

CLASSROOM FRAMES REFERENCE SHEET



CLASSIC FRAMES

Frames are fabricated from welded steel tubing with a premium smoothness to provide a lustrous plated surface on the finished furniture. Tube size and wall thickness have been selected for maximum strength balanced with minimum weight. Frames are designed with long continuous lengths of tubing such as the single piece front legs and back on all chairs to minimize reliance on welds for strength. Multiple welds between parallel tubes insure the integrity of the basic frame. Desk frames utilize a U shaped tubing configuration under the top of book box to provide the greatest possible legroom. All intersecting tubes are inserted into holes in the mating component prior to welding to provide added strength. Gas shielded metal arc welding is used for all joints to assure the greatest strength of the completed frame.



DESKS

Frames are 1" – 18 gauge tubing with 3/4" – 18 gauge reinforcing stretcher inserted into and welded to the rear legs. Adjustable height desks have 7/8" – 18 gauge inserts securely locked in place with #14 self threaded screws. High shoulder, 1.25" full swivel glides are standard (see Glides reference).



CHAIRS

The basic student chair with 1" – 18 gauge frame is formed from two pieces of tubing paralleling each other and welded beneath the seat. The frame is contoured to fit the shape of the 5/8" thick solid molded melamine back.



FINISHING

The finish is applied after all assembly and welding has been completed so that there are no exposed or painted-over welds. Chrome on nickel plating provides the most durable finish available for classroom environments. Optional powder coated frames offer the opportunity to coordinate color in the classroom and provide the most durable organic finish available today. The manufacturer has extensive experience in electroplating and pioneered the use of powder coating for school furniture.



VISA AND OPTIMAX

1 3/4" oval frame provides superior durability and strength in a sturdy design. The 16 gauge steel tube legs provide a superior build to the standard chrome furniture. T leg base design provides student with dual access to work surface and optimal leg room for the comfort and ergonomics these products were designed to incorporate. Thru bolt construction of 1.5" stretcher bar gives additional support to the already tough design and further support for desking surface.

Black, injection molded frame caps keep hollow frame clear of dust and dirt and give frame a streamline, accented appearance. Powder Coat finish.



C FRAME (CHAIR AND DESK)

Unique cantilever design provides stability and strength in a one-piece, weldless frame making for zero weak points. Composition is of 1.25" diameter, 13-gauge steel tube. Rotary bent into shape for a durable structure, uniform shape and maximum strength. Triple U bracket connection to worksurface. Powder coat or chrome plated finish. Available with felt inserts for smooth and quiet floor connection.



5 STAR BASE

Height adjustment and tapered lift give all standard Vanerum•Stelter shells the adjustability to accommodate proper ergonomics and back posture for students and teachers of all sizes. Adjustment controlled with single lever for gas cylinder activation.



4 LEG (AIRLEY, VIGGO, AIRGO, SOLIWOOD)

20mm thick walled steel tubing provides superior strength in a thin profile frame. Protective bumpers protect shells when stacked. Standard finish is

Vanerum•Stelter wear resistant powder coat paint. Using Finite element analysis passes BIFMA and 500 pound lean tests for front, back and side stress pressure applied

- BIFMA Front deformation scale: 5.0247
- BIFMA Side deformation scale: 4.32045
- 500 lb. lean to back deformation scale: 1
- 500 lb. lean to side deformation scale: 5.72857



SLED BASE

WIRE (AIRLEY, SOLIWOOD)

Thin profile of the wire frame provides strength and stability in a design that allows the chair to be stacked 20 high. The Airley and Soliwood shell options sit securely on a 1/2" wire frame with a 4 screw connectivity to seat. Wire welded to two connection plates. Available in standard black powder coat finish or an optional chrome finish.



TUBULAR (VIGGO)

Continuous tube construction welded to two cross braces for seat mounting. 3/4" tube is composed of 13 gauge, powder coated steel and is thick walled for strength and stability. The design of the frame allows it to stack 5 high without any damage to shell.

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POWDER COAT

The powder coat process is an innovative surface finishing technique used to protect the metal of all our products.

THE PROCESS

The paint starts out as a powder and is first electrostatically charged, making the particles of the powder stick to the unfinished, metal surface of the frame. Using a powder paint gun, the surface is sprayed with the mist of powder coat. The frame is then heated under intense temperatures, melting the powder particles together to form a continuous film that smoothly colors and protects the metal.

WHY POWDER COAT?

High specification coating is hard, abrasion resistant, and tough. Unlike liquid paints, powder coat paints are not composed of Volatile Organic Compounds (VOCs). Which means, powder coat paints do not use hazardous alcohol aerosols. Endless color options beyond our standard four metal finishes are available.



CHARCOAL METALLIC

MFG name – 4798 Sterling
MFG number – 82041H40A C
MFG – IVC Powder Coatings



SILVER METALLIC

MFG name – Silverado
MFG number – HS-129G
MFG – Prism Powder



BLACK

MFG name – IVC
MFG number – 81598H40K



GREY

Medium Grey 30 gloss



SUSTAINABILITY

Being green is important to us, that is why we are committed to the following sustainable manufacturing processes.

100% of our steel scrap is recycled for use as steel mill raw material.

Our plating recovery system is state of the art and separates the metals from the water being discharged. The water and chrome metal waste that is separated out is sent to a smelter where it is recycled for use as feed stock in the manufacture of stainless steels.

The organic finishes that we use are applied in a powder coating system which gives off essentially no volatile organic compounds and the powder that is not electrostatically captured on the part during the first coating is captured and recycled to coat subsequent parts so that there is no discharge of organic product in the facility.

Other incidentals from the manufacturing such as corrugated cartons from incoming materials, waste lubricating oils from machinery, etc. are also recycled into new kraft paper, furnace fuels. ect.