DenTag

# The Evohandle


**Last but not least, the instrument total length.**
The 2010/32/EU Directive on "implementing the Framework Agreement on prevention from sharp injuries in the hospital and healthcare sector", requires that all necessary measures to prevent workers' injuries caused by sharp medical instruments, including needles, must be implemented.

On average, the instruments' 100-105 mm. / 3.93-4.5 in. long handles are too short. Thus, the tip opposite to the one in use, even if a mirror image of it, often touches the back of the hand and damages the glove which, at times, may result in superficial wounds.

That is why we designed longer Evo handles: 115 mm. / 4.52 in. This is enough to significantly reduce the risk of injuries, without causing any problems in handling or when placing them into sterilisation boxes.

That's another reason to choose Evo, always 101% Italian Quality.

101% ITALIAN QUALITY

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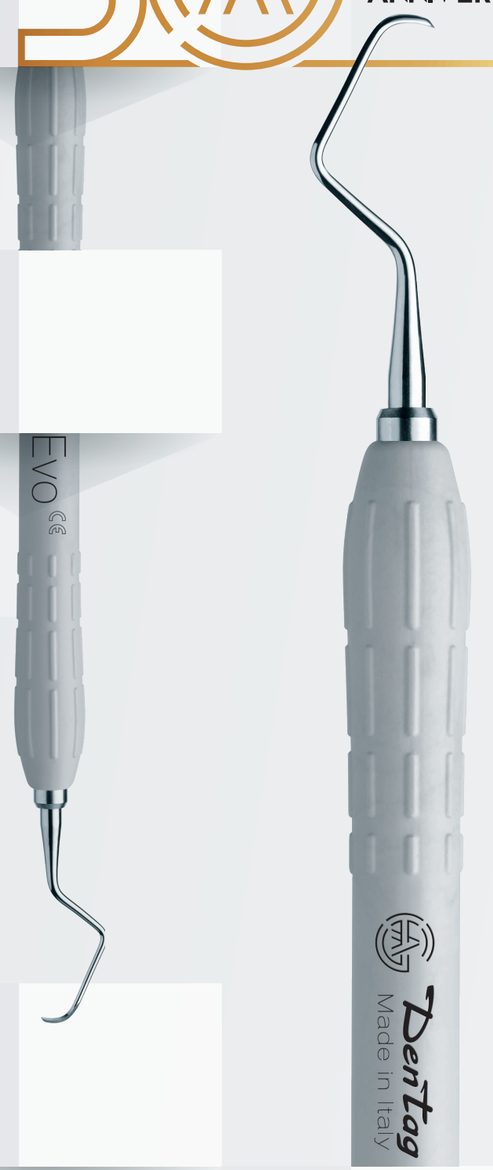
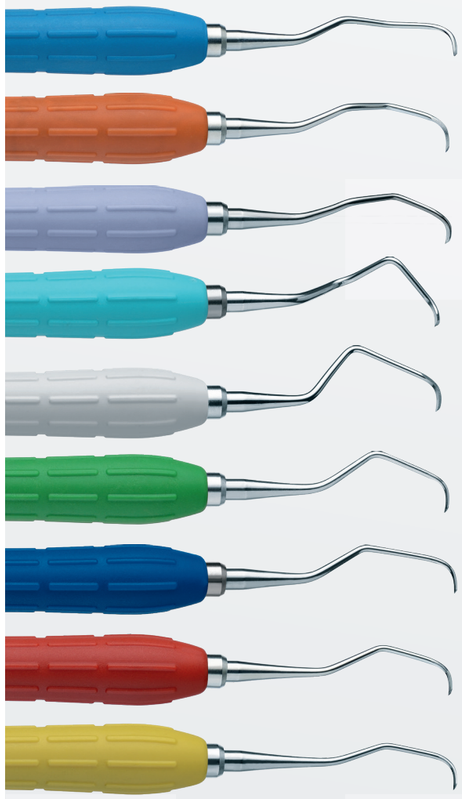
30 CELEBRATING YEARS ANNIVERSARY




# Evo Similar in the body, totally different in the essence.

# This is the Evolution of Species




We are very attentive to changes and trends in a market that evolves quickly and sometimes abruptly. We constantly receive requests for lighter yet nonetheless reliable instruments, such as stainless-steel ones. Since we cannot change the material used for the tips, to cut down the weight we can only work on the handles. Therefore, we have started production of a completely new series of instruments with light-material handles.

Because others did it before us, we firstly focused on analysing the state of the art of existing products in order to capitalize on and, where possible, improve their positive features, and fix any flaws.

The outcomes of this analysis led to designing and forging a handle with several new features and enhancements compared to other similar products on the market.

**Materials** In most cases, handles are made of silicon which is a great, heat-resistant material, but which tactile features may cause, when used over a long period of time, tension to the carpal tunnel, leading to fatigue and pain.
We chose to go a different way by using a very light (11 gr. / 0.39 oz.), stress-resistant composite material, with a “dry”, non-fatiguing feel and a secure grip. This material has been tested for and is used in the food industry, hence completely non-toxic and free from any potentially hazardous substances. Autoclave sterilization causes no change in either shape or colour.

**Shape** Different diameters at grip (mm. 10.5 / 0.41 in.) and at the centre (mm. 9.0 / 0.35 in.) minimize negative effects on the carpal tunnel deriving from the prolonged use of instruments with small handles. Longitudinal notches of different lengths increase grip and sensitivity.

# Production State of the Art

All similar instruments on the market are produced through two moulding processes.
One requires to place an aluminium tube in the mould that is then injected with thermoplastic material. The tips are then inserted on the thermoplastic-covered aluminium core. The other requires to introduce in the mould a finished instrument with a reduced diameter body (2.0 - 3.2 mm. / 0.07 - 0.12 in.), and then the thermoplastic material is injected.

# Production The Evo / Den Tag solution

The way we manufacture the handle is by injecting the composite plastic material in the mould on which two ends we placed two small stainless-steel, shaped bushings. The tips are then inserted in the resulting handle.


**The difference is obvious.**
The instruments available on the market to date feature two distinct materials inside the handle (Thermoplastic or Silicon / Aluminium/Steel).

**Our handle is made of just one thermoplastic composite material.**
This procedure eliminates internal longitudinal metal cores with an evident weight reduction and the elimination of backlash and cracks deriving from the contact of very different materials. This also eliminates problems linked to potential bacterial proliferation, caused by the creation of air bubbles, deriving from the different expansion gradients of materials during the heating/cooling phases of the sterilization cycle.

**Look**
Simple lines for an easy cleaning. No furrows or deep notches that may cause the accumulation of germs and bacteria. The plastic material can be coloured in several different shades that not only make it look nice but also very easy to identify in one glance.