

THE UNIVERSAL REMOTE FOR WELDING AUTOMATION

ANVIN
ENGINEERS PVT. LTD.

ABOUT ANVIN

Know Us

The World is talking about superior volume, advanced quality products aimed to be produced at minimal manufacturing and Competitive cost. A strong determination to do just that, Anvin Engineers Pvt Ltd (AEPL) launched this firm, about 25 years ago, making a huge investment in the fabrication industry & process knowledge.

Anvin, with utmost sincerity, attempts to creatively combine the above mentioned aspects and apply its ideas to develop innovative and unorthodox solutions to welding and automation problems. AEPL's team of experts are determined to make sure of your complete satisfaction, through specially engineered solutions.

AEPL automation has put its best foot forward. The offers are way ahead of its time, resistant to all adverse up comings and provide operator friendly solutions at reasonable rates. These inputs will take care of improved through time, repeatability, better quality and most important, transfer the skill from the operator to equipment / process. The primary aim is to provide solutions that will lead to gain superior productivity, lesser rejection and hence a healthier base line.

Our Team

We are a team of experts and share 150 years combined experience in this field and understand your requirement, design and manufacture the best suited non-standard products and special required machines. The collective knowledge and expertise of our team have helped our clients to exceed their own customer's expectations.



Infrastructure

Our updated infrastructure as well as expertise of our technical team, lets us successfully meet the specialized requirement of our clients. With the right kind of technically advanced range of production machineries /equipments we aim to meet international standards of quality, reliability and precision in our product range. We have world class machines available for manufacturing our range of products.

Mission at AEPL

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 even exceed customer's expectation every time and continuously set higher quality norms to improve the effectiveness of the quality systems.

Roadmap to achieve above:

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

WELDING COLUMN & BOOM

We offer to our clients a wide range of precision manufactured Welding Column & Booms 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 :

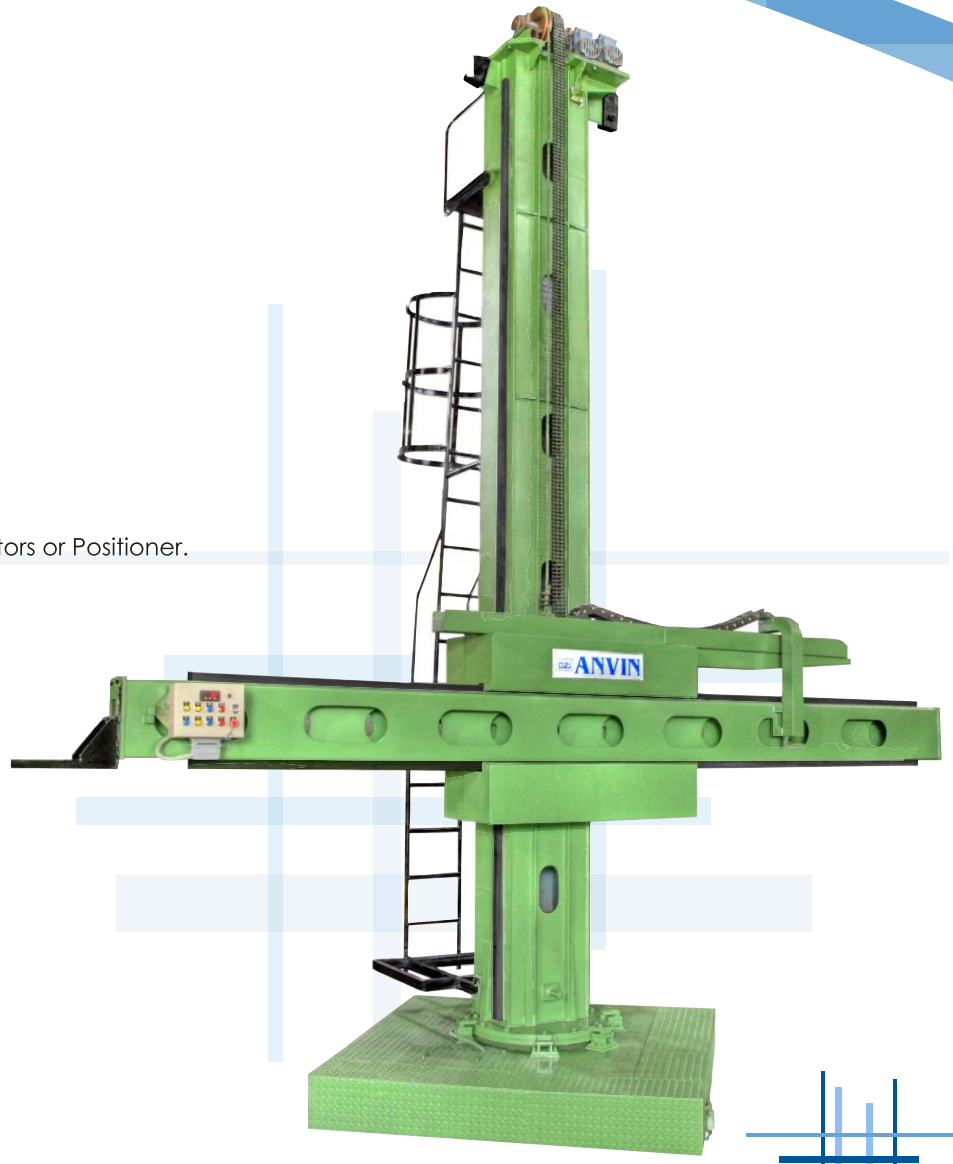
- Rugged Construction.
- Wide Based & Lockable 'Swivel Base is to enhance Stability.
- 'Fail Safe' anti-fall mechanisms in all models.
- Minimum deflection even when 'Boom' extended fully.
- Precise 'Jerk free' vertical & horizontal movements.
- Over rated, pre-loaded and dust protected bearing arrangements.
- 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.
- Assures high quality welding with non-dependent on operator's skill.
- Essential toll for automatic / semi-automatic welding.
- Indispensable for pipe / vessels 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 Rotators or Positioner.

