



**SPECIFIQ**

**SPECIFIC ENGINEERING & AUTOMATS**

[www.specifigroup.com](http://www.specifigroup.com)

I N N O V A T I V E

T E C H N O L O G Y

CO-ROTATING INTERMESHING  
TWIN SCREW EXTRUDER



**NEXT GEN**  
**HIGH-TORQUE**  
COMPOUNDER



The Company was established in the year 1995 and is located in Vadodara, Gujarat. The Company has also gained the position of the leading manufacturers and Exporters from India of Co-Rotating Twin Screw Extruder.



## ABOUT US

**SPECIFIQ** believes that a commitment to quality and world-class customer service is the key to success in the extrusion industry. Our Engineers, Machinists & Assemblers have crafted the most technologically advanced series of Twin-Screw Extruders in the market today. Innovative design and superior performance equals great value.

**SPECIFIQ** offers manufacturing services to the processing industry in the form of custom manufactured Extruders from 20 to 92mm diameters (1 - 1000 Kg. / Hour). These machines can be designed for your specific application or all applications served by one single versatile machine to process virtually all Thermoplastic & Non-Thermoplastics, Rubber based materials, Food, Pharmaceuticals, Toner, Powder Coating and subsequently modify them.

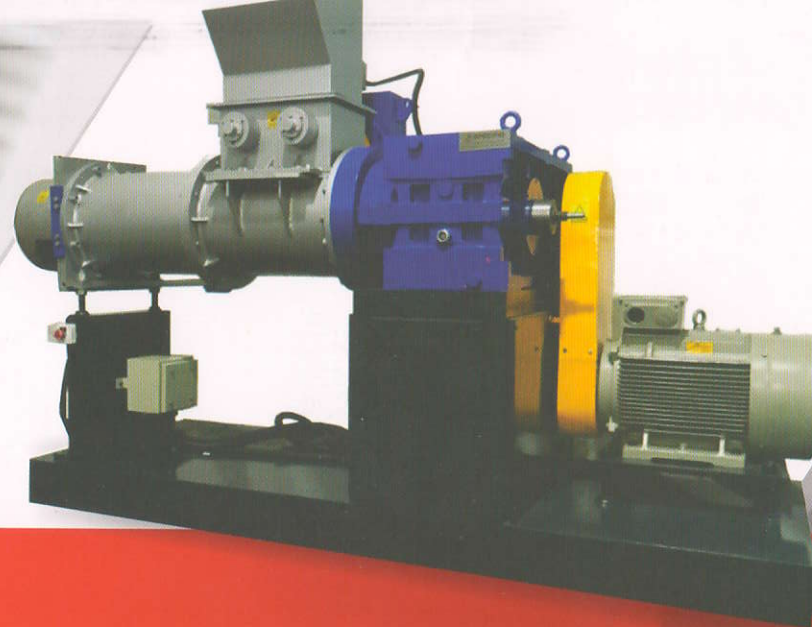
## INFRASTRUCTURE

We have established a robust infrastructural base in Gujarat that is spread in vast geographical area. Factory Land around 20,000 sq feet, with application center of 5,000 sq. feet to conduct trials on different Compounds to meet the customer expectations. Our state-of-art manufacturing unit is equipped with technologically advanced tools and machinery.





## **NEXT GEN HIGH-TORQUE COMPOUNDER**



### **APPLICATIONS**

Co-Rotating Intermeshing Twin Screw Extruder processes involved are Plasticizing, Mixing, Homogenizing, Cooking, Gelling, Degassing of Monomers, Oligomers, and Solvents etc. This concentrated Polymer solutions are modified / reinforced by incorporating Plasticizers, cross-linking agents, flame retardants, UV-stabilizers, and other fillers viz. Wood, Flour, Talc, Glass Fibers, etc. Alloying of Polymers - Polycondensation, Poly addition and Polymerization of Polymers Chemical reactions dispersing of pigments and additives breaking down of high molecular particles Parallel Twin-Screw Extruder...

