

# RECYCLING MACHINERY CATALOGUE STATIONARY MACHINES



## STATIONARY SHREDDERS



## HYDRAULIC PRESSES



## CONVEYOR BELTS



## TROMMEL SCREENS





## RECYCLING MACHINERY LINE

## STATIONARY MACHINERY

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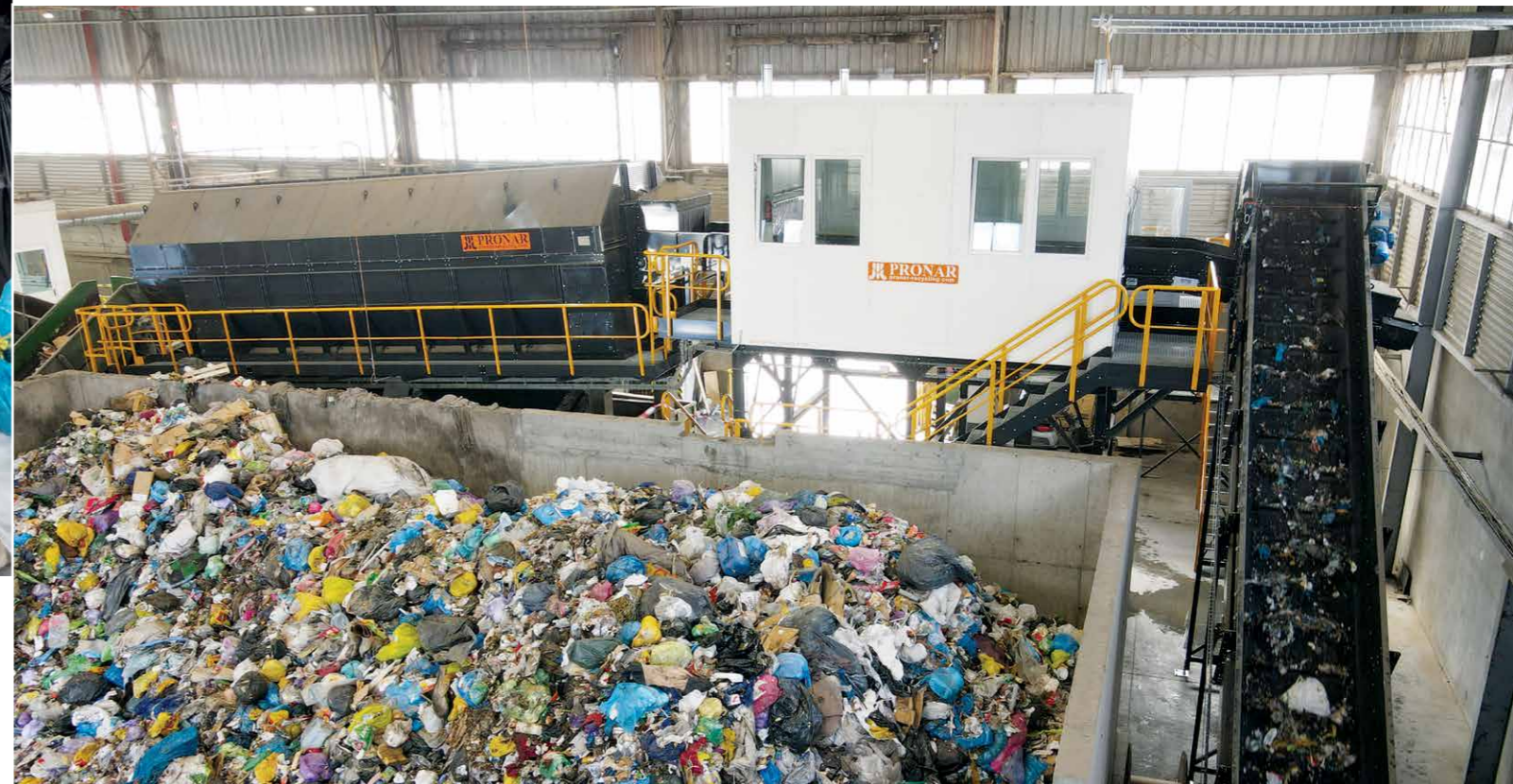
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Two processing lines within one system



**Pronar** designs, supplies, installs and commissions complete lines for sorting mixed municipal waste and selective waste. An individual approach towards each system enables its proper adaptations to the demands of the buyer. It can be equipped with bag openers or preliminary shredders, a three-fraction drum sieve, ferrous and non-ferrous metal separators, opto-pneumatic NIR separators, ballistic separators, manual segregation chambers or an NRT separator, regular and reversible feeders and a baler. All that to segregate the materials and raw materials the best way possible.



**EFFECTIVENESS**

Despite advanced technologies being used in the systems, their operation is simple and using them enables to achieve high profitability.

**RELIABILITY AND MODERNITY**

The machines are based on structural solutions by Pronar (they satisfy the requirements of BAT - Best Available Techniques – the most efficient and advanced level of development of technologies and methods of a given operation), and are equipped with state-of-the-art elements and sub-assemblies of renowned manufacturers.

**INDIVIDUAL APPROACH**

Every buyer is treated individually, which enables to appropriately tailor a system design to the existing project and localization condition.

**EFFICIENCY**

It increases the quantity and quality of sorted waste.

