

AIRSTREAM

Quality

SINCE 1929

A Lifetime of Adventure

A step-by-step process guide to quality



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A blue-tinted photograph of a man in a plaid shirt shouting into a megaphone. The image is the background for the entire page.

SECTION

ONE

QUALITY

Introduction

Born from humble beginnings, Airstream is the creation of a man named Wally Byam. He was born on the Fourth of July, he was only a generation removed from a pioneering family who made new lives where the wheel ruts of the Oregon Trail came to an end. From this seed, planted in American soil, grew a legend.



Introduction

Shortly after founding Airstream Trailers, Inc. in 1931, Wally constructed his first riveted aluminum shell trailer. Many are still on the road today. Over more than 80 years, countless innovations followed, yet since the beginning they have been built with the same obsessive attention to detail.

They're unlike any other recreational trailer in the world, and it's not just because of their legendary history or passionate community of owners. They're constructed under a single roof in Jackson Center, Ohio, built by hand under the watchful supervision of expert craftsmen and women, many of whom have worked for the company for decades.



While most typical “box-type” trailers can be constructed in under 50 hours, each Airstream takes over 350 hours to complete. Sure, an eager owner has to wait a little longer, but remember – they’re built for a lifetime of adventure.

What follows is a story of how they’re made, and why every detail of that process is so important.

→ HOURS



SECTION

TWO

QUALITY

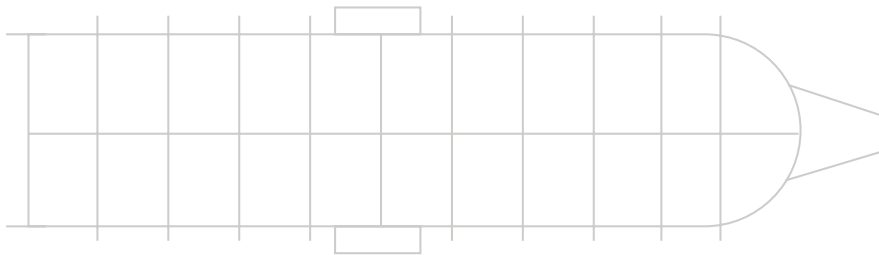
Building the Foundation

Airstream Travel Trailers are iconic, treasured, passed from generation to generation. Today, they carry on Wally's legacy, his vision of high adventure, his pride in quality, and his spirit of innovation. True to his promise: "to make your travel dreams come true."

What follows, throughout the entirety of this guide, is a story of how they're made, and why every detail of that process is so important. In this section, you'll read about the chassis and other components that form the solid foundation on which an Airstream Travel Trailer is built.

Every component of an Airstream Travel Trailer is devised to offer the **greatest combination of light weight and maximum strength**. The chassis, which is built separately from the exterior shell, is no different. And that's where it all begins.

Each Airstream features a chassis built unlike any other, a ladder-frame steel, free-standing, self-supporting chassis. Welded steel outriggers are utilized for additional support and strength, and the chassis has a corrosion-resistant coating.



Tanks are placed within the designed spaces on the frame, resulting in a **lower center of gravity, overall lower weight, better aerodynamics, and better weight distribution**.

The result: **a foundation built tough.**



Airstream is the only travel trailer manufacturer in the world that designs their tanks placed within the frame.

The underbelly is then covered in aluminum, protecting the tanks, frame, and components – while providing a superior aerodynamic shape.

A Smooth Ride

Next, the axles are constructed and added to the chassis. All Airstream Travel Trailers feature a premium rubber torsion suspension system that offers a number of advantages when compared to the industry-standard spring axle. Airstream has been using torsion for over 50 years.

Each wheel has its own suspension, absorbing 50% more road vibration and reducing wear and tear on tires and other components.

It virtually eliminates flexion in crosswinds, and because the suspension reduces leaning during turns, the overall towing experience is smoother.



