TIGER DEPACK®

PACKAGING AND CONTENT RECOVERY SOLUTION

THE TIGER DEPACK SYSTEM

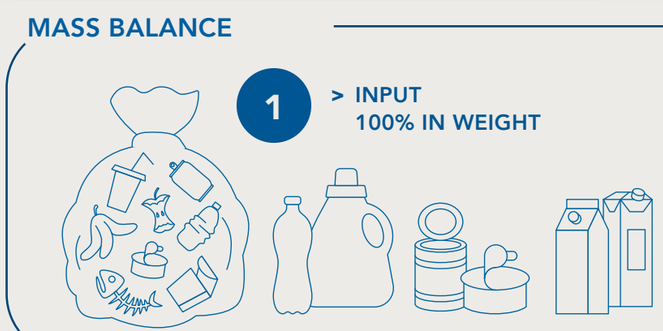
TIGER DEPACK IS THE BRAND THAT ENCOMPASSES THE TRADEMARKED TECHNOLOGIES DEVELOPED FOR THE DEPACKAGING OF PACKAGED PRODUCTS AND THE SEPARATION OF MATERIALS FOR THE RECOVERY, PRODUCTION AND DEPACKAGING SECTORS.

- Tiger Depack is by now the technological benchmark in many countries as trusted supplier and technological partner of the major benchmark companies in the production of daily consumer goods, waste treatment, animal nutrition, anaerobic digestion and composting in more than 150 plants throughout Europe, Australia, Canada and the US.
- Manufacturing companies that want to directly recover their own production waste from their lines and waste treatment plants, represent our main customer base with whom we have honed this technology over the last 15 years.
- Our brand is part of Cesaro Mac Import SRL, the Italian leader in the waste treatment plant sector.

★PATENTED SYSTEM★

TIGER DEPACK IS DESIGNED FOR THE RECOVERY OF PACKAGED PRODUCTS, PRODUCTION WASTE AND ORGANIC MATRICES. DESIGNED TO FIT EVEN IN TIGHT SPACES, WITH MAXIMUM CONNECTIVITY TO EXISTING SYSTEMS AND REDUCED ENERGY CONSUMPTION.

MASS BALANCE



1 > INPUT
100% IN WEIGHT

2 > TIGER DEPACK SYSTEM

> BEFORE TIGER DEPACK
- SQUEEZING
- SHREDDING + SCREENING
- HORIZONTAL SEPARATION

3 > OUTPUT TIGER

> RECOVERED 97% - 90% IN WEIGHT

> REJECT 3% - 10% IN WEIGHT

> OUTPUT NO TIGER

> RECOVERED 70% - 30% IN WEIGHT

> REJECT 30% - 70% IN WEIGHT

0 10 20 30 40 50 60 70 80 90 100%

VERTICAL SEPARATION
THE SECRET OF TIGER DEPACK

VERTICAL SEPARATION IS AT THE HEART OF THE TIGER DEPACK SYSTEMS TECHNOLOGY. THIS RESULTS IN THE PROCESSING OF HETEROGENEOUS MATERIAL INTENDED FOR DISPOSAL PERFORMING MAXIMUM THROUGHPUT AND THE HIGEST RECOVERY.

Thanks to the dedicated handling system, it is possible to add the desired amount of process liquids, which will be fed into the separation chamber and mixed with the separated product.

The Tiger Depack system is designed to operate in dry (no liquids added), wet or liquid processes. The resulting matrices are already suitable and ready for further processing such as wet or dry anaerobic digestion and composting or the preparation of pet food or paper fibre recovery.

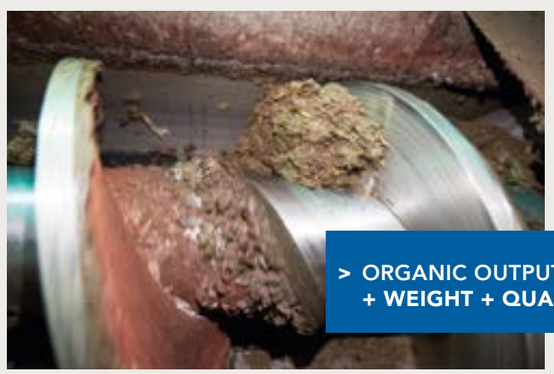
HIGEST RECOVERY PERFORMANCE, OPERATIONAL RELIABILITY EAVEN IN H24 WORKING SHIFTS

