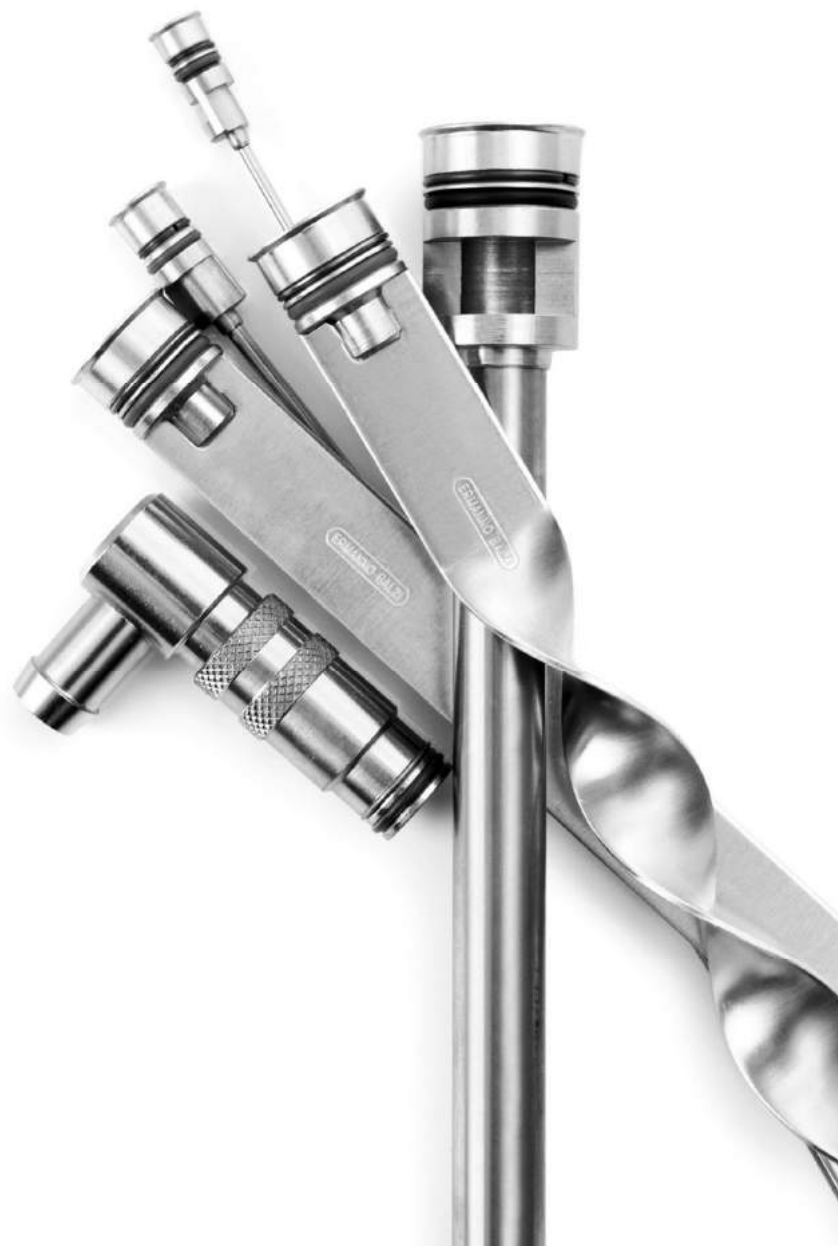




ERMANN BALZI



The company



ERMANN BALZI, benefitting from a long experience in the production of plastic injection moulds, researches and produces new solutions for their components.

ERMANN BALZI innovative approach and pragmatic assessment of costs, arising from a careful evaluation of production efficiency.

