



OUR SMALL IDEAS LIKE A LITTLE DROP MAKE BIG REVOLUTIONS

PIPE EXTRUSION PLANTS

• ROUND / FLAT DRIP IRRIGATION • HDPE / PPR PIPE



EXCEL WITH THE POWER OF **E3** EXTRUSION



ENERGY
SAVING



EFFICIENT

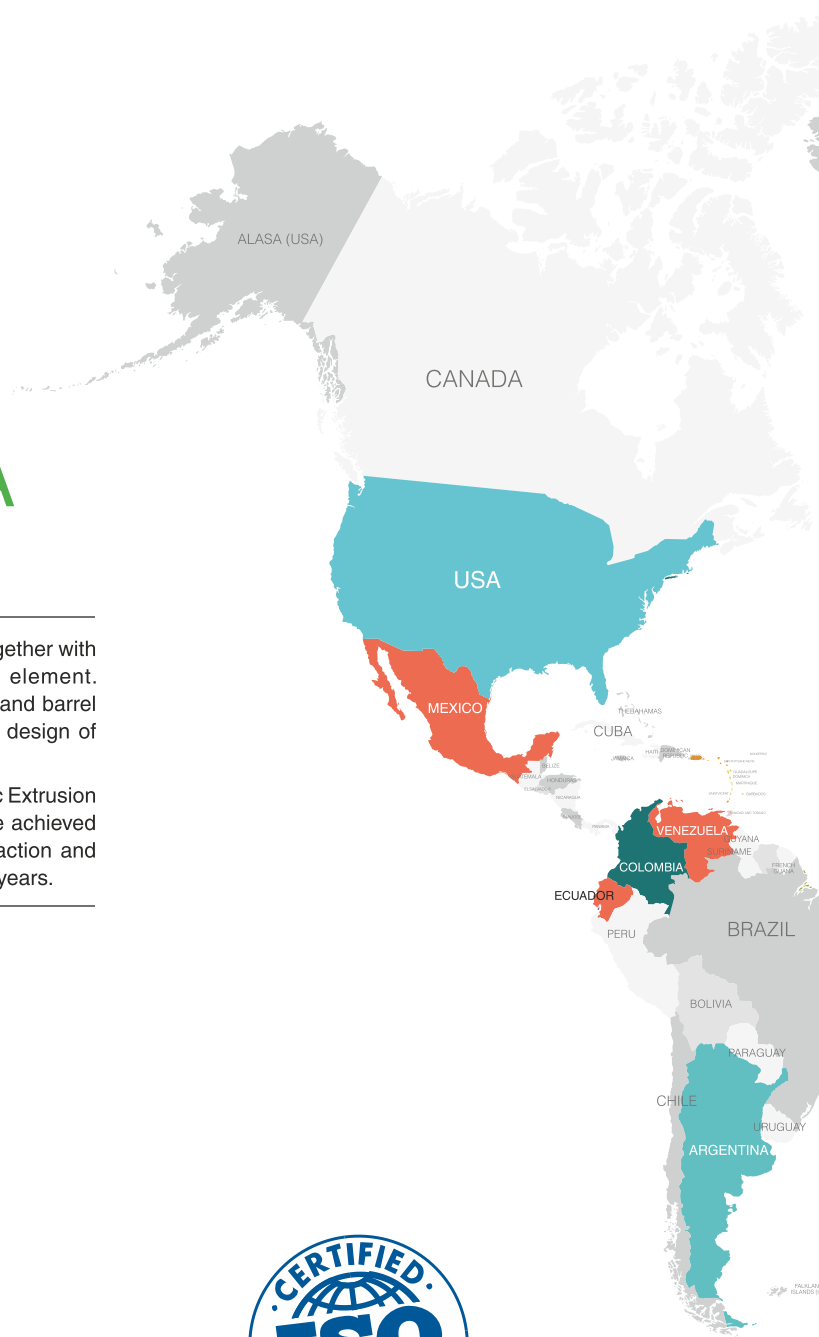


ECONOMICAL

SUCCESS IS A JOURNEY, NOT A DESTINATION...

At RR PLAST, we have constantly kept on improving our products together with the help of Modern day science, technology and human element. We adopt, latest design technologies in the manufacturing of screw and barrel which is the heart of extrusion line and the latest innovation in the design of post extrusion equipment.

Our vision is to be a Benchmark in Manufacturing of Worldclass Plastic Extrusion lines across the Globe. Based on the spirit of this principle, we have achieved the excellence in our machines, in addition to the Customer satisfaction and due cooperation in development of our products over the past 35 years.

