

NATIONAL SWAGING MACHINE AND DIE WARNING, USE, MAINTENANCE AND APPLICATION INFORMATION

National Four Post Swaging Machine



⚠ WARNING

- Misuse of swaging machine can result in serious injury or death.
- READ, UNDERSTAND, AND FOLLOW all the information in this warning document and the instructions shown in "Wire Rope End Terminations User's Manual" before operating the swaging machine.
- Swaging machine operators must be trained in accordance with the information supplied by The Crosby Group LLC. THE SWAGING MACHINE OWNER IS RESPONSIBLE FOR THE TRAINING AND THE SAFE OPERATION OF THE SWAGING MACHINE.
- Do not swage oversize parts.
- Only swage parts of the proper design, material and hardness.
- If misused, dies and/or die holders may break. PROTECT YOURSELF AND OTHERS: Always stay away from the sides of the swaging machine during swaging operations and alert others in your work area.
- Do not shim between dies.
- Do not shim die or die holder unless swaging aluminum sleeves.
- Do not use die holders that are damaged or have loose side rails or side plates.
- Tie rod nuts must be secured to the tie rods with a secondary retention system.
- Keep head, hands, and body away from moving swaging machine and die parts.
- Consult die manufacturer for correct use of their product.
- Adjust swaging machine tonnage to the Working Load Limit (WLL) tonnage shown on the die block being used. If the Working Load Limit is not legible, refer to Die height & width and corresponding Working Load Limit (See Table 1). Failure to do so can result in serious injury or death.

Operation Safety

- NEVER use dies that are cracked, worn or abraded (galled).
- NEVER use dies that have an oversized cavity.
- ALWAYS use a matched set of dies.
- When swaging steel fittings, DO NOT SHIM DIES. Dies for steel fittings must be free to float and align one to the other.
- When swaging aluminum fittings, THE STEEL DIES MUST BE SHIMMED. Shim the side of the die to ensure the proper cavity alignment for flash removal.
- NEVER shim between the dies.
- When Swaging Crosby National fittings, use only the proper capacity swaging machine for the size of fitting used (See Swaging Capacity Chart). If the swaging machine capacity exceeds the die block Working Load Limit rating, adjust the swaging machine tonnage to the Working Load Limit shown on the die block being used. See Table 1 for die block Working Load Limit.
- Always use the correct size and type of die for the size wire rope fitting used.
- Make sure that the manufacturer's die retention locking pin, bolt, or other device is engaged and has secured the die before swaging. Make sure that the dies are straight, parallel, and perpendicular to each other before and during the swaging procedure.
- Always lubricate die faces and cavities with light weight oil.
- Progressive swaging of fittings must be done in accordance with procedure shown in "Wire Rope End Terminations User's Manual". Only open channel dies are to be used.
- Stop swaging when the cavity side of both dies touch. Observe the die closure from above and slightly to the side. The best position is to stand 45 degrees to either side of the front.
- Make sure part is swaged to the recommended after swage dimensions (See Crosby General Catalog or "Wire Rope End Terminations User's Manual", Die Guide, or Die Chart).
- If a swage fitting other than a Crosby National is used, determine adequacy of the termination by a destructive pull test.
- All swage sockets must be swaged with socket head adjacent to the socket relief (largest radius) on the die.
- For special applications or conditions, contact Crosby National (501)962-3112.

Die Size (Height x Width)	Working Load Limit (WLL)*
2" x 3-1/2"	200 Ton Mark Series
2-1/2" x 4"	200 Ton National
2-1/2" x 5"	500 Ton Mark Series
4" x 7"	1,200 Ton Mark Series
5" x 7"	1,500 Ton National
6" x 12"	3,000 Ton National

* Note: These Working Load Limits are for Crosby® National Die Blocks only. The Working Load Limits of die blocks from other manufacturers may vary.