**MULTI-FUNCTIONALITY**

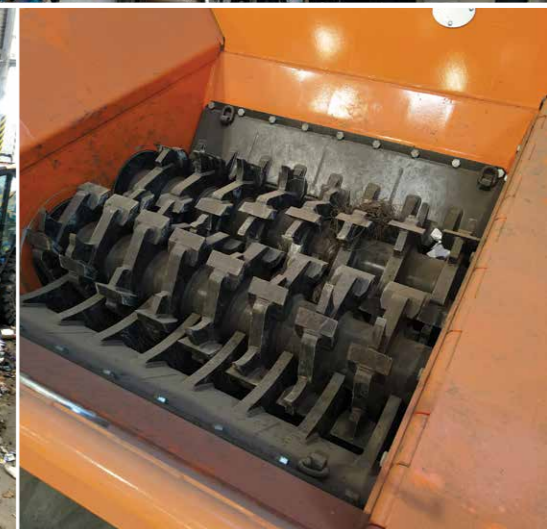
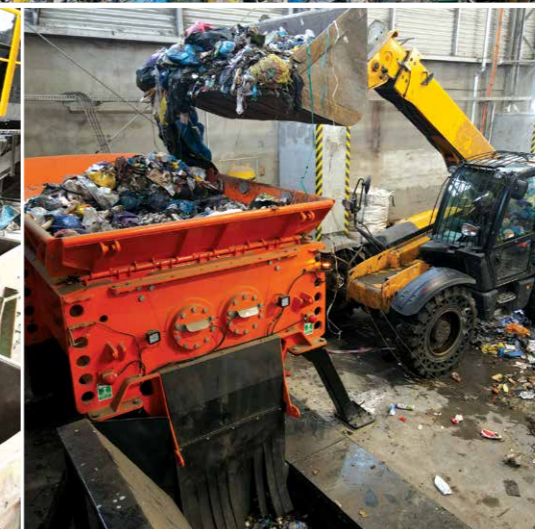
It enables sorting both mixed municipal waste, as well as selectively collected waste.

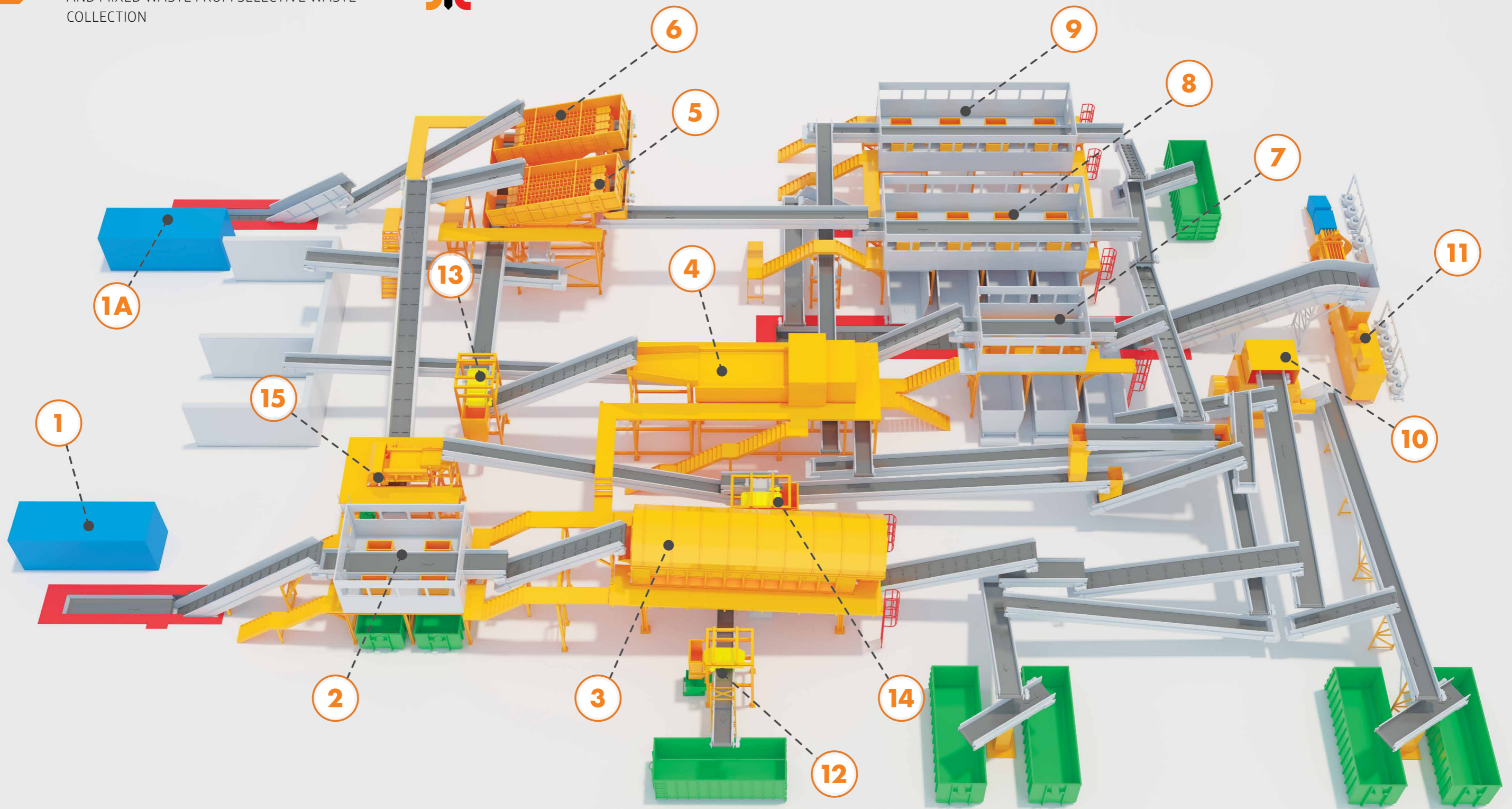
**INNOVATIVENESS**

Access to technologies enabling the lowest processing cost.

