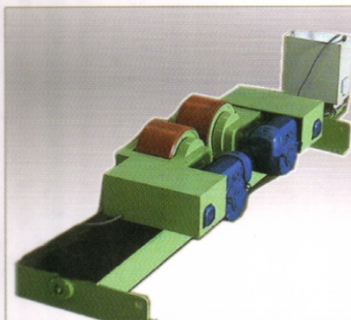


STANDARD WELDING JOB & HEAD MANIPULATORS
CUSTOM BUILT WELDING SOLUTIONS
MATERIAL HANDLING SYSTEMS
HEAVY FABRICATION



ABOUT US

Overview

In today's competitive market the key words in industry are higher volume, better quality products at lesser manufacturing & competitive cost.

Keeping this in mind AEI, started this company by pooling in more than two decade's experience in fabrication industry & process knowledge

At Anvin we couple the above with new creative ideas to find innovative and unorthodox solutions to welding and automation problems. Here at AEI we have our team of experts who are committed to provide you total satisfaction through specially engineered solutions. AEI automation offers advanced, rugged, and operator friendly solutions at affordable price. These inputs will take care of improved through put time, repeatability, better quality and most important, transfer the skill from the operator to equipment / process. Our key word is to provide solutions to achieve higher productivity, lesser rejection and thereby a healthier bottom line.

Our Team

We have a team of experts with a combined experience of 150 years in this field who can understand your requirement, design and manufacture tailor made non-standard products and special purpose machines. The cumulative knowledge and expertise of our team have helped our clients to exceed their own customer's expectations.

Infrastructure

Our modern infrastructure as well as expertise of technical team allow us to successfully meet the specific requirements of our clients. With the right kind of technically advanced range of production machineries / equipments we can meet international standards of quality, reliability and precision in our product.

Mission at AEI

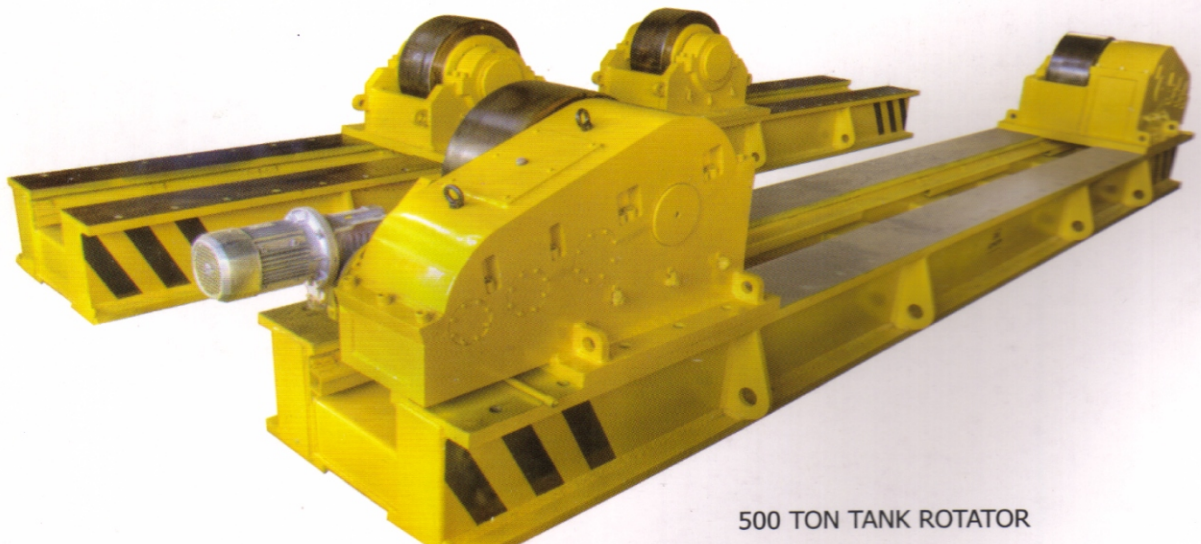
Upgrade the process technologies on a continuous basis to meet customers requirement at appropriate cost and within agreed time frame. Develop lasting relationship by meeting the customers expectations every time.

Quality Policy

To meet or exceed customer's expectation every time and continuously set higher quality norms to improve the effectiveness of the quality system.

Roadmap to achieve above:

- Collecting and implementing customer feedbacks.
- No product returns by ensuring right first time philosophy.
- On time delivery by taking steps to avoid bottle necks.



500 TON TANK ROTATOR

STANDARD PRODUCTS

We manufacture high quality rotators which are being used with various processes such as SAW/ TIG/MIG/ARC/etc., capacities upto 2000 Tons.

