

# planetario/

the perfection of heaven's vault translates into perfect finishing **with the dmc planetarium patent**

When you think of a planetarium, you imagine looking up, gazing in wonder at the harmony of the stars and the planets and the perfection of heaven's vault.

It was this idea of perfection and harmony that inspired the design and name of the new DMC patent: Planetario (planetarium) is **an innovative machining head which revolutionises finishing processes for door and window frames, parquet flooring, kitchen cupboard doors, bathroom furniture and furniture in general.** The planetarium head is suitable for a vast range of applications and machining operations, allowing exceptional finishing.

What makes this machining head unique and exceptionally effective is the absence of any main direction of abrasion, allowing **absolute multi-directional action: giving extremely smooth finishing.** DMC has also developed the ability to associate the low rotation speeds of the pads with extremely high rotation speeds of the planetarium heads, without needing to maintain a fixed ratio between the two. This is achieved by the use of sturdy gears in an oil bath allowing independent movements without any critical mechanical points

The machining head is made up of a set of planetarium units (four on machines with a working width of 1350 mm), each equipped with 4 vertical brush disks (pads): so the planetarium head, in the 1350 mm version, is fitted with 16 vertical brush disks.

Even the adjustment of the machining head height (and therefore of the operating pressure applied to the workpiece) is performed using prismatic guides, and is driven by a linear stepping motor.

All of the motion is transmitted using gear wheels in an oil bath, not belts. This gives this high-tech machining head the ability to operate with high torques, **even for 3 working shifts.**

The fact that the head can be pulled out of the machine sideways on telescopic guides, the speed of the vertical brush change-over, the wide range of tools that can be used and the total freedom of choice of operating parameters mean that this machining head can offer substantial benefits in many applications, including:

- **Removing against the grain scratches from the rails of sashes and windows**
- **Improving finishing after traditional sanding along the grain**
- **Removing the skin of wood intended for painting with emulsion**



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- Opening the pores in wood
- Multi-directional structuring (for a rustic look)
- Sanding melamine paper
- Roughening structured melamine paper
- Edge-sanding unmachined or painted panels
- Super-finishing of MDF panels to be veneered with Hi Gloss films
- Super-finishing of painted panels before application of direct glosses

For some applications only the planetarium machining head is used, for others its action is combined with one or more conventional machining heads (contact rollers, sanding pads, super-finishing pads, etc.). The planetarium machining head can be installed in any machine position, depending on the specific machining process for which it is used. There may even be two planetarium machining heads on the same machine, dedicated to complementary operations: for example the first for smoothing/rounding the edges of the product and the second for super-finishing the surface.



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