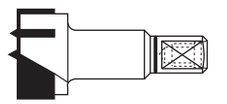
Dowel drills, boring bits for automatic boring machines

5

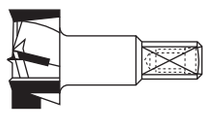
HW DOWEL DRILLS WITH COUNTERSINK Z=2
Page 5.14

HW THROUGH HOLE DRILL BITS "E.T." LINE Z=2
Page 5.15

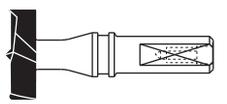
VHW THROUGH HOLE DRILL BITS "E.T." LINE Z=2
Page 5.15



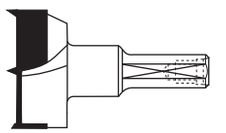
HW HINGE BORING BITS Z=2+2
Page 5.16



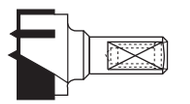
HW HINGE BORING BITS Z=3+3
Page 5.17



VHW HINGE BORING BITS Z=2+2
Page 5.17

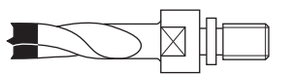


HW HINGE BORING BITS Z=2+2
Page 5.18



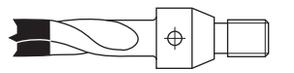
HW HINGE BORING BITS Z=2+2
Page 5.18

HW DOWEL DRILLS Z=2
Page 5.18



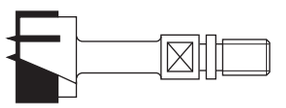
HW DOWEL DRILLS WITH THREADED SHANK Z=2
Page 5.19

HW DOWEL DRILLS WITH COUNTERSINK THREADED SHANK Z=2
Page 5.19

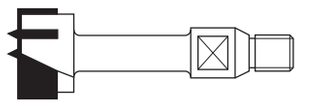


HW DOWEL DRILLS WITH THREADED SHANK Z=2
Page 5.20

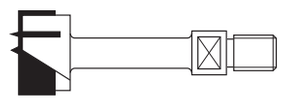
HW DOWEL DRILLS WITH COUNTERSINK THREADED SHANK Z=2
Page 5.20



HW HINGE BORING BITS WITH THREADED SHANK Z=2+2
Page 5.20

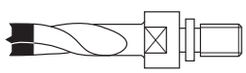


HW HINGE BORING BITS WITH THREADED SHANK Z=2+2
Page 5.20



HW HINGE BORING BITS WITH THREADED SHANK Z=2+2
Page 5.20

HW DOWEL DRILLS WITH THREADED SHANK Z=2
Page 5.21



HW DOWEL DRILLS WITH THREADED SHANK Z=2
Page 5.21

HW/HS COUNTERBORE BITS
Page 5.21

MODULAR DRAWER UNIT
Page 5.22

DRILLING

The experience of **SISTEMI** is being always available to its customers in choosing the right tool for the desired processing.
In this regard, a wide range of factors must be taken into consideration. Here is a summary list:

1) In addition to the traditional drilling bits with brazed carbide tips sometimes it is important to evaluate the use of **solid carbide drills** (Art. L116/L117/L118/L129/L134/L135) **that can ensure performance benefits**, longer life, higher number of resharpening times and higher resistance to breakage of tool body;

2) Choosing the drill bit according to the working material by properly setting RPM and feed speed as indicated in the following tables help to optimize the process;

3) To reduce the time of assembly and align the drills, **we recommend using our quick change drill chucks** (Art. L030 ÷ L060);

4) **Regular cleaning and maintenance** of the drills and adaptors **improve the performance and life of tools**, reducing the risk of breakage and increasing the quality of the worked pieces;

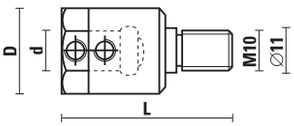
5) To improve the chips flow, the boring bits are coated with a **PTFE-based heat treatment** (Polytetrafluoroethylene) in black for Right Rotation and orange for Left Rotation.

How to choose the right Boring Bits

Types of material / Items	Softwood (Cider, Poplar, Pine, etc.)	Hardwood (Ash, Walnut, Beech, Oak, Teak, etc.)	Pressed Wood (Plywood, Blockboard)	Chipboard	Laminated Wood (Veneered, melamine coated panels, HPL, etc.)	MDF	Trespa®
L101/L102/L103/L104 - Page 5.07, 5.08	XX	XX	XX	XX	X	XX	
L105/L106/L107/L108 - Page 5.08	XX	XX	XX	XX	X	XX	
L109/L110 - Page 5.09	XX	XX	XX	XX	X	XX	
L112/L113 - Page 5.10	XX	XX	XXX	XXX	XXX	XXX	
L114/L115/L116/L117 - Page 5.11	XX	XX	XXX	XXX	XXX	XXX	X
L118 - Page 5.12	X	X	X	X	X	XX	XXX
L132/L133 - Page 5.15	XXX	XXX	XXX	XXX	XXX	XXX	XX
L134/L135 - Page 5.15	XXX	XXX	XXX	XXX	XXX	XXX	XX
L120 - Page 5.12	XX	XX	XX	XX	XX	XX	X
L121/L122/L123/L124 - Page 5.07, 5.13	XX	XX	XX	XX	X	XX	
L125/L126/L127 - Page 5.13	XX	XX	XX	XX	X	XX	
L129 - Page 5.14	XXX	XXX	XXX	XXX	XX	XXX	X
L140/L141/L142 - Page 5.16	XX	XX	XXX	XXX	XX	XX	
L143/L144/L150/L151 - Page 5.17	XX	XX	XXX	XXX	X	XX	
L155 - Page 5.17	XXX	XXX	XXX	XXX	XXX	XXX	XX
L160/L170 - Page 5.18	XX	XX	XXX	XXX	XX	XX	

X = Satisfactory - **XX** = Good - **XXX** = Excellent

DRILL ADAPTORS
ART. L001 - M10/11x4

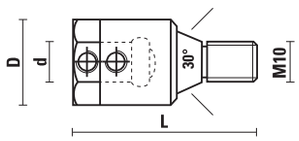


For: **MORBIDELLI, BIESSE, WEEKE**

RH rotation	LH rotation	d	D	L
L001.080.R	L001.080.L	8	15,5	41
L001.100.R	L001.100.L	10	19,5	41

Z051.301.R

DRILL ADAPTORS
ART. L002 - M10/Taper 30°

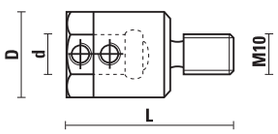


For: **VITAP, BUSELLATO, SCHLEICHER**

RH rotation	LH rotation	d	D	L
L002.080.R	L002.080.L	8	15,5	46
L002.100.R	L002.100.L	10	19,5	46

Z051.301.R

DRILL ADAPTORS
ART. L003 - M10

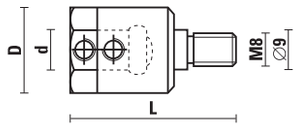


For: **AYEN, HOLZMA, MAYER**

RH rotation	LH rotation	d	D	L
L003.080.R	L003.080.L	8	15,5	40
L003.100.R	L003.100.L	10	19,5	40

Z051.301.R

DRILL ADAPTORS
ART. L004 - M8/9x3

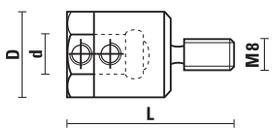


For: **MORBIDELLI, NOTTMEYER**

RH rotation	LH rotation	d	D	L
L004.080.R	L004.080.L	8	15,5	41
L004.100.R	L004.100.L	10	19,5	41
L004.101.R	L004.101.L	10	15	41

Z051.301.R

DRILL ADAPTORS
ART. L005 - M8

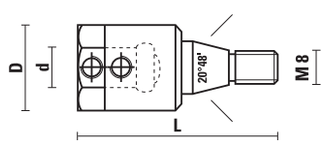


For: **NOTTMEYER**

RH rotation	LH rotation	d	D	L
L005.080.R	L005.080.L	8	15,5	40
L005.100.R	L005.100.L	10	19,5	40

Z051.301.R

DRILL ADAPTORS
ART. L006 - M8 - 20°48'

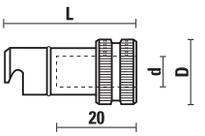


For: **BILEK**

RH rotation	LH rotation	d	D	L
L006.080.R	L006.080.L	8	15,5	51
L006.100.R	L006.100.L	10	19,5	51

Z051.301.R

QUICK CHANGE DRILL HOLDERS
ART. L030

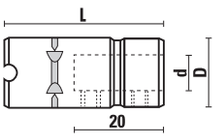


For: **BIESSE**

RH rotation	LH rotation	d	D	L
L030.100.R	L030.100.L	10	20	37
L030.101.R	L030.101.L lowered	10	20	30
L030.102.R	L030.102.L threade	M10	20	37

Z051.314.R

QUICK CHANGE DRILL HOLDERS
ART. L031



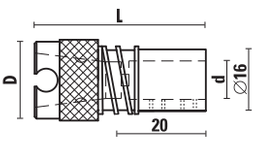
For: **MORBIDELLI**

RH rotation	LH rotation	d	D	L
L031.100.R		10	20	43
L031.101.R lowered		10	16	43
L031.102.R	L031.102.L threaded	M10	20	43

Z051.314.R (L031.100.R)

Z051.313.R (L031.101.R)

QUICK CHANGE DRILL HOLDERS
ART. L031

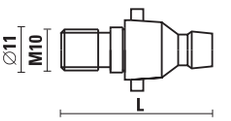


For: **MORBIDELLI** machines, with pull out spring

Item	d	D	L
L031.500.R	10	20	44

Z051.301.R

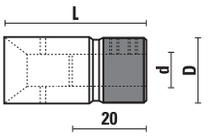
ADAPTORS
ART. L031



- **Adaptor for quick change chucks**
- For: **MORBIDELLI, SCM with shank M10/11**
- Use with: **Art. L031.100.R and/or Art. L031.500.R**

