







# **Company Profile**

Unique Machinery Have Been Manufacturing Extrusion Lines Which are Used For the Production of Plastic Pipes. Unique Machinery has been offering its Productive, High Quality and Secure Turn-Key Project By Using the Latest Technology with Optimum Coast to Its Customers.

Unique Machineries has been Exporting its PP/PE/PVC/Corrugated and Different Types of Line too Many Countries. The Team Members of Our Company Have Been Continuously Increasing Their Knowledge By Giving Importance to Innovating Technologies.



### Our Mission

Based on out missionary values, we are dedicated to provide unsurpassed range of engineering products like PVC, HDPE, Corrugator Pipe, Extrusion Lines. This assists our customers in getting a wide range of sophisticated solutions of varied critical performance regarding their production activities. These products also aide them to integrate the product's functionality in an efficient manner.

### Inspur, your most reliable partner

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# TWIN SCREW EXTRUDER (PVC / uPVC / cPVC)

#### PERFORMANCE FEATURES

- Latest generation Machine with High Performance.
- Low power consumption and energy saving with Heavy Output.
- Achieve uniform pumping.
- Two Piece Barrel Design For Low Maintenance.
- Front Side H.S.S Sleeve for Easy Screw Barrel Maintenance.
- Tungsten Coating for Wear & Tear.
- Internal Oil Circulation with Cooling System for Gear Box.
- Synchronization of drive of Extruder with Feeder and Traction Unit to reduce wastage and Fast Production.
- S.S -304 Vertical feeder for easy aclaption of different bulk density of materials.
- Gentle plasticizing, great melt quality with Material Mixing Formulation.
- Japanes PI D Control type Temperature Controllers Processor friendly.
- Raw-materials & brought out items from the world-class quality makers.

### UNIQUE ADVANTAGES

- Maintenance-free screw cooling system.
- Efficient barrel cooling system.
- AC motors with optimal degree of efficiency.
- Custom-made anti-wear protection made. of tungsten carbide and chrome combined with top-quality nitride surfaces.
- Output ranges maximized through. optimized screw geometries.
- Special power saving system with details.
- Easy handling through intelligent machine design.
- Easy and Extra Power Saving Systems.
- PLC controls on request.
- 10% to 15% Heating Power Saving Systems In PLC Bese Controll.
- Including Thick Thin Device for Casing and Column Pipe.
- High Alert System for Heating Tripping and Motors Tripping
- Easy Operating System.

#### SAFETY FEATURES

- Cold by pass for screat barrel safety.
- Zero start system.
- Yaskuwa drives with heavy dust proof secours.
- Easy plug & play systems.
- All standard controllers.



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Product Range								
Model	UTS 110	UTS 170	UTS 200	UTS 250	UTS 350	UTS 450	UTS 550	UTS 700
Screw Dia (mm)	52	52	65	65	71	91	91	92
Screw Speed (RPM)	5-50	4-45	5-53	5-53	5-53	4-40	4-40	4-40
L.D. Ratio	20:1	18:1	18:1	22:1	28:1	22:1	25:1	28:1
Main Motor (kW)	11	15	22	22	30	45	56	75
Output ( Kg/Hour)	90-100	150-170	180-200	230-250	330-350	420-450	520-550	650-700

\* Performancevariesde~pendingon pi~pedimensionsand "of material.

### SINGLE SCREW EXTRUDER / HIGH SPEED SERIES (HDPE/PPR)



UNIQUE Single Screw Extruders /High Speed Series (HDPE/PPR) are offered for extrusion of polyolefin (HDPE, HDPE PLB Ducting, PP, PP-R & LLDPE, LDPE) pipes. The extruders with screw diameters 25mm to 120 Kg./hour to 1500 Kg/hour. The

### **UNIQUE ADVANTAGES**

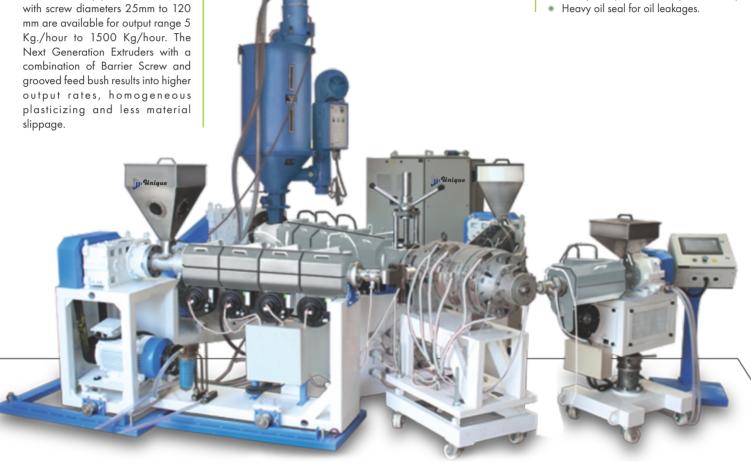
- Higher output rates.
- High Speed Models for Reduced power consumption.
- Wider range of processing applications due to longer LD ratio.
- Superior physical properties of end product.
- High Power Savings Systems with New Generation Machinery.
- PLC controls on request.
- 10% to 15% Heating Power Saving Systems In PLC Bese Controll.
- Including Thick Thin Device for Casing and Column Pipe.
- High Alert System for Heating Tripping and Motors Tripping.
- Easy Operating System.