Optional

Base with AC fix speed (speed - 1200 mm / 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 units.



WELDING COLUMN & BOOM SPECIFICATION						
MODEL	CB1515	CB2020	CB3030	CB4040	CB5050	CB6060
VERTICAL STROKE (mm)	1500	2000	3000	4000	5000	6000
HORIZONTAL STROKE (mm)	1500	2000	3000	4000	5000	6000
BOOM TRAVERSE SPEED (mm/min)	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250
BOOM LIFTING SPEED (mm/min)	750	750	750	750	600	600
MAX. LOAD AT EXTREMITY(KG)	100	100	200	200	300	300

NOTE-Due to continuous improvement, we reserve the right to modify the details given.

WELDING ROTATORS

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 polyurathene lined rollers are provided as per application. For higher capacity rotators forged rollers are provided.

- Our standard Rotators consists of drive and idler unit. The frame and roller brackets are fabricated with heavy sections, relieved and precision machined.
- Overload disc to protect polyurethene roller.
- Steplessely variable surface speed from 75 to 1500 mm/min. or higher and controlled through AC Variable frequency drives. For precision movement encoder feedbacks are provided on case basis.
- Forward/ reserve rotation and emergency stop facility on panel.
- Operator pendant with forward/ reverse inch or run speed variation and stop functions.

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 Shell/ Job handling.
- Lesser usage of crane reduces idle time.
- Improves plant efficiency.
- Welding automation.

SPECIFICATIONS FOR SELF CENTERING ROTATOR

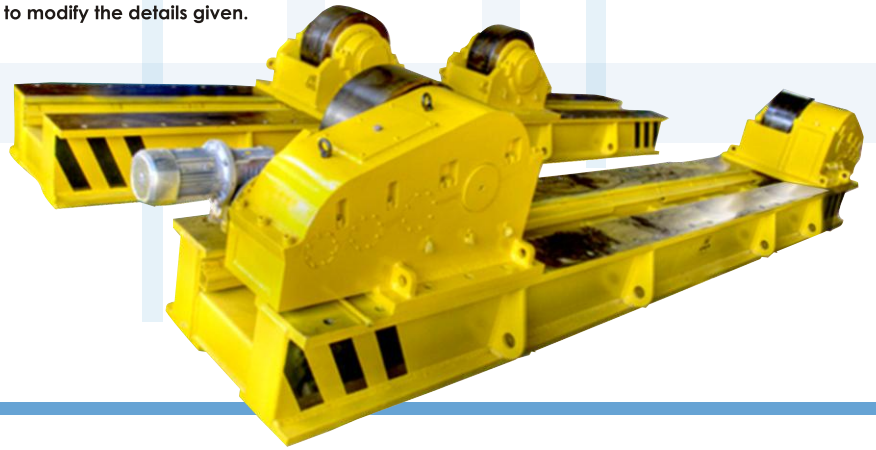
MODEL	SCR 5	SCR 10	SCR 20	SCR 30	SCR 40	SCR 50	SCR 80	SCR 100	SCR 120	SCR 150	SCR 200	SCR 300	SCR 500
CAPACITY- DRIVE & IDLER(TONS)	5 TONS	10 TONS	20 TONS	30 TONS	40 TONS	50 TONS	80 TONS	100 TONS	125 TONS	150 TONS	200 TONS	300 TONS	500 TONS
SPEED RANGE (mm/min)	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250
VESSEL(min-max) (mm)	400-4000	400-4000	400-4500	500-5000	500-5000	500-5000	600-6000	600-6500	800-6500	900-7000	900-7000	1000-7500	1200-8500
ROLLER DIAMETER (mm)	250	250	300	400	400	400	500	500	500	600 (Forged)	600 (Forged)	600 (Forged)	700 (Forged)
ROLLER WIDTH (mm)	75	100	125	150	150	200	200	200	250	250	250	300	300

