



# SMD352 & SMD502 Variable Slide Magnetic Drill

2 speed 1100 W magnetic drilling machine

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Internal & Confidential

## AGP TAIWAN

Lee Yeong Industrial Co., Ltd.  
No.2, Kejia Rd., Douliu City, 64057, Taiwan  
Tel : 886-5-5518689 Fax : 886-5-5518635

## AGP EUROPE BV

Evenbroekveld 16D, 9420 Erpe-Mere, Belgium  
Tel : +32 53 21 62 22 Fax : +32 53 83 88 20



**SMD352**



**SMD502**

# Introduction

## Target group & Applications

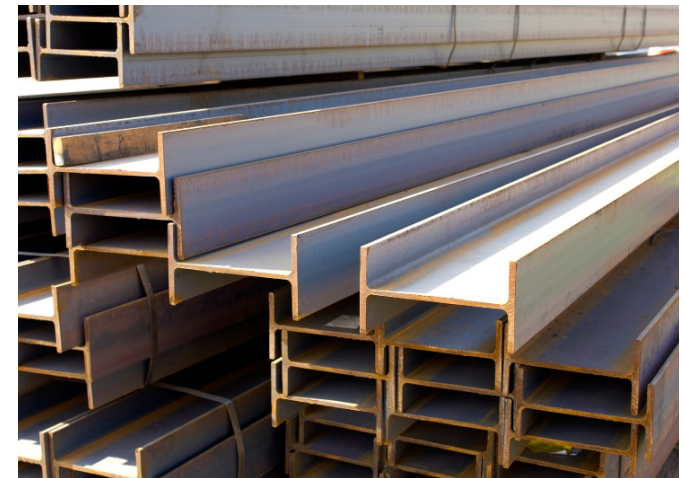
### SMD352 & SMD502 Introduction

The SMD two-speed series machines are a step up from the SMD351 series because they have the additional feature of two-speed gearbox, which allows a wider range of cutter diameters to be used while maintaining maximum torque. For drilling with annular cutters in steel, the SMD352 is rated at 42 mm and the SMD502 is rated at 50 mm, with both using up to 50 mm length cutters. The difference between these two models is in their gear ratios. Generally, the gear ratio of the SMD502 is more optimized for using large diameter HSS cutters, while the gearing of the SMD352 is optimized for using TCT cutters and slightly smaller HSS cutters. But of course, either machine can mount either type of cutter.

The SMD series feature a quick-release spindle, allowing easy cutter changes. Although their primary purpose is drilling with annular cutters, they are also well adapted to using other cutting tools. As annular cutters cannot make holes smaller than about 12mm, a 3-jaw chuck can be easily mounted with the optional quick-release chuck adaptor, allowing twist drills to be used. In addition, other types of cutting tools such as countersinks, counterbores, and reamers can be mounted. Since some cutting tools require a higher starting spindle height, the SMD series has a variable slide height feature. This makes the machine very versatile and useful for a wide range of metalworking applications and industries.

### Target Groups and Applications

For operators in the metalworking, fabrication, steel frame construction, bridge building industry, or anyone who needs to drill in heavy steel, the SMD two-speed series is an indispensable tool. Magnetic drills are convenient and portable, making them the perfect complement to a stationary drill press. Their powerful electromagnet can adhere to ferrous steel in any position needed, allowing accurately aligned perpendicular holes to be created. They are especially useful when the steel to be drilled is part of a larger structure which cannot be drilled by stationary equipment. Here their ability to magnetically adhere to the workpiece really saves the day. Since the SMD two-speed drills are optimized for operating with the most commonly used cutter sizes, they are usually the first-choice tool for most jobs that require a mag drill.



# Sales Arguments



## Variable Slide Height

Allows 230 mm total travel for mounting a wide range of cutting tools.



## Quick-Release Arbor

Tool free cutter changes save time and effort.



## 1.1 kW Motor

High-torque motor optimized for steel drilling applications with overload protection.