Cooling system

The patented innovation



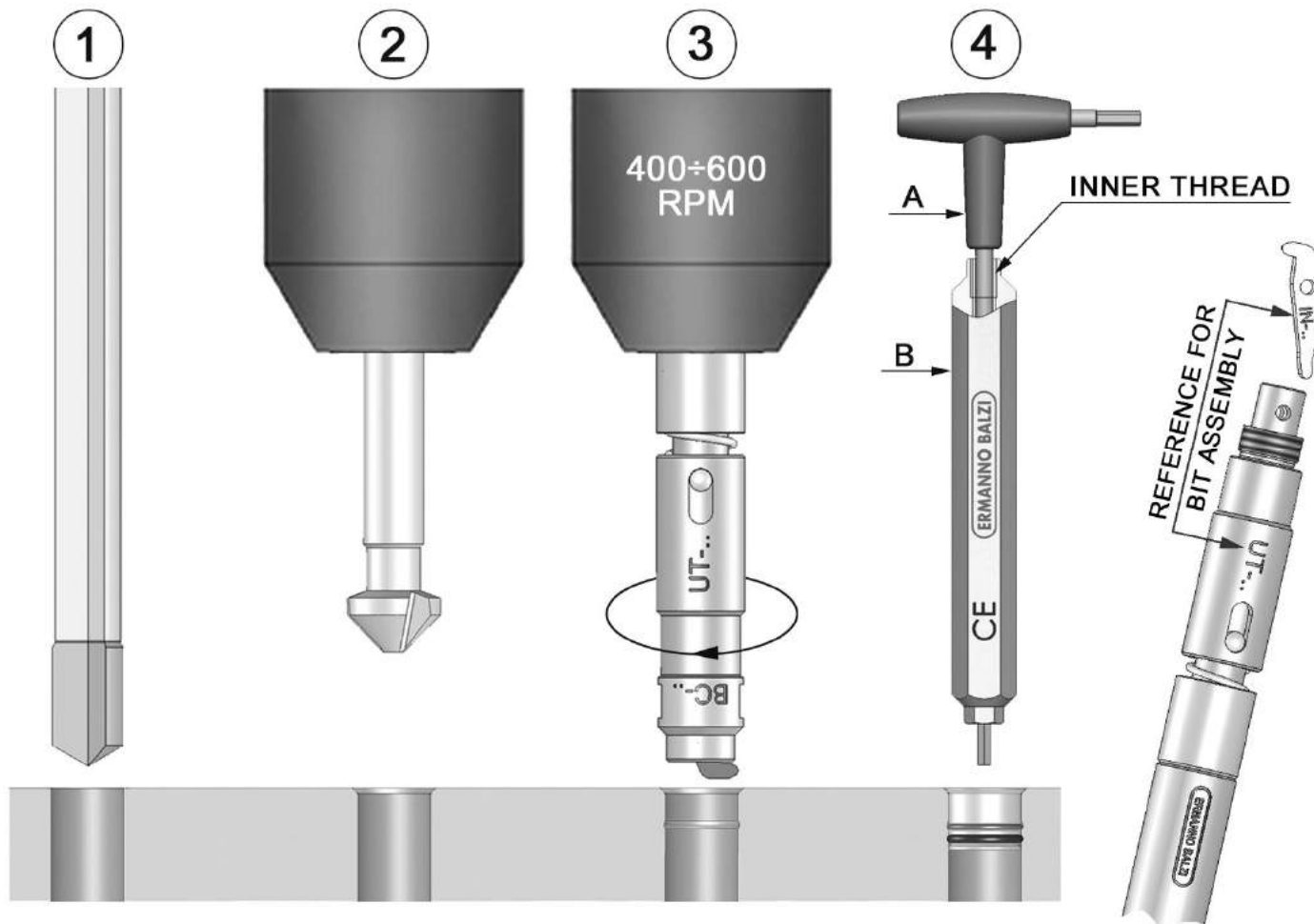
Cooling system

The patented innovation

- Complete line of **products for injection moulds' cooling circuits**
- **Patented technology** which allows a considerable **speeding up and simplification of operations** of:
 - Machining
 - Assembly
 - Maintenance

Cooling system

The patented innovation

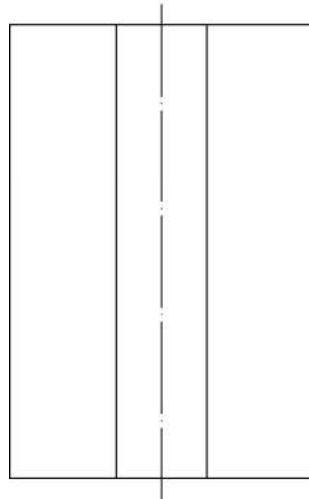


Main Advantages

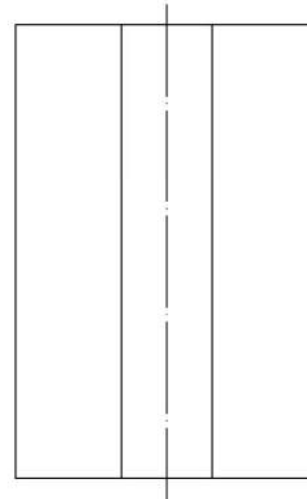
- **Save time and costs** during the preparation and maintenance of the mould
- **Normalization of the quality** of cooling circuits
- **Safety** against pressure and leakage:
 - *Steel series with Viton o-ring*
guaranteed service till 150°C and 100 bar

