



ADVANTAGE



40 Years of Innovative Load Moving Solutions

AeroGo anniversary reflects company commitment to product quality, reliability



In 1967, AeroGo, Inc. was formed to take advantage of air cushion technology patents developed by the Boeing Co.

Since then, AeroGo has built standard and custom Aero-Casters used in everything from the NASA shuttle to local paper mills. We've set the standard for air caster manufacturing. Our engineering department has developed customized solutions for specialized loads from 500 pounds to over 5,000 tons. All of our products make work easier for employees in aerospace, military, cleanroom, rigging, tooling, vehicle assembly and manufacturing. Together with a worldwide network of authorized dealers, we look forward to providing *Innovative Load Moving Solutions* for another 40 years.

— John Massenburg, President

Newmar's Multi-Ton RVs Glide Through Assembly on Cushion of Air

Innovative assembly with Aero-Caster air technology maximizes resources – producing more RV's at less cost

Company Background

North Central Indiana, around Elkhart County, is a part of heartland America where travelers from elsewhere in the country can still be surprised and enchanted by horse drawn Amish buggies clippity-clopping along the byways at a sedate six miles per hour.

In this part of the world, however, those picturesque one-horsepower vehicles share the road with not only automobiles, but also with an astounding number of recreational vehicles—almost all brand new. Elkhart County has been justifiably called “The RV Capitol of the World.” In fact, this single county boasts 107 RV manufacturers, producing an incredible 50% of all the recreational vehicles sold in America.

With that many companies competing, it's not hard to imagine the level of competition and the drive to innovate and gain an edge. Newmar Corporation, located in Nappanee, one of those 107 manufacturers and a leading player, is a perfect case of competitive challenge turned into opportunity.



Productive Practices

Newmar's bold move toward leadership started over a dozen years ago with a major plant expansion on the company's 168-acre site—and a breakthrough idea to enhance assembly line productivity and create a work place that made tasks more comfortable for their employees. The intent was to alleviate much of the labor-intensive nature of assembly line work.

Responding to Market Changes

Newmar's Maintenance Supervisor performed an extensive search to find a better way to move vehicles through the assembly system with less effort, less manpower, greater flexibility, and greater cost effectiveness. He thought immediately of checking out automobile assembly line systems.

Continued, next page...

QUALITY POLICY

- AeroGo products and services shall conform to requirements as contracted and required by customers, statutory and regulatory bodies.
- AeroGo shall ensure continual improvement of the quality management system.
- AeroGo shall meet or exceed the expectations of our customers.



Newmar's Multi-Ton RVs *continued from page 1*

But an automobile assembly plant moves a batch of chassis of a *single model* through the assembly process.

Newmar had a more complex system requiring handling of as many as 16 significantly diverse models of varying weight, size and configuration through the assembly process, not in a one-after-another procession, but in a fashion the company calls "indexing."

Moving the vehicles down the line to other workstations comprised both a huge chunk of assembly labor and great physical effort - with as many as 14 workers leaving their stations to shove and pull the extremely heavy chassis, rolling reluctantly on castered carts, to their next assigned spot in the process. Clearly carts and casters weren't the answer and the Superintendent knew there had to be a better way.

Maximizing Production

He found his solution when one of Newmar's vendors told him how a large client of theirs moved weighty manufactured home modules through their plant. That manufacturer was using air casters instead of the industry's usual roller systems. The idea would work similarly for assembly work, and that's when he was

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- Sheldon Kresse

introduced to AeroGo's Aero-Casters®. "Unlike, what we were thinking of buying, AeroGo Aero-Casters were made of super-strong structural aluminum, not heavy-weight steel. We sometimes need to move the vehicles when they aren't connected to an air source," he stated. The steel air cushion pallet that Newmar first considered took as many as four men to move when not connected. Because of their lighter weight, an off-line AeroGo pallet

could be handled by a single person. Connected to an air source, the AeroGo Aero-Caster allow users to move huge loads with little physical effort as they are lifted by and glide on a frictionless cushion of air. "The air compressor gets tired, not the people," he says. "The AeroGo Aero-Casters also enable us to easily move the heaviest chassis in any direction we want, to any part of our facility."

Pre-fabricated chassis frames are mounted on AeroGo pallets with an air caster on each corner enabling only four workers to easily move even Newmar's largest model, the luxurious 45-foot King Aire motor coach, weighing in at some 45,000 pounds and a near \$700,000 suggested retail price.

A bare chassis coming into the assembly line consists only of frame, motor, drivelines, tires and steering wheel, but it gains weight as it goes along and all the items comprising a complex motor home are added—from baggage storage to framework for the chassis' front and rear ends, a main wood floor, ceramics, linoleum, carpet and more. At the end of the line a completed vehicle may weigh anywhere between 27,000 and 45,000 pounds, yet AeroGo's air caster equipped pallets handle the changing weight with ease. According to Sheldon Kresse, Maintenance Manager, "Despite the weight change during assembly, the same hoses, hose network, valving and all of the basic support infrastructure for the AeroGo system remain the same from end to end."

Productivity is a key issue for Newmar. Making it easier to keep the line moving with less labor (each unit spends about 30-40 minutes at a station) frees up many workers from having to stop what they were doing to help move other units as they did in pre-AeroGo Aero-Caster days. The company estimates that by using AeroGo Aero-Casters they have reduced assembly line labor costs by some 8,000 hours a year.

