
7	35	29,5	70	10	10	378.072.11	378.072.12
8	35	29	70	10	10	378.082.11	378.082.12
10	35	26,5	70	10	10	378.102.11	378.102.12

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 ground spurs [V2].
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

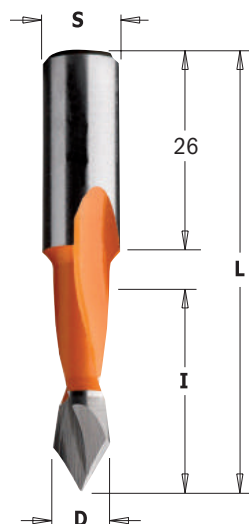


990.088.00

APPLICATION:

used for drilling and countersinking in solid wood, wood composites, plastic and laminated materials. Suitable for high performance speed on boring machines equipped with adaptors or chucks.

2 Flute Dowel Drills for Through Holes



313



D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	27	57,5	10x26	50	313.050.11	313.050.12
6	27	57,5	10x26	50	313.060.11	313.060.12
8	27	57,5	10x26	50	313.080.11	313.080.12
10	27	57,5	10x26	50	313.100.11	313.100.12

For panels with maximum 20mm in thickness.

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

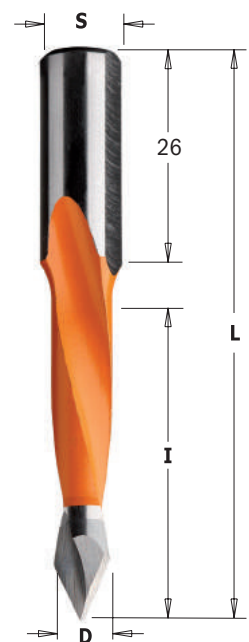
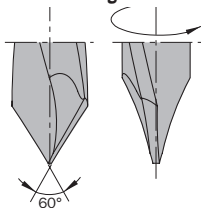


990.088.00

APPLICATION:

used on boring machines and dowel drilling devices.
Use for drilling through holes in solid wood, wood composites, plastic and laminated materials.

60° Through Holes



314



D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
4	30	70	10x26	50	314.040.11	314.040.12
4,76	35	70	10x26	50	314.047.11	314.047.12
5	35	70	10x26	50	314.050.11	314.050.12
5,55	35	70	10x26	50	314.055.11	314.055.12
6	35	70	10x26	50	314.060.11	314.060.12
6,35	35	70	10x26	50	314.064.11	314.064.12
7	35	70	10x26	50	314.070.11	314.070.12
8	35	70	10x26	50	314.080.11	314.080.12
9	35	70	10x26	50	314.090.11	314.090.12
9,52	35	70	10x26	50	314.095.11	314.095.12
10	35	70	10x26	50	314.100.11	314.100.12
12	35	70	10x26	10	314.120.11	314.120.12
12,7	35	70	10x26	10	314.127.11	314.127.12

For panels with maximum 25-30mm in thickness.

366

D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	44	77	10x26	50	366.050.11	366.050.12
6	44	77	10x26	50	366.060.11	366.060.12
8	44	77	10x26	50	366.080.11	366.080.12
10	44	77	10x26	50	366.100.11	366.100.12
12	44	77	10x26	10	366.120.11	366.120.12

For panels with maximum 30-40mm in thickness.

TECHNICAL DETAILS:

- Super-strength steel.
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

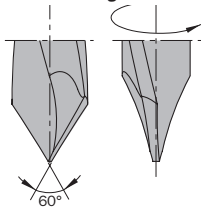


990.088.00

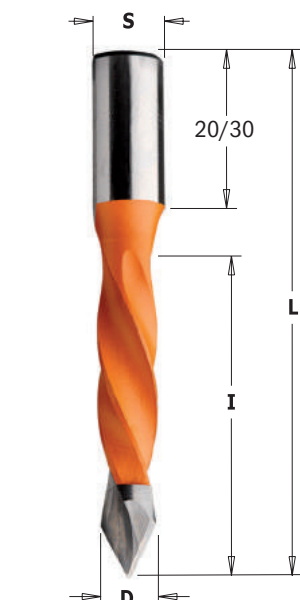
APPLICATION:

used on boring machines and dowel drilling devices.
Use for drilling through holes in solid wood, wood composites, plastic and laminated materials.

60° Through Holes



4 Flute Dowel Drills for Through Holes



374 For panels with maximum 20-25mm in thickness.



D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	30	57,5	10x20	50	374.050.11	374.050.12
8	30	57,5	10x20	50	374.080.11	374.080.12

375 For panels with maximum 30-35mm in thickness.

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
4	40	70	10x20	50	375.040.11	375.040.12
5	40	70	10x20	50	375.050.11	375.050.12
6	40	70	10x20	50	375.060.11	375.060.12
7	40	70	10x20	50	375.070.11	375.070.12
8	40	70	10x20	50	375.080.11	375.080.12
9	40	70	10x20	50	375.090.11	375.090.12
10	40	70	10x20	50	375.100.11	375.100.12

381 For panels with maximum 60-65mm in thickness.

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	70	115	10x30	10	381.050.11	381.050.12
6	70	115	10x30	10	381.060.11	381.060.12
8	70	115	10x30	10	381.080.11	381.080.12
10	70	115	10x30	10	381.100.11	381.100.12

TECHNICAL DETAILS:

- Super-strength steel
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point
- 2 precision ground cutting edges [Z2] - 4 spiral flutes
- Parallel shank with driving flat and length adjusting screw.

Spare parts



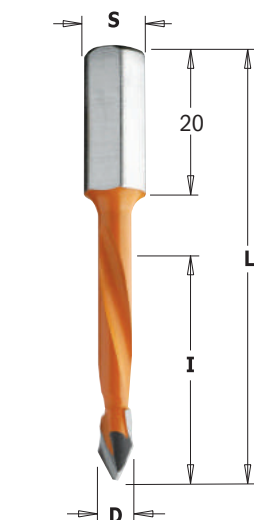
Optional



APPLICATION:

used on boring machines and dowel drilling devices.
Use for drilling through holes in solid wood, wood composites, plastic and laminated materials.

2 Flute Dowel Drills for Through Holes



367



D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	30	56	8x20	50	367.050.11	367.050.12
8	30	56	8x20	50	367.080.11	367.080.12

For panels with maximum 20-25mm in thickness.

368

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	43	70	8x20	50	368.050.11	368.050.12
6	43	70	8x20	50	368.060.11	368.060.12
7	43	70	8x20	50	368.070.11	368.070.12
8	43	70	8x20	50	368.080.11	368.080.12

For panels with maximum 35-40mm in thickness

TECHNICAL DETAILS:

- Super-strength steel
- Spiral portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point
- 2 precision ground cutting edges [Z2]
- 2 spiral flutes
- Parallel shank with driving flat and length adjusting screw.

Spare parts



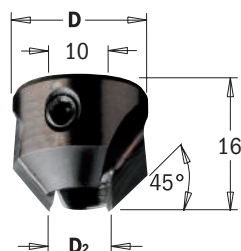
Optional



APPLICATION:

used on boring machines and dowel drilling devices.
Use for drilling through holes in solid wood, wood composites, plastic and laminated materials.

Countersinks for 2 Flutes Dowel Drills



315

D ₂ mm	D mm			PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5 ~ 10	20			10	315.200.11	315.200.12
11 ~ 12	22			10	315.220.11	315.220.12

For assembly on the shank of the drill.
For use with the following parts: 310-311-362-313-314-366 HW

TECHNICAL DETAILS:

- Super-strength steel.
- 2 precision ground carbide tipped cutting edges [Z2].
- Direct clamp on the shank of the drills.

APPLICATION:

used for chamfering and drilling in solid wood, wood composites, plastic and laminated materials.

Spare parts

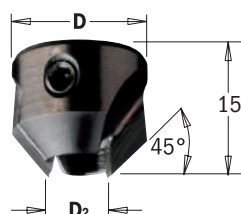


990.006.00



991.062.00

Countersinks for 4 Flutes Dowel Drills



316

D ₂ mm	D mm			PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
4	16			10	316.040.11	316.040.12
5	16			10	316.050.11	316.050.12
6	16			10	316.060.11	316.060.12
7	16			10	316.070.11	316.070.12
8	18			10	316.080.11	316.080.12
9	18			10	316.090.11	316.090.12
10	20			10	316.100.11	316.100.12
12	20			10	316.120.11	316.120.12

For assembly on the spiral head of the bit.
Adjustable depth.

For use with the following parts:
306-307-308-309-373-374-375-338-339
340-341-342-343-344-346-352-353 HW

TECHNICAL DETAILS:

- Super-strength steel.
- 2 HW precision ground cutting edges [Z2].

APPLICATION:

used for drilling and chamfering in solid wood, wood composites, plastic and laminated materials.

Spare parts



990.002.00



991.062.00

315 Assembly Illustration

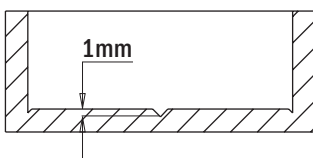
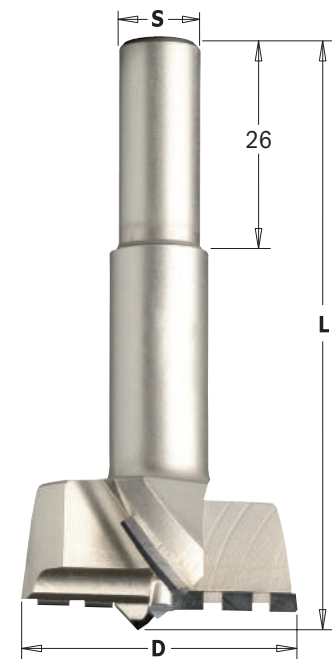


316 Assembly Illustration



LINE	XTREME DIAMOND	XTREME FLAT	INDUSTRIAL with chipbreaker	INDUSTRIAL
PERFORMANCE	SUPERIOR ★★★★★	SUPERIOR ★★★★★	EXCELLENT ★★★	VERY GOOD ★★★
BIT				
DESCRIPTION	Designed for heavy duty drilling in Large-Scale Industrial Manufacturing ensuring high impact resistance, greater durability and good chip evacuation thanks to the chipbreaker.	Designed for heavy duty drilling in Large-Scale Industrial Manufacturing ensuring high impact resistance and greater durability.	Designed for medium-duty to light-duty drilling in medium-scale to small-scale industrial manufacturing ensuring good chip evacuation thanks to the chipbreaker.	Designed for medium-duty to light-duty drilling in medium-scale to small-scale industrial manufacturing ensuring rigorous impact resistance and good durability.
USER	LARGE-SCALE INDUSTRIAL MANUFACTURING	LARGE-SCALE INDUSTRIAL MANUFACTURING	LARGE-SCALE TO MEDIUM-SCALE INDUSTRIAL MANUFACTURING	LARGE-SCALE TO MEDIUM-SCALE INDUSTRIAL MANUFACTURING
RECOMMENDED USE	INDUSTRIAL PRODUCTION	INDUSTRIAL PRODUCTION	INDUSTRIAL/REMODELER	INDUSTRIAL/REMODELER
MATERIALS	Ideal for chipboard, MDF, HDF, laminates and abrasive panels where long lifetime is required.	Ideal for chipboard, MDF, HDF and laminates. Non-protruding center-point and spurs make this tool perfect for low-thickness panels.	Excellent for solid wood. Good for chipboard, MDF, HDF and laminates.	Excellent for solid wood. Good for chipboard, MDF, HDF and laminates.
SHARPENING & MAINTENANCE	NEGATIVELY GROUND SPURS: standard design with HW head with precision balanced centre point, 2 HW precision ground cutting edges with chipbreaker and 2 negatively ground spurs.	XTREME FLAT SHARPENING: flat edges with reinforced spurs allow perfect finishing and prolonged drilling at high-speed cutting feed.	NEGATIVELY GROUND SPURS: standard design with HW head with precision balanced centre point, 2 HW precision ground cutting edges with chipbreaker and 2 negatively ground spurs.	NEGATIVELY GROUND SPURS: standard design with HW head with precision balanced centre point, 2 HW precision ground cutting edges and 2 negatively ground spurs.
DIAMOND / CARBIDE	The special polycrystalline diamond formula increases tool life up to 20 times longer than HW hinge bits. Good number of resharpenings guaranteed. The best quality/price ratio	INDUSTRIAL CHROMIUM MICROGRAIN CARBIDE The special chromium enhanced carbide produces clean bores with no rough edges even in the corners. In addition Chromium Micrograin Carbide guarantees exceptional resistance to fatigue and abrasion for longer lifetime.	INDUSTRIAL GRADE CARBIDE Fine and medium grain carbide grade guarantee reliable prolonged use.	INDUSTRIAL GRADE CARBIDE Fine and medium grain carbide grade guarantee reliable prolonged use.
COATING	High-quality nickel-plated with anti-friction and anti-corrosion properties.	C.M.T.'s P.T.F.E coating provides a non-stick surface preventing resin, glue or sludge residue accumulation on the bit body. Baked at 420°, this unique industrial material is specifically designed to fit woodworking tool requirements.	C.M.T.'s P.T.F.E coating provides a non-stick surface preventing resin, glue or sludge residue accumulation on the bit body. Baked at 420°, this unique industrial material is specifically designed to fit woodworking tool requirements.	C.M.T.'s P.T.F.E coating provides a non-stick surface preventing resin, glue or sludge residue accumulation on the bit body. Baked at 420°, this unique industrial material is specifically designed to fit woodworking tool requirements.
PRICE RANGE	HIGH	MEDIUM/HIGH	MEDIUM	MEDIUM

DP Hinge Boring Bits with chipbreaker



New construction with 1mm centre point

317-369

DP
LONG LIFE
Z2
V2
RH
LH
20X LONGER LIFE THAN CARBIDE

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
15	57,5	10x26	10	317.150.61	317.150.62
35	57,5	10x26	10	317.350.61	317.350.62
15	70	10x26	10	369.150.61	369.150.62
35	70	10x26	10	369.350.61	369.350.62

TECHNICAL DETAILS:

- Super-strength steel.
- DP head with precision balanced centre point.
- 2 DP precision ground cutting edges [Z2].
- 2 DP negatively ground spurs [V2].
- Parallel shank with driving flat and length adjusting screw.