- **> CLOSE TO 100% RECOVERY OF THE ORGANIC MATERIAL**
- **> HIGHEST QUALITY OF CONTENT RECOVERED**
- **> DRY, WET OR LIQUID PROCESS OPERATION**
- **> ECONOMICAL VALORIZATION OF SEPARATED PACKAGING**
- **> MAXIMIZING THE THROUGHPUT**
- **> MINIMIZING WEAR AND TEAR OF THE MACHINE**

1 > INPUT 100% IN WEIGHT

2 > TIGER DEPACK SYSTEM

3 > OUTPUT >>>



> ORGANIC OUTPUT + WEIGHT + QUALITY

> PACKAGING OUTPUT - WEIGHT + QUALITY

3 PROCESSES ALL-IN-ONE

TIGER'S DE-PACKAGERS ARE USED IN A MULTITUDE OF PROCESSES GROUPED INTO THREE MACRO CATEGORIES: DEPACKAGING | RECOVERY | PRODUCTION

> TIGER SEPARATES THE PACKAGING FROM THE CONTENTS IN ONE STEP (E.G. THE DRINK FROM THE METAL CAN, THE ORGANIC FROM THE BAG).

> RECOVERS PRODUCTION WASTE FROM WASTE TREATMENT PLANTS (E.G. ORGANIC WASTE IS FULLY RECOVERED FROM OVERSIZED WASTE).

> RECOVERS PRODUCTION WASTE BY SEPARATING THE PACKAGING FROM THE CONTAINED PRODUCT (E.G. DETERGENTS OR COSMETICS THAT HAVE FAILED).

> **DE-PACKAGING THE MORE KNOWN SECTOR IN WHICH TIGER DEPACK OPERATES**
Recover packaging and its contents, obtaining the highest quality required for both of them. Defined and reusable packaging such as for out-of-date food, cartons, tetrapack, ferrous and non-ferrous metal tins. Clean content such as food, beverages, organic matter for AD/composting, detergents and cosmetics.

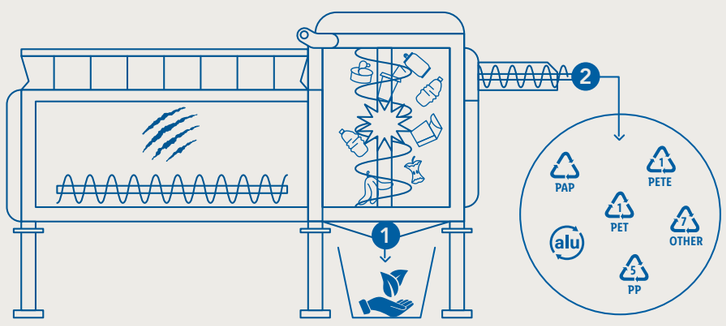
> **THE SECOND PROCESS IS THE RECOVERY OF REJECTS**
Tiger de-packagers recover up to 97% of intended matter, processing Paper Pulp and Pre-Treatment Plastics, experience demonstrates.

> **THE THIRD PROCESS IS PRODUCTION**
By introducing the Tiger Depack into the consumers goods production facilities process line it is possible now to reduce reject production direclty at the source.

DEPACKAGING
FOOD WASTE

RECOVERY
PLASTIC CLEANING

PRODUCTION
PRODUCT DEPACKAGING



A SINGLE MACHINE TO OBTAIN TWO CLEAN AND DIRECTLY USABLE MATRIXES FOR SUBSEQUENT PROCESSES.

1. ORGANIC MATRIX/ CONTENT
2. DRY MATRIX

TIGER HAS BEEN THE BEST TECHNOLOGICAL SOLUTION FOR THE TREATMENT OF THE MOST COMPLEX MATERIAL TO RECOVER FOR OVER 15 YEARS.

INPUT > ORGANIC WASTE

Generated by a multitude of sources such as roadside collection, markets, grocery stores, and large-scale retailers as well as from stations, ports and airports.

> FAULTY/EXPIRED PRODUCTS

Foodstuffs, cosmetics and detergents.

OUTPUT > When introduced into waste treatment plants, the Tiger Depack can be used to recover the organic/content fraction as well as the dry material/packaging, obtaining 2 streams suitable for subsequent recycling and repurposing.