RH rotation	LH rotation	L
L031.600.R	L031.600.L	37

QUICK CHANGE DRILL HOLDERS
ART. L032



For: **MASTERWOOD, MAGGI, GRIGGIO**

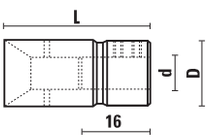
Item	d	D	L
L032.100.R	10	20	40

For: **MINIMAX**

Item	d	D	L
L032.200.R NEW	10	20	40

Z051.301.R

QUICK CHANGE DRILL HOLDERS
ART. L033

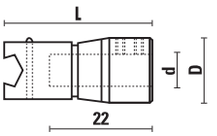


For: **VITAP**

Item	d	D	L
L033.100.R	10	18	42

Z051.313.R

QUICK CHANGE DRILL HOLDERS
ART. L034

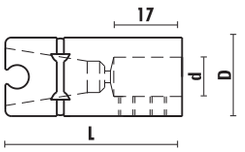


For: **BUSELLATO**

Item	d	D	L
L034.100.R	10	19	34,5

Z051.313.R

QUICK CHANGE DRILL HOLDERS
ART. L035

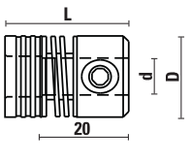


For: **DETEL**

Item	d	D	L
L035.100.R	10	20	45

Z051.314.R

QUICK CHANGE DRILL HOLDER
ART. L036

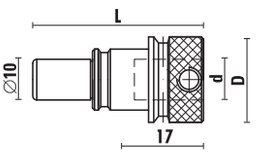


For: **GRASS**

Item	d	D	L
L036.100.R	10	22	38,5

Z051.304.R

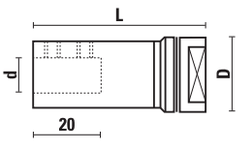
CHUCKS FOR MACHINES "BIESSE" WITH AUTOMATIC CHANGE
ART. L060



Item	d	D	L
L060.100.N	10	21	42

Z051.314.R

QUICK CHANGE DRILL HOLDERS
ART. L040

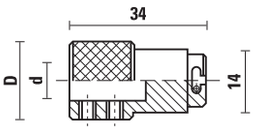


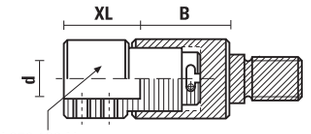
For: **WEEKE**

Item	d	D	L
L040.100.R	10	20	46
L040.101.R	10	20	56
L040.102.R	10	20	66

Z051.314.R

QUICK CHANGE CHUCKS
ART. L050





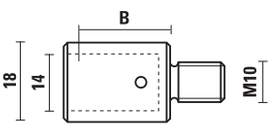
L050.100.N

For art.: **L051 - L052 - L053 - L054**

Item	d	D	XL
L050.100.N	10	18	17,5

Z051.301.R

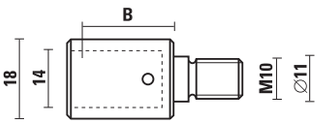
QUICK CHANGE CHUCKS
ART. L051



For: **AYEN, HOLZMA**

RH rotation	LH rotation	B
L051.100.R	L051.100.L	22,5

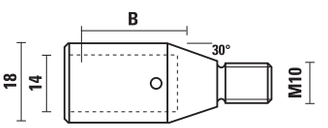
QUICK CHANGE CHUCKS
ART. L052



For: **MORBIDELLI, BIESSE, WEEKE, BUSELLATO, TORWEGGE**

RH rotation	LH rotation	B
L052.100.R	L052.100.L	22,5

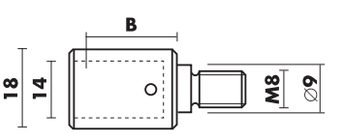
QUICK CHANGE CHUCKS
ART. L053



For: **VITAP, ALBERTI**

RH rotation	LH rotation	B
L053.100.R	L053.100.L	25,5

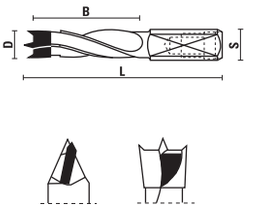
QUICK CHANGE CHUCKS
ART. L054



For: **NOTTMEYER**

RH rotation	LH rotation	B
L054.100.R	L054.100.L	25,5

HW DOWEL DRILLS Z=2
ART. L101 - L102

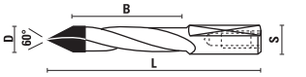


- **4-flutes**
- **Spurs ground with negative cutting angle for a good finish**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF
- Can be used on **Mafell** drilling machines

RH rotation	LH rotation	D	B	L	S
L101.050.R	L101.050.L	5	30	55,5	8X20
L101.060.R	L101.060.L	6	30	55,5	8X20
L101.070.R	L101.070.L	7	30	55,5	8X20
L101.080.R	L101.080.L	8	30	55,5	8X20
L101.090.R	L101.090.L	9	30	55,5	8X20
L101.100.R	L101.100.L	10	30	55,5	8X20
L101.120.R	L101.120.L	12	30	55,5	8X20
L102.050.R	L102.050.L	5	40	67	8X20
L102.060.R	L102.060.L	6	40	67	8X20
L102.070.R	L102.070.L	7	40	67	8X20
L102.080.R	L102.080.L	8	40	67	8X20
L102.090.R	L102.090.L	9	40	67	8X20
L102.100.R	L102.100.L	10	40	67	8X20
L102.120.R	L102.120.L	12	40	67	8X20

Z051.302.R

HW THROUGH HOLES DRILL BITS Z=2
ART. L121 - L122



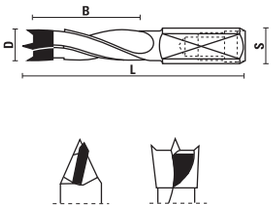
- **2-flutes**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

RH rotation	LH rotation	D	B	L	S
L121.050.R	L121.050.L	5	25	55,5	8X20
L121.080.R	L121.080.L	8	25	55,5	8X20
L122.050.R	L122.050.L	5	35	67	8X20
L122.080.R	L122.080.L	8	35	67	8X20

Z051.302.R

HW DOWEL DRILLS Z=2

ART. L103 - L104



- **4-flutes** (∅4 with 2 flutes)
- **Spurs ground with negative cutting angle for a good finish**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

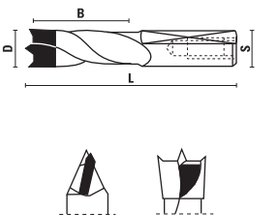
RH rotation	LH rotation	D	B	L	S
L103.040.R	L103.040.L	4	30	57,5	10X20
L103.050.R	L103.050.L	5	30	57,5	10X20
L103.055.R	L103.055.L	5,5	30	57,5	10X20
L103.060.R	L103.060.L	6	30	57,5	10X20
L103.064.R	L103.064.L	6,4	30	57,5	10X20
L103.070.R	L103.070.L	7	30	57,5	10X20
L103.075.R	L103.075.L	7,5	30	57,5	10X20
L103.080.R	L103.080.L	8	30	57,5	10X20
L103.085.R	L103.085.L	8,5	30	57,5	10X20
L103.090.R	L103.090.L	9	30	57,5	10X20
L103.095.R	L103.095.L	9,5	30	57,5	10X20
L103.100.R	L103.100.L	10	30	57,5	10X20
L103.105.R	L103.105.L	10,5	30	57,5	10X20
L103.110.R	L103.110.L	11	30	57,5	10X20
L103.120.R	L103.120.L	12	30	57,5	10X20
L103.127.R	L103.127.L	12,7	30	57,5	10X20
L103.130.R	L103.130.L	13	30	57,5	10X20
L103.140.R	L103.140.L	14	30	57,5	10X20
L103.150.R	L103.150.L	15	30	57,5	10X20
L103.160.R	L103.160.L	16	30	57,5	10X20
L104.040.R	L104.040.L	4	43	70	10X20
L104.050.R	L104.050.L	5	43	70	10X20
L104.055.R	L104.055.L	5,5	43	70	10X20
L104.060.R	L104.060.L	6	43	70	10X20
L104.064.R	L104.064.L	6,4	43	70	10X20
L104.070.R	L104.070.L	7	43	70	10X20
L104.075.R	L104.075.L	7,5	43	70	10X20
L104.080.R	L104.080.L	8	43	70	10X20
L104.082.R	L104.082.L	8,2	43	70	10X20
L104.085.R	L104.085.L	8,5	43	70	10X20
L104.090.R	L104.090.L	9	43	70	10X20
L104.095.R	L104.095.L	9,5	43	70	10X20
L104.100.R	L104.100.L	10	43	70	10X20
L104.105.R	L104.105.L	10,5	43	70	10X20
L104.110.R	L104.110.L	11	43	70	10X20
L104.120.R	L104.120.L	12	43	70	10X20
L104.127.R	L104.127.L	12,7	43	70	10X20
L104.130.R	L104.130.L	13	43	70	10X20
L104.140.R	L104.140.L	14	43	70	10X20
L104.150.R	L104.150.L	15	43	70	10X20

Z051.302.R

On request Z051.505.R

HW DOWEL DRILLS Z=2

ART. L105 - L106 - L107 - L108



- **2-flutes**
- **Spurs ground with negative cutting angle for a good finish**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

