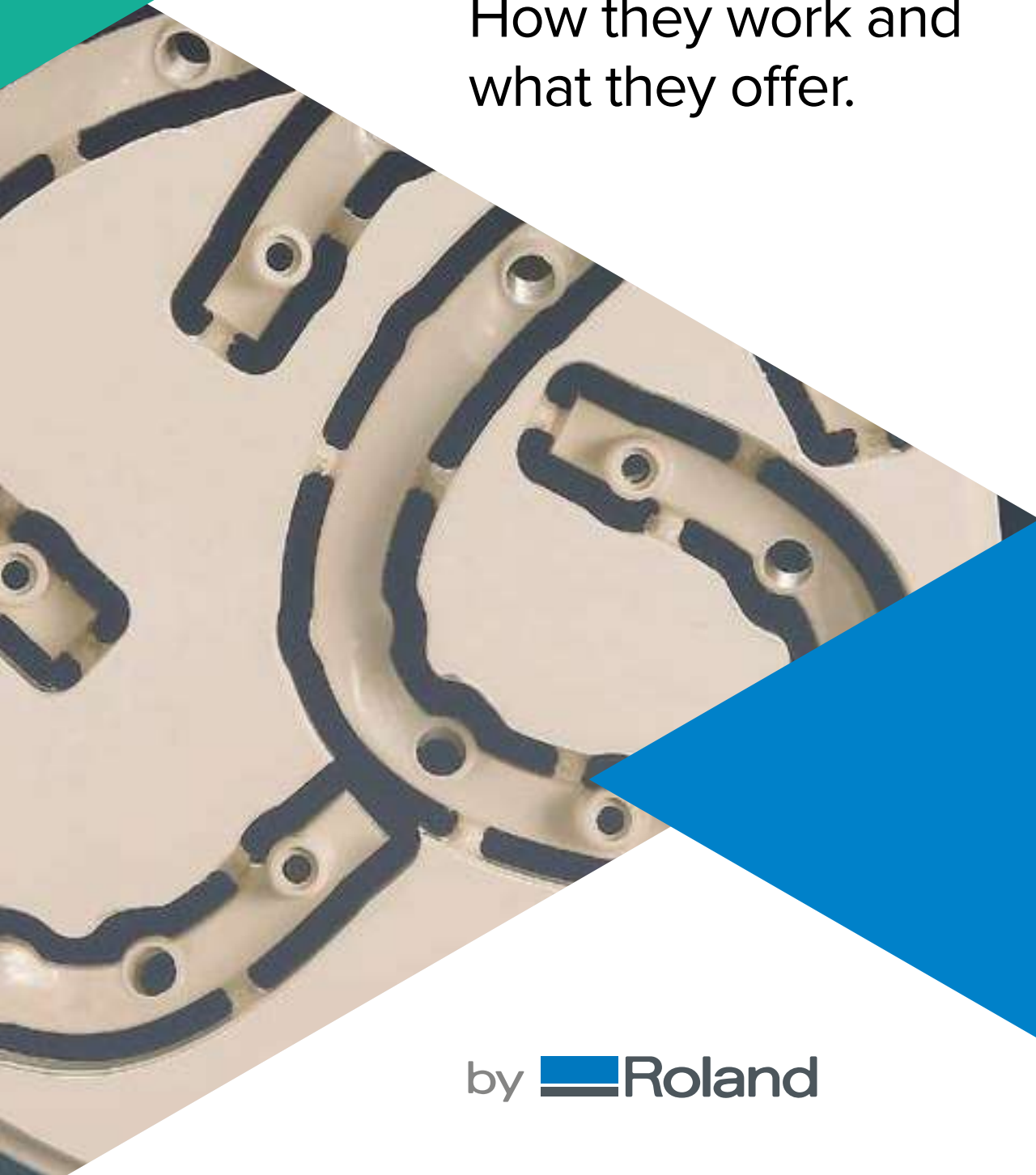


Wet and dry milling solutions.
How they work and
what they offer.



Increase productivity,
quality and efficiency
with digital technology.



Do you want to know how to increase your productivity, as well as improve quality, consistency and maximise staff efficiency in your lab?

With Roland's dental milling technology you can achieve all this. Take 5 minutes to read this leaflet and it could change the way you do business.

Find the right technology for your lab, 6 points to consider.

When searching for new technology, the common mantra of labs is: affordable, precise, easy to use and quickly profitable. A Roland milling machine can deliver precision, reliability and affordable milling technology all in one, with a fast learning curve and a rapid increase in your business profits.

Let's consider the 6 key points:



1. Versatility

Roland's range of milling machines are incredibly versatile. Compatible with a huge variety of materials, they enable you to produce a full range of dental prosthetics.

