

Key Plant

WELDING & POSITIONING EQUIPMENT

Supplier Of Special Purpose Automation, Handling & Positioning Equipment



- Manufacturer of Standard Machines
- Manufacturer of Special Be-spoke Systems
- Sale of New, Used and Refurbished Machines
- Rental for long and short term hire

Key Plant 1st Company to design and manufacture Fit Up and Elevating Rotators.



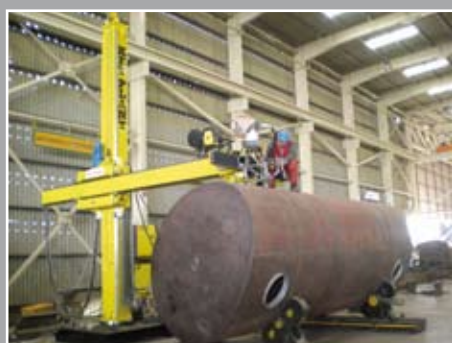
Key Plant 1st Company to design and manufacture Telescopic Column & Boom



Key Plant 1st Company to supply narrow gap tandem turnkey installation for Lincoln Powerwave



Key Plant Only company to have developed and supplied a successful Elliptical Welding System



COMPANY PROFILE

Key Plant's association with the welding equipment market traces back over 55 years and throughout this time Key Plant has continued to supply, develop and revise their equipment from the sale of new and refurbished equipment to Key Plant's large rental department and service centre through to more recent fully automated turnkey installations. In so doing Key Plant has developed a knowledge and skill base that is second to none in the industry. Key Plant's success is a product of these foundations and our versatility in being able to manufacture simple, through to highly sophisticated heavy engineering equipment all in house, under one roof. Along with developing better technologies to provide solutions to specific problems, for example, large capacity anti-drift rotators, cladding solutions and deep groove, narrow gap welding.

For more information and to view some of our past projects visit: www.keyplant.co.uk

Key Plant LOCATIONS



In 2001 Key Plant purchased the former Bode factory, machine tools, fabrication equipment, every jig and fixture, the complete stores and spares department and a large range of surplus, new and second hand Bode machines.



Since this acquisition Key Plant have re-organised the factory and employed key Bode personnel, including electrical engineers, mechanical fitters, fabricators, machine operators and design engineers.

KEY DATES & COMPANY HISTORY

- 1956** Began as Courtburn Welding acting as agents for Yates & Macobe Positioning Equipment
- 1980** Purchased Murex Positioning Equipment from BOC
- 1995** Key Plant moved into current Liverpool facility 25,500sq ft
- 2001** Purchased Bode facilities and factory, 6 acres site with 70, 267sq ft for factory from Bode Positioners in Leek, Staffordshire
- 2003** Expanded Liverpool facility purchasing extra 47,5712sq ft from Huntleigh Healthcare
- 2006** Purchased entire Rental Fleet from Sneeep Industries in Netherlands (formerly Traffo Rent)

Manufacturing Facilities, In House, Under One Roof

Design Stage, Steel Plate, Fabrication, Welding, Machining, Steel Preparation, Painting, Assembly, Electrics, Testing, Customer Commissioning.

Key Plant delivers the complete solution



Europe's largest Column & Boom leaves Key Plant's factory



5 Axis CNC Machine Centre in Key Plant's Production Factory

Key Plant's customers cover a wide and diverse sector range, for example:

- Pressure Vessels and Pipeline manufacturers
- Gas and Mining industry
- General Fabricators and Structural Steel suppliers
- Transportation including earthmovers and agricultural machinery
- Shipbuilders
- Offshore, Oil and Cladding installations
- Automotive Industry
- Power Generation including wind, nuclear, water and coal energy

Key Plant believes a major advantage in helping us to gain orders over our competitors is our ability to keep an extensive quantity of new and used equipment in stock.

Whether Key Plant are manufacturing new equipment, selling refurbished machines, providing rental machines for long or short term hire or refurbishing and servicing our customers existing machines we are certain that our knowledge and experience is second to none.

Our commitment to serving the welding industry is long term with continued re-investment.

Here at Key Plant we believe our existing customer base is our best portfolio advertisement

Key Plant a global leader exporting to over 40 countries

Key Plant Market Leader in Automatic Anti-Drift System



Key Plant Leading Company supplied more cladding installation than anyone else



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Elliptical Column & Boom Welding System



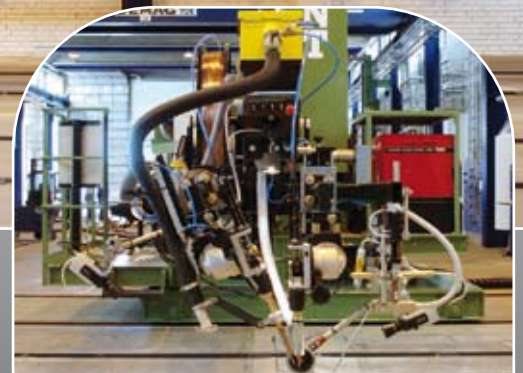
7.5m x 6m Column & Boom Manipulator Elliptical Welding System with special purpose welding rotators for Sub Merged Arc and MIG / MAG welding



Telescopic Column & Boom



6m x 11m Telescopic Column & Boom Manipulator with Tandem ACDC welding system for the manufacturer of wind towers





10m x 8m Column & Boom for the manufacture of pressure vessels



15.5m x 10m Traversing Column & Boom for manufacturing of nuclear vessels, Europe's largest Column & Boom



9m x 9m Traversing Column & Boom for wind tower production



8m Platform Twin Head Welder for the manufacture of double & single skinned storage tanks



