



DUROMECH[®]
control focused - technology driven

TROMMEL SCREEN

THAPAR ENGINEERING WORKS

PRESENTED BY : TARUN MADAN

ABOUT DUROMECH

DUROMECH is a leader in solid waste management equipment , delivering advanced systems and equipment to meet the industry's growing recycling needs. Since 1981, Duromech (Thapar Engineering Works) has led India's waste management machinery industry, specializing in Refuse Derived Fuel Processing Plant, Alternate Fuel Recovery Facility, Solid Waste Processing Unit that enhance sustainability and efficiency.

Our advanced technology and commitment to a greener future drive us to reduce waste and transform industries.

Our experienced design team will work directly with you to customize your Recycling System to suit your particular needs.

- **Proven Experience** – 30+ years in waste processing & recycling solutions.
- **Advanced Technology** – Trommel Screens, Disc Screens , Ballistic Separators, ADS (Air Density Separator), Conveyors built to global standards.
- **Custom Solutions** – Machines designed for Municipal Solid Waste, Refuse Derived Fuel, Construction & Demolition waste.
- **Strong & Reliable** – Heavy-duty, low-maintenance equipment for long life.
- **Complete Solution** – From design to Installation, Training & After – Sales Services.



DUROMECH's TROMMEL SCREEN

INTRODUCTION

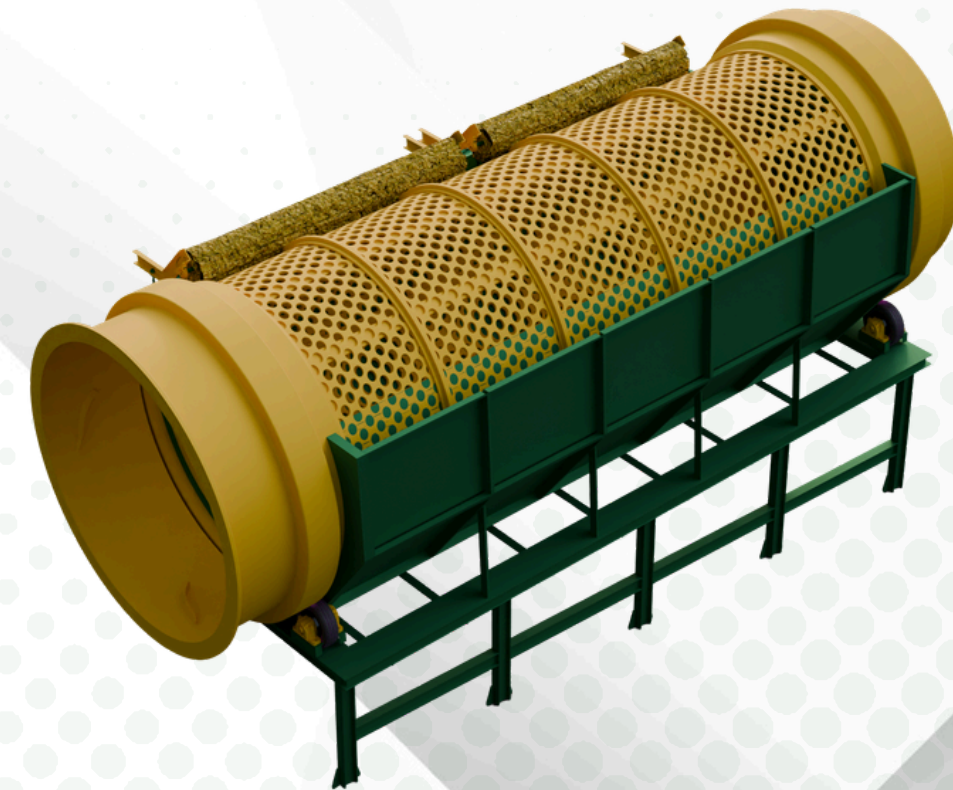
- Duromech's Trommel Screen is a highly efficient mechanical screening equipment widely used for the separation and classification of solid waste based on particle size. It consists of a rotating cylindrical drum with perforated holes. As the drum rotates, smaller particles pass through the screen openings, while oversized materials move forward and discharge at the end of the drum.
- Our Trommel screens are extensively used in municipal solid waste (MSW) processing, C&D waste recycling, composting plants, mining, and biomass applications. The continuous tumbling action ensures effective screening, reduces clogging, and allows consistent throughput even with wet or mixed waste streams. Due to their robust design, low maintenance requirements, and high reliability, trommel screens are ideal for heavy-duty and continuous operations.
- The machine can be customized with different drum diameters, lengths, screen sizes, and rotation speeds to meet specific process requirements and material characteristics.

APPLICATIONS OF TROMMEL SCREENS

TROMMEL SCREENS ARE USED IN A WIDE RANGE OF INDUSTRIES DUE TO THEIR VERSATILITY AND EFFECTIVENESS.

