

**Quotation: 8901**

**Date: 08:26**

**Material:** PET bottles in pressed form, up to 2 litre bottles, packing bands must be removed and the bales must be broken up manually prior to the feeding the material into the granulator.

**Capacity: input approx.** 500 kg/h. with sharp knives.

**Contamination level:** 15 % by weight including paper and PP labels.

**Final flake size:** < 12 mm

**Final surface moisture:** approx. 1- 3% by weight

**Electric current:** 3 x 400 V, 50 Hz; control current 220 V, 50 Hz

**Delivery limit:** Pertains to the components indicated in the quote only.  
Connecting points for the fresh water, service air and discharging nozzles for the drain should be located near the unit.  
The cables between the E-box and individual motors or signal transmitter are excluded.

**System comprises:**

Item	1	1 Inclined conveyor belt,	
Item	2	1 Metal detector	
Item	3	1 GSH 600/800 wet granulator,	
Item	4	1 Elevated frame for granulator	
Item	5	1 Friction washer type VW 500/300	
Item	6	1 Heat generating intensive hot wash unit type LW 500	
Item	7	1 Electric PH value control unit	
Item	8	1 Caustic recirculation system	
Item	9	1 Friction washer type VW 50/200	
Item	10	1 Separation tank	
Item	11	1 Multifunctional washer/ dryer type MFG 35/450	
Item	12	1 Material transport system	
Item	13	1 Cascade sifter	
Item	14	1 Material transport system type MFT 30/300 for light fraction	
Item	15	1 Material transport system type MFT 35/450 for heavy fraction	
Item	16	1 Electrical control cabinet,	
Item	17	1 Planning, installation, training	
Item	18	1 Water treatment system	<b>Option</b>

**Technical details and explanation of the individual components:**

- Item 1 1 Inclined conveyor belt**  
for feeding the material into the granulator
- |        |         |       |    |
|--------|---------|-------|----|
| length | approx. | 10000 | mm |
| width  |         | 700   | mm |
| drive  |         | 2,2   | kW |
- built in heavy duty version with side walls.  
- with metal free zone for installation of the following metal separator.
- Item 2 1 Metal detector bridge**  
for detecting of metallic contamination for protecting of the following granulator and friction washer. In case of the metal detecting, the belt will stop and reverse approx. 1000 mm. The operator has to pick up the metallic part and reset the belt.
- |        |  |      |    |
|--------|--|------|----|
| width  |  | 1000 | mm |
| height |  | 600  | mm |
- Item 3 1 GSH 600/800 wet granulator**  
for size reduction of the specified material
- technical features:
- |                             |         |           |      |
|-----------------------------|---------|-----------|------|
| Feed opening                | approx. | 636 X 590 | mm   |
| Rotor diameter              |         | 500       | mm   |
| Rotor width                 |         | 600       | mm   |
| Screen size                 | Ø       | 12        | mm   |
| Number of the rotor knives  |         | 5 X 2     | rows |
| Number of the stator knives |         | 2 + 1     | rows |
| Drive                       |         | 45        | kW   |

Consisting of:

**Hopper;** Special design hopper for conveyor belt feeding with curtains to prevent fly back. Hopper can be lifted together with the hinged upper housing part. **Stainless steel**

**discharge trough for discharge to friction washer. Hopper equipped with water injection manifold.** The rotor is easy accessible for maintenance and cleaning.

**Rotor;** Half closed heavy duty paddle type rotor in welded steel construction with 9 staggered rotating knives angled. Extended rotor shaft for mounting of extra flywheel. Bearings with external outboard steel bearing housings.

**Rotor bearings;** Bearings with external outboard steel bearing housings.

**Housing design;** Centrally hinged two piece welded steel construction, creating a "clam shell" design. **Housing equipped with milled grooves and sealed to prevent water leakage.**

**Upper housing access;** The upper housing is easily opened by means of winch assembly.

This allows for quick access during knife replacement or screen removal.