4m x 4m and 5m x 5m Column & Boom for export for the cladding of offshore valves



5m Mid Duty Column & Boom



Mid Duty Welding System for the manufacture of hydraulic cylinders



Internal Boom Welding Station for fit up with Tandem Welding with Elevating Idlers



11m x 11m Extra Heavy Duty Column & Boom Manipulator



500 Ton Cradle Type Positioner with 9,200mm diameter table



3 Ton Positioner



1 Ton Positioner

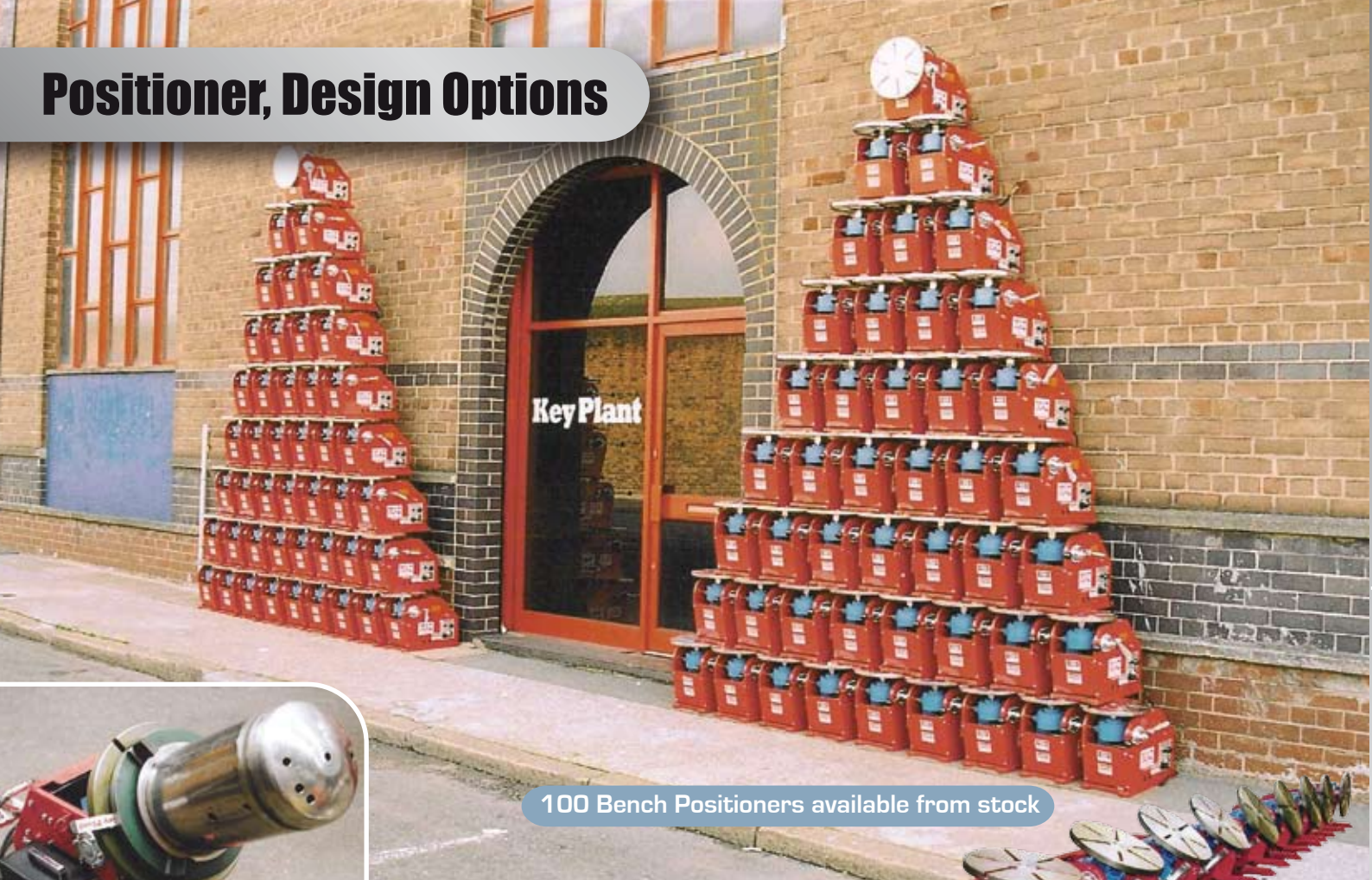


20 Ton Positioner for manufacturing magnets



30 Ton Welding Positioner

Positioner, Design Options



100 Bench Positioners available from stock



250kg Bench Positioner with WP300 Gripper Chuck



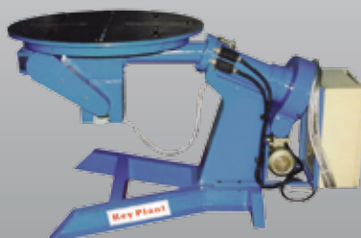
Motorised Adjustable Height
1 Ton and 3 Ton Positioners



150kg Bench Positioner with
2 Jaw HP Gripper Chuck



Elevating 3 Ton Positioner



Rotitilt Type Positioner



L Type Positioner

Handling & Gripper Chucks

Key Plant's **WP Range** Self Centring Gripper Chucks are available in 3 diameter ranges WP-200, 300 and 400 and **WPS range** in 5 diameters WPS-500, 600, 800, 1000 and 1200. They are ideal for use for welding and providing higher levels of efficiency and versatility in operations involving welding of fittings, flanges etc.

- **Quickly & Easily Mounted** on any make of positioner, turntable or tailstock using three bolts provided with gripper.
- **Rugged Construction**, light weight providing a bigger working load because of the low gravitational centre.
- **Self Centering**, fast, smooth close/open action using lever to firmly lock or release work piece.



