



AGJ APRÍTÓGÉPGYÁR Kft.

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I. Scope of undertaking:

Preparation of technological, mechanical and electrical licensing/implementation design documentation specified in the „main chapters” below (architectural data supply with geometric and load data); contribution in licensing procedures, mechanical and electrical purchasing and production; on-site mechanical and electrical fitting work; commissioning; participation in trial operation.

II. Sales price and specification of main equipment:

II/1. Shredder plant unit:

II/1.1 Starting basic data

Material to be processed: PET bottles selectively collected from commercial and communal waste, without pressing

Quantity to be processed: 200 m³/day ~ 5 tons/day

II/1.2 Product line output:

Output of sorting line and shredder: 250-300 kg/hour

Mass of total machinery and equipment: 7,600 kg

Built-in electrical power: cca. 68 kW

Space needed: min. 25x5x5 m

II/1.3 Major machinery and equipment:

- reception hopper 3-4 m³ 1 pc

- sorting belt 1 pc

belt length: 15 m

belt width 1,000mm

belt speed: 0.1 – 0.5 m/sec

- metal detector 1 pc

- knife shredder 1 pc

usable bottle size: cca. 300 mm

mouth opening: 800x600

size of chippings: 0 – 14 mm

- double big-bag stand

- manual chute with shifter

- electrical power transmission and control

Sales price, informative: 130,000 EUR/production line



Picture 1: Wet shredder with knives, output 1-4 t/h

Optional:

- Plastic cap shredder 13,000 EUR/pc
 - 100 kg/h output
 - electrical power 5.5 kW
 - mass of machine: 210 kg
 - mouth opening: 170x190
 - size of chippings: 3-5 mm
 -
- Bale opener equipment 73,850 EUR/pc
(in case of pressed bottles)
 - mass of machine: 5,900 kg
 - overall dimensions: 2540x6110x1900 mm
 - opener cylinder diameter: 1,200 mm
 - rotation: 5-10 1/min
 - electrical power: 7.5 kW

II/2. Washing line:

II/2.1 Starting basic data:

- Cleaning of PET transported from selection place, sorted and shredded
 - Material loaded: PET 0- 14 mm
 - Output: 600 – 1,000 kg/hour
(depending on pollution)

II/2.2 End-product:

- Washed and cleaned PET chips
- Moisture content: 1.5%
- End-product output: 500-850 kg/hour
(depending on pollution)

II/2.3 Main parameters of production line:

- Mass of total machinery/equipment: 63,520 kg
- Built-in electrical power: 380 kW
- Space needed: cca. 8x30x6 m

II/2.4 Major machinery and equipment:

- single big-bag stand, 1 pc
with a lower funnel
- screw conveyor: 7 pcs
- screw diameter: 200 mm

	3		
<input type="checkbox"/> screw length:	4 m		
- screw conveyor:			7 pcs
<input type="checkbox"/> screw diameter:	200 mm		
<input type="checkbox"/> screw length:	1,5 m		
<input type="checkbox"/> screw rotation:	7-40 l/min		
- metal selector:			2 pcs
<input type="checkbox"/> start of line			
<input type="checkbox"/> end of line			
- flotation tank, with output screw			3 pcs
<input type="checkbox"/> Size:	7000x1000x2500 mm		
<input type="checkbox"/> Screw diameter:	200 mm		
<input type="checkbox"/> Screw rotation:	7- 40 l/min		
- continuously operated centrifuge:			5 pcs
<input type="checkbox"/> rotor diameter:	800 mm		
<input type="checkbox"/> rotor rotation:	900 l/min		
<input type="checkbox"/> sieve perforation:	2.5		
- intensive washer :			2 pcs
<input type="checkbox"/> rotor diameter:	800 mm		
<input type="checkbox"/> rotor rotation:	20 – 90 l/min		
<input type="checkbox"/> wash water temperature:	95 C°		
- vibro sieve equipment:			6 pcs
- centrifugal pump:			6 pcs
- collecting tank:			2 pcs
- depositing box:			3 pcs
- heat exchanger unit:			2 pcs
- chemical feeder pump:			3 pcs
- steel structures, control pedestals:			1 set
- double big-bag stand, (incl. chute with shifter)			1 pcs
- pipelines, chutes, fittings:			1 set
- electric transmission and control:			1 set

It is practical to be operated in a continuous, 24 hours shift

SALES PRICE, INFORMATIVE: 851,920 EUR/production line



Picture 2: Washery with output 1 t/h. Under construction



Picture 3: Washery with output 1 t/h. Under trial operation

Optional:

Optical, electro-pneumatic equipment for color sorting,
to remove PVC and colored pollutants 176,920 EUR/pc

II/3. Dryer and pre-crystallization equipment

II/3.1. Starting basic data

- Preparation of PET, coming from the washing line and stored in the bib-bag,
for further processing

- Loaded material:

- washed and cleaned PET 1,000 kg/hour
- particle size: diameter 3-14 mm
- moisture content: 1.5 %

II/3.1.2 End-product:

- dried and pre-crystallized PET 1,000 kg/hour
- moisture content: 50 – 100 PPM

II/3.1.3 Description of major machinery and equipment:

Fluidizing drier unit 1 set
with gas-heated calorifier,
silica gel drier, ventilator,
pipelines and fittings,
instruments,
insulated 16 m³-es container,
attachable big-bag emptier, hopper,
and with electric transmission and control unit

- Mass: 6,000 kg
- Thermal efficiency: 100 kW
- Electrical power: 10 kW
- Space needed: cca. 50 m², 12 m high

Continuously operated equipment! In case of prolonged stoppage, if there is still some PET left in the container, dosing is permitted to begin in a minimum of 16 hours from the startup.

Sales price, informative: 185,940 EUR/pc

II/4. **CO-EXTRUDER equipment** to produce granulate and/or 3-layered A-B-A foils

Recommended supplier: Battenfeld GmbH

For this performance, a set of a granulator and a foil drawing machine (output 500-500 kg/h)
is offered

Sales price: cca. **1,750,000 EUR/set**



Picture 4: Co-extruder

II/5. 24 m³ vacuum crystallization equipment

II/5.1 The task of the equipment is to change – as a result of heat and vacuum – the mechanical and chemical properties of the PET granulate, through the modification of PET lattice structure, and to remove aromas and pollutants diffused into the material, thus to produce a full value granulate, which is equivalent to the original PET and reusable for food industry purposes.

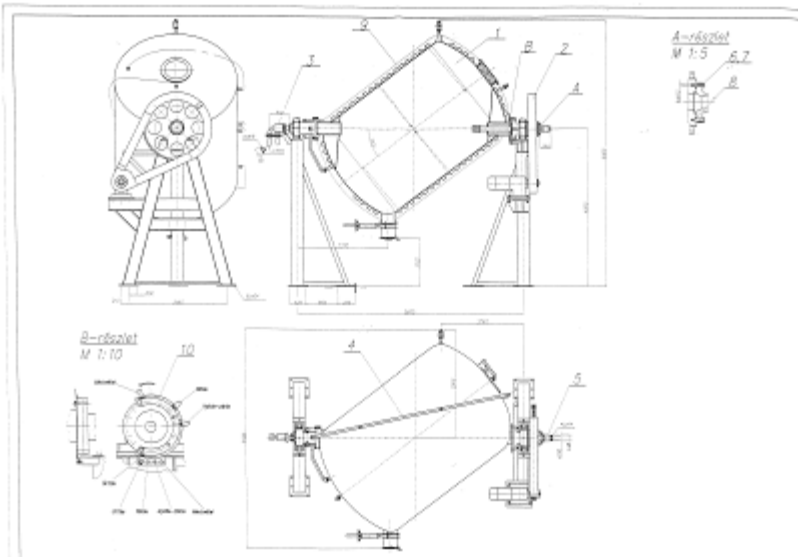
II/5.2. Main dimensions of machinery/equipment:

- total weight: 25,630 kg
- thermal efficiency: 500 kW
- electr. energy demand: 20 kW
- space needed: 100 m², 8 m high room

II/5.3. Major machinery and equipment:

- big-bag emptier stand with hopper
 - ventilator, pipeline, cyclone, filling tube
 - mixer, crystallization container, half-pipe with heating coils, insulation, stand and drive
 - two-way rotary joint for oil and vacuum
 - thermal boiler
 - vacuum system
 - electrical equipment with industrial PC
 - emptying hopper, output screw
- Maximum load is 12,000 kg, cycle time 24 hours

SALES PRICE, INFORMATIVE: 607,100 EUR/set



Picture 5: Vacuum crystallization equipment, general arrangement drawing



Picture 6: Vacuum crystallization equipment, installation



Picture 7: Vacuum crystallization equipment in operation



Picture 8: Vacuum crystallization equipment in production

III. Delivery deadlines: Calculated from the date of order

III/1.	Sorter and shredder plant	4 months
III/2	Washery	4 months
III/3	Dryer/pre-crystallization equipment	3 months
III/4	To be discussed with Battenfeld GmbH	
III/5	Vacuum crystallization equipment	6 months