

irverde bharatvarsh Private Limited

## **IRVERDE BHARATARSH**

PLASTIC, METAL, TYRE, MUNCIPLE WASTE, ELECTRONIC WAST ETC.

### **WASTE RECYCLING MACHINES**

Assembled in India

An ISO 9001: 2015 Company certified by KVQA

#### **ASSEMBLY & DISPATCH**

A/108, SIDDHIVINAYAK INDUSTRIAL ESTATE, DHUMAL NAGAR, VASAI (EAST), PALGHAR, NEAR MUMBAI, MAHARASHTRA, INDIA-401208

'irverde Bharatvarsh Pvt. Ltd.' is certified original manufacturer, exporter and supplier of plastic recycling and metal recycling processing machinery. Due to our constant commitment to recycling technology, we have emerged as a one of the leading manufacturer of machinery for plastic shredder, plastic crusher, plastic pulverizer, plastic washing line, plastic pelletizing line, aluminum plastic recycling machine, cable recycling machine, E-waste recycling machine, radiator recycling machine, tire recycling plant, etc. and many others for a wide range of recycling processes.

We design and always manufacturer the machines with quality raw material and using our own technology. Our machines are widely appreciated for their salient attributes like efficient and consistent performance, lower power consumption, durability, and corrosion resistance. Our products are easy to operate and control. We can deliver a best economical solution along with the quality machinery with standard and customized specifications.

We stand out as a growth oriented company that recognizes the exact needs of the plastics manufacturing industry and provides comprehensive services including machine operations and maintenance instructions. To achieve and setup new benchmarks, we continuously keep an eye on innovations.









'irverde Bharatvarsh Pvt. Ltd.' would like to introduce ourselves, a ISO 9001-2015 Certified recycling machine manufacturing company in India which has a wealth of experience in developing and manufacturing a range of plastic recycling machines, tyre recycling machine, electronics parts recycling nachines, solar panel recycling machines, plastic crusher machines, plastic pulverizer, plastic washing line, plastic pelletizing line, aluminum plastic recycling machine, cable recycling machines etc.

iBPL is specialized in plastic lumps shredder machines as well as munciple waste recycling machines. We are committed to help you solve all kinds of repaire problems. Our prices are affordable and competitive in relation to customer desired quality. Our deliveries are also much favorable which might takes time but we never compromise on quality and the manufacturing standards. Moreover, uncompromising quality is our commitment.

'irverde Bharatvarsh Pvt. Ltd.' is one of the newest manufacturers of a wide variety of recycling machines involves in each industry as we have tie up with some South Korean, Italian, German companies who are working in international market from the last 35 years.

The shredder equipment promotes the recycling of waste materials and promotes the development of energy conservation and emission reduction.

'irverdeBharatvarsh Pvt. Ltd.' is a professional company which is specialized in research and development, production and sales of renewable energy and organic solid waste environmental protection equipment. The main products of our company include single shaft shredder, double shaft shredder, crusher and large environment protection recycling equipments. With the development of our company and the high requirement of the market, we have turned to be specialized in large environment protection and recycling equipments.

As we have already mentioned, our company's main products are various types of plastic shredders, biomass shredders, wood shredders, solid waste shredders, industrial waste shredders and customize non-standard products with samples.

We also provide consulting, equipment selection, design drawings, equipment manufacturing and installation, equipment maintenance, and professional services throughout the process. With more than 50 sets of mechanical processing equipment, our factory has the ability of manufacturing, processing, cutting, forming, processing, welding, painting, installation and debugging.









A SIMPLE UPGRADE FOR EXISTING GRANULATION SYSTEM EASY TO MOVE AND PLACE TANGENTIAL INFEED AVOIDS THE NEED FOR A HYDRAULIC PUSHER

LOW SPEED, HIGH TORQUE
GEAR DRIVE
POWERFUL TWO SPEED
HYDRAULIC SWING TYPE
PUSHER
HEAVY DUTY DESIGN & HIGH
THROUGHPUT RATES





Users can choose different models according to the size of materials and the required handling capacity to achieve the purpose of 'limited resources, unlimited recycling'. This series of shredder can be used to tear more difficult to break plastic, rubber, tires, nylon plastic, automobile bumper, waste fishing nets, plastic pipe, fiber, paper, electrical components, cable, circuit board, wood, etc.

A solid waste shredder machine, also known as an industrial shredder or waste shredder, is a powerful mechanical device designed to reduce the size of various types of solid waste materials. It is commonly used in waste management and recycling applications to shred bulky items, such as plastic, rubber, wood, metal, and paper, into smaller pieces or even fine particles.