APPLICATION:

ideal for hinges. Use on boring machines equipped with adaptors or chucks. Use for drilling accurate and clean-cut blind holes in wood composites, plastic and laminated materials. Boring performance 20 times longer than HW materials.

REMARK: special dimensions available on request.

Spare parts



990.003.00

Optional

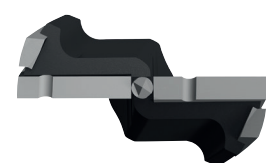


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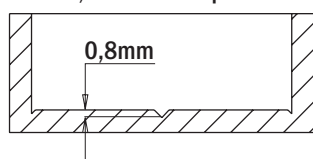
Hinge Boring Bits with Chipbreaker

new

CMT ORANGE TOOLS®



New construction with
0,8mm centre point



317 X-TREME

HW Z2R V2 RH LH

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
15	57,5	10x26	10	317.150.41	317.150.42
18	57,5	10x26	10	317.180.41	317.180.42
20	57,5	10x26	10	317.200.41	317.200.42
25	57,5	10x26	10	317.250.41	317.250.42
26	57,5	10x26	10	317.260.41	317.260.42
35	57,5	10x26	10	317.350.41	317.350.42

369 X-TREME

HW Z2R V2 RH LH

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
15	70	10x26	10	369.150.41	369.150.42
18	70	10x26	10	369.180.41	369.180.42
20	70	10x26	10	369.200.41	369.200.42
25	70	10x26	10	369.250.41	369.250.42
26	70	10x26	10	369.260.41	369.260.42
35	70	10x26	10	369.350.41	369.350.42

TECHNICAL DETAILS:

- Super-strength steel.
- Cutter portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges with chipbreaker [Z2R].
- 2 negatively ground spurs [V2].
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

Optional

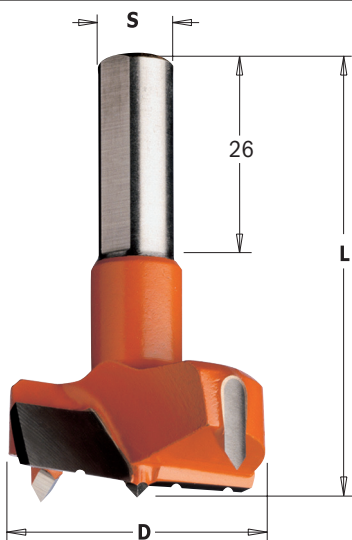


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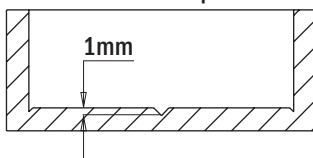
APPLICATION:

ideal for hinges. Use on boring machines equipped with adaptors or chucks. Use for drilling accurate and clean-cut blind holes in solid wood, wood composites, plastic and laminated materials.

Hinge Boring Bits with Chipbreaker



New construction with
1mm centre point



317C - 369C

HW Z2R V2 RH LH

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
35	57,5	10x26	10	317.350.11C	317.350.12C
40	57,5	10x26	10	317.400.11C	317.400.12C
45	57,5	10x26	10	317.450.11C	317.450.12C
35	70	10x26	10	369.350.11C	369.350.12C
40	70	10x26	10	369.400.11C	369.400.12C
45	70	10x26	10	369.450.11C	369.450.12C

TECHNICAL DETAILS:

- Super-strength steel.
- Cutter portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges with chipbreaker [Z2R].
- 2 negatively ground spurs [V2].
- Parallel shank with driving flat and length adjusting screw.

Spare parts



990.003.00

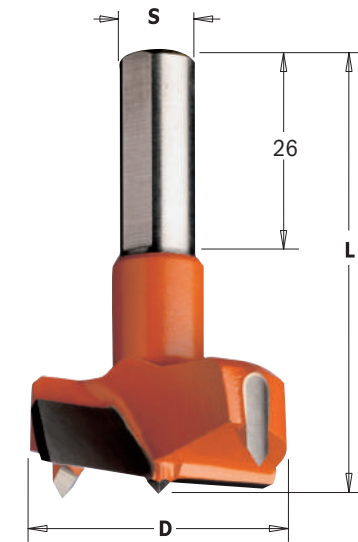
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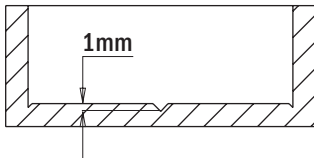
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APPLICATION:

ideal for hinges. Used on boring machines equipped with adaptors or chucks. For drilling accurate and clean-cut blind holes in solid wood.



New construction with
1mm centre point



TECHNICAL DETAILS:

- Super-strength steel.
- Cutter portion coated with orange or black P.T.F.E.
- HW head with precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 negatively ground spurs [V2].
- Parallel shank with driving flat and length adjusting screw.

APPLICATION:

ideal for hinges. Use on boring machines equipped with adaptors or chucks. Use for drilling accurate and clean-cut blind holes in solid wood, wood composites, plastic and laminated materials.

317

HW Z2 V2 RH LH

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
14	57,5	10x26	10	317.140.11	317.140.12
15	57,5	10x26	10	317.150.11	317.150.12
16	57,5	10x26	10	317.160.11	317.160.12
17	57,5	10x26	10	317.170.11	317.170.12
18	57,5	10x26	10	317.180.11	317.180.12
19	57,5	10x26	10	317.190.11	317.190.12
20	57,5	10x26	10	317.200.11	317.200.12
22	57,5	10x26	10	317.220.11	317.220.12
24	57,5	10x26	10	317.240.11	317.240.12
25	57,5	10x26	10	317.250.11	317.250.12
26	57,5	10x26	10	317.260.11	317.260.12
28	57,5	10x26	10	317.280.11	317.280.12
30	57,5	10x26	10	317.300.11	317.300.12
32	57,5	10x26	10	317.320.11	317.320.12
34	57,5	10x26	10	317.340.11	317.340.12
35	57,5	10x26	10	317.350.11	317.350.12
38	57,5	10x26	10	317.380.11	317.380.12
40	57,5	10x26	10	317.400.11	317.400.12
42	57,5	10x26	10	317.420.11	317.420.12
45	57,5	10x26	10	317.450.11	317.450.12
50	57,5	10x26	10	317.500.11	317.500.12
55	57,5	10x26	10	317.550.11	317.550.12
60	57,5	10x26	10	317.600.11	317.600.12

369

HW Z2 V2 RH LH

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
14	70	10x26	10	369.140.11	369.140.12
15	70	10x26	10	369.150.11	369.150.12
16	70	10x26	10	369.160.11	369.160.12
18	70	10x26	10	369.180.11	369.180.12
20	70	10x26	10	369.200.11	369.200.12
22	70	10x26	10	369.220.11	369.220.12
25	70	10x26	10	369.250.11	369.250.12
26	70	10x26	10	369.260.11	369.260.12
30	70	10x26	10	369.300.11	369.300.12
35	70	10x26	10	369.350.11	369.350.12
40	70	10x26	10	369.400.11	369.400.12
45	70	10x26	10	369.450.11	369.450.12
50	70	10x26	10	369.500.11	369.500.12
55	70	10x26	10	369.550.11	369.550.12
60	70	10x26	10	369.600.11	369.600.12

370

HW Z2 V2 RH LH

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
18	77	10x30	10	370.180.11	370.180.12
20	77	10x30	10	370.200.11	370.200.12
25	77	10x30	10	370.250.11	370.250.12
30	77	10x30	10	370.300.11	370.300.12
35	77	10x30	10	370.350.11	370.350.12

Spare parts



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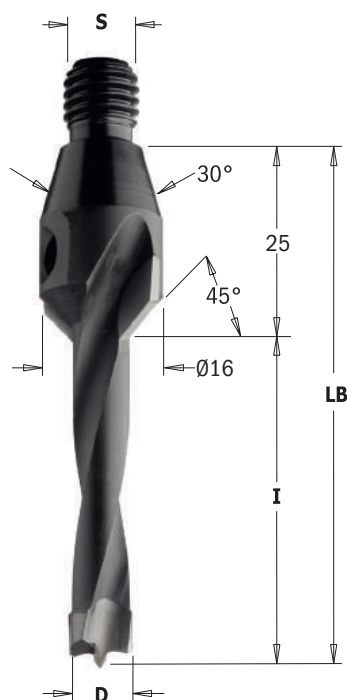
Optional



990.088.00

Dowel Drills with Threaded Shank with Countersink

HW Z2 V2 RH LH



332-334-336-337

D mm	I mm	LB mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	20	45	M10/30°	10	332.050.11	332.050.12
6	20	45	M10/30°	10	332.060.11	332.060.12
8	20	45	M10/30°	10	332.080.11	332.080.12
10	20	45	M10/30°	10	332.100.11	332.100.12
12	20	45	M10/30°	10	332.120.11	332.120.12
5	30	55	M10/30°	10	334.050.11	334.050.12
6	30	55	M10/30°	10	334.060.11	334.060.12
8	30	55	M10/30°	10	334.080.11	334.080.12
10	30	55	M10/30°	10	334.100.11	334.100.12
12	30	55	M10/30°	10	334.120.11	334.120.12
5	40	65	M10/30°	10	336.050.11	336.050.12
6	40	65	M10/30°	10	336.060.11	336.060.12
8	40	65	M10/30°	10	336.080.11	336.080.12
10	40	65	M10/30°	10	336.100.11	336.100.12
12	40	65	M10/30°	10	336.120.11	336.120.12
5	50	75	M10/30°	10	337.050.11	337.050.12
6	50	75	M10/30°	10	337.060.11	337.060.12
8	50	75	M10/30°	10	337.080.11	337.080.12
10	50	75	M10/30°	10	337.100.11	337.100.12
12	50	75	M10/30°	10	337.120.11	337.120.12

TECHNICAL DETAILS:

- Super-strength steel.
- HW head with precision balanced centre point.
- 2 precision ground cutting edge [Z2].
- 2 ground spurts [V2].
- 2 spiral flutes.

APPLICATION:

used on boring machines equipped with chucks. Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Dowel Drills with Threaded Shank without Countersink



341-342-343

HW Z2 V2 RH LH

D mm	I mm	LB mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	30	55	M10/30°	10	341.050.11	341.050.12
6	30	55	M10/30°	10	341.060.11	341.060.12
8	30	55	M10/30°	10	341.080.11	341.080.12
10	30	55	M10/30°	10	341.100.11	341.100.12
12	30	55	M10/30°	10	341.120.11	341.120.12
5	40	65	M10/30°	10	342.050.11	342.050.12
6	40	65	M10/30°	10	342.060.11	342.060.12
8	40	65	M10/30°	10	342.080.11	342.080.12
10	40	65	M10/30°	10	342.100.11	342.100.12
12	40	65	M10/30°	10	342.120.11	342.120.12
5	50	75	M10/30°	10	343.050.11	343.050.12
6	50	75	M10/30°	10	343.060.11	343.060.12
8	50	75	M10/30°	10	343.080.11	343.080.12
10	50	75	M10/30°	10	343.100.11	343.100.12
12	50	75	M10/30°	20	343.120.11	343.120.12

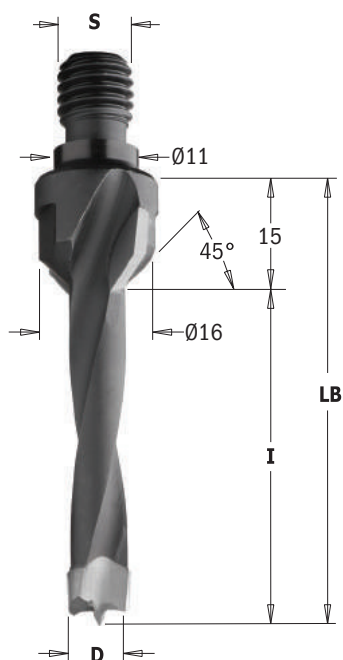
TECHNICAL DETAILS:

- Super-strength steel.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 ground spurts [V2].
- 4 spiral flutes.

APPLICATION:

used on boring machines equipped with chucks. Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Dowel Drills with Threaded Shank with Countersink



325-327-329-330



D mm	I mm	LB mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	20	35	M10/11x4	10	325.050.11	325.050.12
6	20	35	M10/11x4	10	325.060.11	325.060.12
8	20	35	M10/11x4	10	325.080.11	325.080.12
10	20	35	M10/11x4	10	325.100.11	325.100.12
12	20	35	M10/11x4	10	325.120.11	325.120.12
5	30	45	M10/11x4	10	327.050.11	327.050.12
6	30	45	M10/11x4	10	327.060.11	327.060.12
8	30	45	M10/11x4	10	327.080.11	327.080.12
10	30	45	M10/11x4	10	327.100.11	327.100.12
12	30	45	M10/11x4	10	327.120.11	327.120.12
5	40	55	M10/11x4	10	329.050.11	329.050.12
6	40	55	M10/11x4	10	329.060.11	329.060.12
8	40	55	M10/11x4	10	329.080.11	329.080.12
10	40	55	M10/11x4	10	329.100.11	329.100.12
12	40	55	M10/11x4	10	329.120.11	329.120.12
5	50	65	M10/11x4	10	330.050.11	330.050.12
6	50	65	M10/11x4	10	330.060.11	330.060.12
8	50	65	M10/11x4	10	330.080.11	330.080.12
10	50	65	M10/11x4	10	330.100.11	330.100.12
12	50	65	M10/11x4	10	330.120.11	330.120.12

TECHNICAL DETAILS:

- Super-strength steel.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 spiral flutes.
- 2 ground spurs [V2].