#### **PLASTIC & ELASTOMER**

- PEEK, PES, PA6, PA66, ABS, Polystyrene, PET, PC
- Long Fibers Compounds (LFT Technology) PP, PA6, PA66,
- Reinforced Compounds Glass Fibers Loading upto 50%
- Polyethylene (LLDPE/LDPE/HDPE),
- Nano Composites (Clay, MWCT), Natural Fibers, Bio Materials
- Polypropylene (PP), (PS), PVC (soft), Polyester,
- Polyformaldehyde Cellulose Ester, Polyurethane (PU), TPU, TPE, TPR.

#### **ANIMAL FOOD**

- Soft and Expandable Foods
- Aqua Feeds

#### **FOOD PHARMACEUTICAL**

- Cereals, Millets , Rice different Flours
- Pharmaceuticals Applications

#### **CRUCIBLE & CATALYSTS**

- Graphite & Catalysts

#### **TONER POWDER COATINGS**

- Mono & Dual Compounds
- Different color Powder Coating Compounds

**HIGH  
DISPERSION**

**HOMOGENEOUS  
MIXING**

**LOW  
SHEAR**

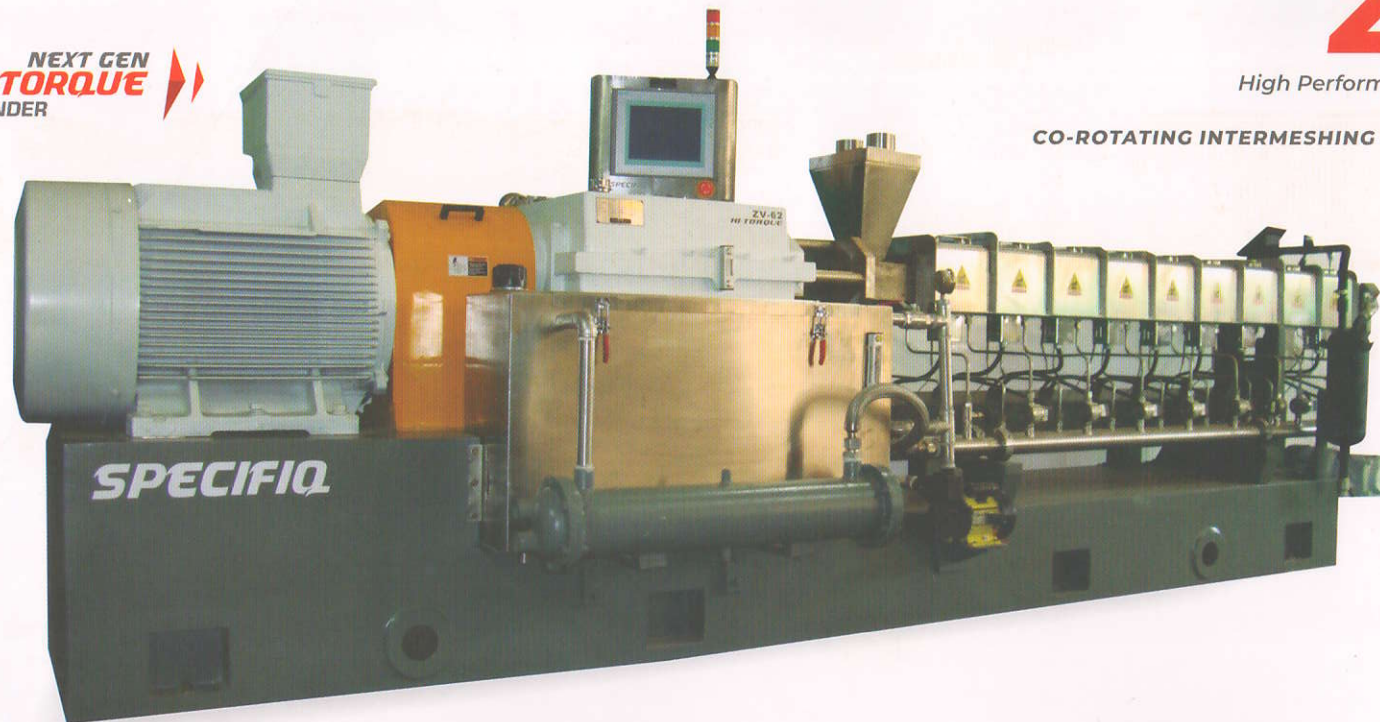


**NEXT GEN**  
**HIGH-TORQUE**  
COMPOUNDER

# ZV62

High Performance Engineering Plastic

CO-ROTATING INTERMESHING TWIN SCREW EXTRUDER



## FEATURES

- High DO-DI Screw Volume Ratio up to 1.70
- High Torque High Rpm Gear Box cap. up to 1370 Nm
- Bi-Metallic Barrels
- Internal Liquid Cooling Jacketed Barrels
- Involute Spline Shafts
- Double jacketed ceramic heater covers
- Ceramic heat insulated Cast heaters
- High efficient vacuum degassing design
- Loss-in-Weight (Gravimetric) Dosing Feeders
- Torque Limiter Coupling over load safety
- Touch Screen HMI & PLC Graphic Controls
- Data Recording & Trouble shooting software
- Post Extrusions - Dry Strand Carbide Pelletisers, Water Ring & under water Pelletisers.