### **BARRIER SCREW**

- It allows high homogenousplasticizing less materialslippage and higher output.
- Grooved Feed System.
- Higher productivity compared toconventional design.
- Improved material conveying capacity.
  - Uniform throughout and melt temperature.
  - Pressure invariance. ۲

#### SAFETY FEATURE

- Berier Screw for high speed screw safety.
- Heavy trust puck for back pressure exope.



Product Range							
Model	US 25*	US 40	US 50	US 65	US 75	US 90	US 120
Extruder Drive (kW)	3.7	7.5	15	30	37.5	60	110
Screw Dia (mm)	25	40	50	65	75	90	120
L.D. Ratio	24:1	26:1	26:1	26:1	26:1	26:1	26:1
Output (Kg/Hour)	45	18-20	36-40	90-100	120-130	170-190	300-320

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Model	High Speed 45-45	High Speed 45-55	High Speed 45-75	High Speed 45-90	High Speed 60-110	High Speed 60-132	High Speed 75-200	High Speed 75-250
Screw Diameter (mm)	45	45	45	45	60	60	75	75
L.D. Ratio	37:1	37:1	37:1	37:1	37:1	37:1	37:1	37:1
Main Motor (kW)	45	55	75	90	110	132	200	250
Output (Kg/Hour)	140-160	180-190	220-240	300-330	380-400	500-550	650-700	800-850

### **DIE HEADS**

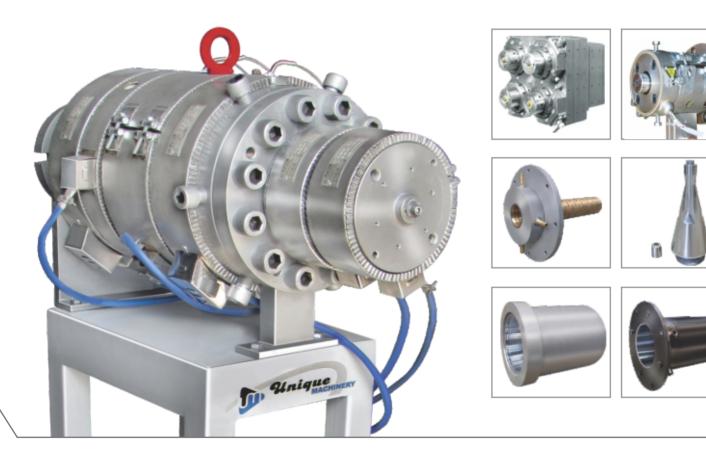
#### **DIE HEADS**

- Unique PVC pipe head and HDPE Pipe head, enables flexible and effective production of High-Quality PVC pipes.
- All pipe heads from Unique char excellent advantages such as high and disassembly; they produce pipes of excellent quality in a broad processing.
- Unique provides Spider Dies, right up to 630mm die with Single and Dual.
- High Diamond Chrome Platings.
- Spider and Spiral Make S.S with Harding. as per apply.

### UNIQUE ADVANTAGES

- High Volume low pressure design.
- Uniform melt distribution through out the entire pipe circumference.
- Twin die heads for higher outputs in smaller size of pipes.
- Dual die with dual downstream for pipe size 20-110 mm S, 63-200 mm.
- Extruder utilization from 30%to 100% in larger dia of pipes.





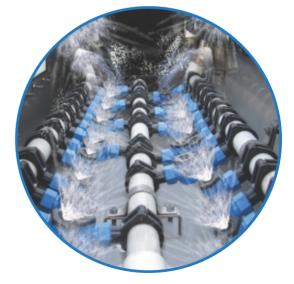
PVC PIPE DIE HEAD SPECIFICATIONS								
Model		P-63	P-110	P-200/LV	P-200/HV	P-250	P-315	P-400
Pipe Range	mm	20-63	20-110	63-200	63-200	90-250	110-315	160-400
Output Capacity up to	Kg/hr	100	200	250	320	425	550	700
Pipe Wall Thickness	mm	08 - 2.0	1.0 - 5.0	2.5 - 6.0	2.5 - 12.0	2.5 - 12.0	3.0 - 16.0	3.0 - 16.0