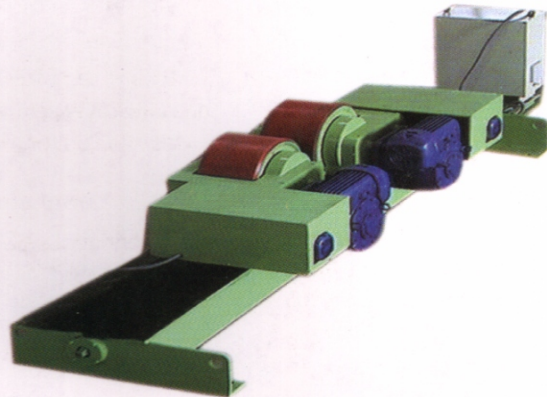
Steel rollers or polyurethane lined rollers are provided as per application. For higher capacity rotators forged rollers are provided.

- Our standard Rotators consists of drive unit and idler unit. The frame and roller brackets are fabricated with heavy sections, stress relieved and precision machined.
- Overload disc to protect polyurethane roller.
- Steplessly variable surface speed from 75 to 1500 mm/m or higher ratio and controlled through AC Variable frequency drives. For precision movement encoder feedbacks are provided on case to case basis.
- Forward / reserve rotation and emergency stop facility on panel.
- Operator pendant with forward/ reserve inch or run speed variation and stop functions.
- Self Aligning, Self Centering with Twin Drive, Manual adjusting type (Coupling shaft) with single motor and special custom based rotators and other classifications suiting to different requirements and covers the entire range upto 2000 Ton Capacity.

Application :- Welding of Pipes, API pipes, Boilers, Heat exchangers, Pressure Vessels, Mounted vessels, LPG Bullets, Barrels, Tanks etc.

Advantages :-

- An indispensable tool for shell fabrication shops.
- Attains exceptional quality circumferential joints on shells.
- Increased production with reduced labour skill.
- Leads to minimum handling the Shell / Job .
- Lesser usage of crane reduces idle time.
- Improves plant efficiency.
- Welding automation.



There are three Main Categories of Rotators :

1. The Conventional (Coupling Shaft) Type : Model 'CSR' SERIES

Main base frames are fabricated and stress relieved before machining. There are two Roller Beds, the Drive and Idler unit each. The precisely machined (on boring machine) Roller Brackets are bolted on the roller beds. In this type of machine one of the roller bracket is fixed at one end of the bed and the other is moved to suit the job diameter. Shafts of different lengths are provided to cover the diameter settings.

2. The Self Centering types:- Model 'SCR' - SERIES

Construction of the machine is similar to that of conventional type Rotators. However, the Roller Housing Brackets in this are supported directly on the machine bed and are attached to the bed only with an L.H./R.H. Lead Screw and nuts. When the Lead Screw is rotated with the ratchet handle, the Roller Brackets move simultaneously towards each other or away from each other. In this series there will be twin drive arrangement. This type of design provides simultaneous and step less adjustment of the Roller housings, and keep the job axis always at the same position irrespective of diameter setting.

3. The Self Aligning Types :- Model 'SAR' - SERIES

Self Aligning Rotators automatically adjust the Roller Housings to accept any job diameters within the specified diameter range. This type of machines are generally used to cope with the change in shell diameter, job to job. The roller housings of this type of machine are hinged to the beds and open up automatically when a larger diameter job is introduced. In this type of rotator, each roller bracket assembly has two separate roller assemblies, and thus supports the job on a wider area. The final drive is given to both the 2-sets of rollers of the Drive Unit, provide better traction to the job. However, in this case a de-clutching arrangement is provided to the top rollers, in order to protect the gear boxes, as when the job hits the top rollers first while loading, there is a tendency of rotating the top rollers where as it is locked by the gear boxes.

NOTE :- Please refer to standard specification chart for all our standard models.

STANDARD PRODUCTS

Welding Positioners align the job to the best position for down hand welding for non circular jobs or for rotating circular jobs

Features:

Light Duty Series

- Ideally suitable for small jobs in the range of 50kg to 150kg.
- Designed to give accurate and controlled movement.
- Job can be tilted to any side for convenient operation.
- Face plate rotates with variable speed.
- Available with optional accessories like torch stand, foot switch & operator pendant etc.



