

# Pro Spot

welding & joining technologies

resistance welding  
open arc  
bodyshop  
micro welding  
riveting solutions



## Mission Statement

Prospot aims to be the preferred supplier of welding and joining products to industry by providing cost effective solutions to our customers from initial enquiry to quality after sales service.

Prospot has the ability to design and manufacture specialised welding and joining systems enhanced by a comprehensive range of quality standard machines, spares, after sales service and training.

## Company History

Prospot Ltd was established in 1997 manufacturing and supplying an extensive range of resistance welding products and have since grown to now occupy a 16000 sq. foot factory in the heart of the UK, with skilled and experienced staff to meet our customer's objectives.

In 2001 Prospot bought Hirst, Holden & Hunt Resistance Welding which was an amalgamation of different companies.

Hirst was formally known as Hirst Electrical Industries or Hirst Electrical Developments and were originally based in Crawley, West Sussex, as part of the B.O.C. Group manufacturing a range of resistance welding machines. This company had been acquired in 1977.

Holden and Hunt were a long established manufacturer and a forerunner of resistance welding machines, originally based in Warley, West Midlands.

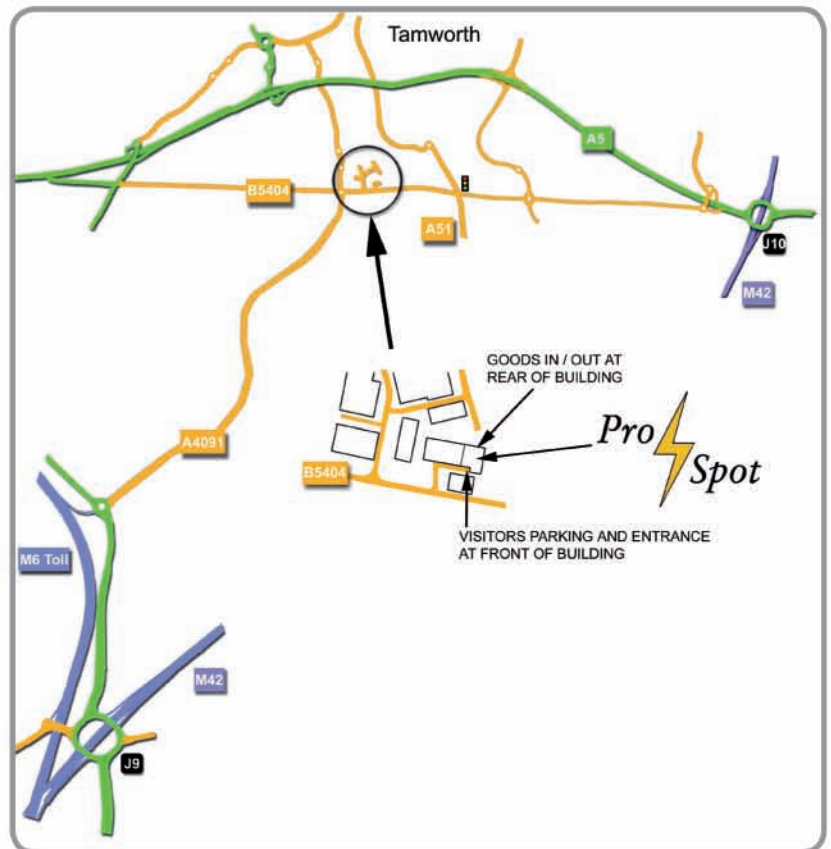
Slee group of companies went into liquidation and HHRWL acquired their range of microspot and bench mounted welding systems in 1989.

In 2003 Prospot acquired Meritus, one of the oldest British manufacturers of resistance welding machine's having commenced production in 1932 in east End Road, London, building rocker arm type spot welders. Meritus has manufactured and supplied over 29000 machines across a wide and diverse range of applications and industries.

