



CLIENT GNE LIFESCIENCE (P) Ltd, Roorkee
DATE 10-11-2022
SCOPE FORM FILL SEAL (5ml/10ml/20ml/30ml)
OFFER NO. MT/10112022

FORM FILL SEAL MODEL:MS5110D

TECHNO-COMMERCIAL OFFER



To,

GNE LIFESCIENCE PVT LTD, Roorkee.

Subject: Quotation for Form Fill Seal Machine.

Dear Sir,

We thank you for your interest shown in our products, with reference to your valuable enquiry regarding your requirement of Form Fill Seal Machine.

We are pleased to submit our technical and commercial offer for the same.

Hope the same is inline as per your requirement. We have enclosed details on pricing of the said requirements.

In case of any clarifications needed please feel free to contact us for the same.

Thanking you and assuring you of our best attention at all times.

Yours faithfully,

Harjit Singh Hora

Managing Director.

+91 98201 47512

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CONTENT

Sr. No	Item	Page No.
1	INTRODUCTION – MICRO TOOLS	3
2	PROMOTER'S PROFILE	4
3	PRODUCTION DETAILS	5
4	ENVIRONMENT	6
5	BASIC FEATURES AND DETAILS	7
6	ASEPTIC SYSTEM	9
7	GENERAL REQUIREMENTS	10
8	SCOPE OF SUPPLY	11
9	TERMS AND CONDITIONS	13
10	PRODUCT SAMPLE MANUFACTURED ON OUR MACHINE	14

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1. INTRODUCTION – MICRO TOOLS

Over four & half decades of experience, employing 180+ employees, manufacturing at 5 locations, 215+ Machines in market, 19 machines on floor, 75% repeat orders, Micro Tools has become a preferred partner for Large Volume and Small Volume parenteral projects.

Since its inception in 1979, Micro Tools strived to keep on innovating products, start from Extrusion Blow molding to Form-Fill-Seal. Ultimate aim was to make IV affordable.

It is one of the leading Pharmaceutical Machines Manufacturing Company based at Mumbai, the financial capital of India. Micro Tools was established in 1979. It started with manufacturing PET Machines, being the pioneer of PET machine manufacturing in India. After gaining enough experience and touching good heights in Plastic Industry, Micro Tools then went into the field of Extrusion Blow Molding which was the first Step towards making FFS Machines. With immense success in Extrusion Blow Moulding, both linear and rotary, we took up the challenge of making FFS Machines.

In 1999, with an immaculate team and never ending efforts, Micro Tools developed its first FFS machine and hasn't looked back ever since. From being mere explorers in the field to begin with to being the masters. we, as a team have come a long way and have the ability to compete with the major giants. With a quality product and prompt service, we feel confident to provide pharma solutions to utmost satisfaction to clients who either want to enter the IV/WFI Industry or looking for expansion to their already existing setup.

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2. PROMOTER'S PROFILE



Surender Singh Hora (Founder and Chairman – Micro Tools)

47 years of experience in Machine Manufacturing for Plastic Industry.
30 Years of experience in Manufacturing of Pharmaceutical IV Filling Machines. 12 Years back succeeded developing FFS (Form-Fill-Seal).
Founder of Micro Tools, a renowned personality in Indian IV Industry.
Dedicated five decades to achieve excellence in a European domain technology and made it affordable to the Industry.



Harjit Singh Hora (Director – Micro Tools)

When the Second Generation Joined, Micro Tools started spreading footprints in International Market like Ukraine , USA, Algeria, Pakistan, Nigeria, South Africa, Philippines, Malaysia, and many more to come.
With strategic partnerships and Investments, Group is now providing complete project solution including Design, Project Management, other process Equipment's like Sterilizers, Water Systems, Manufacturing Tanks etc.

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3. PRODUCTION DETAILS

- Products: Free Flowing Liquid
- Fill Volumes: 5/10/20/30 ml.
- Mould: Designs and details as per URS.
- Mould Material: AL. Bronze material with SS 304 back plate.
- Product Output / Machine:

5/10 ml Ampoule – 13000-15000 ampoules per hour - 2 mould for 5/10 ml (30-35 cavity each depending on the shape of the container)

Plastic Material: LDPE: - 3020D Basell, LE 6607 Ineos / Borealis, FE 8000, Qatar

Petrochemical BB-120 LG Chem.

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4. ENVIRONMENT

- Room temperature: 23 Degree C (+/- 2°C) (not below 15 Degree C)
- Voltage tolerances - max, $\pm 10 \%$
- Cooling water temperature at full load - max. 12 Degree C



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5. BASIC FEATURES AND DETAILS

- Stable stainless steel welded structure of machine base frame to accommodate the mould filling station, extruder and other assembly components for machine operation. The finishing of the appearance parts is 2B. (Machine MOC is upto the specifications laid down by any FDA)
- Locking unit 2 set with stainless steel 304 construction.
- Central Lubrication with cycle controlled (automatic)
- Vacuum System and allowing WFI (water for injection) through the vacuum system and line for mould cleaning .
- Pneumatics system is supplied through central connection, to use SMC products brand.
- Hydraulic system using directional valve, complete with oil tank, hydraulic pump, high pressure hose, cooling system and valve control system. The equipment brand to be Yuken for valve system.
- Mould Carriage Movement is done by using Servo System from Panasonic with the mould movement unit fit on the rail and guided by servo screw.
- Extruder with Gear Box and Drive AC with variable speed control.
- 5 Parison Head with 110 mm center distance and with 3 points parison control
- Special filling head aseptic design (SS316L)
- Aseptic Time Pressure Dosing device with pneumatic actuated in step for each filling nozzle.
- SIP, CIP, Filter Drying arrangement and control system in PLC (Program Logic Control)

