



Pro  Spot

**MERITUS MPW8**

**PORTABLE SPOT AND SEAM WELDING MACHINE**



The new Meritus MPW-8 portable spot and seam welding machine is suitable for welding a wide range of thin gauge materials in mild steel and stainless steel. It is particularly suitable for fine mesh or gauze used in the filtration industry.

The MpW-8 offers the end user maximum flexibility through the incorporation of the latest electronic technology. The timer, contractor and heavy duty welding transformer are all built into this compact unit enabling it to be used in the most confined areas.

TECHNICAL SPECIFICATION	
Welding power supply	4kVA or 8 kVA welding transformer @ 50% duty cycle
Electrical supply	220/240V single phase 50Hz or 60Hz supply
Welding timer	WS500 multi-schedule control
Welding heat control	Infinitely adjustable phase shift 0-99
Welding contractor	Solid state 90 amp power thyristor
Hand gun	Light weight moulding with trigger switch and plug in lead to welding power supply
Supplied complete with handgun	Centre tip spot weld electrode 50mm diameter seam wheel attachment Interconnecting leads plugs and sockets
Optional extra	Pincer type gun - PG5
Dimensions W x D x H mm	500 x 320 x 220
Weight	40kgs

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**





**MERITUS PS8B & ASI5BCT**

**BENCH TYPE SPOT WELDERS**



**PS8B PEDAL OPERATED SPOT WELDER**

THESE MACHINES HAVE BEEN DESIGNED FOR THE HIGH SPEED PRODUCTION OF FABRICATED WIRE WORK AND FOR LIGHT ASSEMBLIES OF MILD AND STAINLESS STEEL COMPONENTS.

OPERATION IS BY MEANS OF A FOOT PEDAL LEVER OPERATING A ROCKER BEAM THROUGH AN ADJUSTABLE PRESSURE SPRING. THE LEVERAGE SYSTEM HAS BEEN DESIGNED TO GIVE THE MAXIMUM MECHANICAL ADVANTAGE ALLOWING SIMPLE AND EASY MACHINE OPERATION.



**ASI5BCT AIR OPERATED SPOT WELDER**

THESE MACHINES ARE PRIMARILY DESIGNED FOR SPOT WELDING LIGHT, INTRICATE ASSEMBLIES IN BRASS, ALUMINIUM, AND COPPER ALLOYS. THE RELATIVELY LARGE WELDING TRANSFORMER MAKES IT CAPABLE OF WELDING HEAVIER GAUGE MATERIALS. APART FROM NON FERROUS MATERIALS THE MACHINE CAN BE USED FOR MILD AND STAINLESS STEEL ASSEMBLIES WITH VERY NARROW FLANGES.

**SPECIFICATION**

MODEL	KVA	ARM LENGTH	MAXIMUM CAPACITY	WELD CONTROL	INITIATION
PS8B	8	225 - 300 mm	2 x 1.6mm STEEL SHEET 2 x 6.25mm STEEL ROD	DIGITAL	PEDAL
ASI5BCT	15	225 - 300mm	2 x 1.6mm STEEL SHEET 2 x 0.9mm ALUMINIUM & BRASS	DIGITAL	AIR

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



MICRO WELDING SYSTEMS





Pro  Spot

**MERITUS RAS & AS SERIES**

**AIR OPERATED SPOT WELDING MACHINES FROM 30KVA TO 150KVAA**



**AUTOFORGE SPOT WELDERS**

**RANGE:**

THERE ARE FIVE STANDARD SIZES COVERING 30, 50, 75, 100 AND 150KVA. THESE MACHINES ARE PARTICULARLY SUITABLE FOR HIGH SPEED CONTINUOUS DUTY.

**OPERATION:**

THIS IS BY SOLENOID CONTROLLED TWO-WAY COMPRESSED AIR CYLINDER APPLYING PRESSURE THROUGH A ROCKER BEAM.

**WATER COOLING:**

THE ELECTRODES, ELECTRODE HOLDERS, SECONDARY CONNECTION POINTS AND THE LARGER WELDING TRANSFORMERS ARE ALL WATER COOLED.

**INITIATION OF WELDING CYCLE:**

THIS IS AUTOMATICALLY CONTROLLED BY MEANS OF THE SQUEEZE TIME SETTING ON THE MULTI-PROGRAM WELD CONTROL. THESE CONTROLS HAVE PULSATION FACILITY AS STANDARD.

**ELECTRODE PRESSURE:**

THIS IS ACCURATELY CONTROLLED BY MEANS OF AN AIR PRESSURE REGULATOR AND PRESSURE GAUGE. MINIMUM AIR LINE REQUIREMENT IS 5.5BAR.

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



**SLEE**

MICRO WELDING SYSTEMS





## MERITUS RAS & AS SERIES

### AIR OPERATED SPOT WELDING MACHINES FROM 30KVA TO 150KVA

#### ELECTRODE ARMS:

THESE ARE TELESCOPIC, ENABLING THE MACHINE THROAT TO BE EASILY ADJUSTED WITHOUT REMOVAL FROM THE MACHINE, THUS PROVIDING MAXIMUM WELDING CAPACITY AND FLEXIBILITY. PROVISION IS MADE FOR THE TOP AND BOTTOM HOLDERS TO BE SET AT AN ANGLE OF 200 FROM THE VERTICAL WHEN REQUIRED.

