



Windshield Wiper Systems For Recreational Vehicles

Eliminating **wind lift** as well as meeting FMVSS **coverage, cycle separation** and **durability** guidelines all become more difficult as windshield size is increased.

Nowhere are these challenges more apparent than on large single piece windshields used by manufacturers of **Class A motorhomes**





Windshield Wiper Systems For Recreational Vehicles



Engineering Challenges

Large single piece windshields require longer arm and blade combinations that are at increased risk of **Wind Lift** and **Over Sweep** at highway speeds.

Large, complex motor assemblies are also required and can result in increased **installation time**.

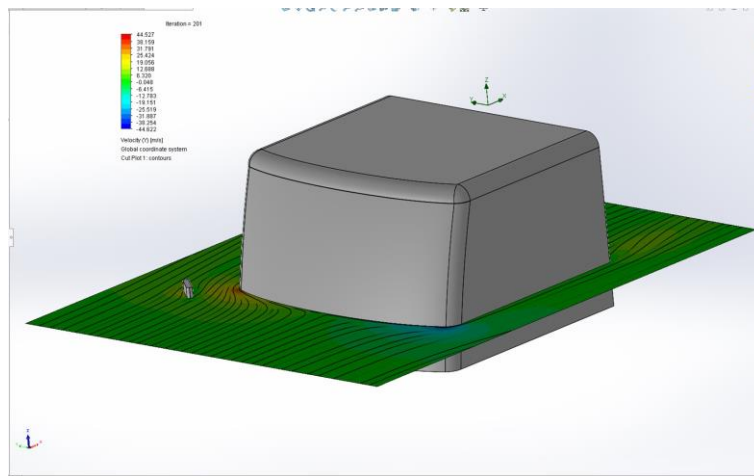
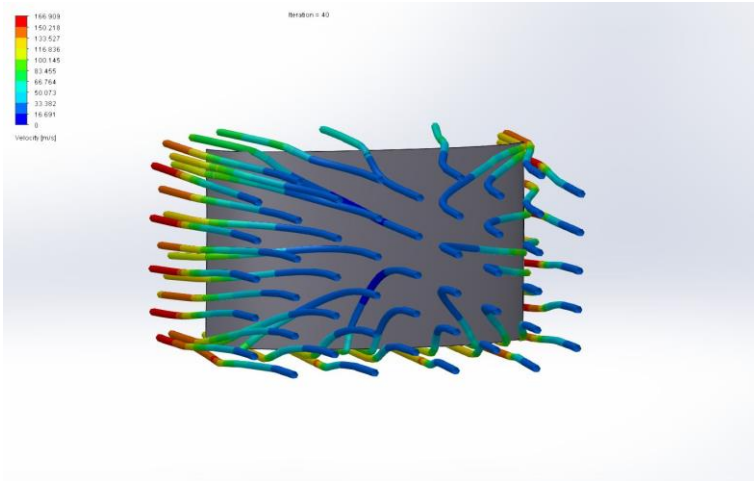


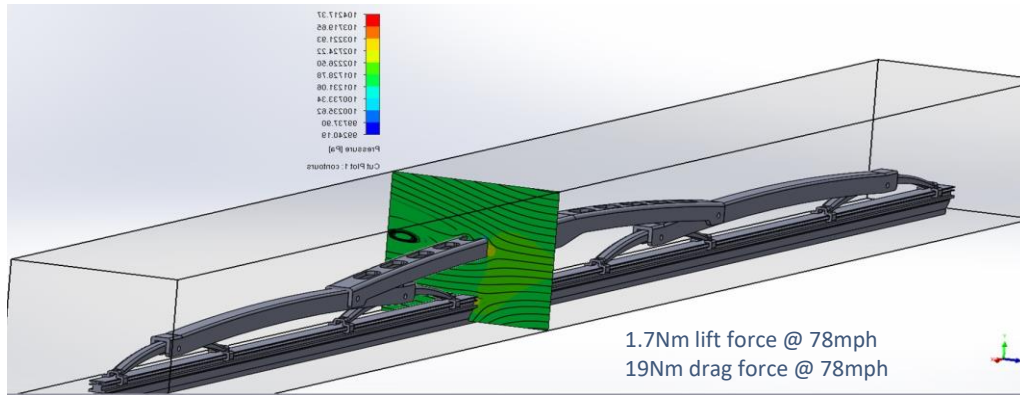
Windshield Wiper Systems For Recreational Vehicles

WEXCO incorporates the use of best tools and practices to engineer and manufacture wiper systems that are optimized for Class A motorhomes.