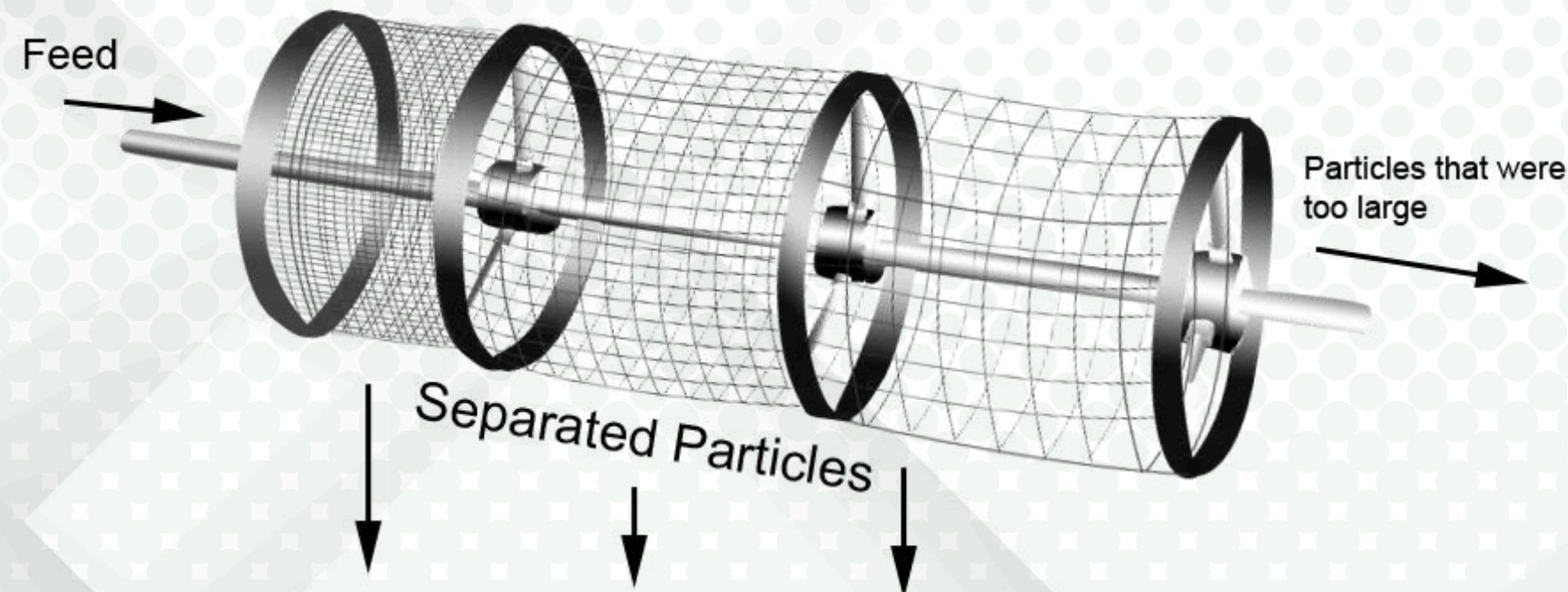
COMMON APPLICATIONS INCLUDE:

- **Recycling:** Sorting and separating recyclables such as plastics, metals, and glass by size for efficient processing.
- **Mining:** Separating valuable minerals from orebased on size, improving the efficiency of downstream processing.
- **Waste Management:** Screening and separating different types of waste materials, facilitating more efficient recycling and disposal.
- **Agriculture:** Separating organic materials, such as compost and topsoil, from unwanted debris.



WORKING PRINCIPLE OF TROMMEL SCREEN

- It operates on the principle of rotary screening and size-based separation. The material to be processed is fed into the inlet of a rotating cylindrical drum, which is mounted at a slight inclination. As the drum rotates, the material inside is lifted and tumbled continuously by internal lifters.
- Due to this tumbling motion, smaller particles fall through the perforations or mesh openings of the drum, while larger-sized materials remain inside the cylinder and move gradually towards the discharge end. The inclination and rotational speed of the drum assist in the forward movement of oversized material.
- The screened fractions are collected separately below the drum through conveyors. The rotation speed, drum diameter, length, and screen opening size can be adjusted to achieve optimal screening efficiency.
- The continuous and self-cleaning action ensures high throughput, minimal clogging, and consistent performance, even when handling moist or mixed waste.