Assembling Comparison

Hole Machining



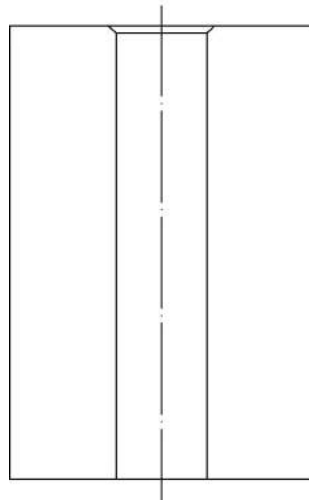
Balzi



Standard solution

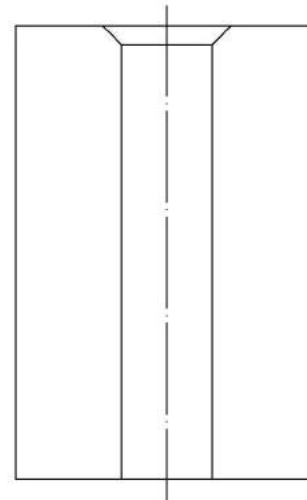
Assembling Comparison

Chamfer Machining



Total: 0,2 min

Balzi: 0,2 min

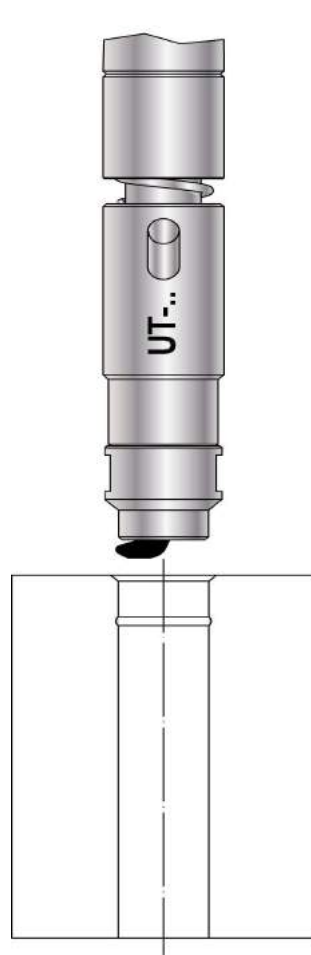


Total: 0,25 min

Standard solution: 0,25 min

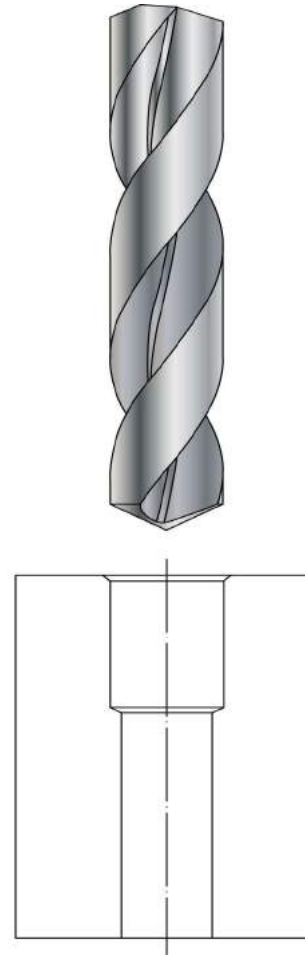
Assembling Comparison

Metal Ring Groove Vs. Hole for Thread



Total: 0,7 min

Balzi: 0,5 min



Total: 0,75 min

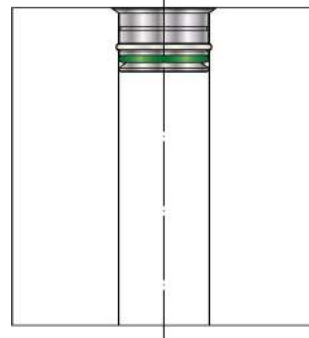
Standard solution: 0,5 min

Assembling Comparison

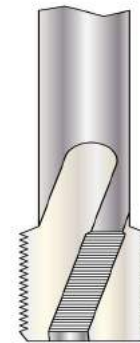
Assembling Vs. Thread Machining



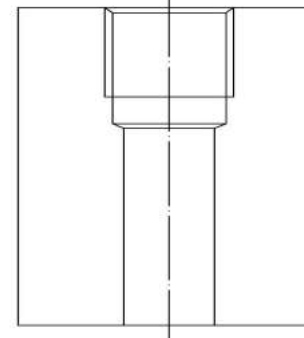
Total: 1,2 min



Balzi: 0,5 min



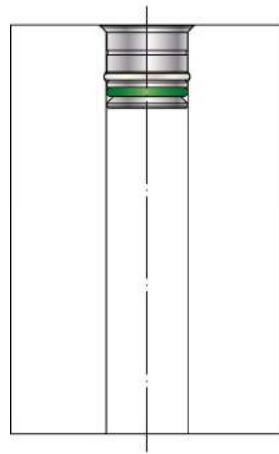
Total: 1,75 min



Standard solution: 1min

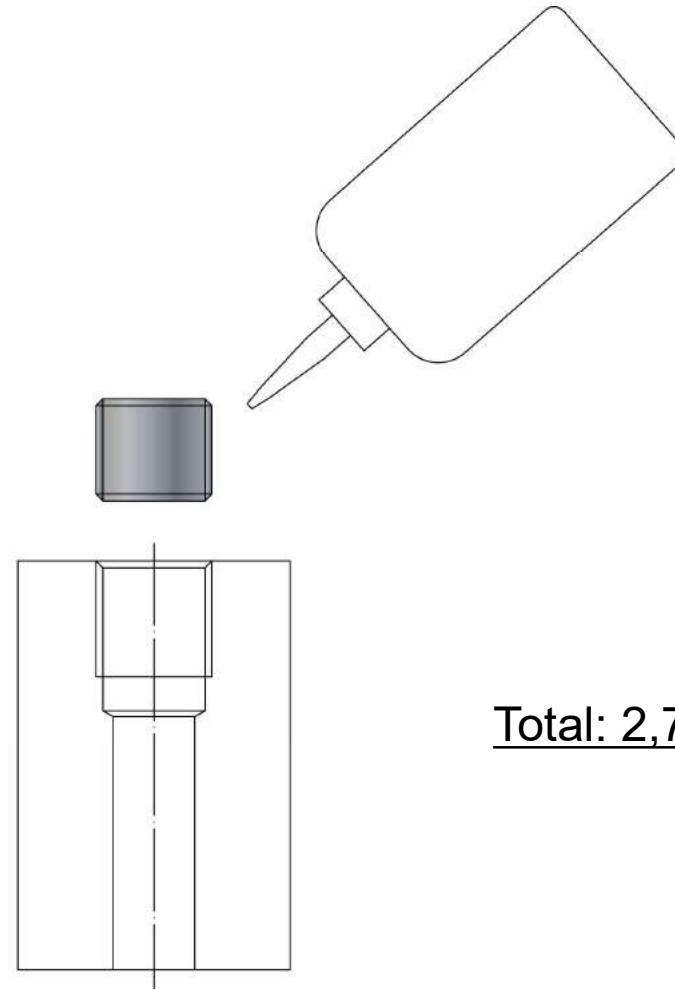
Assembling Comparison

Finish Vs. Teflon application



Total: 1,2 min

Balzi already finished 1,5 min before!!!



