



Screening and Processing



Drying System



Wood Yard



Conveying solutions in the cement industry



Maintenance and Service



Waste to Fuel



Waste to Flame



Waste to Electricity



Biomass Fuel Handling



Pneumatic Conveying

INDUSTRIAL PROJECT AND SERVICE

www.ispm-service.com



ISPM-Service est une entreprise portugaise créée en 2015 sur un concept innovant et environnemental, orientée par des valeurs de développement durable dans une ère industrialisée où la production d'énergie grâce à la combustion des déchets est une manière de traiter le problème des déchets et d'en retirer un profit. **ISPM** est une entreprise flexible, enthousiaste, socialement responsable et adaptable aux changements. Notre entreprise se caractérise principalement par un effort commun: avec nos partenaires et représentants, nous concevons et assemblons des équipements et des projets «clés en main» dans plusieurs domaines. Nous avons une assistance technique avec des professionnels motivés et hautement qualifiés. Surmonter les défis, chercher à générer et implanter des nouvelles solutions technologiques, innovantes et out of the box font partie de nos préoccupations quotidiennes et de notre vision à long terme pour **ISPM-Service**. Nous sommes une entreprise visionnaire, nous travaillons aujourd'hui pour demain, le début de l'avenir.

**LA SOLUTION DE
L'AVENIR AU
PRÉSENT**

Paulo Teixeira



ISPM a été nommé officiellement revendeur de:

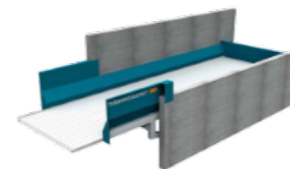
*BMH Technology au Portugal et en France;
Jeffrey Rader, Stela et Aumund au Portugal;
Demuth au Portugal, en Espagne et en France;
Et revendeur agréé de BMH au Brésil*





Waste to Electricity

Cette solution est adaptée aux besoins spécifiques de chaque centrale électrique pour la production et la manutention de combustibles solides de récupération. Elle inclut toutes les étapes, de la réception des déchets jusqu'à l'alimentation de la chaudière et la manutention des cendres. Les combustibles solides de récupération issus du processus TYRANNOSAURUS® Waste to Electricity ont une granulométrie et une qualité optimales pour les lits fluidisés.



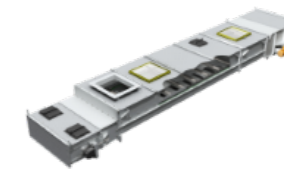
TYRANNOSAURUS® Feeders

Les alimentateurs Tyrannosaurus® permettent un chargement optimal de déchiqueteuses/broyeurs assurant ainsi continuellement une capacité maximale.



TYRANNOSAURUS® 1500 Fines Screens

Les cribles fins de la série 1500 de Tyrannosaurus® séparent les fines, comme le sable, le verre, la terre du matériau.



Drag Chain Conveyors

Convoyeurs à chaîne: c'est le moyen idéal d'assurer sûreté et sécurité de transport de vrac dans de nombreux processus.



Tubular Belt Conveyors

Convoyeurs à bande tubulaires: destinés au convoyage de matériau sur de longues distances à haute capacité.



