



# DM12

## 3-Speed

# Diamond Core Drilling Motor

### For Wet Drilling of Reinforced Concrete

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Internal & Confidential

**AGP** | DM12 Rig-Mounted Diamond Core Drilling Motor

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# Introduction

## Target group & Applications

### DM12 Introduction

The DM12 is a rig-mounted core drilling motor for wet drilling up to 350 mm in reinforced concrete. It runs on single phase 230 V at 16 A input. The universal motor is rated at an impressive 3500 W input. There are 3 mechanical gear ratios to cover its range of operation, allowing the speed to be matched to the bit diameter.

Safety for the user and protection of the tool are provided by a robust, yet accurate mechanical clutch in combination with a complete electronic motor protection package including soft-start, thermal protection, and overload protection. The electronics also include the slow start function, which automatically assists in starting the kerf. The operator is able to monitor the load level visually with the LED Load Indicator, and additionally, the AVR system also warns the operator of overload conditions by slowing the motor at the load limit, allowing uninterrupted operation. Durability is ensured by the all metal construction and the special waterproof reed-type switch, which is much more reliable than traditional switches and includes anti-restart functionality. Altogether, this makes the DM12 a great combination of efficient performance and excellent useability.

### Target Groups and Applications

The DM12 will be the primary choice for operators who need to wet drill large diameters up to 350 mm in reinforced concrete. It will be a great choice for drilling companies, contractors, and anyone who needs a robust, high performance drilling motor.

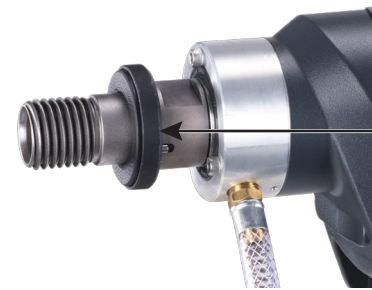


# Sales Arguments



## 3500 W Universal Motor with Aluminum Housing

The high-efficiency motor features complete electronic protection, including overload and thermal protection, as well as soft start. It also features Slow Start: which automatically runs the motor slowly for a short time, which assists in starting the kerf.



## Anti-Seize Ring

The motor comes standard with an anti-seize ring which helps prevent the bit becoming stuck on the spindle.



## Robust Oil-Bath Gearbox

The 3-speed oil-bath gearbox allows optimized torque and drilling speeds for a wide range of diameters. The mechanical slip clutch protects the system.



## Spirit Levels

Horizontal and vertical spirit levels are built into the motor for more convenient set-up.



## Intuitive Load Warning Systems

The motor gives the operator load information in 2 ways:

1. The LED Load Indicator gives visual information.
2. And the AVR System automatically slows the motor at the load limit. Together these make it intuitive and easy to operate the motor at its optimal load range for maximum work efficiency.

## Special Waterproof Switch

The switch's reed-type operative element is completely impervious to water, dust or slurry, thus eliminating a common failure point in coring motors. The switch also features anti-restart function.

# Technical Specifications

Model	DM12
Power Input	3500 W / 16 A (220 V), 2800 W / 25 A (110 V)
Voltage, Frequency	220-240 V~ 50-60 Hz or 110-120 V~ 50-60 Hz
No Load Speeds	350 / 600 / 1000 min <sup>-1</sup>
Rated Load Speeds	220 / 370 / 620 min <sup>-1</sup>
Drilling Capacity	Ø350 mm (14")
Gear Oil Type	80W-90
Gear Oil Capacity	625 ml
Spindle Thread	1-1/4" UNC male & 1/2" BSP female
Insulation Class	Class I with PRCD / GFCI (110-120V w/o PRCD / GFCI)
Soft Start & Overload	With
ProtectionDimensions (LxWxH)	550 x 155 x 210 mm
Weight	12.3 kg (27.1 lb)



- 1 Spindle
- 2 Anti-Seize Ring
- 3 Motor Unit
- 4 Tail Handle
- 5 Power Supply Cord
- 6 Gear Selector
- 7 Water Feed Valve
- 8 Horizontal Spirit Level
- 9 Motor Start / Stop Switch
- 10 LED Load Indicator
- 11 Vertical Spirit Level



