

REQUEST FOR PROPOSAL

Subject: Soymilk Extraction (2000LPH @ 4% protein), Blending, Sterilization (2000lph + 10% with more than 85 % regeneration), Aseptic pouch filling machine + Accessories incl utility

The client is a food processor, based in Zambia. Per the subject, they are interested in competitive quotes, as detailed below from a reputable OEM, and invite you to bid accordingly. The client is a member of the Zambia Association of Manufacturers, and will reach out to you directly, when the tendering process is complete.

Please note the following requirements when preparing and submitting your proposal:

1. All quotations must be submitted on your company letterhead. A supplier signature is required on the RFQ submission document.
2. Please detail all particulars of equipment alongside standard OEM part numbers where applicable
3. Bifurcate the equipment with each cost separately
4. Provide the lead-time for manufacturing and delivery separately
5. Please provide technical drawings, process flow charts and technical specifications of the machines quoted
6. Include in your quote a complete cost for the Supply + Installation & Commissioning + Critical Spare parts
7. Clear indication of utility consumption such as Electricity, Compressed Air, boiler fuel, culinary steam etc. with specifications and associated costs
8. Quotation must state incoterms, and if possible, CIF Zambia
9. Payment terms to be specified, with currency clearly mentioned
 - a. Specification of approximate number of containers and total weight of parts to be shipped should be clearly mentioned
10. If you are not going to provide a quotation basis the requirements outlined for a particular section, please state "No Quote"
11. **The quotations and supporting documentation must be emailed to info@zam.co.zm, no later than 17:00hrs (CAT) 12th June 2021.**

Thank you

Specifications:

- 1) A complete solution to extract soy milk as per the specs below, and produce
 - a. Flavored beverages (including chocolate-based flavors)
 - b. Milkshake like (thick viscosity) beverages
 - c. Soymilk + Juice Blends

<u>Description</u>	<u>Specification</u>
Products Required	Soymilk with the following variants: <ul style="list-style-type: none"> • Sweetened • Unsweetened • Flavoured (Chocolate, Banana, Strawberry) • Milkshake (high viscosity) • + Juice blend
Aseptic Packing SKUs	250ml, 500ml (7 layer-pouches) & 1liter brik
Soyamilk extraction system	
-Soymilk Extraction, Desired Protein%	4% Protein min
-Desired extraction (LPH)	2000LPH
-Belt Conveyer with metal detector with rejection system	1500kl/hr
- Soybean Conveying and Continuous Feed Assembly	1500kgph
- Counter-flow Continuous Bean Rinsing and Hydrating System	700kg/hr+-30%
- Soaked Bean and Water Feed Section	
-Grinder assembly course	
- Grinder Assembly-fine	
- Mass Flow and Density Meter	10klph
- Sanitary Culinary Steam Filter with Steam Trap and Press. Regulator - Steam Injection Continuous Heater st set	
- Continuous Cooker and Divert Assembly, Back Press. Valve 1	

- Decanter Centrifuge	4000lph slurry
- Okara Rewash Assembly	200ltr tank with pedal blender
- Filter Centrifuge	4000lph slurry
- Moist Okara Conveying System(progressive cavity pump)	Suitable for above system
- Sanitary Culinary Steam Filter with Steam Trap and Press. Regulator - Steam Injection Continuous Heater 2	
- Continuous Cooker and Divert Assembly, Back Press. Valve 2nd set	
- Vacuum Flash Deodorizer incl. Condenser to save steam	2000L+20% for extra safety
- Soymilk Chilling Plate Heat Exchanger and Divert Assembly	2000L+20% for extra safety
- Electricals, VFDs, Pneumatic & Instrumentation for Automation	Complete with HMI and level sensors for automation
- Siemens Process Controllers with Touch Screen Displays & Coding	17" screen
- Essential Spare Parts	
-Lobe Pumps or PCP pumps, Valves, Piping, Tubing, Temp., Press. /Sensors Gauges, level sensors Etc. - System Assembly on SS Skids and System Testing at site before dispatch	
-Deodorized Soymilk storage tank-insulated preferable- level indication-digital	10kl
-divert panel	
RO water storage tank with supply centrifugal pump+1 standby with assembly	15kl
-Full CIP Station -double circuit- 4 tank double ckt cip system with Recuperation facility+ supply and return flow plate with 6 self priming pump	1 set