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- Smoke arrester system: Evacuation of particles on the machine for extruder (closed casing complete with v – belt drive with exhaust conduit, air exhaust of all pneumatic valves, air escape of vacuum pump, air exhaust for parison head and hot cutting wire. The blower to be installed at Black Area.
- Filling Chamber constructed with SS304 with class 100 area around filling nozzle. The size of the filling chamber to be designed to achieve better flow.
- Extruder system: Diameter 80 mm with Length / diameter ratio 24:1, complete in respect with gear box, 30 HP motor with variable speed control.
- Interlocks: All covers and gates will be interlocked electrically for safety reasons.
- Control Panel: All the process movements of the mould, blow molding, aseptic valve controlling, SIP, CIP and Filter Drying mode filling parameter setting to be controlled and operated at main control panel. Machine will have filters, which shall be installed after commissioning of the machine.
- Black and White concept (optional): All the mechanical parts such as Hydraulic system, vacuum system, valves bus block, electrical and instrument parts will be located at a different area (black area) while blowing and filling station. (White area) There are exhaust systems located at the blowing station to remove the particle and dissipate heat.
- Temperature Recoding and Data Logger: PT 100 sensor to be used at 4 specified locations based on PnID. The data (temperature reading) able to be transmitted to a printer. PT 100 sensor to be supplied.
- Calibrating Certificate for measuring devices: All the measuring devices (PT100 sensor, pressure transducer) which are part of the aseptic system will be calibrated.

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- Filter Housing: Two (2) systems of Filter Housing complete with pipeline and fittings. (Solution and air). SS 316L construction and internal roughness max 0.4 – 0.6 micron for the housing.

6. ASEPTIC SYSTEM

- Aseptic Valves: Stainless Steel 316L body construction and silicon diaphragm to be used for 2/3- and 1/2-way valve with internal electro polishing. The surface roughness max 0.4 – 0.6 micron. Design for working pressure max 2.5 bar at temperature of 135 Degree C with pure steam media.
- Aseptic Cabinet: All the aseptic equipment (valves, CIP tank collector, steam trap) to be installed in specified cabinet in white area.
- Aseptic Process Sequence: The program selector to allow the following automatic sequences of aseptic valves actuation for the following process:
 - Cleaning In Place (CIP)
 - Steam In Place (SIP)
 - Filter drying.
 - Production.

7. GENERAL REQUIREMENTS

- Size of the Machine (mm) – L X W X H – Layout to be submitted
- Weight of the Machine – 5100 kgs
- Total Connected load on machine – 80 H.P.
- Chilled Water Requirement – 40 lpm @ 12 deg cel
- Cooling Water Requirement – 35 lpm @ room temperature
- Compressed Air Requirement – 6-8 kg/cm² @ 40 cfm
- Vacuum Requirement - 100 cfm



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8. SCOPE OF SUPPLY

Total no of Machines 3 nos = INR 3,75,00,000 inclusive of GST(18%)

- 5 Parison Double Station FFS machine
- 5/10 ml Mould – 1 Set
- Conveyor within the Machine

Exclusions -

1. Air Compressor
2. Chilling Plant
3. Vacuum Pump
4. Cooling Tower and all related accessories have to provided by the customer.

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9. MAJOR COMPONENTS USED ON THE MACHINE

- EXTRUDER – 80 MM DIAMETER. L:D RATIO – 24:1
- GEAR BOX – HELICAL
- HYDRAULIC POWER PACK AND DIRECTIONAL VALVE
CONTROLLER – YUKEN, JAPAN (Made in India)
- SERVO MOTOR AND DRIVE – PANASONIC, JAPAN
- PLC CONTROLLER – ULTRA, INDIA.
- SERVO SCREW, RAIL AND LINEAR MOTION
BEARINGS – HIWIN, TAIWAN
- HYDRAULIC CYLINDER – INDIA
- PROXIMITY SENSOR – TEKNIK, FRANCE
- CONTACTOR AND MCB – SIEMENS / TELEMCHANIQUE
- AUTO LUBRICATION SYSTEM –
- PNEUMATICS – SMC, JAPAN
- MOTOR – HINDUSTAN
- A.C DRIVE – DELTA
- TPD VALVE – MICRO TOOLS
- VACUUM VALVE – SS 316L – MASCON
- SIP VALVES – SS 316L – MASCON
- FILTER HOUSING – SS 316L – INDIAN
- PRODUCT LINE (ALL CONTACT PARTS) – SS 316 L – INDIAN

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10. TERMS AND CONDITIONS

- Delivery Period: 4 Months from the date of confirmation along with advance and confirmed PO.
- Installation and Commissioning by 2 engineers from Micro Tools at the site.
- Boarding / lodging to be arranged and paid by customer.
- Payment Terms

Advance – 40% along with PO at the time of confirmation

50% after FAT before despatch of the machine along with 100% GST

10% ,3 months after successful installation or 6 months after the dispatch whatever is earlier.

- Warranty of Machine and Machine Parts.
 - Warranty Period - One year.

Any defects of the machine or machine parts shall be replaced by manufacturer soonest possible. (Manufacturing defect)

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11.PRODUCT SAMPLE MANUFACTURED ON OUR MACHINE



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