# Offer Content

## Standard Accessories

- 1 DM12 Three-Speed Diamond Core Drilling Motor

## Optional Accessories

- 2 40mm Extension Spacer Kit

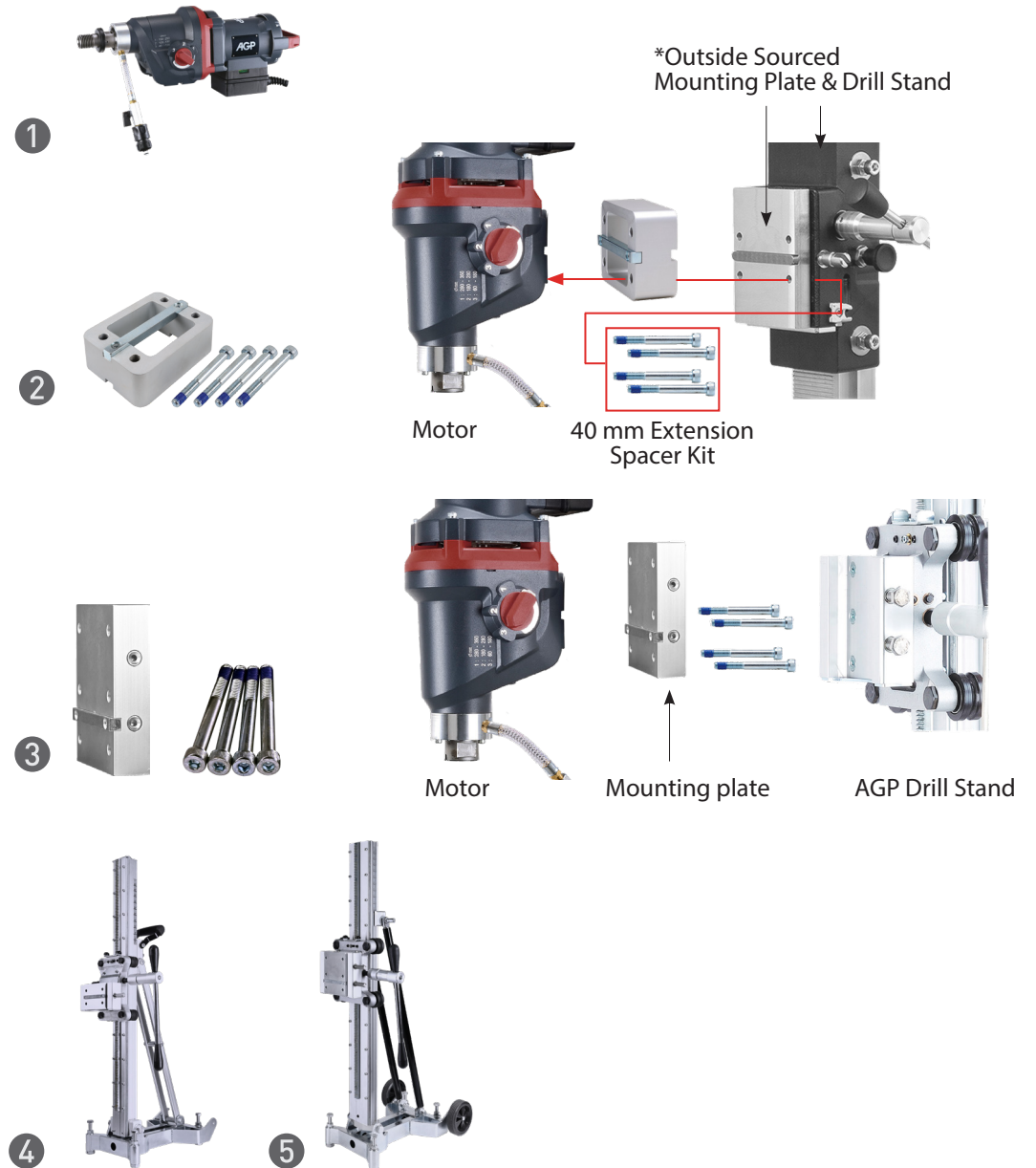
This spacer kit is not necessary with AGP drill stands, but may be necessary when mounting the motor to some models of other manufacturers' drill stands. The spacer fits between the motor and the stand's mounting plate to provide clearance and prevent the motor from interfering with the stand. Screws are included. (The spacer also adds an extra 80 mm to the maximum core bit diameter with a given stand.)

