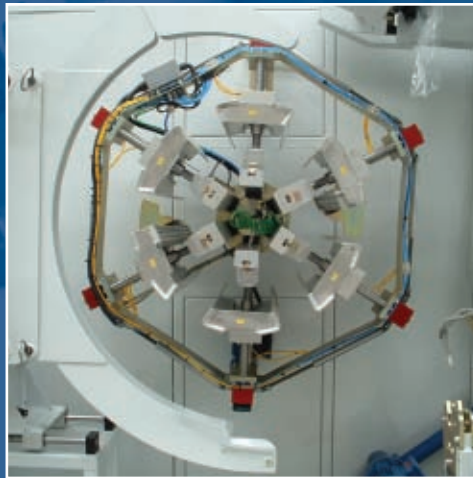


Pipe Coil Technology Limited

Automatic Coiling Technology





Pipe Coil Technology Limited specialise in automatic coiling systems for use with a wide range of plastic pipe, tube, hose and conduit. In all applications the replacement of manual or semiautomatic coiling with fully automated coiling systems has many advantages;

- ▄▄▄ Reduced labour cost
- ▄▄▄ Increased extrusion speeds
- ▄▄▄ Improved and consistent coil presentation
- ▄▄▄ Wider choice of coil packaging methods
- ▄▄▄ Reduced exposure of operators to repetitive strain or manual handling injuries

The combined affect of these benefits will be improved business profitability achieved primarily through reduced operating costs, however, in many cases increased sales will be generated by the marketing advantage gained through improved product presentation.

All automatic coiling machines from Pipe Coil Technology Limited offer;

- ▄▄▄ Ease of operation, with simple and instinctive operator interface and choice of language
- ▄▄▄ Quick change between product and coil sizes with minimum number of change parts
- ▄▄▄ Robust construction
- ▄▄▄ Compliance with CE, OSHA and UL regulations
- ▄▄▄ Choice on control system base; PLC based using Lenze, Allan Bradley, Siemens or Mitsubishi, or industrial PC based
- ▄▄▄ Option of remote diagnostic support
- ▄▄▄ Option of production data collection and integration with customer's computerised order processing

Automatic coiling systems for small diameter flexibles

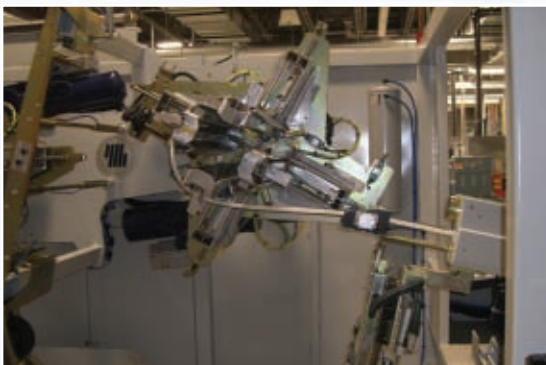
{typically 6mm to 40mm diameter smooth walled pipe and 10mm to 50mm corrugated pipe or hose}

Choice of;

- ▄▄▄ machine size to suite product diameter and range of coil size
- ▄▄▄ machine configuration to suite desired output rate; single head (one coil winding position) or twin head (two coil winding positions)
- ▄▄▄ coil packaging to suite end market requirement; stretch film wrap, strapping, or adhesive tape (for small coil sections only)

Machines within this range feature;

- ▄▄▄ Ability to operate either directly on extrusion line or as part of integrated off-line automatic coiling system
- ▄▄▄ Multi-axis servo control for precise coiling, layering and packaging at high speeds
- ▄▄▄ Automatic coil diameter adjustment with optional automatic coil width adjustment
- ▄▄▄ Operating speeds up to 250 m/min
- ▄▄▄ Automatic coil unloading; choice of gravity chute, powered conveyor, industrial robot, or as required
- ▄▄▄ Optional integrated label printing and application
- ▄▄▄ Automatic sample cutting and collation





In addition to the wide range of machines for producing free standing coils we also produce fully automatic machines for winding small diameter products onto plastic or wooden reels. These machines have many features in common with our automatic coilers and in some cases can be designed to enable dual purpose use, with changeover between spooling and coiling configurations taking less than a day.