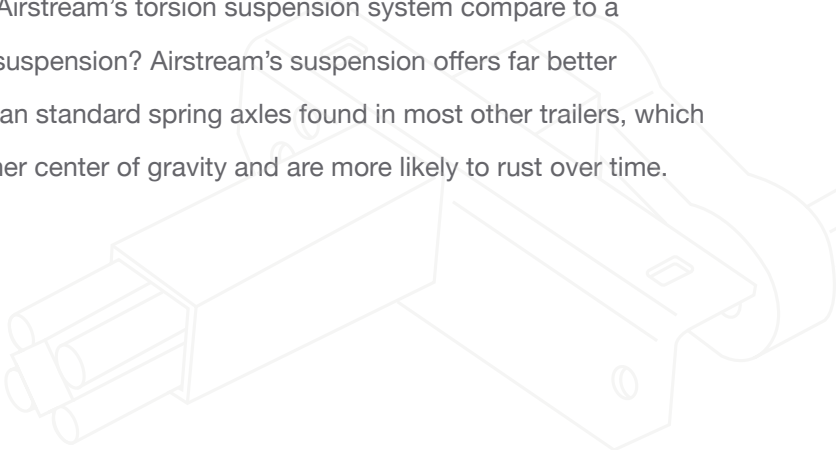


Airstream Suspension vs. the Competition

How does Airstream's torsion suspension system compare to a traditional suspension? Airstream's suspension offers far better handling than standard spring axles found in most other trailers, which have a higher center of gravity and are more likely to rust over time.

They can even be taken over rough terrain, a big reason why they've seen more of the world than any other brand. And thanks to the independent suspension, multi-axle models can even be towed at a slow speed on a flat tire over short distances.

Airstream is the safest, most aerodynamic, and most towable travel trailer available on the market today.





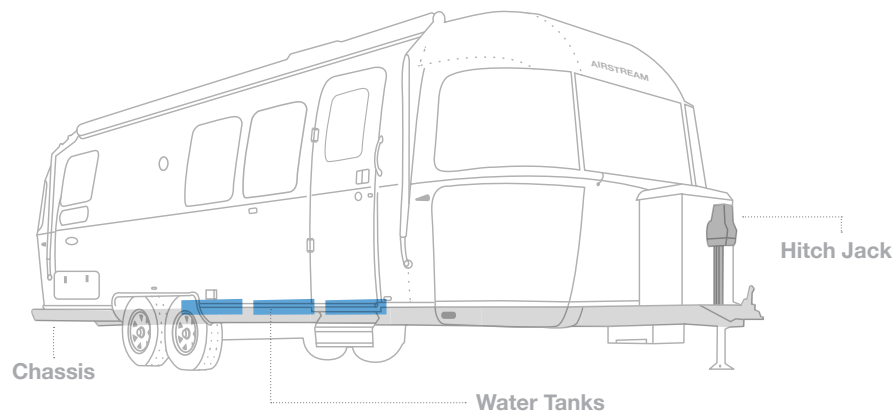
A Low Center of Gravity

With the chassis ready to go, it's time to build the superstructure. That starts with the floor. Each Airstream is built from the bottom up, similar to how a house is built. The floor is made from waterproof, boilproof 5/8" thick tongue and groove wood with an anti-wicking seal applied to the edges. With the holding tanks built into the chassis frame, more than half the Airstream's total weight is below the floor line.

Why's that so significant? A low center of balance means greater stability and smoother towing. Every Airstream floorplan is devised to maximize functionality and comfort, and to offer the most even weight distribution possible. It all starts at the bottom.

Completing the Chassis

The chassis assembly is nearly finished, but additional components still need to be added. The main water tanks and dump valves are insulated and installed. The hitch jack, sub-floor plumbing, and heat ductwork, which warms water tanks to keep them from freezing, are also added at this time.



Section 2 Summary

Building the Foundation

In this section, you learned:

- Airstream's innovative chassis offers superior strength and balance
- The torsion suspension reduces road vibration up to 50%
- Why an Airstream's low center of gravity is so important



