Shredder & Screw press AIO(All In One Machine)

Shredder & Screw press AIO(All In One Machine) is the machine that integrate industrial shredder with dewatering screw press. The all in one design for combining size reduction and solid-liquid separtion in one step without conveying. The shredder & Screw press AIO can be used in the waste-to-energy application such as refuse-derived fuel (RDF) processing, the waste-to-green application such as biodegradable organic waste composting,the application of commercial liquid food waste processd into biodiesel, and so on. The weight and volume of the waste after treated are greatly reduced and save transport cost.

- **Shredder & Screw Press AIO Features:**
- ♦ Low-speed shredding, whether hard or soft materials can be shredded, high efficiency, strong processing capability.
- ♦ Shredding and dewatering integration design, greatly saves working space, reduce operating costs.
- ♦ Compact, robust, shredder and dewatering screw press can be independently disassembled, easily maintenance.
- ♦ The cutting blades uses high quality alloy from Europe, high hardness and toughness, with strong wear resistance and impact resistance.
- ♦ Intelligent, automatic reverse to jammed hard foreign matter.
- ♦ Stainless Steel Wetted parts.
- ♦ Spring or Pneumatic Back Pressure Devise.
- ♦ Multiple Sizes for Any Capacity.
- ♦ Easy to Install and Operate.

- **Application:**
- ♦ Kitchen Waste.
- ♦ Organic Waste.
- ♦ Domestic Waste.
- ♦ Residue of herbal medicine.
- ♦ Sea food.
- ♦ Cooking Oil