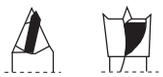
RH rotation	LH rotation	D	B	L	S
L105.040.R	L105.040.L	4	27	57,5	10x27
L105.045.R	L105.045.L	4,5	27	57,5	10x27
L105.050.R	L105.050.L	5	27	57,5	10x27
L105.052.R	L105.052.L	5,2	27	57,5	10x27
L105.060.R	L105.060.L	6	27	57,5	10x27
L105.064.R	L105.064.L	6,4	27	57,5	10x27
L105.070.R	L105.070.L	7	27	57,5	10x27
L105.080.R	L105.080.L	8	27	57,5	10x27
L105.082.R	L105.082.L	8,2	27	57,5	10x27
L105.090.R	L105.090.L	9	27	57,5	10x27
L105.095.R	L105.095.L	9,5	27	57,5	10x27
L105.100.R	L105.100.L	10	27	57,5	10x27
L105.110.R	L105.110.L	11	27	57,5	10x27
L105.120.R	L105.120.L	12	27	57,5	10x27
L105.127.R	L105.127.L	12,7	27	57,5	10x27
L105.140.R	L105.140.L	14	27	57,5	10x27
L105.150.R	L105.150.L	15	27	57,5	10x27
L106.050.R	L106.050.L	5	18	57,5	10x34
L106.060.R	L106.060.L	6	18	57,5	10x34
L106.080.R	L106.080.L	8	18	57,5	10x34
L106.100.R	L106.100.L	10	18	57,5	10x34
L107.040.R	L107.040.L	4	35	70	10x30
L107.045.R	L107.045.L	4,5	35	70	10x30
L107.050.R	L107.050.L	5	35	70	10x30
L107.060.R	L107.060.L	6	35	70	10x30
L107.064.R	L107.064.L	6,4	35	70	10x30
L107.070.R	L107.070.L	7	35	70	10x30
L107.080.R	L107.080.L	8	35	70	10x30
L107.090.R	L107.090.L	9	35	70	10x30
L107.095.R	L107.095.L	9,5	35	70	10x30
L107.100.R	L107.100.L	10	35	70	10x30
L107.110.R	L107.110.L	11	35	70	10x30
L107.120.R	L107.120.L	12	35	70	10x30
L107.127.R	L107.127.L	12,7	35	70	10x30
L107.130.R	L107.130.L	13	35	70	10x30
L107.140.R	L107.140.L	14	35	70	10x30
L107.160.R	L107.160.L	16	35	70	10x30
L108.050.R	L108.050.L	5	44	77	10X30
L108.060.R	L108.060.L	6	44	77	10X30
L108.070.R	L108.070.L	7	44	77	10X30
L108.080.R	L108.080.L	8	44	77	10X30
L108.100.R	L108.100.L	10	44	77	10X30
L108.120.R	L108.120.L	12	44	77	10X30

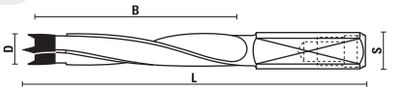
Z051.302.R

On request Z051.505.R

HW DOWEL DRILLS Z=2

ART. L109





- **4-flutes**
- **Spurs ground with negative cutting angle for a good finish**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

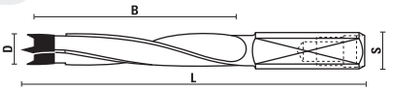
RH rotation	LH rotation	D	B	L	S
L109.050.R	L109.050.L	5	45	85	10X30
L109.060.R	L109.060.L	6	45	85	10X30
L109.070.R	L109.070.L	7	45	85	10X30
L109.080.R	L109.080.L	8	45	85	10X30
L109.100.R	L109.100.L	10	45	85	10X30
L109.120.R	L109.120.L	12	45	85	10X30

Z051.302.R

On request Z051.505.R

HW DOWEL DRILLS Z=2

ART. L110



- **4-flutes**
- **Spurs ground with negative cutting angle for a good finish**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

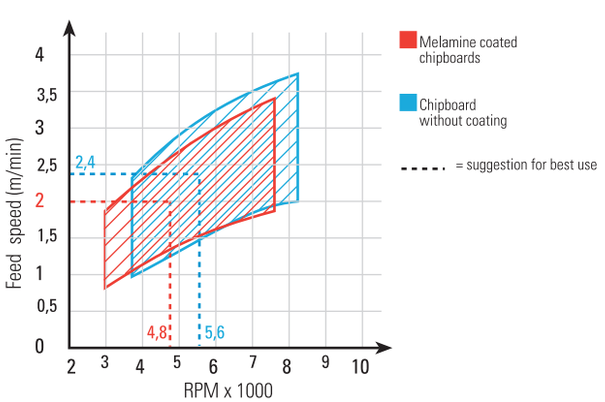
RH rotation	LH rotation	D	B	L	S
L110.050.R	L110.050.L	5	65	105	10x30
L110.060.R	L110.060.L	6	65	105	10x30
L110.070.R	L110.070.L	7	65	105	10x30
L110.080.R	L110.080.L	8	65	105	10x30
L110.100.R	L110.100.L	10	65	105	10x30
L110.120.R	L110.120.L	12	65	105	10x30

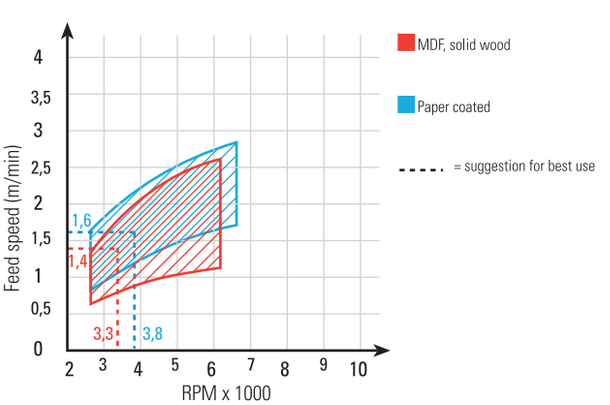
Z051.302.R

On request Z051.505.R

HW DOWEL DRILLS WITH 2 AND 4 FLUTES (from art. L101 to L110)

How to determine the feeding speed according to the machine (RPM):
• Referred to a standard common diameter

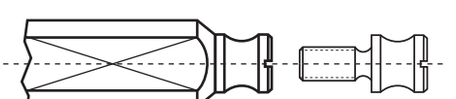




2 flutes version art. L105/L106/L107/L108
Recommended for panel machining due to less friction because of reduced tool body diameter. Countersink (art. L131) fixed on the tool shank

4 flutes version art. L101/L102/L103/L104/L109/L110
Countersink (art. L130) fixed on the tool flute

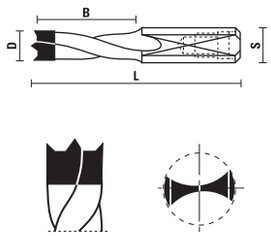
All drills (Art. L101÷L135) and hinge boring bits (Art. L140÷L142) are produced with tolerances according to instructions of Weeke Machines



Screw Z051.505.R

HW DOWEL DRILLS EXTRA FINE Z=2

ART. L112 - L113



- **2-flutes**
- **Rounded spurs and special HW for a better finish and longer lasting tool performance**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

RH rotation	LH rotation	D	B	L	S
L112.050.R NEW	L112.050.L NEW	5	27	57,5	10X27
L112.060.R NEW	L112.060.L NEW	6	27	57,5	10X27
L112.064.R NEW	L112.064.L NEW	6,4	27	57,5	10X27
L112.070.R NEW	L112.070.L NEW	7	27	57,5	10X27
L112.080.R NEW	L112.080.L NEW	8	27	57,5	10x27
L112.100.R NEW	L112.100.L NEW	10	27	57,5	10x27
L112.120.R NEW	L112.120.L NEW	12	27	57,5	10x27
L113.050.R NEW	L113.050.L NEW	5	35	70	10x30
L113.060.R NEW	L113.060.L NEW	6	35	70	10x30
L113.064.R NEW	L113.064.L NEW	6,4	35	70	10x30
L113.070.R NEW	L113.070.L NEW	7	35	70	10x30
L113.080.R NEW	L113.080.L NEW	8	35	70	10x30
L113.100.R NEW	L113.100.L NEW	10	35	70	10x30
L113.120.R NEW	L113.120.L NEW	12	35	70	10x30

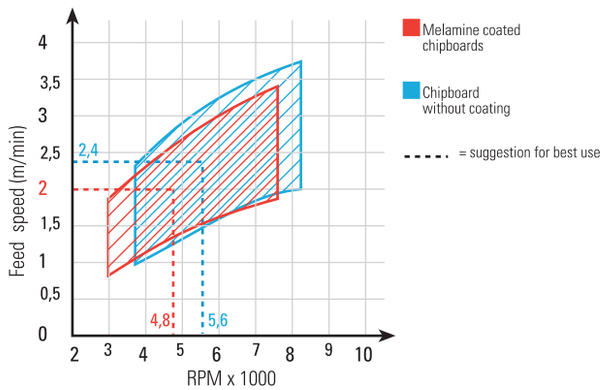
Z051.302.R

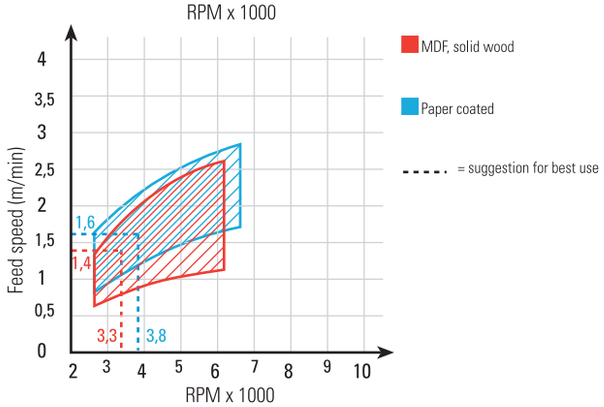
On request Z051.505.R

HW AND SOLID CARBIDE DOWEL DRILLS (art. L112 - L113)

How to determine the feeding speed according to the machine (RPM):

- Referred to a standard common diameter



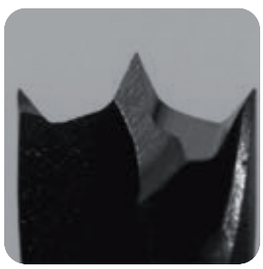


- High performance drills thanks to the special spur geometry;
- Suitable for working all materials with very good result;
- Suitable to work at higher feed speed and RPM.