2. Ease-of-use

Being easy to learn and use, both for you and your staff, you can be productive within hours of installing a Roland milling machine.

3. Flexibility

A Roland milling machine works with the most commonly used open scanners, CAD, CAM and materials and it's easy to implement into your existing workflow.

4. Productivity

Your productivity will increase. When using a Roland device, the production process is automated, so once the job is set up you can spend more time building relationships with clients and acquiring new business. Plus, when you switch off the lights at the end of the day, the milling machine continues to run unattended, preparing the restorations overnight.

5. Consistency

Automated, machine-driven production reduces human error. Milling machines are not 'better' than human technicians, but they can handle repetitive tasks consistently, so the last restoration of the day will be as good as the first.

6. Quality

It's imperative that you deliver precision quality every time. Roland has spent over 30 years developing desktop milling technology, and with over 5,000 dental machines shipped worldwide, our exceptional mechanical control delivers stunning results across a wide range of materials.

Materials and applications.

The type of milling machine you need will be driven by the type of materials you want to mill.

For zirconia, PEEK, PMMA, wax and glass-fibre composites, dry milling is ideal. But for glass ceramics and hybrid composites a wet milling solution is required.

With Roland, you have a choice of dedicated separate dry and wet mills. Why separate? Well, one of the main reasons for 'going digital' is to benefit from increased productivity. The difficulty with milling everything from one single machine is that if you switch

from wet grinding a glass ceramic to dry milling zirconia, you have to thoroughly clean and dry the machine between processes, which wastes considerable time. If you don't, you risk cross contamination and a build-up of wet zirconia dust, resulting in a hard-to-remove residue.

Having two separate machines means both can be running at the same time. You'll also achieve a better result from machines that have been built specifically for wet or dry milling. Indeed, we have applied our 30 years of experience to optimise the performance of both our dedicated wet and dry solutions.

Which materials can be processed with a wet mill?

The latest dental technology enables wet milling of:

► Hybrid composite

Combining resins and ceramics. These innovative materials combine high aesthetics with a level of shock absorbance, popular for inlays, onlays, crowns and veneers.

► Glass ceramics

Lithium disilicate, feldspathic ceramics and more. These materials offer superior aesthetics through high levels of translucency and are indicated for small restorations such as crowns, inlays, onlays, veneers and small bridges.



The Roland range includes superb wet milling machines.

And what about dry milling?

Dry milling machines are becoming ever more efficient and productive, bringing together a wide assortment of high-tech materials, delivering precise fit and high aesthetics, matching the clinical needs of the patient.



Roland's dry milling machines are perfect for a host of applications. All these materials work perfectly with the dry milling process:



► Zirconia

A versatile metal-free material known for its strength. It is indicated for the production of crowns, bridges, inlays, onlays, veneers and full arches. As an aesthetic material that can be layered in ceramic, or as a full monolithic restoration. Recent developments have seen significant improvements in levels of translucency.



► PEEK

Polyether Ether Ketone. This is a high performance polymer alternative to metal, ideally suited to removable and implant retained prosthetic frameworks, with a modulus of elasticity similar to bone. This level of shock absorbance is very important for patients presenting a heavy bite stress.



► PMMA

A methacrylate resin for temporary crowns and bridges. A very light material that is available in all VITA® shades and also multi-shaded discs.



► Wax

From copings to partial frameworks, wax is a very popular affordable material that is widely used by dental laboratories.



► Glass fibre composite

A combination of resin and multi-directional glass fibres. Used for medium to long term restorations, it is a light material, which requires a composite layering. Commonly used for implant bars and supra structures.



► Pre-sintered CoCr metal

A cobalt-chrome metal that requires sintering to acquire the correct mechanical properties. It is indicated for crowns and bridges, reduced and fully anatomical, custom abutments and screw retained frameworks.



► Gypsum

For producing models from an intra-oral scan.



► Composite resin

Dry milling composite resins, such as VITA® Enamic, have become increasingly popular, particularly with dentists looking for a quick solution for same-day restorations and can be milled, polished and fitted with minimal fuss.

Considering the applications.

The DWX series offers a perfect solution for any lab seeking a combination of higher productivity and improved quality results. Investing in both a dedicated wet and dedicated dry mill will enable a lab to benefit from the increasing array of smart materials and to create a wide range of restoration products.



Roland's latest milling technology, the perfect solutions for multiple applications:



▶ Permanent full monolithic crowns, inlays and onlays.



▶ Single or multiple bridge replacements of any size from a host of compatible materials.



▶ Veneers, in glass ceramics or composite resin for a highly aesthetic anterior restoration, perfectly matching the natural teeth.