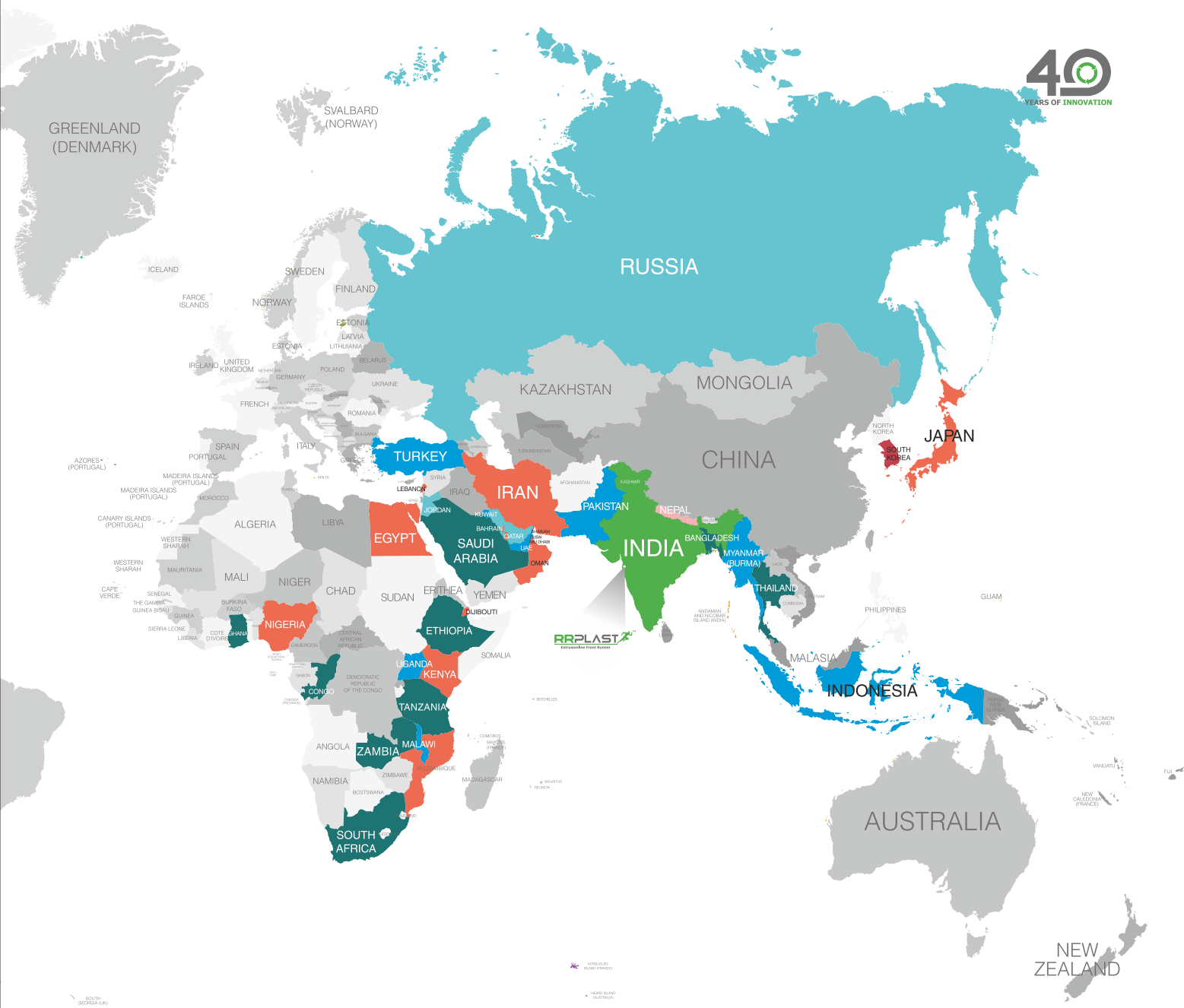


GROWING GLOBAL COMPANY

WE HAVE SERVED MORE THAN 35 COUNTRIES AND ARE ON THE PATH TO SERVE MANY MORE.

- State-of -The Art Factory Equipped with Modern Age Equipments
- Capability to manufacture and test 10 or more no. of machines per month
- Spread over an Area of 31,095.741 Sq. Yard
- We have installed more than 700 Sheet lines and 150 Inline Round Drip Irrigation Pipe Plants





OUR INTERNATIONAL CREDENTIALS.

- ASIAN CONTINENT
- GULF
- AFRICAN CONTINENT
- LATIN AMERICA
- OTHER COUNTRIES

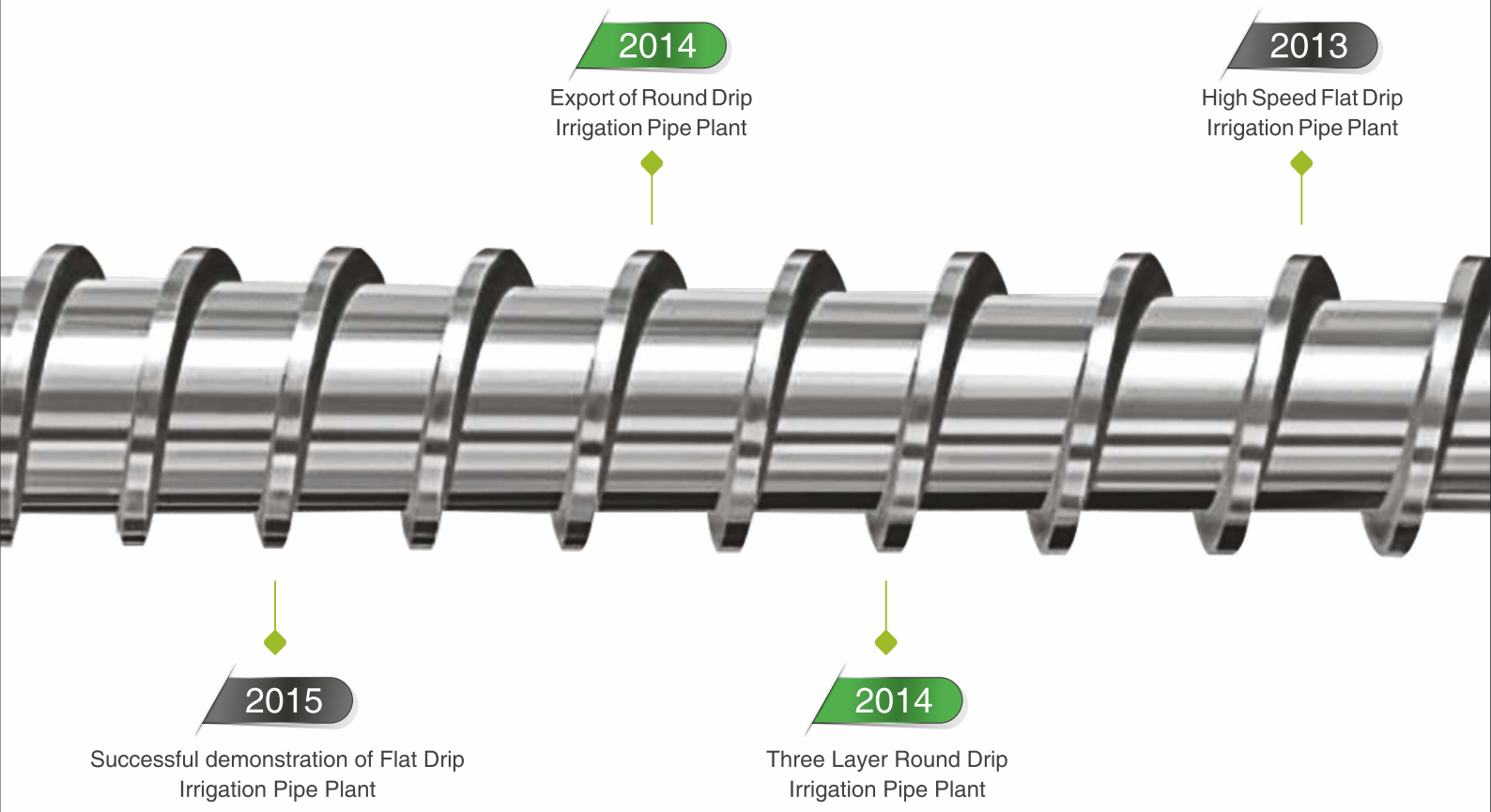
THE COMPANY WITH A PEDIGREE EXPERIENCE OF

40 YEARS

IN PLASTIC EXTRUSION MACHINERY & EQUIPMENTS



UNSEEN PERFORMANCE. VISIBLE SUCCESS.



WHY DRIP IRRIGATION?

