

SCR 986 - Phase VI - OSRO/IRQ/903/DHA No.2 AGRO-INDUSTRY

Rehabilitation of Erbil Baby-Food Processing Plant - Erbil Governorate

Code	Item Description	Quantity	Unit
<i>ERBIL BABY-FOOD PROCESSING PLANT - Carrot puree preparation line (500 Kg/h)</i>			
01-14-00001	Elevator: Inclined belt conveyor manufactured in food grade synthetic rubber with stainless steel buckets and hopper.	1	Item
01-14-00002	Rotating washer: equipped with showers and rubbing facilities for tubers.	1	Item
01-14-00003	Rotating washer: equipped with showers.	2	Item
01-14-00004	Sorting device for carrot tipping. Equipped with belt conveyor made in appropriate food degree rubber and speed variator.	1	Item
01-14-00005	Abrasion peeling system for tubers and carrots, particularly.	1	Item
01-14-00006	Sorting line for tubers. Equipped with belt conveyor made in appropriate food grade rubber and speed variator.	1	Item
01-14-00007	Bucket elevator: inclined belt conveyor made in food grade synthetic rubber and with stainless steel buckets.	1	Item
01-14-00008	Chopper: suitable to achieve a thin chopping of carrots by means of the combined action of different tools.	1	Item
01-14-00009	Continuous cooker: thermobreak type, suitable for prechopped fruit baby-food products, particularly. Thermomechanic process using direct and/or indirect steam.	1	Item
01-14-00010	120 L tank: made in stainless steel AISI 304. Sloped bottom type, fitted with level regulator for the automatic start up and stop of the service pump	1	Item
01-14-00011	Volumetric pump: manufactured in stainless steel. Positive pump, with stainless steel screw rotor and food grade synthetic rubber stator. Driven by mechanical speed variator.	1	Item
01-14-00012	Pulper: with beaters and sieve to process carrots. Equipped with hopper and screw, washing device, sieve pushing cover.	2	Item
01-14-00013	200 L tank with wheels	4	Item
01-14-00014	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors. Complete with electromechanical programming device suitable for automatic production processes.	1	Item
01-14-00015	Fittings: Accessories, connections, taps, valves, piping, joints, etc. made in stainless steel; working platforms.	1	Set
<i>ERBIL BABY-FOOD PROCESSING PLANT - Additional machine for leafy vegetables (capacity up to 500 Kg/h)</i>			
01-14-00016	Sorting line: for washing vegetables (leaves), with belt conveyor made in PVC. Lateral plans for cut and selection, cleaning system, working table, stairs and footboards.	1	Item
01-14-00017	Drum separator: to discharge wastes and other materials. Equipped with rain washing system.	1	Item
01-14-00018	Washing device: with belt elevator, blower air distribution system, water recycling pump, brushes and showers..	1	Item
01-14-00019	Washing device: like above and complete with steam injector, valves and manual steam regulator with thermometer.	1	Item
01-14-00020	Disk cutter with belt conveyor: to receive the leaves and cut them in order to reduce the volume.	1	Item
01-14-00021	Screw conveyor: to collect the cutted leaves	1	Item
01-14-00022	200 L tank: with wheels	4	Item

