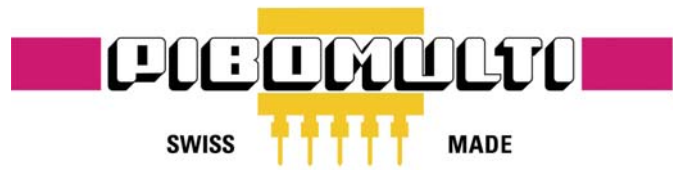


MICRO ANGLE HEAD SOLUTIONS



Applications :

- Aerospace
- Watch Industry
- Automotive
- Jewelry
- Hydraulics
- Connectivity
- ...



PIBOMULTI
MICRO

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PIBOMULTI
MICRO
ULTRA PRECISION tools

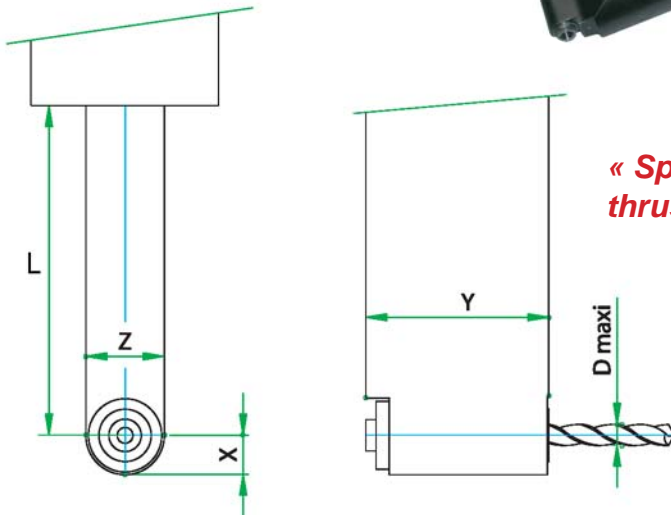
AEROSPACE INDUSTRY STANDARD

Super precision SLIM LINE AEROSPACE

- Ultra-precise collets adapted to each angular head
- Ultra-precise of tool rotation
- No overhang
- Standard tools
- Precise localisation



« High speed rotation :
10 000 rpm »



« Spindle on bearing and
thrust bearing »



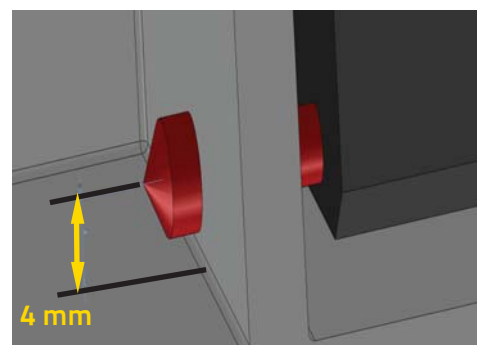
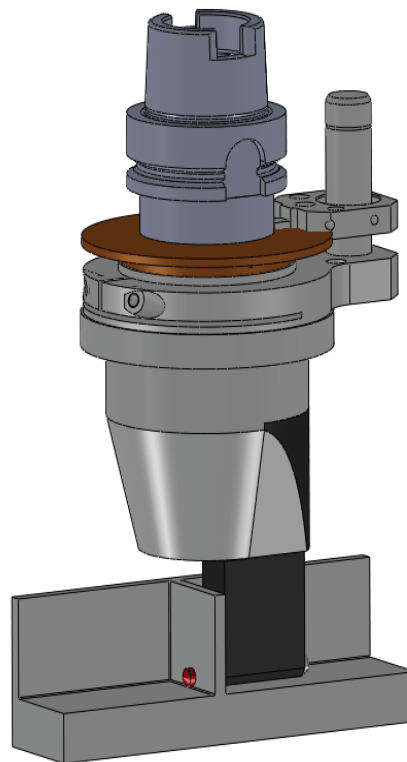
| TYPE | X | Y | Z | D | POWER | TORQUE | L | |
|--------|--------|--------|-------|--------|--------|--------|----------|----------|
| SLA-03 | 6.5 mm | 29 mm | 13 mm | Ø3 mm | 0.5 kW | 1 Nm | 55.25 mm | 74.75 mm |
| | | | | | | | 94.25 mm | 104 mm |
| | | | | | | | L ... | |
| SLA-04 | 7.5 mm | 35 mm | 15 mm | Ø4 mm | 0.5 kW | 2.3 Nm | 65 mm | 76.25 mm |
| | | | | | | | 87.5 mm | 98.75 mm |
| | | | | | | | 110 mm | L... |
| SLA-06 | 10 mm | 54 mm | 20 mm | Ø8 mm | 0.8 kW | 6 Nm | 49 mm | 65 mm |
| | | | | | | | 81 mm | 97 mm |
| | | | | | | | 113 mm | L... |
| SLA-08 | 12 mm | 68 mm | 32 mm | Ø8 mm | 2 kW | 8 Nm | 81 mm | 105 mm |
| | | | | | | | 129 mm | |
| | | | | | | | L ... | |
| SLA-12 | 11 mm | 125 mm | 58 mm | Ø12 mm | 1.5 kW | 6.5 Nm | 74 mm | 106 mm |
| | | | | | | | 138 mm | |
| | | | | | | | L ... | |