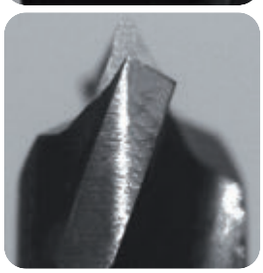
SPURS GEOMETRY OF THE DOWEL DRILLS:

Negative spurs and center point
ART. L101 ÷ L110

STANDARD



Front

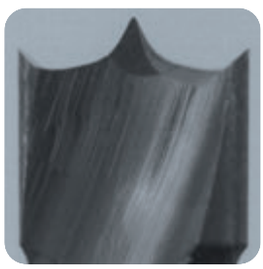


Side

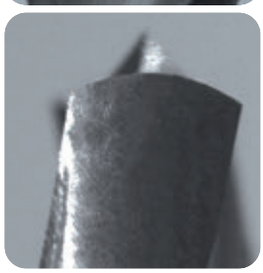
- **Good finish and tool life**
- **Lower price**

Rounded spurs and center point
ART. L112 ÷ L113

EXTRA FINE



Front

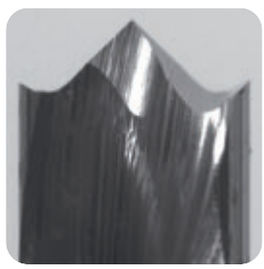


Side

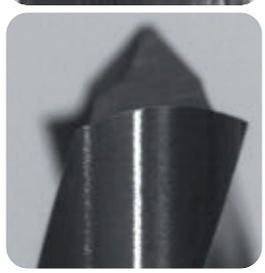
- **HW more resistant to wear**
- **Better finish**
- **Longer tool life**

Rounded spurs and reinforced center point
ART. L114 ÷ L117

EXTRA TIME



Front



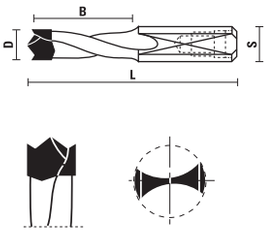
Side

- **HW more resistant to wear**
- **Excellent finish**
- **Longer tool life**
- **Easier to resharpen**
- **Excellent performance in any working conditions**
- **Best price/quality ratio**

Images taken with PRE SET LEADER

HW DOWEL DRILLS EXTRA TIME Z=2

ART. L114 - L115



- **2-flutes**
- **Rounded spurs and reinforced centre point**
- **Special HW**
- **Excellent finish and longer tool life**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF
- Suggested also for working trespa and melamine panels

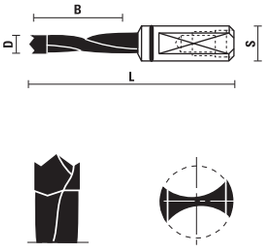
RH rotation	LH rotation	D	B	L	S
L114.050.R	L114.050.L	5	27	57,5	10X27
L114.060.R	L114.060.L	6	27	57,5	10x27
L114.064.R	L114.064.L	6,4	27	57,5	10x27
L114.070.R	L114.070.L	7	27	57,5	10x27
L114.080.R	L114.080.L	8	27	57,5	10x27
L114.100.R	L114.100.L	10	27	57,5	10x27
L114.120.R	L114.120.L	12	27	57,5	10x27
L115.050.R	L115.050.L	5	35	70	10x30
L115.060.R	L115.060.L	6	35	70	10x30
L115.064.R	L115.064.L	6,4	35	70	10x30
L115.070.R	L115.070.L	7	35	70	10x30
L115.080.R	L115.080.L	8	35	70	10x30
L115.100.R	L115.100.L	10	35	70	10x30
L115.120.R	L115.120.L	12	35	70	10x30

Z051.302.R

On request Z051.505.R

VHW DOWEL DRILLS EXTRA TIME Z=2

ART. L116 - L117



- **Solid carbide spiral portion**
- **2-flutes**
- **Rounded spurs and reinforced centre point**
- **Special HW**
- **Excellent finish and longer tool life**
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF
- Suggested also for working trespa and melamine panels

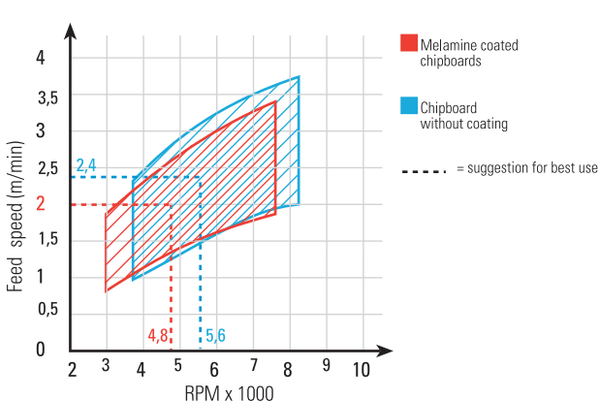
RH rotation	LH rotation	D	B	L	S
L116.030.R	L116.030.L	3	20	57,5	10X32
L116.040.R	L116.040.L	4	23	57,5	10X27
L116.050.R	L116.050.L	5	23	57,5	10X27
L116.060.R	L116.060.L	6	23	57,5	10X27
L116.064.R	L116.064.L	6,4	23	57,5	10X27
L116.070.R	L116.070.L	7	23	57,5	10X27
L116.080.R	L116.080.L	8	23	57,5	10X27
L117.030.R	L117.030.L	3	20	70	10x38
L117.040.R	L117.040.L	4	30	70	10x30
L117.050.R	L117.050.L	5	30	70	10x30
L117.060.R	L117.060.L	6	30	70	10x30
L117.064.R	L117.064.L	6,4	30	70	10x30
L117.070.R	L117.070.L	7	30	70	10x30
L117.080.R	L117.080.L	8	30	70	10x30

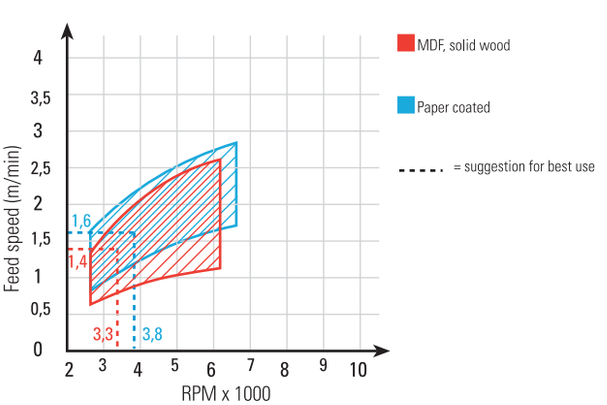
Z051.302.R Z059.001.L Z059.001.R

On request Z051.505.R

HW AND SOLID CARBIDE DOWEL DRILLS (art. L114 - L115 - L116 - L117)

How to determine the feeding speed according to the machine (RPM):
• Referred to a standard common diameter

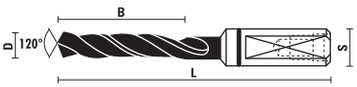




• Special spur geometry with reinforced centre point for excellent performance
• Recommended also for working problematic materials, like panels coated with paper
• Suitable to work at higher feed speed and RPM

VHW DOWEL DRILLS Z=2

ART. L118



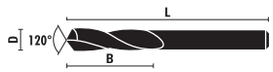
- **Solid carbide spiral portion**
- **2-flutes**
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF
- Ideal for **Trespa**

RH rotation	LH rotation	D	B	L	S
L118.040.R	L118.040.L	4	32	70	10X30
L118.050.R	L118.050.L	5	32	70	10X30
L118.060.R	L118.060.L	6	32	70	10X30
L118.064.R	L118.064.L	6,4	32	70	10X30
L118.070.R	L118.070.L	7	32	70	10X30
L118.080.R	L118.080.L	8	32	70	10X30

Z051.302.R Z059.001.L Z059.001.R On request Z051.505.R

VHW TWIST DRILLS Z=2

ART. L120

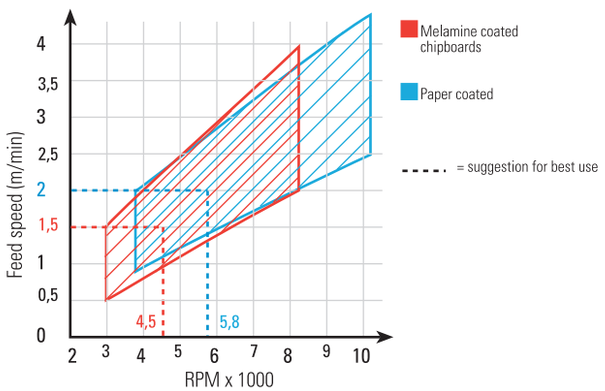


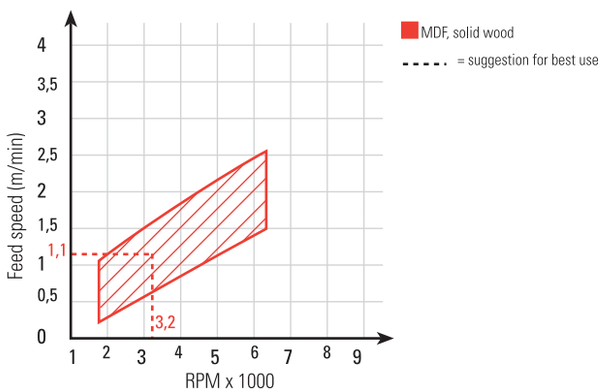
- **Solid carbide**
- **2-flutes**
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF
- Ideal for **Trespa**
- To use with adaptor bushes Art. Z010/Z011

RH rotation	LH rotation	D	B	L
L120.020.R	L120.020.L	2	18	49
L120.025.R	L120.025.L	2,5	22	55
L120.030.R	L120.030.L	3	22	55
L120.032.R	L120.032.L	3,2	22	55
L120.035.R	L120.035.L	3,5	25	55
L120.040.R	L120.040.L	4	25	55
L120.045.R	L120.045.L	4,5	28	58
L120.050.R	L120.050.L	5	28	58
L120.060.R	L120.060.L	6	28	58

VHW TWIST DRILLS (art. L120)

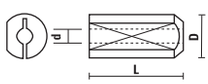
How to determine the feeding speed according to the machine (RPM):
• Referred to a standard common diameter





DRILL HOLDER-SLEEVES

ART. Z010

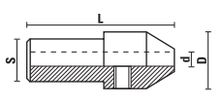


For Art. L120

Item	d	D	L
Z010.020.N	2	10	24
Z010.025.N	2,5	10	24
Z010.030.N	3	10	24
Z010.032.N	3,2	10	24
Z010.035.N	3,5	10	24
Z010.040.N	4	10	24
Z010.045.N	4,5	10	24
Z010.050.N	5	10	24
Z010.060.N	6	10	24