APPLICATION:

used on boring machines equipped with chucks. Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Dowel Drills with Threaded Shank without Countersink



338-339-340



D mm	I mm	LB mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	30	45	M10/11x4	10	338.050.11	338.050.12
6	30	45	M10/11x4	10	338.060.11	338.060.12
8	30	45	M10/11x4	10	338.080.11	338.080.12
10	30	45	M10/11x4	10	338.100.11	338.100.12
12	30	45	M10/11x4	10	338.120.11	338.120.12
5	40	55	M10/11x4	10	339.050.11	339.050.12
6	40	55	M10/11x4	10	339.060.11	339.060.12
8	40	55	M10/11x4	10	339.080.11	339.080.12
10	40	55	M10/11x4	10	339.100.11	339.100.12
12	40	55	M10/11x4	10	339.120.11	339.120.12
5	50	65	M10/11x4	10	340.050.11	340.050.12
6	50	65	M10/11x4	10	340.060.11	340.060.12
8	50	65	M10/11x4	10	340.080.11	340.080.12
10	50	65	M10/11x4	10	340.100.11	340.100.12
12	50	65	M10/11x4	10	340.120.11	340.120.12

TECHNICAL DETAILS:

- Super-strength steel.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 ground spurs [V2].
- 4 spiral flutes.

APPLICATION:

used on boring machines equipped with chucks. Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Dowel Drills with Threaded Shank



344

HW Z2 V2 RH LH

D mm	I mm	LB mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	43	63	M8	10	344.050.11	344.050.12
6	43	63	M8	10	344.060.11	344.060.12
8	43	63	M8	10	344.080.11	344.080.12
10	43	63	M8	10	344.100.11	344.100.12
12	43	63	M8	10	344.120.11	344.120.12

FOR USE ON THE FOLLOWING MACHINES:

Nottmeyer (older models)

346

HW Z2 V2 RH LH

D mm	I mm	LB mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	43	63	M10	10	346.050.11	346.050.12
6	43	63	M10	10	346.060.11	346.060.12
8	43	63	M10	10	346.080.11	346.080.12
10	43	63	M10	10	346.100.11	346.100.12
12	43	63	M10	10	346.120.11	346.120.12

FOR USE ON THE FOLLOWING MACHINES:

Ayen, Holzma, Knoevenagel, Mayer, Torwegge.

TECHNICAL DETAILS:

- Super-strength steel.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 ground spurs [V2].
- 4 spiral flutes.

APPLICATION:

used on boring machines equipped with chucks. Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

Dowel Drills with Threaded Shank



352-353

HW Z2 V2 RH LH

D mm	I mm	LB mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
5	30	45	M8/9	10	352.050.11	352.050.12
6	30	45	M8/9	10	352.060.11	352.060.12
8	30	45	M8/9	10	352.080.11	352.080.12
10	30	45	M8/9	10	352.100.11	352.100.12
12	30	45	M8/9	10	352.120.11	352.120.12
5	40	55	M8/9	10	353.050.11	353.050.12
6	40	55	M8/9	10	353.060.11	353.060.12
8	40	55	M8/9	10	353.080.11	353.080.12
10	40	55	M8/9	10	353.100.11	353.100.12
12	40	55	M8/9	10	353.120.11	353.120.12

FOR USE ON THE FOLLOWING MACHINES:

Masterwood (Zangheri & Boschetti)
Morbideilli, Nottmeyer (new design)

TECHNICAL DETAILS:

- Super-strength steel.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 ground spurs [V2].
- 4 spiral flutes.

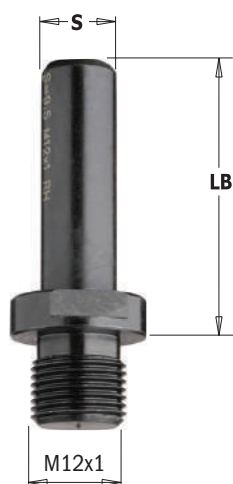
APPLICATION:

used on boring machines equipped with chucks. Used to drill blind holes in solid wood, wood composites, plastic and laminated materials.

BITS FOR HAND POWER TOOLS

PRODUCTS	PAGE
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Drill Bits for ANUBA Hinges	315
Countersinks & Drills	316~319



**509-532-533** ...with parallel shank for interchangeable bits

RH LH

S mm	LB mm			PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
8x30	35			10	532.080.01	
9,5x30	35			10	532.095.01	
10x50	60			1	533.100.01	533.100.02
12x30	35			10	532.120.01	
13x50	100			1	509.130.01	509.130.02
16x50	100			1	509.160.01	509.160.02

For use with the following parts: 501 HW

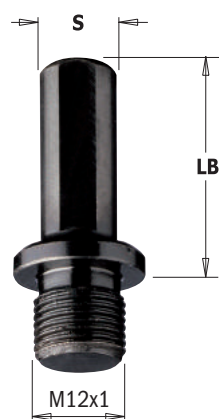
TECHNICAL DETAILS:

- Super strength steel.
- Parallel shank with driving flat and adjustable screw length.

APPLICATION:

used on boring machines with adaptor chucks.

Adaptors

**511** ...with parallel shank for quick change drills

RH LH

S mm	LB mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
10x20 (with driving flat and screw)	27	10	511.270.01	511.270.02
10x35 (with driving flat and screw)	40	10	511.400.01	511.400.02

For use with the following parts: 501 HW

TECHNICAL DETAILS:

- Super strength steel.
- Parallel shank with driving flat and adjustable screw length.

APPLICATION:

used on boring machines with adaptor chucks.

Spare parts



990.003.00

Adaptors

**506**

RH LH

S mm	LB mm			PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
M10/11x4	15			1	506.150.01	506.150.02
M10/11x4	25			1	506.250.01	506.250.02
M10/11x4	35			1	506.350.01	506.350.02

For use with the following parts: 501 HW

TECHNICAL DETAILS:

- Super strength steel.
- Parallel shank with driving flat and adjustable screw length.

APPLICATION:

used on boring machines with adaptor chucks.



503

RH LH

S mm	LB mm		PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
M10/30°	25		1	503.250.01	503.250.02
M10/30°	35		1	503.350.01	503.350.02
M10/30°	45		1	503.450.01	503.450.02

For use with the following parts: 501 HW

TECHNICAL DETAILS:

- Super strength steel.
- Parallel shank with driving flat and adjustable screw length

APPLICATION:

used on boring machines with adaptor chucks.



534

RH

S		PACK QTY.	ORDER NO. Right-hand rotation	
MK2/Ø20x14F.x1"		1	534.020.01	
MK2/M30x1,5		1	534.030.01	

For use with the following parts: 501 HW

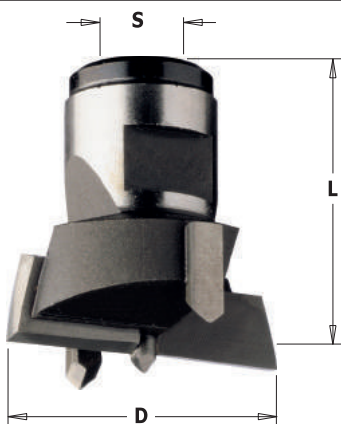
TECHNICAL DETAILS:

- Super strength steel.

APPLICATION:

used on CNC machines or hand-held routers equipped with adaptor chucks.

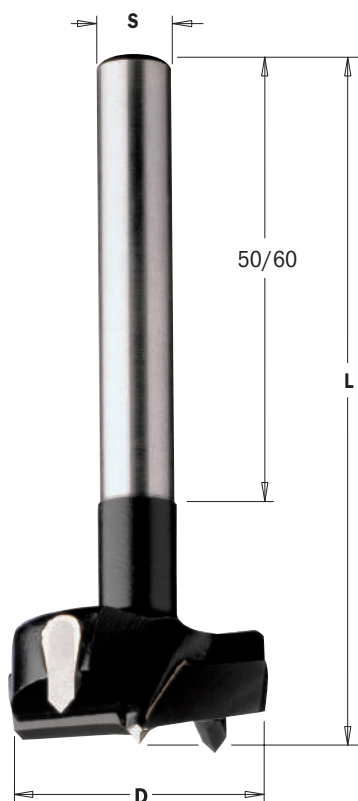
Interchangeable Boring Bits with Threaded Shank



501

HW Z2+2 RH LH

D mm	L mm	S mm		PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
20	30	M12x1		1	501.200.11	501.200.12
22	30	M12x1		1	501.220.11	501.220.12
24	30	M12x1		1	501.240.11	501.240.12
25	30	M12x1		1	501.250.11	501.250.12
26	30	M12x1		1	501.260.11	501.260.12
30	30	M12x1		1	501.300.11	501.300.12
32	30	M12x1		1	501.320.11	501.320.12
34	30	M12x1		1	501.340.11	501.340.12
35	30	M12x1		1	501.350.11	501.350.12
36	30	M12x1		1	501.360.11	501.360.12
38	30	M12x1		1	501.380.11	501.380.12
40	30	M12x1		1	501.400.11	501.400.12
45	30	M12x1		1	501.450.11	501.450.12
50	30	M12x1		1	501.500.11	501.500.12
55	30	M12x1		1	501.550.11	501.550.12
60	30	M12x1		1	501.600.11	501.600.12



512

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation
14	90	10x60	10	512.140.11
15	90	10x60	10	512.150.11
16	90	10x60	10	512.160.11
17	90	10x60	10	512.170.11
18	90	10x60	10	512.180.11
19	90	10x60	10	512.190.11
20	90	10x60	10	512.200.11
21	90	10x60	10	512.210.11
22	90	10x60	10	512.220.11
23	90	10x60	10	512.230.11
24	90	10x60	10	512.240.11
25	90	10x60	10	512.250.11
26	90	10x60	10	512.260.11
27	90	10x60	10	512.270.11
28	90	10x60	10	512.280.11
29	90	10x60	10	512.290.11
30	90	10x60	10	512.300.11
31	90	10x60	10	512.310.11
32	90	10x60	10	512.320.11
33	90	10x60	10	512.330.11
34	90	10x60	10	512.340.11
35	90	10x60	10	512.350.11
38	90	10x60	10	512.380.11
40	90	10x60	10	512.400.11
42	90	10x60	10	512.420.11
45	90	10x50	10	512.450.11
48	90	10x50	10	512.480.11
50	90	10x50	10	512.500.11
55	90	10x50	5	512.550.11
58	90	10x50	5	512.580.11
60	90	10x50	5	512.600.11

TECHNICAL DETAILS:

- Super strength steel.
- HW precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 HW negatively ground spurs [V2].
- Parallel shank.

APPLICATION:

used for drilling blind holes in solid wood, wood composites and plastic laminate materials.

Ideal for hinges.

5-Piece Boring Bit Set for Hinges



512.001.01

The perfect set for hinge work and other related applications. Machined from special high speed steel with micrograin carbide tips, these bits are available in diameters of 15, 20, 25, 30 and 35mm. Safely packaged in a solid plastic box with glass front for easy storage and inventory.

TECHNICAL DETAILS:

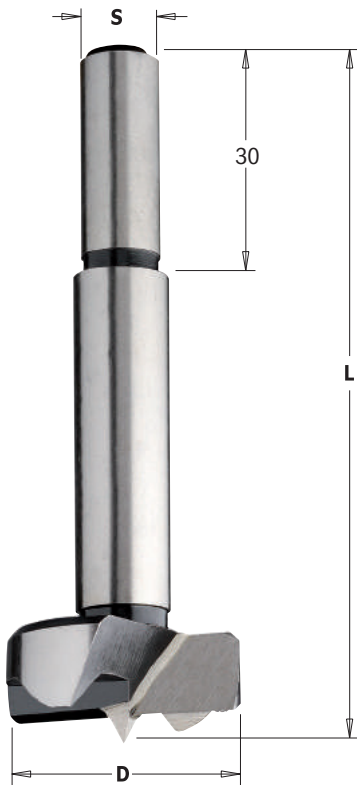
- Super strength steel.
- HW precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 HW negatively ground spurs [V2].
- Parallel shank.

APPLICATION:

used for drilling blind holes in solid wood, wood composites and plastic laminated materials.

Ideal for hinges.

DESCRIPTION	S mm	L mm	BIT DIAMETER mm	PACK QTY.	ORDER NO. Right-hand rotation
5-Piece Boring Bit Set for Hinges	10	90	15-20-25-30-35	5	512.001.01



512

SP Z2 V2 RH

D mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation
8	90	10x30	10	512.081.31
10	90	10x30	10	512.101.31
12	90	10x30	10	512.121.31
14	90	10x30	10	512.141.31
15	90	10x30	10	512.151.31
16	90	10x30	10	512.161.31
18	90	10x30	10	512.181.31
20	90	10x30	10	512.201.31
22	90	10x30	10	512.221.31
24	90	10x30	10	512.241.31
25	90	10x30	10	512.251.31
26	90	10x30	10	512.261.31
28	90	10x30	10	512.281.31
30	90	10x30	10	512.301.31
32	90	10x30	10	512.321.31
34	90	10x30	10	512.341.31
35	90	10x30	10	512.351.31
38	90	10x30	10	512.381.31
40	90	10x30	10	512.401.31
45	90	10x30	10	512.451.31
50	90	10x30	10	512.501.31

TECHNICAL DETAILS:

- SP steel.
- Precision balanced centre point.
- 2 spurs [V2].
- 2 precision ground cutting edges [Z2].
- Long-lasting cutting performance.
- Parallel shank.