HDPE PIPE DIE HEAD SPECIFICATIONS						
Model		SM-50	SM-110	SM-160	SM-250	SM-450
Pipe Range	mm	12-50	20-110	20-160	63-250	90-450
Output Capacity up to	Kg/hr	200	350	500	800	1000

# VACUUM CALIBRATION TANK

### VACUUM SIZING TANK

- Material Intensive cooling provided to ensure high production ratio.
- Easy cleaning bayonet type spray nozzle provided.
   Accurate vacuum control, water level control & temperature control provided.
- Additional vacuum chamber and motorized axial movement. ۲
- ۲ Provided from UVST and above for quick startup and less wastage.
- ۲ Manual slide rail arrangement for Axial and transverse movement of the tank.
- Dual vacuum spray tanks on common frame for dual pipe extrusion line.
- Imported filters for online cleaning. ۲
- Electrical operated valves optionally. ۲
- Cyclone separator for vacuum pump optionally.



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VACCUM SIZING TANK							
Models	Unit	UVST 110	UVST 200	UVST 250	UVST 315	UVST 450	UVST 630
Pipe Range	mm	16-110	20-200	25-250	75-315	75-450	110-630
Length of Tank(mm)	mm	4000/6000	4000/6000	4000/6000	6000/8000	6000/8000	6000/8000
No Of Chembers	-	1	1	2/1	2/1	2/1	2/1

Vacuum Sizing Tank - Unique Machinery , manufacturers, exporters & suppliers of Vacuum Tank, Twin Vacuum Sizing Tank, Plastic Vacuum Sizing Tank in India.



### TUBE COOLING TANK



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- TUBE COOLING TANK
  Tank MOC Mild steel or SS 304 As per requirement.
  Easy cleanable bayonet type spray nozzles.
  Manual / motorized longitudinal adjustment on rail.
  Special type of filter for cleaning during operation.
  Height adjustable manually.
  Fixed structure provided in Extra Cooling Tank.
  Special design in ACRYLIC door for easy pipe operating as per application.

TUBE COOLING TANK						
Models	UCT 110	UCT 200	UCT 250	UCT 315	UCT 450	UCT 630
Pipe Range(mm)	20-110	20-200	20-250	75-315	100-450	110-630
Length of Tank(mm)	4000/6000	4000/6000	4000-6000	4000/6000	4000/6000	4000/6000
No Of Chembers	1	1	1	1	1	1

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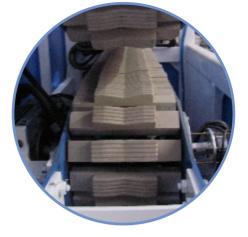
## **TUBE/PIPE - TRACTION UNIT**

### Unique Offers Tube Traction Unit With Following Features :

- Up to 6 belt tracting device to suit pipe diameters.
- Different line speeds can be changed through.
- Individual Gear Box System with Servo Drive and Motor.
- Track adjustment by pneumatic control and Manual Control.
- Self adjustment track suspension provided with Pneumatic System.
- Counter balance pressure to balance.
- Track weight for thin pipes offered.

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- Encoder for length measurement & feed back arrangement offered optionally.
- Easy accessibility for maintenance of all components.
- Easy accessibility for maintenance of all components.
- Dual twin-track traction units for dual pipe extrusion line.
- Easily removable rubber pads / Molded Rubber Chain.













# TUBE / PIPE - CUTTING UNIT / PLANETARY CUTTER

### TUBE CUTTING UNITS (TCU)

- Carbide tipped and diamond blade rotating circular saw for longer life.
- Pneumatically operated carriage movement.
- Clamping force adjustable depending upon the wall-thickness of the pipe.
- Swarf removal system optionally offered.
- Nylon Wheel for Trolley Revers and Forward and Low Wear and Tear.
- High Alert in Air Low.



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# **TUBE TILTING UNITS**



### TUBE TILTING UNITS

- Pneumatically operated Unit.
- Structure MOC Square hollow section.
- Two limit switch actuation One for pipe cutterfeedback and other for tilting the pipe.
- Pipe resting platform provided for above 250mm Dia Pipe.





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# SPIRAL SPRING CONVEYOR

- 100kg material storage hopper.
- Easy fittings and long life spring structure.
- Low power heavy material pulling system withspring and HDPE pipe.
- S.S. grill system for material cleaning with vibro motor.
- Fully automatic and manual operating systems.
- Magnet for metal detector.





Unique



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### DOUBLE WALL CORRUGATED (DWC)

#### A PIPE FROM PLANT

UNIQUE manufacturer Corrugated pipe plant with optimum engineered design, accurately machine parts, close modular, compactness, aesthetic base & latest ergonomics. Ease to change mould blocks of different pipe sizes gives the plant operational simplicity.Also We Are Given Air Cool System and Water Cool System.

