

SPIRAL CURVE®

SPIRAL BELT CONVEYORS

ELEVATION AND DIRECTIONAL UNIT HANDLING

Getting up and around
made easy...



Proven Portec Technology

- High speed capacity
- Low noise operation
- Positive drive belt system means no end roll slip
- Rugged steel construction
- Low belt tension for long component life
- Wide conveying widths available
- Simplified maintenance enhancements
- Complies with latest safety standards
- Over 45 years experience
Portec invented the Spiral Curve

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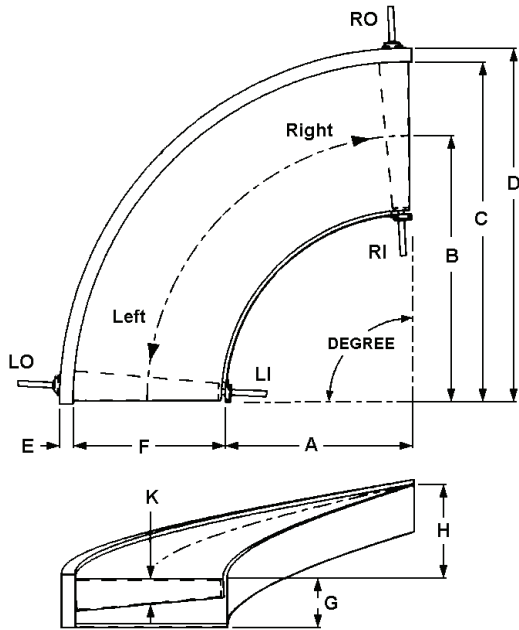
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Typical Model Dimensions



LO, LI, RO, RI represent potential drive shaft locations

Standard Models

The above list is only a small example of the model sizes available from Portec. There are 6 standard family sizes of Spiral Curve based upon the outside conveying radius (C) and a range of conveying widths (F). Any conveying width with the available range and having one of the 5 standard outside conveying radii, is considered a standard model. While Portec frequently designs and builds special radius Spiral Curves, the standard models represent the best value and shortest production lead-time.

MODEL NUMBERS	CONSTANT DIMENSIONS	INSIDE RADIUS A	CONVEYING CENTER-LINE B	CONVEYING WIDTH F	END ROLL DIAMETER K	GEAR-IN 1 rpm= mm	MAXIMUM ELEVATION PER 90° H
"LT" Spiral Curve Family (127-381 conveying width; standard shaft $\varnothing = 25$ mm)							
573LM127SP	C=700	573	636.5	127	80.3	225	305
522LM178SP	D=789	522	611	178	77.5	216	305
319LM381SP	G=178	319	509.5	381	66.1	180.1	305
"LN" Spiral Curve Family (178-483 conveying width; standard shaft $\varnothing = 25$ mm)							
772LM178SP	C=950	772	861	178	81.7	229.2	381
620LM330SP	D=1039	620	785	330	75.3	209	381
467LM483SP	G=178	467	708.5	483	68.8	188.7	381
"A" Spiral Curve Family (178-635 conveying width; standard shaft $\varnothing = 25$ mm)							
1022M178SP	C=1200	1022	1111	178	128.7	376.9	660
717M483SP	D=1289	717	958.5	483	112.2	325.2	660
565M635SP	G=216	565	882.5	635	104	299.4	508
"B" Spiral Curve Family (178-940 conveying width; standard shaft $\varnothing = 30$ mm)							
1322M178SP	C=1500	1322	1411	178	131.9	386.8	813
1017M483SP	D=1589	1017	1258.5	483	118.6	345	813
814M686SP	G=216	814	1157	686	109.7	317.2	660
560M940SP		560	1030	940	98.6	282.4	508
"C" Spiral Curve Family (178-1245 conveying width; standard shaft $\varnothing = 35$ mm)							
2022M178SP	C=2200	2022	2111	178	136	399.7	1270
1616M584SP	D=2289	1616	1908	584	123.7	360.9	1270
1362M838SP	G=216	1362	1781	838	116.1	337.3	1169
1200M1000SP		1200	1700	1000	111.2	321.9	1042
"HC" Spiral Curve Family (178-1245 conveying width; standard shaft $\varnothing = 35$ mm)							
1199HM1001SP	C=2200	1199	1699.5	1001	162.1	477	915
1110HM1090SP	D=2289	1110	1655	1090	156.5	464.3	915
955HM1245SP	G=305	955	1577.5	1245	149.6	442.6	915

* End roll diameter at conveying centerline including belt thickness of 6.35 mm.

Note: Conveying width (F) is equivalent to the "between sideguards" (BSG) width. The exposed belt width is approximately 25 mm narrower than the nominal conveying width (F).

The chain cover and both sideguards extend 9.5 mm past the true angle at both ends of the conveyor. The inside and outside radius frame lengths match the true angle.

STANDARD FEATURES

Conveyor drive system: The belt is positively driven by a shaft-mounted sprocket engaging #50 precision roller chain that is attached to the side of the belt and runs in a track.

Conveyor belt: 2-ply black SBR-Rough Top; a wide range of optional belt materials available; laced belt seams

Frame: Welded 2.65 mm painted all-steel construction.

Sideguards: 3 mm steel is standard. Sideguards over 300 mm high have a 25 mm angled out top flange. The height is measured perpendicular to the top surface of the slider bed. If no sideguards are requested, a 51 mm sideguard will be provided on the outside radius of the conveyor.

Paint: Epoxy powder-coating over sandblasted steel. RAL colors are standard. Optional color matching is available.

Spiral Curve® from Portec

Chain-driven belt conveyors are designed for reliable operation in heavy duty applications, such as, continuous high speeds, high cycling, heavy loads, and steep inclines. The positive chain-driven system from Portec is not effected by the following conditions that can damage friction-driven belt conveyors:

- Sudden load on the belt
- Temperature variations
- Contamination on or under the belt
- Incorrect belt tension
- High cycling operation

There is never any damaging end-roll spin caused by misadjustment. A chain-driven belt conveyor can withstand a considerable amount of neglect and abuse and still function. It is the perfect solution for a critical conveying line.