INPUT > PLASTIC REJECTS

Plastic waste from the pre-treatment of Source Separated Organics and Expired Food.

> PAPER PULP

Waste from the paper-making process.

OUTPUT > Tiger's de-packagers are able to recover even rejects generated, for instance, by Paper Production or Waste Treatment Processes. Products composition of this category substantially differs from Packaged ones or Food Waste. Tiger de-packagers, in this case, are able to recover an intermediate processing reject.

INPUT > ALL TYPES OF WASTE PRODUCTION

Paper/cardboard, tetrapack, nonferrous, ferrous metals and plastics.

OUTPUT > Tiger Depack, within a production line in the control phase, such as food and beverage production sites, separates the packaging from its contents with total recovery of the matrices without generating waste.

THE PLANT SYSTEM

TIGER DEPACK IS A TECHNOLOGY THAT CAN BE EFFICIENTLY INTEGRATED INTO NUMEROUS TYPES OF ORGANIC MATRIX TREATMENT PLANTS, SUCH AS:

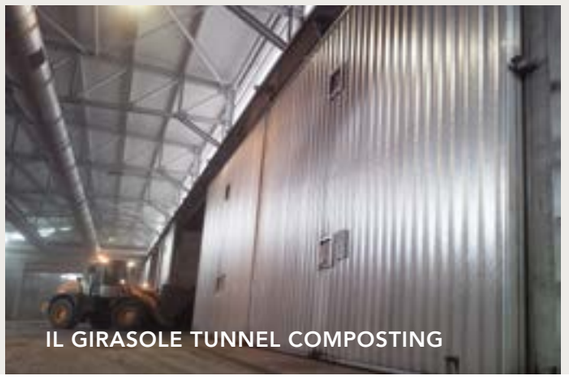
- > In the anaerobic digestion plants for the preparation of the substrate to be sent to the digester.
- > In the receiving stations and transfer of organic waste to carry out a preliminary treatment of the matrix.
- > In the recovery and processing of expired packaged food.
- > In the food industry for the recovery of production waste.
- > In the composting plants for the preparation of wet to send to mixing with the green.
- > In all installations waste treatment for cleaning reusable fractions.
- > In the bottling industries for the reduction of process wastes to be sent to landfill.

TIGER DEPACK + UM 320 + IL GIRASOLE TUNNEL COMPOSTING: SYSTEM OF TECHNOLOGIES FOR THE MANAGEMENT OF ORGANIC MATRICES.

FROM WASTE TO QUALITY COMPOST

TIGER DEPACK

CESARO UM 320



IL GIRASOLE TUNNEL COMPOSTING

TIGER DEPACK PLANTS

THE ORGANIC FRACTION OF WASTE IS USUALLY THE PREDOMINANT PART OF WASTE COMING FROM MUNICIPAL COLLECTION OR FROM WASTE GENERATED IN PRODUCTION PROCESSES.

The two plants shown by way of example allow you to notice a further typology of insertion of Tiger's de-packagers.

These Bio-Methane and Electricity production sites produced by Anaerobic Digestion have inserted Tiger HS20 after start-up.

The objective achieved by HS20 in these two cases allows to recover over 90% of the organic fraction still present in the plastic waste from Pre-Treatment.

ANAEROBIC DIGESTION AND COMPOSTING PLANT
SANT'AGATA BOLOGNESE (BO) - ITALY

ANAEROBIC DIGESTION AND COMPOSTING PLANT
TRENTO (TN) - ITALY

Each process in the waste treatment cycle produces a small amount of waste: mostly plastic, the quality of which does not fully meet the expectations of the mass balance of a high-performance facility, as there is still a percentage of organic fraction present. Tiger Depack is able to process the plastic waste from these processes, recovering all the organic fraction and reducing the waste to landfill.

The challenge successfully achieved by Tiger Depack is even more significant given the need for dry process.