**MODULARITY**

The possibility of constant expansion, reconstruction, modernization and retrofitting, in order to achieve optimal performance required for process execution, including the reduction or increase of through-put, depending on the demands and size of the waste stream.





- 1 Bag opener/mixed waste preliminary shredder
- 1A Bag opener/selective waste preliminary shredder
- 2 Manual sorting preliminary cabin - two fractions (benching materials and packaging glass)
- 3 3-fraction drum sieve

- 4 3-fraction drum sieve
- 5 Ballistic separator I
- 6 Ballistic separator II
- 7 Manual sorting cabin - two/three fractions

- 8 Manual sorting cabin - two/three fractions
- 9 Manual sorting cabin - 3D fraction (rolling)
- 10 End shredder (RDF)
- 11 Baler

- 12 13 14 FE magnetic separators
- 15 Non-ferrous metal separator

[pronar.pl](http://pronar.pl) | [pronar-recycling.com](http://pronar-recycling.com)



The layout concept of the compost screening line results from its function. The compost screening line is designed for the screening of compost mass and separation of embedded PE/PP foil fragments at specified efficiency and effectiveness.

The compost mass to be sorted is loaded into the charging hopper, where belt conveyors gradually transfer it to the interior of the first trommel screen. At this stage, the 20 mm fraction is separated. During transport in air separators, the remaining compost stream is twice subjected to negative pressure to separate and remove the plastic foil fragments. In the next step, the material undergoes screening for the second time in another trommel screen. The 40 mm compost fraction is separated at this step. After this stage the remaining fraction is returned to the composting plant for reprocessing. Normally, the line is configured in automatic mode and is operated by a wheel loader operator, who loads the raw material for screening and collects the separated fractions of screened compost. The main line functions do not require any operator intervention.



Depending on specific features, the stationary trommel screen is used for the mechanical separation of the waste into fractions of different size. The size-based separation process produces individual material streams for further processing, which improves efficiency.

The essential component of the stationary trommel screen is the screening drum with specification to match the amount of treated waste and the number of separated fractions. As such, the drum is a self-supporting load-bearing structure equipped with sieving grids. The number of fractions to be separated determines the number of screening zones and the screening mesh of an appropriate size and shape. The screening drum rests on supporting wheels with an elastomeric layer. Some of the supporting wheels double as the screening drum driving elements. The stationary trommel screen is powered by a geared electric motor mounted on the shaft connected to the load wheel.

The entire structure rests on the screen support frame within a sealed soundproof housing and a load bearing structure which positions the screen at a specific height. The assembly also features overflow chutes that remove the screened fractions as well as inspection platforms that provide access for periodic maintenance.

As an option, the screen can be equipped with a cylindrical brush to clean the screening mesh and connection stubs for the dedusting system.

**When designing a trommel screen to meet the customer's requirements, the following are considered:**

- length,
- diameter,
- tilt,
- trommel screen shape,
- mesh size.

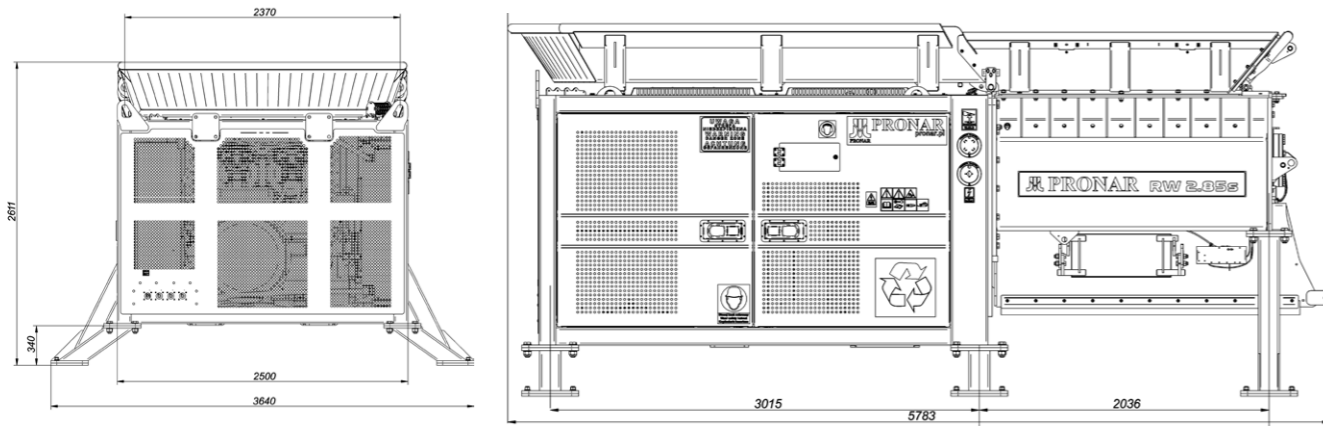
Using our experience, we can adapt the trommel screen to your specific needs.