Automatic coiling systems for larger diameter flexible and semi-rigid products

{typically 50mm to 200mm diameter smooth walled pipe, composite pipes, flow-lines and pre-insulated pipe}

For these larger diameter products single head machine configurations are usually adequate, with twin head configurations only used for high extrusion speed applications on product diameters up to 90mm. The degree of system automation can be chosen to give an optimum balance between equipment purchase price and level of operator input required. In some applications the cost to fully automate all aspects of coil production can not be justified therefore we offer solutions which automatically perform the majority of coiling functions, but rely on operator intervention for tasks such as pipe end connection or coil removal. In our fully automatic systems the pipe is usually cut at the extrusion line and is guided on a transfer table to the coiler where it is automatically engaged and coiling started. The transfer table is often installed as a continuation to an existing tip table and for applications requiring intermediate layer strapping of coils, the transfer table will include an accumulator to store pipe during strap application.



Can be combined with Low Ovality Technology for HDPE pipe applications



Automatic packaging using polypropylene, nylon or polyester straps, or adhesive tape packaging





Secondary coiling stations for application of film or protective coatings



Automatic coiling systems for larger diameter corrugated pipe and duct

{typically 40mm to 200mm diameter corrugated duct and land drainage pipe}

- /// Single or twin head machine configurations
- /// Extrusion speeds up to 40m/min
- /// Packaging with polypropylene or polyester strap
- /// Compact machine footprints
- /// Twin head machines configurable by user for 'right to left' or 'left to right' operation
- /// Produce different coil lengths on each head
- /// Optional integrated or stand alone twine blower
- /// Optional label printing & application

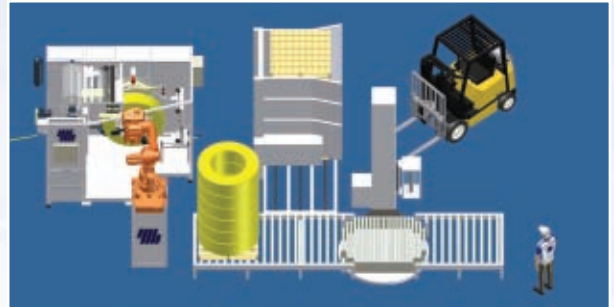




Coil handling, stacking and palletising

For truly unmanned automatic coiling, packaging and collation of completed coils into desired pack configurations ready for warehousing or delivery to customers we provide fully integrated systems incorporating;

- Industrial robot to perform coil handling tasks
- Label printing and application systems
- Automatic pallet dispenser
- Conveyor system for coil and/or pallet movement
- Pallet wrapping station



Off-line automatic coiling - the cost effective solution for multiple extrusion lines

What is 'Off-line Coiling'? Off-line coiling separates the production of finished coils from the extrusion process enabling the efficiency of the extrusion and of the coiling processes to be independently maximised.

- At the extrusion process the pipe, tube, hose or conduit is wound onto master reels with each reel holding typically 4 to 48 hours of continuous production.
- The production of finished coils is performed 'off-line' by transferring product from the master reels to finished coil lengths at high speed using a fully integrated automatic coiling system.

Increase extrusion speed by up to 100%

Reduce labour cost by up to 75%

When should off-line coiling be considered?

Off-line coiling should be considered when two or more extrusion lines, producing similar sized products, are operated in the same factory.

Benefits of off-line coiling

Extrusion process can be optimised;

- higher extrusion speeds
- less downtime
- lower scrap rates.