**Screen; Wear resistant, reversible and replaceable screen;** The screen is located over the rotor for easy access.

**Base frame;** The granulator, complete with the drive motor (on tension rails) with pulleys and V - belt casing is mounted on a flat frame. The frame is supplied with anti-vibration pads.

**Pulleys;** Oversized to cope with peak loads that may occur. The granulator pulley is designed as a solid fly wheel. An optional auxiliary flywheel can be installed on the non-driven side for additional inertia.

**Main drive;** AC - motor 45 kW three phase motor, type B3, protection IP 54, 400 V, 50 Hz, 1500 rpm, heavy duty bearings.

**Safety devices;** integrated run down safety devices prevent access to the unit until the rotor has reached a stand still.

- Item 4 1 Elevated frame for the granulator.**  
Elevated frame with steps and railing for the installation of the friction washer under the wet granulator
- Item 5 1 Friction washer type VW 500/300**  
for cleaning of the wet materials.
- |                |      |    |
|----------------|------|----|
| Rotor diameter | 500  | mm |
| Rotor length   | 3000 | mm |
| Drive          | 22   | kW |
- Comprising of:
- high speed special rotor, built in stainless steel
  - stainless screen with 2 - 3 mm. hole size,
  - screen surface cleaning device by water spray nozzles,
- Item 6 1 Heat generating intensive hot wash unit type LW-1000**  
Continuous hot wash system.  
Force in-feed screw,  
Rotating friction chamber upper area,  
Drag-overload protector,  
8 x vertical turbo agitators,  
Discharge screw,  
Housing with mounting frame,  
Built in 1.4301 stainless steel.
- Item 7 1 Electric PH value control unit**  
System type Micro-Siemens
- Item 8 1 Caustic recirculation system**  
Liquid collection piping,  
Mixing chamber,  
Circulation pump,  
Piping,  
Vibration screener,  
Collection tank,  
Return pump,  
Heating register,  
Temperature sensors and control,  
NaOH dosage pump,  
Built in 1.4301 stainless steel.
- Item 9 1 Friction washer type VW 500/200**  
for cleaning of the wet materials.

Rotor diameter	500	mm
Rotor length	2000	mm
Drive	15	kW

Comprising of:

- high speed special rotor, built in stainless steel
- stainless screen with 2 - 3 mm. hole size,
- screen surface cleaning device by water spray nozzles,

**Item 10 1 Separation tank type ST 50/100**  
for separating of the contaminants or other plastics with gravity  
< 1 g/cm<sup>3</sup> from PET - flakes

width	1200	mm
length	1700	mm
height	2500	mm

Comprising for tank:

- 2 paddles assembly for material transport
- 1 discharging screw for PE/PP-particles, installed on top of the separation tank,
- 1 collecting and discharging screw for PET-flakes, installed at the bottom of the separation tank,
- built in stainless steel,

**Item 11 1 Multifunctional washer/ dryer type MFG 35/450**

this multi-purpose unit will wash the remaining surface contaminants from the material intensively and simultaneously dry the plastic flakes. After material processing the flakes through this unit, the water solvent surface contamination will be washed out.

Subsequently the flakes will be centrifugally spun and dried.

Screen diameter	approx.	500	mm
Length	approx.	2000	mm
Drive		18,5	kW
Speed	approx.	1500	rpm

**Item 12 1 Material transport system type MFG 35/450**

for discharging of the material from mechanical dryer with suction blower and transport of the material to the cascade sifter with material blower 7,5 kW drive motor, piping and cyclone with frame.

Air capacity	35	m <sup>3</sup> /min
Pressure	450	mm

**Item 13 1 Cascade sifter type CCS 3000**

Consisting of:

Cascade chamber 3000 x 600 x 350 mm.,  
Material in-feed cyclone with exhaust filter hood,  
Air regulation valves,

**Item 14 1 Material transport system type MFT 30/300 for PES light fraction**

for discharging of the residual labels or fine particles.

