

TECHNICAL SPECIFICATIONS

FOR PLASTIC SHEETS RECOVERY EQUIPMENT (BRAND NEW) AND RELATED SERVICES

UNHCR in Lebanon is requiring the supply and delivery of recycling machines for an extrusion line to produce new materials from plastic waste products.

- Capacity: The extrusion line will have a capacity of 50 to 200 kg/h to transform all types of common municipal plastic.
- Type of material to be processed: All types of common municipal plastic waste in a variety of materials such HDPE, LLDPE, PP, ABS, HIPS, Nylon, PC, PET into a plastic profile.
- Power requirements: 380V, 50Hz, three-phase power.
- Size area: 400m²

The required equipment is composed of:

No. 1: Shredder

Characteristic	Product description
General design requirements	<ul style="list-style-type: none"> • Cutting plastic sheets into small pellets. • Enclosed cutting chamber to prevent plastic waste for wet processing of the grinding. • Heavy duty type rack, hydraulic drive for hopper opening. Easy for blades maintain. • Knives are externally adjustable; easy to open screen cradle. • Size of shredded plastics 0.6-2.36 mm
Hard plastic capacity output	100-150Kg/Hour
Soft plastic capacity output	100-150Kg/Hour
Type of materials	All types of common municipal plastic waste in a variety of materials such HDPE, LLDPE, PP, ABS, HIPS, Nylon, PC, PET into a plastic profile
Warranty	Minimum 12 Months

No. 2: Washing Line:

A- Washing Tank

Characteristic	Product description
General design requirements	<ul style="list-style-type: none"> • The equipment shall be able to clean shredded plastic by removing contaminants and labels. • Water treatment: equipped with a water filtration and recirculation system
Capacity	All the line should have a capacity of 100-150kg/h
Water treatment	<ul style="list-style-type: none"> • Equipped with a water filtration and recirculation system • Discharge valve at bottom, easy to clean
Type of materials	All types of common municipal plastic waste in a variety of materials such HDPE, LLDPE, PP, ABS, HIPS, Nylon, PC, PET into a plastic profile
Warranty	Minimum 12 Months

B - Dryer

Characteristic	Product description
General design requirements	<ul style="list-style-type: none"> The equipment shall be able to dry cleaned plastic. Multi-purpose unit, shall wash the remaining surface contaminants from material and simultaneously dry the fil scraps. Washer/dryer housing built in stainless steel welded construction. Reinforces, mild circular screen size 02.8mm in polygon 4 pieces version for higher washing/drying effect. Screen can be easily exchanged.
Capacity	all the line have a capacity of 100-150kg/h
Type of materials	All types of common municipal plastic waste in a variety of materials such HDPE, LLDPE, PP, ABS, HIPS, Nylon, PC, PET into a plastic profile
Warranty	Minimum 12 Months

No. 3: Extruder

Characteristic	Product description
General design requirements	Single crew extruder, optimized for recycled materials.
Screw design	Features a 24:1 length-to-diameter ratio with a variable compression ratio for different types of plastics.
Capacity	Up to 100 kg/h
Temperature control	Multiple heating zones with precise temperature controls to ensure uniform melting.
Type of materials	All types of common municipal plastic waste in a variety of materials such HDPE, LLDPE, PP, ABS, HIPS, Nylon, PC, PET into a plastic profile
Warranty	Minimum 12 Months

No. 4: Compactor

Characteristic	Product description
General design requirements	Type: Vertical trash compactor Compression Force: minimum to 50 kn
Warranty	Minimum 12 Months

No. 5: General Requirements

Services	Description	Bidder confirmation (Yes / No)
Installation, Maintenance, and warranty requirements	On-site installation and commissioning.	
	Availability of maintenance and repairs services	

	List of sources for purchasing spare parts	
	All machines should have a warranty duration of 12 months for the date of commissioning.	
	All documentations, including catalogues, instructions, and operating manuals	
	List of required spare parts for a duration of 12 months with their prices	
Delivery terms, lead time and payment terms.	Delivered At Place (DAP), Zgharta, North Lebanon	
	Latest delivery date is by 30 September 2024	
	100% payment will be by bank transfer to the Supplier's account after delivery, installation, commissioning and acceptance of goods by UNHCR.	

No. 6: General Related Services:

Installation, commissioning, and training	For each offered product, installation, commissioning and training is required for smooth operation. Kindly describe your approach and project plan for the offered products.
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End of Requirements