

## Easy-Open Counter-Weighted Doors

**The Application:** A customer required a frame and enclosure for an X-Y table with a laser-etching system. It must be capable of supporting several hundred pounds of weight, with a lightweight vertical door which the operators could repeatedly open without much effort.

### The FRAME-WORLD Solution:



Utilizing our *FrameQuoter* software, FRAME-WORLD designed and built the enclosure pictured at left. The sturdy frame is made of heavy duty 3" x 3" (EX-3) extrusion.

The counter-weighted door is constructed using 1.5" x 1.5" (EX-6) lightweight extrusions, with a clear polycarbonate panel. The counter-weights are 1" by 1" steel mounted on a (EF-77) slider track.

The resulting structure meets all of the customer's requirements; the door can be raised and lowered with literally one finger.

The cable and pulley system mounts to the top of the enclosure with simple machining, shoulder bolts, and bushings.



The door is equipped with a safety switch and a mechanical latch.