Along with these acquisitions Prospot represents some of Europe's leading manufacturers of welding and joining products such as LUVATA, SERRA, DOCERAM, LORCH, HYPER THERM, AGME & PRIMA.

Through continuous growth and acquisitions Prospot is now the UK's premier supplier of leading edge welding and joining technologies focusing on the Automotive and Metal Fabrication markets

From specialist resistance welding equipment to the latest gas saving MIG torches, Prospot offer a complete range of welding and joining technologies. Prospot equipment and services are focussed on driving higher productivity, greater efficiency and significant cost reductions for our customers ranging from small car bodyshops to multinational corporations.

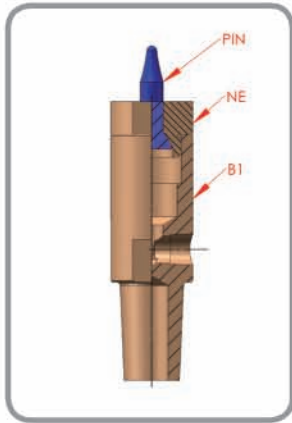


# Projection Weld Nut Assemblies

## Long Series



welding & joining technologies



B1  
3/4" 5  
Degree  
BS807  
Taper



B1-Wc  
Water  
Cooled  
3/4" 5  
Degree  
BS807  
Taper



B3  
3/4" BSP  
Thread



B13  
1/2" BSP  
Thread

All Air  
Or  
Spring  
Operated

Body Type	Weld Nut Size	Panel Hole Mm	Ceramic Coated Pins		Solid Ceramic Pins Cone	Nut Electrodes M20 X 1.5mm	
			Feeder Type	Castlated Type		Cucrzr	Elkanite Faced
	M3	4.0		CPM3C		NECPM3	NECPM3ELK
	M4	5.0	CP1			NE1	NE1ELK
	M4	6.0	CP2	CP2C	SCP1B	NE2	NE2ELK
	M4	6.65	CP30	CP30C	SCP30B	NE17	NE17ELK
	M4	7.0	CP11	CP11C	SCP2B	NE3	NE3ELK
	M5	5.5	CP43	CP43C		NE13	NE13ELK
	M5	6.0	CP3	CP3C	SCP1B	NE2	NE2ELK
	M5	6.1	CP3-6			NE2-6	NE2-6ELK
	M5	7.0	CP4	CP4C	SCP2B	NE3	NE3ELK
	M5	7.5	CP70	CP70C	SCP3B	NE11	NE11ELK
	M6	6.0	CP18	CP18C	SCP1B	NE2	NE2ELK
	M6	6.5	CP21	CP21C	SCP30B	NE17	NE17ELK
	M6	7.0	CP5	CP5C	SCP2B	NE3	NE3ELK
	M6	7.1	CP5-7	CP5-7C		NE3-7	NE3-7ELK
	M6	7.5	CP19	CP19C	SCP3B	NE11	NE11ELK
	M6	8.0	CP6	CP6C	SCP4B	NE4	NE4ELK
	M6	8.15			SCP29B	NE34	NE34ELK
	M6	8.25	CP72	CP72C	SCP24B	NE35	NE35ELK
	M6	8.4			SCP25B	NE36	NE36ELK
	M6COL	8.7	CP67	CP67C		NE37	NE37ELK
	M6	9.0	CP71	CP71C	SCP5B	NE5	NE5ELK
	M6 COL	9.65	CP41	CP41C		NE10	NE10ELK
	M6 COL	10.0	CP17	CP17C	SCP7B	NE6	NE6ELK