SECTION

THREE

QUALITY

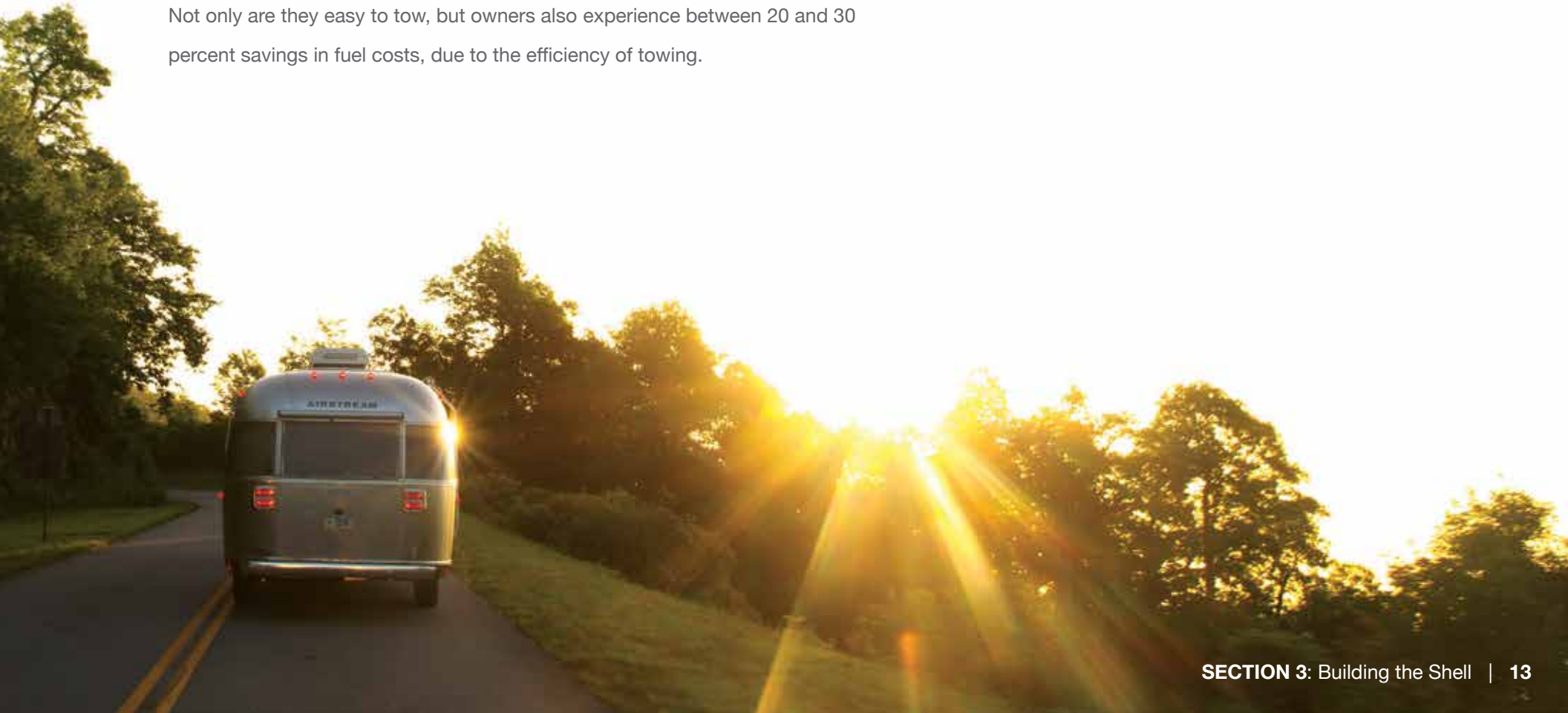
Building the Shell

Do you remember the first time you ever saw an Airstream? The iconic, gleaming silver exterior makes them not only memorable, but also instantly recognizable. But do you know why they're built that way? In this section, you'll read not only how the main structure is riveted together from individual pieces of aluminum, but what advantages that offers.

That Iconic Shape

Wally Byam named his creation Airstream “because that’s the way they travel, like a stream of air.” That iconic shape isn’t just part of their charm: [an Airstream’s aerodynamic, low-profile shape naturally delivers low wind resistance, creating less drag](#). Side winds are almost unnoticeable, and with the rounded end-shells, air slips right by, making them easier to control, even in heavy winds.

Not only are they easy to tow, but owners also experience between 20 and 30 percent savings in fuel costs, due to the efficiency of towing.