#### SAFETY FEATURES:

MERITUS AUTOFORGE MACHINES ARE FITTED WITH HIGH LIFT - LOW FORCE APPROACH AS STANDARD. TWO HAND PUSH BUTTON INITIATION CAN ALSO BE FITTED IF REQUIRED FOR A PARTICULAR APPLICATION.

#### VERSATILE WELDING FACILITIES:

THE STANDARD WELD TIMER ALLOWS THE OPERATOR TO SELECT FROM SINGLE AND REPEAT SPOT MODES AND TO ROLLER SPOT AND SEAM WELD IN CONJUNCTION WITH THE MERITUS MOTORISED SEAM WELD ATTACHMENT.

#### SPARES:

THE ENTIRE RANGE OF MERITUS RESISTANCE WELDING MACHINES ARE DESIGNED AND MANUFACTURED TO EXACTING STANDARDS IN THE UNITED KINGDOM AND A FULL RANGE OF SPARES ARE ALWAYS READILY AVAILABLE.

#### OPTIONAL EXTRAS:

- VARIABLE SPEED MOTORISED SEAM WELDING ATTACHMENT (CIRCUMFERENTIAL AND LONGITUDINAL)
- COPPER ARMS
- WIDE RANGE OF ELECTRODES AND HOLDERS
- SELF CONTAINED WATER COOLER SYSTEMS
- EXTENDED REACH ARMS

#### AFTER SALES SERVICE:

A TEAM OF EXPERIENCED SERVICE ENGINEERS ARE ALWAYS PREPARED FOR A FAST RESPONSE TO CUSTOMER NEEDS.

SPECIFICATION 'AUTOFORGE' SPOT WELDERS

MODEL	KVA	ARM LENGTH VARIABLE BETWEEN	ELECTRODE PRESSURE	WELDING TIME
RAS30A5	30	150mm & 600mm	280kg with 450mm arms	2 x 1 - 99Hz
RAS50A5	50	150mm & 600mm	280kg with 450mm arms	2 x 1 - 99Hz
AS75A5	75	350mm & 600mm	570kg with 450mm arms	2 x 1 - 99Hz
AS100A5	100	350mm & 600mm	570kg with 450mm arms	2 x 1 - 99Hz
AS150A5	150	350mm & 600mm	570kg with 450mm arms	2 x 1 - 99Hz

## MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS



MICRO WELDING SYSTEMS

Hirst Holden & Hunt  
Resistance Welding



**SPOT AND PROJECTION WELDERS**

**HEAVY DUTY SUPER COMPACT WELDERS**



- AVAILABLE FROM 50KVA TO 150KVA.
- SUPER COMPACT DIMENSIONS.
- ROBUST, HEAVY DUTY PERFORMANCE.
- FLEXIBILITY, TOOLPOST OR PLATTERN.
- ADJUSTABLE LOWER KNEE.
- TWIN BUTTON / FOOT PEDAL START.
- DIGITAL WELD CONTROLS.
- MANUFACTURED IN THE UK.
- WIDE RANGE OF ELECTRODES AND ARMS.

**OPTIONS**

- DOUBLE STROKE HIGH LIFT FACILITY.
- LOW FORCE APPROACH SYSTEM.
- VARIABLE SPEED MOTORISED SEAM WELDING ATTACHMENT, CIRCUMFERENTIAL AND LONGITUDINAL
- WATER COOLED AND TELESCOPIC ARMS.
- BLADE ELECTRODES AND HOLDERS.
- PURPOSE DESIGNED SPOT AND PROJECTION TOOLING.
- LONGER THROAT VERSIONS.

SPECIFICATION SPOT PROJECTION WELDER	MSP50	MSP75	MSP100	MSP125	MSP150
KVA	50	75	100	125	150
Mains voltage (2 phases 50 Hz)	380/440	380/440	380/440	380/440	380/440
Weld cylinder (single stroke)	80 x 80	100 x 80	100 x 80	100 x 80	100 x 80
Weld cylinder (double stroke)	80 x 50 x 25	100 x 50 x 25	100 x 50 x 25	100 x 50 x 25	100 x 50 x 25
Electrode diameter	15.8	19	19	19	19
Electrode holder diameter	25.4	31.7	31.7	31.7	31.7
Throat to centre of electrodes	400	400	400	400	400
Throat to centre of platens	312	300	300	300	300
Platen size	125 x 125	150 x 150	150 x 150	150 x 150	150 x 150
Height to top of lower platen, or arm	750 - 950	750 - 950	750 - 950	750 - 950	750 - 950
Gap between platens	110 - 390	110 - 390	110 - 390	110 - 390	110 - 390
*mains cable (mm2 - 10m maximum)	35	50	70	95	95
*continuous capacity mains cable (amps)	75	100	150	225	225
*rewirable fuse size	100	125	150	200	200
Air supply required (bar)	6	6	6	6	6
Water supply required (litres per min)	20	25	25	30	30
Maximum water temperature (°c)	35	35	35	35	35
Height (mm) (crated)	1750	1750	1750	1750	1750
Width (mm)	500	500	500	500	500
Depth (mm)	1100	1100	1100	1100	1100
Weight (kg)	420	450	500	500	500

\* increase by 50% if welding aluminium or other non ferrous materials

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



MICRO WELDING SYSTEMS





**SPOT AND PROJECTION WELDERS**

**3 PHASE MEDIUM FREQUENCY INVERTER HEAVY DUTY COMPACT WELDER**



- HIGH CAPACITY, LOW POWER REQUIREMENTS.
- IDEAL FOR ALUMINIUM AND DIFFICULT MATERIALS.
- SUPER COMPACT DIMENSIONS.
- ROBUST, HEAVY DUTY PERFORMANCE.
- FLEXIBILITY, TOOLPOST OR PLATTERN.
- ADJUSTABLE LOWER KNEE.
- TWIN BUTTON / FOOT PEDAL START.
- WIDE RANGE OF ELECTRODES AND ARMS.
- BOSCH REXROTH WELDING CONTROLS