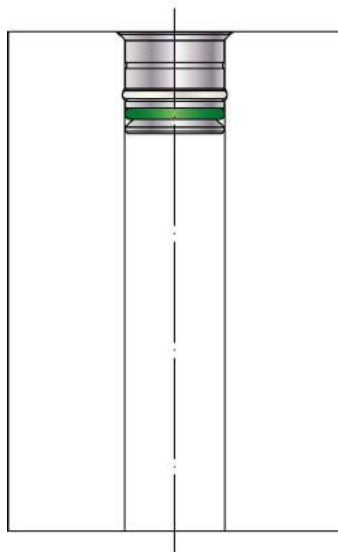
Total: 2,75 min

Standard solution: 1min

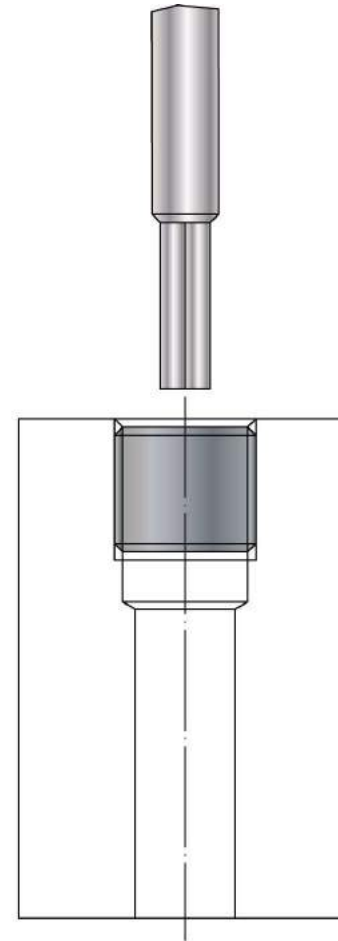
Assembling Comparison

Finish Vs. Assembling

Total: 1,2 min



Balzi already finished 2,5 min before!!!



Total: 3,75 min

Standard solution: 1min

Assembling Comparison

	Balzi System	Standard System
Chamfer Machining	0,2 min	0,25 min
Metal ring groove	0,5 min	-
Thread hole	-	0,5 min
Thread Machininig	-	1 min
Teflon on the plug	-	1 min
Plug	0,5 min	1 min

	Balzi System	Standard System
Total time	1,2 min	3,75 min

Time saved: 68%

Assembling Comparison

	Balzi System	Standard System
Mould/year production (pcs)	100	100
Plugs/mould (pcs)	50	50
Assembling Time/plug (min)	1,2	3,75
Time/year (min)	6.000	18.750
Time/year (h)	100	312
Working h/day (h)	8	8
Day/year (d)	12,5	39

Time saved: 68%

Cooling system

The patented innovation

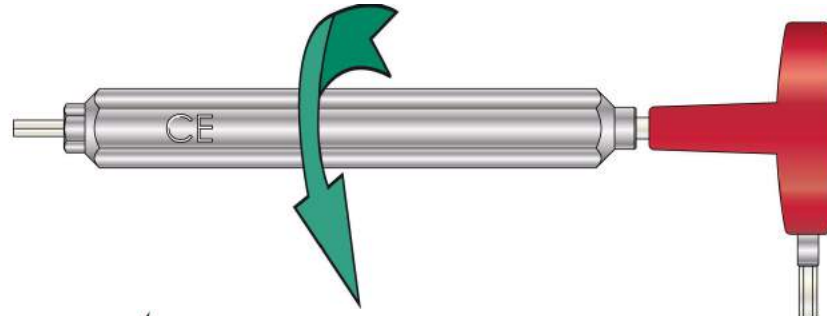
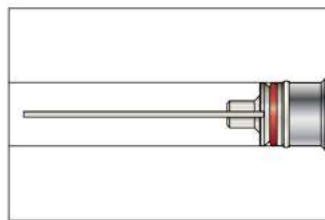
	Balzi System	Standard System
Other Costs	Balzi tools	Threading tap tools, sealing glue (Teflon)
Disadvantages	Change of technology	Qualified operators are needed Not normalized solution Difficult to be removed
Benefits	Avoid thread operations and costs, space savings, easy assembly and disassembly, multiple use, normalization of the seat for all kind of cooling elements (buffles, bubbles, plugs...)	Already in use technology
Tool Life	2.000 ÷ 3.000 application (minimum) before replacement of the recess insert	Known