DUROMECH's TROMMEL SCREEN KEY FEATURES

- We manufacture both Mobile & Stationary Trommel Screen.
- Designed and engineered for excellence
- Manufactured for seamless operation
- Maximizing productivity through intelligent design
- Proven technology for waste and mineral processing
- 3D holes trommel for anti choking
- Arrangement for cleaning brushes for anti choking
- Hydraulic arrangement for easy maintenance



Mobile trommel screen



Stationary trommel screen

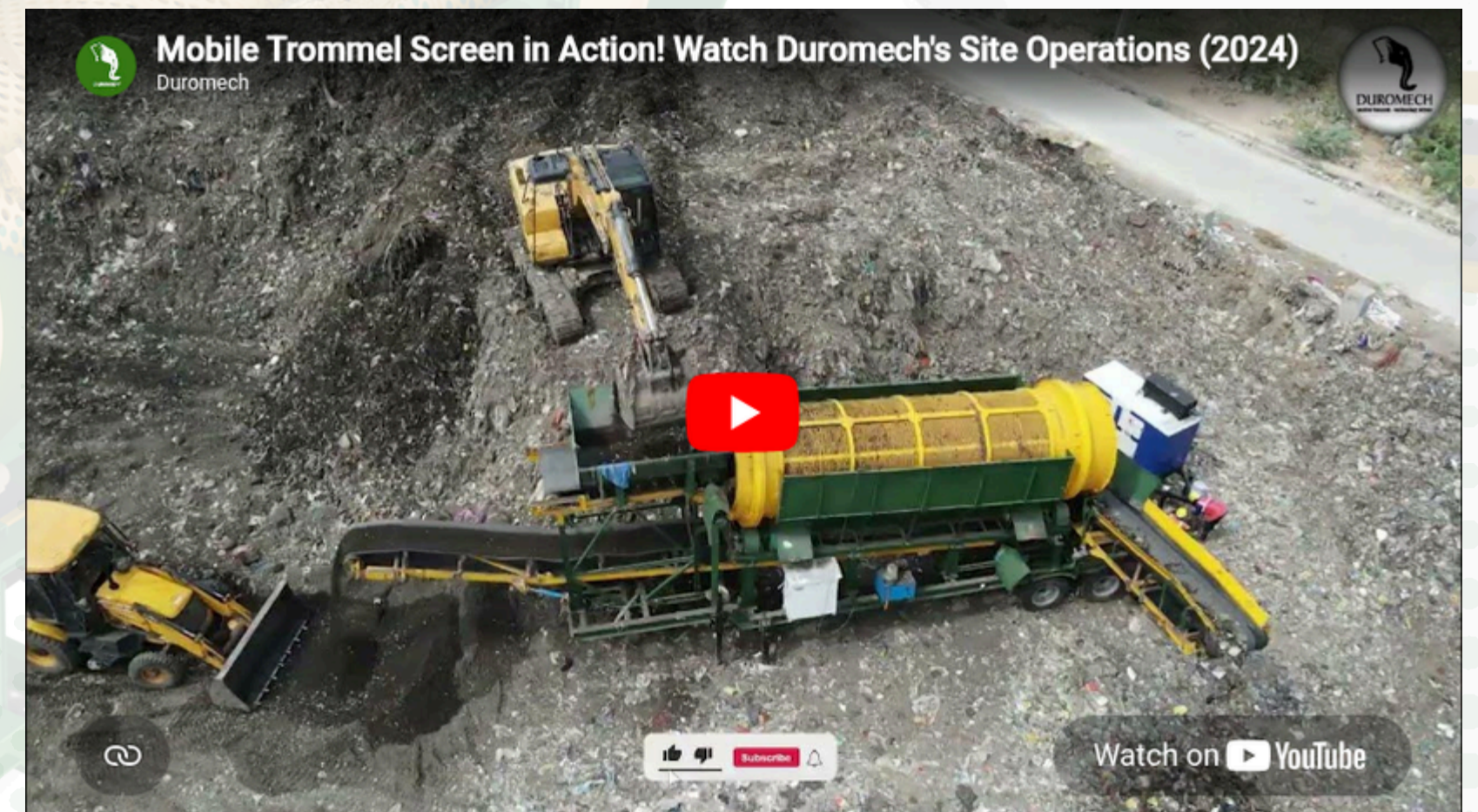


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PRODUCT VIDEO LINK

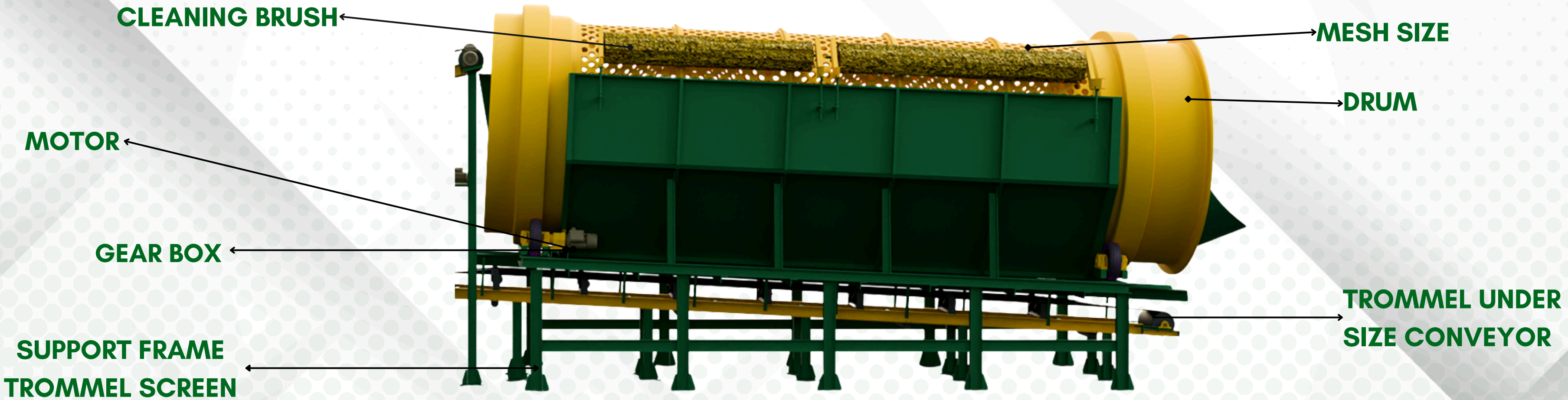


Stationary trommel screen



Mobile trommel screen

KEY COMPONENTS & PARTS



BENEFITS OF USING OUR TROMMEL SCREENS

IMPLEMENTING TROMMEL SCREENS IN MATERIAL SEPARATION PROCESSES OFFERS NUMEROUS BENEFITS:

- **Increased Efficiency:** Enhances the speed and accuracy of material separation, reducing manual sorting time.
- **Improved Product Quality:** Ensures consistent and high-quality separation of materials, leading to better end products.
- **Cost Savings:** Reduces labor costs and increases operational efficiency, leading to overall cost savings.
- **Scalability:** Easily integrated into existing operations and can be scaled up as processing needs grow.
- **Environmental Impact:** Efficient material separation supports recycling efforts, reducing waste and conserving resources.



PRODUCT TECHNICAL SPECIFICATION

MODELS	DTS0618	DTS0720	DTS0824	DTS0930	DDTS1225
CAPACITY	20 TPH	30 TPH	40 TPH	50 TPH	30TPH
RPM	10-12	10-12	10-12	8-10	8-10
SIZE	1.8x6 mtr.	2x7 mtr.	2.4x8 mtr.	3x9 mtr.	2.5x12 mtr.