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There Are Two Main Categorizes Of Rotators:

The Self Centering Types:- Model 'SCR'-SERIES

Construction of machine is similar to that of conventional type Rotators. However, Housing Brackets 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.



WELDING ROTATORS

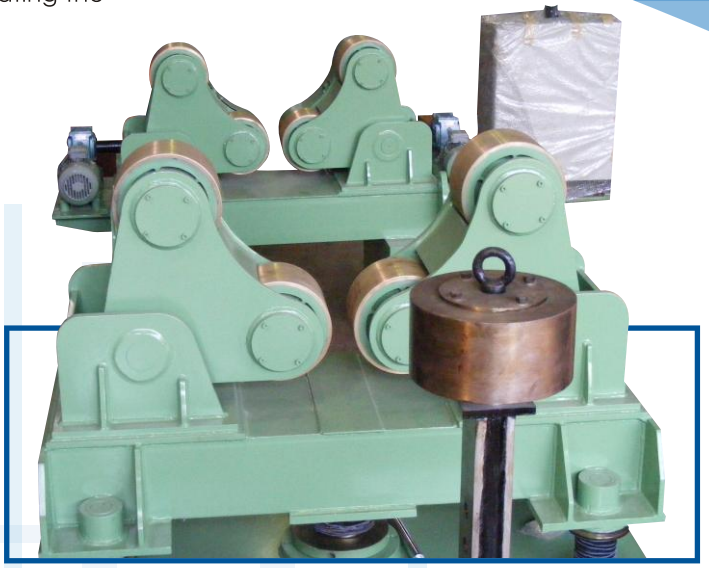
The Self Aligning Types:- Model 'SAR[1]-SERIES

Self Aligning Rotators automatically adjust the Roller Housings to accept any job diameters within 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 automatically when 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 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 declutching 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.

SPECIFICATIONS FOR SELF ALIGNING ROTATOR

MODEL	SAR 5	SAR 10	SAR 20	SAR 30	SAR 40	SAR 50	SAR 80	SAR 100	SAR 120	SAR 150	SAR 200	SAR 300	SAR 500
CAPACITY- DRIVE & IDLER(TONS)	5 TONS	10 TONS	20 TONS	30 TONS	40 TONS	50 TONS	80 TONS	100 TONS	125 TONS	150 TONS	200 TONS	300 TONS	500 TONS
SPEED RANGE (mm/min)	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250	150-1250
VESSEL(min-max) (mm)	300-2500	400-3000	500-4000	500-4000	600-5000	600-5000	900-6000	900-6000	1000-6500	1000-7000	1200-7500	1400-7500	1600-8000
ROLLER DIAMETER (mm)	250	250	300	400	400	400	500	500	500	500	500 (Forged)	600 (Forged)	600 (Forged)
ROLLER WIDTH (mm)	50	100	150	150	150	150	150	175	175	200	250	300	300

NOTE- Due to continuous improvement, we reserve the right to modify the details given.



Anti Drift System

During C-seam welding of shell sections on rotators, axial movement of shell or shell drifting invariably takes place. This drifting cannot be avoided. Reasons for this drifting could be geometrical inaccuracies of individual shells, inaccuracies of drive unit and idler unit alignment, etc. Even if the drive unit and idler units are aligned with each other initially, during shell loading, the alignment tends to get disturbed. In lighter shells, this drifting can be stopped by positive stoppers. However in heavier shells, due to axial drifting, tremendous pressure will get generated and this pressure will come on the positive stopper, if provided, and will break it. Ideal solution is to prevent this happening, to avoid creating such situation. This is achieved through anti-drifting arrangement. In this case also, drifting will take place which cannot be avoided. But the movement will be restricted within a band of "+ / - 5 mm". Seam will keep floating forward and backward within this range.