Sugar dissolving section	
-sugar dissolving tank with jet system with load cell	5kl
-sugar jet system with pump with sugar dumping hopper	
-sparkle filter- vertical/ filter press (frame & filter) preferable	
-heating/chilling system for water and sugar	
-hyflow tank 200l	
-sugar storage tank, PUMP with load cell	8kl
-Connecting piping, valve , sensors, gauges etc	
-Working platform	1 set
-Control panel, with vfd, sensors control, power contactors, for sugar system	1 set
-divert panel	
Milk powder dissolving section	
-Milk powder dissolving tank with load cell	3kl
-hopper for milk powder dissolving system with jet	1 set
-filter with heating system	1 set
-Connecting piping, valve , sensors, gauges etc	1set
Working platform	1set
-divert panel	
-Control panel, with vfd, sensors control, power contactors, for sugar system	1 set
Blending section	
-pulp collection tank 200ltr with rotating cip spray	1
Filter 1mm	1 set

-pump to transfer pulp to blending tank	1
Piping and associated valves etc	1 set
-Blending Units set with load cells	3 x 3kL
-High speed mixer-800ltr-centripetal agitator-working cap 500ltr with load cells+ pumps	2 no
Kettle 200 with agitator+ pump	1 set
Filter 1mm	2 set
Control panel for blending –flow meter	
-Interconnection pipe lines, valves etc, sensor,	1 lot
-Divert panel for complete plant	3 set
-working platform	1set
- Connecting piping, valve , sensors, gauges etc	
-Control panel, with vfd, sensors control, power contactors, for sugar system	1 set
Heating system shell & tube	1 set
-divert panel	2 set
Shear pump	1
Aseptic section	
-Aseptic UHT Tubular Sterilizer with Homogenizer, regeneration >85%, I/p temp of product, 5dc +-1 , o/p temp 30dc +-10 with variable speed facility 3klph to 7klph	2klph+10% additional flow
-Aseptic Storage Tanks	15kl
-Pouch filling mc single head for 250ml, 500ml, 1L	Single head
	Double head

Utilities Requirement	Capacity
LT Panel cum mcc with COS	1 lot
Dg set 750kva	1
Ups200kva-only for aseptic load with Exide tubular batteries set with 15 minutes backup, batteries should be tubular type 2 V	1 set
Utility panel	1 set
-Reverse Osmosis Water Plant	10kl/h
-Air Compressor-300CFM	2 SET
-3 level air filtration system	2 SET
-Moisture separator-compressor based	2 SET
Air piping moc ss pipe 304 schedule 10, unfinished	1set
-Boiler (Coal Fired)-APH, WPH, Mech. DUST Collector, bag filter to filter spm< 50ppm , water supply tank, chimney etc	6 TPH
-Chilling Unit-glycol chiller	100tr glycol+1 standby compressor, 50 tr normal chiller+1standby compressor
-Cooling Tower	For above equipments like sterilizer, soya extraction –milk chilling etc and for utility section like dg et, chilling etc
-Water Treatment Plant in LPH	10000lph
-Softener 10klph	1 set
ETP Plant- with input load- BOD-1200ppm, COD-3000ppm and - output spec BOD <30ppm COD<250ppm SS<100ppm Oil&grease<10ppm	250 KLD

-STP	30 KLD
Note: all utility pumps to be provided with 1 standby wherever applicable with valve arrangement	
Services	
-Fabrication charges, welding charges entire plant including sugar section, milk powder section, soymilk storage tank, R.O. tank to all sections	
- electrical work-laying and connecting power cable of following equipment's DG set to LT panel Ups All control panel of plant including utility panel	
Fabrication charges, welding of -air piping from utility to entire plant as per layout, -Water line to ro plant, ro plant to ro storage tank. -chilled water piping, -Steam piping etc with prs-like 3 set for >1000kg/hr flow, 1 set prs for 2000kg/hr flow	
-Installation and commissioning of entire plant	