- 3 Mounting Plate (AGP drill stands only)





















Long type, for use with AGP drill stands. The plate is standard equipment with large AGP drill stands, so you only need to buy the mounting plate if you need to use multiple motors sharing the same drill stand.

- 4 S350 Drill Stand

- 5 S500 Drill Stand



# Comparison Table

Brand								
350mm Wet Drilling								
<b>Model</b>	DM12	DK32	DM 400	DM 280 (LOW)	GDB 350 WE	T6 375 EL	EBM 352/3	BBM (E) 33
<b>Power Input</b>	230 V: 3 500 W	230 V: 3 200 W	230 V: 3 200 W	230 V: 2 700 W	230 V: 3 200 W	230 V: 3 420 W	230 V: 3 000 W	230 V: 3 300 W
<b>Rated Load Speeds</b>	Gear 1: 220 /min Gear 2: 370 /min Gear 3: 620 /min	Gear 1: 230 /min Gear 2: 460 /min Gear 3: 720 /min	Gear 1: 230 /min Gear 2: 460 /min Gear 3: 720 /min	Gear 1: 250 /min Gear 2: 550 /min Gear 3: 950 /min	Gear 1: 230 /min Gear 2: 460 /min Gear 3: 720 /min	Gear 1: 230 /min Gear 2: 520 /min Gear 3: 965 /min	Gear 1: 230 /min Gear 2 :500 /min Gear 3: 1030 /min	Gear 1: 240 /min Gear 2 :620 /min Gear 3: 1100 /min
<b>Capacity</b>	65 - 350 mm	55 - 350 mm	55 - 350 mm	50 - 350 mm	55 - 350 mm	30 - 375 mm	42 - 352 mm	30 - 400 mm
<b>Spindle</b>	1-1/4"-7 & 1/2" BSP	1-1/4"-7 & 1/2" BSP	1-1/4"-7 & 1/2" BSP	1-1/4"-7 & 1/2" BSP	1-1/4"-7 & 1/2" BSP	1-1/4"-7 & 1/2" BSP	1-1/4"-7 & 1/2" BSP	1-1/4"-7 & 1/2" BSP
<b>Weight</b>	12.3 kg	11.9 kg	13.5 kg	13 kg	11.9 kg	13.5 kg	12.5 kg	13.2 kg
<b>Waterproof Reed Switch</b>	Yes 	No	No	No	No	No	No	No
<b>Anti-Seize Ring</b>	Yes 	Yes	Yes	No	Yes	Optional	No	No
<b>Gearbox Lubrication</b>	Oil Bath	Oil Bath	Oil Bath	Oil Bath	Oil Bath	Oil Bath	Oil Bath	Oil Bath
<b>Mechanical Clutch</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Spirit Levels</b>	Yes 	No	No	No	No	No	No	No
<b>Load Warning System</b>	AVR System + LED Load Indicator 	Intellitronic	Elgard	Elgard + LED Indicators	Intellitronic	Cardi Electronic Clutch	LED Indicator only	No (overload only)
<b>Overload and Thermal Protection</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Soft Start</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Slow Start Hole Starting Function</b>	Yes 	No	Yes	Yes	No	No	No	No
<b>Motor Housing Material</b>	Aluminum	Aluminum	Aluminum	Plastic	Aluminum	Aluminum	Plastic	Aluminum
<b>Remarks</b>	Highest power of the group	No load indicator, no spirit levels	No load indicator, no spirit levels	Plastic motor housing, no spirit levels	No load indicator, no spirit levels	No load indicator, no spirit levels	Plastic motor housing, no spirit levels	No load warning, no load indicator, no spirit levels
<b>Conclusion</b>	The <b>AGP</b> has the highest power rating in this group while also having the most complete range of features, such as the AVR surge-type load warning system combined with the visual LED load indicator, slow start hole starting function, and included spirit levels. The <b>AGP</b> offers the best combination of performance and value in one product.							

# Tool Dimensions (mm)