New technology

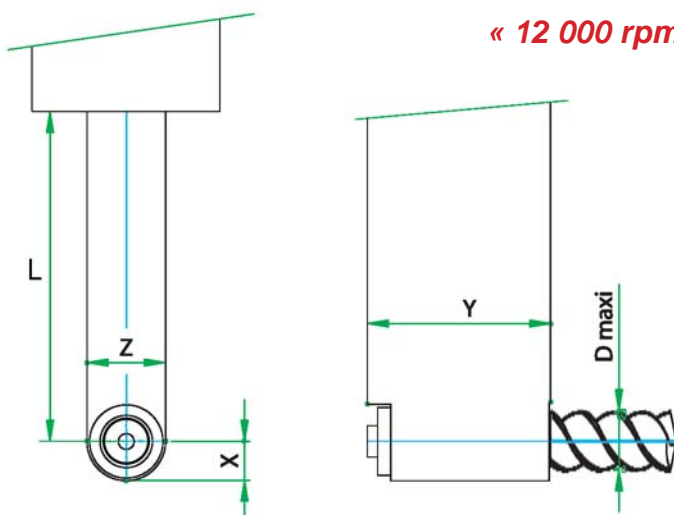
AEROSPACE INDUSTRY NEW CONCEPT

- Applications :
- Aerospace
 - Automotive
 - Hydraulic

*Drilling in difficult access areas
(edge walls)*



« 12 000 rpm »



« Patented tool-holding system »

| X | Y | Z | D | POWER | TORQUE | L |
|--------|-------|-------|-------|-------|--------|-------|
| 3.5 mm | 50 mm | 16 mm | ∅6 mm | 1 kW | 0.8 Nm | 45 mm |

Dimension reduced, big capacity of machining

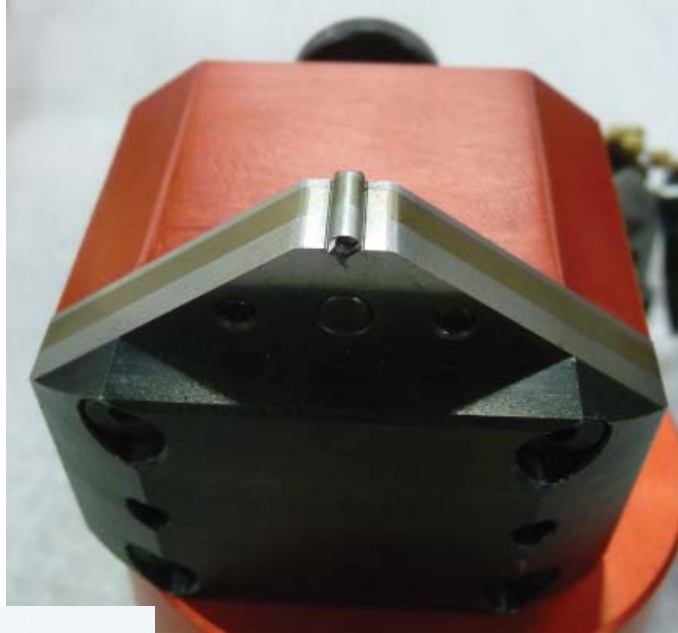
WATCH INDUSTRY

MICRO-machining angular head for interior hollowing

Applications :