Low routine maintenance cost, Less power consumption, Quick after-sales services gives finishing touch to a top-of-the-line finished product from our Pipe Corrugation plant.

#### **PLANT RANGE**

Single Wall Corrugated Pipe in two sizes viz: OD: 10-50 mm & 50-150 mm & 150-250mm.We can design & supply customize Corrugated Pipe Plant other than our above regular demand sizes.





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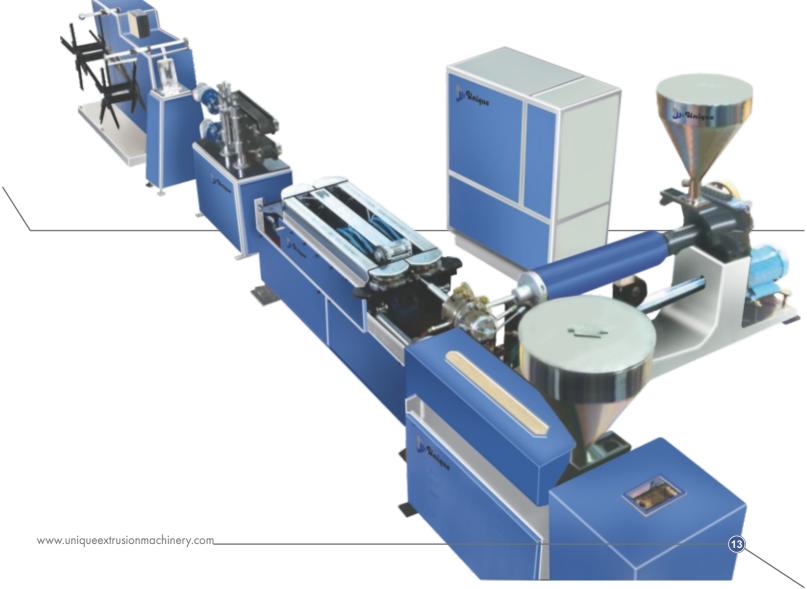
# SINGLE WALL CORRUGATED

### TECHNICAL SPECIFICATION

<ul> <li>J.</li> <li>output of extruder with emergency stop</li> </ul>
output of extruder with emergency stop
at specific place to easily slide with low
onnection for chilled water.

### PIPE MANUFACTURED USING UNIQUE CORRUGATOR PLANT OFFERS FOLLOWING DISTINCTIVE PRIVILEGES:

Raw Material Economy	Weight of rigid pipe & corrugated pipe in hand is elf-explanatory.
Ease of Handling & Packing	Lighter weight of pipes makes handling, packing & transportation, easy & cheap.
Strength	Pipes are Impact resistive according to corrugation profile design.
Flexibility	Compared to rigid pipes, corrugated pipes are easy to install.
Space Saving	This pipes require less storage area, because of their flexibility & rolled in coil form.
Rodent Proof	For Civil Engineering purpose, their rat/rodent resistant feature works wonders.
Insulation	These pipes are extensively used in electrical installations because of their insulation property.



### CORRUGATOR

### **DIE HEAD**

Die Head For double wall corrugated pipe is design with one extruder in same colour as well as with two extruders for two different colour.

### TOOLS & DIE

We design mould block as per engineering & manufacturing method. It is functionally suitable to use in working with minimum maintaince with low cost.

### CORRUGATOR (TECHNICAL SPECIFICATION)

Size of Pipe	From 50 mm to 150 mm Diameter
Drive For Corrugator	5HP.3 Phase 415±5 voltage Gear Motor [standard make]
Variable Speed Drive	0.5 m/min to 10m/min speed variable depend on size &
	Out put of extruder with emergency stop arrangement.
Lubrication System	Centralized lubrication system used to give specific pulse at
	specific place to easily slide with low friction.
Cooling System	Internal mould cooling with brass fitting of inlet & Out let
	connection for chilled water.
Air Chiller	Used as additional air cooling for better finish & output
Line Speed Per Minute	3 to 6 Meter /min depend on size of pipe & material.







# **APPLICATION & USAGE**

### ELLECTRICAL INSULATIONS & CABLE PROTECTION:

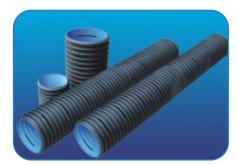
Building, Machinery, Automotive.

### EQUIPMENT IN US:

Washing Machine, Sanitary, Vacuum Cleaners, Dish Eashers, Medical Application, Television, Telephone, Computer Line, Power Controls, Converyers.

### ALSO USED AS:

Decorative Bicycle, Drain Pipe, Structural, Civil Engineering, Air Conditioner Duct, Architectural use, Media in Bio Gas Plant. Drip Irrigation, Plantation, Field House.















### Mfg. All type of Pipe Profile & Corrugated Extrusion Machinery & Parts

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