BENEFITS

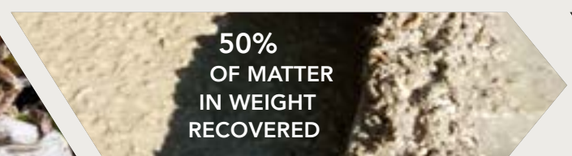
Organic Fraction recovered from Plastic Waste

+ over 90% organic matter sent to energetic valorization

Reduction of the Produced Rejects + cat of disposal cost till 80%

INPUT TIGER DEPACK

OUTPUT > 90% OF ORGANIC MATTER RECOVERED



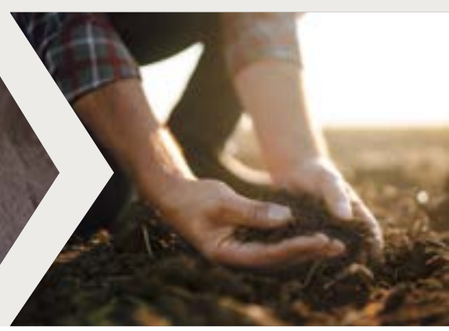
50%
OF MATTER
IN WEIGHT
RECOVERED

20%
RESIDUAL
WASTE

> OUTPUT UM320

> OUTPUT IL GIRASOLE

> BIOCOMPOST



COMPACT, ALL-IN-ONE AND PLUG & PLAY, THAT'S TIGER DEPACK

VERTICAL SEPARATION IS AT THE HEART OF THE TIGER DEPACK SYSTEMS TECHNOLOGY. THIS RESULTS IN THE PROCESSING OF HETEROGENEOUS MATERIAL INTENDED FOR DISPOSAL PERFORMING MAXIMUM THROUGHPUT AND THE HIGEST RECOVERY.

> THANKS TO ITS EXTREMELY COMPACT DESIGN, the Tiger Depack is an All-in-One solution insofar as all the components it requires to operate are enclosed within its chassis.

> THE USAGE OF COMPONENTS AND MATERIALS SUCH AS HARDOX AND STAINLESS STEEL has allowed spare parts to be replaced less than half as much as competing products.

> THANKS TO THESE FEATURES, TIGER DEPACK IS THE MOST COMPACT AND RELIABLE machine on the market with the lowest operating costs (per ton processed).

BOTH COMPARTMENT, FEEDING AND TREATING, ARE MANAGED BY A SINGLE OPERATING SOFTWARE THAT GOVERNS THE AUGERS' SPEED, BASED ON THE SETTINGS PROVIDED AND BY THE CHARACTERISTICS OF THE MATERIAL BEING LOADED.