- Watch industry
- Jewelry

« For precious material machining »

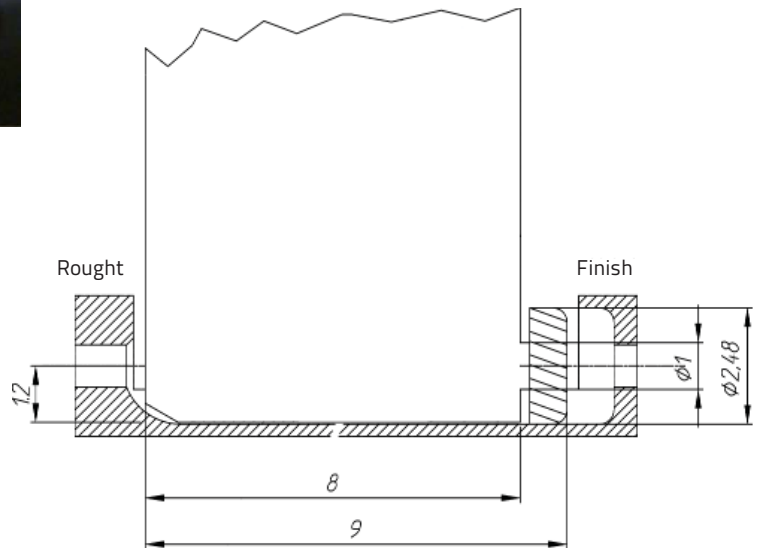


« Speed 15 000 rpm »