DRILL HOLDERS

ART. Z011

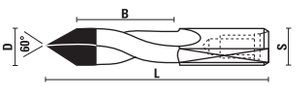


For Art. L120

Item	d	D	L	S
Z011.020.N	2	15	35	10x19
Z011.025.N	2,5	15	35	10x19
Z011.030.N	3	15	35	10x19
Z011.032.N	3,2	15	35	10x19
Z011.035.N	3,5	15	35	10x19
Z011.040.N	4	15	35	10x19
Z011.045.N	4,5	15	35	10x19
Z011.050.N	5	15	35	10x19
Z011.060.N	6	15	35	10x19

HW THROUGH HOLE DRILL BITS Z=2

ART. L123 - L124 - L125



- **2-flutes**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

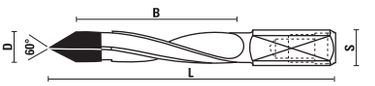
RH rotation	LH rotation	D	B	L	S
L123.040.R	L123.040.L	4	27	57,5	10X24
L123.050.R	L123.050.L	5	27	57,5	10X24
L123.060.R	L123.060.L	6	27	57,5	10X24
L123.070.R	L123.070.L	7	27	57,5	10X24
L123.080.R	L123.080.L	8	27	57,5	10X24
L123.090.R	L123.090.L	9	27	57,5	10X24
L123.100.R	L123.100.L	10	27	57,5	10X24
L124.040.R	L124.040.L	4	37	70	10X24
L124.050.R	L124.050.L	5	37	70	10X24
L124.060.R	L124.060.L	6	37	70	10X24
L124.064.R	L124.064.L	6,4	37	70	10X24
L124.070.R	L124.070.L	7	37	70	10X24
L124.080.R	L124.080.L	8	37	70	10X24
L124.090.R	L124.090.L	9	37	70	10X24
L124.095.R	L124.095.L	9,5	37	70	10X24
L124.100.R	L124.100.L	10	37	70	10X24
L124.120.R	L124.120.L	12	37	70	10X24
L125.050.R	L125.050.L	5	45	77	10X24
L125.060.R	L125.060.L	6	45	77	10X24
L125.070.R	L125.070.L	7	45	77	10X24
L125.080.R	L125.080.L	8	45	77	10X24
L125.100.R	L125.100.L	10	45	77	10X24

Z051.302.R

On request Z051.505.R

HW THROUGH HOLE DRILL BITS Z=2

ART. L126 - L127



- **4-flutes**
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

RH rotation	LH rotation	D	B	L	S
L126.050.R	L126.050.L	5	27	57,5	10X20
L126.060.R	L126.060.L	6	27	57,5	10X20
L126.080.R	L126.080.L	8	27	57,5	10X20
L127.045.R	L127.045.L	4,5	40	70	10X20
L127.050.R	L127.050.L	5	40	70	10X20
L127.055.R	L127.055.L	5,5	40	70	10X20
L127.060.R	L127.060.L	6	40	70	10X20
L127.070.R	L127.070.L	7	40	70	10X20
L127.080.R	L127.080.L	8	40	70	10X20
L127.090.R	L127.090.L	9	40	70	10X20
L127.100.R	L127.100.L	10	40	70	10X20
L127.120.R	L127.120.L	12	40	70	10X20

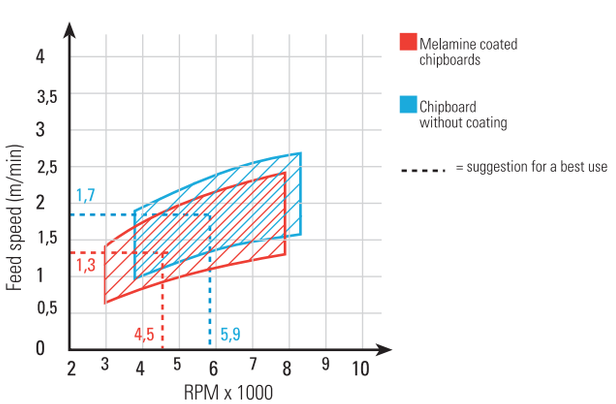
Z051.302.R

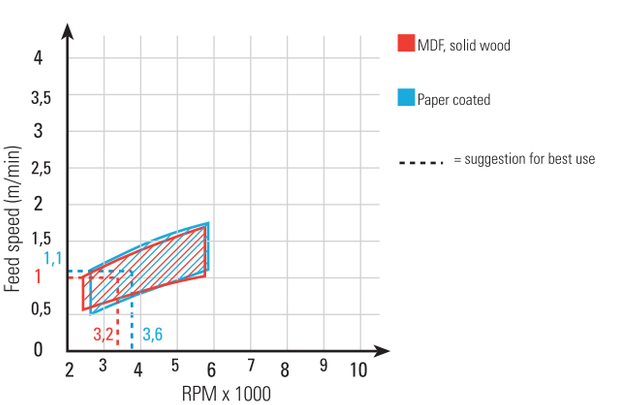
On request Z051.505.R

HW THROUGH HOLE DOWEL DRILLS WITH 2 AND 4 FLUTES (from art. L121 to L127)

How to determine the feeding speed according to the machine (RPM):

- Referred to a standard common diameter

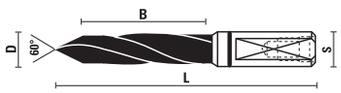




- Finish quality will be improved reducing the feed before the drill exit from the panel bottom side
- The solid carbide drills art. L129 allow the same results at higher feed speed and RPM

VHW THROUGH HOLE DRILL BITS Z=2

ART. L129



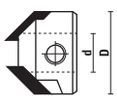
- **Solid carbide spiral portion**
- **2-flutes**
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF
- Best choice when working panels with special coating

RH rotation	LH rotation	D	B	L	S
L129.050.R	L129.050.L	5	30	70	10x30
L129.060.R	L129.060.L	6	30	70	10x30
L129.080.R	L129.080.L	8	30	70	10x30

Z051.302.R Z059.001.L Z059.001.R On request Z051.505.R

HW COUNTERSINKS Z=2 - 90°

ART. L130



- For 4 Flutes drills: Articles L103, L104, M101, M102, M103, M121,M122, M123, N101, N111, N135, N136
- Adjustable on the cutting length

RH rotation	LH rotation	d	D
L130.040.R	L130.040.L	4	15,5
L130.050.R	L130.050.L	5	15,5

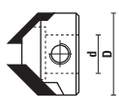
Z051.303.R

L130.060.R	L130.060.L	6	15,5
L130.064.R	L130.064.L	6,4	15,5
L130.070.R	L130.070.L	7	18
L130.080.R	L130.080.L	8	18
L130.090.R	L130.090.L	9	18
L130.100.R	L130.100.L	10	20
L130.120.R	L130.120.L	12	22

Z051.300.R

HW COUNTERSINKS Z=2 - 90°

ART. L131



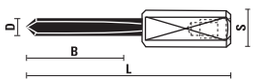
- For Articles L105, L106, L107, L108
- To be mounted on the shank ∅ 10

RH rotation	LH rotation	d	D
L131.100.R	L131.100.L	5/10	20
L131.120.R	L131.120.L	11/12	22

Z051.304.R

VHW DOWEL DRILLS FOR BOTH RIGHT HAND AND LEFT HAND ROTATION Z=1

ART. L136 - L137



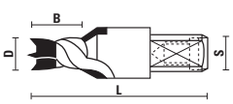
- **Solid carbide spiral portion**
- Straight cutting edges
- Can be used on either right and left rotation chucks
- Ideal for drilling highly **abrasive material**

Item	D	B	L	S
L136.020.N	2	12	57,5	10x33
L136.025.N	2,5	15	57,5	10x33
L136.030.N	3	16	57,5	10x30
L136.035.N	3,5	18	57,5	10x30
L136.040.N	4	20	57,5	10x30
L136.050.N	5	25	57,5	10x25
L136.060.N	6	25	57,5	10x25
L136.080.N	8	25	57,5	10x25
L137.020.N	2	12	70	10x33
L137.025.N	2,5	12	70	10x33
L137.030.N	3	24	70	10x30
L137.035.N	3,5	30	70	10x30
L137.040.N	4	32	70	10x30
L137.050.N	5	35	70	10x25
L137.060.N	6	35	70	10x25
L137.080.N	8	35	70	10x25

Z051.302.R On request Z051.505.R

HW DOWEL DRILLS WITH COUNTERSINK Z=2

ART. L138 - L139



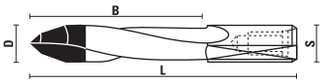
- Spurs ground with negative cutting angle for a good finish
- Cylindrical shank with flat/screw

RH rotation	LH rotation	D	B	L	S
L138.080.R	L138.080.L	8	12	57,5	10x20
L138.081.R	L138.081.L	8	15	57,5	10x20
L138.082.R	L138.082.L	8	20	57,5	10x20
L138.100.R	L138.100.L	10	12	57,5	10x20
L138.101.R	L138.101.L	10	15	57,5	10x20
L138.102.R	L138.102.L	10	20	57,5	10x20
L139.080.R	L139.080.L	8	12	70	10x20
L139.081.R	L139.081.L	8	15	70	10x20
L139.082.R	L139.082.L	8	20	70	10x20
L139.100.R	L139.100.L	10	12	70	10x20
L139.101.R	L139.101.L	10	15	70	10x20
L139.102.R	L139.102.L	10	20	70	10x20

Z051.302.R

HW THROUGH HOLE DRILL BITS "E.T." LINE Z=2

ART. L132 - L133



- **High performance,** double angle geometry
- PTFE-Based coating for a better chip flow
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

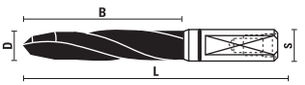
RH rotation	LH rotation	D	B	L	S
L132.050.R	L132.050.L	5	30	58	10x24
L132.060.R	L132.060.L	6	30	58	10x24
L132.080.R	L132.080.L	8	30	58	10x24
L133.040.R	L133.040.L	4	36	70	10x24
L133.050.R	L133.050.L	5	36	70	10x24
L133.060.R	L133.060.L	6	36	70	10x24
L133.064.R	L133.064.L	6,4	36	70	10x24
L133.070.R	L133.070.L	7	36	70	10x24
L133.080.R	L133.080.L	8	36	70	10x24
L133.100.R	L133.100.L	10	36	70	10x24
L133.120.R	L133.120.L	12	36	70	10x24