The primary purpose of a solid waste shredder machine is to facilitate efficient waste disposal, recycling, or energy recovery processes. By shredding waste materials, it reduces their volume, making them easier to handle, transport, and store.

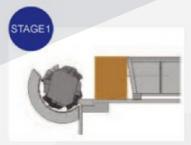
#### Advantages of Single Shaft Shredder:

- 1. Emergency stop switch, power outage protection, multiple protections, in compliance with EU CE standards.
- Damping device, which cushions the vibration of the machine during operation and improves the service life of the reducer and spindle.
- 3. External bearings effectively prevent crushed materials from entering the bearings and improve their service life.
- 4. The pushing device is equipped with copper guides to ensure smooth operation and easy replacement.
  - 5. The size of the screen mesh can be selected.
    - 6. Adopting hydraulic pushing system.
  - 7. Independent intelligent electronic control system.
- 8. The detachable installation of the blade makes maintenance more convenient.

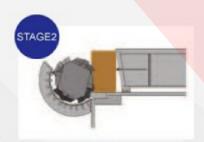
#### Technical Parameters

Model	BISON600	BISON700	BISON800	BISON1200	BISON1500
Motor Power	22 Kw	37 Kw	45 Kw	75 Kw	110 Kw
Rotor Blades	26+4 pcs	30 pcs	36+6 pcs	58 pcs	98 pcs
Fixed Blades	4 pcs	4 pcs	4 pcs	4 pcs	6 pcs
Blade Material	Cr12MoV/SKDII/D2	Cr12MoV/SKDII/D2	Cr12MoV/SKDII/D2	Cr12MoV/SKDII/D2	Cr12MoV/SKDII/D2
Rotor Diameter	260 mm	280 mm	400 mm	400 mm	550 mm
Rotor Speed	75 rpm	75 rpm	75 rpm	80 rpm	80 rpm
Cutting Chamber	600*600 mm	700*600 mm	800*800 mm	1200*1200 mm	1500*1500 mm
Hydraulic Power	2.2 Kw	2.2 Kw	3 Kw	5.5 Kw	7.5 Kw
Cylinder Stroke	600 mm	600 mm	800 mm	1200 mm	1500 mm
Dimension L/W/H	1800*1600*1850	1830*1750 <mark>*1</mark> 850	2200*1780*2100	3500*2000*2400	4800*2350*2400
Weight	mm	mm	mm	mm	mm
	2200 Kg	3000 Kg	3700 Kg	7000 Kg	9800 Kg

#### SHREDDING PROCESS



The hydraulic ram pushes the material against the rotor at a pre-set speed.



The material is shredded by the rotor teeth.



The hydraulic ram maintains the pressure against the rotor, maximizing output of shredded material.

Single shaft shredder adopts European advanced technology, is mainly applied in the crushing and recycling of various thick wall scrap materials and leftover materials in the plastic and rubber industry, can effectively crush extra thick, strong toughness and large materials.

#### **Important Note:**

- The above machines are configured as per internal standard configuration only. The specific configuration may be vary as per the customer;s need and market availability at the time of manucturing.
- The above technical parameters are for reference purpose only and are subject to change without prior notice. Please contact our sales department for before placing order.

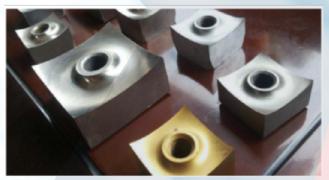




Single shaft shredder adopts European advanced technology, is mainly applied in the crushing and recycling of various thick wall scrap materials and leftover materials in the plastic and rubber industry, can effectively crush extra thick, strong toughness and large materials.



Single shaft shredder consists of a knife disc and a static knife to complete shredding material. Cutter is composed of a base shaft and several shape quadrilateral knife block.



The blade can be used in four directions and long service life. Blade quality have 9CrSi, Cr12MoV, SKD- II, D2 etc. Can be customized according to customer.



The screen can be changed quickly, the aperture of the mesh is able to control the size of the output material.

Special screen can be designed according to the type of your raw materials.



The hydraulic-driven pusher is equipped with an adjustable guide block and adopts advanced sealing design. Ash chute - remove the dust from the pusher in the shredding process.

The single shaft shredder is widely used in plastics(plastic lumps, pallets, wood(wood pallets, lumber and carpenter waste, biomass, paper & cardboard, aluminum, textile and copper cable wires, etc.



