



# Hands On: Machine Polishing

**IS YOUR BMW'S PAINTWORK OXIDISED, DULL AND COVERED IN SWIRL MARKS FROM CARELESS PREVIOUS OWNERS? WE SHOW YOU HOW TO RESTORE THE PAINTWORK THE PROFESSIONAL WAY**

WORDS AND PICS Adam Tait

It is possible to inject an element of shine into tired paintwork by hand, but for anything more than a wax application, machine polishing is the only true way of restoring and optimising most BMW paint finishes. Every time a car is washed it is possible to induce swirl marks, especially if the sponge or wash mitt is contaminated with grit or debris.

Putting your BMW through a car wash can have disastrous results, though. The huge brushes that travel over the body may remove dirt but they also inflict a lot of paintwork damage, which will be blindingly obvious when the sun hits the

flanks of the body. The hand car washes that are springing up all over the country also vary in quality and the chemicals they use tend to be harsh to naturally speed the process up. The only way to prevent swirls is the two bucket method we discussed in the May issue – imperative to maintaining a swirl-free finish.

Detailing guru, Ultimate Finish, estimates that this three-step machine polishing process will take around one hour per panel depending on how much attention the area needs. Our candidate for this feature was a Montreal Blue E36 that had been sitting for nearly a year on a driveway. The paintwork had been totally neglected: car wash swirls were evident and most panels had completely lost their

depth of shine because of the multitude of light scratches.

The guys at UF showed us how to remedy the front wing, and then *Total BMW* went away to finish the rest of the car. We were genuinely surprised by the transformation that machine polishing can make.

## CHOOSING A MACHINE POLISHER

This often begs the question, dual-action or rotary? If you have no clue what either of these are, then let us explain. A dual-action polisher oscillates – the backing plate spins from an eccentric offset and it is this irregular movement that prevents the user from burning the paint because it doesn't concentrate on one place. Minimal heat is produced

and if you are new to machine polishing, the dual-action option is a wise choice.

A rotary polisher has a fixed rotation, so it spins like a car wheel does on a hub. This will rid the paintwork of defects at a faster rate than a dual-action, but extra care is needed to not burn the paintwork as the movement of a rotary polisher concentrates on one area, so it's more likely to generate excessive heat if left in the same position for too long. Rotary polishers are generally cheaper starting at around £40, while the more complex dual-action versions start at around £100.

*Total BMW* was lucky enough to use Meguiar's high anticipated G220 V2 Dual Action Polisher, which has just been introduced to the UK.

## 01

3M tape was used to protect the door mouldings. Splatter occurs when you use too much product and it pebbledashes the vicinity in tiny specks, which can also stain plastic. A degree of splatter is inevitable, but our application guide should keep it to a minimum.



## 02

It's also important to mask up areas such as the indicators for similar reasons. Removing product from the rubber seal is time-consuming, so spending another minute covering vulnerable areas will pay dividends. Remove the roof aerial and mask badges.



## 03

The swirl marks are exposed more when the sunlight hits them or when parking beneath a fluorescent street light for example. These ones were clearly evident.



## BEFORE YOU BEGIN

It's essential to wash the car, clay the bodywork and employ Isopropyl alcohol to remove any previous traces of product (polish, wax or sealant). The latter will expose the true condition of the panel and can be used throughout to see how your efforts are progressing – or diminishing in some cases. Try to work out of direct sunlight and ensure the bodywork is cool before starting.

## PRODUCTS THAT WORK BEST

There are no definitive

products to use for machine polishing. User preference will come with experience and it's a good idea to trial different products until you are happy. For this feature we used a selection of Meguiar's and Dodo Juice's ranges.

We had a selection of pads and Meguiar's 105 Ultra Cut Compound, which is capable of removing 1200-Grit sanding marks. Meguiar's 205 Ultra Finishing Polish is designed for use after the 105 Ultra Cut Compound to achieve a swirl-free, deep gloss finish. Which will be followed by Dodo Juice's Lime Prime and a coating of wax which was hand applied.



04

Using excess amounts will create the previously mentioned splatter. Three small drops of product are sufficient, but it's important not to let the pad run too dry because this will lead to an inferior finish or even permanent paint damage. The red Soft Buff cutting pad is firmer, to aid the cutting process.



05

Avoid being too swift in your arm movements on any pass when machine polishing, but remember to keep it moving to avoid paint burn. The lower the pad speed, the more forgiving any mistakes will be (1,500-2,000 RPM rotary – higher speed dual-action setting). Buff until the product clears, then reapply.

**KIT LIST:**

- Microfibre cloths
- Clay bar
- Detailing spray
- Isopropyl alcohol
- 3M masking tape
- Meguiar's G220 V2 Dual Action Polisher
- Cutting/polishing/finishing pads
- Meguiar's 105 Ultra Cut Compound
- Meguiar's 205 Ultra Finishing Polish
- Dodo Juice Lime Prime
- Wax or sealant

**VERDICT**

Much like the first time you use a clay bar, machine polishing can really open your eyes to what's achievable without picking up a spray gun. Oxidised and swirl covered panels tarnish an otherwise presentable exterior, but this four stage process should return the paintwork to its former glory.

The paintwork on the car we used was thought to be original, so achieving a superior finish was possible. Machine polishing is faster and less laborious than polishing by hand, and done correctly, the results are fantastic. The Montreal Blue E36 we used now looks amazing in any light.



06

The flecks of metallic in the Montreal Blue came alive after just two passes with the 105 and the swirl marks have been vastly reduced. Even at this stage, the finish surpasses any application by hand.

07

For the 205, a different pad was used. The yellow Soft Buff pad is softer than the previous one, but still removes minor defects while restoring gloss. The same application method and speed settings were used.



08

Take extra care when working on any ridges, swage lines or sharp curves because these are more prone to damage. The edge of the bonnet was masked up to prevent this.



09

Before a layer of wax was applied, we used Dodo Juice's Lime Prime as a penultimate application. This continues to remove minor swirls and primes the paint for wax. Meguiar's new G220 V2 certainly reduced the chances of damaging the paint and inflicting buffer trails.



10

With the masking tape removed from the wing, the stark contrast in the paintwork could be seen. The left-hand side (after) is swirl free with an almost wet look, and the right-hand side (before) is dull and swirl-ridden.



11

Now it's time to protect the paintwork with a suitable wax. By this stage, the paint will feel very smooth and your hand will glide across it. The final result transformed a dilapidated exterior to something that's more apt for show use.



12

This Mercedes parked alongside the E36 we used for the feature could now be seen in a mirror-like reflection, whereas before it was in a haze.