POWER	5H.P.x2	7.5H.Px2	10H.P.x2	15H.P.x2	15H.P.x2

SITE IMAGES OF MOBILE TROMMEL SCREEN



- Successfully operating at multiple client sites
- Designed specifically for Indian MSW conditions
- Consistent output with minimal downtime
- Rugged, reliable & low-maintenance design

SITE IMAGES OF STATIONARY TROMMEL SCREEN



- Successfully operating at multiple client sites
- Designed specifically for Indian MSW conditions
- Consistent output with minimal downtime
- Rugged, reliable & low-maintenance design

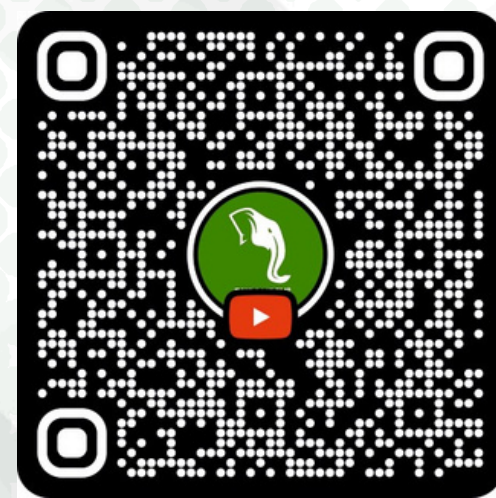
OUR COMMITMENT TO INNOVATION

We are dedicated to providing high-quality trommel screens that meet the diverse needs of our clients. Our screens are designed with the latest technology to ensure optimal performance and reliability. We offer comprehensive support, from initial consultation and design to installation and maintenance.

Explore our range of trommel screens and discover how they can enhance your material separation processes. Contact us today to learn more about our products and services.



Chat with us



Youtube Channel



Our Certifications

We are a certified organization, committed to delivering excellence, sustainability, and safety.

Advantages of Air Density Separator

ISO 9001:2015: Ensuring consistent quality and customer satisfaction

ISO 14001:2015: Focused on environmental responsibility and sustainable practices

ISO 45001:2018: Prioritizing health and safety in every operation



THAPAR ENGINEERING WORKS

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THANK YOU!

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