

## 6. Drilling

### 6.4 Multi-purpose drilling

#### 6.4.3 Cylinder head drills



#### HW, Z 2 / V 2

##### Application:

For drilling hinge holes, particularly in furniture construction.

##### Machine:

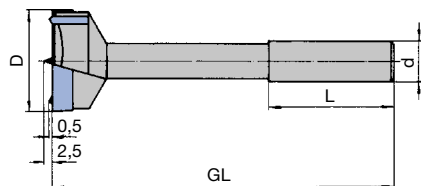
Column drilling machines, drilling machines, special purpose drilling machines, portable drills.

##### Workpiece material:

Softwood and hardwood.

##### Technical information:

Tungsten carbide design, Z 2/V 2. Reinforced shank for heavy machining in column drilling machines and powerful portable drills.



##### Shank 13 / 16 mm, reinforced design

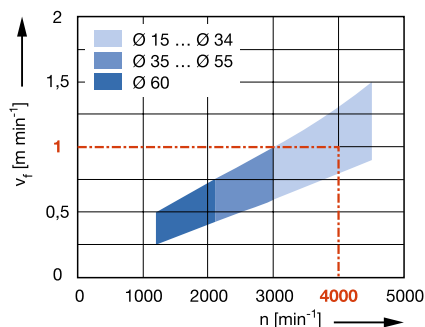
WB 310 0 02

D	GL	S	DRI	ID
mm	mm	mm		
20	140	13x50	RH	<b>036462</b> ●
22	140	13x50	RH	<b>036463</b> ●
25	140	13x50	RH	<b>036465</b> ●
30	140	13x50	RH	<b>036468</b> ●
35	140	16x50	RH	<b>036471</b> ●
40	140	16x50	RH	<b>036474</b> ●
50	150	16x50	RH	<b>036480</b> ●
55	150	16x50	RH	<b>036483</b> ●
60	150	16x50	RH	<b>036486</b> ●

RPM:  $n = 1200 - 4500 \text{ min}^{-1}$

Tungsten carbide tipping with large resharpening area

Feed speed  $v_f$  depending on the spindle RPM  $n$



##### Workpiece material:

Hardwood

##### Operation:

Drilling

##### Correction factor for $v_f$ :

Chipboard = 1.2

Laminated veneer lumber = 1.1

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Астана (7172)727-132

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Белгород (4722)40-23-64

Брянск (4832)59-03-52

Владивосток (423)249-28-31

Волгоград (844)278-03-48

Вологда (8172)26-41-59

Воронеж (473)204-51-73

Екатеринбург (343)384-55-89

Иваново (4932)77-34-06

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Челябинск (351)202-03-61

Череповец (8202)49-02-64

Ярославль (4852)69-52-93

## 6. Drilling

### 6.4 Multi-purpose drilling

#### 6.4.3 Cylinder head drills



#### SP, Z 2 / V 2

**Application:**

For drilling hinge holes, particularly in furniture construction and for fittings in timber construction.

**Machine:**

Column drilling machines, special purpose drilling machines, portable drills.

**Workpiece material:**

Softwood.

**Technical information:**

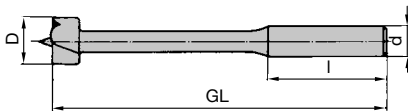
SP solid, Z 2/V 2. Shank 10 mm suitable for stationary boring machines and portable drills.



**Shank 10 mm**

WB 310 0 03

D	GL	S	DRI	ID
mm	mm	mm		
15	90	10x55	RH	<b>036650</b> ●
20	90	10x55	RH	<b>036655</b> ●
25	90	10x70	RH	<b>036658</b> ●
30	90	10x70	RH	<b>036661</b> ●
35	90	10x65	RH	<b>036664</b> ●
40	90	10x65	RH	<b>036667</b> ●

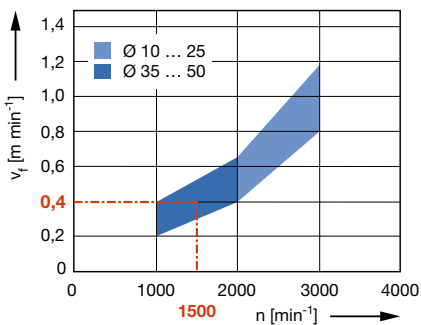


**Technical information:**

SP solid, Z 2/V 2. Reinforced shank for heavy machining in column drilling machines and powerful portable drills.