**PRONAR Stationary slow-speed shredders are designed for primary shredding different types of materials.** Machine can be used for shredding municipal, green, industrial and construction waste, pallets, tree cutting residues, tree stumps, bulky and oversized materials and light scrap. Working element consists of two synchronized shredding shafts placed in the working chamber. Working materials are manufactured by wear-resistant materials, which ensures long-life and failure-free operating.

**SLOW-SPEED SHREDDER RW 2.85S**



**DIMENSIONS**

**RW 2.85S**

Dimensions (length/width/height) [mm]	5780x3640x2610
Weight [kg]	~16000

**SHREDDING SYSTEM**

Number of shafts [Pcs.]	2
Dimensions of working shafts (length/diameter) [mm]	1700/685
Loading height [mm]	2611
Working chamber dimensions (length/diameter) [mm]	1720/2340
Hopper capacity [m3]	~3,0

**DRIVE**

**RW 2.85S**

Electric motor	ABB 250 kW (340 HP) + 22kW(30 HP)
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**STANDARD EQUIPMENT**

- Central lubrication system
- Remote control





**THE RW 2.1010S SLOW-SPEED SHREDDER**

**BASIC SPECIFICATION:**

	<b>RW 2.1010S</b>
Overall dimensions of the shredding unit (with drive) (length / width / height):	4700x3000x3250 [mm]
Gross weight:	~ 27000 [kg]
- working chamber	~ 20000 [kg]
- engine compartment	~ 7000 [kg]

**DRIVE:**

	<b>RW 2.1010S</b>
Electric motor:	ABB
Maximum power / RPM	2x250 [kW]

**MATERIAL TRANSPORT:**

Dimensions of the working shafts (length / diameter):	2440/890 [mm]
Shaft rotational speed:	~ 30 [rpm]
Number of shafts:	2 [pc]
Working chamber dimensions (length / width):	2500/3000 [mm]
Loading height:	3250 [mm]
Lubrication system / manual central lubrication system	yes
Warning beacon during machine operation	yes

**STANDARD EQUIPMENT**

- Central lubrication system
- Remote control





The sliding belt conveyor is designed to transport materials of varying granularity and grain shape with a bulk density up to 300 kg/m<sup>3</sup>. The range of the offered conveyor widths from 600 mm to 2400 mm will allow you to select an optimal solution in terms of performance and transport efficiency. The modular structure based on formed steel sheets and profiles allows the machine to be used in a wide variety of applications in existing and upgraded systems. Standardized structural components greatly simplify the conveyor manufacturing process and reduce the required maintenance. The conveyors are freely configurable to operate in horizontal or rising position.



The PLT chain belt conveyor is designed to transport materials of varying bulk density, grain size and shape. Unlike regular belt conveyors, the conveyor belt is driven by roller chains to which the belt is attached. This solution enhances the transport functionality of the machine. Conveyors are often used in combination with horizontal presses, crushers or shredders. The conveyor design allows it to operate in a horizontal or rising configuration. The supporting structure is made of formed steel sheets and profiles. The durability of the load bearing components is increased by the use of wear-resistant materials. Due to the intended applications, these conveyors are offered with widths ranging from 600 mm to 2,000 mm. In addition to standard equipment, the conveyors are compatible with a number of optional accessories required in specific installations.







**THE PRU CONVEYOR BELT**

The roller belt conveyor is designed for transporting materials with a bulk density up to 900 kg/m<sup>3</sup> of low granularity and high repeatability of the shape of individual grains. The conveyor belt is guided by groups of carrying rollers. The number of support rollers in each station depends on the intended use of a given conveyor. Due to the transported medium, the conveyor belt is V-shaped. The conveyor structure is made of specially shaped steel sheets and profiles. The modularity of the conveyor structure allows the machine to be incorporated into existing or upgraded systems or to be used for completely new transport routes. The conveyors can be set up to operate horizontally or at a steep angle.

