

## GENERAL PRODUCT SPECIFICATIONS

### **ADVENTURE SERIES**

3.5" O.D. vertical posts  
36" deck grid / 48" deck grid  
24" diameter plastic / 30" diameter plastic

### **EXPEDITION SERIES**

5" O.D. vertical posts  
48" deck grid  
30" diameter plastic

### **VERTICAL POSTS (STEEL)**

- 13 gauge galvanized steel (3.5" Series)
- 11 gauge galvanized steel (5" Series)
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)
- Triple Flo-Coated corrosion protection (interior and exterior)
- Interior and exterior corrosion resistance (ASTM B-117)
- Contains a minimum of 30% recycled steel and is 95%-98% recyclable
- Manufactured per ASTM 500

### **VERTICAL POSTS (RECYCLED PLASTIC)**

- Made of recycled milk jugs
- Polyethylene
- Minimum of 50% recycled material – up to 90% recycled material

### **PIPE**

- Contains a minimum of 30% recycled steel and is 95%-98% recyclable
- Triple Flo-Coated corrosion protection (interior and exterior)
- Interior and exterior corrosion resistance (ASTM B-117)
- Manufactured per ASTM 500

### **1-1/4" O.D. ROUND**

- 14 gauge galvanized steel
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)

### **1.66" O.D. ROUND**

- 13 gauge galvanized steel
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)

### **1.90" O.D. ROUND**

- 13 gauge galvanized steel
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)

### **2-3/8" O.D. ROUND**

- 13 gauge galvanized steel / 9 gauge steel (Bi-pod/Tri-pod top bar)
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)

### **3.5" O.D. ROUND**

- 13 gauge galvanized steel (3.5" Series)
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)

### **4" O.D. SQUARE**

- 11 gauge galvanized steel
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)

### **5" O.D. ROUND**

- 11 gauge galvanized steel (5" Series)
- 50,000 PSI yield strength (ASTM E-8)
- 55,000 PSI tensile strength (ASTM E-8)

### **POST CAPS**

- Aluminum alloy (GM70B) manufactured and tested in accordance with ASTM
- Standards: ASTM B 179-68, ASTM B 108-68, ASTM E 10-66 and ASTM E 8-66
- Powder coat finish
- Available for 3.5" series or 5" series playgrounds

### **C-LINE FITTINGS**

- Aluminum alloy (GM70B) manufactured and tested in accordance with ASTM
- Standards: ASTM B 179-68, ASTM B 108-68, ASTM E 10-66 and ASTM E 8-66
- Mounts to vertical posts with adhesive gasket and four 1/4"x1" TORX self-tapping screws with patch
- Powder coat finish
- Pre-drilled
- Available for panel or pipe applications

### **SEALING GASKET**

- Neoprene rubber
- 60 +/- 5 durometer hardness
- Used for C-Line fittings
- Double sided adhesive

## **HARDWARE**

- Made from stainless steel or corrosion-resistant coated steel
- Majority of hardware is stainless steel with exception of the self drilling/self tapping screws and bolts. Stainless steel is too soft for this application.
- Conforms to ANSI/ASCE-8-90 (stainless steel)
- Passed 100 hour salt test (corrosion-resistant coated steel)
- Security patch to insure screw locks into vertical pipe (where applicable)
- Special tool required for install
- Tamper resistant

## **CHIN-UP BARS**

- 1-1/4" O.D. round galvanized steel
- 3.5" O.D. vertical posts
- Powder coat finish

## **CLEVIS CONNECTOR (SH-40)**

- Galvanized, forged steel
- Tamper resistant
- Galvanized hex pin shoulder bolt
- Special tool required for install

## **CHAIN (4/0)**

- Hot dipped, galvanized for rust prevention (ASTM A-153)
- Zinc plated (ASTM B-633)
- Straight link coil
- Maximum working load limit 670 pounds (4/0 chain)
- Minimum ultimate break 2,680 pounds (4/0 chain)
- 0.85" OD – 0.414" ID (4/0 chain)
- 1.80" OAL (4/0 chain)

## **PLASTISOL COATED ITEMS**

### **DECKS / PLATFORMS / ARCH BRIDGE / SUSPENSION BRIDGE / ADA PLATFORM / STAIRS / WIGGLE POD TOPS**

- 12 Gauge HRPO Steel
- Perforated surface with holes spaced 1.25" apart o.c.
- Approx. 5/8" hole size after coating (5/16" hole diameter for wiggle pod tops)
- Plastisol coating