**OPTIONS**

- DOUBLE STROKE HIGH LIFT FACILITY.
- LOW FORCE APPROACH SYSTEM.
- ELECTRO PROPORTIONAL VALVE.
- IFM WATER SENSOR.
- BLADE ELECTRODES AND HOLDERS.
- PURPOSE DESIGNED SPOT AND PROJECTION TOOLING

TECHNICAL DATA		MSP130MF
RATING	KVA	130
MAINS VOLTAGE (3 PHASE 50HZ)	V	400
WELD CYLINDER (SINGLE STROKE)	mm	100 X 80
WELD CYLINDER (DOUBLE STROKE)	mm	100 X 50 X 25
ELECTRODE DIAMETER	mm	19
ELECTRODE HOLDER DIAMETER	mm	31.8
THROAT TO CENTRE OF ELECTRODE	mm	400
THROAT TO CENTRE OF PLATTERNS	mm	300
PLATTERN SIZE	mm	150 X 150
GAP BETWEEN PLATTERNS.	mm	110 - 390
MAINS CABLE	mm <sup>2</sup>	50
MAX SECONDARY CURRENT	A	36000
FUSE SIZE	A	100
AIR SUPPLY	bar	6
WATER SUPPLY	l/m	20
HEIGHT	mm	1750
WIDTH	mm	500
DEPTH	mm	1100
WEIGHT	KG	300



WELD TIMER PROGRAMMING PENDANT.

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



MICRO WELDING SYSTEMS



## ROCKER ARM SPOT WELDERS



TECHNICAL SPECIFICATIONS		SP918P	SP918	SP930	SP950
Main voltage at 50Hz	V	400	400	400	400
Power at 50% duty cycle	KVA	18	18	30	50
Max. thickness capacity	MM	4 + 4	4 + 4	5 + 5	6 + 6
Weld capacity on rods	MM	10 + 10	10 + 10	12 + 12	14 + 14
Throat depth	MM	400	400	400	400
Distance between arms	MM	300	300	300	300
Arms dia	MM	50	50	50	50
Tool post Dia	MM	25	25	25	25
Electrode Dia	MM	16	16	16	16
Cooling water flow rate	l/h	250	250	300	360
Electrode force at 6 bar	daN	270	160	230	300
Dimensions Height	MM	1450	1450	1450	1450
Width	MM	390	390	390	390
Length	MM	790	790	790	790
Operation		Foot	Air	Air	Air
Weight	Kg	145	165	190	210
Programmable control		ANALOGUE	CS200	CS200	CS200

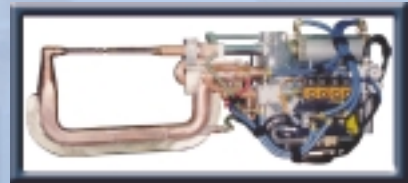
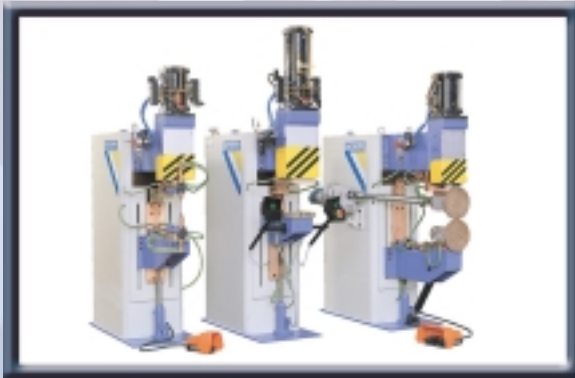
OPTIONS :- MACHINES AVAILABLE WITH DOUBLE STROKE HIGH LIFT FACILITY.

## MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS



**SERRA OVERVIEW**

**PROSPOT IS THE UK AGENT FOR ONE OF EUROPE'S LARGEST WELDING COMPANIES. BELOW IS AN OVERVIEW OF THEIR STANDARD PRODUCT RANGE.**



**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**





ZPA 6D

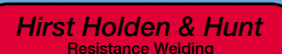
## BENCH SPOT WELDER



### TECHNICAL DATA

<b>WELDING CAPABILITY:</b>		
Low-carbon steel - metal sheets	mm	2+2
Low-carbon steel - bars crosswise	mm	Ø5+Ø5
Brass - sheets	mm	0.5 + 0.5
Rated power P50%	kVA	6
Maximum secondary short-circuit current	kA	14
Welding force type		pneumatic
Welding force of electrodes	daN	140
Throat depth	mm	290
Cooling		water
<b>POWER SUPPLY CONDITIONS:</b>		
Installed power	kVA	22
Power supply voltage	V	400 (50/60 Hz)
Main fuse	A	20
Required compressed air pressure	MPa	0.6
Required cooling water pressure	MPa	0.2 - 0.4
<b>DIMENSIONS:</b>		
Overall dimensions wxdxh	mm	700x330x580
Weight	kg	76
<b>TIMER. ASM713.</b>		
Seven welding programs.	Key switch protected (programming).	
Pulse welding.	Welder diagnostics.	
Current upslope	Foot switch or two hand control.	
Automatic voltage compensation.	End of welding sequence.	

## MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS



## ZPm-25

### SPOT WELDER



The ZPm-25 model allows the spot welding of workpieces of different shapes: metal sheets, shapes and bars crosswise.

The adjustment system for time and welding current as well as for electrodes pressure force permits to get joints of very good parameters. The ZPm-16 has a pneumatic electrodes pressure system. This provides its comfortable operation and a high repeatability of the electrodes pressure force, facilitating the formation of welds of identical properties, especially during the intensive use of the welding machine.

#### TECHNICAL DATA

<b>CAPABILITY AT THE SMALLEST THROAT DEPTH</b>				
Low carbon steel:				
Medium welding quality	mm	4+4	In.	0.16 + 0.16
high welding quality	mm	1.5+1.5	In.	0.06 + 0.06
Alloy steel:				
high welding quality	mm	0.8+0.8	In.	0.03 + 0.03
Bars crosswise	mm	Ø7+Ø7	In.	Ø0.28 + Ø0.28
<b>WORK PARAMETERS</b>				
Rated power P50%	kVA	25	KVA	25
Maximum secondary short-circuit current	kA	24	kA	24
Maximum welding force of electrodes	daN	350	lbf	787
Throat depth	mm	300 - 600	In.	12 - 24
Horn spacing	mm	160 - 400	In.	6 - 16
<b>POWER SUPPLY CONDITIONS</b>				
Installed power	kVA	43	kVA	43
Power supply voltage	V	400 (50/60Hz)	V	400 (50/60Hz)
Main fuse	A	63	A	63
Required compressed air pressure	Mpa	0.6	PSI	87
Cooling	water	water		
Water usage	l/h	300	gal/h	79
Required water pressure	MPa	0.2 - 0.4	PSI	29 - 58
<b>DIMENSIONS</b>				
Overall dimensions (w x d x h)	mm	1160 x 380 x 1550	In.	46x15x61
Weight	kg	270	Lbs	595

## MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS



MICRO WELDING SYSTEMS

Hirst Holden & Hunt  
Resistance Welding



MERITUS UNIMAN

UNIVERSAL WIRE WELDING MACHINES



3 APPLICATIONS IN 1 SYSTEM

• BUTT WELDING

• TEE WELDING

• CROSS WIRE WELDING

The Meritus Uniman universal system wire welding machine is a complete wire welding workshop designed for prototype modelling, jobbing shop work or flexible small batch production. Uniman is an essential tool for all wire fabricating companies as it provides the capability to butt weld frames, tee weld inner wires or cross wire weld outer wires - all three key welded joint configurations required in today's workshop.

**Butt and Tee Welding Heads**

The Pneumatically operated butt and tee weld heads with the British Federal WS500 electronic weld timer programmed for the pulsation ensure a consistent and reliable weld quality.

**Flexibility of Application**

The bottom electrode holder, jig frame rollers, butt and tee butt heads can all be adjusted on height to suit operator and application.

**Flexibility of Design**

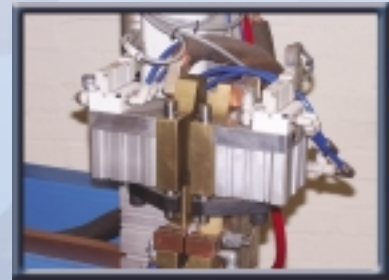
The design of the Uniman enables special customer requirements to be easily incorporated.

**Controls**

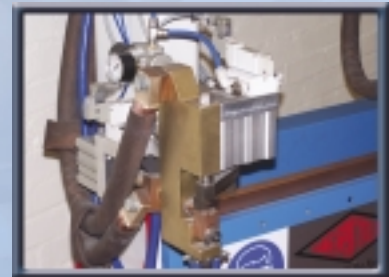
The control cabinet has a WS500 programmable multi-schedule weld timer and 3 position selector switch for butt, tee or cross wire welding. All welding heads have individual weld pressure regulators and gauges for easy set up. Initiation is by a foot switch.

**Jig frames and Location Jigs**

Available as an optional extra. Meritus can also supply jig design, concept engineering assistance via AutoCad e-mail if required.



BUTT WELDING HEAD



'T' BUTT WELDING HEAD

MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS



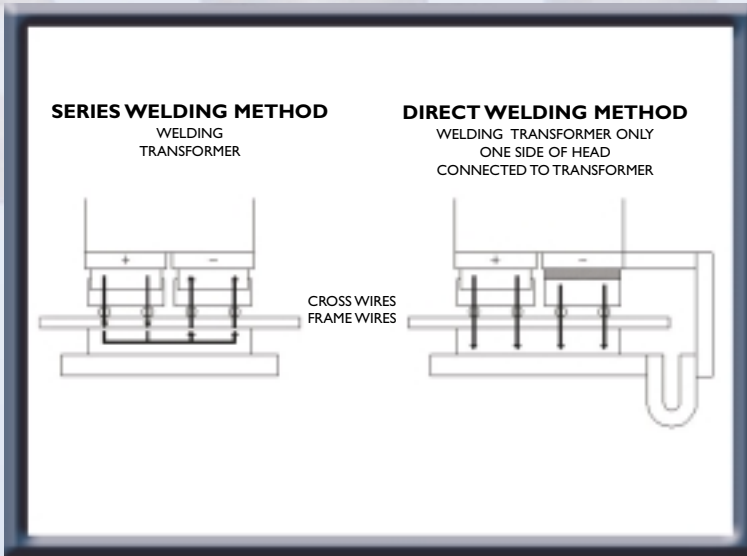
MICRO WELDING SYSTEMS





**MERITUS UNIMAN**

**UNIVERSAL WIRE WELDING MACHINES**



**Series and Direct Cross Wire Welding**

Uniman can be set up for both series and direct cross wire welding.