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01-14-00023	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors.	1	Item
01-14-00024	Fittings: Accessories, connections, taps, valves, piping, joints, etc. made in stainless steel; working platforms.	1	Set
ERBIL BABY-FOOD PROCESSING PLANT - Meat cooking line (capacity 500 Kg/h)			
01-14-00025	200 L Batch pans on wheels, with earthed up scale	5	Item
01-14-00026	Gravimetric scale: capacity up to 500 KG	1	Item
01-14-00027	Lifter: to lift/tilt the pans into the cooking kettles.	2	Item
01-14-00028	Up to 800 L cooking kettles: fixed type. Equipped with special stirrer for baby-food. Manufactured in stainless steel AISI 304. Fittings and valves.	2	Item
01-14-00029	Water group: automatic dosing group up to 10000L/h	2	Item
01-14-00030	Scaffolding: structure to support processing equipment. Made in stainless steel, aluminium and carbon steel.	1	Set
01-14-00031	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors. Complete with electromechanical programming device suitable for automatic production processes.	1	Item
01-14-00032	Fittings: Accessories, connections, taps, valves, piping, joints, etc. made in stainless steel; working platforms.	1	Set
ERBIL BABY-FOOD PROCESSING PLANT - Mixing line: puree, sugar syrup, micro-nutrients (500 L/h)			
01-14-00033	Pneumatic pumps: to transfer thick and viscous liquids from aseptic aluminium bags to the stocking tank. Made in stainless steel AISI 304.	2	Item
01-14-00034	1000 L mixing tank: made in stainless steel AISI 304. Equipped with: slow eccentric stirrer, level indicator with transparent pipe, all required fittings.	2	Item
01-14-00035	Volumetric pump: manufactured in stainless steel. Positive pump, with stainless steel screw rotor and food grade synthetic rubber stator. Driven by mechanical speed variator.	2	Item
01-14-00036	Water group: automatic dosing group up to 10000L/h	1	Item
01-14-00037	1000 L mixing tank: made in stainless steel AISI 304. Equipped with: slow eccentric stirrer, level indicator with transparent pipe, all required fittings.	1	Item
01-14-00038	Scaffolding: structure to support processing equipment. Made in stainless steel, aluminium and carbon steel.	1	Set
01-14-00039	Volumetric pump: manufactured in stainless steel. Positive pump, with stainless steel screw rotor and food grade synthetic rubber stator. Driven by mechanical speed variator. Filtering group is included.	1	Item
01-14-00040	Dosing preparation group: for baby-food product. Consisting of steril mixing tank fitted with magnetic sensors for presetting the weighing cycle.	1	Item
01-14-00041	Electro-pneumatic valve group: equipped with filter and by-pass to intercept the water flux in order to feed, in appropriate way, the dosing preparation group.	1	Item
01-14-00042	Heating/cooling tank: made in stainless steel AISI 304. Thermoinsulated tank equipped with plate exchanger to heat or cool the product by means of steam or water circulation; cover, eccentric stirrer.	2	Item
01-14-00043	Centrifugal pumps: made in stainless steel 316, coupled with motor.	2	Item
01-14-00044	200 L plastic tank: for mixing purpose.	1	Item

Code	Item Description	Quantity	Unit
01-14-00045	Centrifugal pump: made in stainless steel 316, coupled with motor. Equipped with filtering group.	1	Item
01-14-00046	Hot water preparation system	1	Item
01-14-00047	Heated table: made in stainless steel AISI 304. Equipped with plates for heating/cooling product like butter	1	Item
01-14-00048	Butter fuser: of adequate capacity	1	Item
01-14-00049	200 L tank: with wheels.	2	Item
01-14-00050	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors. Complete with electromechanical programming device suitable for automatic production processes.	1	Item
01-14-00051	Fittings: Accessories, connections, taps, valves, piping, joints, etc. made in stainless steel; working platforms.	1	Set
<i>ERBIL BABY-FOOD PROCESSING PLANT - Mixing Line</i>			
01-14-00052	600 L heated mixing tank: made in stainless steel AISI 304. Equipped with: slow eccentric stirrer, level indicator with transparent pipe, all required fittings.	2	Item
01-14-00053	Volumetric pump: manufactured in stainless steel. Positive pump, with stainless steel screw rotor and food grade synthetic rubber stator. Driven by mechanical speed variator.	2	Item
01-14-00054	Colloidal mill: for fine grinding and homogenizing baby-food product, particularly.	2	Item
01-14-00055	600 L heated mixing tank: made in stainless steel AISI 304. Equipped with: special stirrer for baby-food, level indicator with transparent pipe, all required fittings.	1	Item
01-14-00056	Volumetric pump: manufactured in stainless steel. Positive pump, with stainless steel screw rotor and food grade synthetic rubber stator. Driven by mechanical speed variator.	1	Item
01-14-00057	Deaerator: to eliminate air incorporated into the product by nebulization under vacuum and rotating disk. The aromatic steams are condensed and re-incorporated into the product by a recovery device.	1	Item
01-14-00058	Pre-heater: Heat exchanger with scraped vertical surface for heating/cooling product operations. Equipped with motor and speed variator.	1	Item
01-14-00059	Piping metal detector: to eliminate metallic particules from the product.	1	Item
01-14-00060	Double filtering group	1	Item
01-14-00061	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors. Complete with electromechanical programming device suitable for automatic production processes.	2	Item
01-14-00062	Fittings: Accessories, connections, taps, valves, piping, joints, etc. made in stainless steel; working platforms.	1	Set
<i>ERBIL BABY-FOOD PROCESSING PLANT - Filling Line (new and/or recycled-sterile glass jars: 5000 jars/h of 100 g.)</i>			
01-14-00063	Rotating table: for temporary accumulation of jars to feed filling line.	1	Item
01-14-00064	Belt conveyor: suitable for jars. Adjustable sides and speed variator.	1	Item
01-14-00065	Washer/blower: for recycled/used glass jars. 4 different steps should be provided: pre-washing, washing (hot water with detergent), rinsing (cold water) and final rinsing. Steam instrumentation and fittings. Blower for new jars.	1	Item