This comprises a material blower with 4,0 kW drive motor, 150 mm diam. connection piping, cyclone separator with filter hood and hanging filter bags, mounting frame for dual bagging discharge with manual diverter valve.

**Item 15 1 Material transport system type MFT 35/450 for PET flake heavy fraction**  
for discharging of the heavy fraction.

This comprises a material blower with 7,5 kW drive motor, 200 mm diam. connection piping, cyclone separator with filter hood and hanging filter bags, mounting frame for discharge to dual big bag station.

**Item 16 1 Electric control cabinet**

for electrical controlling of the entire system. All electrical units mounted in a steel cabinet. Switches are equipped with star delta protection; press button switches with light indicators, lockable main switch, wired to a terminal strip, all fuses included. Designed in accordance with the valid VDE safety requirements 400 V, 50 Hz and control current 220 V, 50 HZ.

Wiring to the individual components of the line belong to our delivery volume.

**Item 17 Planning, installation, training of personal.**

for supporting and interconnection of the individual components of the system to ensure material, water, drain flow of the entire system.

1 engineer for total 10 working hours for the following services:

- preparation and supply of the system layout according to the customers specifications,
- preparation of the electrical wiring of the entire system including cable list,
- preparation of fresh and drain water drawings,
- supporting of the customer in technical issues,
- preparation of the electrical wiring of the entire system including cable list,
- preparation of fresh and drain water drawings,
- 1 mechanical and electrical engineer for supervising of the mechanical installation for 5 days, 10 h /day

Assembling crew and installation material will be supplied by the customer according to the requirements from supplier.

**Item 18 1 Water treatment system Option**

Contaminated water cleaning system with disk filter AQUAFILTER and slurry compactor (screw and oleo dynamic)

-for contaminated 4 water mechanical cleaning

**The concept:**

the contaminated water is collected into a circular pit (2-3 m<sup>3</sup> volume- NOT part of the delivery)

The contaminated water in the collection pit is continuously agitated with a rotational paddle system (part of delivery)

With the assistance of a special slurry pump (Item Nr.2), the contaminated water is transferred from the pit into the screening machine AQUAFILTER, where the water is continuously filtrated; (item Nr.1)

Filtered water shall be released into settling tank or pit, slurry will be automatically dropped into the filter press (item nr.3); compacted mud will be self-released into a container located below the press-easy for removal/discarded

Consisting of;

**Item 1. Aquafilter**

Technical Data

capacity: 45 m<sup>3</sup>/hr

(Delivery capacity are reference to meshe opening of 200 micron and over clean waters)

stainless steel filtering panels: 200 µm

motor power: 0.37 kW

**Item 2. Submersible Pump for 400 LPM (24 m<sup>3</sup>/h) @7 MT kw 1.5**

Pump suitable for lifting mud, slurry and sand and bentonite mixtures.

**Item 3. 1 Screw compactor type TK280L**

with Diameter of screw 280 mm, total length 2200 mm kW 1.5

Components:

Trough in AISI 304 stainless steel

Screw in thick high quality steel

Compression door in AISI 304 stainless steel with an adjustable pressure spring

Spraying nozzles ramps in the final side of trough

**Item 4. 1 Electrical control panel**

Complete control panel for the water treatment system.

<b>Following is not included in this quote:</b>
---

- chemicals physical water treatment
- sound enclosure,
- assembling material,
- construction works such as drain channel, pit and foundation.

**Prices;** machinery price are ex works, excluding packing, transport, insurance or taxes.

**Delivery;** 4 – 5 months after receipt of your signed contract, down payment and clarification of all technical and commercial details.

**Warranty;** 12 Months from commissioning, but no later than 15 months after delivery. Normal wear and tear parts such as V-belts, cutters etc. are excluded.

**Payment;** Payment is net without any reductions.

50% down payment and receipt of signed order confirmation,  
45 % at notice ready for delivery, 5% after startup and commissioning no later than 30  
days after delivery.

We trust, our quote includes all your required information and please feel free to contact us if you have  
any questions regarding the quoted system.