Engineered Solutions

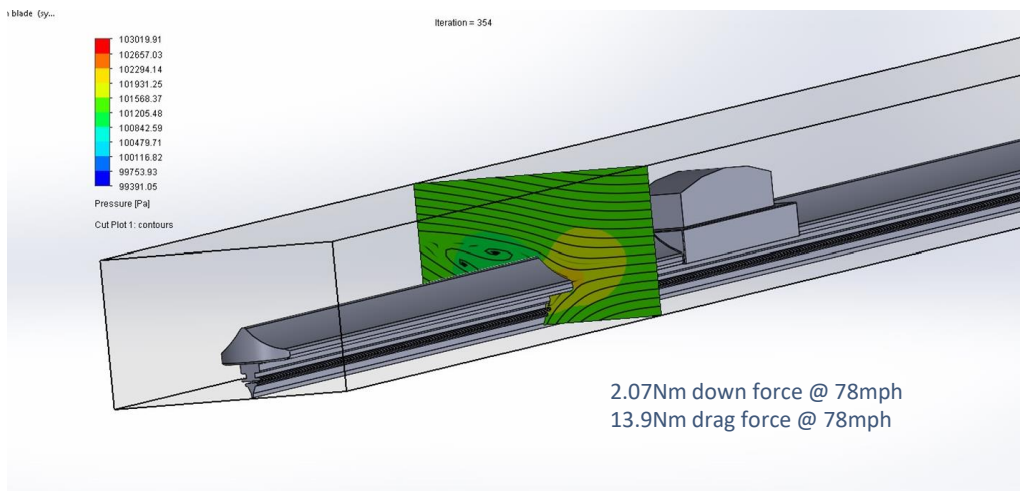
Using **Computational Fluid Dynamics** software, we create a **Virtual Wind Tunnel** to analyze airflow characteristics around the cap at highway speeds to determine zones at risk of blade lift and over sweep.





Engineered Solutions

We then analyze airflow effect on wiper component geometries to ensure the most efficient arm and blade combination is used on each cap.



Engineered Solutions

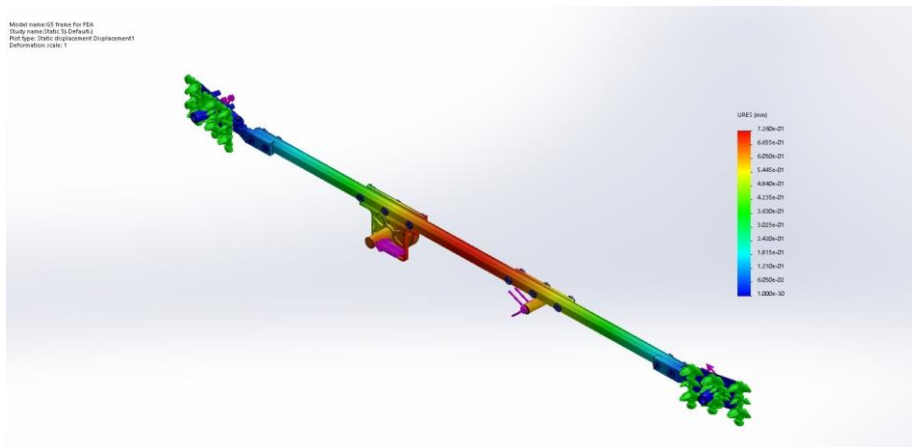
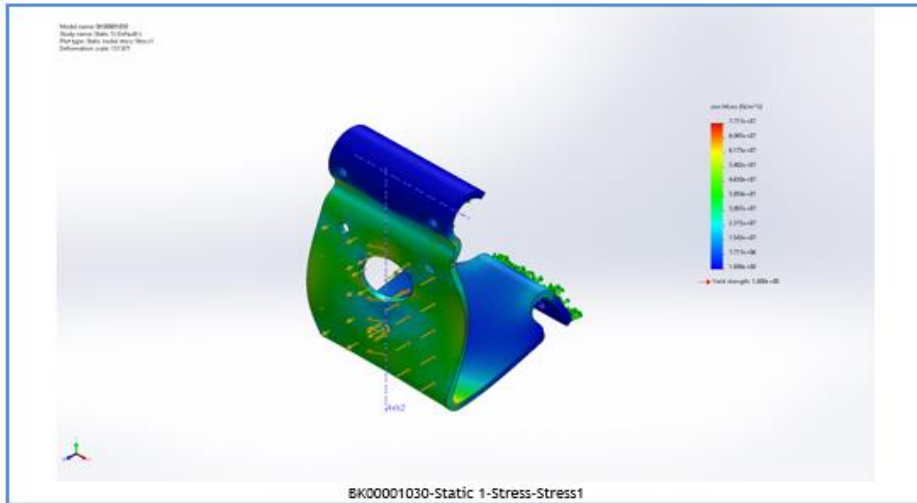
Using **Finite Element Analysis** we optimize component strength and system rigidity.

