



HI-TECH[®]

SCREW BARREL WORKS

Partner In Your Success



WORKING TOGETHER
OUR CORPORATE VALUES.



OPENNESS



ENTREPRENEURSHIP



PASSION



HAVING KNOW-HOW



INTEGRITY



SERVICES



HI-TECHTM

SCREW BARREL WORKS

Partner In Your Success

Who we **Are?**

22 Years work experience with standard and world wide plastic machinery manufactures company's and after past 8 years we make & Serve to export and pure quality/prise screw barrel for our valuable plastic product manufactures



Our only mission is that our plastic manufacturer family can actually evaluate the market. So they can buy good quality item. We are just enter in the market and screw and barrel related all problem are solve to our valuable plastic product manufacturer . We will always take care of the problems caused by our given item and try the best to overcome these problems



We will keep vision that our customers are completely satisfied with our items. We Serving Just like you think, export quality spare of plastic machinery, The plastic engineer choice Hi-Tech screw and barrel

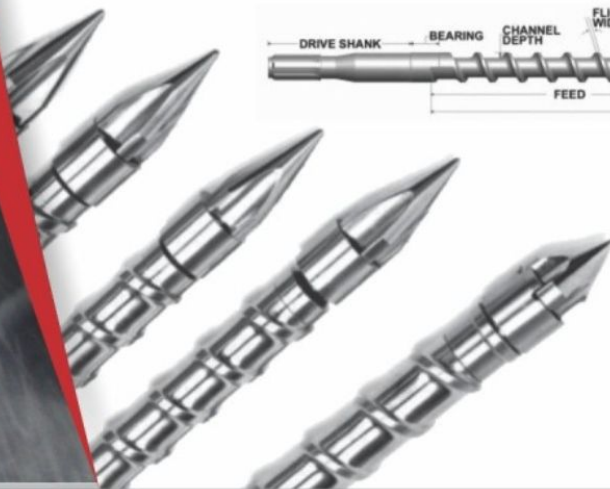
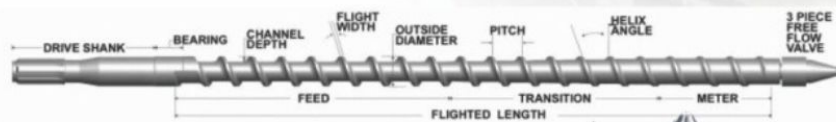


We make
A screw and barrel for

- **Pipe Plant**
 - PVC Pipe manufacturer (U PVC, R PVC, CPVC)
 - HDPE pipe manufacturer
 - PVC Braided pip plant
 - PVC Suction House Pipe
 - PVC Soft Tubing Plant
- **Sheet Plant**
 - Air Bubble Sheet Plant
 - PP Sheet Plant
 - HIPS Sheet Plant
 - PVC Sheet Plant
 - Thermo Forming Sheet Plant
- **Film Plant**
 - PVC Film Plant
 - Lamination Film Plant
 - Blown Film Plant
 - Tape Plant
 - Multi Layer Film Plant
- **Cable Manufacturer (Any Type of Materials)**
- **Compounding Plant**
- **Injection Moulding Machinery**
- **Blow Moulding Machinery**
- **Foot Machinery**
- **Any type of Plastic Products Manufacturing**

INJECTION MOULDING SCREW BARREL

- We manufacture injection molding screw like plain and barrier screws with out state of the art manufacturing faacilities resulting in high quality and high performance.
- These can be hard faced, nitided with optional hard chrome plating we have all type of screw design available to match your process for LDPE , HDPE, PP, PVC and more.
- We also manufacture all type ring pln plunger sets (torpido material used H-13), barrel head, nozzle., adaptor.



EXTRUSION SINGLE SCREW AND BARREL

Hi-Tech Extrusions manufactures single screws and barrels starting from 20 mm to 150 mm screw diameter. Length Up to 6000 mm

Grooved feed barrel

The grooved feed barrel is used for achieving high shear and better transportation of material. As Co-efficient of friction between granules and screw and barrel should be higher to get proper melting of the material it's imperative to have grooved feed in the barrel for processing of polymers of olefin group.

Application :

- LDPE, HDPE, PP Film
- Raffia / Mono Filament application

Barrier screw

The barrier screw design separates melted material from unmelted solid material into separate channels. This unique mixing feature thoroughly homogenizes the melt with little or no increase in its average temperature. Mixing is achieved with an undulating root profile in the metering zone of the screw.