Z051.302.R

On request Z051.505.R

VHW THROUGH HOLE DRILL BITS "E.T." LINE Z=2

ART. L134 - L135



- **Solid carbide spiral portion**
- **High performance,** double angle geometry
- For natural wood, pressed wood, veenered, chipboard, laminated and MDF

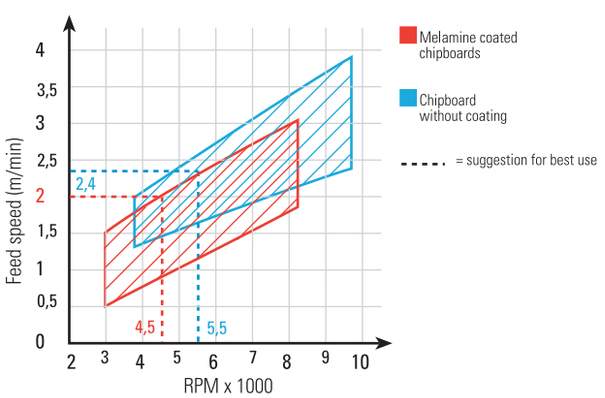
RH rotation	LH rotation	D	B	L	S
L134.050.R	L134.050.L	5	28	58	10x20
L134.060.R	L134.060.L	6	28	58	10x20
L134.080.R	L134.080.L	8	28	58	10x20
L135.040.R	L135.040.L	4	40	70	10x20
L135.050.R	L135.050.L	5	40	70	10x20
L135.060.R	L135.060.L	6	40	70	10x20
L135.064.R	L135.064.L	6,4	40	70	10x20
L135.070.R	L135.070.L	7	40	70	10x20
L135.080.R	L135.080.L	8	40	70	10x20

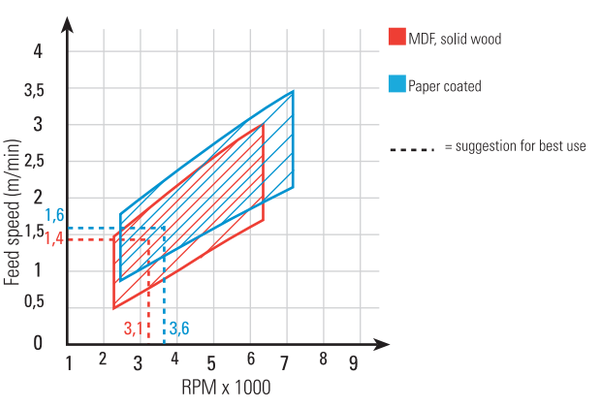
Z051.302.R Z059.001.L Z059.001.R

On request Z051.505.R

HW AND VHW THROUGH HOLE DOWEL DRILLS "E.T." EXTRA TIME (art. L132 - L133)

How to determine the feeding speed according to the machine (RPM):
• Referred to a standard common diameter

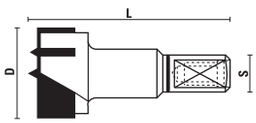




• Excellent finish result at high feed speed
• Use the solid carbide drills art. L134-L135 for the same result at higher feed speed and RPM

HW HINGE BORING BITS Z=2+2

ART. L140 - L141



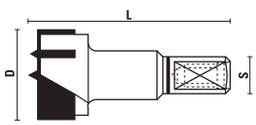
For natural and pressed woods, chipboards, veneered and laminate coated panelsand MDF

RH rotation	LH rotation	D	L	S
L140.150.R	L140.150.L	15	57	10X26
L140.160.R	L140.160.L	16	57	10X26
L140.170.R	L140.170.L	17	57	10X26
L140.180.R	L140.180.L	18	57	10X26
L140.190.R	L140.190.L	19	57	10X26
L140.200.R	L140.200.L	20	57	10X26
L140.220.R	L140.220.L	22	57	10X26
L140.240.R	L140.240.L	24	57	10X26
L140.250.R	L140.250.L	25	57	10X26
L140.260.R	L140.260.L	26	57	10X26
L140.280.R	L140.280.L	28	57	10X26
L140.300.R	L140.300.L	30	57	10X26
L140.320.R	L140.320.L	32	57	10X26
L140.340.R	L140.340.L	34	57	10X26
L140.350.R	L140.350.L	35	57	10X26
L140.360.R	L140.360.L	36	57	10X26
L140.380.R	L140.380.L	38	57	10X26
L140.400.R	L140.400.L	40	57	10X26
L141.150.R	L141.150.L	15	70	10X26
L141.160.R	L141.160.L	16	70	10X26
L141.180.R	L141.180.L	18	70	10X26
L141.200.R	L141.200.L	20	70	10X26
L141.220.R	L141.220.L	22	70	10X26
L141.250.R	L141.250.L	25	70	10X26
L141.260.R	L141.260.L	26	70	10X26
L141.300.R	L141.300.L	30	70	10X26
L141.340.R	L141.340.L	34	70	10X26
L141.350.R	L141.350.L	35	70	10X26
L141.400.R	L141.400.L	40	70	10X26

Z051.302.R | Z059.001.L | Z059.001.R | On request Z051.505.R

HW HINGE BORING BITS Z=2+2

ART. L142



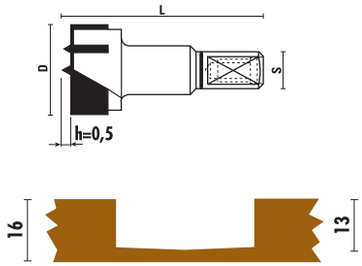
For natural and pressed woods, chipboards, veneered and laminate coated panelsand MDF

RH rotation	LH rotation	D	L	S
L142.200.R	L142.200.L	20	77	10X26
L142.250.R	L142.250.L	25	77	10X26
L142.300.R	L142.300.L	30	77	10X26
L142.350.R	L142.350.L	35	77	10X26

Z051.302.R | Z059.001.L | Z059.001.R | On request Z051.505.R

HW HINGE BORING BITS Z=2+2

ART. L150 - L151



- **Centerpoint H=0,5 mm for thin boards (16 mm)**
- For natural and pressed woods, chipboards, veneered and laminate coated panelsand MDF

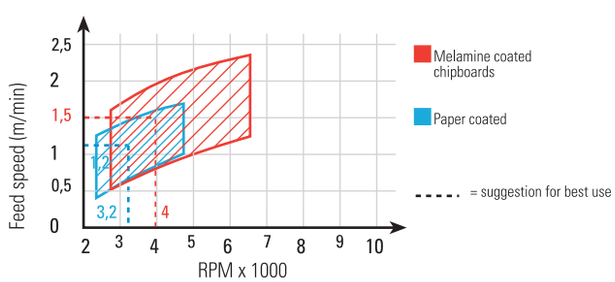
RH rotation	LH rotation	D	L	S
L150.150.R	L150.150.L	15	56	10X26
L150.200.R	L150.200.L	20	56	10X26
L150.250.R	L150.250.L	25	56	10X26
L150.260.R	L150.260.L	26	56	10X26
L150.300.R	L150.300.L	30	56	10X26
L150.350.R	L150.350.L	35	56	10X26
L150.400.R	L150.400.L	40	56	10X26
L151.150.R	L151.150.L	15	70	10X26
L151.200.R NEW	L151.200.L NEW	20	70	10X26
L151.350.R NEW	L151.350.L NEW	35	70	10X26

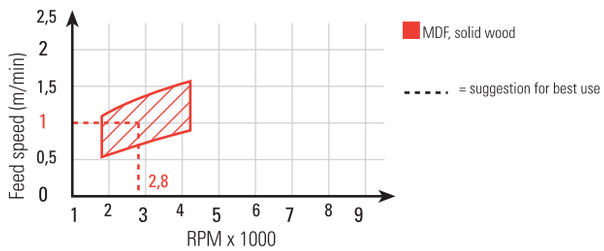
Z051.302.R | Z059.001.L | Z059.001.R | On request Z051.505.R

HW HINGE BORING BITS Z=2+2 (ART. L140-L141-L142-L150-L151)

How to determine the feeding speed according to the machine (RPM):

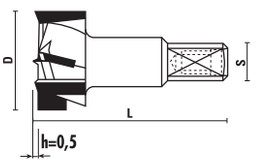
• Referred to a standard common diameter





HW HINGE BORING BITS Z=3+3

ART. L143 - L144



Centerpoint H=0,5 mm

RH rotation	LH rotation	D	L	S
L143.250.R	L143.250.L	25	57,5	10x26
L143.260.R	L143.260.L	26	57,5	10x26
L143.300.R	L143.300.L	30	57,5	10x26
L143.350.R	L143.350.L	35	57,5	10x26
L143.400.R	L143.400.L	40	57,5	10x26

Z051.302.R

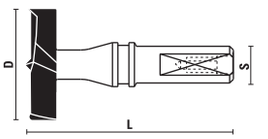
Without centerpoint

RH rotation	LH rotation	D	L	S
L144.250.R	L144.250.L	25	57,5	10x26
L144.260.R	L144.260.L	26	57,5	10x26
L144.300.R	L144.300.L	30	57,5	10x26
L144.350.R	L144.350.L	35	57,5	10x26

Z051.302.R

VHW HINGE BORING BITS Z=2+2

ART. L155 - L156



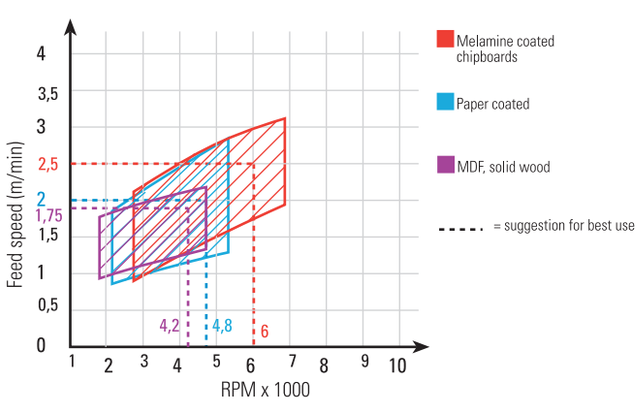
- **Solid carbide**
- **Rounded spurs** for an **excellente finish**
- **Highest performance** also in extreme conditions
- For high precision bores for hinges
- Ideal for **hard and soft wood, chipboard, MDF, veenered and plastic coated boards**