DIMENSIONS							
MODEL ▼	Diameter of hole through the centre of the chuck		CLAMPING RANGE				WEIGHT ▼ Kg.
			MINIMUM		MAXIMUM		
	In.	mm	In.	mm	In.	mm	
WP-200	3.15	80	0.50	13	12	300	6
WP-300	4	102	1.50	38	15	390	12
WP-400	6.70	170	3.50	89	20	510	22
WPS-500	10.50	267	2	51	21.25	540	57
WPS-600	14.25	362	6	152	24.50	622	82
WPS-800	21.25	540	10	254	32.75	832	105
WPS-1000	27.50	699	17.75	451	41.50	1054	133
WPS-1200	32.50	826	23.50	604	45.25	1150	235

Key Plant's **HP Range** of Gripper Chucks can handle a diameter range of 65mm to 950mm. The two independent jaws are reversible and can be adjusted along the lead screw via a removable handle to suit the required diameter.

MODEL HP RANGE	
Maximum inside clamping diameter	Ø 670mm
Minimum inside clamping diameter	Ø 310mm
Maximum outside clamping diameter	Ø 480mm
Minimum outside clamping diameter	Ø 100mm



Key Plant's **MC Range** of self centering 3 Jaw Machine Chucks accept various diameters upto 600mm. The diameter range is adjustable via T piece handle. Chucks can clamp internally or externally with the option of a soft blank to jaws to protect the work piece.

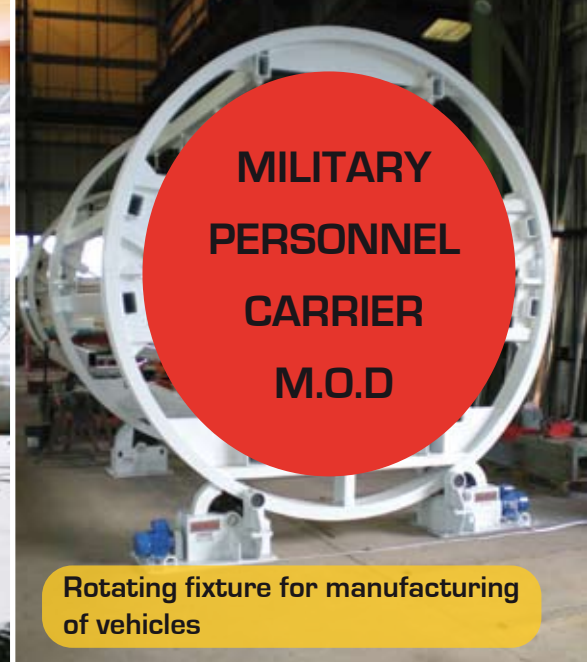
Model	Maximum Clamping Range	Diameter of hole through centre of chuck	Weight Kg
D 200	952mm	65mm	20
D 300	367mm	100mm	40
D 400	793mm	130mm	70
D 500	184mm	210mm	120
D 600	694mm	250mm	220