## Optional Quick-Mounting Chuck

The Weldon shank quick-release chuck adaptor allows quick and easy changes between cutters and chuck modes. This allows a wide range of cutting tools to be used.



## Powerful Electromagnet

Exceptionally powerful and reliable magnet for secure and stable drilling.



## Integrated Cutting Fluid Feed

Cutting fluid automatically feeds when using annular cutters and can be fine adjusted as needed.

# Technical Specification

Model		SMD352	SMD502
Power Input		1100 W	1100 W
Voltage, Frequency		220-240 V~ 50-60 Hz, or 110-120 V~ 50-60 Hz	
No Load (Rated Load) Speeds		Gear 1	450 (270) min <sup>-1</sup>
		Gear 2	730 (440) min <sup>-1</sup>
Max. Capacity	∅ x Depth of Cut of Cutters	42 x 50 mm (1-3/8" x 2")	50 x 50 mm (2" x 2")
	∅ Twist Drills	≤ 1/2" shank	
	Stroke	140 mm (5-1/2")	
Overload Protection		With	
Magnetic Adhesion		15,000 N	17,000 N
Weight		13.1 kg (28.8 lb)	14.8 kg (32.6 lb)

- 1 Quick-Release Chuck Adaptor (optional)
- 2 1/2" Chuck (optional)
- 3 Coolant Tank
- 4 Coolant Feed Tap
- 5 Gear Selector
- 6 Quick-Release Arbor
- 7 Annular Cutter (Not included)
- 8 Pilot Pin (Not included)
- 9 Magnet Switch
- 10 Motor Switch
- 11 Crank Handle
- 12 Slide & Slide Height Lock



# Offer Content

## Standard Accessories

- 1 SMD352 & SMD502 2 Speed Variable Slide Magnetic Drill
- 2 Wrench M8
- 3 L-Hex Key M4
- 4 L-Hex Key M2.5
- 5 T- Wrench M6
- 6 Ratchet Strap
- 7 Chip Guard Kit

## Optional Accessories

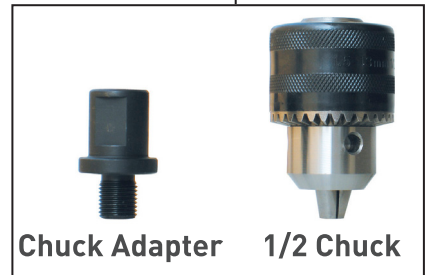
- 8 Quick-Release Chuck Adaptor
- 9 1/2" Chuck & Key