APPLICATION:

used for drilling blind holes in softwood.
Ideal for hinges.

5-Piece Boring Bit Set for Hinges



512.001.00

SP Z2 V2 RH

The perfect set for hinge work and other related applications. Machined from special high speed steel, these bits are available in diameters of 15, 20, 25, 30 and 35mm. Precisely ground, sharpened with round shanks and safely packaged in a solid plastic box with glass front for easy storage and inventory.

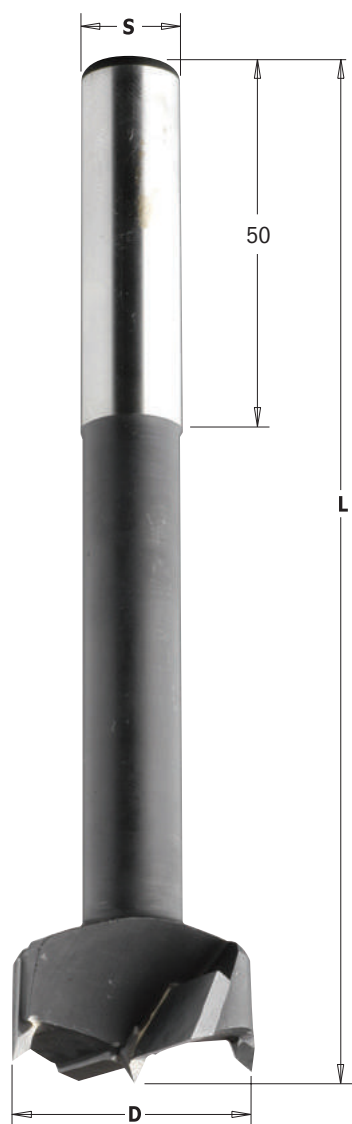
TECHNICAL DETAILS:

- SP steel.
- Precision balanced centre point.
- 2 spurs [V2].
- 2 precision ground cutting edges [Z2].
- Long-lasting cutting performance.

APPLICATION:

used for drilling blind holes in softwood. **Ideal for hinges.**

DESCRIPTION	S mm	L mm	BIT DIAMETER mm	PACK Qty.	ORDER NO. Right-hand rotation
5-Piece Boring Bit Set for Hinges	10	90	15-20-25-30-35	5	512.001.00



513

D mm	L mm	S mm		PACK QTY.	ORDER NO. Right-hand rotation	
15	120	13		1	513.150.11	
16	120	13		1	513.160.11	
18	120	13		1	513.180.11	
20	120	13		1	513.200.11	
22	125	13		1	513.220.11	
25	125	13		1	513.250.11	
26	125	13		1	513.260.11	
28	130	13		1	513.280.11	
30	130	13		1	513.300.11	
35	130	13		1	513.350.11	
40	130	13		1	513.400.11	
45	130	13		1	513.450.11	
50	130	13		1	513.500.11	
55	140	13		1	513.550.11	
60	140	13		1	513.600.11	

514

D mm	L mm	S mm		PACK QTY.	ORDER NO. Right-hand rotation	
15	120	16		1	514.150.11	
16	120	16		1	514.160.11	
18	120	16		1	514.180.11	
20	120	16		1	514.200.11	
22	125	16		1	514.220.11	
25	125	16		1	514.250.11	
26	125	16		1	514.260.11	
28	130	16		1	514.280.11	
30	130	16		1	514.300.11	
32	130	16		1	514.320.11	
35	130	16		1	514.350.11	
40	130	16		1	514.400.11	
45	130	16		1	514.450.11	
50	130	16		1	514.500.11	
55	140	16		1	514.550.11	
60	140	16		1	514.600.11	

TECHNICAL DETAILS:

- Super strength steel.
- HW precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 HW negatively ground spurs [V2].
- Parallel shank.

APPLICATION:

used for drilling blind holes in solid wood, wood composites and plastic laminated materials.
Ideal for hinges.



392

HW **Z2** **V2** **RH**

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation
15	60	8	10	392.150.11
20	60	8	10	392.200.11
25	60	8	10	392.250.11
26	60	8	10	392.260.11
30	60	8	10	392.300.11
35	60	8	10	392.350.11
35	60	12,7	10	392.351.11
40	60	8	10	392.400.11

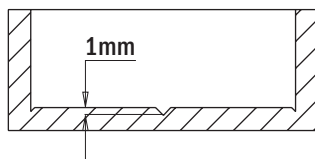
TECHNICAL DETAILS:

- Super strength steel.
- HW precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 HW negatively ground spurs [V2].
- Parallel shank.
- Right-hand rotation (RH).

APPLICATION:

for use on drilling machines and hand-held routers in solid wood, wood composites and plastic laminated materials.

Ideal for hinges and blind holes.



New construction with
1mm centre point

Mortise Chisel & Bit Sets



543

HSS **Z1** **RH**

mm	D inches	mm	S inches	PACK QTY.	ORDER NO. Right-hand rotation
6,35	1/4	19	3/4	1	543.064.51
8	5/16	19	3/4	1	543.079.51
9,5	3/8	19	3/4	1	543.095.51
12,7	1/2	19	3/4	1	543.127.51
15,8	5/8	19	3/4	1	543.158.51
19	3/4	19	3/4	1	543.190.51

It's tough to beat the "old faithful" mortise and tenon joint for strength and accuracy, even with all the other joining options in the world of woodworking. It isn't the easiest joint to make, but for sure it helps to have the best quality tools in your shop. That's why we've added a new selection of chisel and bit sets in all the popular sizes 6,35mm (1/4") to 19mm (3/4") diameter.

These sets are for use on any standard drill press mortising attachment of mortising machines.



Sample of Chisel Mortiser



529

SP RH

d mm	D mm	L mm	S mm	Z	PACK QTY.	ORDER NO. Right-hand rotation
8	18	140	13	4	5	529.080.31
10	20	140	13	4	5	529.100.31
12	24	140	13	4	5	529.120.31
14	26	140	13	4	5	529.140.31
15	27	140	13	4	5	529.150.31
16	28	140	13	4	5	529.160.31
18	30	140	13	4	5	529.180.31
20	32	140	13	4	5	529.200.31
22	34	140	13	5	5	529.220.31
25	37	140	13	5	5	529.250.31
30	42	140	13	5	5	529.300.31
32	44	140	13	5	5	529.320.31
35	47	160	16	6	2	529.350.31
40	52	160	16	6	2	529.400.31
45	57	160	16	6	2	529.450.31
50	62	160	16	6	2	529.500.31

d inches	D inches	L inches	S inches	Z	PACK QTY.	ORDER NO. Right-hand rotation
3/8	49/64	5-1/2	1/2	4	5	529.095.31
1/2	61/64	5-1/2	1/2	4	5	529.127.31
5/8	1-7/64	5-1/2	1/2	4	5	529.158.31
3/4	1-7/32	5-1/2	1/2	4	5	529.191.31
7/8	1-11/32	5-1/2	1/2	4	5	529.222.31
1	1-15/32	5-1/2	1/2	5	5	529.254.31
1-1/4	1-19/32	5-1/2	1/2	5	5	529.317.31
1-3/8	1-27/32	6-5/16	5/8	6	2	529.349.31
1-1/2	1-31/32	6-5/16	5/8	6	2	529.381.31
1-5/8	2-3/32	6-5/16	5/8	6	2	529.413.31
1-3/4	2-7/32	6-5/16	5/8	6	2	529.445.31
2	2-15/32	6-5/16	5/8	6	2	529.508.31

Use our D=16mm bushing to increase the 13mm shank (order no. 799.130.00 on page 379)

TECHNICAL DETAILS:

- SP steel.
- Long lasting cutter performance.

APPLICATION:

used to make plugs in hard and soft woods.

D mm	D inches	Max RPM Softwood	Max RPM Hardwood
< Ø16	5/8	1000	500
< Ø40	1-37/64	500	300
> Ø40	1-37/64	200	150

Plug Cutters



530

HSS Z4 RH

D mm	S	PACK QTY.	ORDER NO. Right-hand rotation
6,2	Ø21x14F.1"	1	530.062.51
8	Ø21x14F.1"	1	530.080.51
8,2	Ø21x14F.1"	1	530.082.51
10	Ø21x14F.1"	1	530.100.51
10,2	Ø21x14F.1"	1	530.102.51
12	Ø21x14F.1"	1	530.120.51
12,2	Ø21x14F.1"	1	530.122.51

TECHNICAL DETAILS:

- Super strength HSS steel.
- 4 precision ground cutting edges [Z4].
- Long lasting cutter performance.

APPLICATION:

used for cutting dowels.

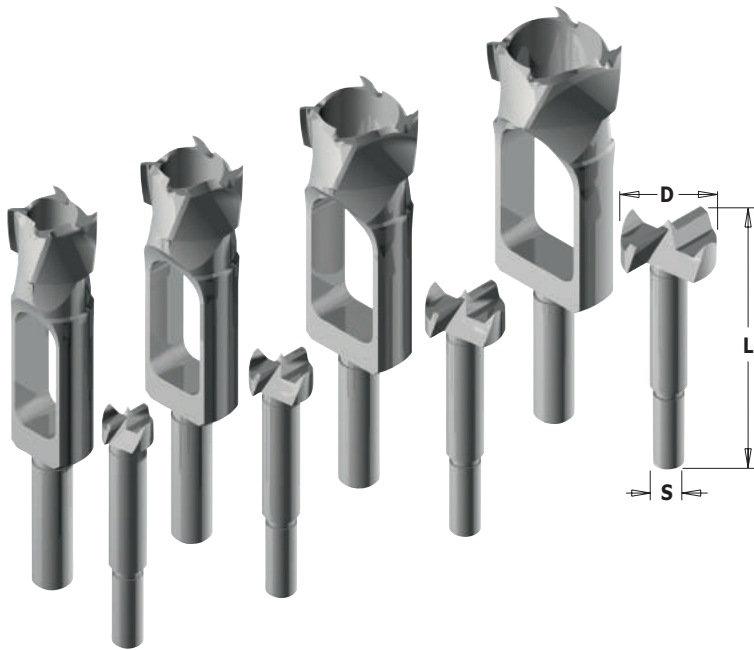
REMARK:

available on request.

500.001/02/03

SP RH

We offer a wide range of boring bits and plug cutters in the most popular diameters. If you need to bore or to make plugs in softwood these sets are exactly what you need!



500.001.08 Boring Bit & Plug Cutter Set

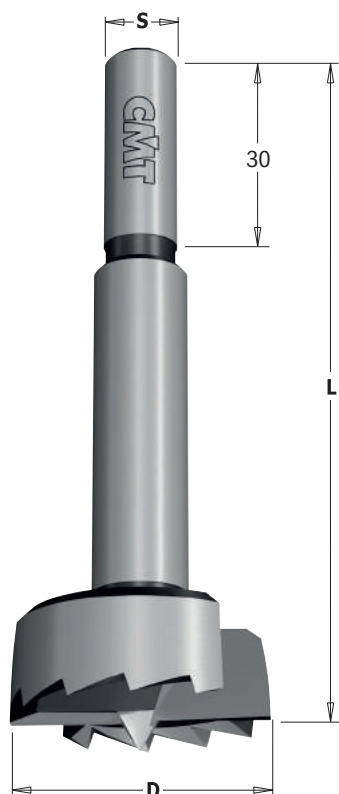
SET CONTAINS	D mm	L mm	S mm	ORDER NO. Right-hand rotation
Boring Bit with Parallel Shank	8	90	10	512.081.31
Boring Bit with Parallel Shank	10	90	10	512.101.31
Boring Bit with Parallel Shank	12	90	10	512.121.31
Boring Bit with Parallel Shank	15	90	10	512.151.31
Plug Cutter	8	140	13	529.080.31
Plug Cutter	10	140	13	529.100.31
Plug Cutter	12	140	13	529.120.31
Plug Cutter	15	140	13	529.150.31

500.002.08 Boring Bit & Plug Cutter Set

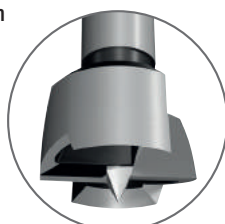
SET CONTAINS	D mm	L mm	S mm	ORDER NO. Right-hand rotation
Boring Bit with Parallel Shank	16	90	10	512.161.31
Boring Bit with Parallel Shank	20	90	10	512.201.31
Boring Bit with Parallel Shank	25	90	10	512.251.31
Boring Bit with Parallel Shank	30	90	10	512.301.31
Plug Cutter	16	140	13	529.160.31
Plug Cutter	20	140	13	529.200.31
Plug Cutter	25	140	13	529.250.31
Plug Cutter	30	140	13	529.300.31