During recent years, our world has experienced major water shortages due to ever changing global climatic conditions which now worsening year after year. Agriculture consumes 70% to 80% of available water on Earth, the remaining 20% to 30% is utilized for Industrial & Civil purposes. As population on Planet Earth is increasing, 2/3 of Human population & many areas are facing water shortages and periodic droughts.

The Agricultural sector which accounts for large share in GDP of countries like India are hit severely by water shortages. This crisis makes Drip irrigation system an attractive & promising tool for water management in agricultural sector. With a drip system, plants thrive with less water.

RR PLAST OFFERING WIDE RANGE OF PRODUCT FOR... **AGRICULTURE SECTORS**

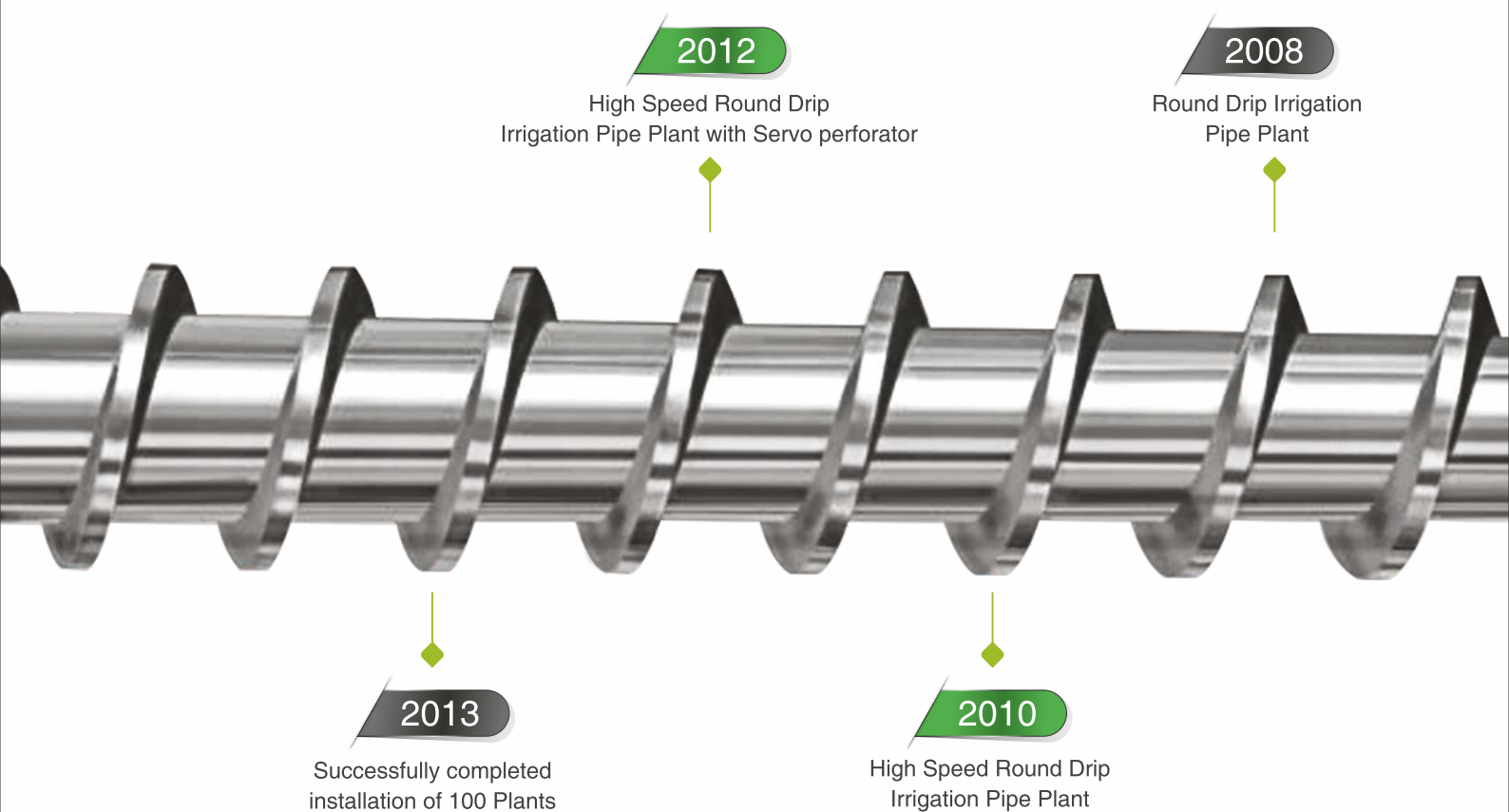
ROUND DRIP IRRIGATION PIPE PLANT

FLAT DRIP IRRIGATION PIPE PLANT

HDPE SPRINKLER PIPE PLANT



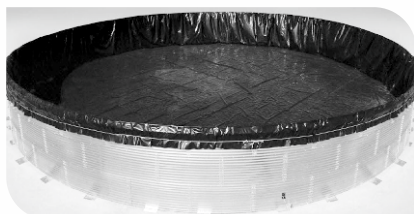
NEW BENCHMARK IN EXTRUSION LINES.



BENEFITS OF DRIP IRRIGATION SYSTEMS

- Up to 100% productivity, increase
- Lower labour cost
- Minimized fertilizer / Nutrient loss due to localized application and reduced leaching
- Ability to irrigate irregular shaped fields
- Highly uniform distribution of water i.e., controlled by output of each nozzle
- Variation in supply can be regulated by regulating the Valves and Drippers
- Fertifation can easily be included with minimal waste of fertilizers