Application :

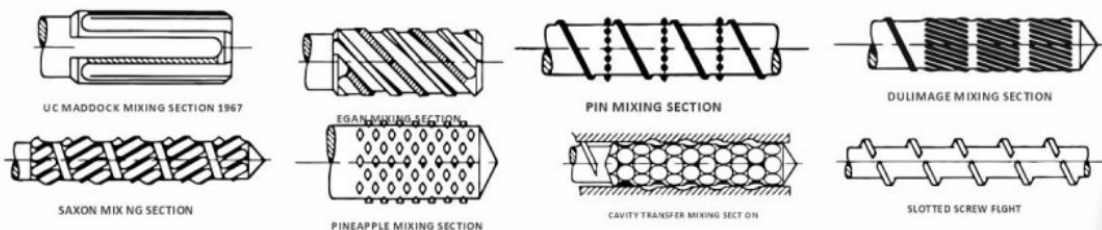
- LDPE/HDPE/PP/Film
- ABS
- PVC cable
- PVC Pipe/PVC profile

Maddoc - barrier screw

Maddoc barrier screw is used to break down particles by forcing material to flow over barrier flights, in a similar manner to barrier screws.

Application:

- HDPE Pipes
- XLPE cables
- Lay Flat Pipe
- LDPE Tubing
- PP film



■ EXTRUSION TWIN SCREW AND BARREL

We also offer twin screw pair which responds anticorrosion & wear resistant with high quality and high performance rate with bimetallic coating

New designed screws developed by us.

We manufacture twin screw pairs and twin barrel of all the well nown extruder making companies.

Application :

- PVC Pipe manufacture (R PVC, U PVC, C PVC)
- PVC Profile manufacture (R PVC, U PVC)



Technical Specifications / Heat Treatment Process

Toughening hardness	: HB 240 to 280
Nitriding layer depth	: 0.4 to 0.6
Hardness of nitride process	: 65 to 72 HRC
Tungsten carbide coating hardness	: 70 to 75 mm
Tungsten carbide coating layer	: 0.8 to 1.5 mm
Plazma or gas nitrided	
PTA melt welding	
HVOF thermal spray coating	
Vacuun hardening D2/M2 Tool Steel Material	
Chrome plating	

■ HOW CAN WE IMPROVED SCREW & BARREL LIFE

■ Bimetallic Screw

Boron & Tungsten Carbide hardfacing protect screw against Abrasion & Corosion

Suitable machine :- injection/extrusion/blow

Process method :- PTA Spray

Description : by spraying high quality imported alloy powder on screw flight with layer thickness 1.5-2.0 ,we can get higher performance in both wearing & corrision resistant performance with bimetallic screw

Application :- Common plastics & engineering plastics with below 15 % glass fiber filling

Surface hardness :- 58 - 64 HRC Up to 0.5 to 0.6 mm depth

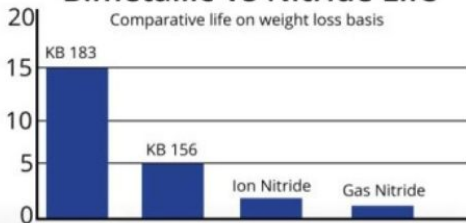
Specialist in wear resistance products & solutions

