

SUSTAINABLE ROAD SALTING PRACTICES

SEGMENTED PLOWS

A segmented (or sectional) plow is a plow blade with multiple sections, varying from one to four feet wide. Each segment moves independently along the road surface during plowing, removing snow more effectively as it passes over uneven surfaces.



Metal Plow Live Edge

BENEFITS

- By more effectively cleaning surfaces, less salt can be used to prevent ice formation. This saves money and helps keep water bodies clean, vegetation alive, and soils healthy.
- Single segments can be replaced if damaged. This saves costs and is easier and safer for staff to handle than a full-sized plow blade.

CONSIDERATIONS

- Steel used in lower-end models will scrape well but can be loud and may wear more quickly.
- Carbide encased in rubber may be used in higher-end models to elongate wear life, reduce vibration and noise, and track the road surface better.
- While carbide edges are more expensive, they will often last longer.
- Keeping surfaces well maintained can help blades to last longer.

CHALLENGES

- Initial set up costs may be higher than for a traditional blade.
- Segmented blades are heavier, decreasing fuel efficiency.
- May require more maintenance due to additional moving parts.

COSTS

\$5,000 - \$23,000 for initial set up (8' to 19.5' plow); Replacement blades: \$100 to \$1,500/segment

Pricing varies based on brand, width, height, thickness, and number of segments, grade of mounting frame, brackets and components, coatings/corrosion protection on the segments, and material used in the segments.

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<https://www.uvm.edu/seagrant/road-salt-water-quality-salt-savvy-champlain>

COMPANIES

The companies listed below carry segmented plow blades. When known, segmented plow blade styles are listed.

- Arctic Snow & Ice Products, Sno-Pusher
- KAGE Innovation, AdvantEDGE
- Metal Pless, Live Edge
- Valley Blades, PolarFlex

*Companies listed may offer additional products not included here. In addition, other companies not included in the table may carry similar products. Listing does not constitute endorsement on the part of the University of Vermont, Lake Champlain Sea Grant, or NOAA. Information is provided for educational purposes only.

LOCATIONS

The following communities and businesses are using segmented plows in Vermont and the Lake Champlain Basin of New York:

- Charlotte
- Colchester
- S&D Snowblowing, Essex
- Essex Junction
- Milton
- South Burlington
- Williston

Does your business or community in Vermont or the Lake Champlain Basin of New York use segmented plows and want to be listed here and on the Lake Champlain Sea Grant website? Contact us at seagrant@uvm.edu to let us know.

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