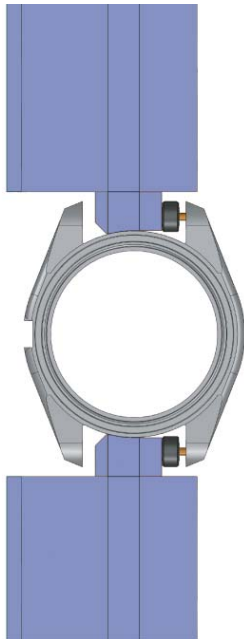
**2.48 mm
incredible ?**

*« The know-how of
PIBOMULTI »*



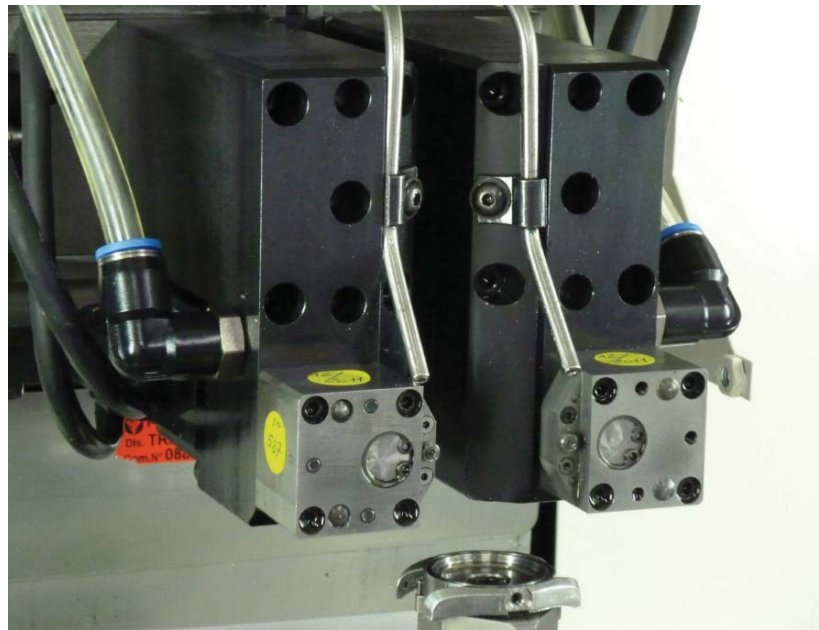
WATCH INDUSTRY

MICRO-machining angular head for drilling between lugs

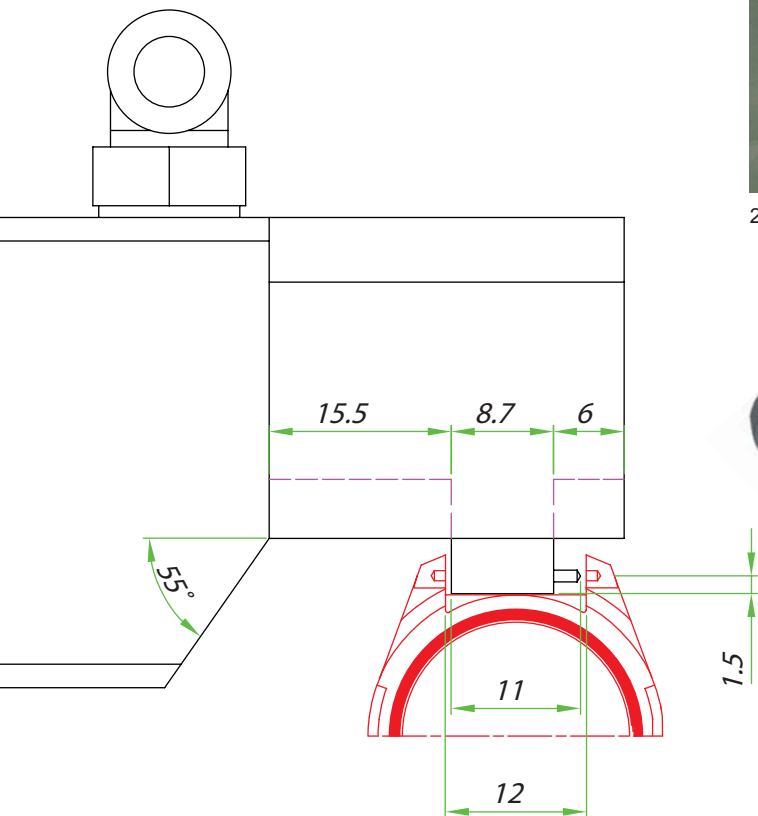


- Applications :
- Watch case
 - Warp of watch-strap
 - Warp of belt
 - Jewellery

« Speed 15 000 rpm »



2 twin spindle heads, output in 180°



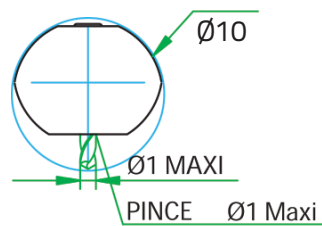
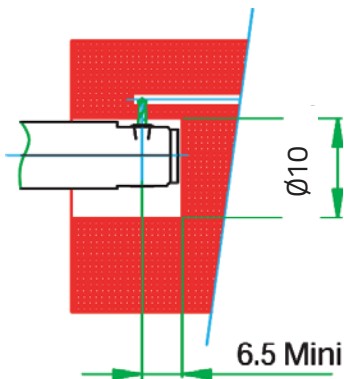
« UNIQUE IN THE WORLD ! »

WATCH INDUSTRY

Angular head for MICRO-milling, drilling, chamfering

Applications :