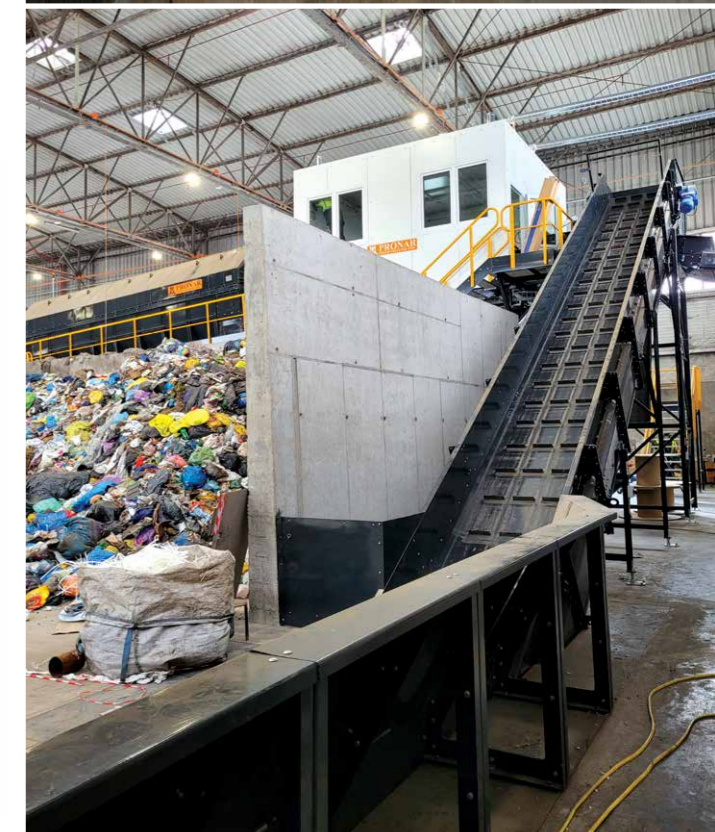


**THE PBC SLIDING BELT CONVEYOR**

The sliding belt conveyor is designed to transport materials of varying granularity and grain shape with a bulk density up to 700 kg/m<sup>3</sup>. Its higher load capacity results from the specially reinforced conveyor design. There is also an option to install shock-absorbing plates, which further enhance the conveyor's performance. The modular structure based on formed steel sheets and profiles allows the machine to be used in a wide variety of applications in existing and upgraded systems. Standardized structural components greatly simplify the conveyor manufacturing process and reduce the required maintenance. The conveyors are freely configurable to operate in horizontal or rising position.



The roller slide belt conveyor is designed to transport materials of varying granularity and grain shape with a bulk density up to 700 kg/m<sup>3</sup>. Its higher load capacity results from the specially reinforced conveyor design. In addition, improved traction properties were achieved by adding support rollers in the load bearing plane of the conveyor belt, which reduces belt friction against the support structure components. This in turn reduces the drive unit power demand consumable component wear, especially when heavier bulk materials are transported. There is also an option to install shock-absorbing plates, which further enhance the conveyor's performance. The range of the offered conveyor widths from 600 mm to 2,000 mm will allow you to select an optimal solution in terms of performance and transport efficiency. The modular structure based on formed steel sheets and profiles allows the machine to be used in a wide variety of applications in existing and upgraded systems. Standardized structural components greatly simplify the conveyor manufacturing process and reduce the required maintenance. The conveyors are freely configurable to operate in horizontal or rising position.





The PRUM mobile roller conveyor is designed for applications where the conveyor mobility is required. It can be used for transporting materials with a bulk density up to 900 kg/m<sup>3</sup> of low granularity and high repeatability of the shape of individual grains. The conveyor belt is guided by groups of carrying rollers. The number of support rollers in each station depends on the intended use of a given conveyor. Due to the transported medium, the conveyor belt is V-shaped. The conveyor structure is made of specially shaped steel sheets and profiles. The modularity of the conveyor structure allows the machine to be incorporated into existing or upgraded systems or to be used for completely new transport routes. The conveyors can be set up to operate horizontally or at a steep angle.



The sorting station is a facility where manual sorting of waste transported by a belt conveyor takes place. A cabin constructed with layered panels is mounted on the sorting station. The cabin has windows, HVAC system and lighting. The ventilation system provides fresh air directly over the workstations. The station is divided into sorting stands. The number of the sorting stands and their dimensions are adjusted to the required number of sorted fractions. Hoppers are installed in the station floor between sorting stands. They can be opened or closed mechanically or pneumatically. If necessary, the floor of the sorting station can be insulated. The walls of the sorting station can be made of openwork or can be filled. The walls are filled with wooden beams or sheet steel. The sorting stands can be open or equipped with manually or electrically closed gates.





**HYDRAULIC CHANNEL BALING PRESS**

**HPBK-67HA**

Maximum crushing force [kN]	635
Binding	fourfold, horizontal, automatic
Weight of the bale (depends on the material) [kg]	up to 550
Engine power [kW]	37
Volume reduction (depends on the material) [%]	up to 90
Bale size (H/W/L) [mm]	750/1100/600-1200
Machine size (H/W/L) [mm]	8640/4070/3870
Loading hole dimensions (W/L) [mm]	1050/1530
Length of pressing channel [mm]	2670

Useful information:

- Fourfold, horizontal binding for easy transport and not scratching the surface
- Perforator and pre-crush bottles
- Automatic pressing process
- Resistive touch screen that can be used also while wearing gloves
- Locked doors to the pressing chamber
- Almost maintenance free – apart from refilling the wire