WELDING POSITIONER

Welding Positioners aligns 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 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 deflection under loaded conditions resulting in vibration free and smooth operation. Anti-fall arrangement for face plates gives additional safety. Positive locking for tilting arrangement with instant braking arrangement ensures safety and accurate positioning. Rotary drive unit with AC Variable Frequency Drive (VFD) provides steplessely variable speed from 0.1 to 1 rpm for face plate. Earthing arrangement with wear compensation gives uninterrupted welding as well as safety to the positioner elements. Tilting arrangement from 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 of manual welding.
- Convenient for assembling intricate sub-assemblies.
- Ideal for in conjunction with Column & Boom.

Special Features of Our Design

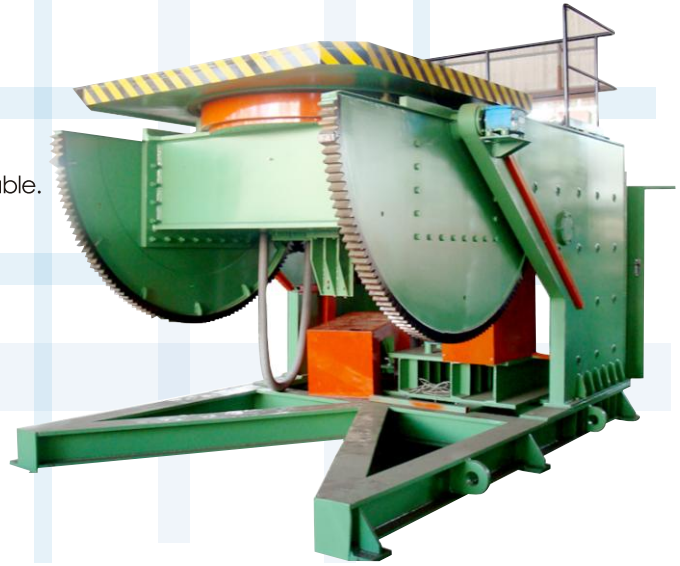
- Extremely Stable and 'Free Standing' with the rated load.
- Rugged & robust Design / Construction. Enhanced 'CG' rating due to specific design, lowering the distance to the 'Pivot point' from table.
- Forced diversion of 'Earth return current' off the spindle bearings, avert bearing damage.
- Activation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

Standard Capacity Ranges

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

Other Features

- Degree of tilting angle can 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.



WELDING POSITIONER

SPECIFICATION FOR STANDARD WELDING POSITIONER											
MODEL	WP-50	WP-100	WP-250	WP-500	WP-1000	WP-1500	WP-2000	WP-5000	WP-10000	WP-20000	WP-40000
RATED LOAD CAPACITY(KG)	50 KG	100 KG	250 KG	500 KG	1000 KG	1500 KG	2000 KG	5000 KG	10000 KG	20000 KG	40000 KG
CENTER OF GRAVITY (mm)	75	75	100	200	250	270	275	340	400	600	1000
ECCENTRICITY (mm)	50	75	100	150	200	200	200	250	250	275	300
TABLE ROTATION SPEED(R.P.M.)	0.15-2	0.15-2	0.1-1.5	0.1-1.5	0.07-1	0.07-1	0.07-1	0.02-0.25	0.02-0.25	0.02-0.25	0.015-0.2
TABLE DIAMETER (mm)	320	320	500	750	1200	1250	1350	1500	2000	2500	2800
TABLE TILTING FOR 135^0	M	M	60 sec	60 sec	90 sec	90 sec	90 sec	120 sec	150 sec	180 sec	240 sec
TABLE HEIGHT FROM FLOOR (Approx)(mm)			840	855	1150	1250	1250	1600	1900	2920	3350

NOTE-Due to continuous improvement, we reserve the right to modify the details given.



