

General Strength Specifications

NA Manufacturing

Frame Finish

- Frame construction utilizes a minimum of 12-gauge steel tubing. Where indicated, some units incorporate 11-gauge and 7-gauge steel tubing. Wherever possible, tubes are bent rather than cut and welded. All manufacturing is done in fixtures.

Note: Some 13-gauge (.095 wall) tube is used in some Xult products.

- Frames are washed and dried. After the wash, frames are dried and then coated with 3 millimeters of an electrostatically applied powder coat. Frame is then baked at 400 degrees to produce a durable, attractive finish. Clear coat is applied to the Magnum line of free weight and selectorized equipment.

Note: Some finishes are not clear coated, for example Matte Black.

Weight Selection

- Stack weights shall be selected by using a high-quality selector pin which completely penetrates the weight stack and locks into place using a magnet to eliminate any chance of disengaging the pin during use.
- The pin shall be attached to the weight stack with a plastic cord to ensure that the pin stays with the appropriate machine.

Weight Stack Configuration

- All weight stacks shall use one of the following weight plate increments, 12lbs or 20lbs, depending on the machine and exercise being performed.

Weight Plates

- Weight stack plates are made of solid cold-rolled steel with a powder coat finish. Each plate identifies the total weight. Identification label encircles selector pin hole to preserve weight stack appearance.

Weight Plate Bushings

- Self-aligning low-friction Teflon bushings shall surround the guide rods for smooth and quiet operation.

Pulleys

- Pulleys are fiberglass impregnated nylon fitted with sealed bearings. They are 116mm or 152mm in diameter with a cable groove with a depth of 10mm.

Note: One unit, MG-S23-02, uses 90mm pulleys.

Weight Transport

- Cable are Loos® brand internally lubricated, 1/8" or 5/32" galvanized steel, nylon coated aircraft cable.
- Where specified, weight transfer systems utilize a double cam transfer axle to minimize the twists and bends placed on cable.
- Where applicable, movement arms are counterweighted or balanced to effectively reduce their weight.

Weight Stack Guide Rods

- Weight stack guide rods are 5/8" solid ground and polished, hard cold drawn steel with hard chrome finish.

Weight Stack Suspension

- Shall incorporate two 2" diameter x 1 3/16" thick rubber bumpers under the weight stack to reduce shock and vibration stresses to the frame and facility.

Cams

- All cams shall be individually designed for each unit to match the appropriate strength force curve.
- Cams are CNC plasma cut steel for accuracy.

Handgrips

- Extruded grip material shall be non-absorbing, wear and tear resistant, and exhibit good wet and dry friction characteristics. Diameter shall either be 41.8mm or 35.6mm based on exercise to increase comfort and reduced pressure.
- On Magnum series units, grips shall be retained with sandblasted and anodized, nickel-plated or chromed aluminum end caps.
- Meet EN & ASTM requirements, and are designed to reduce slipping.

Frame Construction

- Magnum Series free weight and selectorized units primarily use 3" round tubing. These tubes are 11-gauge steel; however, different tube sizes and wall thicknesses may be used as required through engineering stress analysis. Magnum Series have fully welded sub-assemblies for maximum structural integrity and

minimum maintenance.

- Varsity Series free weight units primarily use 2" square tubing. These tubes are 12-gauge steel; however, different tube sizes and wall thicknesses may be used as required through engineering stress analysis. Varsity Series has a fully welded sub-assembly for maximum structural integrity and minimum maintenance.
- All machining and welding must be done utilizing jigs and fixtures to ensure highest quality and interchangeability of parts.
- Wherever possible, robotic welding is utilized for precision and accuracy.
- All welds are ground with fine grit sandpaper to eliminate grind marks.
- Weight plate loading horns and weight plate storage horns on free weight units are nickel plated for protection. Weight plate storage posts are 1 7/8" OD tubing, nickel plated with dome end caps for ease of Olympic plate placement and removal.

Linear Bearings, Radial Bearings, and Bushings

- Where specified, linear bearing units operate on linear bearings and shaft.
- All pivot points are fitted with pre-lubricated sealed bearings.
- Bushings will be sintered bronze style bushings.

