Wood Plastic Composite Twin Screw Extruder 60 Percent Wood Powder 400-500 kg h CE Certified for WPC Compounding

Our Product Introduction

Basic Information

- Place of Origin: Nanjing, China
- Brand Name: HLD
- Certification: CE, ISO 9001:2015
- Model Number: Customized
- Minimum Order Quantity: 1 Set
- Price: USD 66000-88000 / Set
- Packaging Details: Bubble wrap, stretch film and fumigation-free plywood case for sea shipment
- Delivery Time: 35-45 working days after deposit received
- Payment Terms: T/T, L/C, Western Union
- Supply Ability: 20 Sets per Month



Product Specification

- Screw Design: Co-rotating Intermeshing Twin Screw
- Screw Diameter: 62.4 Mm
- L/D Ratio: 44:1
- Main Motor Power: 132 KW
- Screw Speed: 400-500 Rpm
- Output Capacity: 400-500 Kg/h
- Wood Powder Loading: Up To 60 Percent
- Moisture Removal: Two Stage Vacuum Venting Plus Atmospheric Vent
- Screw Material: Bimetallic Wear Resistant Alloy
- Side Feeder: Twin Screw Side Feeder For Wood Powder
- Pelletizing System: Strand Pelletizing Or Die Face Pelletizing
- Suitable Materials: PE, PP, PVC With Wood Flour, Rice Husk, Bamboo Powder
- Control System: Siemens PLC With Temperature Trend Recording



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Product Description

Wood flour brings water, abrasion and a burning risk

Wood plastic composite at 60 percent loading is a moisture and wear problem disguised as a compounding job. Wood flour carries between 6 and 10 percent water depending on storage, it is abrasive enough to wear a standard screw, and it scorches if the melt gets too hot or dwells too long. The line has to remove water, resist wear and keep the melt moving.

The drying and venting chain

Wood flour is metered through a twin screw side feeder into melt that is already formed, which avoids the sticky bridging that happens when wood and polymer meet in a cold throat. An atmospheric vent immediately downstream lets the first burst of steam escape, and two vacuum vents follow for the remaining moisture. Target pellet moisture is below 0.5 percent, which is what prevents porosity in the customer's profile extrusion.

Wear and temperature

Bimetallic screw elements and hardened barrel liners are standard, not optional. Temperature set points stay conservative: hot spots scorch the wood and produce dark streaks that cannot be fixed downstream. The PLC logs barrel temperature curves so a batch can be compared with the last good one.

Series data

Model	Screw Diameter	L/D	Motor Power	Screen Changer	Capacity
TSE-20B	21.7mm	40:1 44:1 48:1 52:1	4/5.5/7.5KW	Hydraulic	5-20KG
TSE-35B	35.6mm	40:1 44:1 48:1 52:1	18.5/22KW	Hydraulic	60-100KG
TSE-50B	51mm	40:1 44:1 48:1 52:1	45/55KW	Hydraulic	150KG
TSE-65B	62.4mm	40:1 44:1 48:1 52:1	75/90KW	Hydraulic	250-350KG
TSE-75B	**71.5mm**	**40:1 44:1 48:1 52:1**	**132KW**	**Hydraulic**	**500-650KG**

Shaded frame covers 400-500 kg/h at 60 percent wood powder.

Choosing the pelletizer

Strand pelletizing on a water bath works well up to roughly 55 percent wood content for profile grades. Above that, strand strength becomes marginal and die face pelletizing is the more reliable route, even though the granules are less regular.

Formulation notes

Coupling agent dosage matters more than screw speed for mechanical strength.

Lubricant balance controls die pressure; too little and the die blocks, too much and the pellets sweat.

Rice husk and bamboo powder behave differently from pine flour; both are more abrasive.

Colour consistency comes from feeder discipline, not from adding pigment at the die.

Applications

Decking and railing compounds, WPC profile and frame compounds, rice husk filled PE, injection moulded pallets and crates, and PVC wood flour compounds for indoor flooring.

Tell us the wood species, the loading and the moisture of your flour as received, and we will size the venting and wear package accordingly.

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