Polymers can be used : Minerals, Glassfibers, Pigment, Carbon fibers

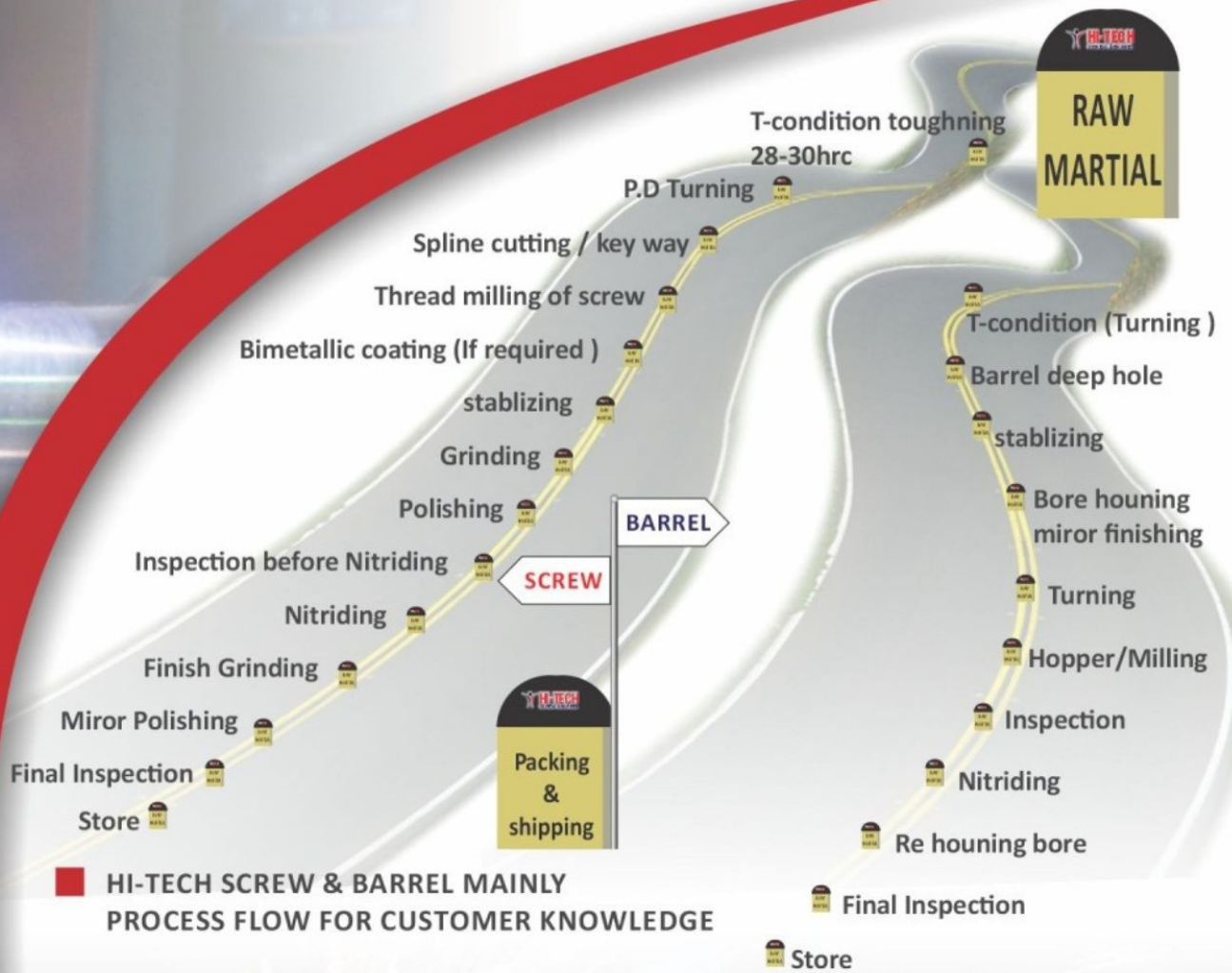
■ Bimetallic barrel

Bimetallic Vs Nitride Life

Comparative life on weight loss basis



Screw and barrels processed with bimetallic alloy hardface coating have many virtues, such as high hardness, stronger wear & corrosion resistance. Its general properties are three to fifteen times more compared to the nitriding steel. They are wildly used for highly abrasive & corrosive materials like engineering polymers and pvc compounds. The main machining methods are as follows: spot spray, spray coating, cover coating, mould, butt welding etc. The bimetallic process used in world as advanced technology for better life with consistent production and quality. It is the best choice for production special screws. Polymers can be used : Minerals, Glassfibers, Pigment, Carbon fibers



Inspection of customer screw and barrel

After we are send a report and costing and waiting of customer reply

Welding in wear portion of damage part of screw

Grinding & Polishing

Nitriding

Re honing of barrel

Final polishing

Inspection and dispatch

Our repairing processed of screw and barrel after then life of s & b is 1/2 of new screw barrel

Screw and barrel combination of these two parts the quality of work, the plastics materials, products quality and production efficiency, have a significant impact. Their work quality and accuracy of two parts manufacturing and assembly space related. When the 20 were badly worn extruder output decline, they should be arranged on the screw, barrel maintenance.

We are a premium quality screw barrel manufacture & exporter
with under the experienced engineers

The Revolution Is Here

The Taste Of Success

We are Committed



We Can Handle The Pressure

Satisfy Your Needs

We Work Best When We Work With You

HI-TECH SERVICES

We serve following service all over the world

- Screw design and mixer patented
- Retrofitting projects
- OEM replacement
- Bimetallic hard facing coatings & Linings
- Rebuilding & Refurbishing services with inspection
- At sight drawing service
- Erection and installation
- Turnkey project for extrusion lines



www.hi-techscrewbarrel.com
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Helix



TM

extrusion technology pvt. ltd.



PIPE EXTRUSION PLANT

About US



Helix Extrusion Technology Private limited is premium quality extrusion machine and their spares parts manufacturer and exporter in india . We have a 22 years experience of pipe extrusion machinery Field . Helix Long Term vendorship Expreince in extrusion machine manufacturer OEM . Serving wide scope of perpose , a Helix Trademark guarantees to your end customers .

Helix Vision

we give premium quality machine but services is main part of extrusion line and helix give fast services .

