

This fascinating piece of kit from Bosch is one of those tools that appear rather mundane at first glance, but as you begin to use it a whole host of different applications spring to mind. It has now become an indispensable part of my tool bag, particularly for site work

Bosch GAM 220MF digital angle measurer

The tool is supplied in a very neat carrying case, along with an extension leg that increases its versatility still further, and you even get the necessary four AA batteries with it.

It's rather like a digital sliding bevel. You just open up the two wings and the angle between them appears on the digital scale. This readout is reproduced on the back of the tool too, so you can view it from either side. The angle range is 0 to 220°, and any angle can be saved into the memory and is then held even when the tool is switched off. As a battery-saving feature, the tool will turn itself off after three minutes if it hasn't been used. It incorporates both horizontal and vertical spirit levels as well for standard levelling work.

Using the measurer

To measure an angle, just open out the tool and close the legs around the surfaces whose angle you wish to measure; the readout is immediate. However, the GAM has a few clever tricks up its sleeve



that allow you to automatically calculate the necessary mitre angle for jobs such as fitting skirting boards and coving. Here's how it works. Determine the angle between the two wall faces as before; in my case it was 156.4°. Then press the 'simple mitre' button to divide it and the required mitre angle of 11.8° is displayed. Just set this angle on your mitre saw and cut the two ends for a perfect fit.

Instant answers

The immediacy of the readout is what particularly appeals to me. For instance, you can use it as a square when cramping up a job, as you often find that tightening the cramps can cause the assembly to move slightly. With the GAM you can see if the angle is changing as you apply the pressure.

Setting the blade angle on the table saw is often another hit-or-miss affair, as the scales provided on the machine itself are



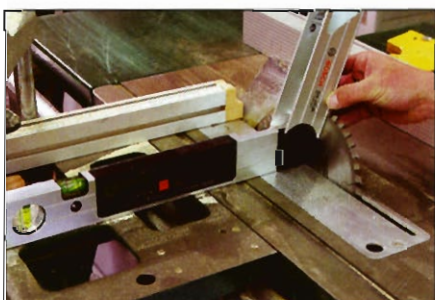
All the control buttons are positioned next to the digital display



The digital readout is also displayed on the back of the device



I tested the device by taking angles for some skirting board



It's ideal for setting the blade angle to within 0.1° on your table saw



The slide-out extension allows you to get into awkward corners



On cornices, measure the face angle and press 'compound mitre' to store it



TESTED BY ALAN HOLTHAM

rarely accurate to more than a degree or so. However, use the GAM and you can set the angle to within 0.1°.

Lastly, the addition of the slide-out extension arm allows you to get into otherwise awkward corners with ease.

Compound angles

I've saved what is perhaps the best feature till last. This tool can instantly calculate the complicated compound angle for the flat cutting of cornice and crown mouldings, avoiding the more difficult method of trying to prop them up for cutting at the finished angle.

First you need to measure the 'spring' angle of the cornice, which is usually pretty standard but is easy enough to measure anyway. Press the 'compound mitre' button to store this value. Then measure the corner angle where the cornice will be fitted and press the button again. The calculation is instant. Another press on the button shows the mitre setting for your saw, and a further press gives you the bevel setting. It's as simple as that and you're guaranteed to end up spot-on, the only limitation being the accuracy of your saw.

Last thoughts

Perhaps my only criticism of the GAM is that the buttons feel rather spongy, but they nevertheless work perfectly.

Although there's enough friction in the hinge for the selected angle between the two arms to stay in place, it would be useful to have a lock for when you need to transfer angles. I know you can easily reset it if it does move, but this very friction does actually make it quite difficult to make fine adjustments.

At the price this tool won't be a realistic proposition for occasional woodworkers, but for a site worker – and a kitchen fitter in particular – it would pay for itself in no time.

SPECIFICATION

MEASURING RANGE	0-220°
ACCURACY	+/- 0.1°
BATTERY LIFE	up to 130 hours
ARM LENGTH	400mm
WEIGHT	1.1kg

VERDICT

I was very impressed by the performance of this tool. I just keep finding more and more uses for it, and not just for my woodworking. It's brilliant!

- PROS**
- Excellent build quality
 - Ease of use
 - The compound angle calculator

- CONS**
- Only the price

VALUE FOR MONEY

PERFORMANCE

FURTHER INFORMATION

- Bosch
- 0844 736 0107
- www.bosch-pt.co.uk



Press the red 'simple mitre' button to get the correct mitre angle



Set the angle on the mitre saw and cut the boards for a perfect fit



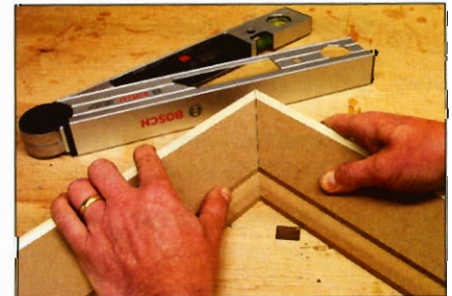
You can use it as a guide square when cramping up a workpiece...



Measure the corner angle where the cornice will fit and press the button again



Another press of the button shows the mitre setting for your saw



A further press gives the bevel setting, ensuring two perfect saw cuts