500.003.08 Boring Bit & Plug Cutter Set

SET CONTAINS	D mm	L mm	S mm	ORDER NO. Right-hand rotation
Boring Bit with Parallel Shank	15	90	10	512.151.31
Boring Bit with Parallel Shank	20	90	10	512.201.31
Boring Bit with Parallel Shank	25	90	10	512.251.31
Boring Bit with Parallel Shank	30	90	10	512.301.31
Plug Cutter	15	140	13	529.150.31
Plug Cutter	20	140	13	529.200.31
Plug Cutter	25	140	13	529.250.31
Plug Cutter	30	140	13	529.300.31



toothed rim $\geq \varnothing 25\text{mm}$



standard rim $< \varnothing 25\text{mm}$

537

D mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation
10	90	8	10	537.100.31
12	90	8	10	537.120.31
14	90	8	10	537.140.31
15	90	8	10	537.150.31
16	90	8	10	537.160.31
18	90	8	10	537.180.31
20	90	8	10	537.200.31
22	90	8	10	537.220.31
24	90	8	10	537.240.31
25	90	8	10	537.250.31
26	90	8	10	537.260.31
28	90	8	10	537.280.31
30	90	8	10	537.300.31
32	90	10	10	537.320.31
35	90	10	10	537.350.31
38	90	10	10	537.380.31
40	90	10	10	537.400.31
45	90	10	10	537.450.31
50	90	10	10	537.500.31
55	90	10	5	537.550.31
68	157	12,7	5	537.680.31

D inches	L inches	S inches	PACK QTY.	ORDER NO. Right-hand rotation
1/4	3-35/64	3/8	10	537.064.31
3/8	3-35/64	3/8	10	537.095.31
1/2	3-35/64	3/8	10	537.127.31
5/8	3-35/64	3/8	10	537.158.31
3/4	3-35/64	3/8	10	537.190.31
7/8	3-35/64	3/8	10	537.222.31
1	3-35/64	3/8	10	537.254.31
1-1/8	3-35/64	3/8	10	537.285.31
1-1/4	3-35/64	3/8	10	537.317.31
1-3/8	3-35/64	3/8	10	537.349.31
1-1/2	3-35/64	3/8	10	537.381.31
1-5/8	3-35/64	3/8	10	537.413.31
1-3/4	3-35/64	3/8	10	537.445.31
1-7/8	3-35/64	3/8	10	537.476.31
2	3-35/64	3/8	10	537.508.31
2-1/8	3-35/64	3/8	5	537.540.31

STANDARD RIM AND TOOTHED RIM:

Standard rims provide better guidance but tend to overheat.

To overcome heat the larger diameters ($\geq \varnothing 25\text{mm}$) are designed with toothed rims.

TECHNICAL DETAILS:

- Super strength SP steel.
- Precision balanced centre point.
- 2 spurs [V2].
- 2 precision ground cutting edges [Z2].
- Long-lasting cutting performance.

APPLICATION:

used to drill precise flat bottom holes with no chipping in any softwood thickness.

Forstner Bit Sets

We offer a wide range of Forstner bits in the most popular diameters. These bits are available separately or in beautiful wooden sets. The high performance stagger tooth design on the bits with larger diameters allows for sharp holes with straight sides and flat bottoms. Bits available for drill presses, electric and cordless drills. Suitable for working on any type of softwood.

537.000.04
537.000.05
537.000.07
537.000.12



DESCRIPTION	SHANK	BIT DIAMETER	PACK QTY.	ORDER NO. Right-hand rotation
5 pcs. Router Bit Set in clamshell	Ø8-10mm	Ø15-20-25-30-35mm	5	537.000.05
12 pcs. Router Bit Set in clamshell	Ø8-10mm	Ø10-12-14-15-16-18-20-22-25-26-30-35mm	6	537.000.12
4 pcs. Router Bit Set in clamshell	Ø3/8"	Ø1/4" - 1/2" - 3/4" - 1"	5	537.000.04
7 pcs. Router Bit Set in clamshell	Ø3/8"	Ø1/4" - 3/8" - 1/2" - 5/8" - 3/4" - 7/8" - 1"	6	537.000.07
16 pcs. Router Bit Set in plastic box	Ø3/8"	Ø1/4" - 3/8" - 1/2" - 5/8" - 3/4" - 7/8" - 1" - 1-1/8" - 1-1/4" - 1-3/8" - 1-1/2" - 1-5/8" - 1-3/4" - 1-7/8" - 2" - 2-1/8"	8	537.000.16



531

HW **Z2** **RH**

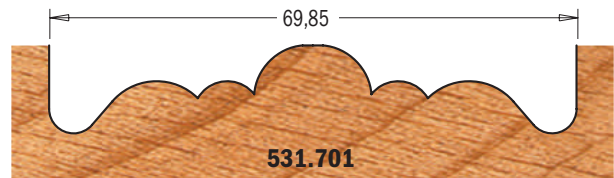
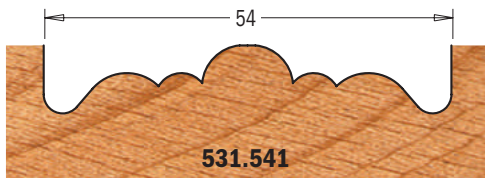
D mm	L mm	S mm	Max RPM	PACK Qty.	ORDER NO. Right-hand rotation
54	73,5	9,5	1500	10	531.541
54	71,3	9,5	1500	10	531.542
54	67,3	9,5	1500	10	531.543
54	72,3	9,5	1500	10	531.544
70	76,5	9,5	1000	5	531.701
70	74	9,5	1000	5	531.702

TECHNICAL DETAILS:

- Super strength steel.
- 2 HW precision ground cutting edges [Z2].
- Parallel exagonal shank.
- Right-hand rotation (RH).

APPLICATION:

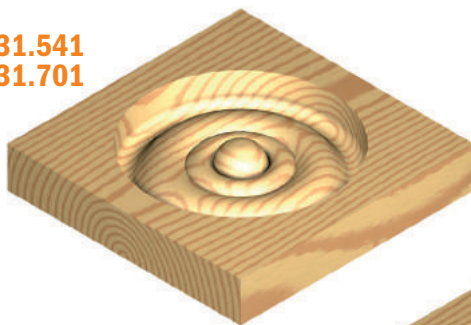
to be used on drill presses and drilling power tools at low RPMs (see table). We recommend clamping your workpiece mechanically during boring operations.



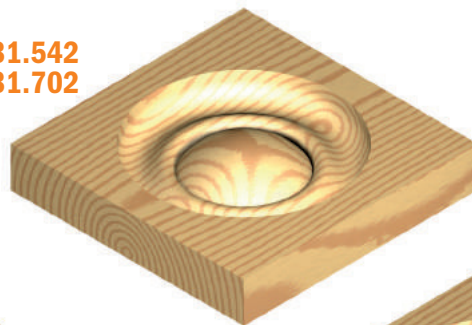
Drawings are 1:1 scale



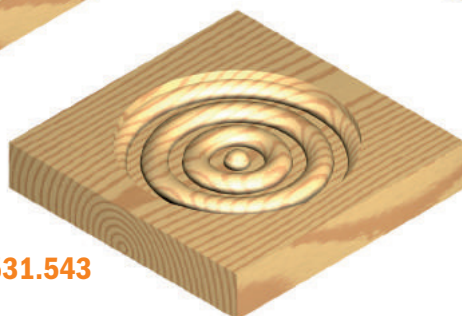
531.541
531.701



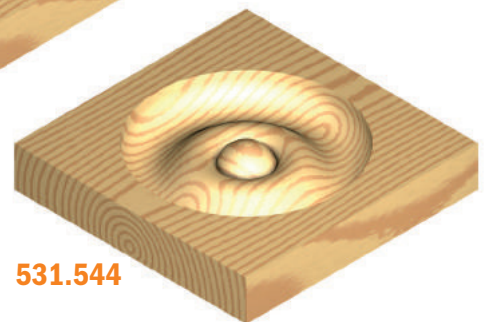
531.542
531.702

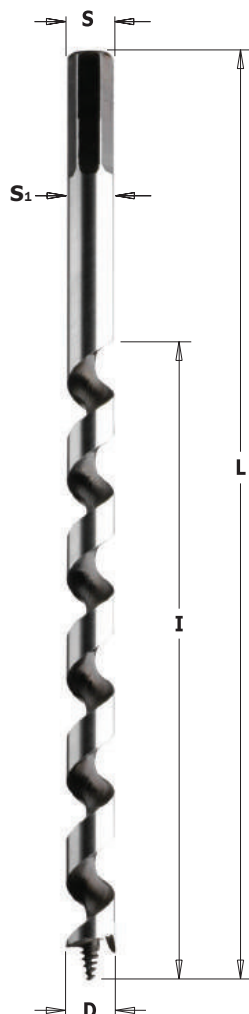


531.543



531.544





542-535

HSS **Z1** **V1** **RH**

D mm	I mm	L mm	S	S1 mm	RPM max	PACK Qty.	ORDER NO. Right-hand rotation
6	155	230	Hexagonal	6	800 ~ 1400	1	542.060.51
8	155	230	Hexagonal	6,35	800 ~ 1400	1	542.080.51
10	155	230	Hexagonal	9	600 ~ 1200	1	542.100.51
12	155	230	Hexagonal	12	600 ~ 1100	1	542.120.51
14	155	230	Hexagonal	12	600 ~ 1000	1	542.140.51
16	155	230	Hexagonal	12	500 ~ 900	1	542.160.51
18	155	230	Hexagonal	12	500 ~ 800	1	542.180.51
20	155	230	Hexagonal	12	400 ~ 700	1	542.200.51
7	360	460	Hexagonal	6,55	800 ~ 1000	1	535.070.51
8	360	460	Hexagonal	6,55	800 ~ 1000	1	535.080.51
10	360	460	Hexagonal	9	600 ~ 1000	1	535.100.51
12	360	460	Hexagonal	12	600 ~ 1000	1	535.120.51
14	360	460	Hexagonal	12	500 ~ 900	1	535.140.51
16	360	460	Hexagonal	12	500 ~ 900	1	535.160.51
18	360	460	Hexagonal	12	450 ~ 800	1	535.180.51
20	360	460	Hexagonal	12	400 ~ 700	1	535.200.51

TECHNICAL DETAILS:

- Super strength HSS steel.
- Precision balanced centre point.
- 1 precision ground cutting edge [Z1].
- 1 spiral flute.
- 1 spur [V1].
- Long-lasting cutting performance.

APPLICATION:

used for drilling deep holes in soft and hardwood.

Brad Point Bits

540

HW **Z2** **V2** **RH**

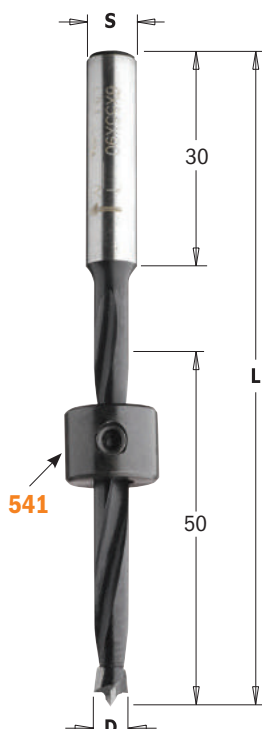
D mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation
5	90	8x30	1	540.050.11
6	90	8x30	1	540.060.11
8	90	8x30	1	540.080.11
10	90	8x30	1	540.100.11
12	90	8x30	1	540.120.11

TECHNICAL DETAILS:

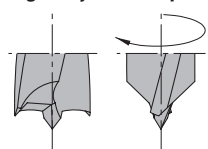
- Super strength steel.
- HW head with precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 negatively ground spurs [V2].
- 2 spiral flutes

APPLICATION:

for use on hand-held router to drill blind holes in solid wood, wood composites or plastic laminates.



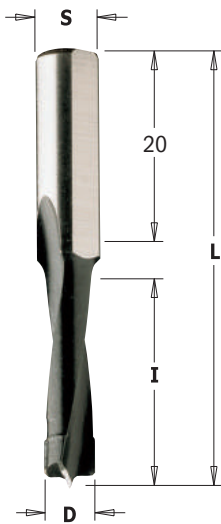
Negatively Ground Spurs



541 Stop Collars

D mm	PACK Qty.	ORDER NO.	Spare parts	
5	10	541.050.00	990.002.00	991.062.00
6	10	541.060.00	990.002.00	991.062.00
8	10	541.080.00	990.002.00	991.062.00
10	10	541.100.00	990.002.00	991.062.00
12	10	541.120.00	990.002.00	991.062.00

Stop collars with precision clamping nut and key for quick and easy assembly.



312

HW Z2 RH

D mm	I mm	L mm	S mm	PACK Qty.	ORDER NO. Right-hand rotation	
4	30	58	8	10	312.040.11	
5	30	58	8	10	312.050.11	
6	30	58	8	10	312.060.11	
8	30	58	8	10	312.080.11	
10	30	58	8	10	312.100.11	
12	30	58	8	10	312.120.11	
14	30	58	8	10	312.140.11	
16	30	58	8	10	312.160.11	

These drill bits are made with high-strength steel in order to work with high speed rotation. They are perfect for boring all materials like solid wood, wood and composites, plastic and laminated with **hand-held routers and MAFELL® machine model DD40.**

Spare parts



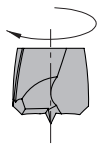
990.003.00

Optional



990.088.00

Sharpening with chamfer



TECHNICAL DETAILS:

- Super strength steel.
- Spiral portion coated with black P.T.F.E.
- HW precision balanced centre point.
- 2 HW precision ground cutting edges [Z2].
- 2 spiral flutes.
- Parallel shank with driving flat and length adjusting screw.