- Watch industry
- Jewellery
- Connectic



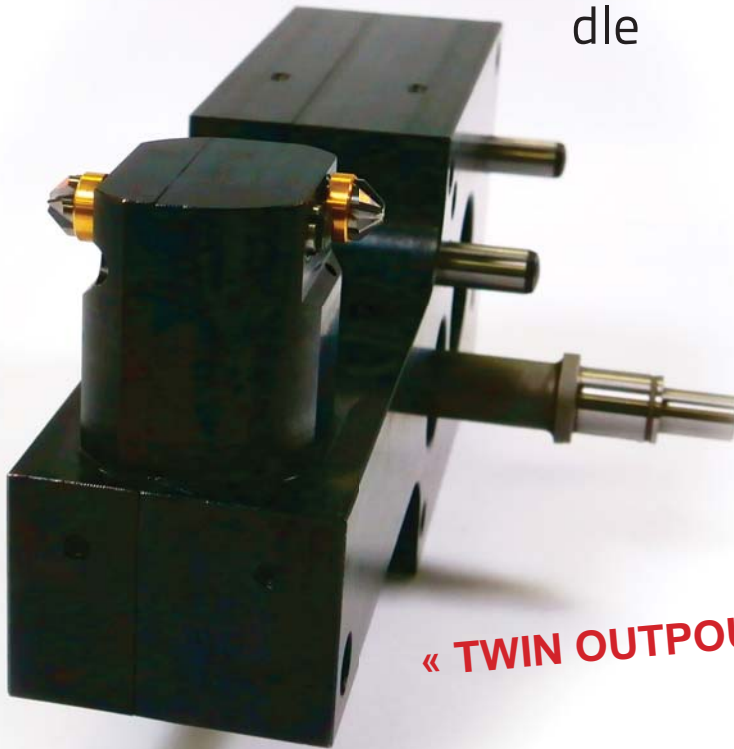
MICRO INDUSTRY

Angular head for chamfering in MICRO-space with Auto center Spindle

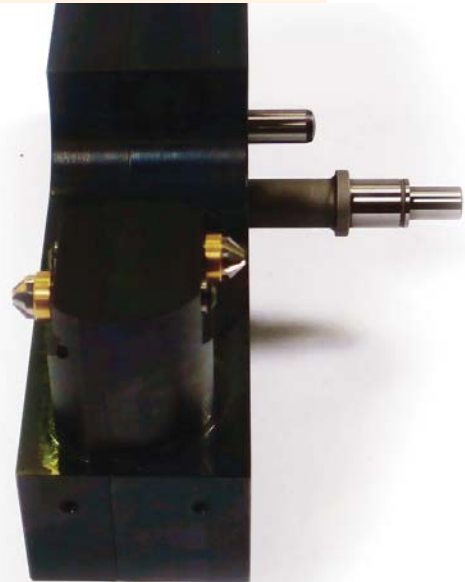
« 10 000 rpm »

Applications :

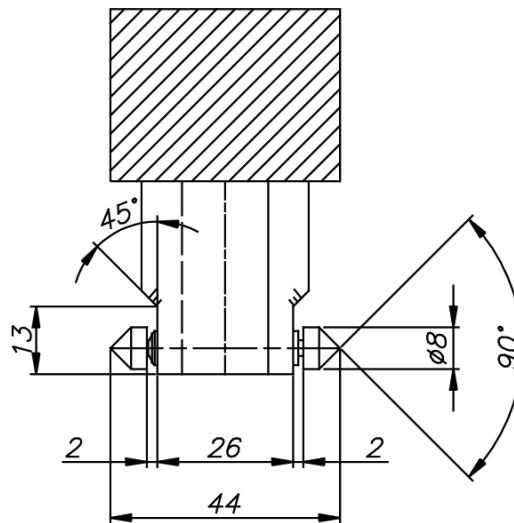
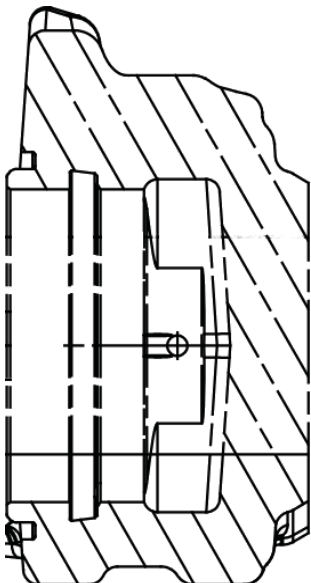
- Aerospace
- Automotive
- Hydraulic



« TWIN OUTPUT »



« auto center in the hole by specific floating spindle »