## **GRAB HANDLE**

- 1-1/4" O.D. round galvanized steel
- Pre-treatment wash primer
- Powder coat finish

## **KICK PLATES**

- 12 gauge galvanized steel sheet metal
- Powder coated finish

## **POLY SHEET**

**ACTIVITY PANELS / ROCK WALL CLIMBER / PANEL GATE / RIDER BODY / LILY PAD STEPS / PANEL LADDER / CHALLENGE BRIDGE STEPS / SIGNS / INCH WORM BRIDGE STEPS**

- 3/4" high density polyethylene sheeting
- Tested in accordance with ASTM D1928 Procedure C
- 4,400 psi tensile strength (ASTM D638)
- Textured finish
- UV stabilized

## **OUTRIGGER RAPID ROCKER**

### **FRAME**

#### **CENTER PIPE**

- 2" O.D. square steel tube
- Pre-treatment wash primer
- Powder coat finish

#### **HAND HOLDS**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

#### **SPRING RUBBER**

- Black EPDM rubber
- M2AA307 B13 C12 F17 Z1
- Z1 = 26 +/-5 durometer hardness

## **OUTRIGGER BOUNCY BOUNCE**

### **SPRING RUBBER**

- Black EPDM rubber
- M2CA 610 A25 B35 C32 F17 Z1 Z2
- Z1 = EPDM, Z2 = 65 +/-5 durometer hardness

### **HANDRAIL**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

### **PLATFORM**

- End tabs 2" O.D. square 11 gauge steel tube
- 12 gauge HRPO steel
- 50,000 psi yield strength (ASTM E-8)
- 55,000 psi tensile strength (ASTM E-8)

- Perforated surface - approx. 5/8" diameter spaced 1.25" apart o.c.
- Plastisol coating

## **TALK TUBE**

### **CONE**

- Aluminum alloy (ANSI AA319.0 f)
- 18 ksi tensile strength (yield)
- 19 ksi compressive strength (yield)
- Powder coat finish

### **POST**

- 1-1/4" O.D. round steel tube
- Powder coat finish

## **THREE WHEEL SWINGER**

### **FRAME**

- 2-3/8" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

### **WHEELS**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

## **RUNG LADDER (FREESTANDING ONLY)**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

## **HORIZONTAL LADDERS (STANDARD / 180 DEGREE / 360 DEGREE)**

### **TOP RAIL**

- 2-3/8" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

### **END PIPES (where applicable)**

- 1.9" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

### **HAND RAILS**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**PLASTICS (TUBES / SLIDES / HEX ROOF / PYRAMID ROOF / HOODS / SPINNERS  
CRAWL TUNNELS / COLORED LANDSCAPE TIMERS / SPRING ANIMAL BODY/ ADA  
LANDSCAPE RAMP/ TORTOISE CLIMB/ TIRES)**

- 1st quality linear low density Polyethylene (LDPE) – ExxonMobil LL8450
- Rotational molded
- 3/8” wall thickness
- 2,550 psi tensile strength (ASTM D638)
- Mold-in graphics
- UV stabilized / UV 8 Rating (tested per ASTM G155 cycle 1 guidelines)
- Anti-static inhibitors

**BRIDGES**

**Arched Bridge**

**BRIDGE**

- 12 gauge HRPO steel
- Perforated surface
- Plastisol coating
- Perforated surface - approx. 5/8” diameter spaced 1.25” apart o.c.

**HAND RAILS**

- 1-1/4” O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**Suspension Bridge**

**BRIDGE**

- 12 gauge HRPO steel
- Perforated surface - approx. 5/8” diameter spaced 1.25” apart o.c.
- Plastisol coating

**HAND RAILS**

- 1-1/4” O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**Chain Bridge**

**BRIDGE**

- 4/0 (.218”) STR Coil H galvanized chain
- Plastisol coating
- 7/8” O.D. x 18 gauge wall thickness tubing

**HAND RAILS**

- 1-1/4” O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**Challenge Bridge**

**BRIDGE**

- Poly Sheet

- 1-1/4" O.D. round steel tube
- Powder coat finish

**HAND RAILS AND VERTICAL PICKETS**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**Lily Pad Bridge**

**BRIDGE**

- Poly Sheet
- 1-1/4" O.D. round steel tube
- Powder coat finish

**HAND RAILS**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**VERTICAL PICKETS**

- 2-3/8" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**Inch Worm Bridge**