GEOMEMBRANE SHEET



SHEET FOR SEEDLING TREY



SHEET FOR PLANTATION

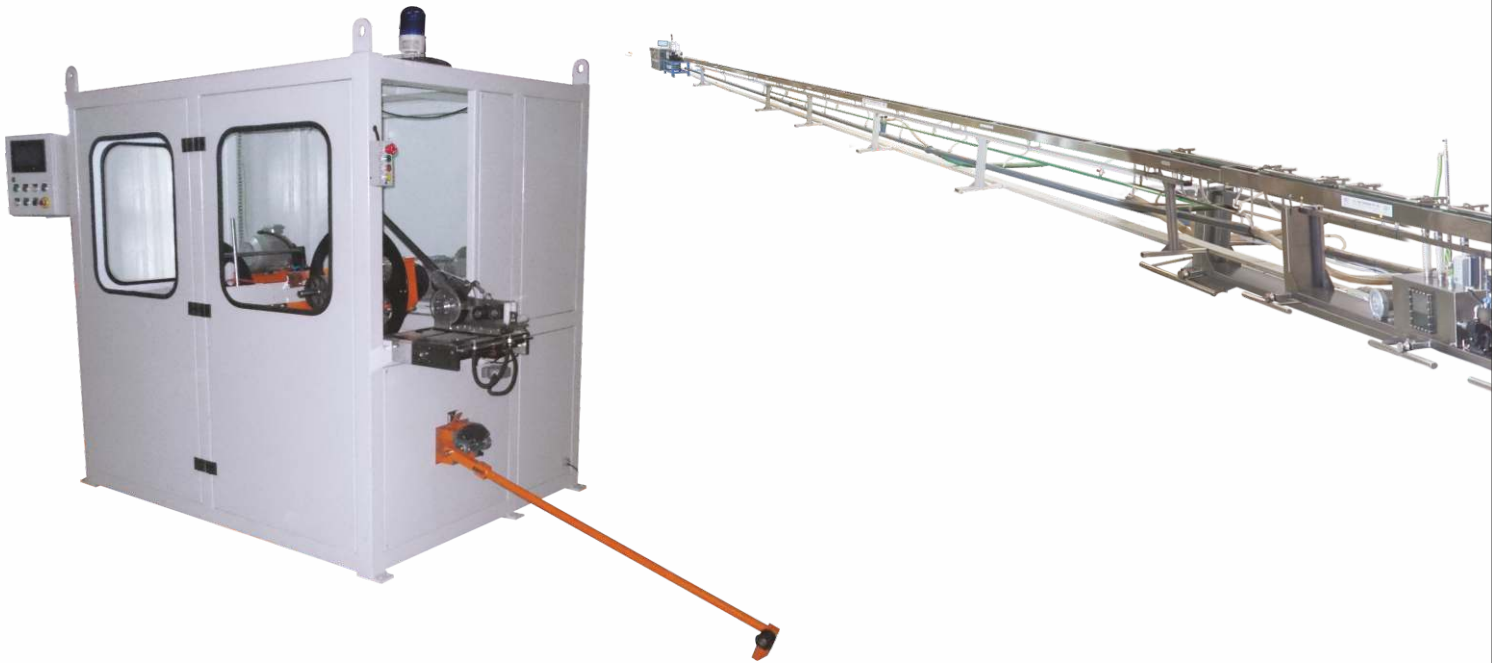


INLINE FLAT DRIP IRRIGATION PIPE PLANT

INLINE FLAT DRIP IRRIGATION PIPE PLANT

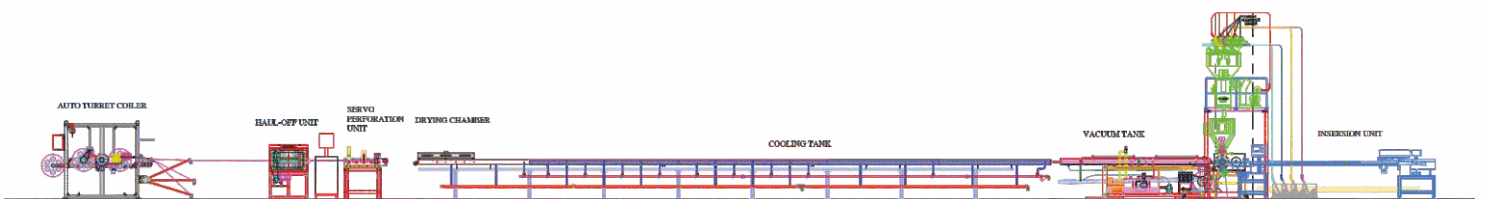
FEATURES

- 0.30 unit/kg power consumption
- Up to 160,000 - 240,000 - 330,000 meter Inline Pipe Production/Day
- Thickness Range for Flat Pipe: 0.20 mm to 0.8 mm
- 4 Station Gravimetric Blender with Extrusion Process Control
- Bimetallic Screw and Barrel ensure stable, Homogenous melt quality for longer period throughout operation
- PLC based machine with Inbuilt AC for control panel
- Insertion capacity 600 Drippers / Min
- 20 cm to 200 cm spacing setting for different configuration pipes
- Uniform spacing/ Group spacing/ Plain Pipe / Sample features included in PLC
- Perforation unit with perforation capacity 600 Drippers /Min
- Online visual Inspection system for Perforation and Dripper spacing check with or without Auto correction facility
- 2 station Auto Coiler with Synchronised Traversing, Auto pipe cut and auto bobbin change over



FLAT DRIP IRRIGATION PIPE PLANT

Model	Dripper Insertion Speed	Line Speed	Output kgs/hr
RRPP 45/33-45-150	300	100-120m/min	150
RRPP 65/33-90-180	600	160-180m/min	300



180 mtr/min
HIGH SPEED
FLAT DRIP
IRRIGATION
PIPE PLANT

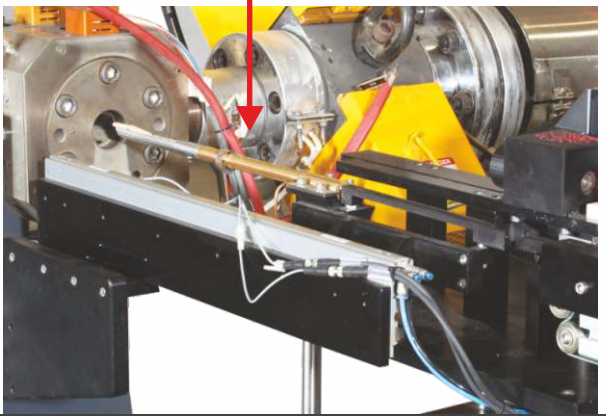


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FLAT DRIPPER INSERTING DEVICE



DRIPPER GUIDE COOL TUBE



FEATURES

- Drifter Insertion capacity: 400/600/1000 D/min
- Drifter Suitability: Symmetrical/Asymmetrical
- Pipe Size: 12 to 20mm
- Pipe Thickness: 0.2 to 0.8mm
- Unique design bowl feeder for correct orientation of drippers
- 3.4mtr long conveyor act as buffer of drippers
- Insertion Mechanism through cool tube into die head
- Accumulator will be provided for more than 600D/min speed