RH rotation	LH rotation	D	L	S
L155.150.R NEW	L155.150.L NEW	15	57	10x26
L155.200.R NEW	L155.200.L NEW	20	57	10x26
L155.250.R NEW	L155.250.L NEW	25	57	10x26
L155.300.R NEW	L155.300.L NEW	30	57	10x26
L155.350.R NEW	L155.350.L NEW	35	57	10x26
L156.150.R NEW	L156.150.L NEW	15	70	10x26
L156.200.R NEW	L156.200.L NEW	20	70	10x26
L156.250.R NEW	L156.250.L NEW	25	70	10x26
L156.300.R NEW	L156.300.L NEW	30	70	10x26
L156.350.R NEW	L156.350.L NEW	35	70	10x26

Z051.302.R

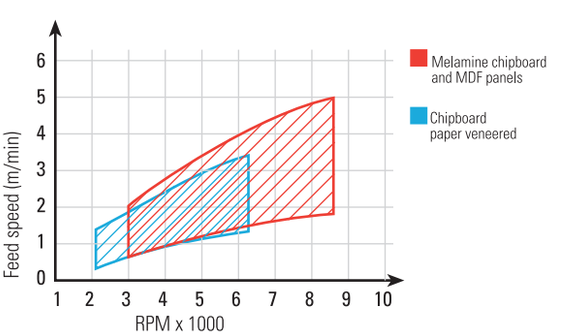
HW HINGE BORING BITS Z=3+3 (art. L143-L144)

How to determine the feeding speed according to the machine (RPM):
• Referred to a standard common diameter



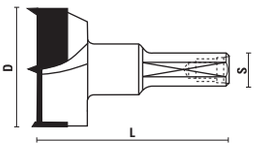
VHW HINGE BORING BITS Z=2+2 (art. L155-L156)

How to determine the feeding speed according to the machine (RPM):
• Referred to a standard common diameter



HW HINGE BORING BITS Z=2+2

ART. L160



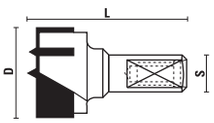
To be used on Trimatic 22-25-28

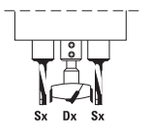
RH rotation	LH rotation	D	L	S
L160.300.R NEW	L160.300.L NEW	30	57	10X26
L160.340.R	L160.340.L	34	57	10X26

Z051.302.R

HW HINGE BORING BITS Z=2+2

ART. L170





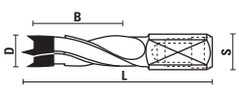
To be used on Trimatic Super

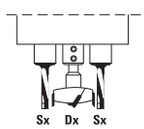
RH rotation	LH rotation	D	L	S
L170.200.R NEW	L170.200.L NEW	20	38,5	10X22
L170.260.R		26	38,5	10X22
L170.350.R	L170.350.L	35	38,5	10X22
L170.400.R		40	38,5	10X22

Z051.302.R

HW DOWEL DRILLS Z=2

ART. L171



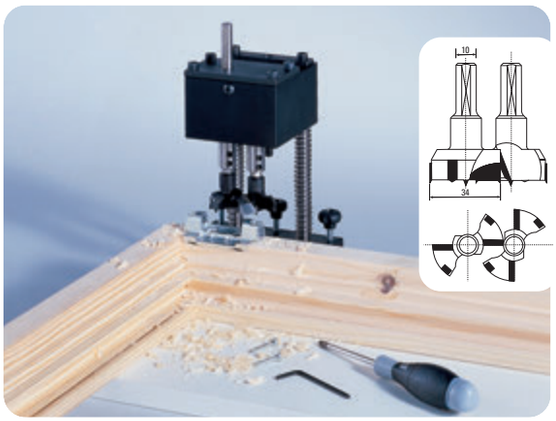


- To be used on Trimatic Super
- PTFE-Based coating for a better chip flow
- For **natural and pressed woods, chipboards and laminate coated panels**

RH rotation	LH rotation	D	B	L	S
L171.050.R NEW	L171.050.L	5	18	38,5	10X18
L171.080.R	L171.080.L	8	18	38,5	10X18
L171.100.R	L171.100.L	10	18	38,5	10X18

Z051.302.R

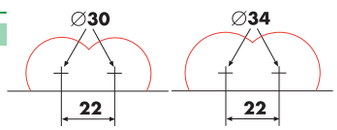
TRIMATIC 22 - 25 - 28
SPECIAL DEVICES FOR ANGULAR HINGES INSERTING



Fixing of edge hinge

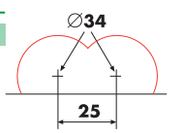
Item

TRIMATIC 22
for angular hinges “Siegenia” with a distance between centres of 22 mm



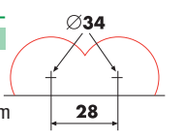
Item

TRIMATIC 25
for angular hinges “Gu” with a distance between centres of 25 mm



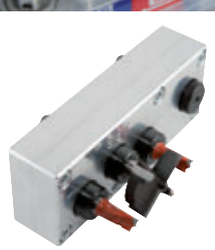
Item

TRIMATIC 28
for angular hinges “Trend” and AGB with a distance between centres of 28 mm



See catalogue section 16 at page 16.10

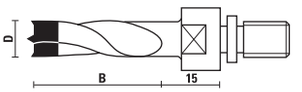
Drilling jig for making holes for hinge inserting



See catalogue section 16 at page 16.12

HW DOWEL DRILLS WITH THREADED SHANK Z=2

ART. M101 - M102 - M103

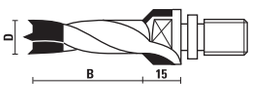


- **4-flutes**
- M10/11x4 for: **MORBIDELLI - BIESSE - WEEKE**

RH rotation	LH rotation	D	B
M101.050.R	M101.050.L	5	30
M101.060.R	M101.060.L	6	30
M101.080.R	M101.080.L	8	30
M101.100.R	M101.100.L	10	30
M101.120.R	M101.120.L	12	30
M101.140.R	M101.140.L	14	30
M102.050.R	M102.050.L	5	40
M102.060.R	M102.060.L	6	40
M102.080.R	M102.080.L	8	40
M102.100.R	M102.100.L	10	40
M102.120.R	M102.120.L	12	40
M102.140.R	M102.140.L	14	40
M103.050.R	M103.050.L	5	50
M103.060.R	M103.060.L	6	50
M103.080.R	M103.080.L	8	50
M103.100.R	M103.100.L	10	50
M103.120.R	M103.120.L	12	50
M103.140.R	M103.140.L	14	50

HW DOWEL DRILLS WITH COUNTERSINK THREADED SHANK Z=2

ART. M111 - M112 - M113

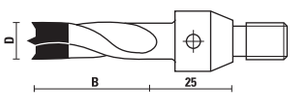


- **2-flutes**
- M10/11x4 for: **MORBIDELLI - BIESSE - WEEKE**

RH rotation	LH rotation	D	B
M111.050.R	M111.050.L	5	30
M111.060.R	M111.060.L	6	30
M111.080.R	M111.080.L	8	30
M111.100.R	M111.100.L	10	30
M111.120.R	M111.120.L	12	30
M111.140.R	M111.140.L	14	30
M111.160.R	M111.160.L	16	30
M112.050.R	M112.050.L	5	40
M112.060.R	M112.060.L	6	40
M112.080.R	M112.080.L	8	40
M112.100.R	M112.100.L	10	40
M112.120.R	M112.120.L	12	40
M112.140.R	M112.140.L	14	40
M112.160.R	M112.160.L	16	40
M113.050.R	M113.050.L	5	50
M113.060.R	M113.060.L	6	50
M113.080.R	M113.080.L	8	50
M113.100.R	M113.100.L	10	50
M113.120.R	M113.120.L	12	50
M113.140.R	M113.140.L	14	50
M113.160.R	M113.160.L	16	50

HW DOWEL DRILLS WITH THREADED SHANK Z=2

ART. M121 - M122 - M123

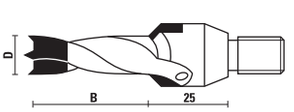


- **4-flutes**
- M10/30° for: **VITAP - BUSELLATO - SCHLEICHER**

RH rotation	LH rotation	D	B
M121.050.R	M121.050.L	5	30
M121.060.R	M121.060.L	6	30
M121.080.R	M121.080.L	8	30
M121.100.R	M121.100.L	10	30
M121.120.R	M121.120.L	12	30
M121.140.R	M121.140.L	14	30
M122.050.R	M122.050.L	5	40
M122.060.R	M122.060.L	6	40
M122.080.R	M122.080.L	8	40
M122.100.R	M122.100.L	10	40
M122.120.R	M122.120.L	12	40
M122.140.R	M122.140.L	14	40
M123.050.R	M123.050.L	5	50
M123.060.R	M123.060.L	6	50
M123.080.R	M123.080.L	8	50
M123.100.R	M123.100.L	10	50
M123.120.R	M123.120.L	12	50
M123.140.R	M123.140.L	14	50

HW DOWEL DRILLS WITH COUNTERSINK THREADED SHANK Z=2

ART. M131 - M132 - M133

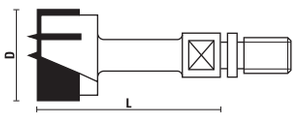


- **2-flutes**
- M10/30° for: **VITAP - BUSELLATO - SCHLEICHER**

RH rotation	LH rotation	D	B
M131.050.R	M131.050.L	5	30
M131.060.R	M131.060.L	6	30
M131.080.R	M131.080.L	8	30
M131.100.R	M131.100.L	10	30
M131.120.R	M131.120.L	12	30
M131.140.R	M131.140.L	14	30
M131.160.R	M131.160.L	16	30
M132.050.R	M132.050.L	5	40
M132.060.R	M132.060.L	6	40
M132.080.R	M132.080.L	8	40
M132.100.R	M132.100.L	10	40
M132.120.R	M132.120.L	12	40
M132.140.R	M132.140.L	14	40
M132.160.R	M132.160.L	16	40