Medium & Heavy Duty Series

Covers wide range of jobs starting from 250kgs to 250 Tons. Designed and Manufactured for trouble free and easy operation. Fabricated with heavy sections which avoids defection under loads resulting in vibration free and smooth operation. Anti-fall arrangement for face plates gives additional safety. Positive locking tilting arrangement with instant braking arrangement ensures safety and accurate positioning. Rotary drive with AC Variable Frequency Drive (VFD) provides steplessly variable speed from 0.1 to Irpm for face plate. Earthing Arrangement with wear compensation gives uninterrupted welding as well as safety to the positioner elements. Tilting arrangement from horizontal 0 to 135 degrees ensures approach to all joints.

Main Advantages :

- Easy positioning of odd shaped jobs for downhand welding.
- Allows maximum flexibility in job handling.
- With minimum handling, maximum accessibility to joint is assured.
- Eliminates frequent usage of crane, reducing idle time.
- Increased production with reduced labour.
- Single handed job manipulation and welding reduces labour cost.
- Improved weld quality (even with unskilled operator) reduces weld defects and rejection.
- Adaptable for automatic or manual welding.
- Convenient for assembling intricate sub-assemblies.
- Ideal for use in conjunction with Column & Boom.

Special Features of our Design :

- Extremely Stable and 'Free Standing' with the rated load.
- Rugged & robust Design / Construction. Enhanced 'CG' rating due to specific design, lowering the distance to the 'Pivot point' from table.
- Forced diversion of 'Earth return current' off the spindle bearings, avert bearing damage.
- Activation of mechanical 'Stoppers' in case of limit switch failure.

Standard Capacity Ranges :-

Load capacity - 25 Kgs. to 250 Tones Table Rotation - A.C./D.C.variable speed OR A.C Fixed speed version

Other Options:

Head Stock - Tail Stock setups.
Elevating type (adjustable table height)
Positioners
Turn tables
(Fixed Horizontal or Vertical tables)

Optional Features :-

- Degree of tilting angle can also be - 45 to +90 degrees to the horizontal.
- Face plate diameters more than the standard versions. Please specify, for such requirements.
- Also mention, whether extension arms can be used to accommodate increased diameter.

NOTE: Please refer to standard specification sheet for all our standard models.

STANDARD PRODUCTS

We offer to our clients a wide range of precision manufactured welding manipulators that are widely used in varied industries for welding purposes.

Known for their efficient performance and accuracy, our products come in a wide range of choices and successfully meet the expectations and varied requirements of our clients.

We manufacture Column & Boom for manipulating welding heads/ torches used for various welding application.

Features

- Rugged Construction.
- Wide Based & Lockable 'Swivel Base is to enhance Stability.
- 'Fail Safe' anti-fall mechanisms in all models.
- Minimum Deflection even when 'Boom' extended fully.
- Precise 'Jerk free' vertical & horizontal movements.
- Over rated, pre-loaded and dust protected bearing arrangements.
- Operator's seat at conveniently placed location.
- Option for Chair for operator on heavy duty models.

Main Advantages

- Increased Production
- Allows maximum flexibility to welding head manipulation
- Better weld quality with reduced labour.
- Dependable even for most critical weld quality.
- Assured high quality welding with non-dependent on operator's skill
- Essential toll for automatic / semi-automatic welding.
- Indispensable for pipe / vessel fabrication shops.
- Ensures 360-degrees radial accessibility to welding head, covering vast area in the shop.
- Trolley car mounted version gives accessibility to the full shop length.
- Easy high quality automatic circumferential or longitudinal seam welding in conjunction with Rotator or Positioner.



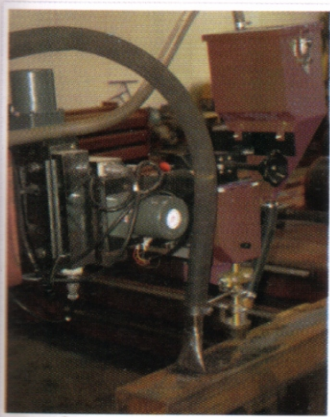
Optional

Base with AC fix speed(speed-1200mm/Min.) 'trolley car' type, movable on rail track.

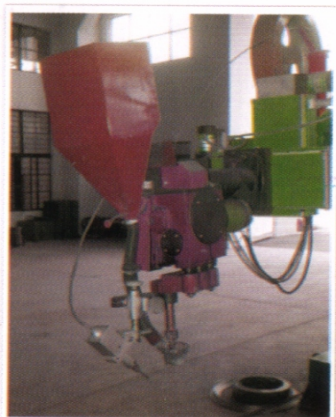
Operator's chair, Walkway for all model.

Motorized column swiveling, from 0 to 360 degrees.