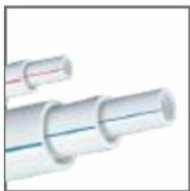




Helix Twin Screw Extruder are Know For the power Optimization With Premium Quality pipe manufacturing and are Offered In the Range from 100 kg /hr Up to 700 Kg/hr

Helix Features For The Twin Screw Extruder

- Low power consumption and energy saving with Heavy Output.
- Hard Face Tungsten Carbide Coated Screw in Metering Zone for High Wear Resistance – Standard And Full Encapsulation(option).
- Barrel With HSS sleeve.
- Internal Oil Circulation with Cooling System for Gear Box.
- Easy Operating System, PLC controls on request.
- Low Maintenance.
- Achieve Uniform Pumping.
- Gentle Plasticizing and Great Melt Quality.
- Reputed Make Mechanic , Electric and Electronic Item.



TECHNICAL SPECIFICATION

Extruder Specification :- 1

MODEL		HET 110	HET 170 -200	HET -250	HET 350	HET 450	HET 550
Screw Diameter	mm	52	65	65	71	91	91
L/D Ratio	-	20:1	18:1	22:1	28:1	22:1	25:1
Main Drive	kw	11	15-22	22	30	45	56
Output In	kg	100 to 110	170 to 200	230 to 250	330 to 350	420 to 450	520 to 550

Performance Varies Depending On pipe Dimensions And Type Of Material

Extruder Specification :- 2

MODEL		HET 52-18	HET 52-22	HET 52-25	HET 65-18	HET 65-22	HET 68-28	HET 90-22	HET 90-25	HET 92-28
Screw Diameter	mm	52	52	52	65	65	68	90	90	92
L/D Ratio	-	18:1	22:1	25:1	18:1	22:1	28:1	22:1	25:1	28:1
Main Drive	kw	11	15	15	22	30	37	55	55	75
Output In	kg	110 to 120	130 TO 150	150 TO 170	180 TO 200	200 TO 250	300 TO 350	400 TO 450	500 TO 550	650 TO 700

Performance Varies Depending On pipe Dimensions And Type Of Material



Helix Features For The PVC Die Head

- High Volume Low Pressure Design ensures wider thickness range.
- Dual die with dual downstream for pipe sizes 20-110 mm & 63-200 mm.
- Modular design.
- Optimizing back pressure enables compression equilibrium and temperature control of the melt.
- Extruder Utilization from 30 % to 100 % in larger dia of pipes .
- Top Quality Diamond Chrome Plating's.
- Twin die heads for higher output in smaller diameters.
- Dia Head With Trolley for P-200 and above models for easy movement.



Single Head die Specification

Model		HSHD 63	HSHD 110	HSHD 200	HSHD 250	HSHD 315	HSHD 400	HSHD 630
Pipe Range	mm	20-63	20-110	63-200	90-250	110-315	160-400	250-630
Output Capacity	kg	100	200	320	425	550	700	1000

Twin Head die Specification

Model		HTHD 50	HTHD 63	HTHD 110	HTHD 200
Pipe Range	mm	19-50	20-63	20-110	63-200
Output Capacity	kg	200	200	400	850



Helix Single Screw Extruder/SPEED (HDPE/PPR) are offered for extrusion of polyolefin (HDPE,PP,PPR,LLDPE,LDPE) pipes. Offered Range from screw dia 25mm to 120 mm.

Helix Features For The Single Screw Extruder.

- Standard Proven Technology ensures excellent linearity of specific output.
- L/D ratio of 37:1 ensures excellent melt homogeneity.
- Wear resistant Tungsten Carbide coating ensures long screw life at high rpm.
- With the Barrier Screw And Grooved feed design extruder.
- Direct coupled design ensures minimum transmission loss.
- Versatile screw designed for PE & PP Random Copolymer.

Barrier Screw Design

- It allows high homogenous plasticizing less material slippage and higher output.



Grooved feed system

- Pressure invariance
- Uniform throughout and melt Temperature
- Higher productivity compared to conventional design.
- Improved material conveying capacity



Extruder Specification

MODEL		Speed 45-22	Speed 45-45	Speed 45-55	Speed 45-75	Speed 45-90	Speed 60-110	Speed 60-132	Speed 75-200	Speed 75-250
Screw Diameter	mm	45	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	37:1
Main Drive	kw	22	45	55	75	90	110	132	200	250
Output In	kg	60-80	140-160	180-190	220-240	300-330	380-400	500-550	650-700	800-850