Router Bits for Domino® Joining Machines by Festool®



380

HW HWM Z2 RH

D mm	I mm	L mm	S mm	FESTOOL®	PACK Qty.	ORDER NO. Right-hand rotation
• 4	11	38	M6x0,75	DF500	10	380.040.11
5	20	49	M6x0,75	DF500	10	380.050.11
6	28	49	M6x0,75	DF500	10	380.060.11
8	28	49	M6x0,75	DF500	10	380.080.11
10	28	49	M6x0,75	DF500	10	380.100.11
8	50	90	M8x1	DF700	10	380.081.11
10	70	90	M8x1	DF700	10	380.101.11
12	70	90	M8x1	DF700	10	380.121.11
14	70	90	M8x1	DF700	10	380.141.11

• **HWM**

TECHNICAL DETAILS:

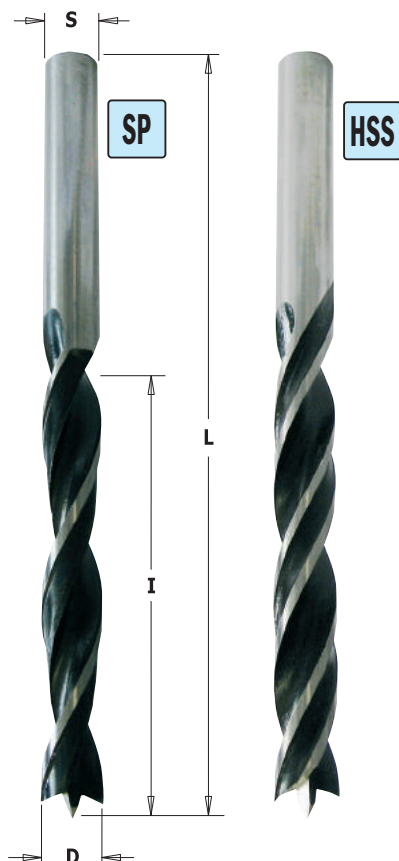
- Premium quality super-strength steel.
- Spiral portion coating with black P.T.F.E.
- Extra-fine micrograin carbide spiral portion.
- 2 cutting edges [Z2].
- 2 spiral flutes.

APPLICATION:

for use on "Domino®" machines to rout slots on solid wood and wood composites.



Brad Point Bits



517

SP HSS Z2 RH

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	SP	ORDER NO. Right-hand rotation	HSS
3	33	61	3	1	517.030.31		517.030.51	
4	43	75	4	1	517.040.31		517.040.51	
5	52	86	5	1	517.050.31		517.050.51	
6	57	93	6	1	517.060.31		517.060.51	
7	69	109	7	1	517.070.31		517.070.51	
8	75	117	8	1	517.080.31		517.080.51	
9	80	120	9	1	517.090.31		517.090.51	
10	80	120	10	1	517.100.31		517.100.51	
11	89	142	8	1	517.110.31		517.110.51	
12	96	151	8	1	517.120.31		517.120.51	
13	96	151	8	1	517.130.31		517.130.51	
14	96	151	10	1	517.140.31		517.140.51	
15	100	160	10	1	517.150.31		517.150.51	
16	100	160	10	1	517.160.31		517.160.51	
18	130	180	10	1	517.180.31			
20	135	200	10	1	517.200.31			

SP

TECHNICAL DETAILS:

- Super strength SP steel.
- Precision balanced center point.
- 2 precision ground cutting edges [Z2].
- 2 flutes.

APPLICATION:

used for drilling holes in softwood.

HSS

TECHNICAL DETAILS:

- Super strength HSS steel.
- Precision balanced center point.
- 2 precision ground cutting edges [Z2].
- 4 flutes.

APPLICATION:

used for drilling holes in soft and hardwood.

Long-lasting cutting performance.

Brad Point Bit Sets



517

HSS SP Z2 RH

5-Piece Brad Point Bit Set

An economical collection of the five most popular sized brad points - 4, 5, 6, 8 and 10mm.

Safely packaged in a reusable plastic case for easy storage and access.

8-Piece Brad Point Bit Set

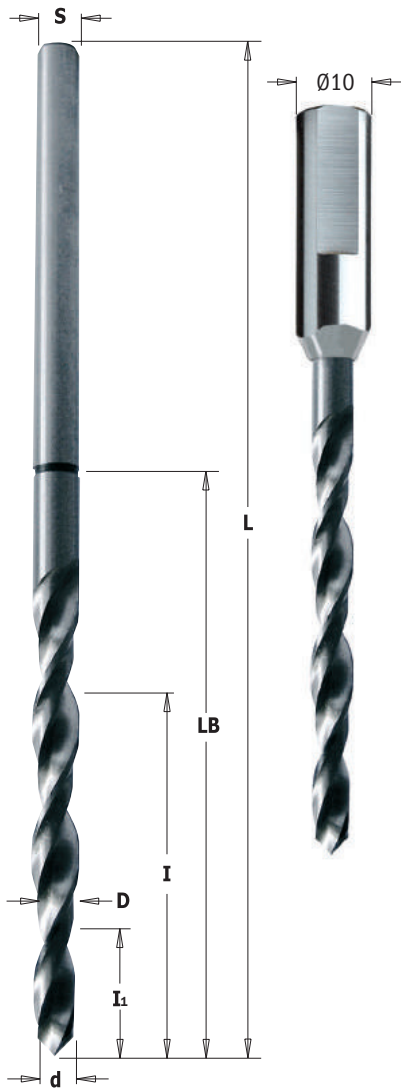
A complete collection of the most popular brad points in the most requested sizes - 3, 4, 5, 6, 7, 8, 9 and 10mm.

Safely packaged in a reusable plastic case for easy storage and access.

DESCRIPTION	Z	BIT DIAMETER	PACK QTY.	ORDER NO. Right-hand rotation
5-Pcs. HS Brad Point Set	4 flutes	(Ø4-5-6-8-10mm)	50	517.001.01
5-Pcs. SP Brad Point Set	2 flutes	(Ø4-5-6-8-10mm)	50	517.001.00
8-Pcs. HS Brad Point Set	4 flutes	(Ø3-4-5-6-7-8-9-10mm)	30	517.002.01
8-Pcs. SP Brad Point Set	2 flutes	(Ø3-4-5-6-7-8-9-10mm)	30	517.002.00

Drill Bits for ANUBA Hinges

HSS **Z2** **RH**



515

ANUBA no.	d mm	D-S mm	I ₁ mm	I mm	LB mm	L mm	PACK QTY.	ORDER NO. Right-hand rotation
9,5	3,8	5,2	18	56	74	132	1	515.095.51
11	4,8	5,7	17	60	76	145	1	515.110.51
13	5,8	6,7	18	68	83	155	1	515.130.51
14,5	6,3	7,2	19	75	89	165	1	515.145.51
16	6,7	7,7	25	85	100	165	1	515.160.51
18	7,7	8,7	25	85	102	165	1	515.180.51
20	8,8	9,8	25	90	104	165	1	515.200.51

Parallel Shank with Driving Flat

ANUBA no.	d mm	D mm	I mm	LB mm	S mm	L mm	PACK QTY.	ORDER NO. Right-hand rotation
9	3,8	5	20	40	10x35	75	1	515.091.51
11	4,2	5,7	20	45	10x35	80	1	515.111.51
13	5,2	6,5	15	50	10x35	85	1	515.131.51
14	5,5	7	15	55	10x35	90	1	515.141.51
16	6	7,7	15	60	10x35	95	1	515.161.51
18	6,6	8,2	20	70	10x35	105	1	515.181.51
20	7,2	8,7	20	80	10x35	115	1	515.201.51

TECHNICAL DETAILS:

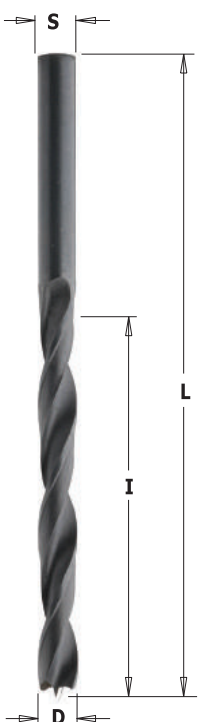
- Super strength steel.
- HSS steel.
- 2 HSS precision ground cutting edges [Z2].
- 2 spiral flutes.

APPLICATION:

used for drilling blind holes in soft and hardwood.



Brad Point Bits



516

HSS **Z2** **RH** **LH**

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
2	24	49	2	10	516.020.51	516.020.52
2,5	30	57	2,5	10	516.025.51	516.025.52
3	33	61	3	10	516.030.51	516.030.52
3,5	39	70	3,5	10	516.035.51	516.035.52
4	43	75	4	10	516.040.51	516.040.52
4,5	47	80	4,5	10	516.045.51	516.045.52
5	52	86	5	10	516.050.51	516.050.52
5,5	57	93	5,5	10	516.055.51	516.055.52
6	57	93	6	10	516.060.51	516.060.52
7	69	109	7	10	516.070.51	516.070.52
8	75	117	8	10	516.080.51	516.080.52
9	81	125	9	10	516.090.51	516.090.52
10	87	133	10	10	516.100.51	516.100.52

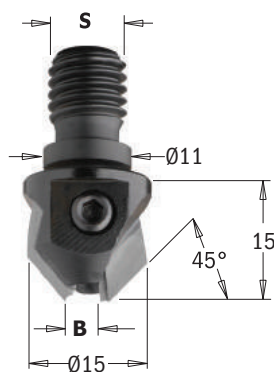
TECHNICAL DETAILS:

- Super strength steel.
- Precision balanced centre point.
- 2 precision ground cutting edges [Z2].
- 2 spiral flutes.
- Common shank and cutting diameter (S=D).

APPLICATION:

used for drilling holes in soft and hardwood.

Countersinks with Threaded Shank



350



B mm	S mm			PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
3	M10/Ø11x4			10	350.030.11	350.030.12
4	M10/Ø11x4			10	350.040.11	350.040.12
5	M10/Ø11x4			10	350.050.11	350.050.12

TECHNICAL DETAILS:

- Super strength steel.
- 2 HW precision ground cutting edges [Z2].
- Quick and easy drill change.

APPLICATION:

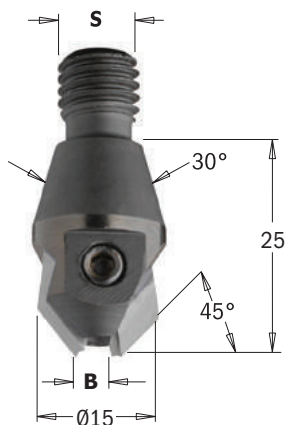
for use with spiral bits featuring parallel shank.

Spare parts



990.001.00

Countersinks with Threaded Shank



351

B mm	S mm			PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation
3	M10/30°			10	351.030.11	351.030.12
4	M10/30°			10	351.040.11	351.040.12
5	M10/30°			10	351.050.11	351.050.12

TECHNICAL DETAILS:

- Super strength steel.
- 2 HW precision ground cutting edges [Z2].
- Quick and easy drill change.

APPLICATION:

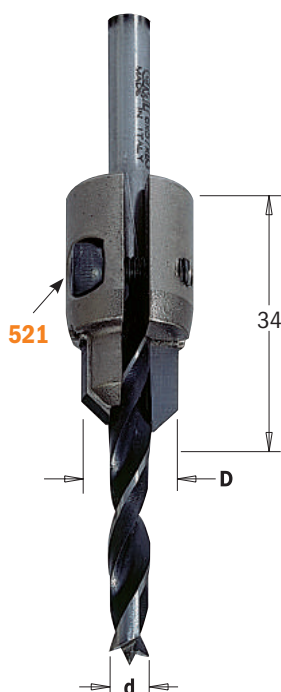
for use with spiral bits featuring parallel shank.

Spare parts



990.001.00

Adjustable Countersink



521.001



d mm	D mm	PACK QTY.	ORDER NO. Right-hand rotation	
3 ~ 7	11 ~ 15	10	521.001.11	

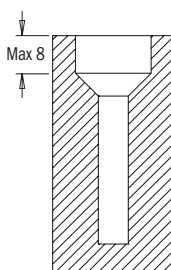
Spare parts



990.061.00



991.067.00



Twist drills	Overall diameter
Ø3	Ø11
Ø4	Ø12
Ø5	Ø13
Ø6	Ø14
Ø7	Ø15

TECHNICAL DETAILS:

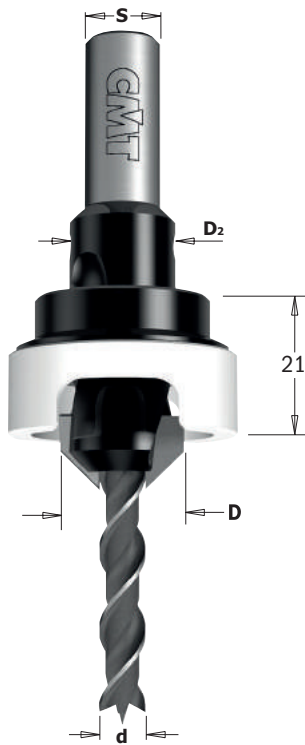
- Premium quality HW.
- 2 HW precision ground cutting edges [Z2].
- Quick and easy drill change.

APPLICATION:

for use with spiral bits featuring parallel shank.

Twist drills not included.

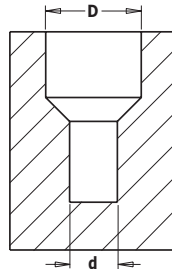
Drill Bits with 45° Countersink Set



521A

d mm	D mm	D ₂ mm	A	S mm	PACK QTY.	ORDER NO. Right-hand rotation
3	12	10	45°	8	10	521.312.11A
4	12	10	45°	8	10	521.412.11A
5	16	14	45°	10	10	521.516.11A
6	16	14	45°	10	10	521.616.11A

Spare parts
 990.014.00 Screw
 991.060.00 Hex key



TECHNICAL DETAILS:

- Super strength steel.
- Countersink: 2 HW precision ground cutting edges [Z2].