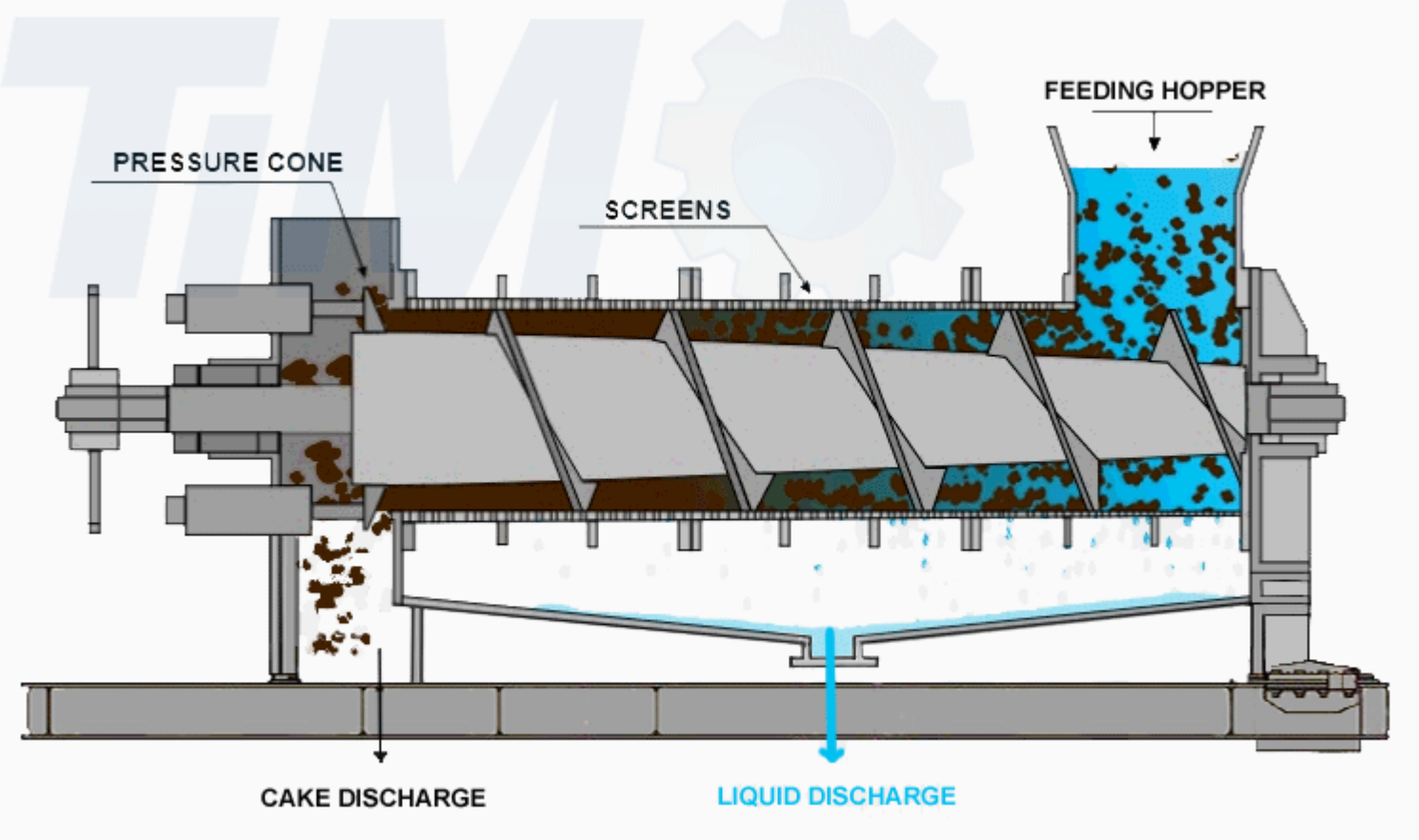
High Performance Dewatering Squeezer

Fusion specializes in the design, engineering and manufacture of **screw presses**. These are machines that squeeze liquid out of organic material, operating in a continuous (not batch) mode. Dewatering screw press can be used in an extremely wide variety of liquid-solid separation.High-capacity, sanitary press for continuous dewatering and juicing of organic and food products,independently driven rotor and regulated cone section provides instantaneous pressure regulation to give just the right squeeze to the material.We offer small screw press with Φ240 mm on up to big model 6 tons/hr with screws that are Φ400 mm in diameter.

Dewatering Screw Press Feature:

- ♦ Stainless steel wetted parts for abrasive waste and residues.
- ♦ Peak values in dry matter content.
- ♦ Heavy duty construction.
- ♦ Hydraulic backpressure cone devise
- ♦ Two-piece screen design allow for easy cleaning and maintenance
- ♦ Can accept widely varying flow rates
- ♦ Custom Designed for Every Application
- ♦ Easy to install and operate

As the animation on below, the working principle of dewatering screw press is that squeezes the material against a screen or filter and the liquid is collected through the screen for collection and use.It is a simple, slow moving mechanical devise that accomplishes dewatering by continuous gravitational drainage. Different materials require different screw speeds, screw configurations, and screens, we are able to design a screw press that is best for you.



Food Waste Depacking & Separating

- Food Waste Separating
- TIMO’s integrated industrial shredder and depacker FDS series machine is a good assistant on separating the food/organic/kitchen waste from the municipal solid waste(MSW) which container various solid waste, such as plastic, paper, fabric, etc. MSW are usually throw away directly to the landfill. But actually, the food/organic waste inside can be take as the raw material to do composting, or convert to the biogas by anaerobic digestion. Our industrial shredder and grinder separator can separate the food/organic waste and other solid waste automatically with the high efficiency and high capacity.
- Working principle: FDS series machine is the machine that integrated industrial shredder on top with depacker on bottom. Feed the MSW into the hopper of the FDS machine–>2. The industrial shredder on the top of the FDS macine will shred the MSW down to size first, about 55*12mm–>3. The shredded MSW will fall off to the depacker by gravity which underneath the shredder, the depacker will grind and mixed the shredded MSW by a high speed rotating shaft, the solid waste cannot pass through the round screen, so they will stay inside the screen and discharged along with the rotating shaft by the centrifugal force , at the same time, the screw blade grind the food/organic waste against the screen continuously, and the food/orgnaic waste will become small flakes/slurry under the high speed shredding and pass through the srceen. Finally, the food/organic waste and solid waste are separated. The picture below to show you the result before and after processing

FDS series integrated industrial shredder and depacker machine is also a good assistant on separating the packing material such as plastic bag, plastic bottle, paper, cardboard, tin cans from the food waste that come from super market, such as mixed grocery waste, coffee pods, bakery waste, cases of peanut butter, canned vegetables, beer in aluminum bottle, water in bottles, bowls of sweet potato, bowls of mashed potatoes, bulk bags of semi cooked potatoes, retail bags of diced potatoes, bread food waste, etc. 90-99% clean organic/food waste can be separated. FDS series machine can also separate the detergent from the plastic packing too, 88%-95% clean detergent waste can be separated. The picture below to show you the result before and after processing

- **Slaughterhouse Waste**
- Slaughterhouse waste (or abattoir waste) treatment has been a major environmental challenge for all over the world. In most of the developing countries, there is no organization for disposal of solid as well as liquid wastes generated in abattoirs.There are several way for beneficial utilize the slaughterhouse wastes including biogas generation, fertilizer production and utilization as animal feed.Anaerobic digestion is the best options for slaughterhouse waste treatment which produce energy-rich biogas, reducing Greenhouse gases emissions and effectively control the pollution in abattoirs