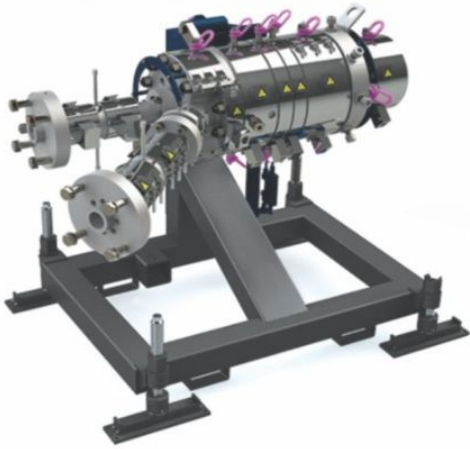
DIE HEAD | HDPE/PPR PROCESSING

Helix Features For The PE/PPR Die Head

- HELIX Provide Most Versatile Spiral Mandrel Design.
- Consistent Product Quality for all pipe sizes.
- Short purging time.
- Improved inner pipe surfaces.
- Optimized back pressure allows a balance of compression & melt temperature control.
- Uniform melt Flow can be achieved yielding minimum wall thickness deviation.

Single Head Die Specification

Model		HSM 50	HSM 200	HSM 250	HSM 450	HSM 630	HSM 800
Pipe Range	mm	12-50	20-200	63-250	90-450	225-630	315-800
Output Capacity up to	kg	200	500	800	1000	1200	1500
Internal Pipe Cooling	-	N.A	N.A	IPC	IPC	IPC	IPC



Dual Head Die Specification

Model		HSM 50	HSM 200
Pipe Range	mm	12-50	20-200
Output Capacity up to	kg	400	1000
No. of Layers	-	1	1



SINGLE SCREW JOCKEY & CO-EXTRUDER



Applications

- PP Tubes for
- HDPE / PP Pipes
- Garden Hose Pipes
- Soft PVC Tubing
- Suction Hose Pipes
- Cable Coating

Jockey & Co- Extruder Specification

MODEL		HJE 18	HJE 25	HCO 40	HCO 50	HCO 65	HCO 75	HCO 90	HCO 120
Screw Diameter	mm	18	25	40	50	65	75	90	120
L/D Ratio	-	20:1	24:1	26:1	26:1	26:1	26:1	26:1	26:1
Main Drive	kw	0.75	3.75	7.5	15	30	37.5	60	110
Output In	kg	1.5-2	5-6	18-20	36-40	90-100	120-130	170-190	300-320



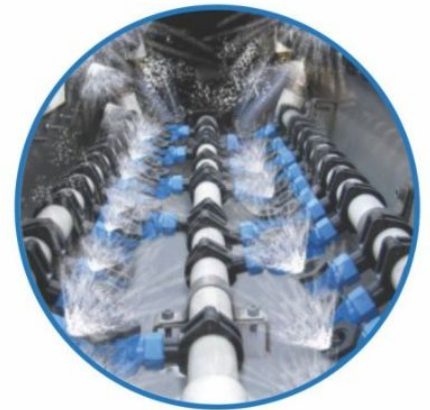
Vaccum Sizing Tank

- Tank available with Mild Steel as well as in S.S 304.
- Easy cleaning bayonet type spray nozzle provided.
- Mechanical Seal/Water Ring type Vacuum Pump.
- Additional vacuum chamber and motorized axial movement.
- Provided from UVST and above for quick startup and less wastage.
- 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.
- Electrical operated valves optionally.
- Cyclone separator for vacuum pump optionally.
- Pressure gauge on water filters to see the blockage of filter.



Pipe Cooling Tank

- Tank available with Mild Steel as well as in S.S 304.
- Easy cleaning bayonet type spray nozzle provided.
- Manual / motorized longitudinal adjustment on rail.
- Fixed structure provided in extra cooling tank.
- Adjustable spray nozzle pipes (above TCT-250 Model).
- Appropriate working platform is provided.
- Special type of Filter for cleaning during operation.
- Height adjustable manually.
- Appropriate working platform is provided.



Vaccum Tank Specification

Model		HVT - 110	HVT - 200	HVT -250	HVT - 315	HVT - 450	HVT - 630
Pipe Range	mm	20 -110	20-200	20-250	75-315	110-450	110-630
Length Of Tank	mm	4000-6000	6000	6000	6000-9000	6000-9000	6000-8000
No. Of Vacuum Chamber	-	Single	Single	Single	Double	Double	Double

Cooling Tank Specification

Model		HCT - 110	HCT - 200	HCT -250	HCT - 315	HVT - 450	HVT - 630
Pipe Range	mm	20 -110	20-200	20-250	75-315	110-450	110-630
Length Of Tank	mm	4000-6000	4000-6000	4000-6000	6000	6000	6000-8000
No. Of Vacuum Chamber	-	Single	Single	Single	Single	Single	Single





- Integrated synchronization of the precise line.
- Multi belt – 2/4/6 belts – o vality free pipes.
- Minimum velocity range significantly decreased.
- Very low chain wear.
- Slip control.
- Servo Design Available optionally.
- 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.
- Encoder for length measurement & feed back arrangement offered optionally.
- Easy accessibility for maintenance of all components.
- Dual twin-track traction units for dual pipe extrusion line.
- Easily removable rubber pads / M olded Rubber Chain.