PLC based soft touch screen operation with feature

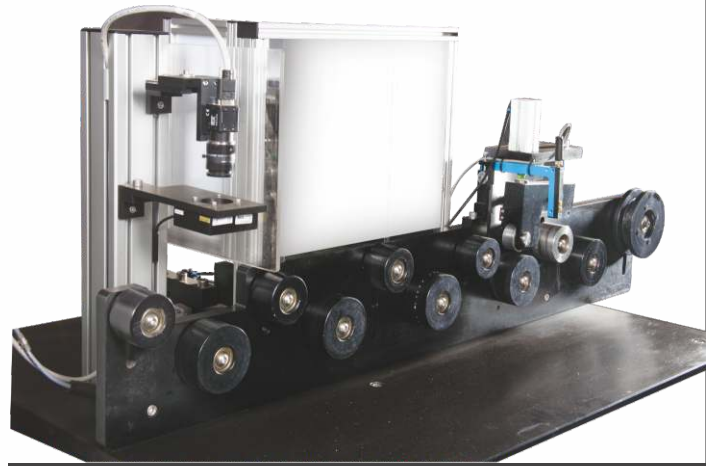
- Service parameters
- Line operative indication
- System performance
- Alarm message
- Suitable for 120/180 mtr/min line speed
- High Precision X-Y-Z movement for precise centering

BOWL FEEDER WITH CONVEYOR



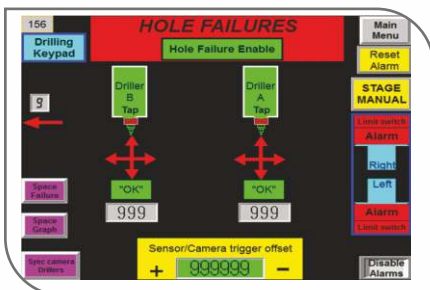
FLAT DRIPPER SERVO PERFORATOR

- Drilling rate 300/600 drippers/min
- One station/Two station which can be used alternatively or simultaneously
- Specially designed sensor system provides accurate and repeatable detection of each incoming dripper
- Digitally controlled servo motor synchronizes the drilling mechanism to the position and speed of the drippers
- The position of the hole is adjustable by means of an LCD touch screen for ease of operation
- The operator interface provides easy access and display of the set and ease of operation with HMI giving actual driper spacing, min/max spacing alarm tolerance, pipe length and driper counters
- Suitable for Pipe wall thickness range 0.2 to 0.8 & Pipe OD range 12-20mm
- Vision system for Pipe Drilling Performance

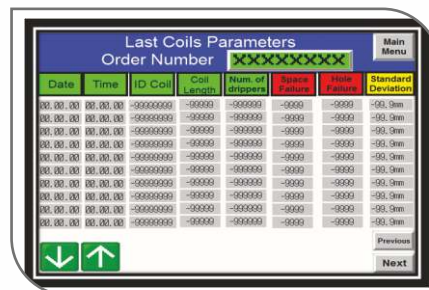


FLAT DRIP SERVO PERFORATOR DEVICE WITH VISION SYSTEM

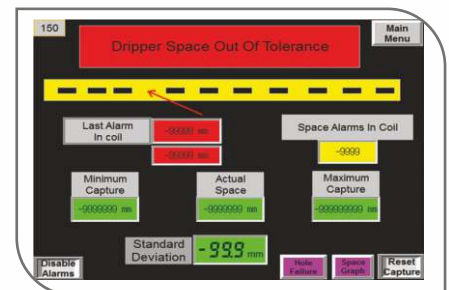
Hole Failure Button



History Coil Button

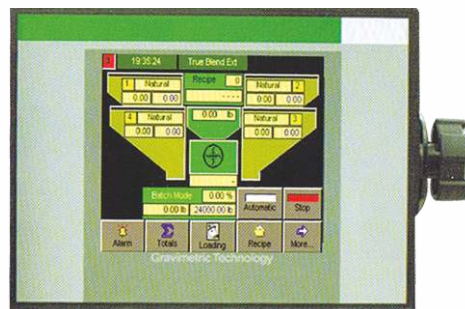


Space Failure Button



FEATURES OF FLAT DRIP IRRIGATION PIPE PLANT

AUTO MATERIAL HANDLING SYSTEM



**4 STATION GRAVEMATIC
BLENDER WITH EXTRUSION
PROCESS CONTROL**
(weight/mtr control)

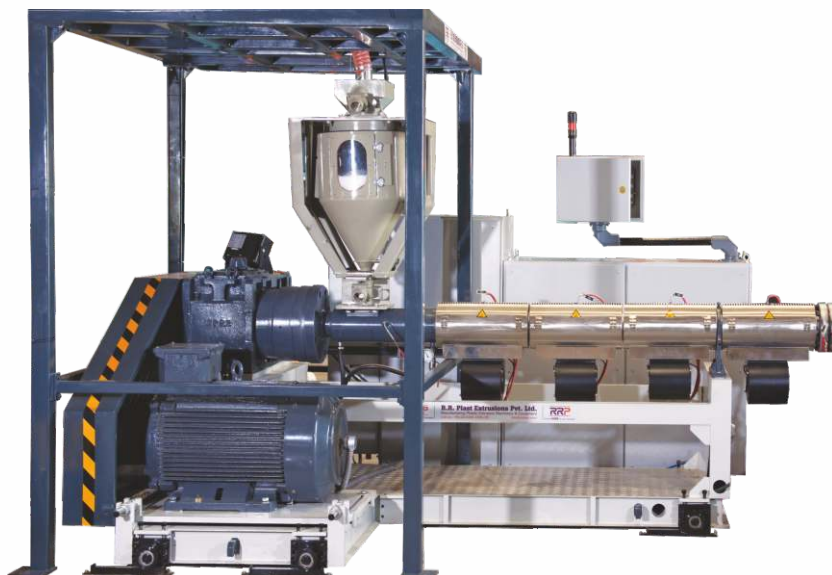
BENEFITS

- Saving raw material consumption
- Controlled thickness of the pipe
- Reduced scrap during job change over

- Complete automation with reports
- Simplified line start
- Synchronised with haul-off unit
- High quality and consistency in production

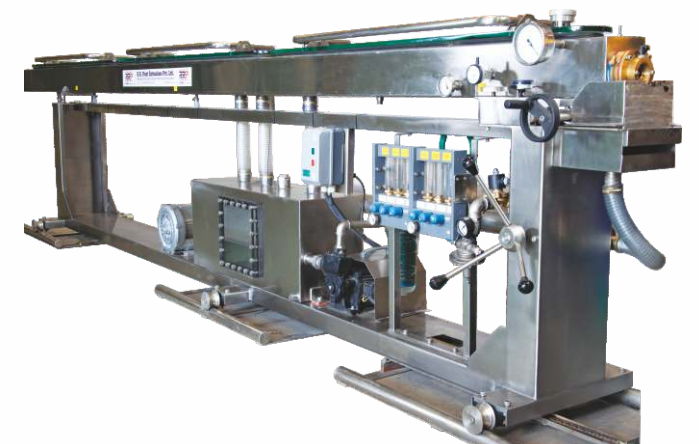
NEW GENERATION SINGLE SCREW EXTRUDER

The quality of the Extruder is one of the most important factors of the production line. That's why RR offers NEXT GENERATION EXTRUDER.