The 100 kVA welding transformer provides the same welding capacity as an equivalent pedestal press welder of similar kVA and throat depth when direct welding.

Uniman has a unique construction providing the benefit of being easily set up for series welding which significantly increases the welding current available required for a particular job, without increasing mains supply demand.

**ELECTRICAL SPECIFICATIONS**

Continuous power at 100% duty cycle	Sp	kVA	71
Max short circuit power	Sec	kVA	360
Max welding power	Smax	kVA	290
Nominal power at 50% duty cycle	S50	kVA	100
Nominal power supply	UIn	V	380/440
Continuous primary current at 100% duty cycle	I1p	A	170
Supply frequency		Hz	50 / 60
Supply Phases			2
Supply capacity		kVA	210
HRC fuse size to BS88		A	200
Feed cable c.s.a. u to 30m long		mm <sup>2</sup>	70
Max. short circuit secondary current	I2CC	A	35,000
Max. short circuit primary current	I1cc	A	860
Max. welding current	I2max	A	28,000
Duty cycle for max. welding	Xmax	%	6.1
Continuous secondary current at 100% DC	I2p	A	7,200
Secondary open circuit voltage	U20	V	7.1/8.0/9.0/10.0

**PNEUMATIC SPECIFICATIONS**

Air pressure normal	PI	bar	5.5
Air pressure max. operating	PI	bar	7
Air connection / hose size		BSP / in	1/2" / 3/4"

**WATER SPECIFICATIONS**

Cooling water min. operating pressure		bar	3
Cooling water consumption		lit./min	11.5
Cooling water max. inlet temperature		°C / °F	30 / 86
Water connection / hose size		BSP / in	1/2" / 3/4"

All details and descriptions shown are correct at time of going to print, but may be subject to change due to Meritus's policy of continuous improvement.

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



MICRO WELDING SYSTEMS





Pro  Spot

**MERITUS FLEXIMAN**

**FLEXIBLE CNC SEMI AUTOMATIC CROSS WIRE WELDING MACHINES**



*Fleximan is a brand new modular aeries of semi automatic crosswire (and spot welding) machines specifically designed and developed by Meritus for maximum flexibility in welding flat or profiled panels using pre-cut length wires.*

- Shop merchandising equipment
- Animal cages
- Oven and refrigerator shelves
- Display panels
- Fan guards
- Drainer and freezer baskets
- Barbecue grills
- Bed mesh
- Ventilator grills

**Fleximan features**

*Machines from 600mm wide x 1100mm long to 2400mm x 3000mm*

*Single and double head machines*

*Single electrode/twin electrode/rotating electrodes*

*CNC control with teach and touch screen programming*

*Black and white or full colour screen*

*Dual jig cross shuttle transfer*

*Left hand/right hand automatic jig programming*

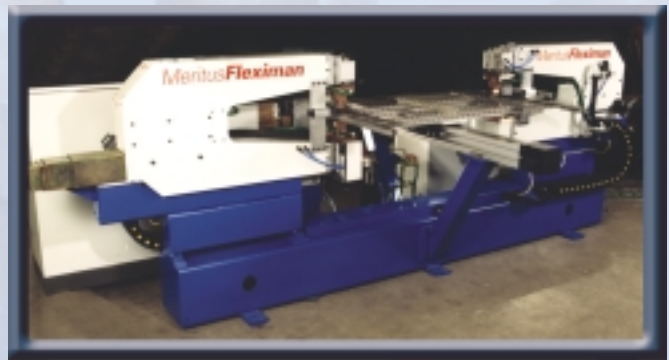
*Single/repeat auto cycle*

*AC servo motor drives*

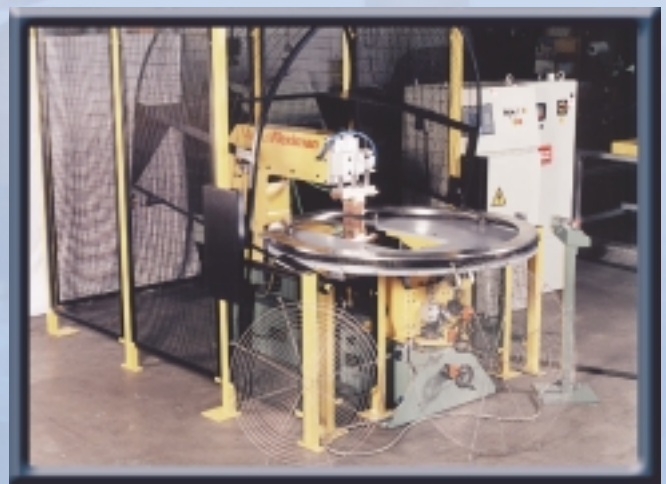
*Programmable weld pressure*

*Multi-schedule weld control*

*Medium frequency inventor system (option)*



**DOUBLE HEAD FLEXIMAN - FM2 100 8B MODEL**



**FLEXIMAN WITH PROGRAMMABLE ROTARY TABLE FOR THE PRODUCTION OF FAN GUARDS.**

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



**SLEE**

MICRO WELDING SYSTEMS





**MERITUS FLEXIMAN**

**FLEXIBLE CNC SEMI AUTOMATIC CROSS WIRE WELDING MACHINES**

Fleximan is a CNC controlled single or dual jig welder, ideal to replace manually operated pedestal bar and spot welders. It's flexible speed of operation and short set up time makes it very suitable for jobbing shop applications as well small/medium volume batch production of a wide range of products.

