

Title (en)

MICRO-SANDER THAT PROVIDES A SANDING EFFECT USING AN ABRASIVE/AIR DISC

Title (de)

MIKROSCHLEIFVORRICHTUNG, DIE UNTER VERWENDUNG EINER DRUCKSTRAHLSCHEIBE EINE SCHLEIFWIRKUNG BEREITSTELLT

Title (fr)

MICRO-PONCEUSE A EFFET DE PONÇAGE PAR DISQUE AIR-ABRASIF

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Application

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Abstract (en)

[origin: WO2006095079A2] The invention relates to a pneumatic cleaning and stripping sander, in which the sanding disc has been replaced by a high-pressure compressed air disc with a powdered abrasive that swirls therein. The invention is characterised in that the acceleration and discharge functions of the sanding nozzle are separated into two parts, which enables the use of very fine discharge outlets that can have a diameter of less than 400 micrometers, without the nozzle channel becoming clogged. The nozzle acceleration channel, which is common to all of the discharge outlets, opens onto a jet-break cone (23) which is used to rupture the jet of compressed air and abrasives at the outlet of the nozzle (1 and 2) in order to orient the air/abrasive flow towards the tungsten carbide discharge elements. The aforementioned discharge outlets take the form of simple pierced holes (10) or slits (11) in the tungsten carbide inserts (41) which are inserted into a disc or plate (24). The invention is also characterised in that the disc or plate (24), which is relieved of the weight and volume of the nozzles, can be driven at very high rotation speeds. Said rotation speeds, which are obtained using a mini-turbine, are included between 1,000 and 20,000 revolutions per minute and can exceed 30,000 revolutions per minute, but are generally included between 4,000 and 12,000 revolutions per minute. As a result, high pressure operation is made possible. The inventive tool can also be fitted directly to an industrial robot arm, owing to its low weight, small volume and handleability, and used for the sanding of aircraft cockpits and motor vehicle bodies, etc.

IPC 8 full level

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