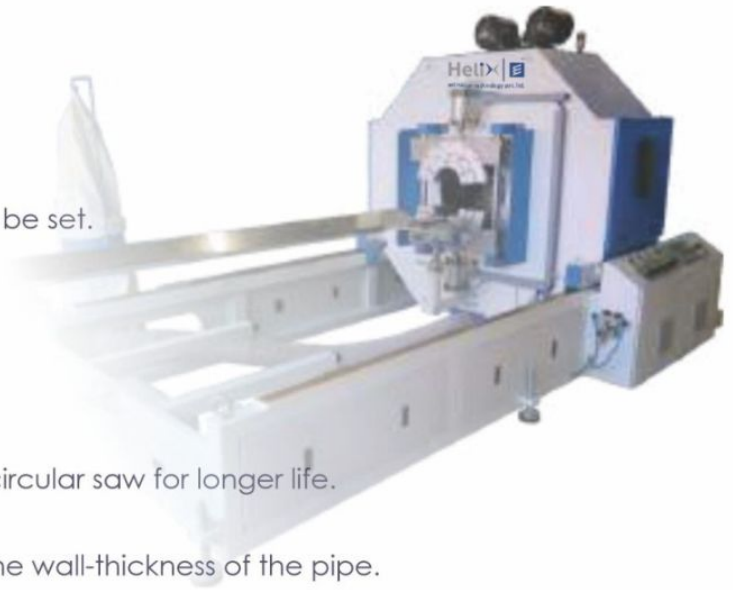
Pipe Traction Unit Specification

Model		HTU - 110	HTU - 200	HTU -250	HTU - 315	HTU - 450	HTU - 630
Pipe Range	mm	20-110	20-200	50-250	75-315	110-450	110-630
No. of Tracks	-	2	2	2	3-4	4	4-6
Pipe Contact Length	mm	800	1100	1100	1200	1600	1450
Line Speed	m/min	15	10	10	10	4.5	5



CUTTING UNIT

- Maintenance Free Top clamping .
- Suitable for PE and PVC pipe high-speed lines.
- Low noise due to acrylic cover (on request).
- Multiple lengths of cutting in a single line.
- During production, parameters for cutting can be set.
- Clean and dust-free cuts.
- Unmatched cutter quality.
- PLC Based Controls available optionally.
- Dual Cutter for dual pipe extrusion line.
- Trolley movement on linear motion bearing.
- 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.



Pipe Cutting Unit Specification

Model		HCU - 110	HCU - 200	HCU - 250	HCU - 315	HCU - 450	HCU - 630
Pipe Range	mm	20-110	20-200	50-250	90-315	110-400	160-630
Clamping From	-	Top	Top	Top	Top/Side	Universal	Universal
Saw Dia	mm	350	550	630	850	180	355



TILTING UNIT AND SPIRAL SPRING CONVEYOR

Tilting Unit

- Rigid heavy-duty MS structure .
- Rubber pad made from imported rubber.
- Pneumatically operated.
- The operation of two limit switches – one for pipe cutting .
- Feedback and others for tilting the pipe.
- Pipe resting platform provided for