WB 310 0 02, reinforced shank  
13/16 mm

Feed speed  $v_f$  depending on the spindle  
RPM  $n$



**Shank 13 / 16 mm, reinforced design**

WB 310 0 02

D	GL	S	DRI	ID
mm	mm	mm		
10	120	13x50	RH	<b>036421</b> ●
12	120	13x50	RH	<b>036422</b> ●
15	140	13x50	RH	<b>036424</b> ●
20	140	13x50	RH	<b>036427</b> ●
25	140	13x50	RH	<b>036430</b> ●
30	140	13x50	RH	<b>036433</b> ●
35	140	16x50	RH	<b>036436</b> ●

**RPM:**  $n = 1000 - 3000 \text{ min}^{-1}$

**Workpiece material:**

Softwood

**Operation:**

Drilling

## 6. Drilling

### 6.4 Multi-purpose drilling

#### 6.4.3 Cylinder head drills



#### HW, Z 2 / V 2

**Application:**

For drilling hinge holes, particularly in furniture construction.

**Machine:**

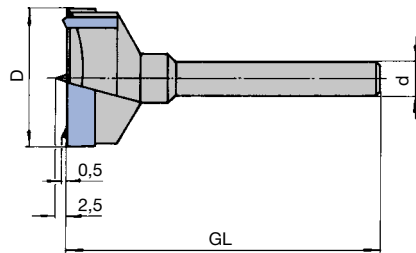
Column drilling machines, drilling machines, special purpose drilling machines, portable drills.

**Workpiece material:**

Softwood and hardwood.

**Technical information:**

Tungsten carbide design, Z 2/V 2. Shank 10 mm suitable for stationary drilling machines and portable drills.



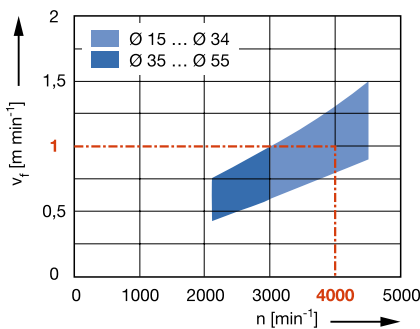
**Shank 10 mm**  
WB 310 0 03

D	GL	S	DRI	ID
mm	mm	mm		
15	90	10x55	RH	036668 ●
16	90	10x55	RH	036669 ●
17	90	10x55	RH	036670 ●
18	90	10x55	RH	036671 ●
19	90	10x55	RH	036672 ●
20	90	10x55	RH	036673 ●
22	90	10x55	RH	036674 ●
24	90	10x70	RH	036676 ●
25	90	10x70	RH	036677 ●
26	90	10x70	RH	036678 ●
28	90	10x70	RH	036679 ●
30	90	10x70	RH	036680 ●
34	90	10x65	RH	036682 ●
35	90	10x65	RH	036683 ●
40	90	10x65	RH	036686 ●

**RPM:** n = 1200 - 4500 min<sup>-1</sup>

WB 310 0 03, shank 10 mm,  
GL = 90 mm

Feed speed  $v_f$  depending on the spindle  
RPM n



**Workpiece material:**

Hardwood

**Operation:**

Drilling

**Correction factor for  $v_f$ :**

Chipboard = 1.2

Laminated veneer lumber = 1.1

## 6. Drilling

### 6.3 Hinge drilling

#### 6.3.1 Hinge drills



#### Shank 10 mm

##### Application:

For drilling hinge holes, particularly in furniture construction.