BEARING MANUFACTURE INDUSTRY

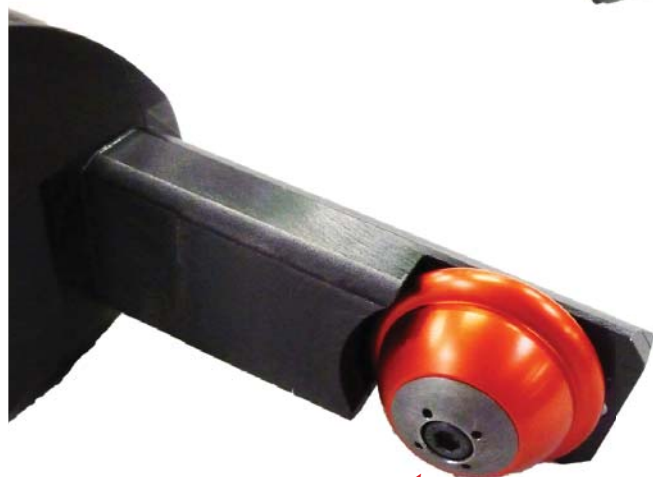
Angular head for interior grinding in limited space

Applications :
- Bearings

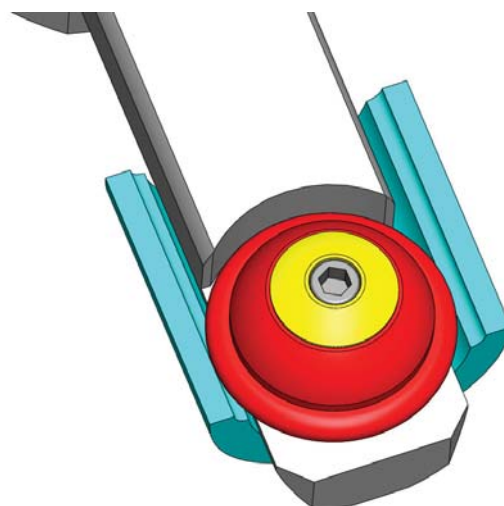
« Speed 25 000 rpm »



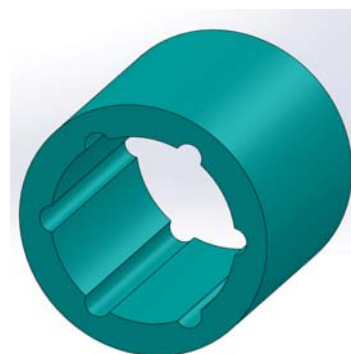
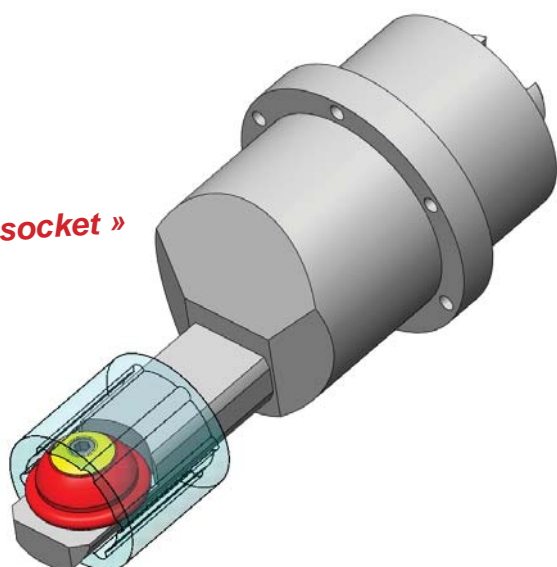
« Bearings machining »



« Spindle concept »



« Tools socket »



MICRO INDUSTRY

Air driven Twin-spindle angular head

360°



70 000 rpm



« Speed 70 000 rpm »