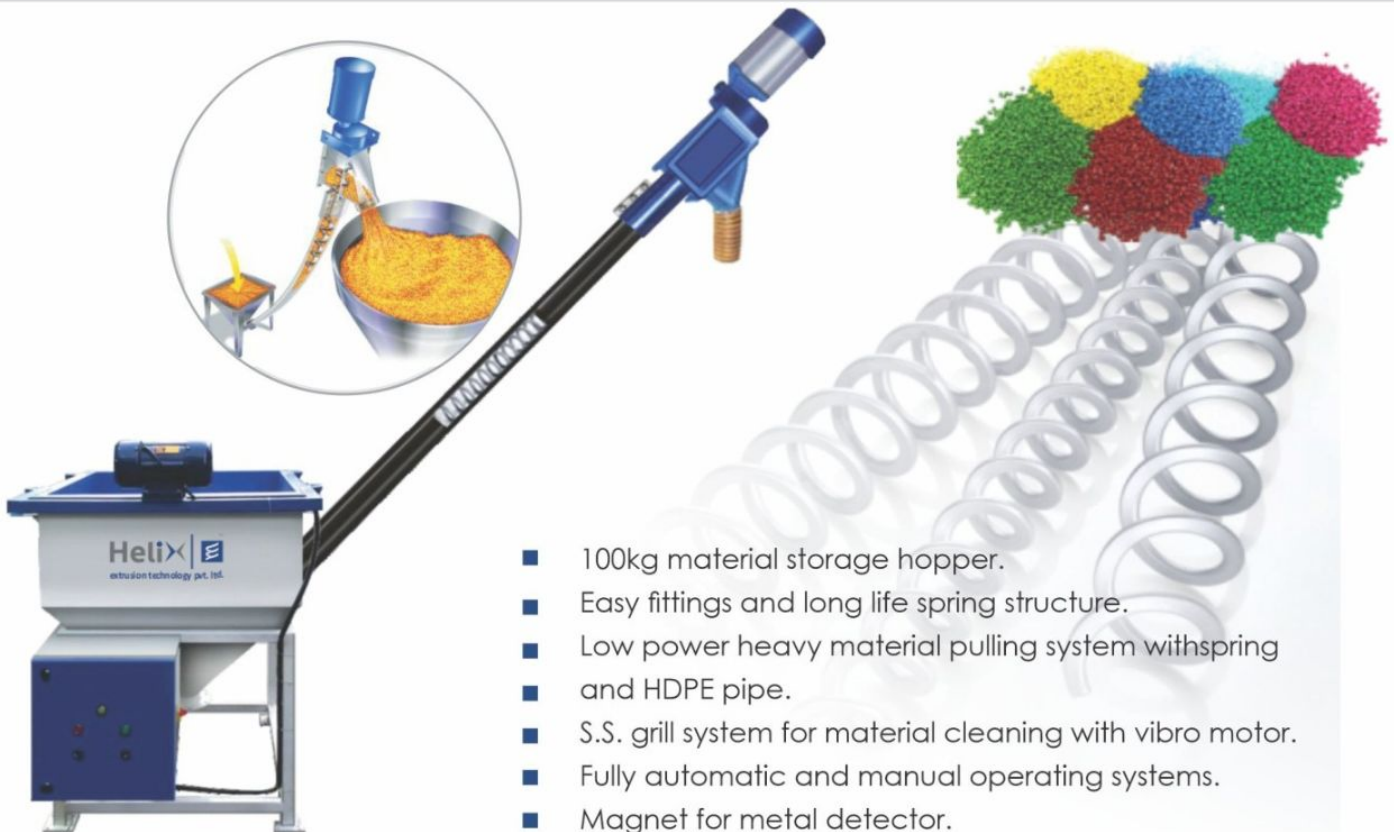


Pipe Tilting Unit Specification

Model		HTTU - 110	HTTU - 200	HTTU - 250	HTTU - 400	HTTU - 630
Pipe Range	mm	16 - 110	20 - 200	50 - 250	90 - 400	110 - 630
Bed Type		Flat Tray	Roller	Roller	Roller	Roller