Individual components are analyzed.

The system is then assembled and “loaded” to simulate operation at high speed.

Stress levels are displayed in color gradients.

Final analysis detects and allows for correction of any weakness that could result in system flex or premature failure.





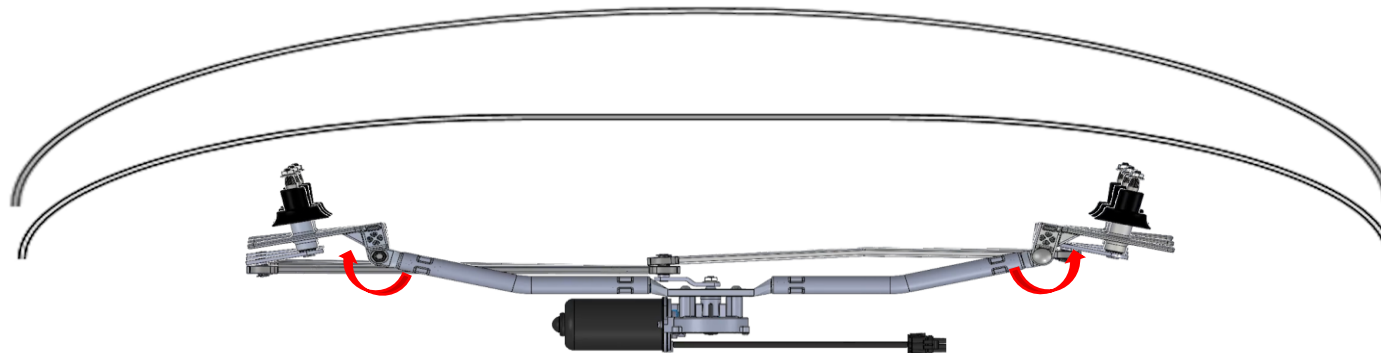
Windshield Wiper Systems For Recreational Vehicles



Engineered Solutions

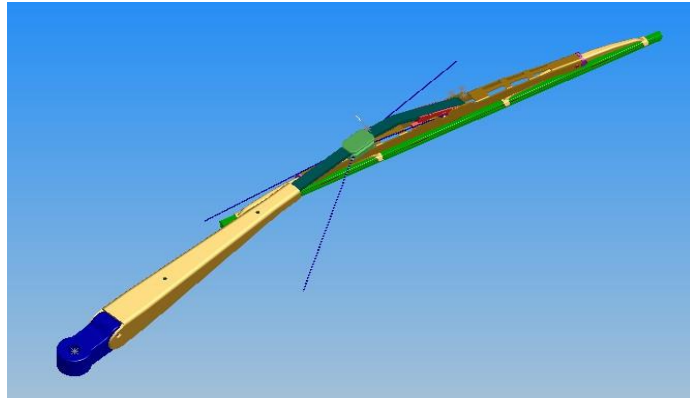
Our unique **flipper pivot** feature rotates into perfect alignment with the cap curvature to **simplify installation.**

An optional integrated backer, can eliminate the need for the traditional fiberglass backer in the cap offering additional **cost savings.**