Conventional Rotators



450 Ton Rotators for welding offshore structures



MILITARY
PERSONNEL
CARRIER
M.O.D

Rotating fixture for manufacturing of vehicles



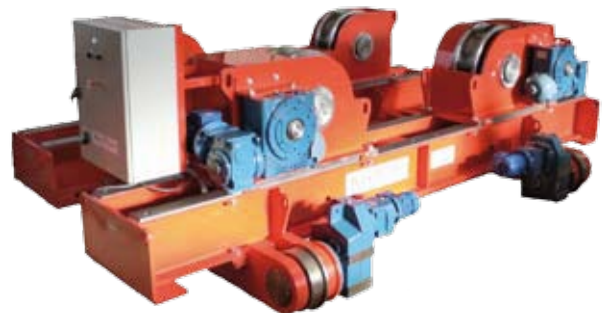
120 Ton Rotators used for towers



450 Ton Rotators with specially designed tyres



150 Ton Traversing Rotators



200 Ton Traversing Rotators with Grooved Wheel

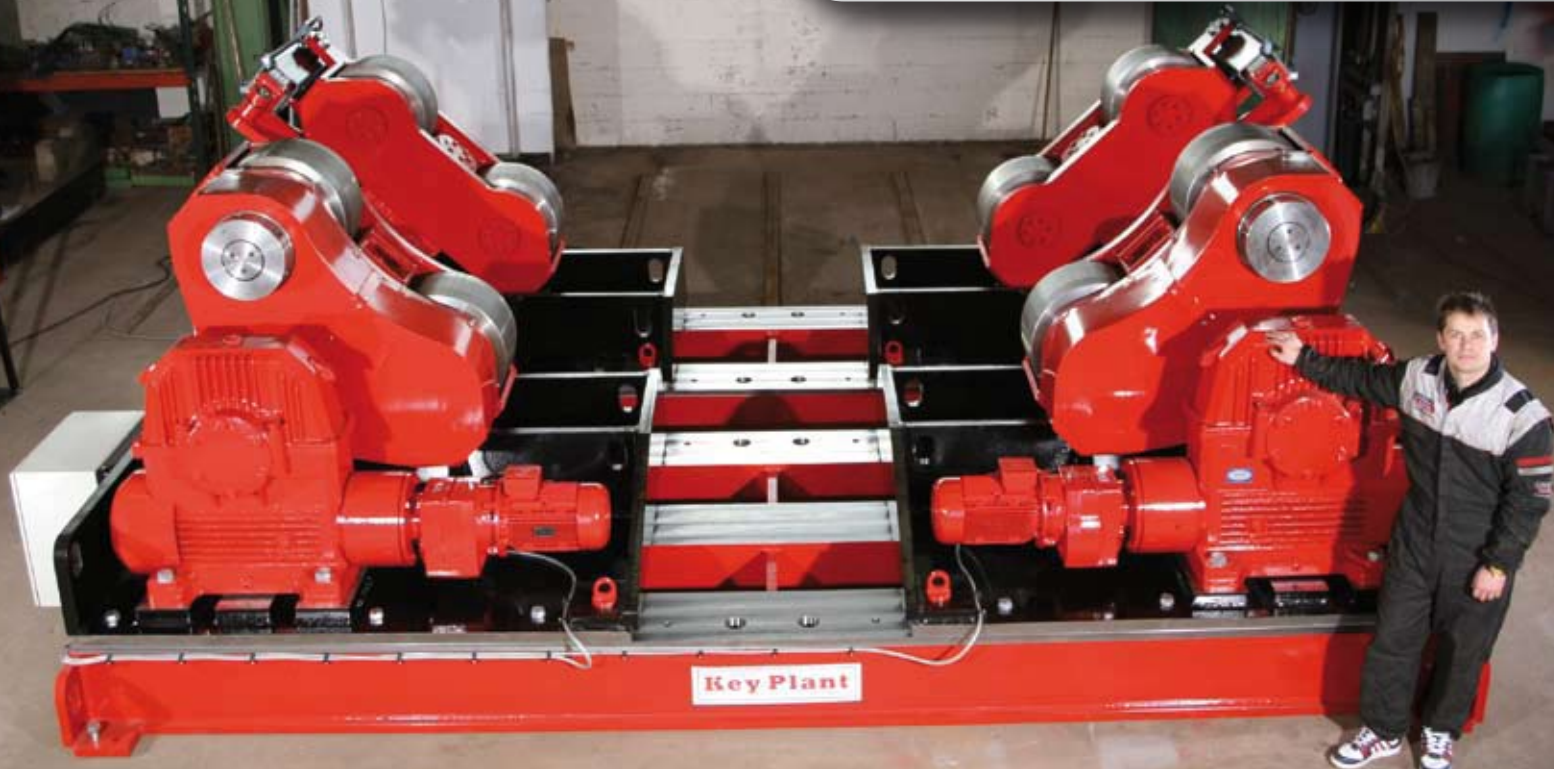


300 Ton Rotators



60 Ton Standard Rotators

Self Aligning Rotators (SAR)



500 Ton SAR Rotators for controlling a 10,000mm vessel with Twin Anti-Drift for narrow gap welding.



60 Ton SAR Rotators



400 Ton SAR Rotators with Twin Anti-Drift system



5 Ton SAR Rotators

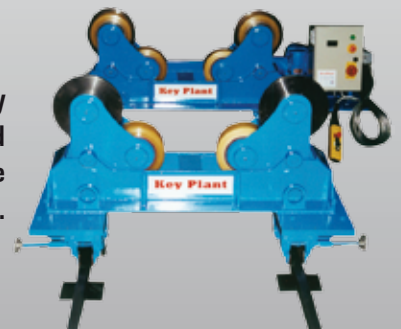


150 Ton SAR Rotators



10 Ton SAR Rotators

Rotators with specially designed end stop flanged wheels for the manufacture of MRI scanners.



300 Ton SAR Rotators with rubber tyres and anti-drift system

Pipe Shop Rotators



1 Ton Bench Type Rotators



Drum Type Rotators



Specially designed Adjustable Height Spring Idlers



Motorised Adjustable Height Pipe Idlers



85 Ton Special Purpose Rotators supplied for inspection of rotors and turbines with specially designed aluminium cast wheels to accommodate and protect the journal during rotation



3 Ton Crocodile Type Rotators

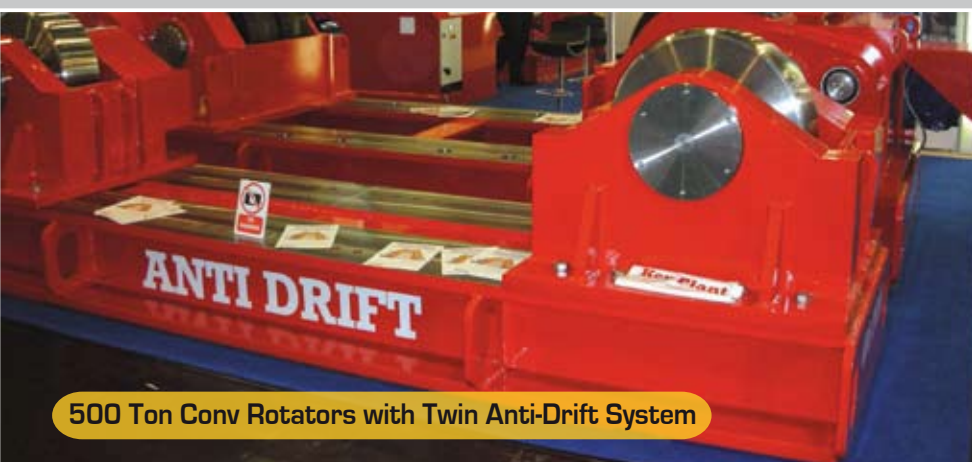


5 Ton Hollow Bore Head Stock with Adjustable Height Pipe Idler

Automatic Anti Drift Systems



500 Ton SAR Rotators with Twin Anti-Drift System



500 Ton Conv Rotators with Twin Anti-Drift System



400 Ton SAR Rotators with Twin Anti-Drift System



A



B



Anti-Drift Wheel

A

Adjustable Sensor at the edge of the work piece to prevent the pipe spiralling

B

200 Ton Anti-Drift System set up at Key Plants factory

Elevating Rotators for Can Joining & Growth Lines



30 Ton Elevating Rotators



Traversing Elevating Rotators for the manufacturing of thick walled pipes and parts



Fit Up Rotators for Can Joining & Growth Lines



1000 Ton Fit Up Rotators designed for the alignment of heavy wall tubes & components. Each wheel carriage has independent motorised adjustment.