Built with Purpose

The shell comes next. Each Airstream uses, on average, **1,200 square feet of strong, lightweight, coated aluminum**, all treated with materials that resist ultraviolet rays, mold, discoloration, cracking, flaking, and pulverization. Reflective white enamel on the roof further reduces interior temperatures up to 7° F.

[Every single piece of aluminum has a purpose.](#) A CNC router cuts openings in the aluminum sheets, templated for later installation of windows, the door, water fill doors, wheel wells, furnaces, water heaters, and access doors.

1,200 SQ
FT
OF ALUMINUM



Absolutely Riveting

With each section selected and cut, it's time to piece it all together. The primary shell segments, which are individually stretch-formed and trimmed from aircraft-grade aluminum, are hand-riveted to the aluminum structural ribs.

[An average of 3,000 rivets are used to build each Airstream.](#)

While labor-intensive, it's done with great care to avoid denting or otherwise weakening the aluminum.

Riveting partners cannot see or hear each other: one is on the outside with a rivet gun; the other inside with a bucking bar to flatten each rivet.

Each shell segment is constructed individually, then they are all joined together with precision and attached to the floor. Sealant is then applied to every seam.



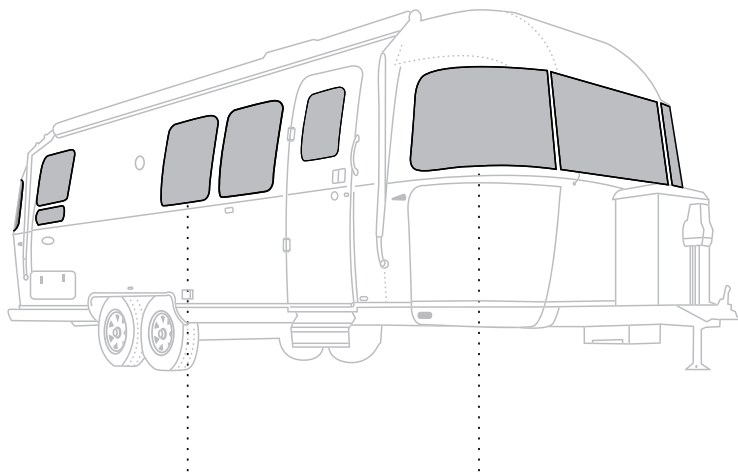
A Monocoque Shell

An Airstream is built in a similar way to how an airplane's fuselage is built, as if constructed to take flight. Why? [The outer skin is built to absorb almost all of the stress exerted on the trailer's body, offering superior structural integrity and protecting vital components, both inside and out.](#)

This is called a “semi-monocoque” structure. Despite being built from separate parts, as all components are pieced together, they form what's essentially one solid, unified shell. That makes a finished Airstream immensely durable, without sacrificing its light weight.

I Can See Clearly

With the exterior shell taking shape, it's time for the windows. Each one is built in an extruded aluminum frame, both for a clean appearance and superior durability, and secured in place with rivets. They're placed where a CNC router previously cut holes.



**Tinted Side
Windows**

**Front Panoramic
Windows**



Tinted glass minimizes heat transfer, so the Airstream remains nice and cool while protecting the interior from ultraviolet rays. Unlike many recreational trailers, the front panoramic windows, protected by three separate rock guards, can open nearly 90 degrees to let in fresh air.



I Can See Clearly (continued)

Airstream windows are made from thick tempered glass, bonded to the frame using polyurethane to seal and eliminate the risk of leaks. Each window that opens has a built-in gutter above the glass, to divert rain away from the window.

Another craftsman seals the interior seams. At last, the whole exterior shell is ready to be affixed to the chassis.

Section 3 Summary

Building the Shell

In this section, you learned:

- Airstream's unique shape reduces fuel costs by up to 30%
- The shell is constructed from 1,200 square feet of aluminum
- How Airstream's trademark monocoque shell absorbs stresses



Completing the Exterior

The exterior shell is now complete. In the next stage of construction, the shell will be connected to the chassis, more components will be added, and then the entire structure will be tested extensively.