Maintenance Operations

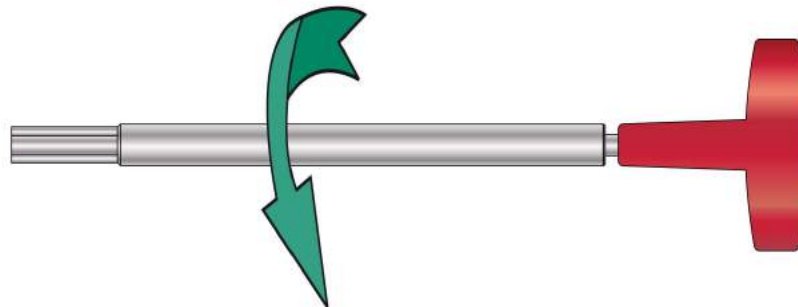
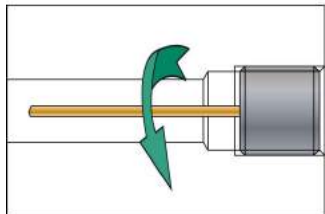
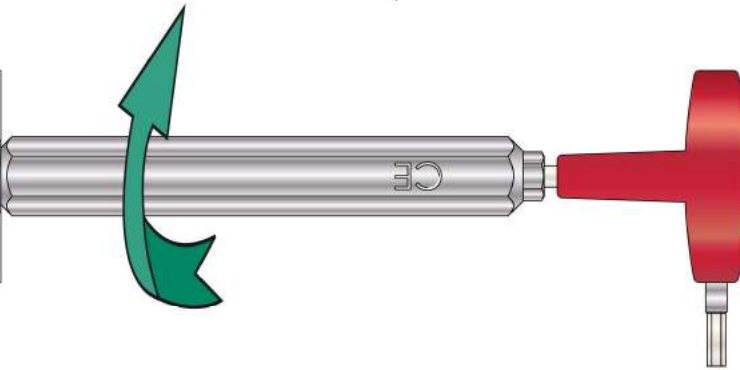
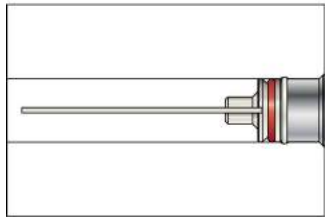
- The Balzi cooling products are very fast to apply and to disassemble.
- Maintenance time can be reduced significantly.
- No need to change the components.
- No need to apply Teflon again.

Maintenance Comparison

Disassembling



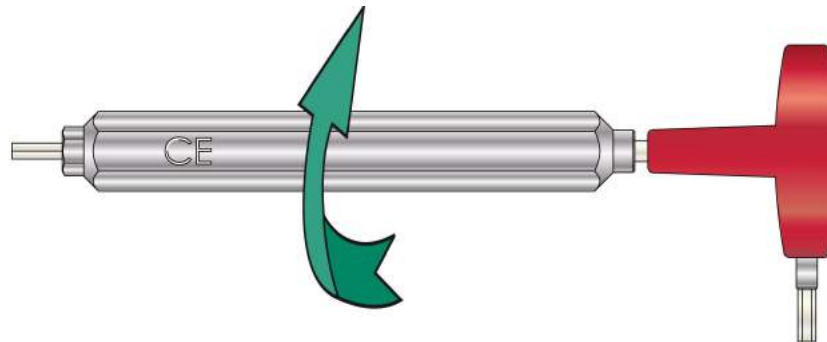
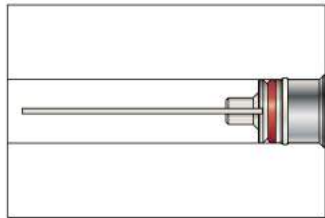
Balzi: 1 min



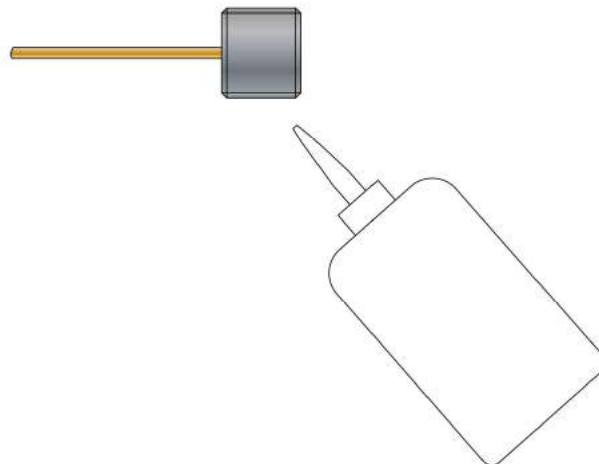
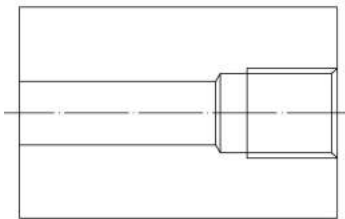
Standard: 2 min

Maintenance Comparison

Assembling Vs. Teflon application



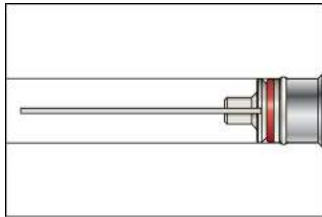
Balzi: 0,5 min



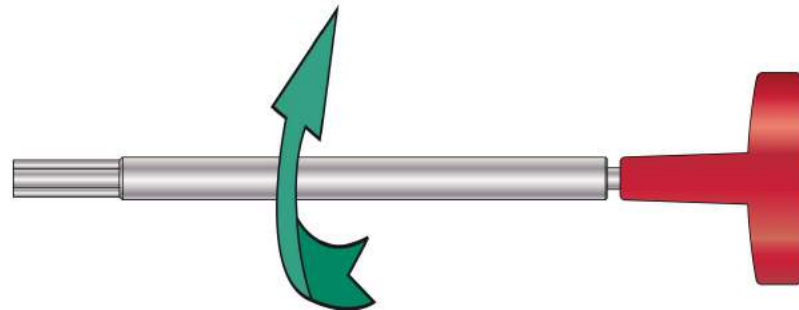
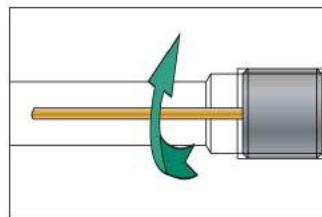
Standard: 2 min

