PLASTISUD

S.A.S au capital de 3.000.000 €

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Industrial Area of Ioannina
45500, Ioannina
GREECE

For the attention of Mr [redacted]

N/ Réf. : APB/NF OE15-007 rev2

Castelnaudary, September 24th, 2015

COPY [redacted]

Dear [redacted]

We thank you for your request for quote update received yesterday and are pleased to send our offer for the engineering and manfacturing of :

ONE 72 CAVITY HOT RUNNER MOULD FOR CAP 29/25

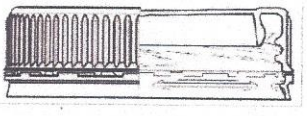
WITH SAFETY BAND DEMOULDED BY SLIDES

AS PER OUR STANDARD CAP 29/25 :

- PLUG SEAL WITH "OLIVE" PROFILE
- OFFSET SAFETY BAND DESIGNED FOR THE LEANING OF THE STRIPPER AT THE BASE OF THE SAFETY BAND
- SAFETY BAND AND BRIDGES DEMOULDED BY SLIDES
- OUTER FINISH : POLISHED EXCEPT THE 72 KNURLS FINISHED BY SPARK EROSION 20-22 CH
- INNER FINISH : POLISHED IN DEMOULDING DIRECTION
- 3 THREADS ON THE RIGHT AT A PITCH OF 6,5 MM UPON 170° + 6 SEGMENTED SNAP RINGS

1. PART DESCRIPTION

Main dimensions (mm)	Ø31,9 x 11,2
Top panel thickness (mm)	1,3 ± 0,15
Material	HDPE



2. GENERAL DESIGN OF MOULD

Safety bands demoulded by slides with mechanical control.

Molding parts of slides with individually removable and interchangeable elements.

They shall be disassembled and easily removed, directly on the injection unit without mould disassembly.

Cavities and cores self-centered individually on slides by means of cone.

Injection outside at center of the caps by hot runner fitted with individually controlled nozzles (PLASTISUD system).

Ejection and demoulding kinematics :

1) Opening of the mould and the slides to release the outer of the safety band.
2) Simultaneous forward motion of :
   - the stripper plate leaning on the safety band
   - the thread core plate

   over approx.. 5 mm stroke in order to extract the central cores and release the inside of the olive plug sea
3) Stop of the thread core plate and final ejection by continued thrust of the stripper plate over approx. 15 mm stroke in order to force strip the thread and the outside profile of the sealing chimney

   This last motion shall be synchronized with air blow through the central cores.

3. PRICE

Number of cavities	72
Mould price	[redacted]
Surface coating on the slide ends	[redacted]
One full cavity plate including : . 1 plate . 75 cavities . 75 cavity bottom without logo	[redacted]
TOTAL	[redacted]
Commercial discount granted to M. NITAS	[redacted]
FINAL NET PRICE	[redacted]

4. EXTRA COST

Additional stack as spare (manufactured in serie with the mould)	[redacted]

5. LEAD TIME

Mould (months)	5

NB : *Lead time might change due to Plastisud's workload and shall be confirmed with receipt of your order.*

6. OPTIONS

Start up and training of your technicians for maintenance of the mould on your premises	880 € / day (travel, accomodation and meals not included)

As proposed, our technician shall come free of charge. You shall pay only for flight tickets, hotel, car rental and accomodation.

7. TECHNICAL MOULD DETAILS

Mould layout (vertical row)	6
Mould dimensions Width. x Length. x Thickness (mm)	696 x 1151 x 665,4
Injection Moulding Machine	Synergy 3500

8. CYCLE TIME (with cooling to temperature 12-14° C ; pressure 5,5 to 6 bars)

ESTIMATED CYCLE TIME (seconds)	3,00 - 3,50

9. TECHNICAL DESCRIPTION

Cavities made of tempered stainless steel with full precision grinding, hardness 50-51HRC.

Central cores made of tempered stainless steel with full precision grinding, hardness 50-51HRC + surface coating.

Cores with thread made of cupro alloy treated « R » 140 Kg/mm² + surface coating.

Stripper rings made of tempered steel with full precision grinding, hardness 53-54HRC + nitruration surface coating.

Slide-ends made of tempered steel with full precision grinding, hardness 53-54HRC + surface coating.

Sliders made of tempered steel with full grinding + surface coating.

Mould frame built with all plates made of stainless steel treated « R » 110-115 kg/mm², grade Z35 CD17.

All cavity elements machined to very close tolerances and perfectly interchangeable.

We can manufacture additional spare elements if you so require.

Sophisticated cooling circuits with centralized supplies via large section inlets and outlets.

10. GARANTEES

We guarantee the perfect operation of this mould as well as its shot rate.

The mould shall be tested and tuned at our factory and it shall be commissioned to production shot rate in your presence.

Sample parts and a detailed test report shall be provided.

1 year or 10 million shots except wear parts. This applies of course in case of normal wear, excluding damage caused by incorrect operating or storage conditions, careless mounting, insufficient maintenance or alterations of our design.

Surface coatings are guaranteed for **1 year** except wear or damage by formation of "craters" due to corrosion or injection of either abrasive or corrosive resin.

11. GENERAL TERMS

NOT INCLUDED IN OUR PRICES :

- Material and masterbatch (with transportation charges) required for mould trials
- Temperature controller for hot runner as well as power cables
- Pipes and connectors for the connection of the mould to the injection moulding machine
- Bearing shoes to be supplied by the IMM manufacturer