A Solid Connection

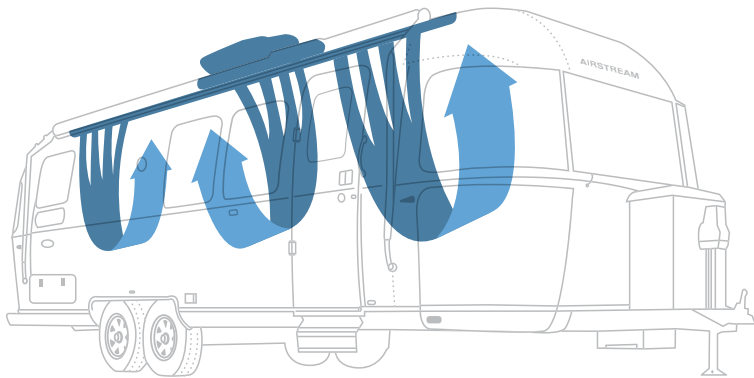
Now fully constructed, the entire semi-monocoque exterior shell is lifted with a crane, lowered, and bolted onto the chassis. [No other recreational trailer on the market can be lifted by its roof, a true testament to the strength of the aluminum superstructure.](#)

As this is done, wiring is threaded into the shell. The wooden floor is also firmly screwed onto the chassis, holding it in place. The shell is now permanently joined to the chassis, but there's still plenty of work to be done before the Airstream is finished.

Cool Summer

Next comes the roof air conditioner. Quietstream™, Airstream's ducted climate control system, is now found standard on all Travel Trailers, save for the Sport. [Quietstream not only effortlessly cools the cabin within minutes, it does so in relative silence.](#) So instead of a groaning, clattering air conditioner, you'll relax in comfort.

Quietstream™ even features a heat pump, an electric element that pulls ambient heat from the air, which is transferred to the coils, heating the trailer without using the furnace. Drip tubes drain any condensation, which is emptied under the trailer, so water doesn't trickle down the roof like on most recreational vehicles.



The Hurricane Test Chamber

Once the exterior is completed, every Airstream is tested for leaks and must pass a rigorous test before proceeding down the line. Every unit is tested in an enclosed water check bay for a full 30 minutes. During that time, 88 high-pressure spray nozzles blast the Airstream with upwards of 350 gallons of water per minute. That's over 10,000 gallons per trailer! Water is recycled through massive filters before being used again on the next test.

All the while, a technician is inside, checking for leaks. In the rare event a leak is detected, it's fixed and the exterior shell is fully tested again before moving down the line.

10K
GALLONS



Section 4 Summary

Completing the Exterior

In this section, you learned:

- How the Airstream's outer shell is joined to the chassis
- The many advantages of Quietstream ducted air technology
- About the high-pressure quality testing each Airstream goes through



SECTION

FIVE

QUALITY

Interior Systems

Now that the primary shell is complete, the interior systems can be installed. That includes building the interior skin, fully wiring 12V and 110V electrical systems, completing the plumbing and LP gas systems, constructing and installing furniture, and more. Inside, you'll find many of the same systems you'd find in a house – plus a few that you won't.



Insulation

After an Airstream passes the hurricane test, the interior is sprayed with a water-based adhesive and the insulation is installed. [Knauf EcoBatt®](#) with ECOSE technology is made from 61.9% post consumer recycled content, combining renewable materials like sand and recycled bottle glass with a revolutionary new bio-based bonding agent.

It's among the safest types of insulation available. EcoBatt® is certified for nursing homes, hospitals, schools, and daycares, and contains no phenol, formaldehyde, acrylics, or artificial colors. And, of course, its outstanding insulation value means it keeps you warm in cold temperatures.



Building the Interior Shell

Next, the interior superstructure is assembled, using the same high-strength aluminum as the exterior. The inner shell is riveted to the aluminum bows and ribs of the primary framework. No wood is used in constructing the shell: even areas around vents, windows, and air conditioners are built from aluminum, which prevents components from deteriorating over time.

Once the aluminum is trimmed for window and door openings, an insulating vinyl wall liner is glued to the interior skin, forming a barrier against extreme temperature changes which prevents condensation.

Thermal barrier bonding tape is also applied between the interior and exterior skins, which reduces temperature transfer.