Hardware

- All bolts, washers, and nuts shall be zinc plated for additional corrosion resistance.

Weight Stack Guards

- All weight stacks shall be guarded on the back side by a shroud when exposed to prevent bystanders from inadvertent contact with the weight stack during use.
- Magnum Series Free Standing Towers use 16-gauge thick steel guards on the rear of the stack.
- MG-S21-02, and MG-S23-02 use 16-gauge thick steel guards on the front and rear of the stack.

Upholstery and Pads

- All back pads are 3/4" plywood. Plywood backs have 5/16-18 T-nuts set to anchor pads to the unit.
- Cushions are upholstered with Boltaflex®, Naugahyde, or equivalent material.
- Premium upholstery uses proprietary materials offering a greater level of performance than industry standard upholstery.
- All edges of the upholstery are double stitched to eliminate any folds.

Adjustment and Adjustment Indicators

- High contrast decals are used for all seat and pad adjustments providing maximum readability.

- Where adjusting tubes are required, they are chrome plated, fit into Unistrut telescopic tubing, and milled to hold a bold numerical decal or laser cut numbers directly into the tube, to accurately reproduce position settings.

Instructional Placard

- Easy-to-read placards identify the machine, illustrate proper usage, and highlight targeted muscles.

Color Coded Pivots and Adjusts

- Any adjustment, including weight stack pins, are identified by yellow knobs or handles.

Equipment Anchoring

- Each machine shall be equipped with a provision for floor anchoring. Some units (such as the MG-A301, MG-A59, MG-A85, etc) that are specifically designed to be movable do not have anchor points.

Information Specific to Selectorized Units

- Individuals 4'10" to 6'6" can comfortably and safely exercise on the equipment.
- Where applicable, pads adjust to accommodate varying leg, arm, and torso lengths. Pads pivot and lock into place using a spring pin assembly.
- Handles are anatomically correct and are designed specifically for the movement being performed to alleviate wrist strain, reduce stress on contact points, and enhance feel.
- All pivot points are clearly identified for proper axis alignment.
- Foot platforms and supports are all non-skid.

Information Specific to Power Racks

- Uprights and base frames:
 - MEGA Racks are 4" x 4" laser cut 7-gauge tubing. The bottom frames are 3" x 4", 7-gauge tubing. Weight storage frames are 2"x 3" square 11-gauge tubing.
 - Magnum Racks are 3" x 4" laser cut 11-gauge tubing. The bottom frames are 2" x 3", 7-gauge tubing. Weight storage frames are 2" square 11-gauge tubing.
 - Varsity Racks are 3" x 3" laser cut 11-gauge tubing. The bottom frames are 2" x 3", 11-gauge tubing. Weight storage frames are 2" square 11-gauge tubing.
- Weight storage horns are 1 7/8" OD tubing, nickel plated with dome end caps for ease of plate placement and removal.
- Weight storage horns on all racks are designed and positioned to support at least 4-post bumper + 1 Olympic plate per side.

- Numbered uprights (laser-cut on MEGA and Magnum, decal on Varsity) and visual indicators provided to adjust J-hooks and safety bars.
- J-hooks are made of high-density polyethylene (HDPE) for protection.

Warranty

- USA warranty shall include a limited **10-year** warranty on framework/welds, structural parts, cams, guide rods and shafts (applies to original owner only); **5 years** on weight stacks, rotary bearings and pulleys, **3 years** on linear bearings, brass bushings, shocks, slide inserts; **3 years** on labor (excluding upholstery/cables/grips) and **1 year** on upholstery, belts/cables, seat belts, grips, springs and other parts not listed.

STRENGTH WARRANTY (NORTH AMERICA ONLY)

Frame (Not Coatings)**	10 years
Weight Stacks	5 years
Pulleys	5 years
Pivot Bearings	5 years
Other Items Not Specified	3 years
Labor	3 years
Upholstery/ Cables/ Springs/ Grips	1 year
Accessories	6 months