**APPLICATION** Plastic, Toner, Catalyst, Crucible & Powder Coatings Compounds

VARIANTS	ZV20	ZV40	ZV50	ZV62	ZV72	ZV92
OUTPUT	1 to 15 Kg. / Hour	75 to 200 Kg. / Hour	150 to 300 Kg. / Hour	200 to 450 Kg. / Hour	300 to 500 Kg. / Hour	400 to 750 Kg. / Hour



ZV-ALPHA Series Co-Rotating Intermeshing Twin Screw Extruders are successfully designed for different Biodegradable compounds specially for PBAT, PLA & Bio-Oxo by Specific Engineering & Automats, first line tested on PLA, PBAT (Starch) & Bio-Oxo in the year 2000 and approved from DRDO Hyderabad in the year 2022. Twin Screw Extruder fully automated design. The post Extrusion comes in two options Water Edge Pelletiser and second is Belt Conveyor & Dry Strand Pelletiser. Unique design of TSE removes moisture and is maintained below 20 ppm. which saves compounds from degrading viscosity.

Screw geometry designed for homogenous mixing, fine dispersion & low shearing to avoid degradation of Starch & other ingredients.



#### FEATURES:

- Segmented / Modular Screw & Barrels
- Electric heated & liquid cooled Barrels
- High Torque High rpm Gearbox unit
- High LD Processing ratio for better mixing
- Two stage vacuum for optimum degassing
- Dosing feeder with Vertical Agitator
- Water edge Pelletiser
- Centrifugal screw dryer to remove moisture
- Microprocessor based PLC control System
- TFT Touch screen operations
- Batch to batch Data recording

#### APPLICATIONS :

- PLA (Polylactic Acid)
- PBAT (Poly butylene adipate - co - terephthalate)
- Bio-Oxo