According to Kresse, the frosting on that cake is that labor savings paid for their entire AeroGo system *in just one year*. "And maintenance is a piece of cake," states Kresse, but he also stresses the importance of regular maintenance and inspection. "You do that and your world's good," he says. Another important factor related to enduring product performance was a decision to keep assembly line floors clean. The company installed an under-the-floor conveyor system onto which all floor detritus is regularly swept, emptying into a dumpster below. To the production people it contributes both to the useful life of their important air casters and to safety underfoot. To company President Miller, who is proud to show visitors Newmar's spic and span plant, it is a vital part of their corporate image and a contributor to workplace pride. To visitors who are often buyers that have come to see their motor homes built, it is an important statement that here is a place where people care.

Newmar builds both motor homes and towable fifth wheel models. According to Kresse, recreational vehicles, including even the towable units, are tending to increase in both size and weight across the board. Newmar's AeroGo system provides all the assembly line flexibility needed to handle the mobility challenges of model innovation and on-going product development as much now as it did when it was installed years ago.

Newmar's willingness to deploy innovative technology such as AeroGo Aero-Casters is an on-going demonstration of their determination to deliver cost-effective quality at every price point. With 140 dealers across the US and Canada, the company is well positioned to satisfy the needs of their distribution system and ultimate end users, particularly in an era when rising gas prices create a demand for both choice and real value.

When Is An Air Caster the Best Way to Move a Load?

AeroGo Aero-Casters are a viable option to move loads from 500 lbs. to over 5000 tons – especially if you are looking to gain any of these benefits:

Low Friction – Operating on a nearly frictionless cushion of air means less force is required to maneuver heavy loads.

Low Profile – requires in most cases 2 inches for insertion. Little vertical lift means that the load stays closer to the ground for a safer move.

Easy Turning - Omni directional Movement for tight spaces and precise positioning or alignment. Same force required for moving in any direction, unlike wheels and casters.

No floor damage – Low floor loading means minimal structural requirements. The cushion of air distributes load weight over a greater area protecting and extending the life of epoxy, painted and/or raised floors.

Ergonomic – moves to minimize operator fatigue and maximize safety

Easy to use – No certified operators required

Weight Capacities – 500 lbs. to over 5,000 tons! AeroGo offers the widest range of weight capacities in the industry.

Vertical Lift – Depending on your height needs AeroGo products can provide a little or a lot of vertical lift. Our engineers can work with you to create the most economical option.

Economical – Compared to conventional methods, AeroGo systems have a lower initial cost, lower operating costs and increased productivity.

Flexibility – Cut cycle time in assembly line applications because AeroGo systems don't require fixed components. For the end user this means the ability to change workflow paths as often as they wish, maximizing plant space and giving them the option to add new product lines on a whim.

Product Spotlight Aero-Jack

AeroGo Aero-Jacks offer several advantages to traditional material handling methods

The AeroGo Aero-Jack is an innovative product that is easy to insert into typical material handling applications:

- ✓ Prevents damage to floors
- ✓ Uses normal shop air systems to inflate
- ✓ Low insertion height, less than one inch, provides an easy and safe way to lift machines
- ✓ The jacks, which weigh less than 20 pounds each, are easily transported
- ✓ Reduced personnel injury risk compared to carrying heavy mechanical or hydraulic jacks



Measuring only 20 inches by 20 inches, each Aero-Jack has a lifting capacity of over 20 tons. This versatility allows riggers to place Aero-Jacks directly under the lowest machine without additional jacking, and to place jacks exactly where lift is required. Normal shop air with 90 PSI is sufficient to attain full lift. Aero-Jacks are available in various sizes with a maximum capacity of 73 tons each.

Cleanroom applications benefit from the smooth movement and micropositioning capabilities of AeroGo products. Here, a 3400 lb. wafer prober machine with handler can be moved by one person to and from different test cells. The AeroGo pallet only requires 30-35# drawbar pressure to move the weight. Plus, accuracy is optimal because air casters are omnidirectional.

Can you benefit from using Aero-Casters? All you need is:

- Smooth floor
- Commercial air supply
- Willingness to save \$\$\$



PROBLEM SOLVERS

AeroGo Moves 60 Tons On Cushion of Air



Thanks to the efforts of MHC Systems, AeroGo's Aero-Pallet Transporter was able to aid an aircraft company that needed to

move a 125,000 lb CMM granite base a distance of 75 ft. Precision placement was critical since aerospace parts, placed on the table and positioned under a robotic arm, are scanned by computer sensors to ensure they will fit within the aircraft's assembly.

The Aero-Pallet Transporter includes 3 support posts, or leveling screw jacks, on which the granite table rests. The Aero-Drive is used for handling and steering. If the computer tells the operator that the table is not level—a condition that might arise due to temperature fluctuations—the operator can adjust the jacks from the control handle on the Aero-Drive. A quick-attach plate quickly connects the Transporter and Aero-Drive.

The People Behind the Products



AeroGo employees take great pride in providing consistently superior Aero-Casters, Aero-Pallets, Aero-Planks and Load Module Systems, whether standard or custom engineered.



**Innovative Load Moving Solutions
Since 1967**