100 ton Cradle Positioner



Head Stock - Tail Stock setups

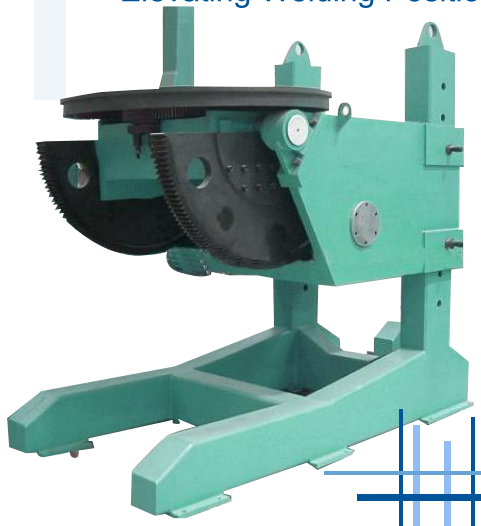
Other Options

- Head Stock - Tail Stock setups
- Elevation type (adjustable table height)
- L- Type Positioners



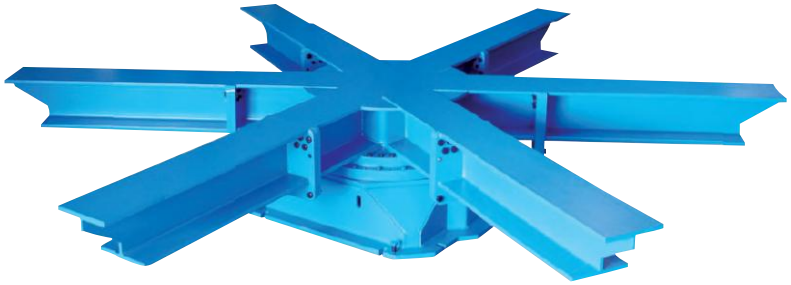
Hydraulic Welding Positioner

Elevating Welding Positioner



WELDING TURN TABLES

Welding turntables or welding rotating tables provide a high-precision, low-cost method of rotating a pipe, vessel or industrial work piece around a vertical axis.



WELDING TURN TABLES											
MODEL	TT-1T	TT-2.5T	TT-5T	TT-10T	TT-15T	TT-25T	TT-40T	TT-60T	TT-100T	TT-150T	TT-250T
CAPACITY (Ton)	1	2.5	5	10	15	25	40	60	100	150	250
FACE PLATE DIAMETER (mm)	800	1000	1200	1400	1600	1800	2000	2250	2500	2800	2800
TABLE HEIGHT (mm)	325	325	380	385	415	425	475	550	600	625	650
EXTENDED ARM DIAMETER (mm)	-	-	2250	3000	3500	4000	4500	5000	5750	6250	7500

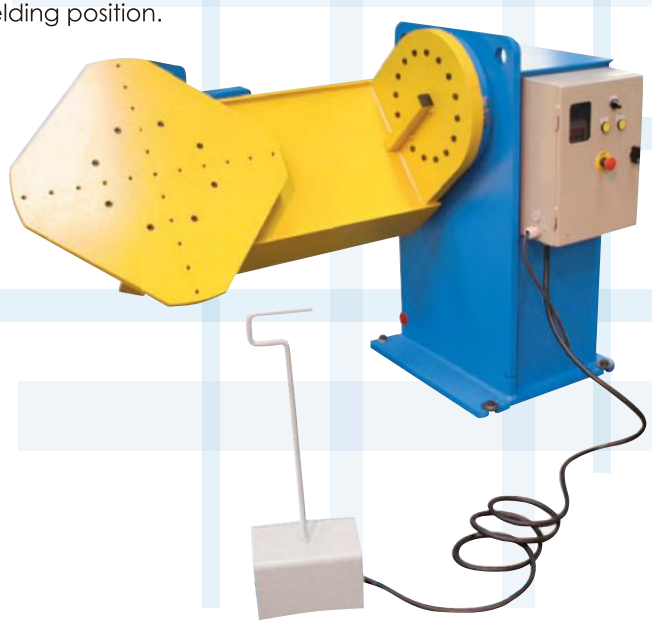
NOTE-Due to continuous improvement, we reserve the right to modify the details given.

L-TYPE WELDING POSITIONER

Through rotation and turning of Faceplate, positioners make work piece in best welding position. Robust all steel fabrication, variable speed table rotation.

L-TYPE POSITIONER						
MODEL	WPL0.5T	WPL1T	WPL2.5T	WPL5T	WPL7.5T	WPL10T
CAPACITY (Ton)	0.5	1	2.5	5	7.5	10
FACE PLATE DIAMETER(mm)	750	800	900	1000	1200	1300
HORIZONTAL OVERHANG (mm)	750	900	1100	1250	1400	1600
ROTATIONAL AXIS HEIGHT (mm)	900	1000	1150	1250	1450	1600
VERTICAL OVERHANG (mm)	150	250	275	300	325	350

NOTE-Due to continuous improvement, we reserve the right to modify the details given.