Maintenance Comparison

Finish Vs. Assembling



Balzi: already finished 3,5 min before



Standard: 1 min

Maintenance Comparison

	Balzi System	Standard System
Disassembling	1 min	2 min
Application of Teflon	-	2 min
Assembling	0,5 min	1 min

	Balzi System	Standard System
Total time	1,5 min	5 min

Time saved: 70%

Maintenance Comparison

		Balzi System	Standard System
Mould/year production	(pcs)	100	100
Plugs/mould	(pcs)	50	50
Maintenance Time/plug	(min)	1,5	5
Maintenance/year	(n°)	2	2
Time/year	(min)	15.000	50.000
Time/year	(h)	250	833
Working h/day	(h)	8	8
Day/year	(d)	31	104

Time saved: 70%

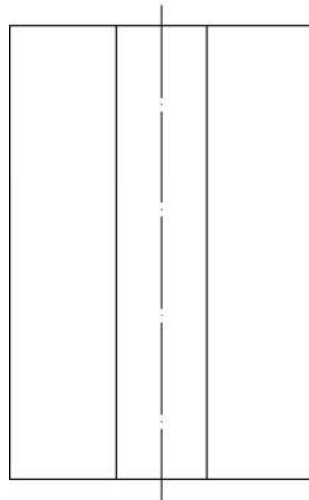
Rapid connector

The patented innovation

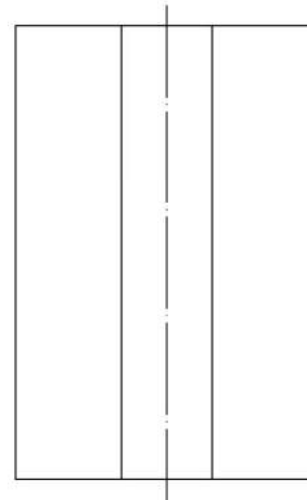
- Main advantages of our solution:
 - Save time during the preparation and maintenance of the mould: **gain productivity**
 - No more components in the mould: it means **saving money every year**
 - Same tool used to machine seats for plugs: **standardisation of the process**

Assembling Comparison

Hole Machining



Balzi



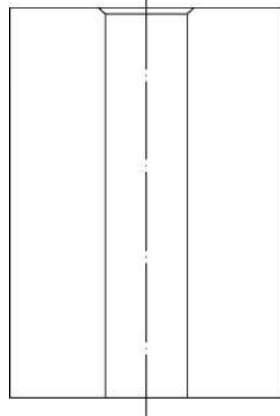
Standard solution

Assembling Comparison

Chamfer vs. Hole's boring



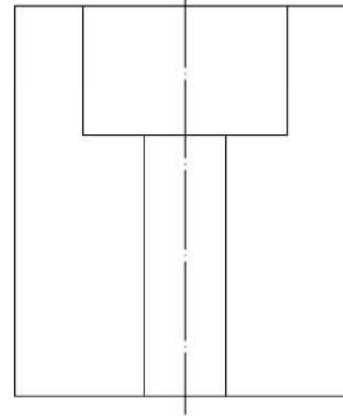
Total: 0,2 min



Balzi: 0,2 min



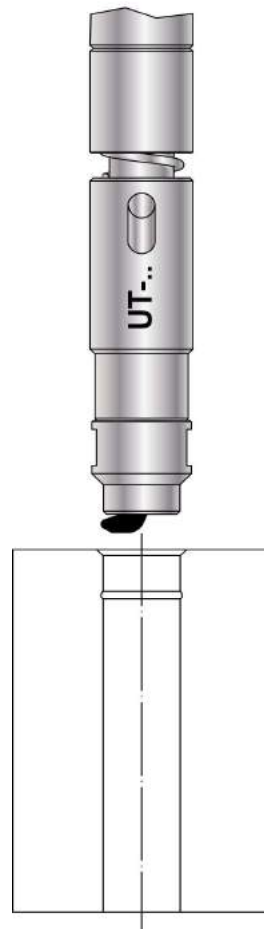
Total: 1,5 min



Standard solution: 1,5 min

Assembling Comparison

Metal Ring Groove Vs. Hole Machining



Total: 0,7 min

Balzi: 0,5 min



Total: 2,5 min

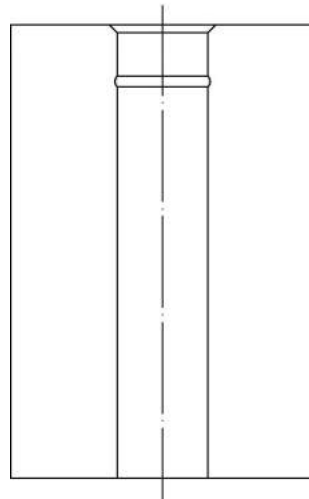
Standard solution: 1 min

Assembling Comparison

Finish Vs. Chamfer Machining

Total: 0,7 min

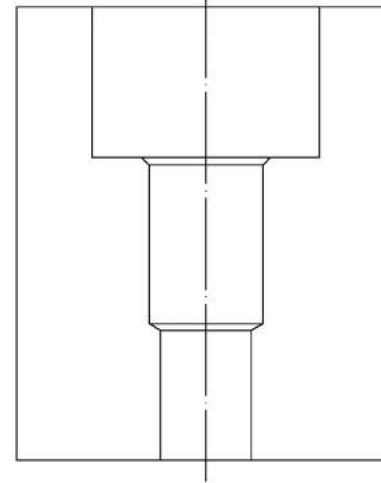
No components
inside the
mould!!!
Money saved
every time.