▶ Copings from castable material.



▶ A variety of abutments and partial denture supports, including hybrid, screw, glue-based, etc, from a variety of restorative materials.



▶ Bars, partial dentures and other restorations from zirconia for outstanding connection strength and precise aesthetics.

A closer look at the milling machines.

Let's take a brief look at Roland's popular DWX range of dry and wet milling machines.

▶ DWX-52DC

For the ultimate in ease, material flexibility and unattended production, the DWX-52DC dry dental mill delivers precision 5-axis simultaneous milling of complex restorations. Featuring a 6-slot Automatic Disc Changer for any supported materials and a 15-station Automatic Tool Changer for continuous milling.

The DWX-52DC also features automatic air pressure control for optimal air flow with any materials. Plus, an anti-static ioniser reduces static build up to minimise cutting residue. Compatible with a wide range of dental materials including zirconia, high-performance polymers, composite resins, wax and CoCr sinter metal.

▶ DWX-51D

The DWX-51D dry milling machine can produce stunning full contour zirconia crowns and bridges, combining durability and aesthetics with high translucency, ready for the hands of a skilled

technician to stain and characterise. Custom abutments, implant bars, full arches, surgical guides and partials are also easy to create with the DWX-51D.

▶ DWX-4W

The DWX-4W, wet milling machine, provides genuine opportunities for even small-scale labs to deliver quality and superb aesthetic results on a range of hybrid composites and glass ceramics. Capable of machining 3 different materials in a single job, the DWX-4W makes efficient production possible as well.

▶ DWX-4

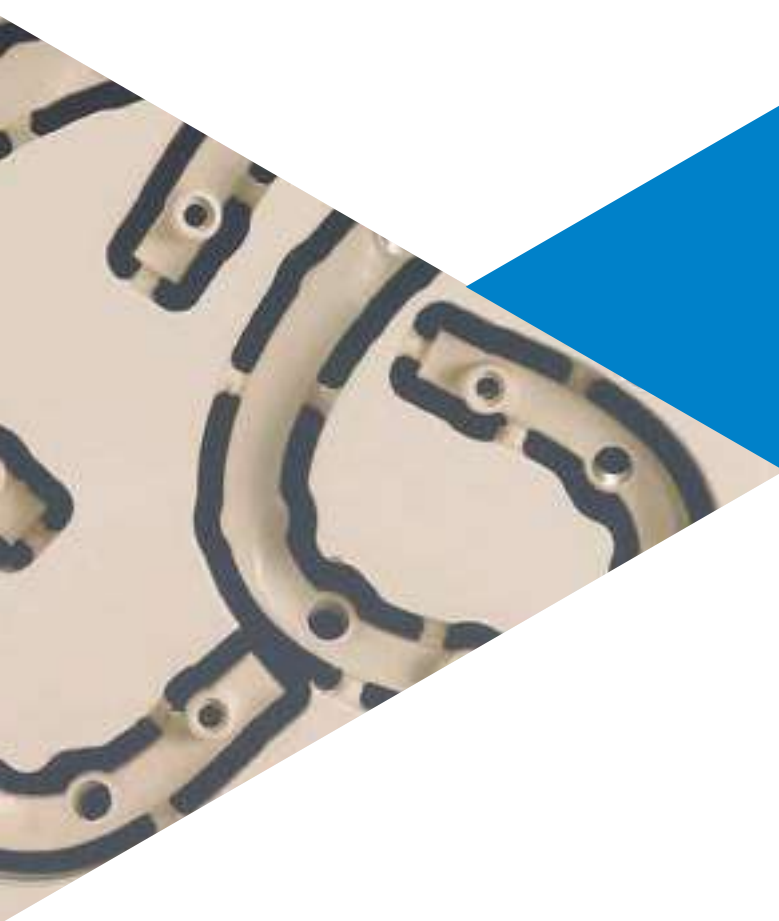
The DWX-4 offers small-scale labs the ability to manufacture superb crowns, copings and bridges using superior materials. It's an ideal device for labs and practices just starting out in digital milling.

Dry or wet milling, Roland offers a solution to meet the requirements of even the most demanding dental laboratories.



Roland's DWX range of wet and dry dental mills.

www.rolanddg-ae.com



The DGSHAPE Brand Promise

DGSHAPE is the brand name of the 3D business unit spun off from Roland DG with the core mission: "make innovation, make life better." DGSHAPE delivers digital technologies that bring ideas to life, revolutionise business processes, and shape a better future. Our goal is to fuse human creativity with digital workflows to provide exceptional value across multiple endeavours, from individual craftsmanship to manufacturing, healthcare and beyond.

