

POLYDEC IN A NUTSHELL



COMPANY

Founded in 1985, Polydec SA specialises in micro-turned parts. Over 65% of the parts it produces are exported.

Polydec SA offers turn-key solutions to meet the strict quality requirements of its customers:

- feasibility study
- specific requirements
- choice of materials
- production of prototypes
- adherence to delivery times

Switzerland and Europe

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FIELDS OF ACTIVITY

- automotive
- watch industry
- electronics
- medical

MAIN BUSINESS

Polydec SA's Swiss turning processes can be separated into two groups

“Escomatic” Turning Machines

- parts with simple shapes; often large volumes
- the raw material takes the form of wire coiled on a spool and the tools turn around the reels

CNC Automatic Turning Machines with Sliding Headstock

- small, complex parts
- the raw material comes in bar form and turns on its own axis; the tools are fixed

CERTIFICATION

- ISO 9001
- ISO/TS 16949
- ISO 14001
- OHSAS 18001

SPECIALITIES

- knurling
- polygonal cutting
- for large volumes in the automotive sector we can install a 100% inspection program

ADDITIONAL TREATMENTS

Polydec SA offers a complete service performing additional operations, which are carried out either in-house, or by certified external partners::

- polishing
- heat treatments
- galvanic treatments (nickel plating, gold plating, etc.)
- special surface finishing (sunray polishing, black polishing, etc.)

Japan

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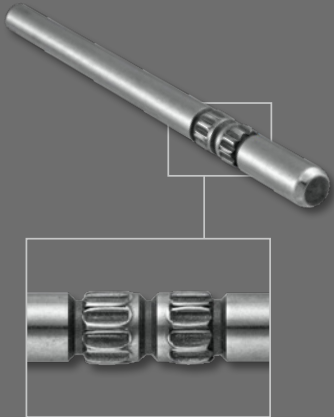
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AUTOMOTIVE

Example of a spindle for a stepper motor used in the instrumentation cluster



Original size: 


Diameter 1.10 mm (.043 in)
Length 22.00 mm (.866 in)



WATCH INDUSTRY

Example of a gear type part used in the luxury watch industry



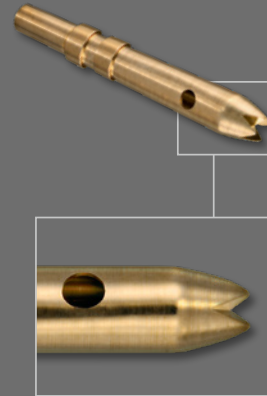
Original size: 


Diameter 1.65 mm (.065 in)
Length 2.55 mm (.101 in)



ELECTRONICS

Example of a probe to test semiconductors and printed circuit boards



Original size: 


Diameter 0.28 mm (.011 in)
Length 2.80 mm (.110 in)



MEDICAL

Example of a micro component for use in the medical industry



Original size: 

Diameter 2.10 mm (.082 in)
Length 4.31 mm (.169 in)

MACHINE TYPES

- Tornos CNC DECO 2000, EVO and Nano
- Escomatic D2, cams and CNC
- Tsugami CNC

TOLERANCES

Able to hold tolerances of ± 0.002 mm (.000075 in) depending on material and design

MATERIALS (MOST OFTEN USED)

Free cutting mild steels

- 1213, 12L14

Free cutting high carbon steels

- 1095
- Sandvik 20AP

Alloyed structural steels

- 52100

Martensitic stainless steels

- 420F
- Sandvik 4C27A

Austenitic stainless steels

- 303
- 316
- 316L
- 316LVM

Copper alloys

- C17300 CuBe
- C38500 Brass
- nickel silver N09, NM2
- bronze

Precious metals

- palladium alloy
- gold

Titanium

DIMENSIONS

Diameters

- min. 0.05 mm (.002 in)
- max. 4.00 mm (.157 in)

Length

- max. 50.00 mm (1.968 in)