SFixed Blade: The fixed blades are movables to adjust and longer time use . Using D2 material, USA Standard, HRC 58-59 more better than SKD-II, We also can use DC53 material



Hydraulic pump station: Oil cylinder effective working. Pushing speed is adjusted by manual



PLC: Use Siemens PLC for shredder machine. Automatic control rotor shaft positive, negative rotary



Contactors: Use Schneider brand in us control system

The single shaft shredder is widely used in plastics(plastic lumps, pallets, wood(wood pallets, lumber and carpenter waste, biomass, paper & cardboard, aluminum, textile and copper cable wires, etc.

## 'BISON' Series of Single Shaft Shredder Machine

Bison series with 600/700/800/1000/1200/1500mm rotor length

The 'BISON' Series Single Shaft shre<mark>dder is</mark> suitable for recycling wide range of materials. It is an ideal machine for plastic, paper, fiber, rubber, organic waste and a wide variety of materials. As per our customers' requirements, such as the input size of the material, capacity and the final output size etc, we could work out a suitable prop<mark>osal for our clients. After</mark> being shredded by the machine, the output material could be used directly or go into the next step of size reduction. With the function of Siemens microcomputer control system, it is

possible to control automatically start, stop, automatic reverse sensors to protect the machine against over loading and jamming.

The single shaft shredder is widely used in plastics(plastic lumps, pallets, wood(wood pallets, lumber and carpenter waste, biomass, paper & cardboard, aluminum, textile and copper cable wires, etc.



lbex series with 600/800/1000/1200/1500mm rotor length



'iBPL's two shaft shredder is featured sophisticated design, robust structure, and high efficient shredding result. Two shaft shredders are normally used first stage shredder for materials like tires, steel drums, organic waste and MSW. With a two shaft shredder, once the material is fed into the cutting chamber, the cutting blades with hooks will grab material and then shear it down to strips. The shreds are directly discharged after cutting without passing through a screen, so the size of shreds is quite random. Custom blade widths can match your required sizing. Programmed revers rotation of the rotor shaft can prevent damages when overload. Both electrical and hydraulic drive systems available.

lbex series with 600/800/1000/1200/1500mm rotor length



The 'IBEX' series double shafts shredders have been designed for a wide way of applications and industries, such as shredding WEEE waste, scrap tires, HDPE Drum barrel, pallets, etc. Depending on input materials and the following process the shredded material can be used directly or go into the next step of size reduction. D2S series double shaft shredder has two rotors built into the machine that rotate at low speeds, high torque and low noise. Adopt with microcomputer control system with function of start, stop, automatic reverse sensors to protect the machine against over loading and jamming.

lbex series with 600/800/1000/1200/1500mm rotor length

#### **Technical Parameters**

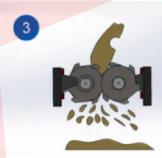
Model	IBEX600	IBEX800	IBEX1000	IBEX1200	IBEX1500	
Motor Power	11*2 Kw	18.5*2 Kw	22*2 Kw	30*2 kw	45*2 Kw	
Capacity	500-600 Kg/H	800-1000 Kg/H	1200-150 <mark>0 Kg/H</mark>	1500-1800 Kg/H	3000-4500 Kg/H	
Blade Quantity	30	26	50	40	36	
Blade Diameter	Ф210×20 mm	Ф210×30 mm	Ф300×20 mm	Ф300×30 mm	Ф400×40 mm	
Input Opening Size	950*700 mm	1200*800 mm	1200*950 mm	1500*1000 mm	1500*2000 mm	
Dimension L/W/H	1800*850*1850	2800*900*2050	3400*1500*2200	3800*1600*2600	4600*1700*2600	
	mm	mm	mm	mm	mm	



Feed the material to the rotor which is setted a appropriate rotarty speed.



The material is shredder machineed by the rotor teeth.



Continued shredding and maximize the capacity.

Working process of two shaft shredder is controlled by an intelligent and innovative PLC. In case the industrial shredder machine is overloaded or foreign objects are in the cutting unit, the rotor stops and moves backward (return overload behaviour and reverse running to prevent overfeeding and protect against damage from foreign objects). The precisely serrated fixed knives make sure the material is shredded with a minimum of power. The fastened wiper element helps to avoid multiple turn coiling and raising of the material to be chopped. Based on different materials,

10mm and 20mm thick blades are suitable for fragile materials such as medical packaging and electrical board. 40mm and 50mm thick blades are widely used for various materials such as tires, plastic products, wood pallets, film and etc. 80mm thickness blades are used for shredding metal items or plastic and metal compounds such as refrigerator and drums, the blades can handle material up to 10mm in thickness.

