

Clamp/Bench-clamp/Spreader/Helping-Hand for Small Delicate Objects

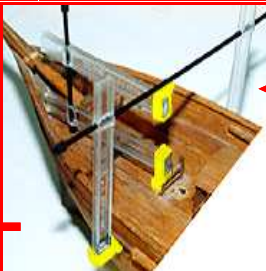
With a Bema MultiClamp[®], two fingers are enough to clamp, stabilize or spread on the first try, but durably, small delicate objects, even protuberant ones, without damaging those objects. Until now, that was impossible. Exclusive skin-like springy buffers at the end of the jaws allow it and conform to awkward shapes. You can clamp with even a minute amount of force and that holds. In fact, you control exactly the clamping effort⁽¹⁾. A MultiClamp[®] locks automatically⁽⁸⁾. It is incomparably lightweight⁽⁴⁾ and sturdy. This is due to the use of materials more commonly used to build modern aircraft, such as carbon fibers⁽²⁾. It is also the sole clamp which has an anti-damage safety⁽³⁾ and a variable geometry (span⁽⁵⁾ and depth⁽⁶⁾). It can work as a clamp and as a bench-clamp, upright or leaning, to stabilize or secure.

It can also spread in a flash even inside a close space.

It offers the unique helping-hand with a large and parallel span,



that clamps, spreads without leaving a mark, and is stable⁽⁷⁾.



It permits in combination 3-way and angle clamping.



It is a single-hand clamp.

It is the lightest clamp on the market⁽⁴⁾ and it cannot rust. Unconditional guarantee. For more info, please contact Zona Tool using toll-free phone# 1-800-696-3480, fax# 1-203-790-9832 or visit the website: www.zonatool.com.

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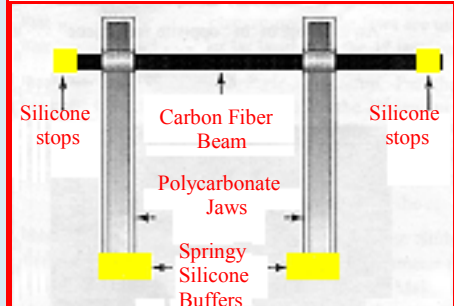
(1) The jaws are built for remaining perpendicular to the beam when they slide along it. As a result, they move parallel to themselves. So any point along each jaw has same displacement. Because of work (=force x displacement) conservation, the strength of your fingers or arms is exactly translated upon the object being clamped.

(2) The clamp beam uses high-density carbon fibers. That allows the beam to be light, strong and flexible. The jaws are made of the same type of polycarbonate as the one used in bulletproof windows. The buffers on the ends of the jaws use a type of silicone, which is springy enough to avoid damaging the work and to allow resistance to vibrations. Silicone is also heat resistant (it is normally used for oven gaskets). So the clamps may be used for soldering and welding, provided the flame is not constantly focused on the jaws and buffers. Hot-air guns will not harm the clamp.

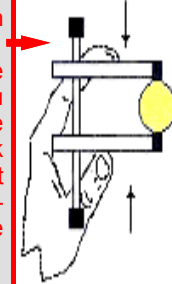


Technical Features and Directions For Use of the Bema MultiClamps[®]

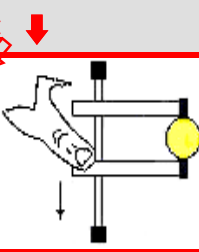
- (4) - A multiclamp[®] weighs less than 3/8 oz.
- Jaws remain parallel to each other.
- Jaw depth may be reduced from 3" to 1 1/2"⁽⁶⁾.
- Span is variable from 0 to 2" (short clamp) or 7" (large clamp), and maximum span is extendable⁽⁵⁾.
- Components are heat-resistant if direct contact with flame and soldering-iron is avoided.
- Jaws and buffers may be protected against any solvent, by coating them with liquid soap or shampoo.
- Beam diameter is 1/8"



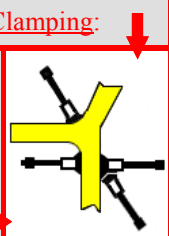
A. Set-up: (8) Push the jaw backs, near the beam, toward the object. As soon as you stop applying pressure the jaws instantly lock against the beam. First clamp down on a finger nail to test the clamping force.



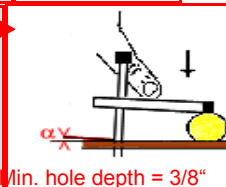
B. Release: Slide one jaw end apart.



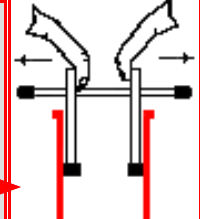
C. Angle Clamping: Use the side of a buffer to support another clamp.



D. Bench-clamp: Slide a stop and a jaw off the end of the beam. Drill a 1/8"-diameter hole in a board and insert the beam into

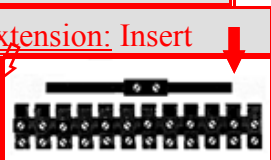


E. Spreading: Reverse the jaws on the beam and push them apart. For 3-way clamping, press against another MultiClamp[®] beam for support.

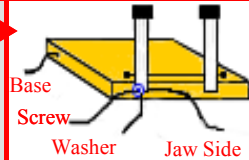


hole. Push the remaining jaw-back, near the beam, towards the object to be clamped, while keeping the beam against the hole rim opposite the object. For a stronger clamping, increase the α angle from zero up to 8°30 or so. Hole depth should be 3/8" or over.

G. (5) Span Extension: Insert beam halfway into connector and tighten connector screw.



F. (7) Side Helping-Hand: Secure one jaw-side end under a washer squeezed by a screw against a base made of wood, metal or even plastic.



H. (Spreading Span Reduction: Slide on the back of the jaws additional short beams under regular buffers; slip on outer end of these beams additional stops and use them as buffers.

(3) Safety: Damaging force cannot be transferred to the object being clamped. If too much force is exerted on the jaw backs, automatically the jaws twist off. But mind! This safety appears only in clamping configuration. As a result in bench-clamp and spreading configurations, you can press much harder. Control of the clamping force is then only available as a safety.

(6) You can slide buffers up and down the jaws to adjust clamping depth. If buffers do not easily slide, coat the inside with talcum powder. If they slide too easily, soak in detergent.