MICRO INDUSTRY

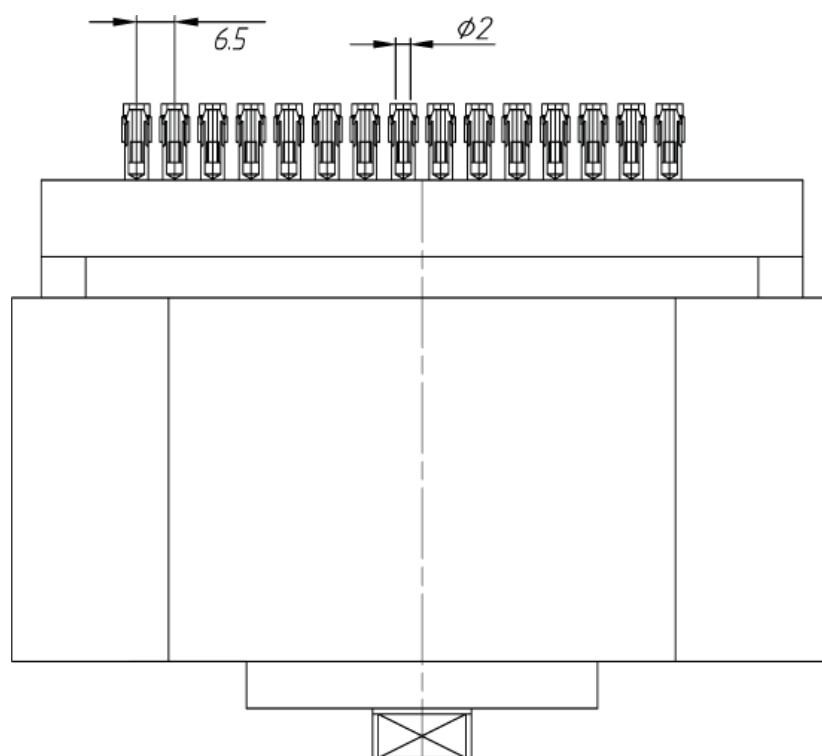
Multi-spindle head for high speed MICRO-drilling with limited center-distances



Applications :
 - Aerospace
 - Watch industry

« Speed 45 000 rpm »

« Carbon machining »

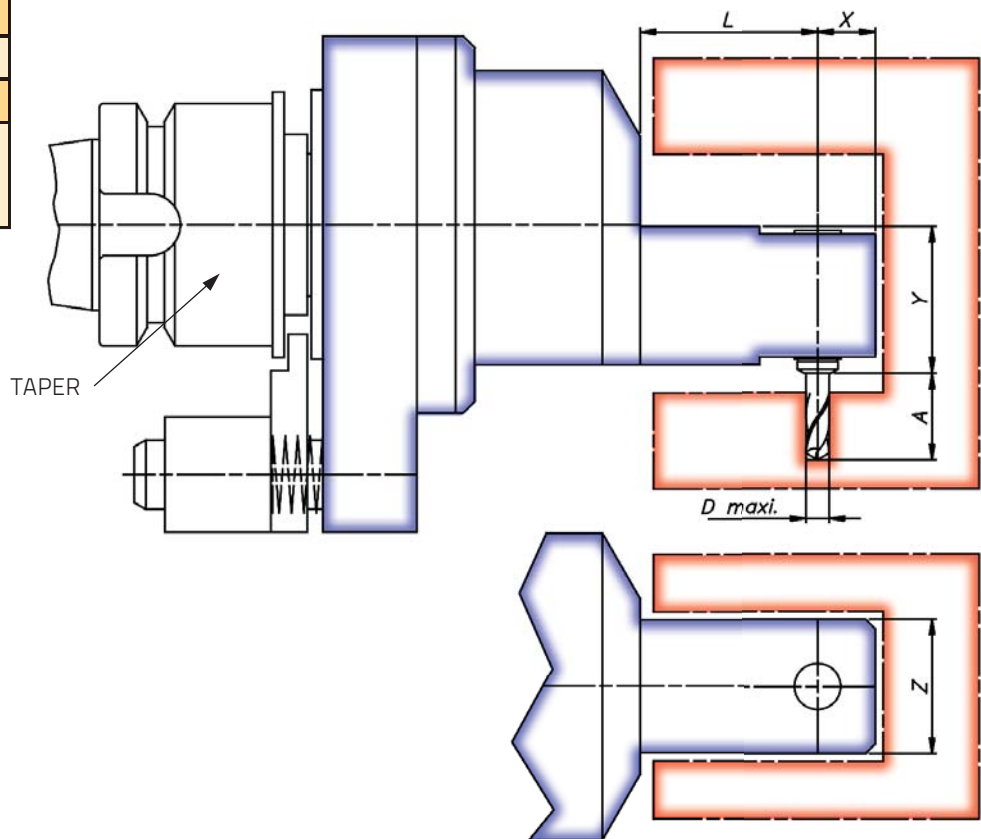


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| Y | |
| Z | |
| L | |
| A | |
| TAPER SIZE & NORME | |



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