Code	Item Description	Quantity	Unit
01-14-00066	Ranging belt conveyor: suitable for jars. Adjustable sides and speed variator.	1	Item
01-14-00067	Inspection device: for the electronic checking of the jars before filling operations. The system should work by means of a camera.	1	Item
01-14-00068	Belt conveyor: suitable for jars. Adjustable sides and speed variator.	1	Item
01-14-00069	Tunnel pre-heater: to heat empty jars in order to avoid thermal choc of glass jars during filling operations. Steam operated.	1	Item
01-14-00070	Volumetric filler: for baby-food. Two filling head for 100 g to 1000 g jars.	1	Item
01-14-00071	Automatic capper: to close jars in a steam vacuum environment. Capacity up to 6000 caps/h. Suitable to close caps type: deep twist-off, regular and medium twist-off, pry-off, press-on, combo plastic-twist and pry-twist. Electronic device to measure vacuum level.	1	Item
01-14-00072	Belt conveyor: suitable for jars. Adjustable sides and speed variator.	1	Item
01-14-00073	Basket loader: semi-automatic loader (for square baskets). Consisting of: conveyor for basket feeding; row pusher; plastic guide to facilitate moving.	1	Item
01-14-00074	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors.	1	Item
01-14-00075	Fittings: Accessories, connections, taps, valves, piping, joints, reducers, bends, tees, manual sanitary valves, pipe holders and support etc. made in stainless steel to connect utilities to the process equipment. Working platforms are also included.	1	Set
<i>ERBIL BABY-FOOD PROCESSING PLANT - Sterilization line</i>			
01-14-00076	Sterilizing autoclave: horizontal type, completely automatic. Designed to cover plant requirements. Micro, mechanical and pressostatic safety devices are required. Equipped with all fittings and accessories, with instruments for temperature/pressure/time recording data including adequate amount of recording paper, and electric-pneumatic control board. Adequate amount of baskets and inserts for the baskets, made in stainless steel, are required.	3	Item
<i>ERBIL BABY-FOOD PROCESSING PLANT - Quarantine line</i>			
01-14-00077	Basket unloader: semi-automatic unit for square baskets. Consisting of: conveyor for layer discharging; pusher; lifting group; motor with speed variator; electric board.	1	Item
01-14-00078	Belt conveyor: suitable for jars. Adjustable sides and speed variator.	1	Item
01-14-00079	Washer/Drier unit: suitable to wash and dry filled jars before labelling. Equipped with thermostat to adjust temperature	1	Item
01-14-00080	Belt conveyor: suitable for jars. Adjustable sides and speed variator. Special device to eliminate jars with insufficient vacuum level.	1	Item
01-14-00081	Belt conveyor: suitable for jars. Adjustable sides and speed variator.	1	Item
01-14-00082	Palletizer: for filled jars. Jars will be palletized for inspection. Capacity more than 6000 jars/h.	1	Item
01-14-00083	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors.	1	Item
01-14-00084	Fittings: Accessories, connections, taps, valves, piping, joints, reducers, bends, tees, manual sanitary valves, pipe holders and support etc. made in stainless steel to connect utilities to the process equipment. Working platforms are also included.	1	Set