**Advantages in using Fleximan**

- Higher efficiency output
- Consistent quality control
- Reduced operator fatigue
- Unit cost reduction
- Increased flexibility
- Rapid change over times
- Increased safety
- JIT production

**CNC control using touch screen programming and self teach**



Fleximan is controlled by the latest 'state of the art' Allen Bradley CNC control with each servo motor driven axis being individually programmed for weld positioning.

Simply jog the position required - enter teach and Fleximan remembers.

Speed control - Each axis of Fleximan can be individually programmed for speed of operation in one percentage increments. This can be used to set at operators pace when using auto repeat programme.

**Dual jig cross shuttle transfer system**

The left to right dual jig cross shuttle system enables two jigs to be used. One jig is welding automatically, whilst the other is being unloaded and reloaded.

Jig mounting frames are available as an optional extra. Single auto cycle and auto repeat programme (with dual jig cross shuffle) On single auto cycle Fleximan on initiation will complete the following cycle:

- Dual jig cross shuttle indexes from left to right
- Jig indexes through Fleximan and is welded
- Jig returned to operators position to be unloaded

Whilst auto cycling is taking place the operator unloads and reloads the other jig.

In auto repeat the operator does not need to initiate the machine each time. Fleximan automatically recycles, whilst the operator simply unloads and reloads the jigs as they return to the operators position.

A pause button allows the operator to stop the repeat cycle as necessary.

**Programmable Weld Control**

WS500 multi-schedule weld control allows up to 8 different weld programmes to be used on any particular product cycle.

**Medium Frequency Invertor/DC Resistance Welding Control System**

As an alternative to the standard AC single phase system, Fleximan can be supplied with medium frequency invertor and WS500mS or WS700mS millisecond controller.

**Main Advantages if Medium Frequency Invertor Systems.**

- Increase rate of heat input to the weldment, thus reducing weld times
- Lengthens electrodes life - due to lower peak currents
- Allows the use of longer reach guns with greatly reduced power loss
- Very compact welding transformer
- Can weld in situations not normally possible using conventional techniques
- Lower power consumption
- Improved power factor
- Three phase even load distribution
- Reduced supply flicker
- Can be setup in 'Cycles' or 'Milliseconds'

**Programmable Welding Pressure**

A Programmable valve control provides individual weld pressure to be programmed for each welding position.

**Perimeter Safety Guarding**

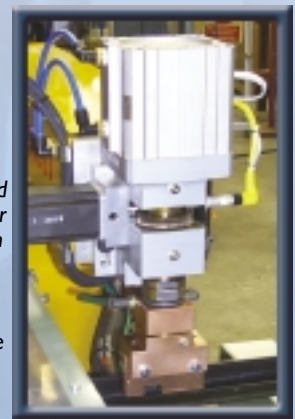
Supplied and an optional extra

**Welding Heads**

Each welding head comprises of CNC positionally controlled 'C' frame with either a 600mm throat 100kVA capacity or 1200mm throat 150kVA capacity.

On double head machines the heads are constructed on separate horizontal slideways and can be individually programmed for weld position to ensure maximum flexibility.

Double head machines can either simultaneously or electronically cascade weld to minimise mains supply demand and operate twice as fast as single head machines by welding double the number of joints in the same time. This is particularly important if the machine is interfaced with robotic loading and unloading for maximum production output. On twin electrode heads each electrode operates sequentially and independently. The CNC programmable rotating electrodes are particularly useful in welding circular panels or panels with angular welding.



ROTATING HEAD

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



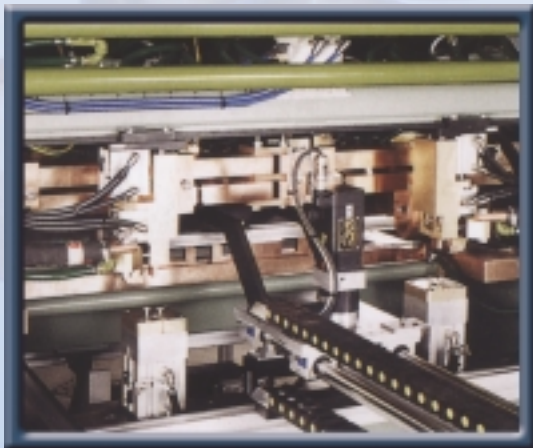
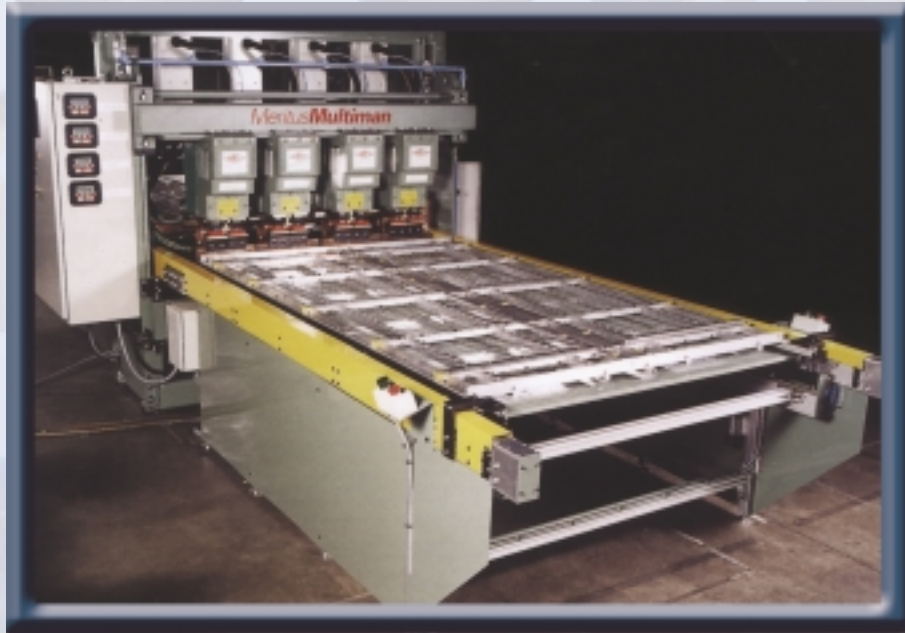
MICRO WELDING SYSTEMS