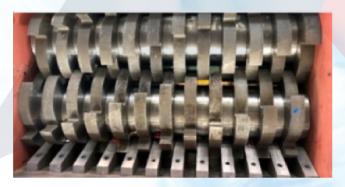
lbex series with 600/800/1000/1200/1500mm rotor length



Blade Spacer: Use High quality carbon steel making & Steel plate of crushing chamber is very thick, so as very strong and helps to durable long service life



Rotary Blade: Using D-2 material, USA Standard, HRC 58-59 more better than SKD-II, We also can use DC-53 material



Shredding chamber: Using high quality carbon steel making, running no shake



Rotary shaft: The rotary shaft made by high quality carbon steel, anti-worn.

Assembling blades: It is easy and quick to replace the blades.

Double shaft shredder machine is the preprocessing equipment, the presorted material to be chopped is fed into the two shafts whose rotors are moving slowly in opposite directions (therefore dust and noise free).

lbex series with 600/800/1000/1200/1500mm rotor length

Double shaft shredder machine is the preprocessing equipment, the presented material to be chopped is fed into the two shafts whose rotors are moving slowly in opposite directions (therefore dust and noise free). The cutting discs are plugged on the shaft. This double shaft shredder machine is designed for longevity; The number of the knives or their width respectively determines the size of the output material.









Our 'DODO Series' of crushing machines, which are compatible with all types of plastics, offer functions with medium and high capacity. The crushing machines, which have a superior functionality within the scope of shredding the plastic material, allow the plastic to be broken into small pieces. The materials subjected to this process gain reusability after being exposed to several applications.

While standing out with its 80 mm and 50 mm dimensions, it plays an important role in the transformation of plastics into granule form. It also has different rotor sizes. In this way, you can transform the material into the form you want and subject it to the processes you need.

#### Features of Crusher machines:

Crushing machines, which allow plastic wastes to become granules after separation that are produced in a structure compatible with every plastic with different sizes and dimensions. As İnan Plastik, we always include a high-quality product range while providing professional solutions to the needs of recycling companies. In this context, the details you need to pay attention to should naturally be the structural features of the machine you will buy. The rotor and blade structure are among the prominent details we mentioned. Thanks to the high-quality blades, materials can be crushed easily and time can be saved.

Our crushing machines minimize the costs of your business with its speed and high capacity. In this way, you can speed up your processes and provide your production a superior performance.

Our different types of crushing machines provide a comfortable use with an adjustable rotor and blade structure. They also provide practical and effortless use. In this way, you can obtain ideal cutting intervals. These machines you need are only a click away from you!

### **Advantages of Plastic Crusher**

'DODO Series' of heavy duty plastic crusher

- 1. High quality and good performance of components; Accurate size, smooth surface, dense internal structure, free from defects and impurities,
  - 2. Good usability; The overall structure of the machine is reasonable, with beautiful and pleasant colors, and high reliability.
  - 3. Production efficiency has been greatly improved, greatly reducing the labor intensity of operators. Improved product development efficiency and quality, and shortened production preparation time.
- 4. Low consumption, reducing the consumption of raw materials and energy throughout the entire production process.
  - 5. Clean, non polluting production process, ensuring zero or minimal discharge of hazardous waste.
    - 6. Wide range of applicable materials.



## Working principle of Plastic Crusher

The main shaft is driven to rotate by an electric motor and a deceleration device, and a fixed blade is installed on the shaft. The material is crushed using the torque generated by the shaft and the cutting ability of the blade, thereby achieving the purpose of crushing. The particles that have undergone primary crushing enter the screening chamber, and the particles that cannot pass the screening re-enter the crushing chamber for secondary crushing. Qualified materials are discharged through the screening screen.

### Models of DODO Series Plastic Crusher

'DODO Series' of heavy duty plastic crusher

DODO Series of machines		DODO600	DODO800A	DODO800B	DODO1000	DODO1200A	DODO1200B	DODO1500
grinding cha	amber (mm)	600*600	600*800	800*800	1000*1000	1200*1000	1200*1200	1500*1000
stational	ry cutter	2	2	4	4	4	4	4
rotary	cutter	3	6	6	6	6	6	6
Screen s	ize(mm)	12	14	14	30	30	30	30
output cap	acity (kg/h)	300-400	400-600	500-750	1000-1500	1500-2000	2000-2500	2000-2800
	KW	22	30	37	45	55	75	90
power	HP	30	40	50	60	75	100	120
output spee	ed (r/min)	480	480	480	480	380	400	450
dimension(L	×W×H mm)	1680*1300*1800	2350*2000*2300	2100*1500*2400	2250*1800*2450	3000*1800*4000	2800*2050*4440	2800*2350*4440
approx.	NW(kg)	1300	2200	3000	5000	6500	7500	8500





- The plastic crusher blades are a very important accessory in the crusher. They are very sharp and are fixed in the rotating shaft of the crusher and inside the crushing chamber. The plastic can be easily cut into small pieces by the rotation of the rollers with the fixed blades inside the crushing chamber.
- There are two types of blades that can be used in plastic crushers: flat type, toothed type
- The blade is the key part of the plastic crusher machine and its quality will directly affect the crushing effect and efficiency of the machine.
- The main factors to consider when choosing a blade are: hardness, toughness, sharpness and wear resistance.