**BRIDGE**

- Poly Sheet steps
- Rubber torsion spring
- 2-3/8" O.D. round steel tube
- Powder coat finish

**HAND RAILS**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

**GATED ENTRY**

- 1-1/4" O.D. pipe
- Pre-treatment wash primer
- Powder coat finish

**RUBBER TORSION SPRINGS (INCH WORM BRIDGE / SEE SAW)**

- 4 specially compounded rubber cords encapsulated between an outer metal tube and a solid inner core
- Self-dampening
- Reduced shock transmission
- Absorbs vibration
- No pinch points
- Progressive loading

## **SPRING ASSEMBLY FOR RIDERS**

### **COIL SPRING**

- 5160H steel alloy
- Carbon Chromium grade of spring steel
- 5-3/4" O.D. spring
- 13/16" O.D. bar
- Pre-treatment wash primer
- Black powder coat finish

### **C SPRING**

- 3/4" thick steel
- Conforms with ASTM A36-77A
- 58,000 psi tensile strength
- 36,000 psi yield strength
- Pre-treatment wash primer
- Powder coat finish

## **SLIDES (TRIPLE RAIL / 90° CURVE / DOUBLE WALL / DOUBLE WIDE / WAVE / CHUTE / ALPINE THUNDER / SPIRAL / TUBE SLIDES)**

- 1st quality linear low density Polyethylene (LDPE) – ExxonMobil LL8450
- Rotational molded
- 3/8" wall thickness
- 2,550 psi tensile strength (ASTM D638)
- UV stabilized
- Anti-static inhibitors
- Triple Rail / Double Wide slide mount on 48" wide deck (use 3'x4' rectangle deck on Adventure Series)

### **SLIDE FOOT**

- 3.5" O.D. support post
- Pre-treatment wash primer
- Powder coat finish

### **SLIDE SUPPORT**

- 3.5" O.D. galvanized steel support post
- Post manufactured per ASTM 500
- Plate manufactured per ASTM A90, A568, A902, A924, D2092, E517, E646 and ISO3575
- Pre-treatment wash primer
- Powder coat finish

### **LOG ROLL**

#### **LOG**

- Plastic

### **GRAB HANDLES**

- 1-1/4" O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

### **TORTOISE CLIMBER BRACKETS**

- 16 gauge mild steel

### **CLIMBER (WIGGLE POD)**

#### **WIGGLE POD STEPS**

- 12 gauge HR steel
- Perforated surface
- Plastisol coating

#### **GATED ENTRY**

- 1-1/4" O.D. pipe
- Pre-treatment wash primer
- Powder coat finish

### **CLIMBER (EDUCATION)**

#### **EDUCATION CLIMBER**

- Plastic
- Mounts on 48" wide deck (uses 3'x4' rectangle deck on Adventure Series)

#### **GATED ENTRY**

- 1-1/4" O.D. pipe
- Pre-treatment wash primer
- Powder coat finish

#### **WIDE SLIDE FOOT**

- 1-1/4" O.D. pipe
- 12 gauge galvanized steel L-bracket
- Pre-treatment wash primer
- Powder coat finish

### **CLIMBER (BEDROCK)**

#### **CLIMBER**

- Plastic
- Mounts on 48" wide deck (uses 3'x4' rectangle deck on Adventure Series)

#### **GATED ENTRY**

- 1-1/4" O.D. galvanized pipe
- Pre-treatment wash primer
- Powder coat finish

**CLIMBER (CLOVER, COIL, SNAKE, TREE, DEEP RUNG ARCH, MOUNTAIN, RUNG LADDER, SLIDING POLE)**

**CENTER POLE**

- 1.66" O.D. galvanized pipe
- Pre-treatment wash primer
- Powder coat finish

**HAND/FOOT RUNGS**

- 1-1/4" O.D. galvanized pipe
- Pre-treatment wash primer
- Powder coat finish

**GATED ENTRY**

- 1-1/4" O.D. pipe
- Pre-treatment wash primer
- Powder coat finish

**BRACKET**

- 9 gauge galvanized flat steel
- Pre-treatment wash primer
- Powder coat finish

**CLIMBER (CARGO NET)**

**CLIMBER**

- 4/0 (.218") STR Coil H galvanized chain
- Plastisol coating
- 7/8" O.D. x 18 gauge wall thickness tubing