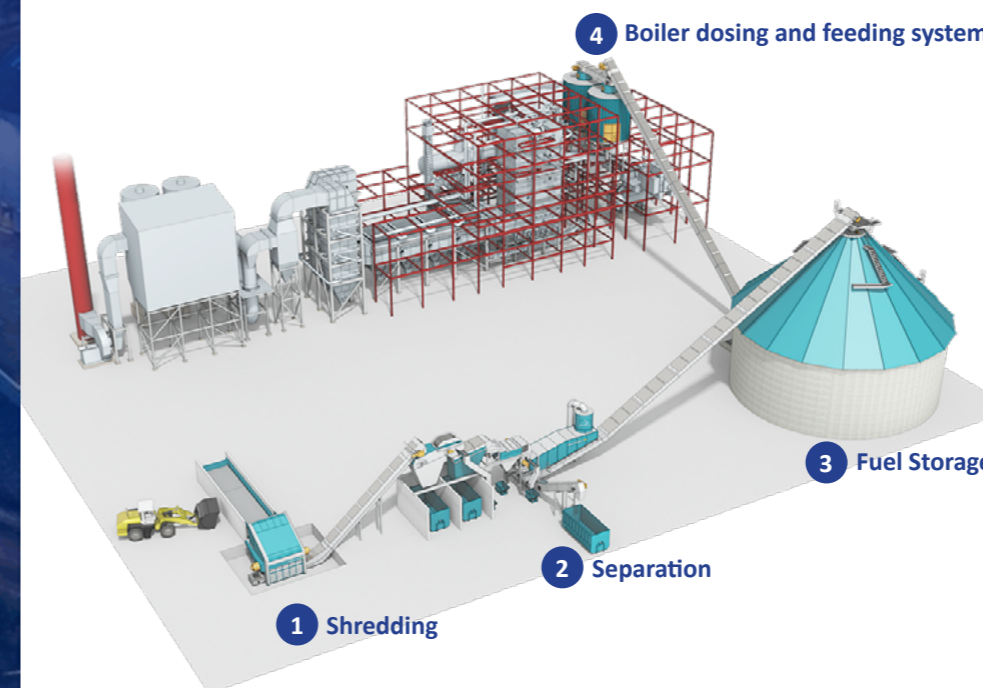
TYRANNOSAURUS® 2500 Air Classifiers

Les classeurs à air série 2500 de Tyrannosaurus® produisent une fraction légère et propre pour optimiser la qualité du combustible.



TYRANNOSAURUS® Rotating Screw Reclaimers

Les convoyeurs rotatifs Tyrannosaurus® conviennent au déchargement de combustibles solides de silos ou de stocks ronds à ciel ouvert.



Rotary Valve Feeders

Alimentateurs à valve rotatifs: la solution optimale pour alimenter et doser différents matériaux fins ou poussiéreux.

Bucket elevators are an excellent choice particularly in locations where space is limited and material needs to be transferred high on a vertical scale. They are capable of lifting a variety of materials ranging from dry, dusty fluff to heavy materials such as bottom ash.

Bucket elevators are always custom designed to meet your specific requirements and to suit the materials being handled.

Main advantages

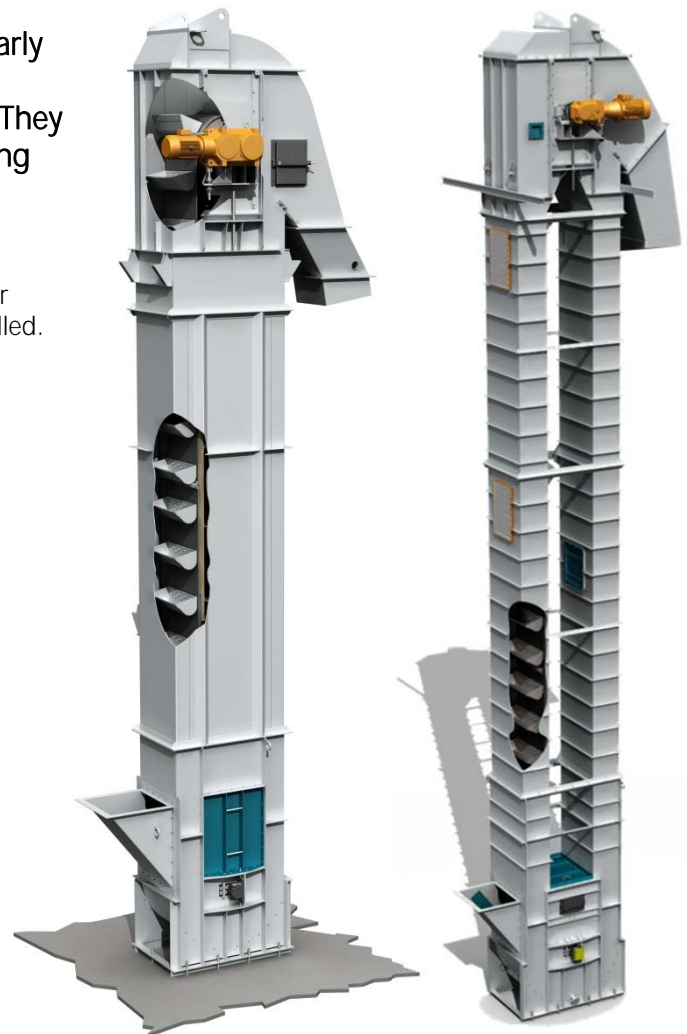
- outstanding lifting capacity to high altitudes in confined spaces
- totally enclosed construction provides dust-tight and spillage-free operation
- specially designed buckets ensure clean and perfect discharge
- customised solutions based on modular engineering for fast and cost-effective installation
- long lifetime