TIMELY DIAGNOSIS
OF THE ALARMS

TELEMETRY FOR INCREASED
PERFORMANCE

INTUITIVE PARAMETER
ADJUSTMENT

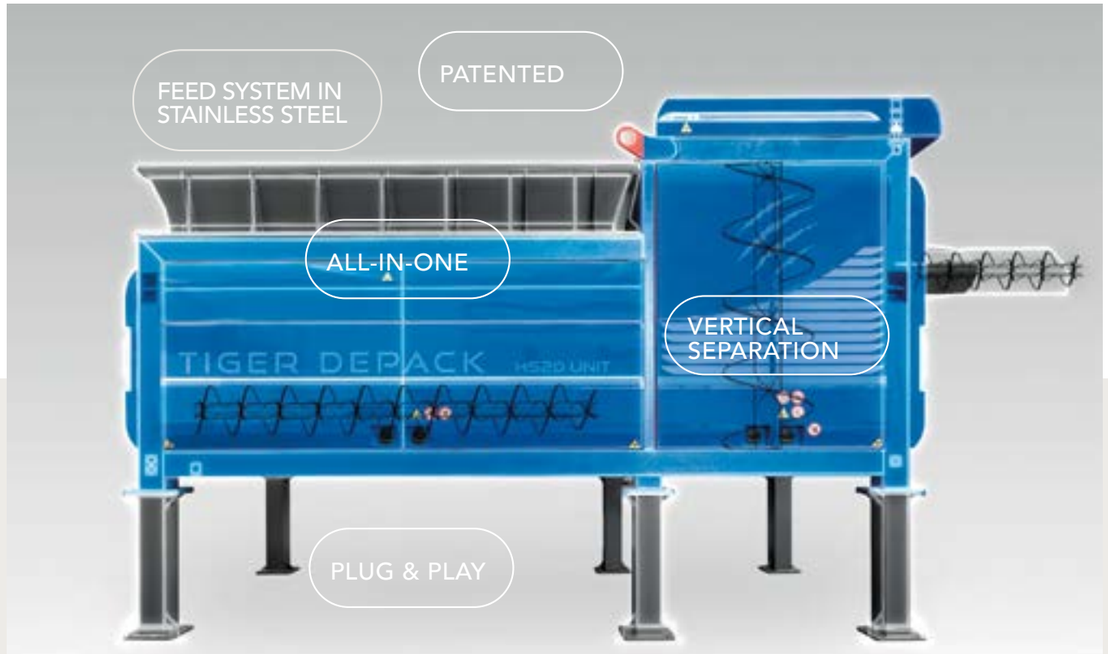
TIGER DEPACK HS20

TIGER DEPACK HS10

TIGER DEPACK HS5

SAFETY TECHNOLOGY
RELIABILITY & EFFICIENCY

- **Lockable and alarmed external hatches** for accessing compartments with moving parts
- **Open hatch alarms** and automatic shut-down of moving parts
- **Manual alarm buttons**
- **Hatches** with self-locking screws to internal compartments
- **Emergency lighting** signalling In Use
- **Integrated control board** within the body of the machine in a protected an isolated position
- **Tiger Depack Emergency Circuit** which can be integrated with the target system's emergency circuit
- **Lifting hooks** fitted for lifting/handling machinery
- **Easy access to all parts** of the machine for maintenance at any time
- **Planned maintenance** by specialist staff, worldwide



- **Optimized automatic processing** cycle with set parameters
- Machines suitable for **indoor or outdoor** processing
- **Robust** components, structure and frame designed for heavy workloads
- Production capacity **over a 24/7 processing cycle**
- **Low maintenance**
- **Remote service**
- **Oversized electrical motor** in relation to the power required
- Automated end-of-day **cleaning cycle**
- **Internet connected**

TIGER DEPACK DO NOT TOLERATE ANY COMPROMISE WHEN IT COMES TO THE SAFETY OF THEIR MACHINES. PASSIVE AND ACTIVE SYSTEMS CONTROL FUNCTIONALITY, EVEN FROM REMOTE LOCATIONS, WHICH CONFORM WITH THE STRICTEST LAWS ON SAFETY.

CHASSIS INTEGRATED ELECTRICAL PANEL

DOOR OPENING ALARM

PASSIVE AND ACTIVE SAFETY SYSTEMS

LARGER ELECTRIC MOTOR

ACCESSORIES & INNOVATIONS

THE TIGER DEPACK'S OPTIONAL EXTRAS AND ACCESSORIES ARE AVAILABLE FOR ALL VERSIONS, OFFERING INCREASED ADAPTABILITY TO WHATEVER PROCESS THEY ARE INSTALLED IN.

DISCHARGE SYSTEMS

- Packaging Extractor auger embedded
- Content Discharge System for both Wet and Dry processes available as accessory

> HYDRO AIR SEPARATION TANK

ACCESSORIES CAN ALSO BE INSTALLED AFTER TIGER DE-PACKAGER PURCHASE

INTEGRATED HARDWARE/SOFTWARE AND MEASURING ACCESSORIES

- Profibus Module
- Loading cells
- User friendly
- PID regulation
- Alarm identification
- Telemetry processing

DOOR PAINTING AND LUBRICATION

- Sliding doors
- Automatic lubrication device with timer
- Bodywork color options

SILENT BLOCK MINIMIZE POSSIBLE VIBRATIONS

PROCESS LIQUID REGULATION

SYSTEMS FOR WET FRACTION DISCHARGE AVAILABLE

HOPPER IN STAINLESS STEEL

INTEGRATED PACKAGING EXTRACTOR

SLIDING DOORS

INTERNET CONNECTED

TIGER DEPACK HS 20 UNIT
FOR HEAVY WORKLOADS

THE TIGER HS 20 UNIT WAS CREATED TO HANDLE INCREASED PROCESSING CAPACITIES. APPLICABLE IN THE FIELDS OF DEPACKAGING AND RECOVERY WHERE LARGE PRODUCTION QUANTITIES ARE REQUIRED. THIS IS THE LARGEST AND MOST POWERFUL MACHINE IN THE TIGER DEPACK RANGE.