APPLICATION:

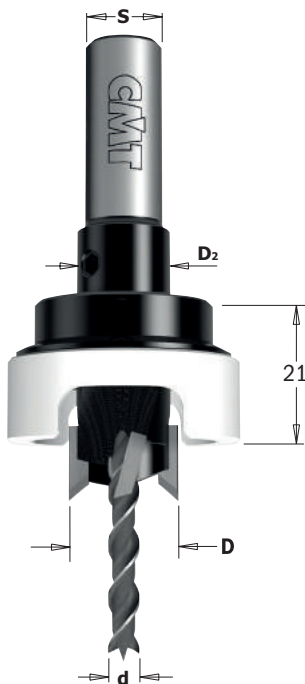
used for drilling holes in soft, hardwood and wood composites.

Stop collars with precision clamping nut for quick and easy assembly.
 The Delrin® protection sleeve lets you work without leaving marks on the workpiece.

Spare parts

521.312.11	517.030.51	541.101.00
521.412.11	517.040.51	541.101.00
521.516.11	517.050.51	541.141.00
521.616.11	517.060.51	541.141.00

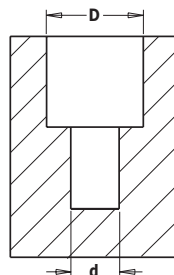
Drill Bits with 90° Countersink Set



515A

d mm	D mm	D ₂ mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation
4	12	10	10	10	515.412.11A
4	14	12	10	10	515.414.11A
5	15	14	10	10	515.515.11A
6	14	12	10	10	515.614.11A
6	15	14	10	10	515.615.11A

Spare parts
 990.014.00 Screw
 991.060.00 Hex key



TECHNICAL DETAILS:

- Super strength steel.
- Countersink: 2 HW precision ground cutting edges [Z2].
- Countersink: 2 HW negatively ground spurs [V2].

APPLICATION:

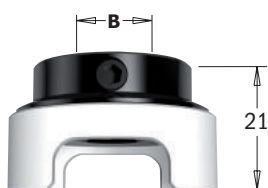
used for drilling holes in soft, hardwood and wood composites.

Stop collars with precision clamping nut for quick and easy assembly.
 The Delrin® protection sleeve lets you work without leaving marks on the workpiece.

Spare parts

515.412.11	517.040.51	541.101.00
515.414.11	517.040.51	541.121.00
515.515.11	517.050.51	541.141.00
515.614.11	517.060.51	541.121.00
515.615.11	517.060.51	541.141.00

Stop Collars with Delrin® Sleeve



541

B mm	PACK QTY.	ORDER NO.
10	1	541.101.00
12	1	541.121.00
14	1	541.141.00

Stop collars with precision clamping nut for quick and easy assembly.
 The Delrin® protection sleeve lets you work without leaving marks on the workpiece.

Spare parts

990.014.00	991.060.00
990.014.00	991.060.00
990.014.00	991.060.00

45° Countersink with Parallel Shank

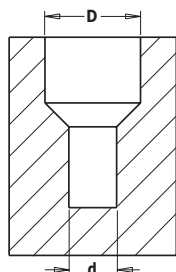


521



d mm	D mm	D ₂ mm	A	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation	Spare parts
3	12	10	45°	8	10	521.312.11	521.312.12	990.014.00
4	12	10	45°	8	10	521.412.11	521.412.12	990.014.00
5	16	14	45°	10	10	521.516.11	521.516.12	990.014.00
6	16	14	45°	10	10	521.616.11	521.616.12	990.014.00

Spare parts 991.060.00 2mm hex key



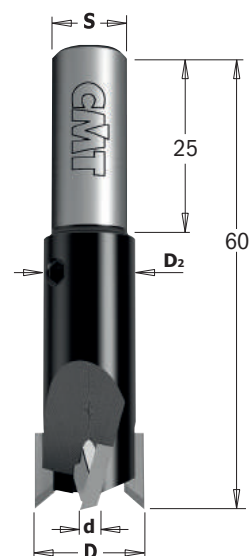
TECHNICAL DETAILS:

- Super strength steel.
- 2 HW precision ground cutting edges [Z2].

APPLICATION:

for use with spiral bits featuring parallel shank.

90° Countersink with Parallel Shank

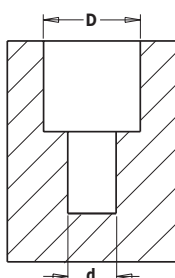


515



d mm	D mm	D ₂ mm	A	S mm	PACK QTY.	ORDER NO. Right-hand rotation	ORDER NO. Left-hand rotation	Spare parts
4	12	10	90°	10	10	515.412.11		990.014.00
4	14	12	90°	10	10	515.414.11		990.014.00
5	15	14	90°	10	10	515.515.11		990.014.00
6	14	12	90°	10	10	515.614.11		990.014.00
6	15	14	90°	10	10	515.615.11		990.014.00

Spare parts 991.060.00 2mm hex key



TECHNICAL DETAILS:

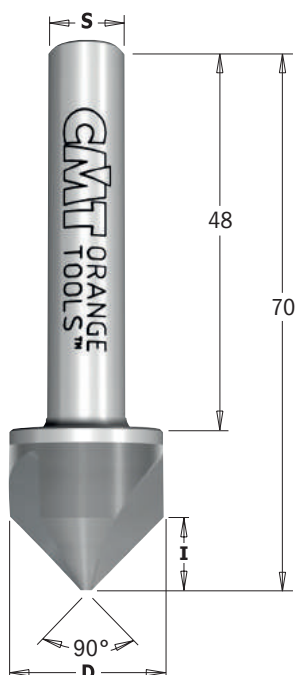
- Super strength steel.
- 2 HW precision ground cutting edges [Z2].
- 2 HW negatively ground spurs [V2].

APPLICATION:

for use with spiral bits featuring parallel shank.

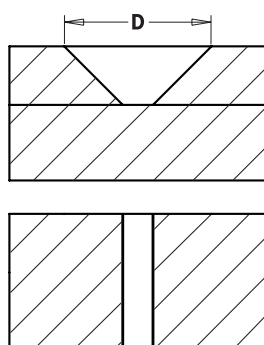
90° Countersink with Parallel Shank

HWM Z3 RH



521

D mm	I mm	L mm	S mm	PACK QTY.	ORDER NO. Right-hand rotation
19,5	9	70	10x48	10	521.002.11



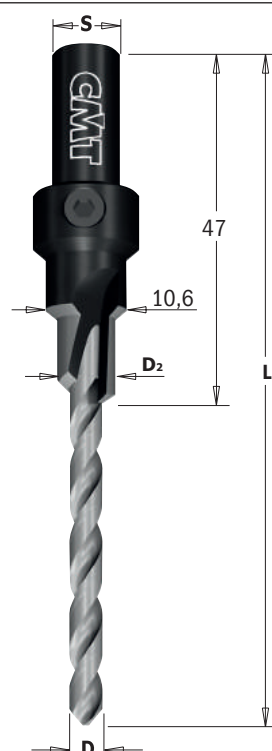
For drilling use bits
series **516** or **517**

TECHNICAL DETAILS:

- For making 90° countersunk blind holes accepting flat-head fasteners that sit flush with the surface.
- 3 wear-resistant precision ground cutting edges providing a smooth finish on hardened materials.
- Solid carbide tool that is harder than cobalt steel, providing a longer tool life at higher speeds.
- Parallel shank to accommodate most drill chucks.
- Suitable for wood, wood-based, non-ferrous materials and metal.

Drill Bit with Countersink for Screw Joints

SP Z1 RH



515

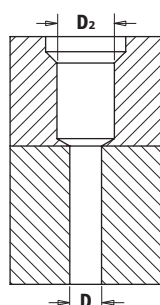
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TECHNICAL DETAILS:

- Super strength steel.
- SP steel.
- 1 SP precision ground cutting edge [Z1].
- 1 spiral flute.

APPLICATION:

used for drilling blind holes in soft and hardwood.



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537.000.16	310	652B	155	694.021	97	735	165	796.500	378
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542	312	656	155	695.996	380	738	194, 215	797	378
542.100.51	326	657.1	161	695.998	380	739	193	798	379
543	307	657.9	161	699	130	740	198	799	379
550	324-325	657B	162	700.001	222	741	198	800.001	222
550-DB1	325	658	187	700.003	222	742	157	800.005.01	233
550-EX1	327	660	166	700.005.03	233	743	157	800.500	223

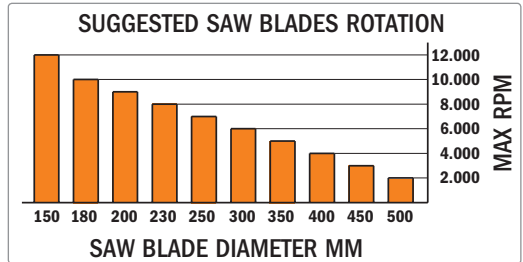
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800.501	223	812B	154	848B	197	863	192	900.024	230
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800.512	229	818	180-181	852B	153	866.601	216	900.514	229
800.514	229	818B	180-181	853	163	866.602	216	900.516	229
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800.516	229	822.023B	168	855.3	177	868	190	900.521	229
800.517	229	822.024B	168	855.501	174	870	214	900.522	229
800.518	229	822.033B	218	855.503	173	880.5	215	900.527	226
800.519	223	822A	170	855.504	173	880.511	220	900.606	178
800.520	230	822B	170	855.506	179	880.512	220	900.616	178
800.521	229	823	171	855.510	179	880.513	220	900.622	200
800.522	229	823.001	233	855.701	172	880.521	215	900.623	200
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800.525	225	824	171, 380	855.801	176	880.542	216	900.625	231
800.527	226	824.xxx.00	170	855.802	177	880.551	217	900.626	169
800.606	178	824.xxx.10	170	855.803	225	880.56	221	900.627	227
800.616	178	827	192	855.806	227	880.57	221	900.628	227
800.622	200	835	165	855.8B	207	881.501	219	901	152
800.623	200	835.001	166	855.901	205	881.511	220	901B	152
800.624	231	835.503	164	855.902	205	881.512	220	902	153
800.625	231	835.990	164	856.501	205	881.521	217	903	187
800.626	169	836	188	856.601	208	881.531	219	904	187
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809	157	844	198	859	199	899	357	911B	154
811	146-147	845	198	860	199	900.001	222	912	145
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916	163	955.506	179	980.521	215	CMT333	348-349	JS3456XF	63
918	180-181	955.510	179	980.541	216	CMT333-325	350	JS610VF	65
921	156	955.701	172	980.542	216	CMT334	350	JS611DF	64
922.033B	218	955.8	207	980.551	217	CMT650	347	JS617K	62
922A	170	955.801	176	980.56	221	CMT656	353	JS641HM	66
922B	170	955.803	225	980.57	221	CMT792	131	JS644D	62
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941	198	961	202	991.517	209	JS1110VF	65	JT111C	53
944	198	961.6	201	991.521	211	JS1111DF	65	JT118A	56
945	198	963	192	992	236	JS111K	62	JT118B	56
946	199	964	192	992.183	239	JS1120CF	68	JT119B0	53
947	199	965	186, 195	992.283	240	JS1122AF	66	JT123X	56
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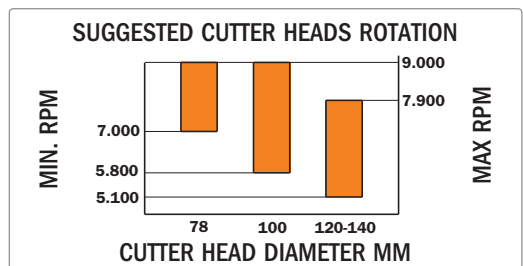
Saw blade safety

- ALWAYS** thoroughly check all blades for damage and flaws before using. Do not use blades with missing or damaged teeth.
- ALWAYS** wear safety glasses and ear protection when using power tools.
- ALWAYS** thoroughly read the owners manual and manufacturer's instructions before working with tools.
- ALWAYS** use a fence and splitter when using the table saw. Do not make freehand cuts.
- ALWAYS** use pusher blocks or a pusher stick, especially when working with small or narrow pieces.
- ALWAYS** unplug your saw before cleaning or adjusting the tool, or before making blade changes.
- ALWAYS** keep your tools sharpened, clean and stored in a safe place to avoid breakage and accidents and to extend the life of your bits and blades.
- ALWAYS** feed the workpiece against the rotation of the blade on table saws.
- ALWAYS** be sure your workpiece is completely supported, before and after the cut.
- NEVER** remove guards from radial arm saws and miter saws.
- NEVER** remove the splitter or anti-kickback devices from table saws.
- NEVER** use dull or damaged blades.
- NEVER** use blades with missing or chipped teeth.
- NEVER** force the cut or overload the saw.
- NEVER** change blades with the saw is plugged in.
- NEVER** make adjustments to any saw while the blade is rotating.