BELT BUCKET ELEVATOR	
Belt width (mm)	Max capacity (m ³ /h)
500	100
650	150
800	250
1000	400
1200	600
1400	900

Please note that the capacity values in this table are only indicative and they have been calculated for handling woodchip or similar materials.

CHAIN BUCKET ELEVATOR	
Casing size (mm)	Max. capacity (m ³ /h)
400 x 1000	40
720 x 1000	80
900 x 1250	120

Please note that the capacity values in this table are only indicative and they have been calculated for handling lime or similar materials.



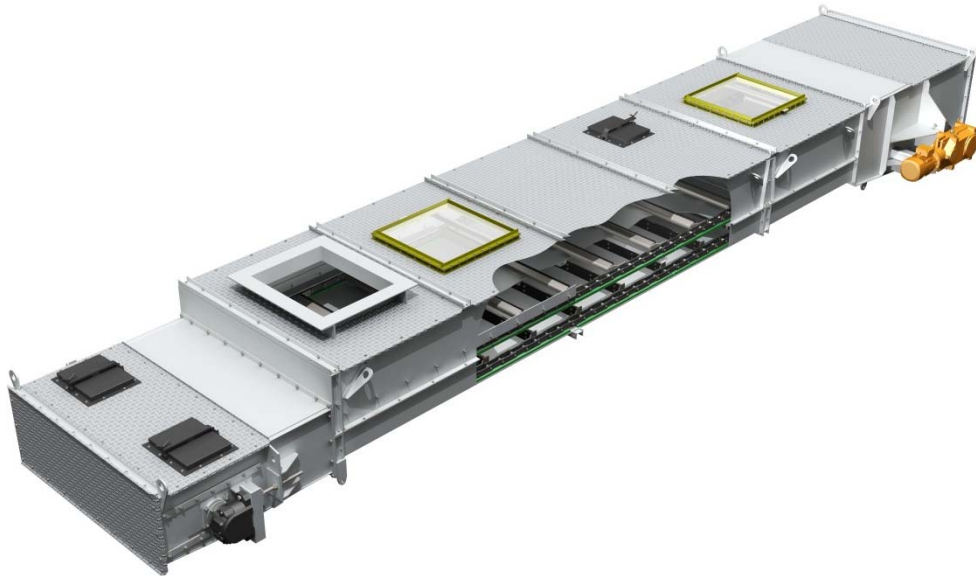
IDEAL FOR HANDLING:

Belt bucket elevators

- biomass fuels (woodchips, bark, peat, agro biomass, pellets)
- solid recovered fuel (SRF)

Chain bucket elevators

- cement
- lime
- ash



Drag chain conveyors provide a safe and reliable solution for handling powdery and dusty bulk materials in various industrial processes that require a continuous and even material flow.