100 Ton Fit Up Rotators with motorised travel for longitudinal and horizontal cross slide travel.

These Rotators are designed for fitting up tubular sections



500 Ton Motorised Fit Up Rotators operated via a Wireless Pendant

Head & Tailstocks

Hollow Bore Headstocks

Key Plant manufacture a Hollow Bore Headstock (see examples below) to allow a long work piece to pass through the centre of a self catering 3 Jaw Chuck and exit through the other side.



Clamping Range 150mm - 300mm



Clamping Range 150mm - 600mm

Elevating Headstocks

Key Plant manufacture Elevating Head and Tailstocks (see example).

The advantage of using this kind of machine is to allow the operator to elevate the work piece up and down to raise and lower through 360° to rotate and reposition the component.



20 Ton Elevating Head & Tailstock

HSC Headstocks

Key Plant manufactures a HSC series of Headstocks with a Machine Chuck fitted directly as standard.

These can be supplied with a choice of 400mm or 500mm 3 Jaw Chucks or a 2 Jaw Machine Chuck.

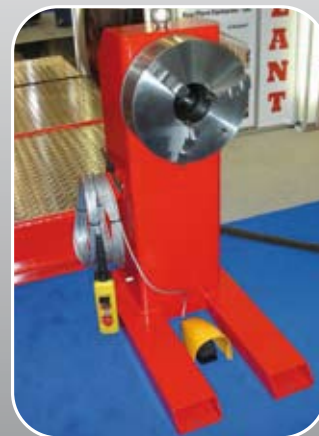
The Headstocks come in 2 sizes: 750kg and 3,000kg



HSC 750 with Pipe Idlers



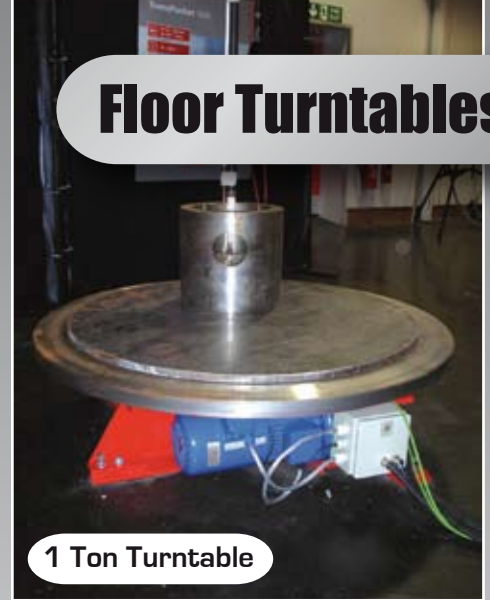
Headstocks being built at Key Plant's factory in Leek, UK.



Floor Turntables



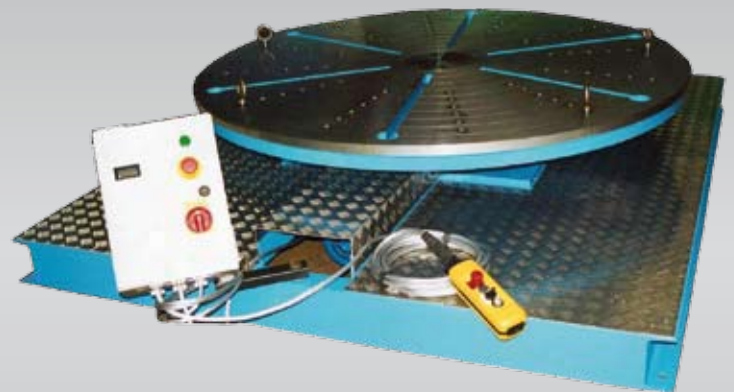
20 Ton Turntable at exhibition with Harley Davidson motorbike



1 Ton Turntable



15 Ton Turntable



20 Ton Floor Turntable supplied for the manufacture of MRI scanners

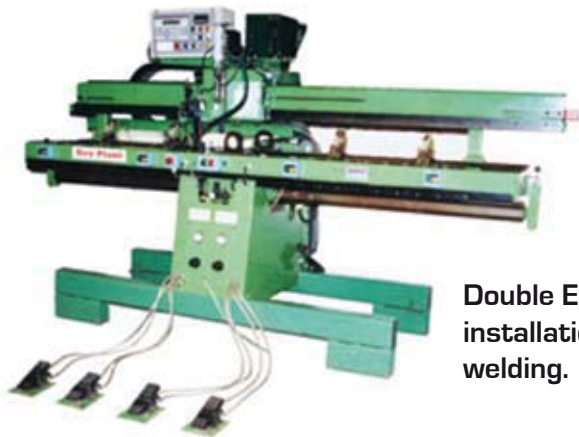


Special Heavy Duty Cladding Floor Turntable fitted with back to back gearboxes for minimum backlash, slip rings for pre-heating and horizontal cross slide movement via preloaded bearings and actuators for loading and alignment of welding the internal bore of oil valves.

Seam Welders



5.2m Seam Welder for plasma key hole with Camera Monitor Viewing System for open arc for welding flat plate.



Double Ended Seam Welder installation set up for plasma welding.



1300mm Seam Welder set up tig welding.



6m Seam Welder for sub-merged arc welding 25mm thick plate.

Box Beam Gantry Welder Production Line



Tank / Girth Welder



Welding Heads



Sub-Merged arc welding system incorporating Flux Recovery System, Laser Cross Light, Motorised Slides and Height Sensor System all manufactured by Key Plant.