DATA SHEET

TIGER HS 20 UNIT NOMINAL CAPACITY **20 T/H**		
SEPARATION	Patented vertical separating block	
PLASTIC EXTRACTION	Dry fraction extractor screw	
HOPPER	Standard hopper AISI 304	
LEGS	Standard legs	1.200 mm
ENGINES	ABB engine for the shaft	90 kW
	Engine with gearmotor for the feeding hopper	11 kW
	Engine with gearmotor for the extraction screw	5,5 kW
LIQUIDS	Double water input line: process water line and washing line	
	Solenoid valve for the regulation of the incoming water flow	
	Liter counter	
ELECTRICAL AND SOFTWARE	Control panel with touchscreen	
	Software	
	Soft Starter	
	Frequency Converter	
	Electric cabinet	
	Rotation sensor for rotor	

Specifications subject to technical changes. Specifications are approximate, illustrations and may include options that are not part of the standard equipment.

OPERATING DIMENSION mm		
A	hopper loading height	3.200
B	hopper loading width	3.500
C	plastic discharge height	3.000

OVERALL MACHINE DIMENSIONS mm		
D	max length	7.550 = H+I
E	max width	2.500
F	max frame height	2.960
G	max height	4.160 = F+L
H	external length of plastic extractor	1.100
I	frame length	6.450
L	height of standard legs	1.200

TIGER DEPACK HS 10 UNIT
THE MOST VERSATILE

THE TIGER HS 10 IS TIGER DEPACK'S SPEARHEAD PRODUCT. CREATED AS THE TIGER HS 640 IT IS THE BASE MACHINE WHICH IS SUITABLE FOR MEETING A VARIETY OF REQUIREMENTS AS A RESULT OF ITS SIZE AND PRODUCTIVITY.

DATA SHEET

TIGER HS 10 UNIT NOMINAL CAPACITY 10 T/H		
SEPARATION	Patented vertical separating block	
PLASTIC EXTRACTION	Dry fraction extractor screw	
HOPPER	Standard hopper AISI 304	
LEGS	Standard legs	1.200 mm
ENGINES	ABB engine for the shaft	55 kW
	Engine with gearmotor for the feeding hopper	5,5 kW
	Engine with gearmotor for the extraction screw	3 kW
LIQUIDS	Double water input line: process water line and washing line	
	Solenoid valve for the regulation of the incoming water flow	
	Liter counter	
ELECTRICAL AND SOFTWARE	Control panel with touchscreen	
	Software	
	Soft Starter	
	Frequency Converter	
	Electric cabinet	
	Rotation sensor for rotor	

Specifications subject to technical changes. Specifications are approximate, illustrations and may include options that are not part of the standard equipment.

OPERATING DIMENSION mm		
A	hopper loading height	3.200
B	hopper loading width	3.500
C	plastic discharge height	3.150

OVERALL MACHINE DIMENSIONS mm		
D	max length	7.400 = H+I
E	max width	2.500
F	max frame height	2.960
G	max height	4.160 = F+L
H	external length of plastic extractor	1.600
I	frame length	5.800
L	height of standard legs	1.200

TIGER DEPACK HS 5 UNIT

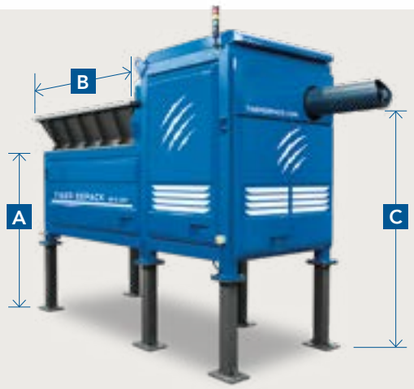
SMALL DIMENSIONS HIGH PERFORMANCE

THE TIGER HS 5 UNIT IS THE SMALLEST VERSION OF THE TIGER DEPACK RANGE. BORN FROM THE SPECIFIC NEED TO BE INSTALLED IN MORE RESTRICTED SPACES, THE TIGER HS 5 UNIT FEATURES THE SAME SEPARATION AND DEPACKAGING QUALITIES AS THE LARGER VERSION.