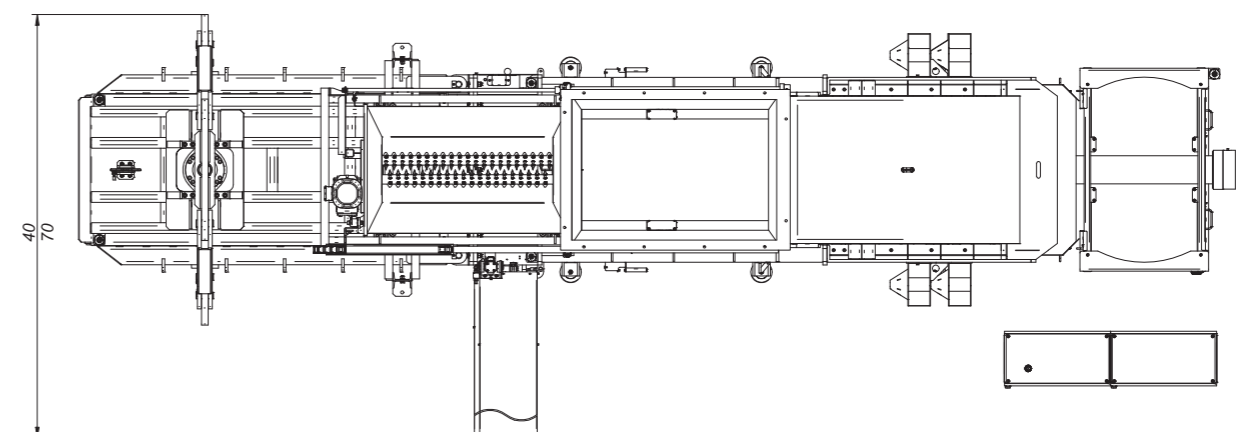
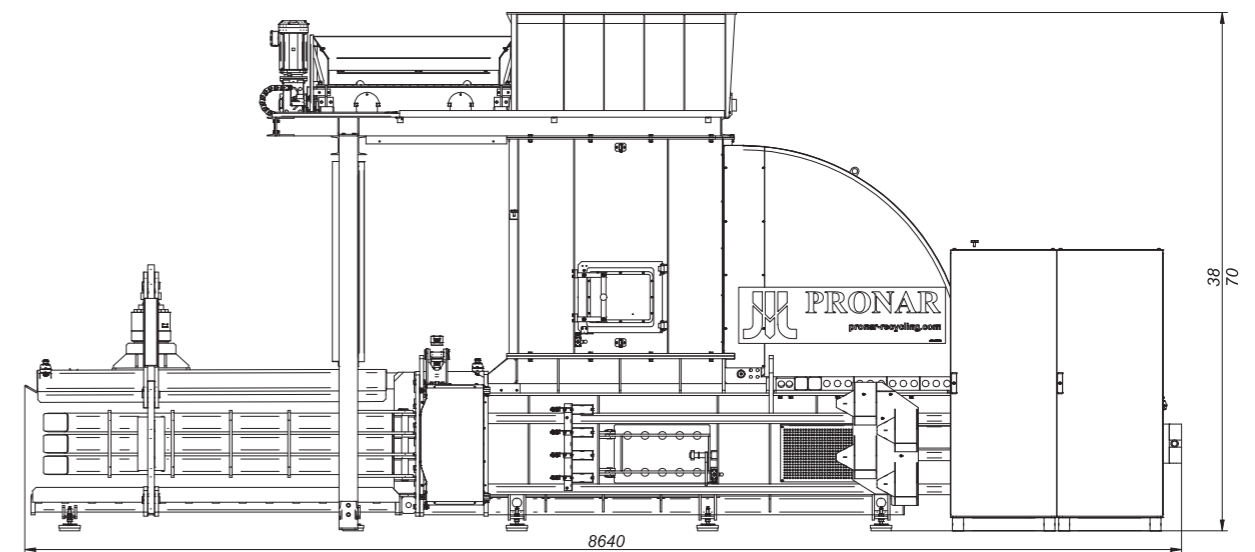
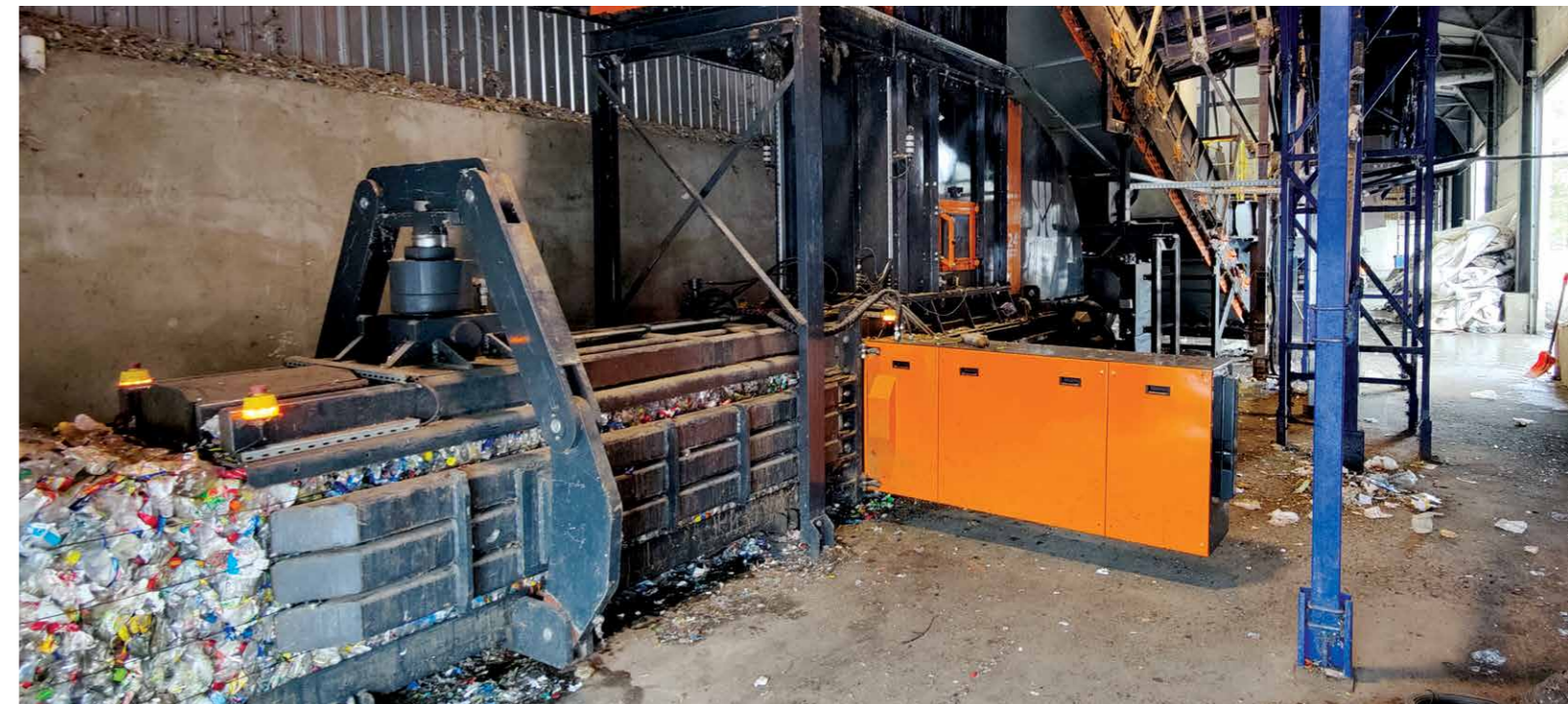
The main element of the Pronar HPBK-67HA press is a slider moving in the channel. Its movement is forced by a hydraulic cylinder with a maximum crushing force of 635 kN. The press slider compresses the material in the chamber, after which it is withdrawn from and the cycle is repeated after the chamber is filled again. After obtaining the appropriate - previously programmed - bale length, the machine starts the automatic fourfold binding system. The bale with a width of 1100 mm, a height of 750 mm and a length from 600 to 1200 mm is pushed out of the chamber by the next forming bale.