- New generation Bimetallic barrier screw with dispersive and distributive mixing zone for homogenized melt & better mixing
- Highly efficient temperature control for longitudinal grooved in the feeding zone
- Railing is provided for Extruder linear movement, No special foundation is required since the rails are bolted to the floor
- Barrier type screw design with helical maddock mixing zone to give high linear, stable output
- Consistent through put for all screw speeds

VACUUM
CALIBRATION
TANK



FEATURES OF VACUUM
CALIBRATION TANK

- Facility for Precise movements in Microns for X, Y & Z direction
- Indirect vacuum system with blower technology
- Works in close loop with pressure system
- Inbuilt dripper sealing technology
- Water flow and pressure control valve

FEATURES OF HAUL OFF UNIT

High speed precision controlled individually driven haul-off

SPECIFICATIONS

- Max Dia-20mm
- Speed up to 120/180/250mpm
- The constant and accurate pull of the haul-off will guarantee the best performance of the whole extrusion line
- Both belts are driven by common servo motor & drive with time belt & pulleys.
- Precisely synchronized with main extruder Dancing roll caterpillar bottom belt with dancing support links or rod



Haul Off Unit

Auto Dual Station Coiler



FEATURES OF COILER

- Auto pipe Cutting after Coil length completion
- Automatic transfer of pipe from one bobbin to another
- Bobbin Rotation by Turret action
- Winding speed: Max 120/160/250m/min
- Continuously adjustable Traversing movements by servo technology
- Torque control winding driven by servo technology
- Accumulator above 180mpm line speed

INLINE / ONLINE ROUND DRIP IRRIGATION PIPE PLANT



THREE LAYER - DRIP IRRIGATION PIPE TECHNOLOGY

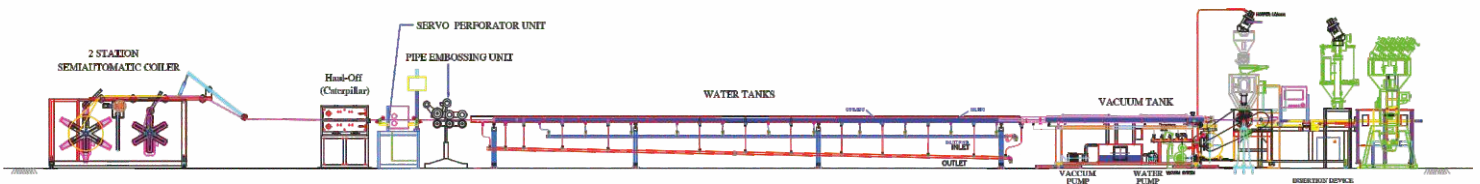


BENEFITS

- Cost reduction by use of 2nd grade material
- Better finishing on outside and inside pipe surfaces
- Best Solution to compete non-ISI market demand

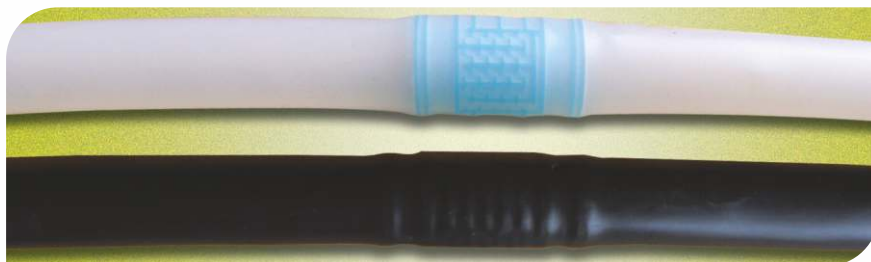
FEATURES

- 100,000-120,000 meter Inline Pipe Production / Day
- 0.30 unit/kg power consumption
- Extruder Throughput for pipe up to 250 Kg/Hr
- Machine Line speed: 80-100 Mpm
- Belt Type Servo Insertion with insertion capacity upto 500 Drippers/Min
- Servo Perforation unit with drilling capacity upto 500 Drippers/Min
- Precise speed control Haul-off unit
- Coil to coil weight variation is within +/- 0.5% of coil weight
- PLC based machine with inbuilt AC for control panel
- Perforator can drill 1, 2, 3, 4 holes as per customers requirements



ONLINE / INLINE DRIP IRRIGATION PIPE PLANT

Model (MM)	Pipe Size (Kgs/hr)	Output	Machine Line Speed (MPM)	Insertion Type	Perforation Type	Connect Load (KW)
RRPP - 45/33	12-20	180	60-70	Belt Type - Servo	Mechanical	62
RRPP - 65/33	12-32	250	80-100	Belt Type - Servo	Servo Perforation	109



MORE THAN
150
INLINE PIPE PLANTS
INSTALLED

Together We Make The World A Better Place



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E3
EXTRUSION
ENERGY SAVING
EFFICIENT
ECONOMICAL

FEATURES OF ROUND DRIP IRRIGATION PIPE PLANT

Next Generation Extruder



FEATURES

- New generation barrier screw with dispersive and distributive mixing zone for homogenized melt and better mixing
- Accurate control of melt condition, homogeneous temperature and pressure without variation, serging and low thermal stress
- Highly efficient temperature control for grooved feed block
- Consistent through put for all screw speeds

FEATURES

- 10.2 inches touch sensitive colour screen
- Output Indication (kg/hr) w.r.t. changes in pipe dimension and line speed
- Power consumption (kwh) and Unit/kg (Watt/kg)
- It provides following interlocks for Extruder
 - Cold Start Protection
 - Soaking Time
 - Alarm for Pressure and Temperature changes
- Recipe management
- Supervision of production data



PLC Based Soft Touch Screen Operation

Vacuum Calibration Tank & Cooling System



FEATURES

- Extremely stable vacuum due to constant water level
- Works on minimum vacuum pressure : 0 to 100 m bar
- Easy X, Y and Z movement ensures operator friendliness
- Precise water pressure controls provided for aquarium

FEATURES

- Max pipe diameter up to 32mm
- Speed up to 120m /min
- The constant and accurate pull of the Haul-off will guarantee the best performance of the whole extrusion line
- Precisely synchronized with main extruder



Haul Off Unit

FEATURES

- Inserting capacity upto 400 Drippers /Min
- Spacing between the emitters: 30 to 200 cm
- Option to insert emitters as a group with different spacing
- Single cycle; manually insert emitters for testing purpose, options that facilitate the operation of this production line



Servo Driven Belt Type
Inserting Device
(Model - RIN-400)