Code	Item Description	Quantity	Unit
<i>ERBIL BABY-FOOD PROCESSING PLANT - Final packaging line</i>			
01-14-00085	Depalletizer: for inspected filled jars. Capacity more than 6000 jars/h.	1	Item
01-14-00086	Belt conveyor: suitable for jars. Adjustable sides and speed variator. Special device to eliminate jars with insufficient vacuum level.	1	Item
01-14-00087	Belt conveyor: suitable for jars. Adjustable sides and speed variator.	1	Item
01-14-00088	Labelling machine: automatic machine equipped with fix store, cold glue. Wrapping body label on cylindrical glass containers of 100 g.	1	Item
01-14-00089	Ink jet coding machine: one head	1	Item
01-14-00090	Sleever: equipped with unroller of simple reel; retracting tunnel with automatic and pneumatic raising. Including consumable material for sleever for one year of operation.	1	Set
01-14-00091	Belt conveyor: for cartoning	1	Item
01-14-00092	Roller: Non motorized roller system	1	Item
01-14-00093	Rotating table: for temporary accumulation of jars.	1	Item
01-14-00094	Electric control board: made in stainless steel and including main automatic switch, on/off switches, warning lights, automatic overload cutout to protect the motors.	1	Item
01-14-00095	Fittings: Accessories, connections, taps, valves, piping, joints, reducers, bends, tees, manual sanitary valves, pipe holders and support etc. made in stainless steel to connect utilities to the process equipment. Working platforms are also included.	1	Set
<i>ERBIL BABY-FOOD PROCESSING PLANT - C.I.P. Washing system</i>			
01-14-00096	CIP station: Cleaning-in-place station suitable to wash by means of hot basic detergent (75°C), hot acid detergent (60°C) and to rinse by means of water with economizer. Equipped with two thermo-insulated mixing tanks; water economizing tank; pressure pump; system to heat basic and acid detergent, adjust its concentration and recover the detergent; distribution pneumatic valves operated by programmer; electric control board with synoptic display.	1	Item
01-14-00097	Centrifugal pump: coupled with electric motor. Made in stainless steel AISI 316	5	Item
01-14-00098	Hydrocleaner: movable group working with hot water (170 bar up to 85°C) or steam (50 bar up to 150°C). Equipped with pressure pump, burner, spraying gun and pipe.	2	Item
01-14-00099	Fittings: Accessories, connections, taps, valves, piping, joints, reducers, bends, tees, manual sanitary valves, pipe holders and support etc. made in stainless steel to connect utilities to the process equipment.	1	Set
<i>ERBIL BABY-FOOD PROCESSING PLANT - Miscellaneous equipment and material</i>			
01-14-00100	Twenty tons weighbridge: supplied with recorded weighting card for gross weight and empty truck.	1	Item
01-14-00101	Floor scale: to weigh raw material, ingredients and finished products. Capacity Kg 1000, division 500 g.	3	Item
01-14-00102	Scale to weigh ingredients: capacity 100, division 500 g	1	Item
01-14-00103	Trans-pallet: Hydraulic, manually operated, portable trolley to lift, move and shift up to 1.5 ton load on pallets. Manufactured with two fixed and one swivel wheel, hydraulic pump, oil.	2	Unit
01-14-00104	Fork lift: battery operated truck to move/shift/lift three tons of palletized load and to stack the pallets at 3.2 m (4 height). Short turn in radius type. Equipped with double set of battery and battery re-charger.	1	Item

Code	Item Description	Quantity	Unit
01-14-00105	Mechanical tool box with: pliers, pincers, hammers, hacksaw, spanners (ring and open), adjustable wrenches, vice, screw drivers, torque wrench, hole punch, gasket cutter, flaring tools, grease guns.	2	Set
01-14-00106	Electrical tool box with: pliers, screw drivers, pulley, gloves, voltmeter, ammeter, tong tester, lamp tester, fuse coil, connectors, lugs terminals, hacksaw, portable drilling machine.	2	Set
01-14-00107	Plumber tool box with: wrenches, BSP dies, tools from 12 to 100 mm, gasket cutter, pipe cutter, hacksaw, pipe chain, vice, Teflon tape.	2	Set
01-14-00108	Office furniture and equipment: Desk, chairs, cabinet, calculator, photocopier, fax machine, stationary, etc..	1	Set
01-14-00109	Administrative and marketing data processing equipment: Computer type Pentium II equipped with accumulator/stabilizer, printer and adequate programs.	1	Set
01-14-00110	Detergent: Adequate amount of detergent for, CIP station, sanitary movable machine, and in particular: acidic disinfectant based on hydrogen peroxide and parasitic acid (P3-oxonia active 30); acidic disinfectant based on inorganic acid-phosphoric- and inhibitors of corrosion (P3-PE4 special A); detergent based on caustic alkalis, special polyphosphates and organic sequestrates (P3-super CS); and as well specific detergent required for baby food equipment and materials.	1	Set
01-14-00111	Glue: Adequate amount of glue for carton (packing) and labels.	400	Kg.
01-14-00112	Seasoned wooden pallets: for mechanical handling of cartons, raw material crates and finished products.	300	Unit
01-14-00113	Packaging material: 100 g glass jars with lids (two colors).	3,000	1,000 pack
01-14-00114	Packaging material: labels for several products	3,000	1,000 pack
01-14-00115	Micro-nutrients: starch	2,000	Kg.
01-14-00116	Micro-nutrients: citric acid	1,000	Kg.
01-14-00117	Micro-nutrients: L-ascorbic acid	1,000	Kg.
01-14-00118	Micro-nutrients: Poly-vitaminic compound	250	Kg.
01-14-00119	Cartons: of adequate size to pack 80 to 100 jars (in two layers), with separator.	10,000	Unit
01-14-00120	Polyethylene wrapping material: for pallets	2,000	Rolls
ERBIL BABY-FOOD PROCESSING PLANT - Laboratory			
01-14-00121	Equipment: No. 4 s.s. Refractometers from 0 to 35 and from 40 to 80 B; No.1 s.s. Refracolor refractometer 0 to 50; No. 1 Unireflex refractometer; No. 1 Reflexometer; No.1 essential oil distiller; No.1 glass miniconcentrator complete Rotavapor; No.1 analytical electronic scale, 80 g capacity and with a sensitivity of 1/tenth of mmg, digital reading; No.1 table centrifuge up to 5300 rpm, and equipped with 24 test-tubes of 10 cc each; No.1 Bricktester for testing cardboard seal; No.2 hand vacuum-meters for testing cans; No.1 can tester for testing seaming; No.1 jar tester for testing caps sealing; No. 1 table pH-meter, with microprocessor for measuring pH, mV and temperature. Standard scale display; No.1 thermostatic stove; No.1 consistometer; No.1 magnetic mixer with heating plate, speed regulator and magnetic anchor; No.1 "Aercontrol" for oxygen residue determination, No. 1 SO2 analyzer, No.1 complete Kit for bacteriological analyses, No. 1 distilled water generator; No.1 glass and material sterilizer.	1	Set