After the interior shell is complete, an inspector uses a high-voltage electrical device to check all electrical outlets and connections before interior furniture and appliances can be installed. All plumbing and tanks are also inspected, by using high-pressure air to ensure the system doesn't have any leaks.

Feels Like Home

Flooring is then laid down, put into place, and cleaned. The next step is to build the bathroom. The shower's fiberglass shell – one complete piece – is installed, a hole is cut for the drain, and it's connected to the plumbing. The lavatory cabinet, toilet assemblies, and final shower components are added.

Every Airstream bathroom features ample storage, stainless steel faucets, quality fixtures, and flooring and surfaces that are easy to maintain and clean.





Kick Back and Relax

What's next? Every Airstream is custom-fit with handcrafted furniture, assembled in the wood shop at our production facility in Jackson Center, Ohio. It's made from high-quality Italian Lite-Ply or hardwood: no particle board is used in any trailer and all are built as solid-wood assemblies, just like household cabinetry. Fiberboard and staples just don't cut it in an Airstream.

All cabinetry, wardrobes, and furniture are designed to match the design of each model, meaning you won't find Flying Cloud furniture in the Classic. [It's all built to fit through the trailer door, making future maintenance far simpler for owners.](#)

Once constructed, all wood panels, frames, drawers, solid wood trim, and Corian® countertops are sanded, glued, and finished. Then, any raw wood is stained and finished, not just because it looks nicer, but because it's easier to clean – and will last longer, too.