# ALPHA ZV20

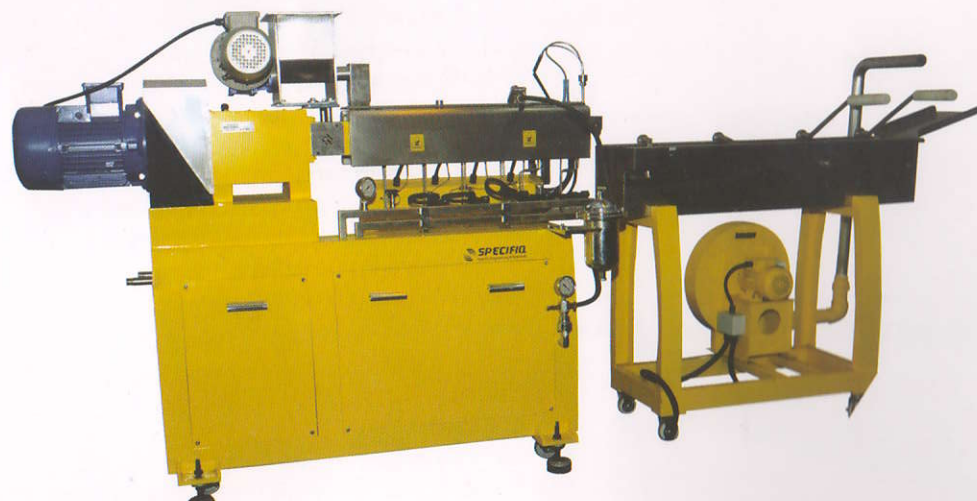


## CO-ROTATING INTERMESHING TWIN SCREW EXTRUDER

ALPHA ZV20 - Laboratory Co - Rotating Twin Screw Extruders are designed for Research & Developments. Modular Screw and Barrel designed to handle a variety of Polymer compounds, Segmented Screw & Barrels flexible design allow to set screw geometry to operate different Polymer compounds. Melt temperature & Pressure probe transmit real time data to control the process, inline Vacuum unit continuously remove the volatiles to ensure compacting compounds. Lab machines can be scaled up to production lines.

### LAB EXTRUDERS

POLYMERS AND BIODEGRADABLE



#### Applications

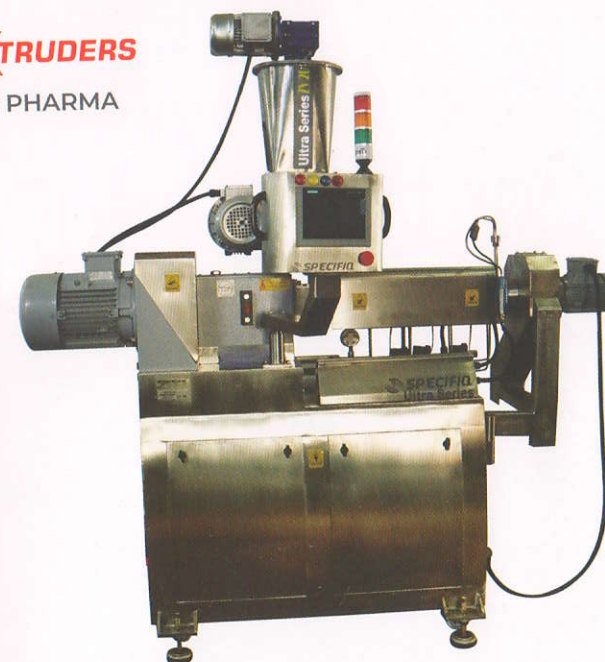
High Performance Engineering Compounds,  
Master Batches, Flame Retardant Toner, Bio Degradable,  
Crucible compounds, Powder Coatings, etc.

### FEATURES

Cap	: 1-10 Kg/hr
Screw	: Hi Do-DI Volume ratio
Barrel	: Segmented, Liquid cool & Electric Cast Heating
Gear Box	: Robust Gearbox Cap 110Nm @ 600 Rpm
Overload Safety	: Torque Limiter quick release coupling overload safety
Pelletization	: Dry strand, under water, Water Ring, Air Ring Pelletisers
Controls	: Touch Screen Human Machine interface PLC & Data Recordings

### LAB EXTRUDERS

FOOD AND PHARMA



#### Applications

Food Corn, Wheat, Rice Flours, Cereals, Millets,  
expandable Foods, Cottage Cheese, Pharmaceuticals,  
Spheronizer & Pet Foods, etc.

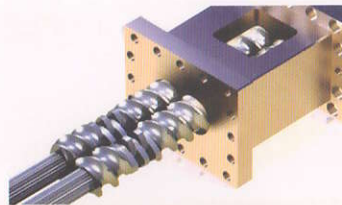


## SPARES & POST EXTRUSION EQUIPMENTS

Screw



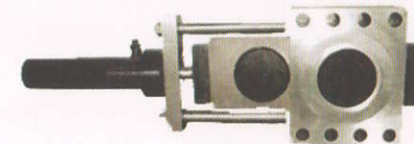
Barrels



Gravimetric Feeder



Auto Screen Changers



Dry Strand TC Pelletiser



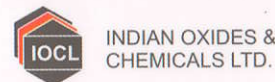
Water Ring Die Face Pelletisers



Other Products

- Over Load Safety Clutch
- Cast Heaters
- Air knife
- Die Heads
- Under Water Pelletiser
- Air Ring Pelletiser
- Classifiers
- Conveying Systems

## OUR CLIENTS



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SABIC  
Innovative  
Plastics™

سابک  
sabic

**Hamilton**  
FOODSERVICE



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