

◀WATCHMAKING▶



HRP 730

Vertical transfer **for high production.**



A CONCEPT OF EXPERIENCE

The concept of the HRP use the great experience of **PIBOMULTI** multiple spindle heads and the machining principle of our EMISSA PNC03 machine which is, since several years, used by the most renowned watch movement's manufactures.

Thanks to the use of autonomous multiple spindle heads, this principle ensure a great flexibility of use and allow modifications with lower cost. All multiple spindle heads have an independant motor.

This principle allow :

- **High positioning accuracy** ($< \pm 0.003$ mm)
- **High cutting depths accuracy** ($< \pm 0.003$ mm)
- **High productivity** (24 work stations/ 80 simultaneous operations)

CONFIGURATION

Each spindle is provided with modular tool holders for pre-setting outside the machine. Evenmore an integrated system allow a fine ajustement directly in the machine without opening tool.

All machining are carried by the top, but with a turning station it's possible to machine the 2 faces of the plate.

This new concept of machine optimize the production by incorporating interchangeable multiple spindle heads dedicated to machining several types of pieces, and a quick reconfiguration of the machine.

PLATES



BRIDGES



CROWNS



Parts machined on HRP 730 :

Watch movement's plates, bridges, dials, winder crowns and other small movement components...



1 Work area

26 workstations with independent motorized multi-spindle heads. Possibility of 80 simultaneous operations.

2 Powerful CNC

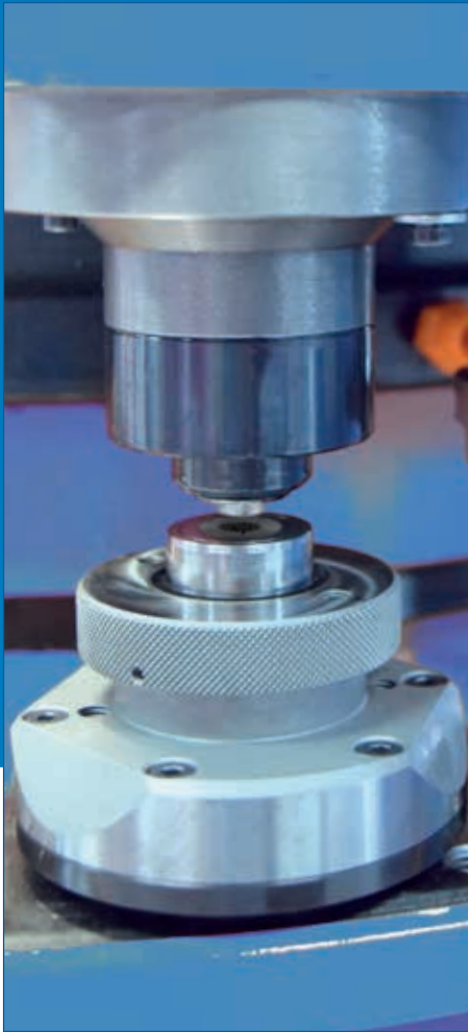
FANUC 01-MD

3 Electrical cabinet

Complies with all current safety rules. Ventilated.

4 Filtration

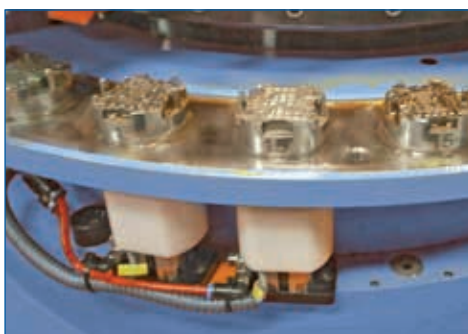
Filtration tanks are easily accessible and removable.



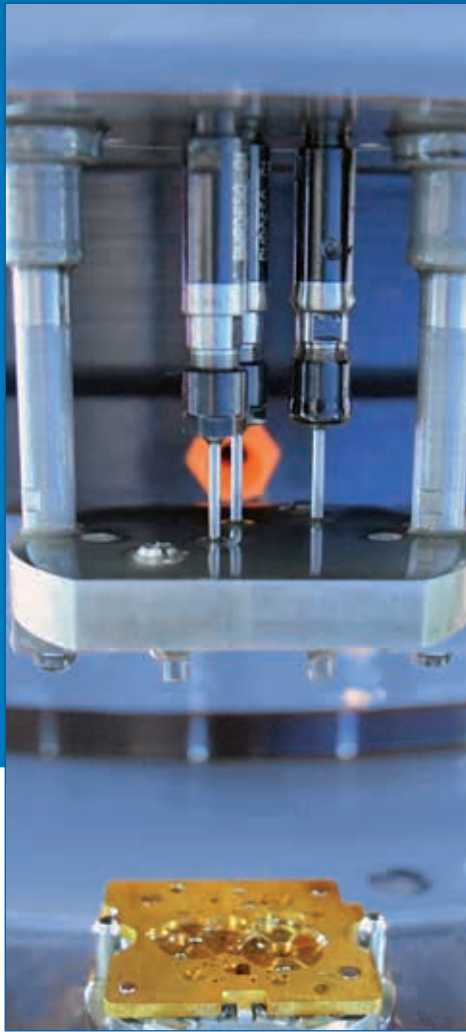
CLAMPING / PLATING LOAD & UNLOAD

Loading or unloading can be manual, automatic or robotized. The 24/24 automatic production can be ensured by a big autonomy load and unload system and a control system.

- Turntable indexions, driven by servomotor.
- The descent is ensured by ball screw and servomotor.
- For high accuracy, all fitting are floating and self-centered in the working position.



Load/unload system of HRP 730



MODULAR SPINDLE TYPE BMR

Our BMRB concept, is **the smaller and most accurate** in the world of quick change tool holder.

With its dimensions, it's possible to reduce the spindle spacing, allowing to build multiple spindle units with **small spindle spacing**



The PIBOMULTI BMRB toolholder with clamp



INDEPENDENTS MULTISPINDLES

• All multiple spindle of HRP 730 are with **proven technology**.

• Each spindle has an independent motorization.

• Each spindle can be adjusted in depth +/- 1 mm.

• spindle speed up to 15 000 rpm.

• Spindles allow all machining operations of a plate : **wheels arc, counter bore, drilling, chamfering, tapping, gorgeage...**

• Approximately 80 tools at work.



Setting screw

TECHNICAL DATA

Basic machine

Strokes	Standard
Number of work units	26/28
Loading / Unloading / Turning position	4
Productivity	12 000 pieces / day
Nbr of simultaneous operations	70 / 80
Applications	Watch industry, Automotive, Telecommunications
Simple indexing time	0.8 sec
Double indexing time	0.9 sec
Speed of multiple spindle heads	15 000 rpm
Power supply	400 V AC / 50Hz / 63A
Dimensions L x l x h	2500 x 1000 x 2690 mm
Total weight	3000 kg

Heads

Tapping head : Yes (with 'patronne' system)

Recessing head : Yes



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IMPLANTATION