##### Machine:

Point-to-point drilling machines, through feed drilling machines, CNC machining centres, hinge boring machines, multi spindle units.

##### Workpiece material:

Softwood and hardwood, chipboard and fibre materials (MDF, HDF etc.), uncoated, plastic coated, veneered etc., laminated veneer lumber (plywood, multiplex plywood etc.).

##### Technical information:

Good centering in solid wood by protruding centre point.



#### GL 57 mm, Z 2 / V 2

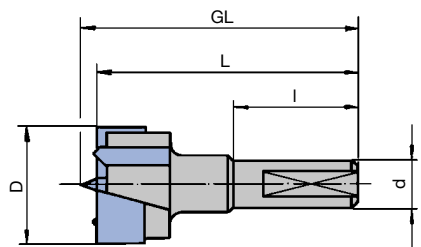
WB 310 0 04

D	GL	L	S	ID	ID
mm	mm	mm	mm	LH	RH
15	57	54.5	10x26	<b>034630</b> ●	<b>034631</b> ●
20	57	54.5	10x26		<b>034637</b> ●
25	57	54.5	10x26		<b>034643</b> ●
35	57	54.5	10x26		<b>034651</b> ●
40	57	54.5	10x26		<b>034677</b> ●

#### GL 70 mm, Z 2 / V 2

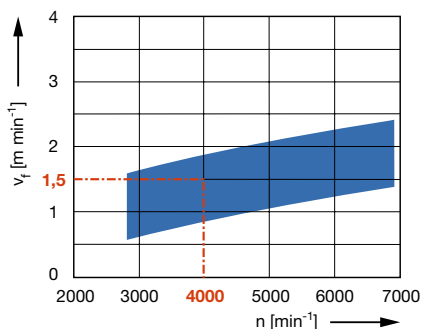
WB 310 0 04

D	GL	L	S	ID	ID
mm	mm	mm	mm	LH	RH
15	72.5	70	10x26	<b>034663</b> ●	<b>034664</b> ●
18	72.5	70	10x26		<b>034678</b> ●
20	72.5	70	10x26	<b>034665</b> ●	<b>034666</b> ●
25	72.5	70	10x26		<b>034668</b> ●
35	72.5	70	10x26	<b>034671</b> ●	<b>034672</b> ●



Z 2 / V 2 with centre point

Feed speed  $v_f$  depending on the spindle RPM  $n$



RPM:  $n = 2800 - 7000 \text{ min}^{-1}$

##### Spare parts:

BEZ	ABM	BEM	ID
	mm		
Allen screw	M5x10	Length adjustment	<b>005802</b> ●
Anti-twist allen screw	M5x10	Length adjustment	<b>007438</b> ●
Length adjustment screw Torx® 20	M5x17	for quick-change drill adaptors	<b>009157</b> ●

##### Workpiece material:

Chipboard plastic coated

##### Operation:

Drilling

##### Correction factor for $v_f$ :

Veneered = 0.8

Paper coated = 0.8

MDF, solid wood = 0.7

## 5. Routing

### 5.5 Portable routers 5.5.5 Drills for portable routers



#### Hinge boring bit

**Application:**

For drilling hinge holes in furniture construction.

**Machine:**

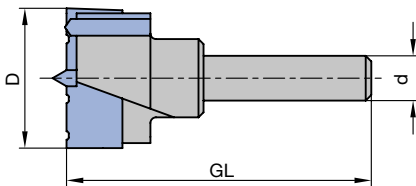
Portable routers.

**Workpiece material:**

Softwood and hardwood, chipboard and fibre materials (MDF, HDF etc.), uncoated, plastic coated, veneered etc., laminated veneer lumber (plywood, multiplex plywood etc.).

**Technical information:**

Good centering in solid wood by centre point. Minimised friction by relief ground spurs and raker edge with chip breakers. Cylindrical shank without clamping flat.