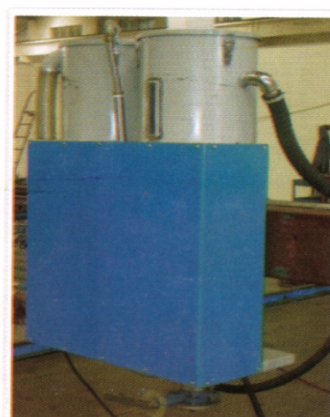
Integration of control panel with Welding head, Seam tracker and Flux recovery unit.



Boom mounted welding head



Welding head with seam tracking



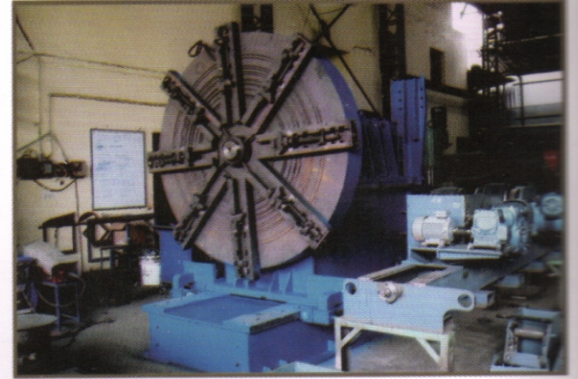
Flux recovery unit

CUSTOMIZED SPECIAL PURPOSE MACHINES

We at Anvin design and manufacture customized products used for various welding requirements.

Below are some of Customized Special Purpose Machines designed and manufactured by us.

Corrugation machine is used in major boiler industries. This system was designed and manufactured for replacining furnace with welded reinforcement rings.



CORRUGATION MACHINE

HEAD STOCK / TAIL STOCK POSITIONER



Head Stock Tail Stock Type positioner was designed and manufactured for positioning chasis of dumper trucks.

Plate welding system is used for plate to plate joining. This system was manufactured for well known brand in the crane manufacturing industry.

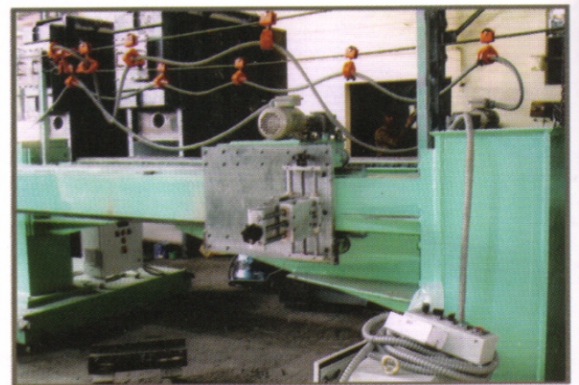


PLATE WELDING SYSTEM

HYDRAULIC ANTI-DRIFT SYSTEM



Hydraulic anti-drift system was developed and manufactured for one of the largest boiler manufacturing companies in India. This system was designed to sense and correct drifting of shells automatically.

FABRICATION ENGINEERING

Our Fabrication Engineering Division was established to cater requirements of Heavy engineering Industries. Our team of experts are well versed in all kinds of heavy fabrication as per customer requirements & codes.

Few of the Projects rolled out of Anvin

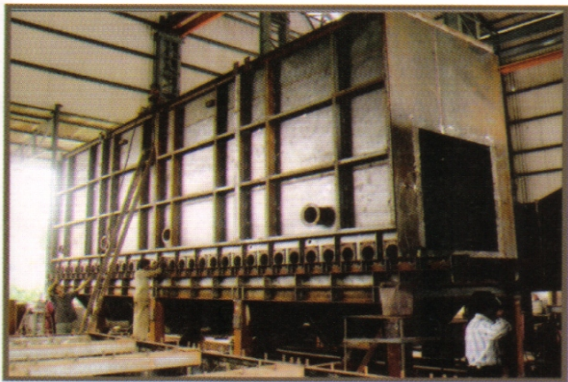


CONVENTIONAL CASING WITH CHIMNEY

Conventional casing with chimney was manufactured for our customer Thermax Ltd. as per their design and requirement.
Total weight of job-160 Tons.

Combuster was manufactured for our customer Thermax Ltd. as per their design & requirement. It was use to convert carbon dioxide to carbon monoxide.
Total weight of job-55 Tons.

COMBUSTER



OIL FURNACE

Oil furnace was manufactured for our customer Unitherm Furnaces India Ltd. as per their design and requirement.
Total weight of job-60 Tons.

JUICER



Juicer was manufactured for our customer as per their design & requirement. It is used as mixer in the suger industry.
Total weight of job. 15 Tons.



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