SEAM TRACKER



Seam tracking systems deliver precise automated weld joint tracking for submerged arc and GMAW and FCAW arc welding processes. Ideal for repetitive welding applications, these systems are recommended over manual and semiautomatic welding to improve weld quality. A range of standard systems or customized solutions are available to meet the requirements of many tough production environments.

FLUX RECOVERY SYSTEMS



Since the very beginning of submerged arc welding, Flux Recovery Systems have proven themselves as the most valuable, in fact almost essential accessory to the entire sub-arc process. The key word is economy. They save valuable flux, help make better welds and produce all-important saving in man hours. Flux Recovery Systems not only make for a neat shop and better working conditions but they also keep abrasive flux away from moving parts on the welding rig. Finally, these systems are capable of separating out slag (fused flux) and fines (flux flower) returning only the clean reusable flux to the hopper.

X Y CROSS SLIDE



Cross slides can be used with Seam Tracking and Motorized Slide systems. Cross slides are precise vertical and horizontal torch-positioning devices. The slides incorporate ball bearing wheels that ride on hardened steel rails mounted on an aluminum/mild steel base structure. Totally enclosed DC /AC gear motors drive the covered ball screws.

SPECIAL PURPOSE MACHINES

TURN OVER FIXTURE



Capable of rotating through 360° and lift to certain height of around 2 meters. The fixture needed to be capable of allowing a robot full access around the component parts.

PIPE ID CLADING STATION

Was developed for ID cladding of pipes of min 100mm diameters upto 5 meter length.



HYDRAULIC FIT UP ROTATOR



The hydraulic fit-up rotators are usually used for fitting up of wind towers / cone pipe assembly welding because of the diameter difference between two sides of the pipe. Hydraulic adjustment of the center to center spacing of roller group, in accordance with the diameter variations of work piece.

WELDING TROLLEYS

Welding Trolley is a mobile trolley and storage unit used for various types of welders. This trolley provides portability for heavy welding machines and can also be used as storage for consumables and tools.



GENERATOR ROTATING EQUIPMENT



Was developed to rotate and clamp 200 ton generator stator for machining.

MOTORIZED MATERIAL TRANSFER WAGON/TROLLEY

Motorized Material Transfer Wagon/ Trolley is meant for transferring material from one bay (shop) to another. Wagon/ Trolley moves on Indian standard rail section grouted in ground. Material Transfer Wagons / Trolleys are manufactured with load carrying capacities from 5MT to 500 MT capacities as per customer's requirement.



Introduction

In AEPL we manufacture & supply Customized Fabricated Equipments, Boiler Parts, Work as per Drawing. Range of our fabrication works includes Pressure Vessel Fabrication, Shell & Tube Heat Exchanger, Storage Tanks, Process Equipment, Furnaces, Fabricated Equipments, that find their usage in various industries like Food, Process, Earth Moving, Mining, Power Plants etc. to customers from India and abroad.

Storage Tanks

We offer the best quality and highly spacious Storage Tanks which are available nowhere else. We offer portable storage tank, liquid storage tank etc. We manufacture our storage tanks using different types of stainless steel and mild steel and they are used in various industries. Some of the important features of the tank are durability, resistance to corrosion, robust design etc. One can store a broad range of materials in our tanks and they can even be customized in shapes and sizes according to the customer's needs. We have also become one of the prominent storage tank exporters and suppliers in India.



Structural Fabrication

For more than 25 years we are into manufacturing of sturdy and high performing Structural Fabrications. With extensive project engineering experience we can customize the drawings as per the specific needs of marking schemes/ presentation. We are backed with structural analysis, chart out preliminary design, assess data and technical specifications at industry leading prices and make sure everything gets approved by our clients.



Products rolled out of Anvin

- Boilers & Boiler ancillary equipments
- Heat Exchanger & Coils
- Heavy Beam Fabrication
- LPG Bullet Fabrication
- Pressure Vessels
- Storage tanks and Handling Equipments
- Agitators and Mixers
- Heavy Columns
- Lifting Beams
- Casings and Trolleys
- Base Frames for various Heavy Machinery
- LPG Bullets and Road Tankers
- Dished ends & cones in single piece construction
- Exhausting and Ventilation
- Dished ends and cones in crown and Petal construction









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