**MERITUS MULTIMAN**

**MODULAR SEMI AUTOMATIC CROSS WIRE WELDING MACHINES**



OPTIONAL TEE BUTT WELDING ATTACHMENT



DOUBLE HEAD MULTIMAN

**With in-process 'T' butt welding**

The Meritus 'Multiman' modular semi automatic cross wire and spot welding machine has been designed and developed for medium, to high volume production of flat or profiled panels using pre-cut length wires.

**Multiman features**

- Flexibility to increase capacity by addition of extra twin head modules.
- Easy conversion from cross wire welding to spot welding.
- Incorporates two component jigs and a transfer cross shuttle system for loading and unloading components whilst other component is being welded.
- Liner side guides for jig or components easily adjusted tee slotted rails.
- Operator twin button initiation with emergency stop
- Selector switch for single auto-cycle

**Optional extras available for Meritus**

- A direct welding conversion kit for greater flexibility in the fabrication of components not easily welded by series welding.
- Programmable tee butt welding attachment to weld cross bars inside outer frames or line wires and to cross wire weld the in-fill cross wires in one operation.
- Programme for either cross wire welding only, tee butt welding only or both.
- Modified version of the control system allows dissimilar components to be welded in right and left handed jigs.
- Perimeter guarding.
- Dual jig lifter transfer system.

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



MICRO WELDING SYSTEMS





**MERITUS MULTIMAN**

**The Multiman welding system.**

Multiman uses twin series welding head modules, which can be added to or reduced in number as required and connected to each other in series for automatic operation.

All the welding heads are simultaneously lowered and then electronically cascade weld in series or direct to minimise mains line demand, whilst maintaining maximum operational welding speed. (Simultaneous welding of all heads can be included as a option).

Each module has its own water cooled welding transformer, firing card, SCR contactor and solenoid air valve allowing different welding parameters on each pair of heads, to compensate for varying wire diameters or metal thickness when spot welding.

Twin head modules are mounted to a robust horizontal gantry on the machine frame and are easily positioned to suit.

**The control cabinet**

Mounted on the left side of the machine, this cabinet houses the mains isolator, programmable console for the auto index system, PLC for the operation sequence, manual/auto selection switch. it also has individual control of machine operation sequence buttons, re-settable welding panels counter and 4-stage weld sequence timers - one for each hand.

**Reciprocating knee**

To ensure clearance of the welding jigs or components during indexing, Multiman incorporated a programmable automatic rise and fall reciprocation knee on which is mounted the lower welding electrodes.

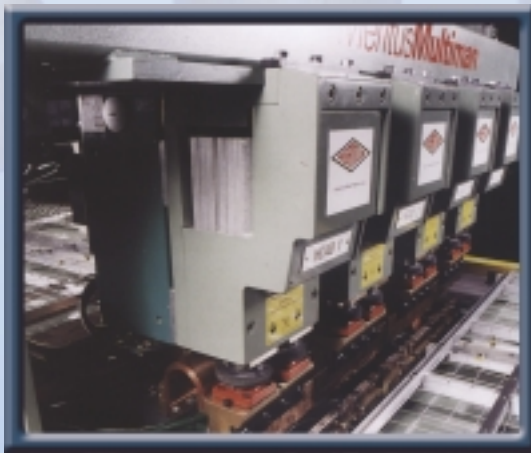
The knee is engineered utilising a precision hardened and grounded low friction slide system, rigidly supported to ensure minimum deflection against the welding head forces.

**Programmable Auto Index System**

- Low friction carriage running along a precision tracking system
- AC servo motor drive
- Numerically controlled programmable single axis controller with memory module.

The indexing carriage pulls the pre-loaded jig for mesh welding or component panel for spot welding through the machine beneath the twin welding head modules as programmed.

The dual jig cross shuttle system, the jig is automatically positioned and retained in the carriage during the cross shuttle index cycle.