Drag chain conveyors efficiently meet your needs in the following areas:

- receiving of material and transferring to intermediate storage
- filling of storage silos
- discharging from storage silos and further feeding to process equipment
- transferring of end product to storage

Width (mm)	Capacity (m ³ /h)	Recommended max. length (m)
650	150	60
800	200	60
1000	300	60
1200	400	60
1400	500	60
1600	700	60
2000	1000	60

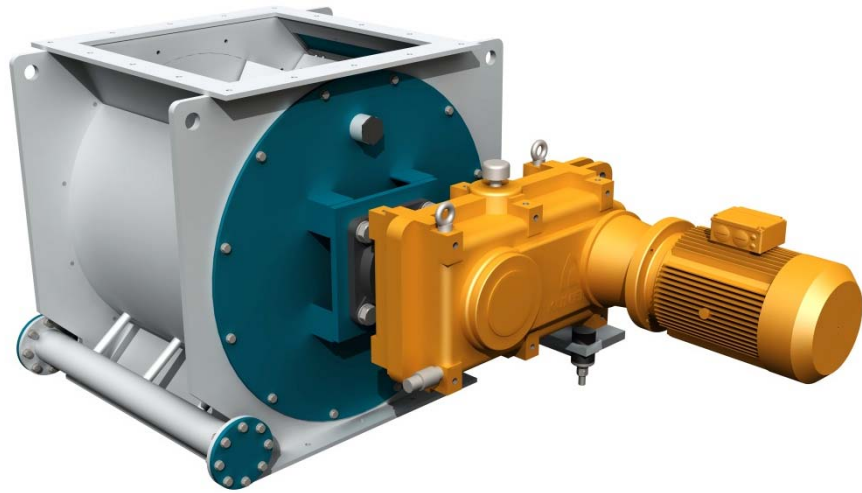
Please note that the values in this table are only indicative. The capacities have been calculated for handling woodchip or similar materials.

IDEAL FOR HANDLING:

- biomass fuels (woodchips, bark, peat, agro biomass, pellets)
- solid recovered fuel (SRF)
- coal
- ash
- cement
- lime and minerals

Main advantages

- customised solutions based on modular engineering for fast and cost-effective installation
- horizontal or inclined installations, or a combination of both
- several inlet and outlet points
- standard components and chain types
- forged chains for heavy-duty applications
- special chains for heavy-duty and demanding conditions (heatproof structures)
- possibility to include water-cooling designs
- simple construction for straightforward maintenance
- dust-tight and spillage-free



Rotary valve feeders are widely used in feeding and dosing fine-grained and dusty materials in various processes. They are always custom designed to meet your specific applications and to suit the materials being handled.

Rotary valve feeders feed e.g. coal, SRF, biomass or fly ash into a power boiler and, at the same time, act partially as a lock to prevent the backflow of gases and flames. They also serve as a dosing feeder at the silo outlet to prevent the uncontrolled discharge of material out of the silo.

Main advantages

- modular robust design with standard components
- reliable operation
- totally enclosed, dust-tight and safe construction
- easy installation
- minor need for maintenance

Special models available for your specific needs:

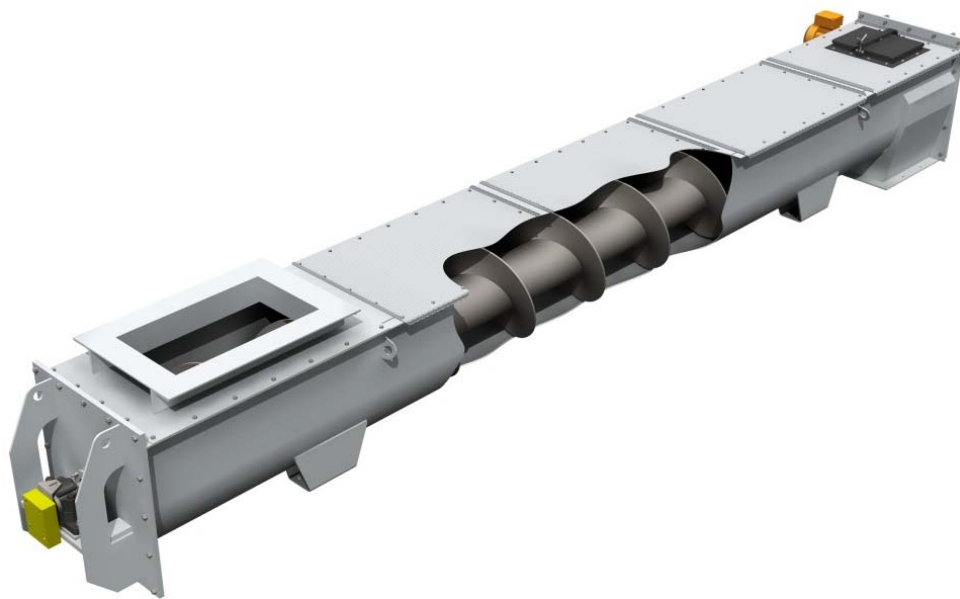
- LSE – Electric precipitator soda ash

TYPE	Size	Capacity (m ³ /h)
LSF Biomass, solid recovered fuel (SRF)	40/60	40
	50/60	60
	50/80	85
	63/50	100
	63/80	140
	80/80	200
	63/120	230
LSC Coal, sludge, sticky materials, (biomass)	80/120	300
	40/40	20
	40/50	30
	40/60	40
	50/60	60
	63/50	60
LSAR Ash, sand	63/80	100
	20/20	5
	30/30	15
	40/40	40
	50/50	80

Please note that the values in this table are only indicative and they have been calculated for a filling degree of 40%.

IDEAL FOR HANDLING:

- biomass fuels (woodchips, bark, peat, agro biomass, pellets)
- solid recovered fuel (SRF)
- coal
- sludge
- sticky materials
- ash
- sand



Screw conveyors are one of the most economical ways to transfer bulk materials over short distances.

Besides transferring materials from one place to another, screw conveyors can be used for:

- feeding, dosing and mixing
- distribution of material flow
- cooling (double-wall special design)
- humidifying (when equipped with internal water nozzles)
- vertical lifting of certain materials

Screw conveyors are designed to meet your specific usage requirements and to suit the materials being handled.

Screw diameter (mm)	Capacity (m ³ /h)	Recommended max. length
250	15	6.5
315	26	7.0
400	55	8.5
500	110	8.6
630	220	10.0
710	300	11.0
800	330	11.0
900	450	11.0
1000	520	12.0
1120	740	12.0
1250	850	12.0
1400	1200	14.0
1600	1400	14.0

Please note that the values in this table are only indicative. The capacities have been calculated for handling woodchip or similar materials at an inclination of 0°.

IDEAL FOR HANDLING:

- biomass fuels (woodchips, bark, peat, agro biomass, pellets)
- solid recovered fuel (SRF)
- coal
- ash
- cement
- lime and minerals

Main advantages

- standard modular design
- horizontal, inclined and vertical designs
- tubular or U-shaped conveyor trough
- special design flights for difficult sticky materials
- screws with wear-resistant facing for demanding conditions
- simple construction means easy maintenance



Tubular belt conveyors are a good choice for conveying various kinds of bulk materials over long distances at high capacities. The material lies unaffected on the conveyor belt throughout its journey between the transfer points.

The flexible design gives more freedom in optimising the location of the main process equipment and buildings at demanding sites.

Horizontal and vertical curves enable reliable and economical design of the conveyor lines even in space-limited environments. This versatility becomes a particularly useful feature when conventional conveying systems are to be replaced in existing installations.

