Twin Screw Extruder PE PP Pipe Grade Compounding Machine 350-450 kg h Factory Direct for Pipe Pelletizing

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 58000-76000 / 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: 48:1
- Main Motor Power: 132 KW
- Screw Speed: 600 Rpm Max
- Output Capacity: 350-450 Kg/h
- Barrel Heating Zones: 10 Zones
- Heating Method: Electric Cartridge Heaters With Air Cooling
- Screen Changer: Hydraulic Double Piston, 120 Mesh
- Pelletizing System: Water Ring Pelletizing Or Strand Pelletizing
- Vacuum Degassing: Two-stage Vacuum Venting
- Suitable Materials: HDPE, LDPE, PP, Pipe Grade Compounds
- Control System: Siemens PLC With Touch Screen HMI
- Highlight: **twin screw extruder PE PP compounding**, **plastic pipe grade pelletizing line**,



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Product Description

How a pipe grade pellet is actually made on this frame

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Pipe compound is judged after it has been extruded twice: once by us into pellets, once by the customer into pipe. That second extrusion exposes every weakness. Undispersed carbon black shows up as specks in the pipe wall, residual moisture becomes voids, and a wide granule size distribution causes surging in the pipe extruder feed throat. This frame is set up around those three failure modes rather than around a headline tonnage figure.

From cold pellet to packed bag

Polymer and masterbatch enter through two loss-in-weight feeders that hold the recipe within plus or minus 1.5 percent. The melt train then runs a conveying section, a dispersive kneading block, a distributive mixing section and a reverse element that builds the seal needed for venting. Two vacuum vents follow: the first pulls surface moisture, the second removes low molecular volatiles that would otherwise bloom on the finished pipe.

After the die, a hydraulic double piston screen changer filters at 120 mesh. It changes screens in under two seconds while the line keeps running, which matters on a two shift operation where every stop costs a full barrel clean out. Water ring pelletizing then cuts the strand under water, and a centrifugal dryer brings surface moisture down before bagging.

Screw geometry choices that matter here

Medium pitch conveying elements in the feed zone tolerate the bulk density swing between virgin and regrind.

A 45 degree kneading block wets the carbon black without over shearing the polymer, keeping gel count low.

Reverse elements ahead of each vent build the melt seal, so vacuum actually pulls instead of dragging air.

Hard chrome on the screw flights reduces sticking when the melt index runs at the low end.

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

Frame highlighted for pipe grade compounding; motor and L/D in the table are the standard build, not a maximum.

Where it lands in a plant

These frames run in PE 100 and PE 80 water pipe compounds, PP random and block copolymer pipe grades, gas pipe and cable conduit compounds, and in re-compounding of off spec pipe pellets. Output band is 350 to 450 kg/h on the 62.4 mm frame with 48:1 L/D. If your downstream pipe line pulls more than that, the next frame up carries the same screw design.

Two questions buyers ask

Can I run regrind without changing the screw? Yes, up to roughly 30 percent regrind in the recipe, provided the bulk density stays above 450 kg per cubic meter. Below that, we widen the feed zone flights.

Water ring or strand? Water ring gives round granules and low fines, which suits pipe extrusion. Strand cutting is the better answer when your pipe line is sensitive to granule length.

Tell us the pipe diameter range, the pressure class and the target tonnage, and the frame, screen pack and pelletizer get confirmed together.

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