Balzi already finished 2 min before!!!!



Total: 2,75 min



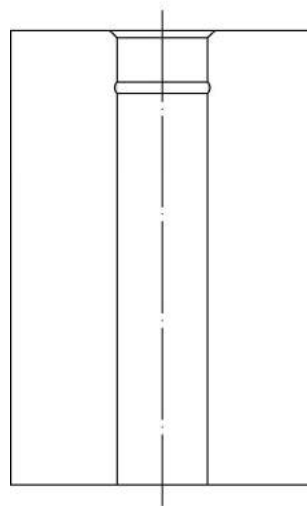
Standard solution: 0,25 min

Assembling Comparison

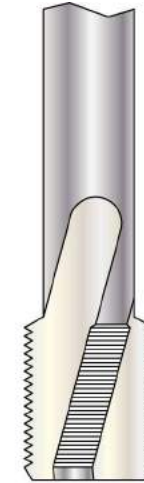
Finish Vs. Thread Machining

Total: 0,7 min

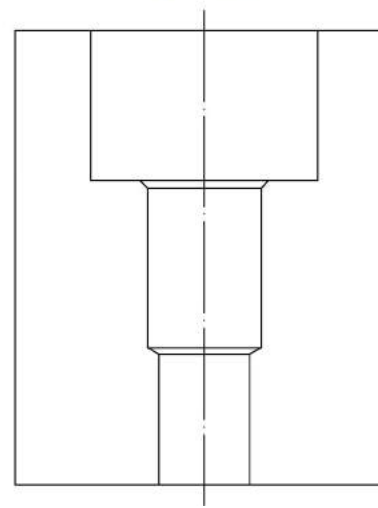
No components
inside the
mould!!!
Money saved
every time.



Balzi already finished 3 min before!!!!



Total: 3,75 min



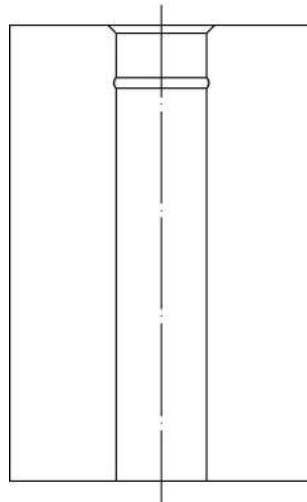
Standard solution: 1min

Assembling Comparison

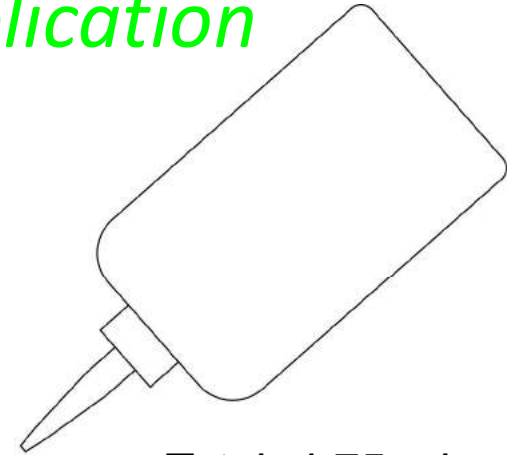
Finish Vs. Teflon application

Total: 0,7 min

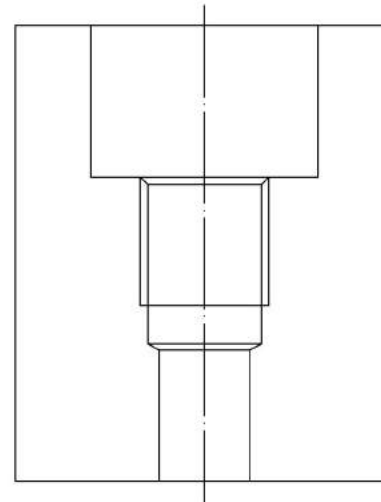
**No components
inside the
mould!!!
Money saved
every time.**



Balzi already finished 4 min before!!!!