# Cutting Tools Applications

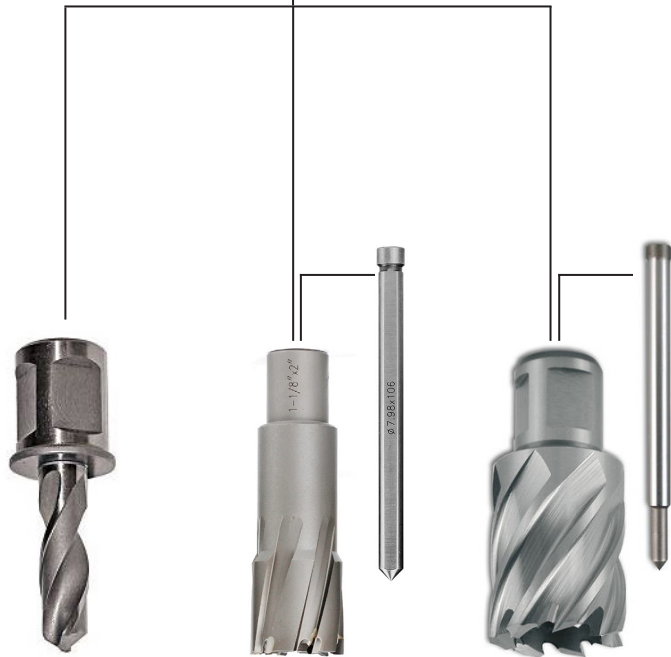


Quick-Release Arbor



Chuck Adapter

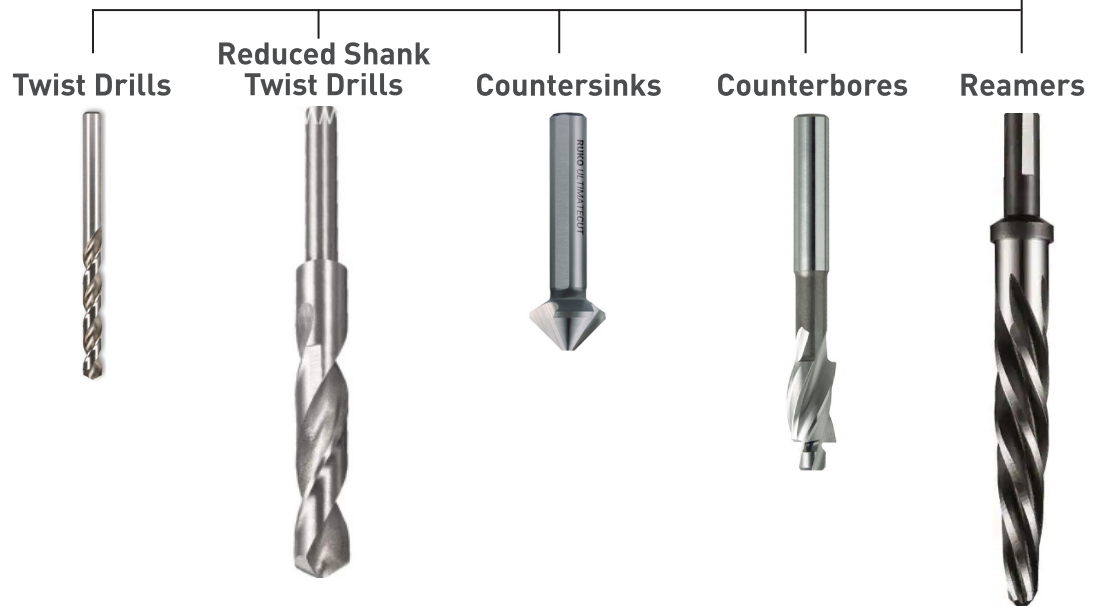
1/2 Chuck



Twist drill with Weldon shank 6 to 14 mm

TCT Cutter with Pilot Pin

HSS Cutter with Pilot Pin



Twist Drills

Reduced Shank Twist Drills

Countersinks





Counterbores

Reamers

# Comparison Table (SMD352)

Brand							
							
<b>Model</b>	<b>SMD352</b>	MABasic 400	KBU 35-2 QW	Element 40	ECO.40/2	MDE 41	Magpro 40/2S
<b>Power</b>	<b>1 100 W</b>	1 050 W	1 100 W	1 200 W	1 050 W	1 200 W	1 100 W
<b>Capacity Ø (Cutters)</b>	<b>42 mm</b>	35 mm	35 mm	40 mm	40 mm	41 mm	40 mm
<b>Depth of Cut (Cutters)</b>	<b>50 mm</b>	55 mm	50 mm	50 mm	50 mm	50 mm	55 mm
<b>Stroke</b>	<b>140 mm (230 mm total travel)</b>	160 mm	135 mm (260 mm total travel)	80 mm	150 mm	146 mm	165 mm
<b>Twist Drills</b>	<b>13 mm (optional)</b>	16 mm (optional)	16 mm (optional)	13 mm (chuck std.)	13 mm	13 mm (chuck std.)	13 mm (optional)
<b>No Load (Rated Load) Speed I</b>	<b>450 (270) /min</b>	600 (430) /min	130 - 520 (constant speed)	300 /min	720 (315) /min	475 (300) /min	650 (465) /min
<b>No Load (Rated Load) Speed II</b>	<b>730 (440) /min</b>	1050 (760) /min	400 - 1 600 (constant speed)	600 /min	1300 (560) /min	730 (475) /min	1100 (790) /min
<b>Cutter Shank</b>	<b>19.05 Weldon</b>	19.05 Weldon	QuickIN	19.05 Weldon	19.05 Weldon	19.05 Weldon	19.05 Weldon
<b>Quick-Release Arbor</b>	<b>YES</b>	NO	YES	NO	NO	YES	NO
<b>Coolant Feed</b>	<b>YES</b>	YES	YES	YES	YES	NO	YES
<b>Adjustable Slide Height</b>	<b>YES</b>	NO	YES	NO	NO	YES	NO
<b>Tapping</b>	<b>NO</b>	NO	M 14	NO	NO	NO	NO
<b>Magnet Strength Indicator</b>	<b>NO</b>	NO	YES	YES	YES	NO	NO
<b>Magnetic Adhesion</b>	<b>15,000 N</b>	not listed	9,500 N	10,000 N	15,000 N	10,000 N	17,000 N
<b>Weight</b>	<b>13.1 kg</b>	12 kg	11 kg	13.7 kg	11.5 kg	13.5 kg	13 kg