Tandem Welding System with Touch Screen PC Controls for data monitoring. Full welding control incorporating multiple programs for welder interface. The System is welding with 4 wires for the manufacture of wind towers.



Tandem Welding System for narrow gap



Narrow gap welding

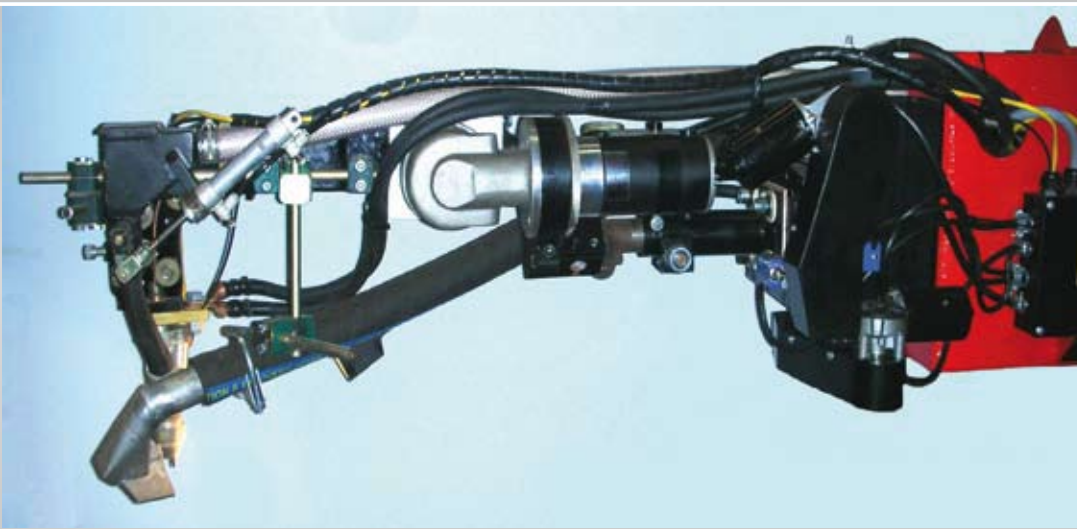


Deep groove welding

Internal Welding Heads



Internal welding heads can be manufactured to suit a particular requirement. Fully integrated internal system to weld inside 300mm diameter.



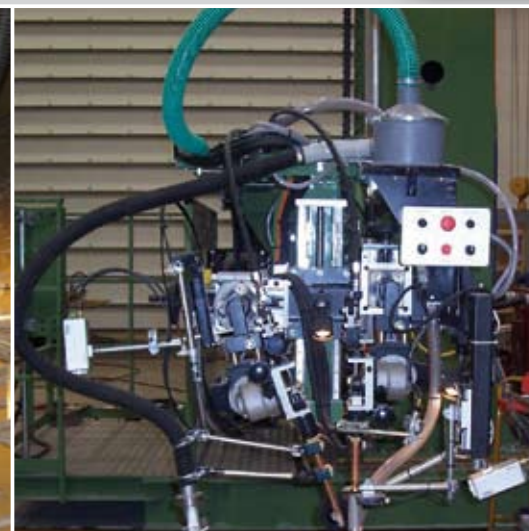
The system above was supplied to weld circumferential and longitudinal seam internal inside 500mm diameter.

Key Plant design and manufacture special purpose and bespoke welding heads to suit every customers requirement.

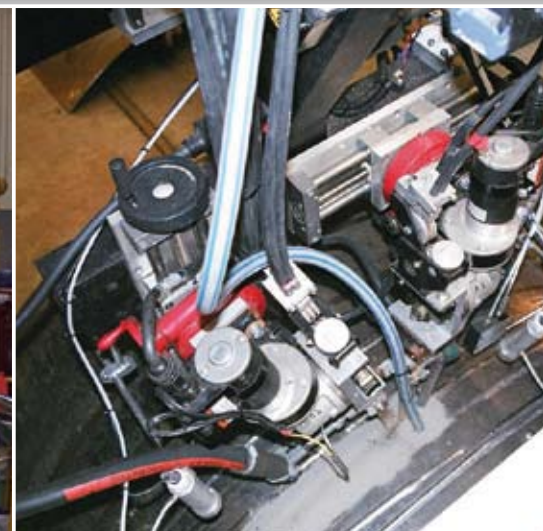
Tandem Welding System



Tandem Welding with 4 welding wires

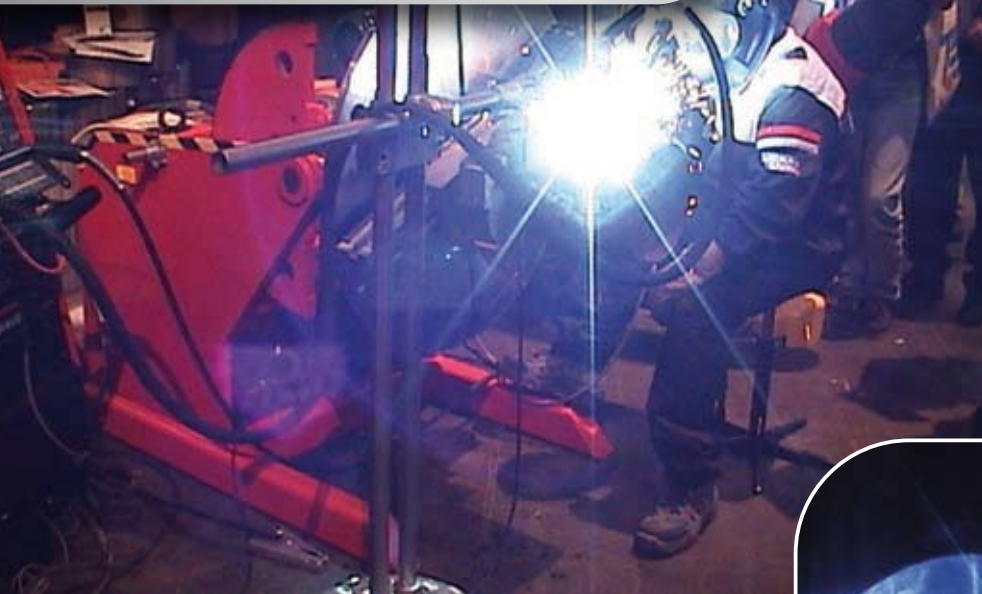


Tandem Welding with 2 welding wires



Tandem Welding with 3 welding wires

Welding Process Options



Key Plant manufacturers oscillators for various applications when weaving of the welding torch is required

