

UNIVERSAL WELDING HEAD MANIPULATORS (Column & Boom)

MANUPULATORS MAX. UP TO 12M X 12M SIZE



AMIN
AMIN MACHINERY PVT. LTD.

UNIVERSAL MANIPULATOR.

FEATURES:

BASE: Model RC

The stationary base is of robust fabricated with a substantial top-plate giving maximum rigidity. The base design permits free-standing operation of the machine, even when the Boom is fully elevated and extended,

TRAVERSING CARRIAGE: Model TRC

The Carriage may be supported on four single flanged track wheels or two double flanged and two plain wheel; the latter ensuring accurate tracking essential when welding with the machine traversing. Constant or variable speed drive may be provided.

COLUMN :

Consisting of an extremely rigid box section and provided with machined slideways for the Saddle elevation. The vertical slideways and their rollers are of ample width to minimise wear and ensure smooth vibrationless travel. The Column is supported on a crossroll bearing permitting 360 degrees manual rotation and is pre-loaded to eliminate 'play' thus reducing boom deflection. Column locking clamps are also provided to secure it when the boom mounted welding head is correctly positioned. Where motorised column rotation is required, the crossroll bearing has an integral spur gear with drive through an AC motor and reduction gearbox. Lifting eyes or hooks are fitted for use by overhead crane.

SADDLE:

The saddle further minimise boom deflection by added internal stiffeners and wide roller assemblies. Eight roller assemblies facilitate the boom elevation and traverse movements, each assembly having two rollers. Each roller is supported on two pre-loaded Taper roller bearings carried on an eccentric shaft, thus permitting adjustments for wear and ensuring vibrationless travel of the boom. Saddle elevation is achieved through a high torque AC geared motor incorporating an electro-magnetic brake with final drive by rack and pinion (chains as used on competitive models are eliminated). Furthermore, the drive being incorporated in the Boom Saddle and not at the top of the column as with chain elevation machines, provides accessibility for maintenance from floor level. The Boom/Saddle/Welding Head are fully counterbalanced by a weight inside the Column and are connected to it by a heavy duty wire rope, with a 7:1 safety factor. Fitted to the Saddle is a fail-safe device, which prevents the Boom/Saddle from falling in the unlikely event of rope failure. The variable speed boom traverse drive, is also incorporated in the Saddle. Saddle mounted roller assemblies support the Boom 'Vee' slideways to eliminate twist and ensure smooth traverse.

BOOM:

Booms are designed to be as light as possible commensurate with rigidity. Controls mounted at end of Boom, includes pushbutton and speed controls for the AC / DC variable speed drive and elevation. Speed indicators may also be incorporated if required.

Column & Boom welding Manipulators

Models:

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| (1) 3 PCB (Manual/Motorised) 1.8 m x 0.7 m to 1.8 m x 1.2 m | (5) RC - Universal (Fixed Base) 4 m x 3 m to 6 m x 5 m |
| (2) 2 / RMB (Free Standing Base) 2 m x 2 m | (6) TRC - Universal (Traversing) 4 m x 3 m to 6 m x 5 m |
| (3) 3 / RMB (Free Standing Base) 3 m x 2.5 m to 5 m x 4 m | (7) 1RC - Heavy duty (Fixed Base) 6.1 m x 5 m to 12m x 12m |
| (4) 3 / TRMB (Traversing) 3 m x 2.5 m to 5 m x 4 m | |



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