This press is not only modern but also safe to use. The machine is practically maintenance-free (apart from putting in the wire once in a while). Baling takes place automatically. The door to the crushing chamber is locked and secured with a special lock. The HPBK-67HA baling press is convenient to use as well. Its working parameters are set using a 10.4-inch touch screen. The technology used here allows operation without having to remove protective gloves.

**HYDRAULIC CHANNEL BALING PRESS HPBK-67HA**



**HYDRAULIC CHANNEL BALING PRESS**



**1. Intended use:**

- type of shredded material - pre-shredded and sorted industrial and municipal waste (plastics, textiles, paper)

**2. Capacity:**

- about 6.0 ... 6.5 t/h for:  
fraction 90% <30mm, mesh size Ø40, input material 90... 100 kg/m<sup>3</sup>Ø

**3. Input material: depending on the screen used, from 10 mm to 150 mm**

**4. Material receipt: conveyor**

**5. Optional equipment:**

- frequency converter
- rotor cooling system
- smoke detection system
- ATEX explosion protection
- winter package up to -25°C.

**6. Shaft drive:**

- 2 asynchronous motors (2 x 132 kW)
- single-stage belt transmission
- overload clutch

**7. Cutting unit**

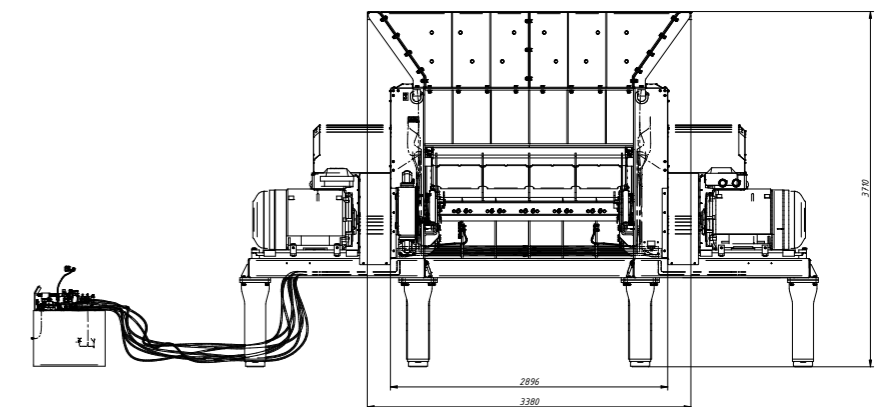
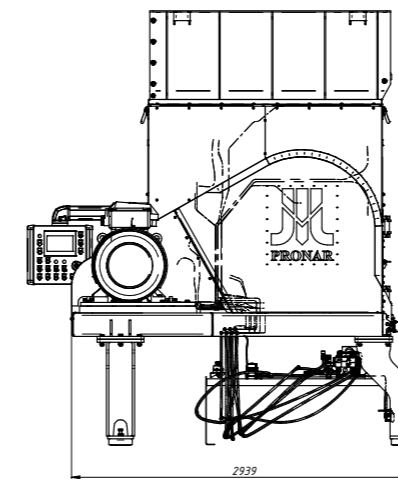