Servo Driven Perforation Device (Model - RSP-400)



OPERATED BY SERVO MOTOR

FEATURES

- High perforation rate (400/min.)
- Digitally controlled
- High accuracy of hole location (+/- 0.1 mm)
- Drills (cutters) are driven by small high speed air driven motors

FEATURES

- Double station
- AC motor with individual reduction gear box
- Max speed :120mtr /min +20%recovery speed
- Pneumatic opening/Closing of the flaps, that are retractable during the opening
- Mechanical Traverse with ball screw mechanism and driven by AC geared motor with AC Drive and synchronized with main bobbin



Coiler with Auto Traversing

Pipe Crusher



FEATURES

- 70 to 80 kgs/ hr. output with just 1.5 kw power consumption
- Online type operation which reduces extra manpower utilization
- Uniform Grinding size of 3x5 mm without dust
- Also cuts the Pipes with Drippers inside



Coil Wrapping
Machine

FEATURES

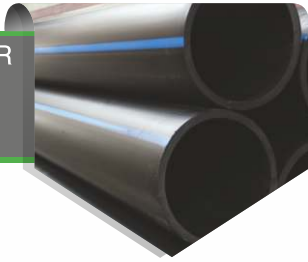
- Completely automatic operation
- Stretch film Wrapping type
- Keeps pipe coil in tight winding form which tends to loosen due to shrinkage

Specification
Of Pipe Plant

**HDPE / PPR PIPE
EXTRUSION PLANT**

Pipe Size	20 to 630mm
Layer	Mono / Multilayer (A-B / A-B-A)
Output	140 - 1200kg/hr
Material	PE63/PE80/PE1000/PPR

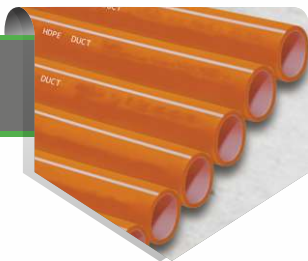
SPRINKLER
& WATER
SUPPLY
PIPES



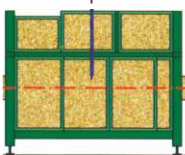
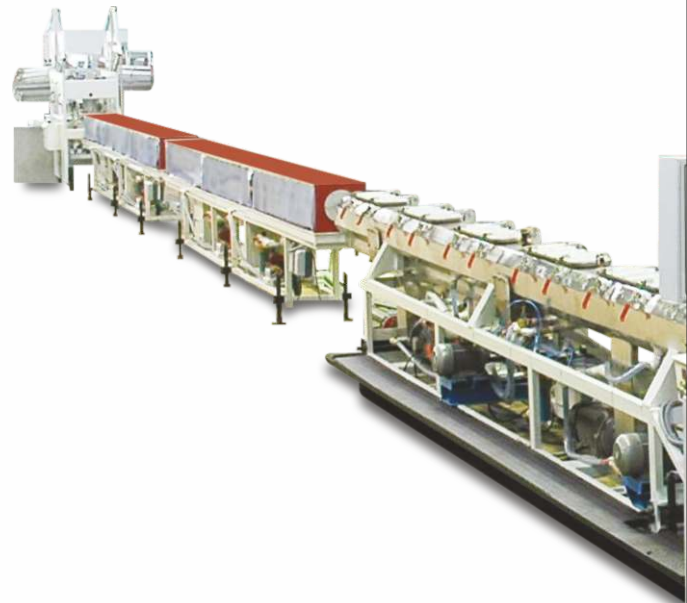
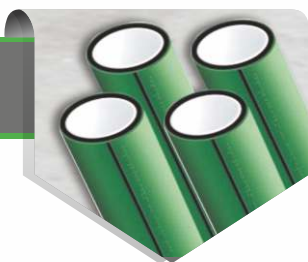
PE GAS
PIPE



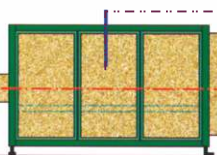
2 LAYER
PE DUCT
PIPE



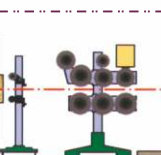
3 LAYER
PPR PIPE



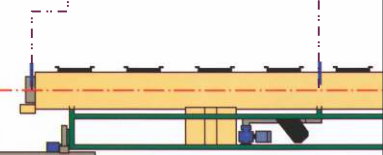
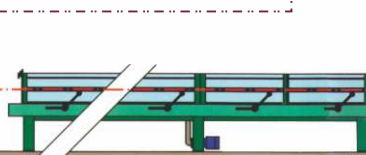
Auto Cutter



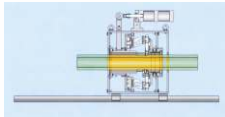
Haul Off Unit



Printing Machine



Thickness Gauge Measurement



Swarless Planetary Cutter



Multi track haul off



Outer - inner pipe diameter & Ovalness measurement & control



Efficient cooling system



Ultrasonic thickness gauge measuring & controlling unit

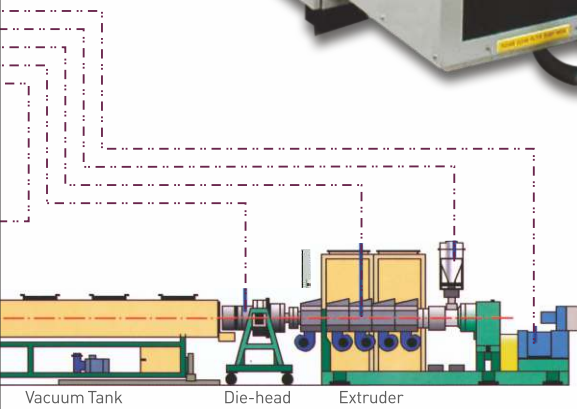


Precise vacuum control with efficient cooling



Barrel heating cooling system

Through put and weight per meter gravimetric control equipment. Raw material savings and consistent extruded



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FEATURES OF HDPE / PPR PIPE PIPE PLANT

Next Generation Extruder

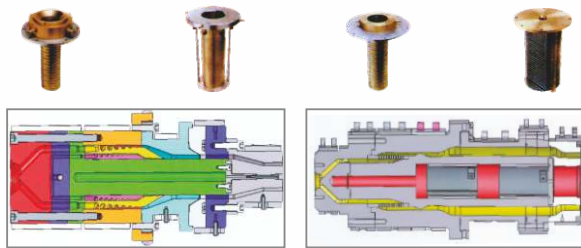


R.R. single screw extruders are featured by Efficient Process Technique to achieve outstanding Melt Homogeneity with a capability to process a wide spectrum of different formulations. High throughput, low and homogenous melt temperatures for quality extrudate meeting all International Standards are the inherited features.