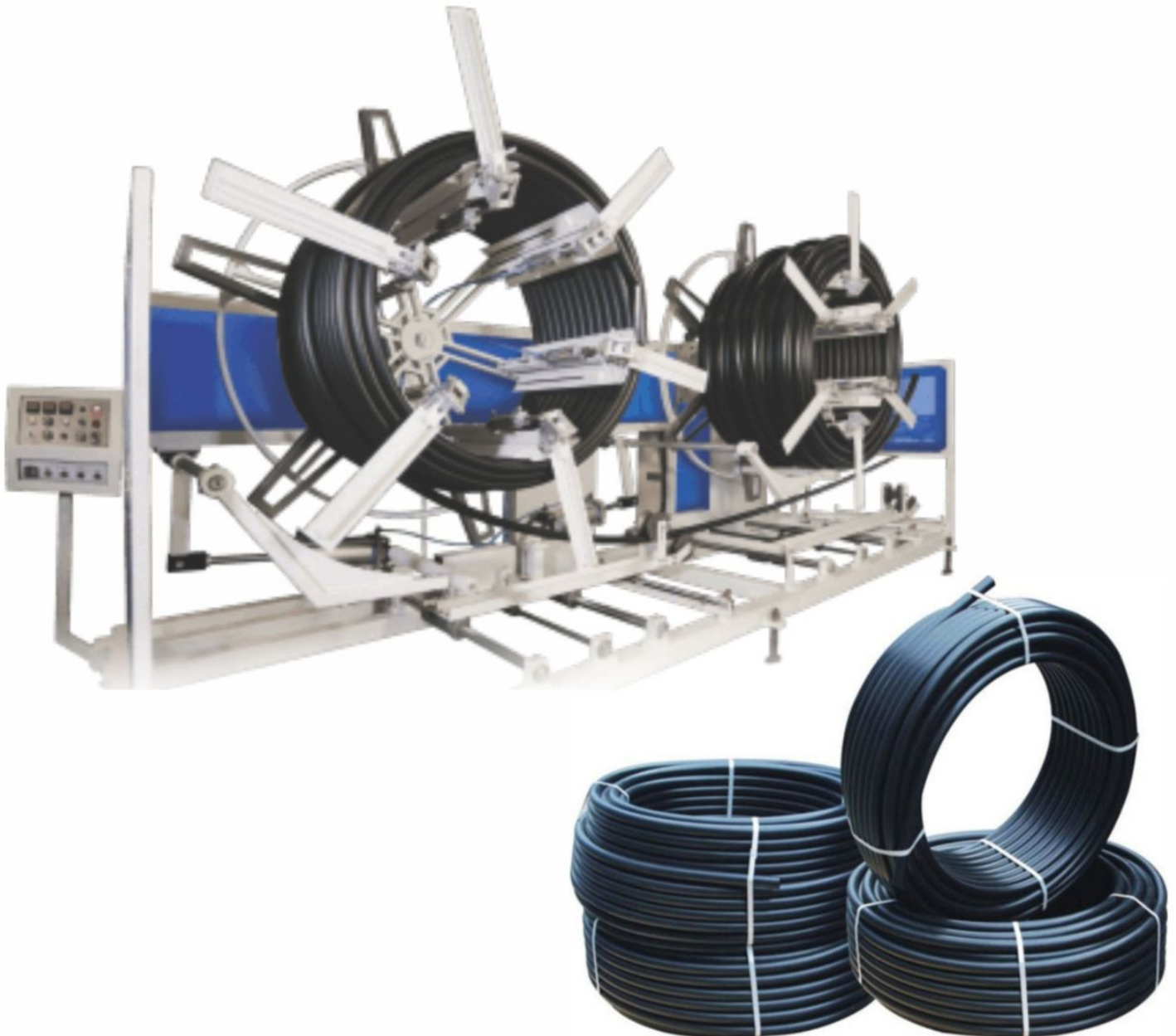
SPIRAL SPRING CONVEYOR



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



- Two Station Coiler With Pneumatic collapsing arms.
- Single station coiler available on request.
- A.C Drive.
- Suitable for pipe size up to 125 mm.
- Online tension adjustment achieved through tension control.
- Pneumatic pipe end retaining device provided to prevent loosening of the coil.
- Auto Traversing with servo and non servo drive available.



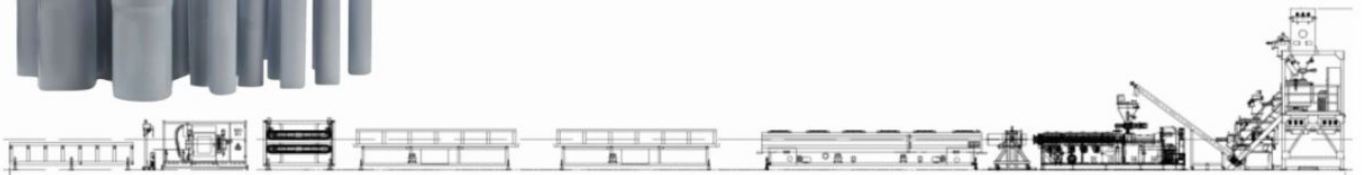
Coiler Unit Specification

Model		HC - 32/2	HC - 63/2 E	HC - 63/2 HD	HC - 125/1
No. of Wind Up Stations	-	2	2	2	1
Pipe Diameter Range	mm	12 - 32	16 - 63	16 - 63	63 - 125
Line Speed Max	Mtrs/Min.	80 - 120	15/30	15/30	10

■ SINGLE SCREW EXTRUSION PLANT (HDPE / PPR)



TWIN SCREW EXTRUSION PLANT (PVC , uPVC ,cPCV) ■



We Give A Premium Quality Machine For Our End Users & Your End Users .

HELIX EXTRUSION LINES ARE USED IN MANY FIELDS AND FOR A NUMBER OF DIFFERENT USES

- BUILDINGS - pipes for transport of liquids, for high pressure or for drainage.
- CONDUIT - smooth corrugated or spiral pipes.
- AGRICULTURE - pipes for irrigation, drip irrigation, braided pipes.
- PETROCHEMICAL - pipes for transport of gases and hydrocarbons.
- MEDICAL - pipes for medicinal products, pump pipes, ental pipes.
- AUTOMOTIVE - air conveyance pipes, cable pipelines.
- TELECOMMUNICATIONS - cable protection pipes.

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