Inner diameter of tube (mm)	Capacity (m ³ /h)
150	100
190	150
235	240
275	320
315	420
370	580
420	750
475	950
530	1200
585	1450

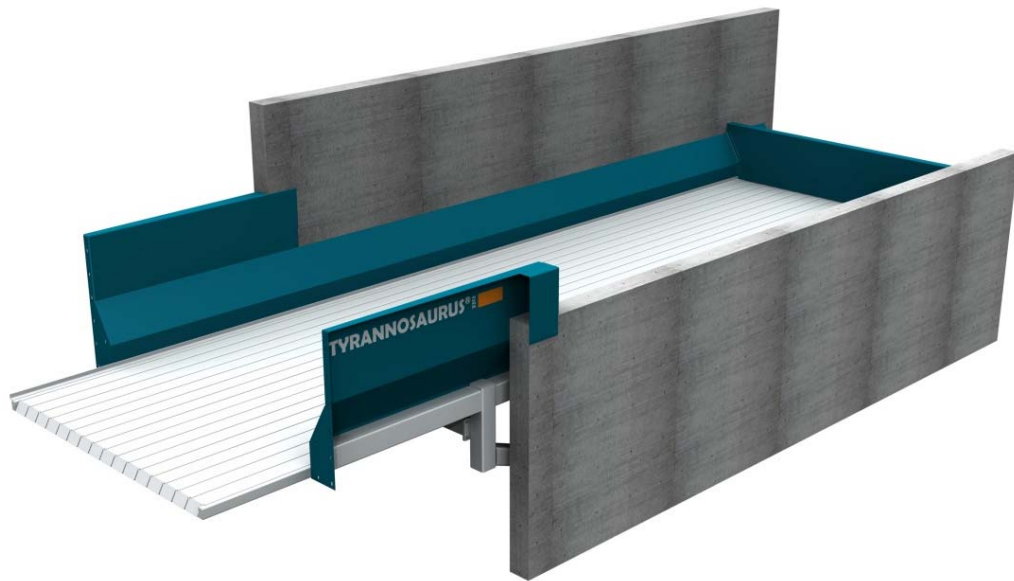
Please note that the values in this table are only indicative. Capacities have been calculated for handling woodchip or similar materials at a belt speed of 2 m/s.

IDEAL FOR HANDLING:

- biomass fuels (woodchips, bark, sludge, pellets)
- solid recovered fuel (SRF)
- coal
- ash
- cement
- lime

Main advantages

- enclosed design prevents spillage and keeps the environment clean and dust-free
- enclosed belt tube keeps the material handled undamaged and free from external impurities
- simple and flexible layout solutions for space-limited sites
- less cross stations and related auxiliary equipment are needed which means higher reliability and lower operating costs
- standard components already proven to work in conventional belt conveyors



TYRANNOSAURUS® Step Feeders are an excellent solution for optimising almost any feeding process where a continuous flow of material is needed. They are typically combined with a TYRANNOSAURUS® Shredder or a TYRANNOSAURUS® Biocrusher. A step feeder serves a buffer and a feeder for the process lengthening the loading intervals and enabling the front loader driver to take on more profitable tasks between loadings.

When attached for example to a shredder, TYRANNOSAURUS® Step Feeders can adjust their feeding capacity according to the level measurements taken in the shredder's feed hopper. This means the production capacity is kept at its maximum level all the time. Step feeders are not only capable of handling large pieces but also carrying a huge volume of material. The fully automatic feeding ensures that the process functions are constantly optimised.

TYPE	Width (mm)	Length (m)	Capacity (m³/h)
2412	2400	12	45
2418	2400	18	65
2424	2400	24	85
3212	3200	12	60
3218	3200	18	85
3224	3200	24	115

Please note that the values in this table are only indicative and they have been calculated for handling MSW. The thickness of the material layer used in the calculation was 1.5 m.

TYRANNOSAURUS® Step Feeders have a long lifetime. The number of wear parts has been minimised resulting in low operation and maintenance costs.

SUITABLE FOR ALMOST ANY SOLID MATERIAL:

- municipal solid waste (MSW)
- industrial waste
- demolition waste wood
- bark
- stumps
- biomass

Main advantages

- high availability and long lifetime
- low investment and operating costs
- low maintenance costs
- high buffer capacity
- loading intervals lengthened
- produces an even material flow to the next process
- designed to prevent material from tangling
- efficient operation
- heavy duty design
- easy to install

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