#### **Plastic Crusher Machines**

'DODO Series' of heavy duty plastic crusher

# What Is The Difference Betw<mark>een P</mark>lastic Crusher And Plastic Shre<mark>dder</mark>?

The main differences between plastic crushers and shredders are the size of the feed hopper and the diameter and speed of the rotor.

The feeding hopper of the crusher is usually smaller than that of the shredder, and the rotor diameter of the crusher is also smaller than that of the shredder.

Therefore, the crusher is suitable for crushing small plastic products, while the shredder is suitable for shredded large and hard plastic products.

The main components in the structure of a plastic crusher include knife rollers, blades, frame, casters (according to the model), feeding hopper, reflection chamber, screen bracket, screen, counterweight wheels, left and right shields, receiving hopper, etc.

The control panel consist of : AC contactor, control button, cutoff device and safety protection switch.

The power structure is available for users to choose from : three-phase AC motor or two-phase AC motor.

## Plastic Crusher Machines

'DODO Series' of heavy duty plastic crusher











### Millard Series of Crusher Machine

Superstrong series of Crusher Machines

The cutter of these 'Millard'
machines are similar between
claws and flats blade, which is
suitable for crushing plastic
products of ordinary sheet, pipe,
sections, board. Bolltles, Tins
packing material and degraded
material.

These machine are compact in size and fully customize according to your use and application

General use plastic crusher, which is equipped with sealed bearings to ensure the long-term perfect operation; reasonable design of knife to render the products into even granules; knife rest is heat-treated and the design of the machine is good-looking.

We also have all bigger crusher models, please contact us for more information and we can make crushers as per your requirement.

sales@irverdebharatvarsh.in | sales@irverdebharatvarsh.co.in

#### **Durable alloy steel**

(CR12MOV,57-59 degree hardness) cutter, which is tougher, durable and adjustable. Optional cutter material available

- SKD-11,60-62 degree hardness;
- \* High speed steel, 63-67 degree hardness





#### Motor

Brand motor makes the machine operating steadily

#### **Electrical components**

Famous brand Schneider eletric parts, ensures stable running and



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Mallard 250	
Rotary knife diameter	250mm
rotary knife quantity	3 knives
Rotary knife length	245mm
Fixed knife quantity	2 knives
Fixed knife length	241mm
Crushing capacity	150-180kg/
Rotating speed of knife shaft	570r/min
Motor power	4kw
Inlet size	320*200mm
Outline dimension	1000*700*1200mm
Machine weight	200kg
Superstrong Crus	sher
Mallard 400	0
Rotary knife diameter	270mm
rotary knife quantity	12 knives
Rotary knife length	400mm
Fixed knife quantity	2 knives
Fixed knife length	400MM
Crushing capacity	250-300kgh
Rotating speed of knife shaft	650r/min
Motor power	7. 5kw
Inlet size	420*220mm
Outline dimension	1060*880*320mm
Machine weight	450kg
Superstrong Crus	her

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#### **Crusher Machine**

The crusher machine is designed to reduce scrap to a smaller uniform particle size. The crushing machine is usually used in scrap yards, steel mills, aluminum plants, recycling companies and anything that needs to be effectively crushed, In application, we can provide plastic crusher and metal crushers, we can help you choose a more suitable model according to your raw materials.

#### **Plastic Recycling Washing Machines**

PP Woven Jumbo Bag Recycling Washing Line Machine
PP/PE Film Recycling Washing Line Machine
PP/PE Bottle Recycling Washing Line Machine
PET Bottles Washing Line Machine

#### Foam recycling Machines

EPS Foam Lump Shredder Machine
EPS Foam Pelletizing Machine
EPS Styrofoam Compactor Machine
EPS Polystyrene Foam Compactor Machine
EPS EPE Foam Hot Melting Densifier Machine
Styrofoam Hot Melting Production Line With Silo System
EPS XPS EPE EPP Foam Hot Melting Recycling Machine

Pre- Shredder System...!



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### irverde Bharatvarsh Pvt. Ltd.

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