





Superior Engineering
High Strength - Ultra Lightweight
Premium Automotive Finish
Patented Technology





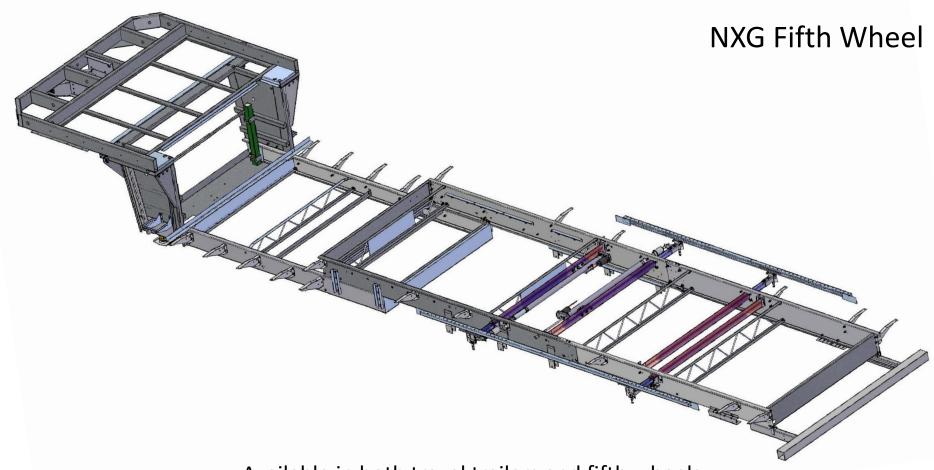




Designed to be lightweight and extremely durable, the NXG frame from BAL provides OEM's a highly engineered, automotive-style chassis with an industry leading e-coat and powder coat finish.







Available in both travel trailers and fifth wheels





The entire frame is formed out of American made, High Strength Low Alloy (HSLA) steel coil.

HSLA is a type of alloy steel that provides better mechanical properties and greater resistance to corrosion than higher carbon steel used on competitors frames.

HSLA steel is primarily used in engineered structures that are designed to handle large amounts of stress and need a good strength-to-weight ratio. (Auto Industry, Crane and Bridge Construction, Military Armor Plating)

HSLA steel cross-sections and structures are usually 20 to 30% lighter than a carbon steel structures with the same strength ratio.

Guaranteed mechanical properties both fuel engineering structural analysis & ensure every frame preforms as designed.













BAL engineers work closely with OEM's to design a frame for each floorplan and product type.

All drawings are 3D Solid modeled and include full details of components and assemblies.

Each customer specific design is a combination of high volume, progressive die stamped components and project specific lower volume custom designed components.

All designs are returned to the customer prior to production for final approval

From Travel Trailers to Fifth Wheels and Toy haulers, to custom frame mounted components and accessories - BAL will design a custom frame that will fit your needs!











CNC lasers, stamping turrents and sheers cut steel to precise measurements.

CNC controlled rail fabrication allows placement of components precisely where the OEM wants them.

CNC cut, formed, and stamped production produces a frame that is 100% accurate and consistent from frame to frame.



BAL frames are designed to utilize Huck bolt fasteners with interlocking stamped frame dimples. This exclusive and patented technology creates an extremely strong and permanent connection between frame sections.

CNC parts assembled with Huck fasteners assure proper alignment of frame rails and produce a highly accurate frame camber.

Huck bolt construction produces an extremely strong frame while yielding the most dimensionally accurate product in the industry.

How A Huck Bolt works:

https://youtu.be/zY dD0MSXsc













Huck bolts (Bobtail fasteners) are a military grade fastener bolt that is permanent and will not loosen over time unlike traditional bolts and screws.

Huck bolts have an extremely high sheer rating and tinsel strength and are designed to flex with the frame without weaking the connection.

Huck bolts are commonly used on production of vehicles that experience a high level of stress and vibration including in the automotive industry, on military vehicles, for ship building, and in rail car production.



Combining an advanced fastener design with the latest in easy-to-use, ergonomic installation tooling, the BobTail system delivers a strong connection and sets a new standard for ease of installation.

Pintail-less design means reduced noise, no waste, and improved corrosion resistance.

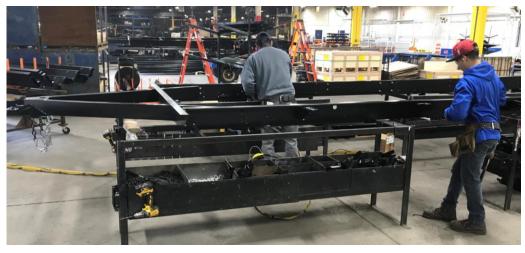
■ Visual evidence of successful installation provided by installation indicator.

 Collar material swaged into the lockgrooves forms a permanent, vibration-resistant connection.

■ Low-swage technology allows for faster, lighter tooling with parts that last longer.