**HW, Z 2 / V 2**

WB 310 0

D	GL	S	DRI	ID
mm	mm	mm		
15	54.5	8x30	RH	<b>034660</b> □
18	54.5	8x30	RH	<b>072596</b> □
20	54.5	8x30	RH	<b>072012</b> □
22	54.5	8x30	RH	<b>072740</b> □
25	54.5	8x30	RH	<b>034656</b> □
26	54.5	8x30	RH	<b>034658</b> □
30	54.5	8x30	RH	<b>034657</b> □
34	54.5	8x30	RH	<b>072196</b> □
35	54.5	8x30	RH	<b>034659</b> □

**RPM:** n = 3000 - 9000 min<sup>-1</sup>

Hinge boring bit Z 2 / V 2

## 6. Drilling

### 6.3 Hinge drilling 6.3.4 Hinge drills, DP



#### Shank 10 mm

##### Application:

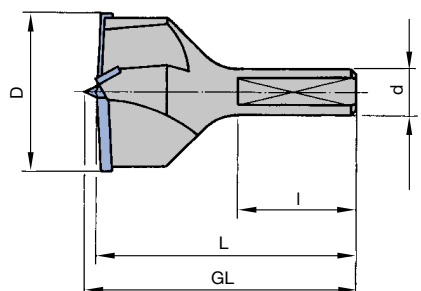
For drilling hinge holes, particularly in furniture construction with maximum durability. Specially for drilling materials with hard and abrasive coatings (e.g. HPL, CPL etc.).

##### Machine:

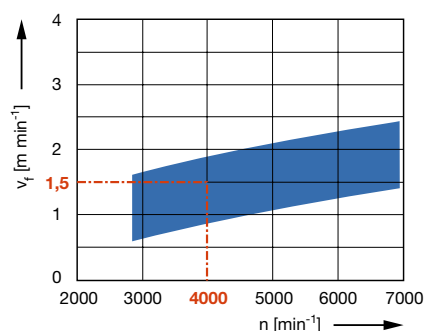
Point-to-point drilling machines, through feed drilling machines, CNC machining centres, hinge boring machines, multi spindle units.

##### Workpiece material:

Chipboard and fibre materials (MDF, HDF etc.), uncoated, plastic coated, veneered etc., fire resistant particle and fibre materials, laminated veneer lumber (plywood, multiplex plywood etc.).



Feed speed  $v_f$  depending on the spindle RPM  $n$



##### Workpiece material:

Chipboard plastic coated

##### Operation:

Drilling

##### Correction factor for $v_f$ :

Veneered = 0.8

Paper coated = 0.8

MDF = 0.7

##### Technical information:

DP tipped for increased performance time compared to tungsten carbide. Suitability for high volume production. Diamaster PRO tipping, resharpenable two/three times with normal wear. Preferred used on automatic machines. Drills can only be used in vertical drilling machines when workpieces are clamped tightly.

##### GL 57 / GL 70 mm, Z 2 / V 2

WB 310 0 50

D	GL	L	S	ID	ID
mm	mm	mm	mm	LH	RH
15	70	68.5	10x26		<b>191023</b> ●
20	57	54.5	10x26		<b>191022</b> ●
25	70	68.5	10x26		<b>091197</b> ●
26	70	68.5	10x26		<b>191029</b> ●
35	57	54.5	10x26		<b>091181</b> ●
35	70	68.5	10x26	<b>091184</b> ●	<b>091183</b> ●

RPM:  $n = 2800 - 7000 \text{ min}^{-1}$

##### Spare parts:

BEZ	ABM	BEM	ID
	mm		
Allen screw	M5x10	Length adjustment	<b>005802</b> ●
Anti-twist allen screw	M5x10	Length adjustment	<b>007438</b> ●
Length adjustment screw Torx® 20	M5x17	for quick-change drill adaptors	<b>009157</b> ●

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