

PLASMA® VEHICLE TOW / RECOVERY CABLES

LIGHT. STRONG. SAFE. FAST.



When heavy equipment becomes stuck, productivity suffers. Recovering a disabled vehicle can be difficult, time-consuming, and hazardous. Traditional tow lines made from steel wire rope are heavy, inflexible, difficult to rig, and can recoil dangerously if they fail.

Plasma® Vehicle Tow / Recovery Cables from Cortland are engineered to replace steel wire rope. Constructed with high-modulus synthetic fibers in a torque-free braided design, Plasma cables deliver the same strength and elongation characteristics as steel wire rope at just one-seventh the weight. Lightweight and easy to handle, they can be quickly attached to both towing equipment and mired vehicles—helping operators perform safe, efficient recoveries in the toughest conditions.

Cortland's Plasma® HMPE (High Modulus Polyethylene) synthetic fiber has been successfully replacing steel wire rope in lifting and towing applications for more than 20 years. Unlike wire rope, Plasma cables will not rust or corrode and offer superior bend and tension-tension fatigue resistance, helping extend service life and improve reliability in demanding environments.

Proven in mining operations around the world, Plasma® Vehicle Tow / Recovery Cables continue to gain popularity for their ease of use, performance, safety, and durability.

Features & Benefits

- Steel wire rope towing strength without the weight
- Lightweight, flexible construction for safer, faster rigging and installation
- Low lash-back or recoil if parted
- Durable cut-resistant eye terminations
- High visibility orange chafe guard on body

Email us at contact@cortlandinternational.com
or visit our website at cortlandinternational.com for
more information.



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Plasma® Vehicle Tow / Recovery Cables are designed to deliver the optimal combination of strength, flexibility, low elongation, and durability. To protect the Plasma fiber core, the entire cable body is encased in a heavy-duty, high-visibility protective jacket. This extra-durable outer jacket helps guard against abrasion, cutting, and dirt ingress during operation.

Each end termination is protected with SX Chafe Guard, Cortland's most durable lightweight chafe sleeve. Every cable is also delivered with a tag showing the Minimum Break Load (MBL) and a unique serial number for full product traceability.

Choosing the Correct Cable Size / Strength

To determine the appropriate cable size for the application, consider these two key factors:

1. Pulling Power of the Recovery Vehicle

Use the pulling capability of the recovery vehicle as the primary selection factor:

- Drawbar pull for dozers
- Rim pull for trucks

This is more important than the dead weight of the disabled machine.

2. Safe Work Load (SWL) Factor

Cortland recommends a minimum SWL factor of 2.3 or higher for vehicle towing or recovery applications.

Correctly sized attachment hardware on both the disabled vehicle and the recovery vehicle is also essential for safe operation.

Common sizes of cables are shown in the chart below. However, custom sizes and lengths can be manufactured, if required.



Pulling-Power of Cat® Mine Vehicles

	Dozers	Mine Haul Trucks	
D-8	139,000 lbs	785D	187,393 lbs
D-9	161,000 lbs	793F	230,000 lbs
D-10	225,000 lbs	795F	295,693 lbs
D-11	330,693 lbs	797F	340,000 lbs

Part No.	New Cable MBL (break strength)		Description	SX Covered Eye Sizes each end	Standard Length		Approx. Total Weight		Target Vehicles
	lbs	MT (tonnes)			ft	m	lbs	kgs	
T310G-25SST	84,000	38	5/8" dia. Plasma	18"	25	7.6	5	2.3	Light Vehicles
T312G-25SST	113,025	51	3/4" dia. Plasma	18"	25	7.6	7	3.2	Light Vehicles
T314G-25SST	152,790	69	7/8" dia. Plasma	18"	25	7.6	10	4.5	Light Vehicles
T316G-25SST	181,500	82	1" dia. Plasma	18"	25	7.6	16	7.3	Light Vehicles
T324G-30SST	364,650	165	1-1/2" dia. Plasma	24"	30	9.1	36	16.3	Medium Vehicles & D6-8 dozers
T3332G-30SST	585,750	266	2" dia. Plasma	36"	30	9.1	85	38.6	770-780 series CAT trucks & D-9 dozers
T3340G-30SST	874,800	397	2-1/2" dia. Plasma	36"	30	9.1	103	46.7	790 series CAT Trucks & D-10/11 dozers

Notes:

- Cortland's most popular Plasma® Cable fabrication is an endless loop (grommet) with formed eye terminations each end, for maximum service life and durability. All products in above chart are for grommets. Other size/strength and eye-and-eye cable fabrications are available upon request.
- Cortland recommends attachment points to vehicles have a minimum D:d of 2:1.
- Recommended attachment point to front-frame of disabled mine haul truck is by shackle through lower frame connection point. Do NOT use "letter-opener" attachment on lower front truck frame.
- Recommended attachment to recovery dozer is on ripper blade, positioned as high as possible to prevent cutting.
- To enhance eye termination life even longer, Cortland offers a UHMWPE woven tubular chafe gear option (shown right) as an additional add-on item.*
- Refer to Cortland's Plasma Vehicle Tow / Recovery Cables Usage Guidelines for more information.



* UHMWPE tubular chafe gear add-on option