**BRACKET**

- 9 gauge galvanized flat steel
- Pre-treatment wash primer
- Powder coat finish

**CLEVIS CONNECTOR (SH-40)**

- Galvanized, forged steel
- Tamper resistant – special tool required for install
- Galvanized hex pin shoulder bolt

**GATED ENTRY**

- 1-1/4" O.D. galvanized pipe
- Pre-treatment wash primer
- Powder coat finish

**CLIMBER (LILY PAD)**

**LILY PAD**

- Poly sheet

**GATED ENTRY**

- 1-1/4" O.D. galvanized pipe
- Pre-treatment wash primer

- Powder coat finish

### **SUPPORT POSTS**

- 3.5” O.D. galvanized pipe
- Pre-treatment wash primer
- Powder coat finish

### **PIPE WALL**

- 1-1/4” O.D. galvanized steel support post
- Pre-treatment wash primer
- Powder coat finish

### **STAIRS**

#### **TREADS & STRINGERS**

- 12 gauge HR steel
- Perforated surface – 1.25” o.c. between perforations
- Plastisol coating

#### **ROD**

- 1/4” diameter rod

#### **HANDRAILS & GATES**

- 1-1/4” O.D. pipe
- Pre-treatment wash primer
- Powder coat finish

### **BALANCE BEAM (ZIG ZAG & STRAIGHT)**

#### **BEAM**

- 4” O.D. square steel tube
- Pre-treatment wash primer
- Powder coat finish

#### **SUPPORT POSTS**

- 2-3/8” O.D. round steel tube
- Pre-treatment wash primer
- Powder coat finish

### **TRAPEZE BAR**

#### **BAR**

- 1.25” o.d. round steel tube
- Pre-treatment wash primer
- Powder coat finish

#### **TRAPEZE RING**

- A-09 ring
- Blue Plastisol coating
- Grip diameter: 1-1/4”
- Complies with ASTM and CPSC requirements

## **DOMES**

- GE Plastics Lexan XL-10
- 1/8” thick
- Vacuum formed
- UV stabilized
- Crack/Break/Shatter resistant
- Self-extinguishing
- UV-94-HB fire rating

## **SHADE STRUCTURES**

- 100% Virgin Polymer (high density polyethylene, polyester or polypropylene)
- Warp Knitted fabric (Rachel or tricot type)
- Fabric shall be stentered (heat set) during manufacture
- The knit structure shall be a minimum of 16 gauge / maximum of 24 gauge
- Tested in accordance with ASTM D 5035, ASTM D 2261, BS 6906: Part 4
- Minimum initial shade cover levels of 75% - 90% depending on color
- Minimum initial ultraviolet blockout levels of 86% - 92% depending on color
- Minimum lifespan of 10 years against UV degradation and shall have a minimum breaking strength of 50% of its initial breaking strength when tested in accordance with ASTM D5035 after 8 years of exposure to sunlight

## **PRE-TREATMENT WASH PRIMER**

- 4860-420 primer / 1000-44 activator
- Polyvinyl-butyril resin based primer
- Used on all mild steel and all weld joints
- Designed to give adhesion along to a wide variety of metal substrates
- Provides added metal protection against rust
- Imparts extra durability to topcoat (powder coat)
- When reduced properly, it meets the definition of a “pre-treatment” primer found in many air quality regulations

## **COATINGS**

### **Powder Coating**

- TGIC polyester
- Electrostatic application
- Baked-on @ 400 degrees
- 5-7 mills thick
- Lead free
- High gloss
- No peel / No flake finish
- Resistant to salt spray (ASTM B-117)
- Resistant to humidity (ASTM D-2247)

- Direct/Indirect impact 120 in. pounds (ASTM D-2794)
- Good to excellent resistance to most solvents, oils, acids and alkalis

#### **Plastisol Coating**

- MISTAFLEX V4612
- 80-100 mills thick
- Shore A, 65-70 durometer min. hardness (ASTM D2240-66T)
- 1,000 psi minimum tensile strength (ASTM D638, ASTM D412)
- Resistant to abrasion (ASTM D4060)
- UV stabilized
- Self-extinguishing
- Shows less dirt
- Increased traction