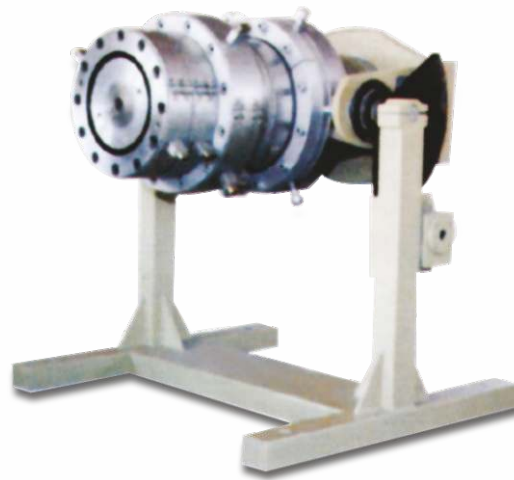
FEATURES

- Next generation barrier screws with longer L/D (33/36/40 D) are standard for Polyolefins (PE-100/125) and an option of other Polymers
- Accurate control of the melt conditions, homogeneous temperatures and Pressures without variation, serging & low thermal stresses
- Highly efficient Temperature controls for Grooved feed bush
- Consistent throughput for all screw speeds
- The Drive motor and the Gearbox can be Directly coupled or Belt driven as per Torque requirement to achieve the optimum efficiency to reduce the power consumption per unit output
- The screws and barrels are normally supplied in Nitrided steel. Bimetallic high wear resistant barrels can be supplied for high speed extruders

R.R. Supplies Die heads with Spiral Distributor designed by means of World Class Computer Aided Design Systems for the Dimensioning of the flow channels.



The possibility to obtain a perfect melt distribution at Low Extrusion Pressures ensures the control of the melt temperatures and consequently to keep unchanged the mechanical properties of the Extruded Thermoplastics.

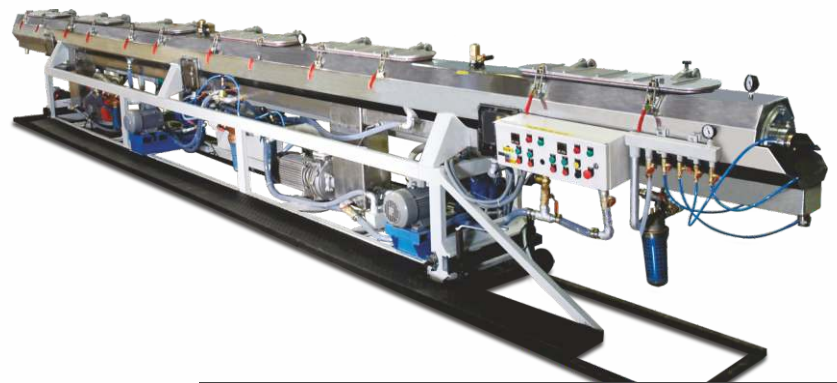


Die Heads

FEATURES

The vacuum tanks are normally fabricated in S.S./M.S.

- Efficient Spray Cooling by Precisely set Opposite nozzle's
- Immersion cooling(SI) provided for small pipes
- Intensive cooling arrangement for First Calibrator Section
- Highly Stable Vacuum
- Automatic Systems for Vacuum Control and Regulation assuring Strict Tolerances on Final Pipe Diameters
- Fine Water filtering with reduced pressure losses
- Water filters are easy to clean and maintain without working cycle interpretation
- Automatic regulation of Cooling water temperature



Vacuum Tanks

The Cooling tanks supplied by R.R. are normally fabricated of three different materials

- Wet Surfaces made from S.S. sheet
- Dry Parts in Cast Steel

FEATURES

- Intensive cooling through Spray Nozzles
- One Water pump with filtering system on each cooling tank
- Easily adjustable pipe supports
- Tanks are supported on Wheels and Rails for easy adjustments & movements



Haul Off Unit



FEATURES

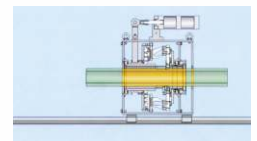
- Caterpillar with AC motor with VFD to provide Precise Synchronization Driving
- Unit comes with Pneumatic flexible clampings. The upper caterpillar can be moved to adapt as per the Pipe size variation and keeps good contact pressure with the pipe. The lower caterpillar can be Electrically adjusted to the required haul off position as per the pipe specifications
- High friction rubber pads connect with the chain
- Haul off units with 2, 3, 4, 6, 8 caterpillars
- Applicable for Pipe diameter 10 to 630mm

FEATURES

- R.R. makes cutters using the most advanced technologies like Hydraulic fluctuating blade advancing method, Special Saw blade structure, suitable for cutting pipes of large wall thickness
- Optimized control system for smooth cutting profile
- Synchronization through PLC control
- Works with two methods of cutting– Saw Type & Swarfless Cutting (No Dust)



Cutter Unit



Dual Station Coiler



FEATURES

- Double station as well as single station coiling facility
- Torque control bobbin speed
- Pneumatically operated flap
- Synchronized mechanical traversing
- Suitable for Pipe size 16 to 110mm

PRODUCT RANGE

SHEET EXTRUSION LINES

- PP / HIPS Multilayer Sheet Lines for Thermoforming & Vacuumforming
- PET / RPET Mono / Multilayer Sheet Extrusion Lines
- PP Stationery / Decorative Sheet Lines
- PS / ABS / PC / PMMA / PE / EVA / S-PVC Cable Tile (Warning Sheet)
- Sheet Making Extrusion Lines

RECYCLING PLANT

- Single Stage Vented Type
- 2 Stage Vented Type
- Strand Pelletizing Type
- Water Ring Die Face Cutter Type
- Direct Feed Recycling Plant With DFC
- Roto – Pe Coloring Granulation Plant

THERMOFORMING MACHINES

- Hydraulic type
- Fully electronic servo based

PIPE EXTRUSION PLANTS

- Round Drip Irrigation Pipe Plant
- Flat Drip Irrigation Pipe Plant
- HDPE / PPR Extrusion Pipe Plant

PRECISION TUBE MAKING MACHINERY

- D / F Pen-Polo Barrel / Refill Making Plant
- Lollypop Stick Making Plant



R. R. Plast Extrusions Pvt. Ltd.



📍 **Head Office:** 403/404, 4th Floor, Dilkap Centre, Sakinaka, Andheri - Kurla Road, Andheri (E), Mumbai - 400 072, India.

📍 **Factory:** Survey No. 164/4, 12/1, NH-3, Behind Hotel Pariwar Garden, Asangaon (W) - 421 601, Sahapur, Thane, India.

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