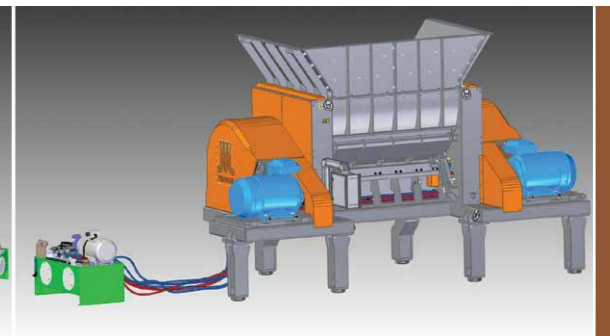
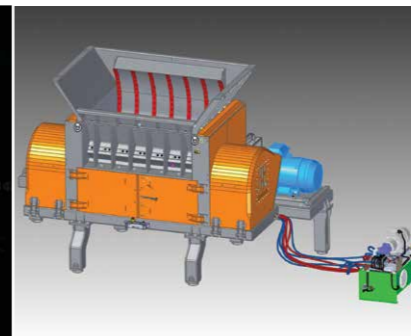
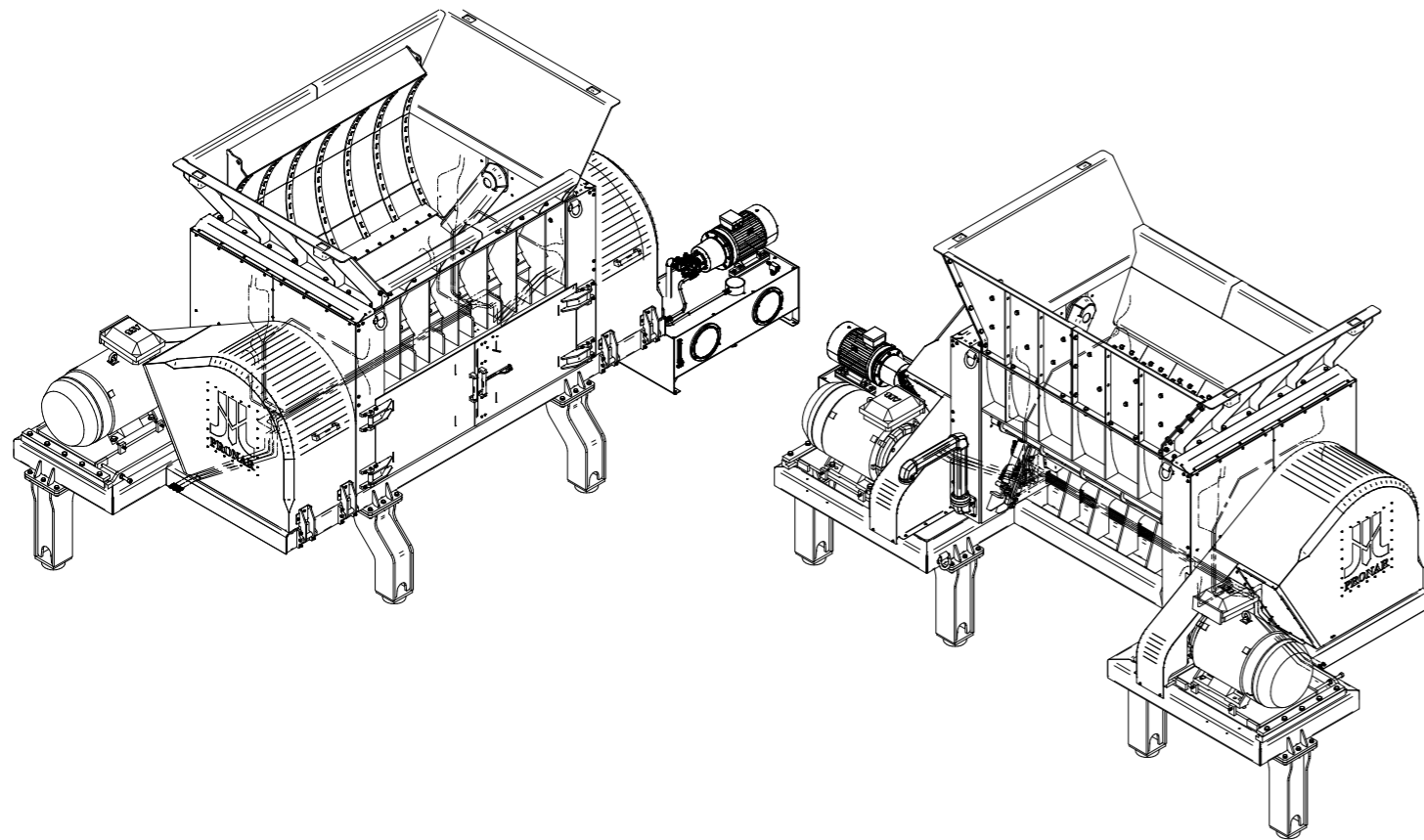
- shaft rotation - 355 rpm
- shaft length - 2,100 mm
- shaft diameter - 755 mm
- screen mesh shape: round or hexagonal, or according to the customer's order

**8. User support**

- quick and easy screen replacement
- quick and easy replacement of blades and counter-blades and setting the cutting clearance (e.g. "by ear" with a rotating shaft)
- blades and counter-blades can be used 4 times (4 cutting edges)

**9. Protection**

- shaft drive stop when the blade is blocked (clutch slip sensors)





**STRABLA**  
production of green forage machinery



**NAREW FABRYKA NO.3**  
production of steel profiles, steel wholesale



**SIEMIATYCZE**  
production of municipal and recycling machinery



**NAREW FABRYKA NO.2**  
production of trailers, wheel rims, pneumatic and hydraulic systems, Research and Development Centre



**HAJNÓWKA**  
production of axles, gears, driving systems and drive transmission systems



**NAREWKA**  
production of large-size trailers, bale trailers and wheel rims



**NAREW FABRYKA NO.1**  
production of goods of plastic



**BIAŁYSTOK**  
production of components for agricultural, municipal and recycling machinery

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