Total: 4,75 min



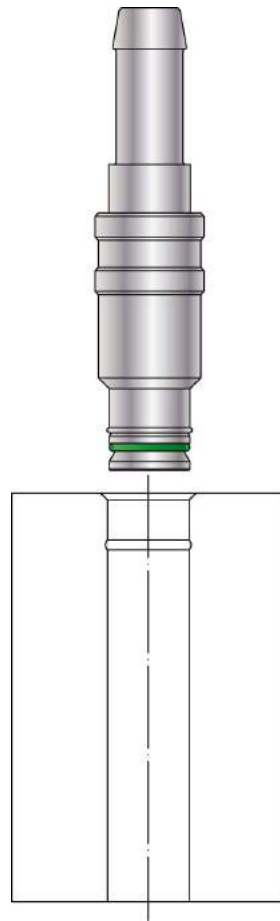
Standard solution: 1 min

Assembling Comparison

Finish Vs. Assembling

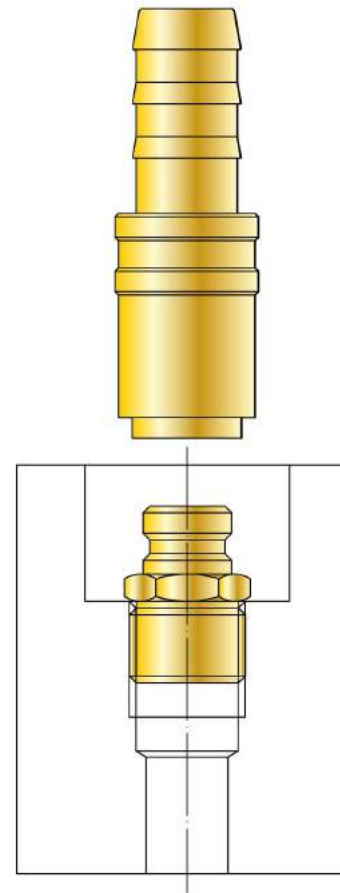
Total: 0,7 min

No components
inside the
mould!!!
Money saved
every time.



Balzi already finished 5 min before!!!!

Total: 5,75 min



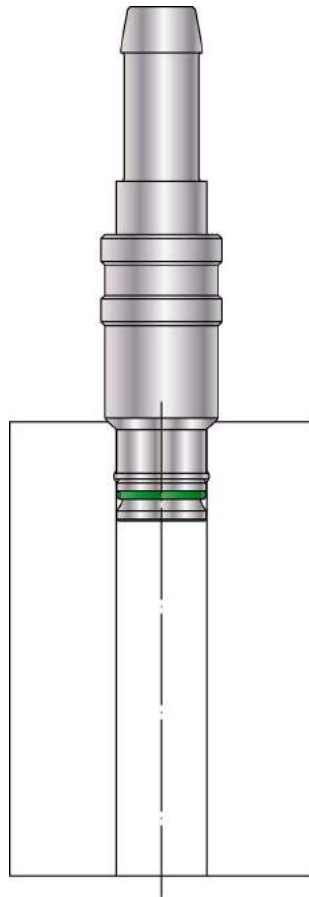
Standard solution: 1 min

Assembling Comparison

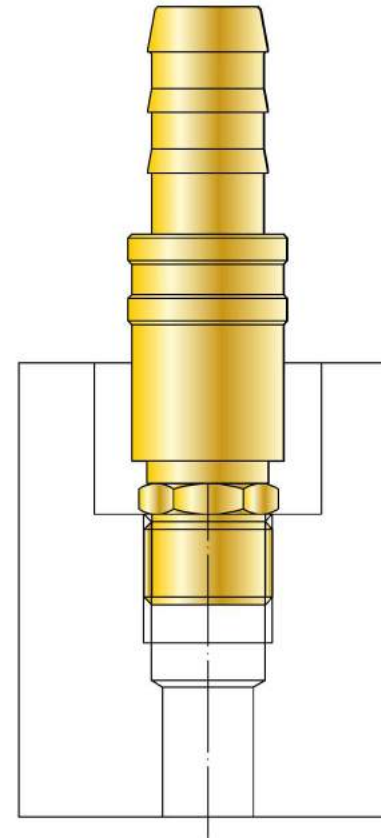
Final situation

Total: 0,7 min

No components
inside the
mould!!!
Money saved
every time.



Total: 5,75 min



Balzi already finished 5 min before!!!!

Standard solution: finish

Assembling Comparison

Rapid connector

	Balzi System	Standard System
Chamfer Machining	0,2 min	-
Metal ring groove	0,5 min	-
Hole boring	-	1,5 min
Hole machining	1 min	1 min
Chamfer Machining	-	0,25 min
Thread Machininig	-	1 min
Teflon on the connector	-	1 min
Connector coupling	-	1 min

	Balzi System	Standard System
Total time	0,70 min	5,75 min

Time saved: 87%

Assembling Comparison

Rapid connector

	Balzi System	Standard System
Mould/year production (pcs)	100	100
Connector Holes/mould (pcs)	10	10
Assembling Time/Hole (min)	0,7	5,75
Time/year (min)	700	5.750
Time/year (h)	11,7	95,8
Working h/day (h)	8	8
Day/year (d)	1,4	12

Time saved: 87%

Rapid connector

The patented innovation

	Balzi System	Standard System
Other Costs	Balzi tools	Threading tap tools, sealing glue (Teflon), rapid male coupling
Disadvantages	Change of technology	Qualified operators are needed Not normalized solution Difficult to be applied/removed
Benefits	Avoid thread operations and costs, very compact size, easy assembly and disassembly, multiple use, normalization of the seat for all kind of cooling elements. No more components in the mould	Already in use technology
Tool Life	2.000 ÷ 3.000 application (minimum) before replacement of the recess insert	Known

General Comparison

Plugs & Rapid connector

		Balzi System	Standard System
Mould/year production	(pcs)	100	100
Plugs/mould	(pcs)	50	50
Assembling Time/plug	(days/year)	12,5	39
Maintenance Time/plug	(days/year)	31	104
Connector Holes/mould	(pcs)	10	10
Assembling Time/Hole	(days/year)	1,4	12
Maintenance Time/Hole	(days/year)	-	104
Total time	(days/year)	45	259

Time saved: 82%

Considerations

Why to choose Ermanno Balzi's solutions

- Save time and money during the preparation and maintenance of the mould: gain productivity
- Normalization of the quality of your cooling circuits: gain quality
- Safety system against pressure and leakage
- Less components to buy: save money
- New plastic series: competitive price (50% less)
- Technical support and international service



ERMANN BALZI srl
componenti e accessori per stampi

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