Main rails are designed with an extremely accurate CNC controlled camber which creates a flat, square, and straight frame to assure a level foundation for OEM's to build on.

BAL Frames patented Huck bolt and dimple design prevents uneven main rails which can cause a problem for OEM's in the construction process.

Internal cross members feature a robotically welded "Rod and Angle Design" which adds additional strength without adding additional weight.

"Rod and Angle Design" is like a suspension bridge. It carries a significant amount of load without adding weight. In addition, OEM's prefer this type of design verse solid I-beam cross members. The opens allow for easier placement of wiring and plumbing lines.







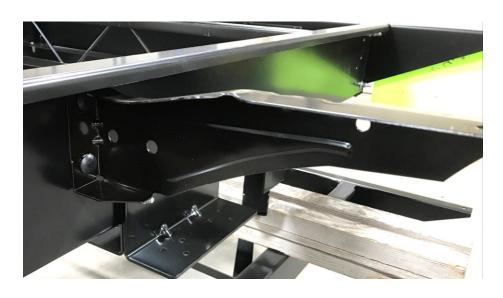
Where welding is required, BAL welds with computer-controlled robots.

All A-frames are robotically welded to assure a proper, strong, and high-quality weld.

The A-frame extends through the front cross member to the side rails. This transfers the hitch load to the entire frame for additional chassis strength.









### **One Piece Outriggers**

BAL outriggers are stamped and formed out of a single piece of steel eliminating welds which may crack or weaken overtime. Each outrigger is E-Coated before being attached to the frame.

Outriggers are aligned with match the camber of the frame and are Huck bolted in the correct location to evenly distribute the load from the RV body.

Huck bolted outriggers yield the strongest, lightest and most corrosion resistant outrigger in the industry.





BAL NXG frames feature the patent pending Exact Axle Mount system.

Exact Axle Mounts are an automotive style stamped and formed axle hanger that provides an unmatched level of strength, rigidity, and precision.

Axle hangers are Huck bolted to the frame for accurate, and consistent axle positioning and strength.

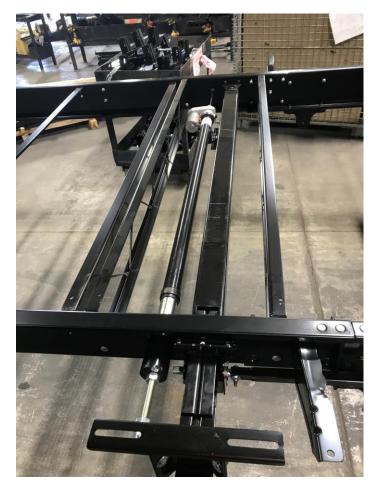














The Next Generation in Slide-out Technology

NXG Frames are designed for both in-frame and above floor slide mechanisms.

The NXG Slide, in-frame slide system, provides an unmatched level of durability and precision providing the RV owner years of trouble-free performance.

All components of the NXG Slide mechanism are individually coated with highly effective corrosion resistant e-coat or plating for extended life of the slide-out drive.

#### MORE SECURE CONNECTIONS

Tighter, quieter system

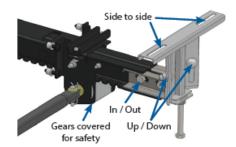


#### ARCHED DESIGN

Stronger, tighter, and more durable
 Helps hold room against coach sidewall



#### EASY ADJUSTMENT





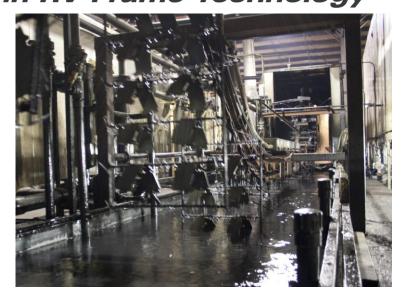
All components are either E-Coated or Powder Coated using PPG Automotive paint.

E Coat is an electrophoretic dip process that coats 100% of the component to a uniform thickness. Powder Coating is a dry powder paint system that is applied electrostatically then cured using heat creating a tough and durable finish.

Components are assembled after painting assure all surfaces are completely protected to prevent rusting.

















### Salt Spray Testing

BAL NXG Frames have undergone automotive grade Salt Spray Testing to simulate the harshest RV'ing environments.

BAL's Finish is exceeds 2000 hours!

A-Frames and bumpers are E-Coated and Powder Coated added protection from damage while traveling due to road debris to prevent rusting.

E-Coat and Powder Coat provides additional protection to prevent paint fading from damaging UV Rays.

### Warranty

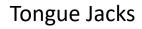
BAL NXG Frames feature a 3-Year Limited Structural Warranty!





OEM's can choose from an extensive list of frame accessories







**Tire Carriers** 



Power Stabilizer and Leveling Systems







### Choose the Best

## Choose BAL Frames from Norco Industries!







Superior Engineering

High Strength - Ultra Lightweight

Premium Automotive Finish

Patented Technology