Key Plant's different systems include:

KP - OS Standard Pendulum for MIG / MAG

KP - OP Programmable Pendulum, allowing the dwell time of the torch to be pre-set at the left, right and centre position

KPP - SA Sub Arc, a linear programmable system (see system below)



Key Plant manufacturers ARC Voltage Control systems (see system below)

Tandem AVC system for welding drum lids automatically with PLC via pre-set programmes



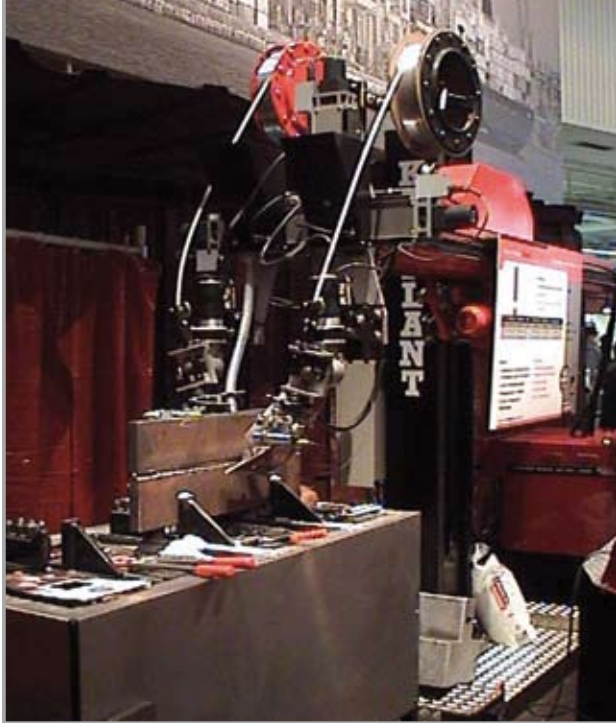
Oscillators

Weavers

AVC Systems



Welding Guidance System



Column & Boom installation with a Tandem Tracking System supplied to Lincoln Electric Cleveland, Demonstration Centre



Side Beam Installation with Tracking System for the manufacture of truck bodies



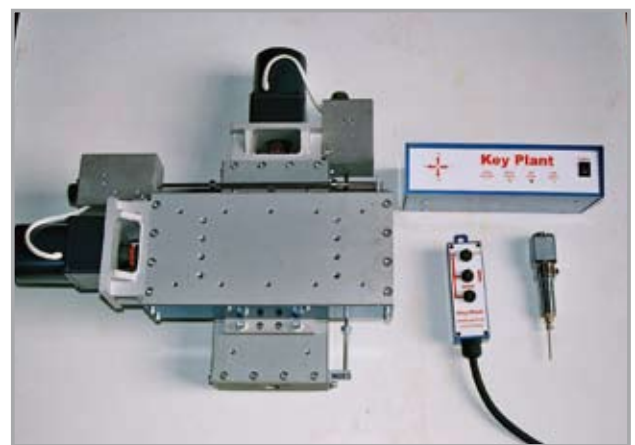
Height Sensing System for sub arc



Vision Systems for sub merged arc and open arc



Laser Tracking System



Seam Tracking System

Horizontal & Vertical Cladding System

Horizontal Cladding

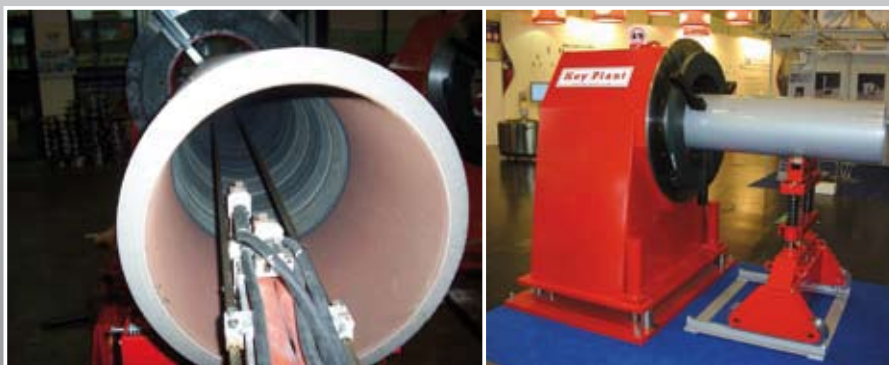


Key Plant specialise in the manufacture of Automated Tig Welding Systems for a variety of solutions including Horizontal Pipe Cladding and Vertical Valve Cladding Systems

For the welding process, a pulse tig power source and increased weld deposition is desirable, Key Plant recommend heating the filler wire prior to its introduction into the weld pool and a separate power source offers a HOT WIRE solution as an alternative to the standard cold wire Tig.