Coiling and packaging process can be optimised;

- higher coil production rates
- lower labour cost per coil
- coiling can be performed close to, or within, warehouse location, it does need to be on same site as extrusion

Lower capital investment in equipment AND lower operating costs Improved operating flexibility;

- Coiling can be performed when convenient, it does not have to be done at the same time as running extrusion
- Coil size changes can be made more frequently and easily without affecting extrusion efficiency
- Inventory of finished coils can be reduced by adopting a more 'cut to order' production method



Pipe Coil Technology Limited

Automatic coilers with strap packaging

Machine size ref.	SPC020	SPC025	SPC030	SPC060	SPC090	SPC125	SPC180
Pipe size	6 to 25mm	8 to 28mm	12 to 40mm	20 to 63mm	32 to 90mm	50 to 125mm	63 to 180mm
Coil head choice	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	1	1
Coil ID	200 to 400mm	380 to 600mm	590 to 860mm	700 to 1300mm	900 to 1800mm	1250 to 2500mm	1800 to 3000mm
Coil OD (max)	ID + 300mm	ID + 450mm	ID + 500mm	ID + 600mm	ID + 900mm	ID + 900mm	ID + 1000mm
Coil width	100 to 250mm	100 to 300mm	100 to 350mm	100 to 400mm	150 to 500mm	220 to 600mm	440 to 1000mm




Automatic coilers with film wrap packaging

Machine size ref.	SPC020	SPC025	SPC030	APC010	APC020	APC025
Pipe size	8 to 25mm	8 to 28mm	12 to 32mm	4 to 12mm	8 to 25mm	10 to 32mm
Coil head choice	1 or 2	1 or 2	1 or 2	1	1	1
Coil ID	200 to 400mm	380 to 600mm	590 to 860mm	125mm	180 to 400	300 to 600mm
Coil OD (max)	2xID-120mm	2xID-180mm	2xID-320mm	ID + 150mm	ID + 250mm	ID + 400mm
Coil width	50 to 250mm	50 to 250mm	50 to 350mm	30 to 150mm	50 to 200mm	50 to 250mm

Automatic coilers with adhesive tape packaging







Machine size ref.	SPC020	SPC060	SPC090	SPC125	SPC180
Pipe size	8 to 25mm	20 to 63mm	32 to 90mm	50 to 125mm	63 to 180mm
Coil head choice	1	1 or 2	1 or 2	1	1
Coil ID	300 to 400mm	700 to 1300mm	900 to 1800mm	1250 to 2500mm	1800 to 3000mm
Coil OD (max)	ID + 200mm	ID + 600mm	ID + 900mm	ID + 900mm	ID + 1000mm
Coil width	20 to 100mm	100 to 400mm	150 to 500mm	220 to 600mm	440 to 1000mm

Why industry leaders choose Pipe Coil Technology Limited





-  We are committed to achieving the highest level of customer satisfaction and to building long term, mutually beneficial, partnerships with our customers
-  We are experts at what we do; understanding customer needs, supplying technically superior solutions on time and in budget and providing excellent after sales support throughout product lifetime.
-  Our project management, engineering and technical sales teams include specialists from the extrusion, oil & gas and automation industries who between them have many years experience in creating, delivering and implementing complex equipment solutions.

Products




For plastic pipe, tube, hose & conduit manufacture:

-  Automatic coiling & packaging technology
-  Semiautomatic coiling technology
-  Off-line, high speed coiling technology
-  Low ovality coiling technology (for HDPE pipe)
-  Drum winding technology
-  Engineered coiling solutions




For sub-sea umbilical, flow-line and cable manufacture:

-  Carousels and loading systems
-  Drum handling, moving and spooling equipment
-  Production machinery; S-Z lay machines, rotating taping heads, caterpillar haul-offs, drum take-up & payoff stands
-  Wire spooling and rewinding

For wire rope and large diameter cable manufacture:

-  Drum take-up and payoff stands
-  Turntables and spoolers
-  Wire spooling and rewinding

For sub-sea umbilical, flow-line and cable installation:

-  Carousels and loading systems
-  Drum handling and spooling equipment
-  Cable guides and transfer equipment

Pipe Coil Technology Limited

2nd Floor Pametrada Building, Oceana Business Park, Davy Bank,
Wallsend, Tyne & Wear, NE28 6UZ United Kingdom

Tel: +44 (0) 191 295 9910 Fax: +44 (0) 191 9911 Email: sales@pipecoil.co.uk