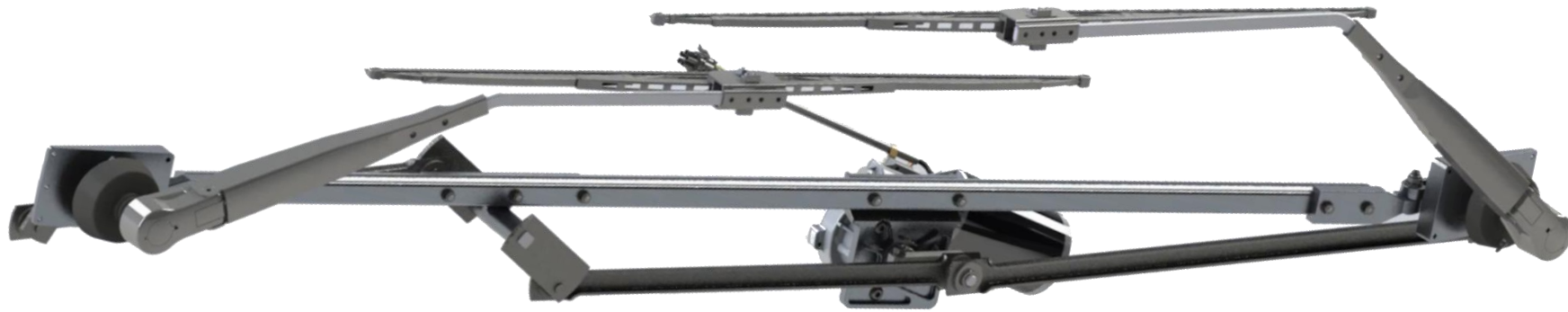


Windshield Wiper Systems For Recreational Vehicles



Engineered Solutions

Fit and form are initially validated with **3D CAD Modeling**



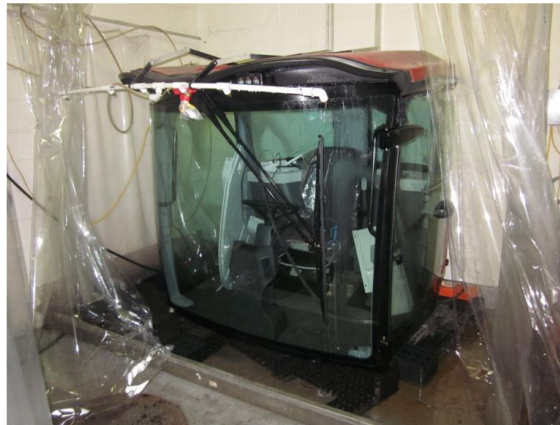


Windshield Wiper Systems For Recreational Vehicles

System Validation

Rigorous PLC controlled testing for durability, cycle separation and snow pack can be completed in our on-site lab per **SAE J198** standards.

Optional cold, Arizona fine dust and vibration testing is available through our network of outside labs.





Windshield Wiper Systems For Recreational Vehicles

System Validation

A final **Road Test** validates system fit and functionality under “real world” conditions.





Windshield Wiper Systems For Recreational Vehicles

WEXCO **G4** and **G5** wiper systems are engineered specifically to meet the performance demands of **Class A** coach manufacturers



G4 tandem radial



G5 opposed radial





Windshield Wiper Systems For Recreational Vehicles

G4 tandem radial



The **G4** motor module uses a “right sized” **50Nm, 52Nm** or **55Nm** motor to produce a **dual radial** sweep pattern while keeping ampere draw to a minimum.



Supports **arms to 29.5"** and **blades to 31.5"**

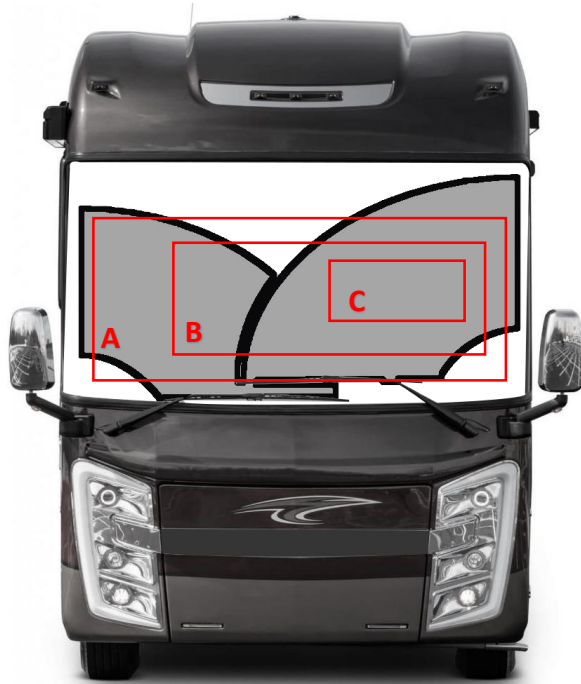


Smaller motors can actually **increase** amp draw!



Windshield Wiper Systems For Recreational Vehicles

G5 opposed radial



A robust **120Nm** is used to produce an opposed sweep pattern that powers **arms** up to **31.5"** (800mm) and **blades** to **35.4"** (900mm)



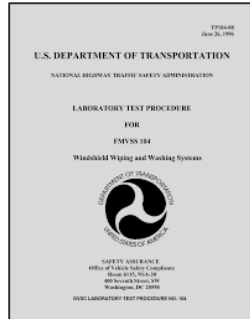
An **Opposed Sweep** pattern clears the drivers view to mirrors mounted forward of the "A" pillar and optimizes ABC rectangle coverage.



Windshield Wiper Systems For Recreational Vehicles

Our Mission

To engineer, manufacture and deliver the **best** wiper solution system available for Class A recreational vehicles.



- Engineered to meet **FMVSS** coverage, cycle separation and durability guidelines.



- Lab and road tested per **SAE J198** test standards.



- Production friendly, **easy installation** reduces labor requirement.



Windshield Wiper Systems For Recreational Vehicles

If you're an **OEM** or **after market parts distributor** seeking a US manufacturer of high quality windshield wiper systems for recreational vehicles, contact our **Elkhart IN based representative.**



Future Sales Inc.

Elkhart IN

(574) 262-3688

futuresalesrv.com