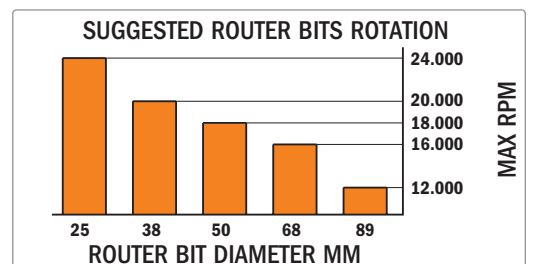
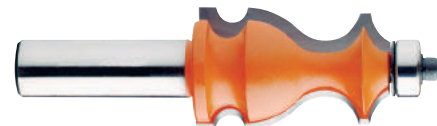
Cutter head safety

- ALWAYS** thoroughly check all cutters for damage and flaws before using.
- ALWAYS** wear safety glasses and ear protection when using power tools.
- ALWAYS** thoroughly read the owners manual and manufacturer's instructions before working with tools.
- ALWAYS** use guards that were supplied with your shaper.
- ALWAYS** use a fence with your shaper. Do not make freehand cuts.
- ALWAYS** use pusher blocks, especially when working with small or narrow pieces.
- ALWAYS** unplug your shaper before cleaning or adjusting the tool, or before making cutter or knife changes.
- ALWAYS** be sure the spindle nut is tight before plugging in the shaper.
- ALWAYS** check that knives are properly and securely installed in the cutterhead when using interchangeable-knife systems.
- ALWAYS** keep your tools sharpened, clean and stored in a safe place to avoid breakage and accidents and to extend the life of your bits and blades.
- ALWAYS** feed the workpiece against the rotation of the knives.
- ALWAYS** be sure your workpiece is completely supported, before and after the cut.
- NEVER** remove guards or any other safety devices from your shaper.
- NEVER** use dull or damaged knives.
- NEVER** force the cut or overload the shaper.
- NEVER** change cutters or knives or make adjustments with the shaper plugged in.
- NEVER** make adjustments to the shaper while the cutter is rotating.



Router bits safety

- ALWAYS** thoroughly check all tools for possible flaws before using.
- ALWAYS** wear safety glasses and ear protection.
- ALWAYS** thoroughly read the owners manual and manufacturer instructions before using.
- ALWAYS** check that at least 75% of the shank is securely inserted into the collet of the router.
- ALWAYS** use template guide collars when possible to absorb lateral bit deflection.
- ALWAYS** use a fence when working on the router table.
- ALWAYS** reduce the router speed when working with larger diameter bits.
- ALWAYS** keep your fence adjusted so there is some clearance between the bearing guide and the workpiece.
- ALWAYS** take care to remove large quantities of stock (cross section > 10mm) in more than one run.
- ALWAYS** keep your tools sharpened, clean and stored in a safe place to avoid breakage and accidents and to extend the life of your bits and blades.
- NEVER** use dull or defective tools, even suspiciously defective.
- NEVER** force the shank entirely into the collet (bottoming out). Leave about a 3,2mm (1/8") space from the bottom.
- NEVER** force the bit into your router or overload the router.



Conversion Table

Inch Decimals	Inch Fractions (x)						Millimeters					
	1/64	1/32	1/16	1/8	1/4	1/2	mm	1" + (x)	2" + (x)	3" + (x)	4" + (x)	5" + (x)
								25.400	50.800	76.200	101.600	127.000
0.015625	1/64						0.397	25.797	51.197	76.597	101.997	127.397
0.031250		1/32					0.794	26.194	51.595	76.994	102.394	127.794
0.046875	3/64						1.191	26.591	51.991	77.391	102.791	128.191
0.062500			1/16				1.588	26.988	52.388	77.788	103.188	128.588
0.078125	5/64						1.984	27.384	52.784	78.184	103.584	128.984
0.093750		3/32					2.381	27.781	53.181	78.581	103.981	129.381
0.109375	7/64						2.778	28.178	53.578	78.978	104.378	129.778
0.125000				1/8			3.175	28.575	53.975	79.375	104.775	130.175
0.140625	9/64						3.572	28.972	54.372	79.772	105.172	130.572
0.156250		5/32					3.969	29.369	54.769	80.169	105.569	130.969
0.171875	11/64						4.366	29.766	55.166	80.568	105.966	131.366
0.187500			3/16				4.762	30.162	55.562	80.962	106.362	131.762
0.203125	13/64						5.159	30.559	55.959	81.359	106.759	132.159
0.218750		7/32					5.556	30.956	56.356	81.756	107.156	132.556
0.234375	15/64						5.953	31.353	56.753	82.153	107.553	132.953
0.250000					1/4		6.350	31.750	57.150	82.550	107.950	133.350
0.265625	17/64						6.747	32.147	57.547	82.947	108.347	133.747
0.281250		9/32					7.144	32.544	57.944	83.344	108.744	134.144
0.296875	19/64						7.541	32.941	58.341	83.741	109.141	134.541
0.312500			5/16				7.938	33.338	58.738	84.138	109.538	134.938
0.328125	21/64						8.334	33.734	59.134	84.534	109.934	135.334
0.343750		11/32					8.731	34.131	59.531	84.931	110.331	135.731
0.359375	23/64						9.128	34.528	59.928	85.328	110.728	136.128
0.375000				3/8			9.526	34.925	60.325	85.725	111.125	136.525
0.390625	25/64						9.922	35.322	60.722	86.122	111.522	136.922
0.406250		13/32					10.319	35.719	61.119	86.519	111.919	137.319
0.421875	27/64						10.716	36.116	61.516	86.916	112.316	137.716
0.437500			7/16				11.112	36.512	61.912	87.312	112.712	138.112
0.453125	29/64						11.509	36.909	62.309	87.709	113.109	138.509
0.468750		15/32					11.906	37.306	62.706	88.106	113.506	138.906
0.484375	31/64						12.303	37.703	63.103	88.503	113.903	139.303
0.500000						1/2	12.700	38.100	63.500	88.900	114.300	139.700
0.515625	33/64						13.097	38.497	63.897	89.297	114.697	140.097
0.531250		17/32					13.494	38.894	64.294	89.694	115.094	140.494
0.546875	35/64						13.891	39.291	64.691	90.091	115.491	140.891
0.562500			9/16				14.288	39.688	65.088	90.488	115.888	141.288
0.578125	37/64						14.684	40.084	65.484	90.884	116.284	141.684
0.593750		19/32					15.081	40.481	65.881	91.281	116.681	142.081
0.609375	39/64						15.478	40.878	66.278	91.678	117.078	142.478
0.625000				5/8			15.875	41.275	66.675	92.075	117.475	142.875
0.640625	41/64						16.272	41.672	67.072	92.472	117.872	143.272
0.656250		21/32					16.669	42.069	67.469	92.869	118.269	143.669
0.671875	43/64						17.066	42.466	67.866	93.266	118.666	144.066
0.687500			11/16				17.462	42.862	68.262	93.662	119.062	144.462
0.703125	45/64						17.859	43.259	68.659	94.059	119.459	144.859
0.718750		23/32					18.256	43.656	69.056	94.456	119.856	145.256
0.734375	47/64						18.653	44.053	69.453	94.855	120.253	145.653
0.750000					3/4		19.050	44.450	69.850	95.250	120.650	146.050
0.765625	49/64						19.447	44.847	70.247	95.647	121.047	146.447
0.781250		25/32					19.844	45.244	70.644	96.044	121.444	146.844
0.796875	51/64						20.241	45.641	71.041	96.441	121.841	147.241
0.812500			13/16				20.638	46.038	71.438	96.838	122.238	147.638
0.828125	53/64						21.034	46.434	71.834	97.234	122.634	148.034
0.843750		27/32					21.431	46.831	72.231	97.631	123.031	148.431
0.859375	55/64						21.828	47.228	72.628	98.028	123.428	148.828
0.875000				7/8			22.225	47.625	73.025	98.425	123.825	149.225
0.890625	57/64						22.622	48.022	73.422	98.822	124.222	149.622
0.906250		29/32					23.019	48.419	73.819	99.219	124.619	150.019
0.921875	59/64						23.416	48.816	74.216	99.616	125.016	150.416
0.937500			15/16				23.812	49.212	74.612	100.012	125.412	150.812
0.953125	61/64						24.209	49.609	75.009	101.409	126.809	152.209
0.968750		31/32					24.606	50.000	75.406	100.806	126.206	151.606
0.984375	63/64						25.003	50.403	75.803	101.203	126.603	152.003

Explanation of symbol

HV10 Hardness Vickers 10kg (HV10)		N/mm ² Transverse rupture strength (expressed in N/mm ²)	
	Tungsten carbide tipped		Solid tungsten carbide
	High speed steel		High performance steel
	Bimetal		TiN coated bimetal with 8% cobalt teeth
	Polycrystalline diamond		Polycrystalline diamond
	One cutting edge HW		Two cutting edges HW
	One HW + one cutting edges HW		Two HW + two cutting edges HW
	Two HW + one cutting edges HW		Three cutting edges HW with chipbreaker
	Four spur		Right-hand rotation
	Antikick-back		Radial relief
	Mechanical feed		Manual feed
	Slooting		Spiral boring
	Plastic box for cutter head		Plastic carry case for saw blades
	ORANGE CHROME		High-Density Carbide
	Shear Angle Grind		Saw blade with dampening slots with fill
	Warning		Warning! Flammable material!
	Wear safety glasses		Wear ear protection
			Wear safety shoes
			Wear dust mask
			Wear safety helmet
			Wear five finger gloves
			Wear safety glasses
			Wear ear protection
			Wear safety shoes
			Wear dust mask
			Wear safety helmet
			Wear five finger gloves
			Wear safety glasses
			Wear ear protection
			Wear safety shoes
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Conditions of trading

PREMISE

C.M.T. products are the result of technological innovation achieved through continuous research applied on a vast scale. Drawings, technical data, photos of the products and packaging are supplied for the sole purpose of informing the customer and are not binding in any manner. **C.M.T.** may undertake, when necessary, modifications and improvements without applying these innovations to the parts already supplied. The operational tolerances conform to technical standards that are acceptable for this range of tools.

ACCEPTANCE OF THE CONTRACT

All orders for our products are meant to be accepted at the price and sale conditions that are legally in force at the date of delivery.

Every order will be treated and supplied according to the following general sale conditions. By placing an order or accepting an offer, the customer accepts, without any reservations, all conditions expressly mentioned hereafter.

Any other derogation will only be accepted upon written consent by **C.M.T.** All other cases not contained within these conditions will fall under the Italian Civil Code.

Offers and order confirmations will be processed according to stock availability. Any order, even those taken by our representative agents, will be subject to our acceptance, which could also be a partial one.

We will notify the acceptance of any order by an order confirmation in which we will indicate all details pertaining to the items purchased, their price and expected delivery date. Therefore, we will not be able to accept any modification after three working days from the date of receipt.

MINIMUM AMOUNT ACCEPTABLE

C.M.T. will only be able to accept and process orders for a minimum net amount of € 100,00.

In case of acceptance of the order, we will add € 15,00 for shipping and handling.

PRICES

The prices stated in **C.M.T.'s** quotation and price lists are gross and are intended to be "ex-works".

Prices and VAT will be those in force at the date of shipping. To the best of our knowledge, the prices indicated in our catalogues, price lists and order confirmations are correct. However, **C.M.T.** cannot be held legally liable for reserving the right to change prices without notification in line with the manufacturer's cost increases.

DELIVERY

Delivery dates in the order confirmation are given as an indication of the estimated delivery time. They have to be considered as reliable only in case of normal operating conditions, and there shall be no liability on the part of the Seller for any failure to deliver due to causes beyond the Seller's control. **C.M.T.** will also not be able to accept any cancellation of existing orders which were not delivered in time due to external impediments. Standard products will be shipped within five working days from receipt of the order.

SHIPPING AND HANDLING

The packing of our products will be charged on the final invoice, while shipping is "ex-works" from our factory at Chiusa di Ginestreto (Pesaro).

All products supplied by **C.M.T.** travel at the customer's own risk.

C.M.T. retains the right to charge freight costs on the invoice in case of value under the minimum amount acceptable of €100,00.

C.M.T. will not be held responsible for any damage, theft or tampering that might occur during transport, and for which the forwarder will be legally liable according to article 1693 of the Civil Code. The customer, for his part, will have to check the goods at the moment of receipt and, in case any anomaly or damage is found, he will have to apply for a refund to be addressed to the forwarder.

PAYMENT

Cash payments can only be accepted for purchases done directly at the **C.M.T.** factory located in Chiusa di Ginestreto (Pesaro) in accordance with article 1182, sub-section 3 of the Civil Code, or upon delivery of the goods provided there is a written agreement between the parties.

Deferred methods of payment will have to be previously agreed with the Seller. In this case, if one or more instalments are not paid, the agreement will automatically expire according to article 1186 of the Civil Code.

A delay in payment, even partial, will automatically incur interest in the amount of an extra 5% to be charged to the customer's account.

In case of non payment, **C.M.T.** reserves the right to suspend any further supply of its products.

WARRANTY

All professional tools by **C.M.T.** are manufactured according to high standards of technology and are therefore warranted against any possible defect. This warranty does not cover damage or tampering which can be ascribed to inappropriate use. It is also not applicable for tools that have been re-sharpened.

This warranty does not cover the possible injuries resulting from inappropriate use of defective tools.

C.M.T. will repair or replace any goods which the buyer shall prove to have been defective in material or workmanship upon analysis by its technical department. Any complaint must be communicated within fifteen days from receipt of the goods together with a written form in which the customer provides a detailed description of the defect. Any return of tools will only be accepted upon authorisation by **C.M.T.** and the freight will be at the customer's own expense.

OWNERSHIP RIGHTS

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PLACE OF JURISDICTION

For any legal matter the place of jurisdiction is Pesaro.

All contracts, even those made with foreign Buyers or for goods to be sent abroad, are regulated by Italian legislation.



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