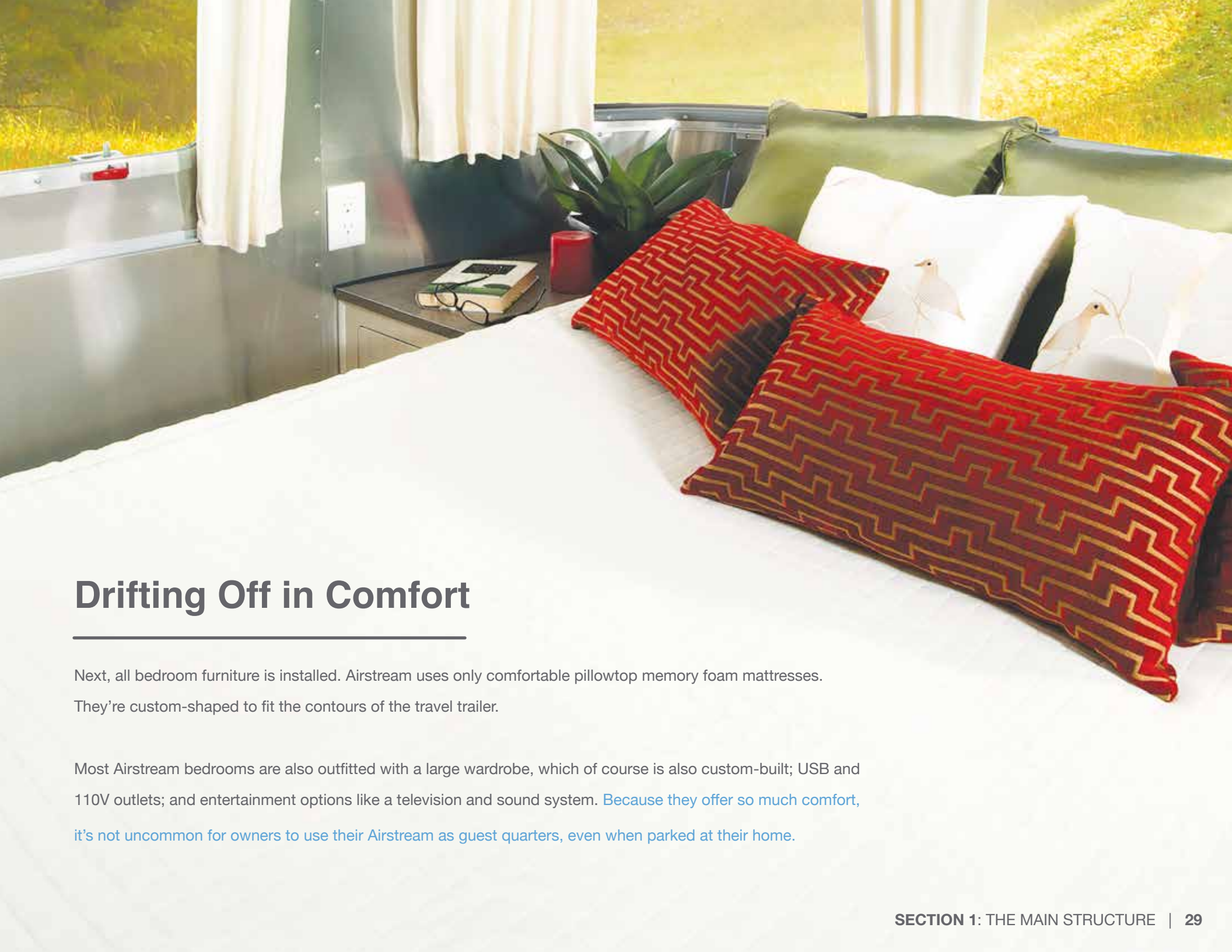


Only One Way In

As you learned, Airstream's outer shell is fully completed before furniture, cabinetry, plumbing, and electrical systems are completed. Every component fits through the 26-inch wide door, which takes eight hours to manufacture and is built in-house from high-strength aluminum. Once carefully riveted into place, it seals tight, like a bank vault.

This is a huge reason why vintage Airstreams are so popular. [Airstream travel trailers carry the highest resale value in the industry, and that's not just because they're durable enough to last a lifetime.](#)

Believe it or not, it's also because every component in an Airstream fits through that door. That means any maintenance or renovations can be made without taking apart the entire travel trailer, which would compromise the Airstream's structural integrity.



Drifting Off in Comfort

Next, all bedroom furniture is installed. Airstream uses only comfortable pillowtop memory foam mattresses. They're custom-shaped to fit the contours of the travel trailer.

Most Airstream bedrooms are also outfitted with a large wardrobe, which of course is also custom-built; USB and 110V outlets; and entertainment options like a television and sound system. [Because they offer so much comfort, it's not uncommon for owners to use their Airstream as guest quarters, even when parked at their home.](#)



Smells Like Home

Many Airstreamers love to cook, so our galleys are built with this in mind. [Every Airstream Travel Trailer contains a complete kitchen, designed carefully for convenience and maximum efficiency.](#)

They contain residential-grade appliances; comfortable dinettes; pantries with convenient and generous storage; stow areas for pots, pans, and utensils; water purifiers; and stainless steel sinks. These components are all installed as the finishing touches are put on the new Airstream.

Finally, lounges, chairs, dinette cushions, curtains, and window shades are installed.



Why Ultraleather™?

It wouldn't be your home on the road without comfortable furniture, which is why Ultraleather™ is used in most Airstream models. Remember, every design choice is made for a reason! Ultraleather isn't just soft, it's also durable and long-lasting, engineered to incorporate special strengthening components.

Ultraleather resists temperature change, so it won't crack because of cold weather.

It's easy to clean, and it's pet-friendly, too: it won't scratch or stain. Because the pups should be able to lounge in comfort, too.

Section 5 Summary

Interior Systems

In this section, you learned:

- How the inner shell is constructed and insulated
- How interior features like the bathroom and kitchen are installed
- How each Airstream is designed to feel like home



Quality Assurance

Our new Airstream is just about ready to hit the road – but first, there's a few final things to be added, and extensive quality testing must take place before we wave goodbye.

A photograph of a factory floor where several Airstream trailers are lined up. The trailers are silver with white accents and are positioned in a row, receding into the background. The factory environment is visible with overhead lights and structural elements.

A Complete Walk-Through

Before any Airstream leaves the production line, our Quality Control team performs a series of detailed tests, looking at the overall cosmetics of the trailer, making sure all systems are working properly, and testing all interior and exterior parts.

Other tests include pressure-checking the LP gas system, filling the drain system to check it for leaks, pressurizing the water system, testing the tank monitoring system, heating the furnace, and cooling the refrigerator. Then, the interior and exterior are thoroughly cleaned. A fresh coat of wax is applied, by hand, before leaving Jackson Center for an authorized Airstream dealer.