**POWER AND SERVICE REQUIREMENTS FOR MULTIMAN SYSTEM**

MODEL	AIR PRESSURE bar	AIR VOLUME cfm per module	WATER litres/minute/module 10°Cmin-25°Cmax	MAINS CABLE mm <sup>2</sup> -10m mm <sup>2</sup> -30m max		RE-WIREABLE FUSE amps	HRC FUSE SIZE amps
GS30	6	0.5	4	16	35	60	100
GS50	6	0.5	4	35	50	100	150
GS75	6	0.8	6	50	80	125	200
GS100	6	0.8	6	70	100	150	250
GS125	6	0.8	8	95	120	200	350
GS150	6	0.8	8	95	120	200	400

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**





## BUTT WELDERS MANUAL



ZDZ-0.6



ZDZ-2.5



ZDZ-7



ZDZ-16

The butt/lapset welders manufactured by ASPA S.A. are designed for butt welding of circular, square, rectangular intersection rods made of low-alloy, alloy steel, copper and aluminum, of diameters 0,3 up to 20 mm. Simple construction, reliable operation and high quality of welds is a common feature of this group of welders. The welders are provided with simple mechanical adjustment units of welding force, shortening and welding current allowing easy welding parameters setting. A welding annealing unit is attached to each welder in order to improve plastic properties of welds.

TECHNICAL DATA		ZDZ-0.6	ZDZ-2.5	ZDZ-7	ZDZ-16
<b>WELDING CAPABILITY:</b>					
Low-carbon steel	mm	Ø0.3-Ø2.5	Ø2-Ø8	Ø4-Ø14	Ø10-Ø20
Alloy steel	mm	Ø0.3-Ø2.5	Ø1.8-Ø8	Ø4.8-Ø12	Ø10-Ø17
Copper	mm	Ø0.5-Ø2	Ø2-Ø6	Ø5-Ø10	Ø10-Ø17
Aluminium	mm	Ø1-Ø3	Ø3-Ø6	Ø6-Ø12	Ø10-Ø17
<b>WORK PARAMETERS</b>					
Rated power P50	kVA	0.6	2.5	7	16
Secondary short-circuit current	kA	2.3	7.3	34	50
Number of adjustment steps		8	8	16	8
Welding force type		manual	manual	manual	manual
<b>POWER SUPPLY CONDITIONS:</b>					
Power supply voltage	V	230	400	400	400
Cooling		no	no	no	no
<b>DIMENSIONS:</b>					
Overall dimensions wxdxh	mm	470x490x1040	660x640x1045	840x655x1350	1180x1120x1415
Weight	kg	21	35	160	200

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



## BUTT WELDERS AUTO



ZDZ-4P



ZDZ-7P



ZDZ-16P



ZDZ-40P

The butt/upset welders manufactured by ASPA S.A. are designed for butt/upset welding of circular, square or rectangular intersection wires made of low-carbon steel, alloy steel, Cu and Al of 2mm - 10 mm diameters. Simple construction, reliable operation and high quality of obtained welds is the common feature of this group of welders.

- Welding transformers of 50% duty cycle rated power: 4, 7, 16 or 40 kVA
- Electrode pressure system of the pressure force: 10 daN - 900 daN
- Control system ASM-911 which allows automatic compensation of the welder's supply voltage variations, programming and storing of eight welding technologies and running the welding diagnostics.
- A weld annealing unit attached to each welder in order to improve plastic properties of welds.

TECHNICAL DATA		ZDZ-4P	ZDZ-7P	ZDZ-16P	ZDZ-40P
<b>WELDING CAPABILITY:</b>					
Low-carbon steel	mm	Ø2-Ø10	Ø4-Ø14	Ø8-Ø20	Ø12-Ø25
High-carbon steel	mm	Ø2-Ø8	Ø4-Ø12	Ø8-Ø16	Ø12-Ø25
Brass	mm	Ø2-Ø6	Ø5-Ø10	Ø6-Ø12	Ø10-Ø18
Aluminium	mm	Ø3-Ø7	Ø6-Ø12	Ø6-Ø12	Ø14-Ø18
<b>WORK PARAMETERS</b>					
Rated power 50%	kVA	4	7	16	40
Installed power	kVA	13.5	59.4	205.9	206
Short-circuit current	kA	10	30	40	52
Maximum welding current	kA	8	24	32	41.6
Secondary short circuit voltage	V	2.2	3.3	3.3	4.13-8.25
Time delay cut-outs	A	25	25	60	315
Welding force type		pneumatic	pneumatic	pneumatic	pneumatic
Welding force of electrodes	daN	10-58	70-340	110-540	400-900
<b>POWER SUPPLY CONDITIONS</b>					
Installed power	V	400 (50Hz)	400 (50/60 Hz)	400 (50/60 Hz)	400 (50/60 Hz)
Required compressed air pressure	MPa	0.6	0.6	0.6	0.6
Compressed air usage	l/weld	3	4.5	5.5	14.5
Required water pressure	MPa	0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4
Min water usage at rated power	l/h	180	240	600	600
<b>DIMENSIONS</b>					
Overall dimensions l x w x h	mm	620x600x1100	790x580x1320	790x580x1320	1120x960x1625
Weight	kg	84	160	200	650

## MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS



**SPECIAL PURPOSE WELDING MACHINES**

**PROSPOT CAN DESIGN AND MANUFACTURE SPECIAL PURPOSE WELDING MACHINES FOR; - SPOT, PROJECTION, MIG, TIG AND CAPACITOR DISCHARGE WELDING.**



NUT PROJECTION WELDER



3 HEADED SPOT WELDER



CD WELDER



SEVEN HEADED MULTIWELDER

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**



**ROBOT CELLS**



**PROSPOT IS ABLE TO DESIGN AND MANUFACTURE ROBOT WELDING SYSTEMS FOR ALL TYPES OF WELDING APPLICATIONS.**



**LARGER PROJECTS CAN BE UNDERTAKEN IN CONJUNCTION WITH OUR PARTNER SERRA.**

**MANUFACTURERS & SUPPLIERS OF RESISTANCE WELDING PRODUCTS**