For Horizontal Pipe Cladding, The Key Plant system includes a Hollow Bore Headstock with clamping device and Adjustable Height Support Idlers to clamp and support the pipe. Pipe lengths and diameters vary but the Key Plant system can accommodate a pipe range of 150mm upwards normally to a maximum of 600mm diameter welding internally up to 12 meters in length. A motorised tractor unit is provided to handle the welding spools with up to 4 welding wires for inconel and special metals on 2 welding heads for increased production.

The Welding equipment and accessories are all provided including welding power source and wire feed units, hot wire power source with various touch options.



Either system is provided with data monitoring with full traceability for the welding parameters with online updates and technical support if required from the machine manufacturer and integrator...

Key Plant

Vertical Cladding



For Vertical Valve Cladding option, the system incorporates a Column & Boom Manipulator with Floor Turntable with [option of a 2nd turntable or welding positioner to maximise productivity].

The manipulator is fitted with Heavy Duty Motorised Slides with 90 and 180 degree rotation options to attach the welding wire feed unit and optional CRS (Continuous Rotation System) Welding Head.

The Floor Turntable / Positioner are provided with pre-heat option and anti-backlash gearbox design.

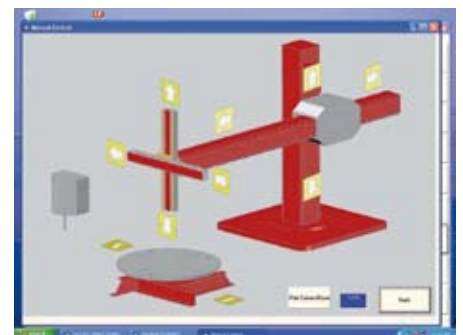


All cladding systems are controlled by the **KEY 1250** a fully integrated touch screen PC controller.

The machine functions are controlled via the PC or hand held remote pendant and can be pre-set or adjusted during the welding cycle.

The system provides display values, alarms and system parameters through the Live Welder Display and Editor Functions to automatically, clad multiple and cross bore options.

Key Plant has wealth of experience supplying the world leaders in the cladding and offshore industry across Europe, North and South America, Asia, Middle East and to date Key Plant has supplied over 120 installations



Used Machine Sales

Key Plant has a extensive range of used and ex rental equipment in stock for sale.

Machines can be sold in an “as is” condition, run and tested or factory refurbished with 12 months warranty.

Key Plant can offer part exchange and hire purchase options, we also buy surplus equipment that the customer may looking to dispose of.



Customer Refurbishments

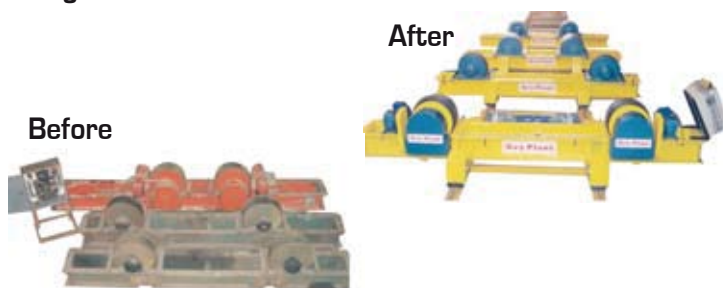


Fire at customer's factory



Machines can be retrofitted to various degrees depending on our customers needs, from replacing an oil seal to a fully refurbished machine

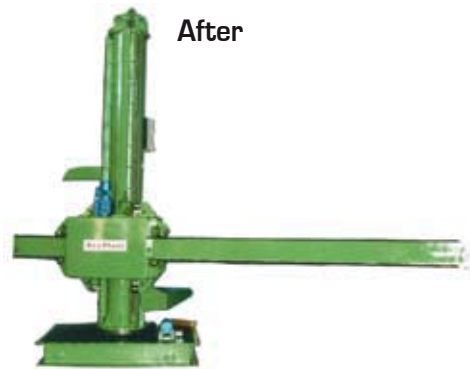
Key Plant offers to refurbish its customers existing machines regardless of manufacturer age or condition



Before



After



Key Plant has a comprehensive range of high quality rental equipment available immediately. If you want to rent equipment on a long or short-term basis, we have the equipment that you will need.

Rental Division

- Rotators 50kg - 1000 Ton
- Positioners 50kg - 150 Ton
- Head & Tailstocks - 1 Ton - 30 Ton
- Floor Turntables - 1 Ton - 200 Ton
- Column & Booms 2m x 2m - 9m x 9m
- Seam Welders 500mm - 5000mm
- Welding Equipment Tractor Units & Welding Heads
- Handling Equipment & Gripper Chucks
- Cladding Systems



40 Ton Positioner on Rental

Key Plant will undercut any genuine quote
Key Plant guarantee we will not be beaten on price!

CASE STUDY to suit customer's needs..... of two companies were initial rental orders progressed into sales. Rental enables the customer to evaluate their needs before purchasing.



CASE STUDY 1 - Column & Boom Manipulators and Welding Rotators supplied with twin wire for sub merged arc welding for the offshore industry. The customer rented the machines to ensure that they had selected the correct machines to manufacture their component. After 16 weeks they were very satisfied and purchased 12 Manipulators and 22 sets of Rotators after the initial rental period.

Our rental equipment is serviced and tested by our Engineers prior to being despatched for any rental period to ensure that it is in excellent condition before reaching our customers. Key Plant has experienced staff that can put together rental packages and offer effective solutions to your rental needs.



CASE STUDY 2 - 500 Ton Welding Rotators, customer requested tyres instead of steel wheels which is NOT available in this capacity anywhere in the world, but Key Plant came up with the engineered solution and designed and built 15 sets which were rented by the customer for evaluation purpose which led to an successful order.



100 Ton Positioner available for Rental



Key Plant

WELDING & POSITIONING EQUIPMENT

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