HW HINGE BORING BITS WITH THREADED SHANK Z=2

ART. M141 - M142

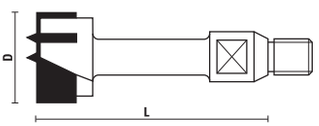


M10/11x4 for: **MORBIDELLI - BIESSE - WEEKE**

RH rotation	LH rotation	D	L
M141.200.R	M141.200.L	20	40
M141.250.R	M141.250.L	25	40
M141.350.R	M141.350.L	35	40
M141.400.R	M141.400.L	40	40
M142.200.R	M142.200.L	20	55
M142.250.R	M142.250.L	25	55
M142.260.R	M142.260.L	26	55
M142.300.R	M142.300.L	30	55
M142.350.R	M142.350.L	35	55
M142.400.R	M142.400.L	40	55

HW HINGE BORING BITS WITH THREADED SHANK Z=2+2

ART. M151

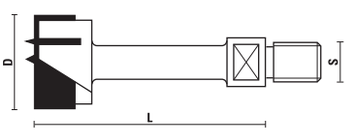


M10/30° for: **VITAP - BUSELLATO - SCHLEICHER**

RH rotation	LH rotation	D	L
M151.250.R	M151.250.L	25	65
M151.260.R	M151.260.L	26	65
M151.350.R	M151.350.L	35	65
M151.400.R	M151.400.L	40	65

HW HINGE BORING BITS WITH THREADED SHANK Z=2+2

ART. N121 - N131

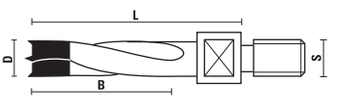


M8 for: **NOTTMEYER** - M10 for: **AYEN**

RH rotation	LH rotation	D	L	S
N121.250.R	N121.250.L	25	63	M8
N121.350.R	N121.350.L	35	63	M8
N131.200.R	N131.200.L	20	63	M10
N131.250.R	N131.250.L	25	63	M10
N131.350.R	N131.350.L	35	63	M10

HW DOWEL DRILLS WITH THREADED SHANK Z=2

ART. N101 - N102

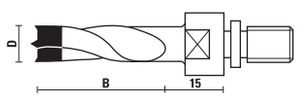


- 4-flutes
- M8 for: **NOTTMEYER** - M10 for: **AYEN**

RH rotation	LH rotation	D	B	L	S
N101.050.R	N101.050.L	5	43	63	M8
N101.060.R	N101.060.L	6	43	63	M8
N101.080.R	N101.080.L	8	43	63	M8
N101.100.R	N101.100.L	10	43	63	M8
N101.120.R	N101.120.L	12	43	63	M8
N111.050.R	N111.050.L	5	43	63	M10
N111.060.R	N111.060.L	6	43	63	M10
N111.080.R	N111.080.L	8	43	63	M10
N111.100.R	N111.100.L	10	43	63	M10
N111.120.R	N111.120.L	12	43	63	M10

HW DOWEL DRILLS WITH THREADED SHANK Z=2

ART. N135 - N136

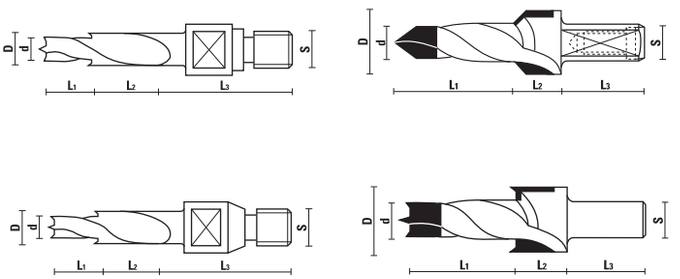


- 4-flutes
- M8/9x4 for: **MORBIDELLI, NOTTMEYER,MASTERWOOD**

RH rotation	LH rotation	D	B
N135.050.R	N135.050.L	5	40
N135.060.R	N135.060.L	6	40
N135.080.R	N135.080.L	8	40
N135.100.R	N135.100.L	10	40
N135.120.R	N135.120.L	12	40
N136.050.R	N136.050.L	5	60
N136.060.R	N136.060.L	6	60
N136.080.R	N136.080.L	8	60
N136.100.R	N136.100.L	10	60
N136.120.R	N136.120.L	12	60

HW/HS COUNTERBORE BITS

ART. N150 - N250



Features requested: dxL1 - DxL2 - SxL3

RH rotation	LH rotation	D	B
N150.000.R	N150.000.L	10	HW
N150.000.R	N150.000.L	12	HW
N150.000.R	N150.000.L	15	HW
N150.000.R	N150.000.L	20	HW
N150.000.R	N150.000.L	25	HW
N150.000.R	N150.000.L	30	HW
N150.000.R	N150.000.L	35	HW
N150.000.R	N150.000.L	40	HW
N250.000.R	N250.000.L	10	HS
N250.000.R	N250.000.L	12	HS
N250.000.R	N250.000.L	15	HS
N250.000.R	N250.000.L	20	HS
N250.000.R	N250.000.L	25	HS
N250.000.R	N250.000.L	30	HS
N250.000.R	N250.000.L	35	HS
N250.000.R	N250.000.L	40	HS

MODULAR DRAWER UNIT

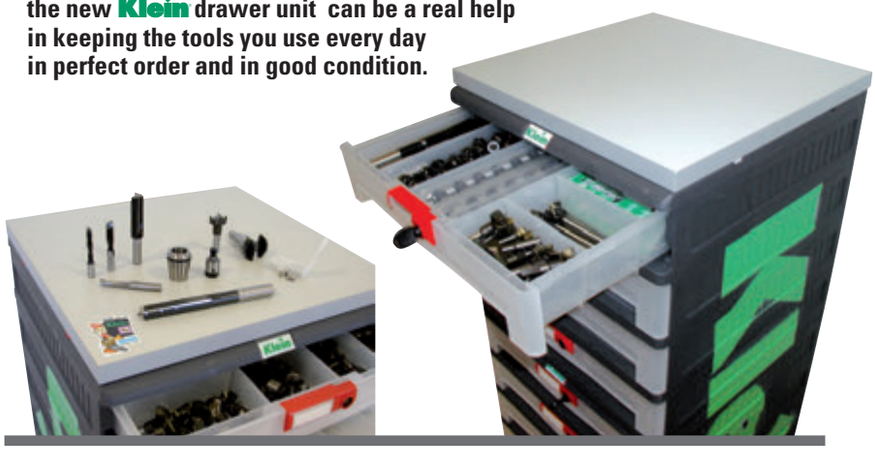
Drawer unit

"Elegant, sturdy Klein drawer unit with an innovative, modern design and great modularity, where you can keep all your Klein tools in a clean, secure, well-organized place. Say good-bye to messiness and damaged tools. Now, with the new Klein drawer unit, you can put your storeroom in order in a convenient, functional way.

SMALL OUTSIDE BUT LARGE INSIDE
the Klein drawer unit takes up little space but can contain countless articles in its 10 drawers and 80 containers (8 containers per drawer).

- **STURDY**
  since each drawer can hold around 8 kg.
- **LIGHT**
  since it's made of a high-strength polypropylene co-polymer.
- **SECURE**
  since each drawer has its own key.
- **PRACTICAL**
  since it can be equipped with 4 casters for convenient movement or with slip-resistant feet.
- **CONVENIENT**
  since it features a wooden top which acts as a practical surface for taking notes or keeping tools.
- **VERSATILE**
  since the tubs in the drawers can be removed easily as desired.

Whether it's placed next to a CNC router, or close to a point-to-point boring machine, along the panel production line or in any carpentry shop, the new Klein drawer unit can be a real help in keeping the tools you use every day in perfect order and in good condition.



The new Klein drawer unit can hold a wide range of tools.
Ask our customer service how to receive it.

Modular drawer unit "Boring Machine"

Ideal to store dowel drills and boring bits beside your boring machine

1st Drawer
Drill holders

Art. L001.100.R
L001.100.L
L002.100.R
L002.100.L
L030.100.R
L030.100.L
L031.100.R
L032.100.R

2nd Drawer
Drills L=57,5

Art. L103.040.R
L103.040.L
L103.050.R
L103.050.L
L103.060.R
L103.060.L
L103.070.R
L103.070.L

3rd Drawer
Drills L=57,5

Art. L103.080.R
L103.080.L
L103.100.R
L103.100.L
L103.120.R
L103.120.L
L103.140.R
L103.140.L

4th Drawer
Drills L=70

Art. L104.040.R
L104.040.L
L104.050.R
L104.050.L
L104.060.R
L104.060.L
L104.070.R
L104.070.L

5th Drawer
Drills L=70

Art. L104.080.R
L104.080.L
L104.100.R
L104.100.L
L104.120.R
L104.120.L
L104.140.R
L104.140.L

6h Drawer
Through hole drills

Art. L124.050.R
L124.050.L
L124.060.R
L124.060.L
L124.080.R
L124.080.L
L124.100.R
L124.100.L

7th Drawer
Hinge boring bits

Art. L140.150.R
L140.150.L
L140.180.R
L140.180.L
L140.200.R
L140.200.L
L140.250.R
L140.250.L

8th Drawer
Hinge boring bits

Art. L140.260.R
L140.260.L
L140.300.R
L140.300.L
L140.350.R
L140.350.L
L140.400.R
L140.400.L

9th Drawer
High performance drills L=57,5

Art. L114.050.R
L114.050.L
L114.060.R
L114.060.L
L114.080.R
L114.080.L
L114.100.R
L114.100.L

10th Drawer
High performance drills L=70

Art. L115.050.R
L115.050.L
L115.060.R
L115.060.L
L115.080.R
L115.080.L
L115.100.R
L115.100.L