Code	Item Description	Quantity	Unit
01-14-00122	Glass: No. 1 glass kit complete of: No. 10 glasses, No. 5 flasks, No. 4 graduated cylinders, Burettes all in Pyrex, No. 1 Bunsen, No. 1 set of Pasteur pipettes, No. 1 set of graduated pipettes, No. 2 funnels, No. 2 parafilm, No. 2 thermometers, No. 2 set of required glasses for bacteriological analysis.	1	Set
01-14-00123	Chemicals: all required chemicals to conduct the analysis for two years.	1	Set
<i>ERBIL BABY-FOOD PROCESSING PLANT - Utilities system</i>			
01-14-00124	Electric power generation: complete diesel air cooled generator unit with automatic change over system in case of main power failure. Pumps, piping, valves, joints, breaker, reservoir, fittings are included. Capacity of 1.5 time plant requirements, but not less than 500 KVA.	1	Set
01-14-00125	Electrical power distribution: including transformer to step down voltage to 410-420; main distribution board with incoming and outgoing Switch Fuse Unit to individual plant sub-boards and to lighting etc, as well as all other non-plant power consumption points; electric wiring to all process equipment and non-plant power consumption points. Capacitors for power factor improvement.	1	Set
01-14-00126	Compressed air system: including 2 Nos. 75% capacity single/double stage reciprocating air compressors, oil-free/moisture-free; No. 1 high pressure receiver of adequate pressure and volume capacity; distribution material with piping, valves, drum oil traps, gauges, etc..	1	Set
01-14-00127	Steam generation and distribution: complete furnace steam generation/distribution and control system, using regular highway Diesel as fuel. Capacity of 4,000 Tons/h, 10 bar. Fire tube steam boiler with horizontal body, valves, regulation and control panel, safety devices, electric control panel, water feeding group with tank of adequate capacity. The supply will include: heavy oil burner, water softening treatment, single wall chimney in stainless steel, steam manifold and distribution network, condensate recovery system.	1	Set
01-14-00128	Cooling tower system : including blowers , supports, pumps, piping, joints and all required fittings adequate to recycle (150 m ³ /h).	1	Set
01-14-00129	Potable water preparation group: for water processing utilization. A treatment cycle should include at least: a first rough filtration, a second one with activated carbon and a final clarification. Capacity 500 L/h.	1	Set
01-14-00130	Water /steam mixing group: equipped with nozzle and complete of all accessories. Working temperature of the water 20 to 70 °C.	2	Set
<i>BABY FOOD PROCESSING PLANT - Spare parts</i>			
01-14-00131	Spare parts: According to the experience of the equipment manufacturer, required spare parts will be provided. Reference is made to processing equipment, laboratory, utilities system and miscellaneous equipment.	1	Lot