Aerodynamic Rolling Tarp System

THE WESTERN WAGON TRANSFORMED FROM THE 1800'S

to meet modern day load covering transportation requirements.

LCS Patented Windmaster SMARTLOOK - CFD Computational Flow Simulation Iteration Analysis

Windmaster SMARTLOOK (WMSL) vs. Baseline - Flat Aluminum Bulkhead at 65 MPH

Standard gap between Tractor & Trailer = 44" with Flat Aluminum Bulkhead Gap reduction between Tractor & Trailer = 28.3" with Windmaster (WMSL)

Load Covering Solutions Ltd.	Cd (Drag Coefficient) Value Reduction %				Wind Drag Reduction	Improved Fuel
					Cd (Drag Coefficient)	Economy Flow
LCS Retractable Tarp System Height	Head Wind at Yaw Angle 0°	Cross Wind at Yaw Angle 3°	Cross Wind at Yaw Angle 6°	Cross Wind at Yaw Angle 10°	Flow Weighted Average (%)	Weighted Average %
100" WMSL vs. 100" Flat Alum	13.90%	9.63%	10.07%	12.72%	11.46%	5.73%
106" WMSL vs. 106" Flat Alum	16.42%	9.67%	9.10%	9.76%	10.21%	5.10%
106" WMSL vs. 100" Flat Alum	6.48%	0.53%	1.78%	4.61%	3.19%	1.59%
106" Flat Alum vs. 100" Flat Alum	-11.90%	-10.11%	-8.05%	-5.71%	-7.85%	-3.92%



"LCS" Windmaster SMARTLOOK - HIGH HAULER is a breakthrough in High Capacity load covering transportation on a flatbed trailer. Fleets and Owner / Operators can now purchase low profile flatbed trailers to allow a 106" High Rolling Tarp System to be installed and not sacrifice any increase in Wind Drag or decrease in fuel efficiency.

NEGATIVE RESULTS: Our CFD Test Results Chart in Red shows if you transition from a 100" HT system with a flat wall bulkhead to a 106" Ht. system of the same you will increase your Wind Drag by (-7.85%) and decrease your Fuel Economy by (-3.92%). In addition, your drivers will be put into an increased unsafe position keeping your rig safely on the road in high wind conditions.

POSITIVE RESULTS: Our CFD Test Results Chart in white shows the comparison of the WMSL bulkhead to the same height flat wall bulkhead and in every test LCS exceeded 10% Wind Drag Reduction and over 5% Better Fuel Efficiency. The most AMAZING results shown in Blue is the comparison of the WMSL High Hauler bulkhead at 106"Ht. over the lower 100" Ht. flat bulkhead with a Wind Drag Reduction of 3.19% and a Better Fuel Efficiency of 1.59%

NET RESULTS: "LCS" Windmaster SMARTLOOK - HIGH HAULER pays to be higher than lower. Don't subject your drivers to pulling trailers that are causing increase wind drag and risking driver safety. Make the switch to Load Covering Solutions Rolling Tarp System and have confidence in a company who is invested in your company's safety as well as profitability.





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ON L7L 5V4 Toll Free: 1-800-465-8277 Fax: 905-335-8499 info@loadcovering.com www.loadcoveringsolutions.com



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to meet modern day load covering transportation requirements.

LCS – Load Covering Solutions Corporation committed in 2014 to move in the direction of designing a proven line of Aerodynamic Rolling Tarp System models for any open deck trailer or truck body which would clearly identify and distinguish itself from any other alike products.

LCS Design Criteria:

- Trademark a name association with the product that will be recognized for decades, "Windmaster"
- Provide Enhanced Driver Safety when pulling a square box soft sided trailer behind a truck by Reducing Significant Wind Drag.
- Conduct CFD Computational Flow Simulation Testing to establish Better Fuel Efficiency from Wind Drag Reduction Data.
- Allow Fleets to increase to Maximum Height Systems for greater load capacity without sacrificing safety, fuel and other cost.
- Reduce Overall Wear & Tear to Tarp & Frame Structure with Controlled Air Flow.
- Establish Windmaster as a standalone Integrated Product that no longer looks like an Add-On Tarp Systems to a flatbed trailer.

WINDMASTER MODELS





Aerodynamic Rolling Tarp System Flat Top Model

- Wind Drag Reduction 9.96%
- Enhanced Fuel Economy 4.98%

ALL WINDMASTER MODELS ARE TESTED IN COMPARISON TO A 100" HIGH FLAT BULKHEAD AT 65MPH





- Wind Drag Reduction 5.17%
- Enhanced Fuel Economy 2.59%

ALL WINDMASTER MODELS ARE TESTED IN COMPARISON TO A 100" HIGH FLAT BULKHEAD AT 65MPH





- Wind Drag Reduction 10.21%
- Enhanced Fuel Economy 5.10%

TESTED IN COMPARISON TO A 106" FLAT ALUM BH



HIGH HAULER • WINDMASTER HIGH HAULER • WINDMASTER HIGH HAULER • WINDMASTER HIGH HAULER • WINDMASTER



- Wind Drag Reduction 11.8%
- Enhanced Fuel Economy 5.9%

ALL WINDMASTER MODELS ARE TESTED IN COMPARISON TO A 100" HIGH FLAT BULKHEAD AT 65MPH