

**NEW!**

.....  
**NOW AVAILABLE**  
.....

- Diameter of 750 mm (30 in)
- Length of 9 m (29.5 ft)

# TURBULENCE

FINALLY

.....  
A CULVERT THAT PROVIDES  
FLOW CONDITIONS SIMILAR  
TO A CREEK



**SOLENO**  
Mastering Storm Water

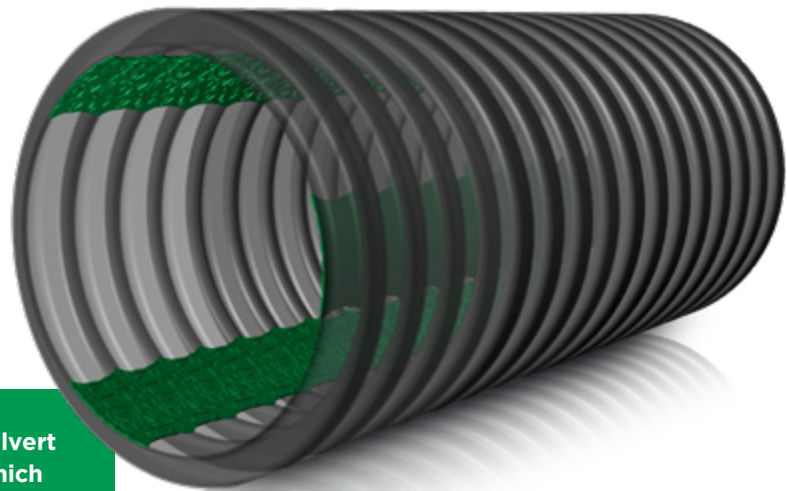
# TURBULENCE

## FINALLY, A CULVERT THAT PROVIDES FLOW CONDITIONS SIMILAR TO A CREEK

THE TURBULENCE CULVERT REPRODUCES THE NATURAL BED CONDITIONS OF A CREEK, WITH A MANNING'S N VALUE OF 0.022

THIS PATENTED PRODUCT IS EXCLUSIVELY AVAILABLE FROM SOLENO, IN DIAMETERS OF 450 mm, 600 mm AND 750 mm (18 in, 24 in and 30 in) AND IN LENGTHS OF 6 m (19.7 ft) AND 9 m (29.5 ft)

WITH A RESISTANCE OF 210 kPa, THE ADDITION OF 3 REINFORCEMENT STRIPS ON THE CORRUGATED INTERIOR WALL PRESERVES THE LONGITUDINAL STRENGTH OF THE PIPE, CREATES WATER TURBULENCE AND FACILITATES NESTING FOR SHIPPING PURPOSES



The decrease in velocity in the culvert reduces erosion at the outlet, which promotes slope conservation and stability

THE CORRUGATED INTERIOR WALL REDUCES THE WATER VELOCITY AND FLOW

### ADVANTAGES AND BENEFITS

- The Turbulence culvert pipe **meets the Quebec Regulation on Sustainable Forest Management**, as it allows the free flow of water and the free movement of aquatic fauna.
- **By increasing bed roughness**, it eases the passage and counter-current movement by the fish, while serving as a refuge for wildlife and fish fry.
- This lightweight and durable HDPE culvert is easy to install and handle in woodlands, in mining and rural environments, wherever water flow and velocity needs to be reduced.

**With a high Manning coefficient (0.022)\*, the flow rate in the Turbulence culvert is 28 % lower than for a corrugated steel pipe, which encourages ecosystem growth and mitigation of erosion.**

### TECHNICAL DATA TABLE

Nom. dia.		Int. dia. <sup>(2)</sup>		Ext. dia.		Length		Manning Strength		Backfill				No connector	Soil tight connectors HDPE	
mm	in	mm	in	mm	in	m	ft	n	kPa	Minimum		Maximum		PE	BC	SC
										m	pi	m	pi			
450	18	461	18.1	543	21.4	6	19.7	0.021	210	0.4	1.3	10	32.8	X	X	X
450	18	461	18.1	543	21.4	9	29.5	0.021	210	0.4	1.3	10	32.8	X	X	X
600	24	605	23.8	722	28.4	6	19.7	0.022	210	0.4	1.3	8	26.2	X	X	X
600	24	605	23.8	722	28.4	9	29.5	0.022	210	0.4	1.3	8	26.2	X	X	X
750	30	748	29.4	884	34.8	6	19.7	0.022	210	0.4	1.3	12.4	39.3	X	X	X
750	30	748	29.4	884	34.8	9	29.5	0.022	210	0.4	1.3	12.4	39.3	X	X	X

\*Calculated for a 600 mm (24 in) diameter pipe.

Note 1: Values in the table are approximate and may change without notice

Note 2: The inner diameter measurement does not include the thickness of the reinforcement strips

#### LEGEND

PE: plain end

BC: bell with clips

SC: split coupler

REV 0015.2019.05.10A