

Pipe Coil Technology Limited

Low Ovality Coiling Technology





What is Low Ovality Technology?

Low Ovality Technology is a unique method of coiling high density polyethylene pipe, developed by Pipe Coil Technology Ltd, which enables pipe to be coiled with greatly reduced ovality, or to be coiled at much smaller diameters whilst maintaining acceptable ovality.

Applications

Low Ovality Technology has been specifically developed for use with polyethylene pipe, in particular, pressure pipe such as gas and water pipe. It can be used on all pipe sizes that are currently supplied in coils and it enables larger pipe diameters to be coiled that have previously only been supplied in 'sticks' due to transport limitations on coil size. Low Ovality Technology is mainly used on pipe diameters from 63 to 250mm and on SDR's from 11 to 26.

Four ways to benefit from use of Low Ovality Technology

1. Reduce ovality of coiled pipe (by up to 60%)

- /// Eliminates need for re-rounding on site
- /// Enables easier jointing and improves joint integrity
- /// Improves coil stability, minimising coil failure during storage and risk of coil rejection by customer



2. Supply standard coil lengths at smaller dimensions

- /// Reduce transport costs by increasing the number of coils per truck
- /// Reduce requirement for use of special low trailers

Suggested Minimum Coiling Ratios For HDPE Pipe

SDR	Standard Coiling	Low Ovality Coiling
9	14.00	10.30
11	15.00	11.10
17	17.75	13.20
17.6	18.00	13.30
21	20.90	16.60
26	25.20	22.00

Coil Size Comparison

Pipe size x coil length	Standard coil dimensions (ID X OD X W)	Coil dimension with LV Tech. (ID X OD X W)	Volume reduction
63mm X 150m	1.3m x 1.78m x 0.58m	0.76m x 1.35m x 0.67m	34%
90mm X 100m	1.8m x 2.32m x 0.57m	1.08 x 1.75m x 0.57m	43%
125mm X 100m	2.5m x 3.2m x 0.54m	1.6m x 2.52m x 0.54m	38%
180mm X 100m	3.0m x 3.95m x 0.8m	2.16m x 3.44m x 0.6m	42%

3. Supply longer coil lengths within existing coil dimensions

- /// Reduce transport costs by increasing the pipe length per truck
- /// Reduce number of joints in the installed system; shorter installation times, improved pipe integrity

Coil Length Comparison

Pipe size x coil length	Standard coil dimensions (ID X OD X W)	Coil length with LV Tech.	Length increase
63mm X 150m	1.3m x 1.78m x 0.58m	240m	60%
90mm X 100m	1.8m x 2.32m x 0.57m	160m	60%
125mm X 100m	2.5m x 3.2m x 0.54m	165m	65%
180mm X 100m	3.0m x 3.95m x 0.8m	180m	80%



4. Supply wider range of pipe specifications in coils

- /// Coil larger pipe diameters, up to 250mm, in a road transportable pack size
- /// Coil thinner wall pipes (SDR 21 and 26) maintaining coil and pipe stability



Example maximum coil lengths that can be made on Pipe Coil Technology Ltd Low Ovality Coilers

Pipe size	Max length	Coiler model	Pipe size	Max length	Coiler model
63mm	1500m	125WLV	2"	5,000ft	125WLV
90mm	1200m	180WLV	3"	4,000ft	180WLV
125mm	800m	180WLV	4"	2,600ft	180WLV
180mm	400m	180WLV	6"	1,200ft	180WLV
250mm	200m	250LV	8"	700ft	250LV

Standard features on all Low Ovality Coilers

- /// Powered adjustment of coil diameter
- /// Automatic stop at pipe end
- /// Automatic pipe layering
- /// Automatic reset to loading position
- /// Powered coil head collapse
- /// Powered tail and guide
- /// Manual pipe end attachment, coil strapping and coil unload

Options

- /// Wheel mounting
- /// Integrated coil unload arm
- /// Automatic strapping



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Standard specifications					
Model	Pipe sizes	ID range	OD (max)	Width range	Max coil weight
SPC090LV	63 to 90mm	0.76 to 1.8m	ID + 1.0m	0.15 to 0.6m	300 Kg
SPC125LV	63 to 125mm	1.1 to 2.5m	ID + 1.15m	0.25 to 0.6m	750 Kg
SPC125WLV	63 to 125mm	1.1 to 2.5m	ID + 1.15m	0.25 to 1.2m	1,500 Kg
SPC180LV	90 to 180mm	1.3 to 3.0m	ID + 1.36m	0.4 to 1.2m	2,000 Kg
SPC180WLV	90 to 180mm	1.3 to 3.0m	ID + 1.36m	0.4 to 2.0m	3,200 Kg
SPC250LV	90 to 250mm	1.8 to 3.0m	ID + 1.40m	0.4 to 2.0m	3,200 Kg



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 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 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 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

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