The Airstream Warranty

They've always been built to last. That's why over 70% of all Airstream Travel Trailers ever built are still on the road today.

Wally's dream was to connect ordinary people to the excitement of travel, to take them to new and faraway places without sacrificing the comforts of home. While we strive for perfection, we caution new owners to treat their Airstream just like they'd treat a new home.

Even after extensive quality testing, there's a chance you may



experience minor issues with your new travel trailer. There are so many complex systems and intricate details that you may notice something is amiss. But we'll always place our customers first, which is why we back all new Travel Trailer sales with two-year Trailer, Structural, and Major Component Warranties. We

also provide peace of mind, with 24/7 assistance and emergency roadside for your Airstream Travel Trailer and tow vehicle, and technical assistance should you have any questions.

Silver is Green

In the past 12 months, Airstream has used 1.8 million pounds of flat aluminum to construct our Travel Trailers. Countless amounts of rivets, wood, wire, glass, and steel are used, too. So what happens to the materials we don't use?

At our production facility in Jackson Canter, bins are used to collect scrap materials. They're processed locally, through a partnership with a company that sorts our recycling and sells it to a local recycling firm.

After an evaluation of our facilities in Jackson Center, Airstream was Certified Green by TRA, an internationally accredited organization that specializes in green building and energy efficiency. Airstream was awarded with the highest possible rating, the Emerald Award, for resource, energy, and water efficiency and indoor air quality.



Our Trusted Partners

Airstream components and materials come from some of the most trusted brand names in the world, many of which have been our valued partners for decades. Alcoa® and Dometic®, for example, have each partnered with Airstream for over 50 years.

Long-standing partnerships include Alcoa® (aluminum), Dometic® (refrigerators and air conditioners), DuPont® (fine Corian® countertops), Ultra Fabrics® (Ultraleather™), Zip Dee® (awnings) and Thetford® (ergonomic toilets).

Why? Because every detail matters, and when you build travel trailers for a lifetime of adventure, they matter even more. Every interior component is carefully selected to deliver the comforts of home, no matter how far you roam.



Section 6 Summary

Quality Assurance

In this section, you learned:

- About the detailed quality tests performed on every Airstream
- How the Airstream warranty provides further quality assurance
- Airstream's reputation as a leader in green construction
- Some of Airstream's partnerships span half a century or more



SECTION

SEVEN

QUALITY

In Closing

Our process has stood the test of time, improved little by little over decades and decades of fine craftsmanship. The end result is a premium travel trailer, built for a lifetime of adventure, meant to be passed from generation to generation.

Don't stop. Keep right on going.

*"Hitch up your trailer and go to Canada or down to old Mexico.
Head for Europe, if you can afford it, or go to Mardi Gras.*

*Go someplace you've heard about, where you can fish or hunt or collect
rocks or just look up at the sky. Go see what's over the next hill, and the one
after that, and the one after that."*

-Wally Byam



Airstream Travel Trailers



Since 1931, Airstream has manufactured legendary travel trailers that allow owners to travel without sacrificing the comforts of home. Their engineering is the culmination of over 80 years of experience – and testing across millions of miles of roads, all over the globe. With travel trailers perfect for everyone from first-timers to seasoned veterans, you're sure to find one ideal for the adventure that awaits around the next bend.



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Travel Trailers 20k 9/15

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All capacities are approximate and dimensions are nominal. Actual products may differ from the photographs, specifications, and product information in this brochure due to product changes. Prices and specifications are subject to change without notice. Photos may contain some features that are optional. Some features or options may be different or unavailable in Canada.

This information is intended as a guide only. Weights of individual recreational vehicles may vary. Consult the owner's manual for complete loading, weighting, and towing instructions.

Dry weights are based on standard features; optional equipment is not included. The Net Carrying Capacity (NCC) is determined by subtracting Unit Base Weight (UBW) from the Gross Vehicle Weight Rating (GVWR), and is the capacity available for water, options, and cargo. Liquid capacities and weights are approximations only.

The recreational vehicle weight must remain within the manufacturer's specified chassis weight limit. Do not overload the recreational vehicle through the addition of water, options, cargo or otherwise.