<b>Conclusion</b>	The <b>AGP</b> has the highest magnet power, highest torque gearing, and has the extra versatility of the variable slide height, which allows a full 230 mm of total travel to fit a wide range of cutting tools. This, combined with the quick-release arbor and chuck adaptor make the <b>AGP</b> an excellent choice for a 42 mm mag drill.						

# Comparison Table (SMD502)

Brand				
<b>Model</b>	SMD502	KBE 50-2	KBM 50 Q	MAB 465
<b>Power</b>	1 100 W	1 100 W	1 200 W	1 150 W
<b>Capacity Ø (Cutters)</b>	50 mm	50 mm	50 mm	40 mm
<b>Depth of Cut (Cutters)</b>	50 mm	50 mm	50 mm	55 mm
<b>Stroke</b>	140 mm (230 mm total travel)	135 mm (260 mm total travel)	145 mm (315 mm total travel)	160 mm
<b>Twist Drills</b>	13mm (optional)	16 mm (optional)	16 mm (optional)	18 mm
<b>No Load (Rated Load) Speed I</b>	300 (180) /min	330 (260) /min	130 - 260 (constant speed)	50 - 250 (constant speed)
<b>No Load (Rated Load) Speed II</b>	450 (270) /min	650 (520) /min	260 - 520 (constant speed)	100 - 450 (constant speed)
<b>Variable Speed</b>	NO	NO	YES	YES
<b>Reversible</b>	NO	NO	YES	YES
<b>Gearbox Lubrication</b>	grease	grease	grease	oil bath
<b>Cutter Shank</b>	19.05 Weldon	19.05 Weldon	19.05 Weldon	19.05 Weldon
<b>Quick-Release Arbor</b>	YES	NO	QuickIN	NO
<b>Adjustable Slide Height</b>	YES	YES	YES	NO
<b>Internal Cabling</b>	NO	NO	NO	YES
<b>Tapping</b>	NO	NO	M 16	M 16
<b>Magnet Strength Indicator</b>	NO	YES	YES	YES
<b>Magnetic Adhesion</b>	17 000 N	12 000 N	12 500 N	Not Listed
<b>Weight</b>	14.8 kg	12.5 kg	13.2 kg	13.0 kg
<b>Conclusion</b>	The <b>AGP</b> has the highest magnet power, highest torque gearing, and has the extra versatility of the variable slide height, which allows a full 230 mm of total travel to fit a wide range of cutting tools. This, combined with the quick-release arbor and chuck adaptor make the <b>AGP</b> an excellent choice for a 50 mm mag drill, especially for HSS cutters.			



# Tool Dimensions (SMD302)



# Tool Dimensions (SMD502)