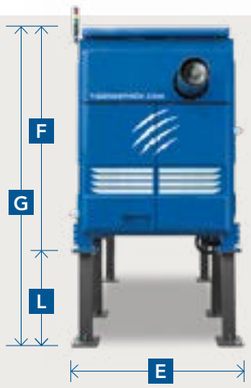
DATA SHEET

TIGER HS 5 UNIT NOMINAL CAPACITY 3-7 T/H		
SEPARATION	Patented vertical separating block	
PLASTIC EXTRACTION	Dry fraction extractor screw	
HOPPER	Standard hopper AISI 304	
LEGS	Standard legs	1.200 mm
ENGINES	ABB engine for the shaft	30 kW
	Engine with gearmotor for the feeding hopper	5,5 kW
	Engine with gearmotor for the extraction screw	3 kW
LIQUIDS	Double water input line: process water line and washing line	
	Solenoid valve for the regulation of the incoming water flow	
	Liter counter	
ELECTRICAL AND SOFTWARE	Control panel with touchscreen	
	Software	
	Soft Starter	
	Frequency Converter	
	Electric cabinet	
	Rotation sensor for rotor	

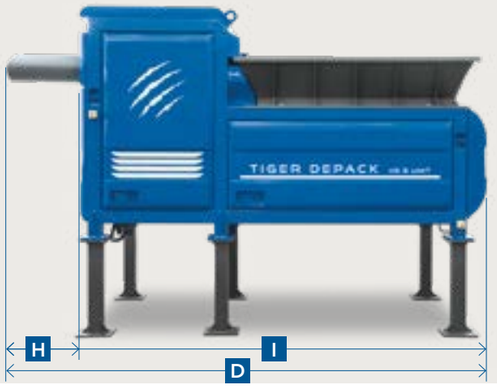
Specifications subject to technical changes. Specifications are approximate, illustrations and may include options that are not part of the standard equipment.



OPERATING DIMENSION mm		
A	hopper loading height	3.300
B	hopper loading width	2.250
C	plastic discharge height	3.000



OVERALL MACHINE DIMENSIONS mm		
D	max length	5.650 = H+I
E	max width	2.000
F	max frame height	2.700
G	max height	3.900 = F+L
H	external length of plastic extractor	920
I	frame length	4.730
L	height of standard legs	1.200



TIGER DEPACK HS 55 (CANADA)
ANIMAL FEED

MORE THAN **150 TIGER DEPACK** IN THE WORLD

TIGER DEPACK HS 20 (ITALY)
PAPER PULP

TIGER DEPACK HS 55 (U.S.A) /
ANAEROBIC DIGESTION

TIGER DEPACK HS 10 (U.S.A) /
WASTE FROM CAFETERIAS

TIGER DEPACK HS 10 (POLAND) /
WASTE TREATMENT REJECTS

TIGER DEPACK HS 75 (CANADA) /
ANAEROBIC DIGESTION

TIGER DEPACK HS 5 (ITALY) /
SOURCE SEPARATED ORGANIC

TIGER DEPACK HS 10 (NORWAY) /
FOOD WASTE

TIGER DEPACK HS 20 (ITALY) /
WASTE TREATMENT REJECTS

TIGER DEPACK HS 5 (ITALY) /
SOURCE SEPARATED ORGANIC

TIGER DEPACK HS 10 UNIT (FRANCE) /
SOURCE SEPARATED ORGANIC

TIGER DEPACK HS 55 (U.S.A) /
OVERSIZE CLEANING

TIGER DEPACK HS 90 (U.S.A) /
OVERSIZE CLEANING

MORE THAN 150 TIGER DEPACK IN THE WORLD

- USA ★
- ENGLAND ★
- SPAIN
- FRANCE ★
- ITALY
- FINLAND
- AUSTRALIA ★
- CANADA ★
- POLAND ★
- HOLLAND
- NORWAY ★
- HUNGARY
- UKRAINE ★
- LITHUANIA
- RUSSIA ★
- IRELAND ★
- SOUTH KOREA ★

LEGEND

- ★ DEALER
- ○ MACHINE

WORLDWIDE SERVICE

TIGER TECHNOLOGY IS KNOWN AND APPRECIATED ALL OVER THE WORLD THANKS TO THE PRESENCE OF AUTHORISED DEALERS AND A WORLDWIDE SERVICE THAT IS THE ADDED VALUE OF THE TIGER DEPACK SYSTEM.

The ability to provide our customers with warranties and **planned assistance**, as well as the possibility of **remote monitoring**, make the Tiger Depack an efficient and effective system.

A system that can guarantee the **availability of spare parts and qualified staff** capable of providing a rapid response to our customers' needs.

YOUR PARTNER
FOR ORGANIC WASTE AND RECOVERY SOLUTION

TIGER DEPACK®
PACKAGING AND CONTENT RECOVERY SOLUTION

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