

## New techniques

# to benefit the client

For the past two years, Walter Dünner SA has been deploying a new technique to execute various parts in counter-operation, despite the difficulty of working with diameters up to three millimetres more than the actual clamping diameter.

[www.dunner.ch](http://www.dunner.ch)

This new technique has been patented and is characterised by the absolute precision that must be guaranteed both with respect to the tooling and the final execution of the collet. Close co-operation with the customer concerning the part in question, ensures perfect execution.

In practice, we have produced collets for the connector and car industries and also for finishing medical screws. Producing collets is a difficult operation, which first

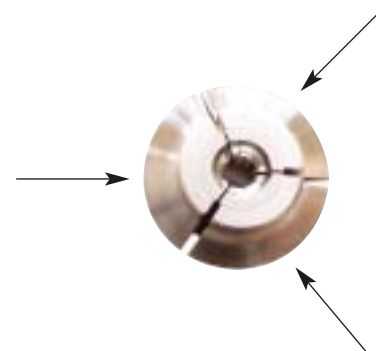
has to pass through the design office and entails the execution of various inspection tools as well as a rigorous production process. From preference, the collets are produced with an internal carbide coating or even in HSS if the operation is likely to be tricky from the point of view of operating impacts.

Nowadays, we have many customers who are satisfied with the collets produced. They also appreciate the fact that the collets are produced with the minimum of

clamping, thereby avoiding any marking or deformation of the part when it has to undergo reworking.

**We** always guarantee the product and would be pleased to assist the client to ensure that he is fully satisfied when using the collets.

**The** following illustrations explain the work sequence: the medical screw is fed into the collect and is clamped at the head and retraction diameter.



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A guide can also be positioned at the rear of the collet for long parts. This facilitates post-machining extraction and avoids the risk of wobble during turning. In the example shown, the clamping must be limited in order to avoid any deformation or marking of the screw during stamping of the hexagon head.

This technique has been tried and tested with numerous implant manufacturers and is now spreading quite rapidly to other sectors of small parts turning.

This new challenge means that the operation on the DECO machines can be optimised even further, which is a benefit to the customer, because he can now operate the machine at full capacity without having to rework the parts.



INTERCHUCK: this name was first used two years ago at SIAMS 2002. It is the new clamping system that has been adapted for the DECO for all parts that have to be reworked from the internal diameter.

The Interchuck system was first developed by the SIRON company

in Israel, which operates the DECO 20 system. The current version is more complete, since the long and short parts can now be clamped from the inside.

To fit the INTERCHUCK system, simply remove and replace the original machine collet bush. If you want to machine parts, it's very easy to fit the system to the machine – a five minute job – and you can get on with machining. The system has a collet bush. Insert the collet into the bush, taking care to pass it correctly through the key and then insert the clamping piston with the extraction spring and the brass clamp-limitation bush.

This clamp-limitation bush can be shortened to increase the clamping force. You can therefore limit your clamping force at any time, simply by modifying the length of the bush. Brass bushes are standard consumables that are always available. This means that the brass limitation bush can be stored with the specific tooling used to produce the parts.

INTERCHUCK has also been patented and will be available for the DECO 26 from September 04 onwards.

By November 2004, the entire DECO range will benefit from this equipment (apart from the DECO 10).

We are still currently researching into yet further improvements to the long clamping system, meaning that there will be a slight delay in offering the Interchuck for the DECO.

It should also be pointed out that the INTERCHUCK system is designed to be cooled by the tailstock thereby preventing the chippings from penetrating the collet slots. What is more, the fluid helps eject the part. It is possible with the INTERCHUCK to produce parts that cannot be reworked from the external diameter, which would be an undeniable benefit for your DECO. We would also point out that parts, which must not have any marks on the external diameter, can be finished with the INTERCHUCK system without problem.

If you require further information on this latest feature, please contact:

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The system is highly versatile, since the standby collets are supplied with the basic system, thereby enabling the client to fit the chucks onto the machine immediately.



Hole for cooling