	M6 T/LESS	7.0	CP23	CP23C	SCP2B	NE3	NE3ELK
	M6 T/LESS	7.5	CP14	CP14C	SCP3B	NE11	NE11ELK
	1/4UNF	8.0	CP28	CP28C	SCP4B	NE4	NE4ELK
	5/16UNF	8.7	CP29	CP29C		NE20	NE20ELK
	5/16UNF	8.95	CP59	CP59C		NE5	NE5ELK
	5/16UNFCOL	12.5	CP64	CP64C		NE14	NE14ELK
	M8	8.5	CP31	CP31C		NE20	NE20ELK
	M8	8.7	CP49	CP49C	SCP27B	NE37	NE37ELK
	M8	9.0	CP7	CP7C	SCP5B	NE5	NE5ELK
	M8	9.1	CP7-9			NE5	NE5ELK
	M8	9.5	CP16	CP16C	SCP6B	NE10	NE10ELK
	M8	10.0	CP8	CP8C	SCP7B	NE6	NE6ELK
	M8	10.1	CP8-10	CP8-10C		NE6	NE6ELK
	M8	10.5	CP22	CP22C	SCP8B	NE18	NE18ELK
	M8	10.65			SCP28B	NE38	NE38ELK
	M8	11.0	CP66	CP66C	SCP9B	NE7	NE7ELK
	M8	11.2	CP73	CP73C		NE41	NE41ELK
	M8COL	11.3	CP42-11.2			NE42	NE42ELK
	M8 COL	12.2	CP42	CP42C		NE8	NE8ELK
	M8 T/LESS	8.75	CP50	CP50C		NE37	NE37ELK
	M8 T/LESS	9.0	CP24	CP24C	SCP5B	NE5	NE5ELK
	M8 T/LESS	9.5	CP13	CP13C	SCP6B	NE10	NE10ELK
	M8 T/LESS	10.0	CP25	CP25C	SCP7B	NE6	NE6ELK
	M8 T/LESS	11.25	CP63	CP63C		NE7	NE7ELK
	M8 T/LESS	13.0	CP75	CP75C	SCP12B	NE12	NE12ELK
	M10	10.5			SCP8B	NE18	NE18ELK
	M10	11.0	CP9	CP9C	SCP9B	NE7	NE7ELK
	M10	11.5	CP20	CP20C	SCP10B	NE16	NE16ELK
	M10	11.7	CP44	CP44C		NE8	NE8ELK
	M10	12.0	CP10	CP10C	SCP11B	NE8	NE8ELK
	M10	12.2	CP48	CP48C		NE8	NE8ELK
	M10	12.4	CP55	CP55C	SCP13B	NE14	NE14ELK
	M10	13.0	CP52	CP52C	SCP12B	NE12	NE12ELK
	M10	14.5	CP53	CP53C	SCP16B	NE25	NE25ELK
	M10 T/LESS	11.0	CP26	CP26C	SCP9B	NE7	NE7ELK
	M10 T/LESS	11.5	CP27	CP27C	SCP10B	NE16	NE16ELK
	M10 T/LESS	12.0	CP56	CP56C	SCP11B	NE8	NE8ELK
	M10 T/LESS	13.15	CP62	CP62C	SCP26B	NE12	NE12ELK
	7/16UNF	11.65	CP60	CP60C		NE43	NE43ELK
	7/16UNF	12.0	CP15	CP15C	SCP11B	NE8	NE8ELK
	7/16UNF	12.6	CP76	CP76C		NE14	NE14ELK
	7/16UNF	13.0	CP77	CP77C	SCP12B	NE12	NE12ELK
	7/16UNF	16.2	CP54	CP54C		NE31	NE31ELK
	3/8UNC	14.75	CP36	CP36C		NE26	NE26ELK
	3/8UNC	14.5	CP65	CP65C	SCP16B	NE25	NE25ELK
	M12	13.0	CP61	CP61	SCP12B	NE12	NE12ELK
	M12	13.5			SCP17B	NE30	NE30ELK
	M12	14.0	CP69	CP69C	SCP15B	NE27	NE27ELK
	M12	15.5	CP51	CP51C		NE45	NE45ELK
	M12F	12.7	CP68	CP68C		NE40	NE40ELK
	M12F	13.0	CP47	CP47C	SCP12B	NE12	NE12ELK
	M12F	13.2	CP12-173		SCP26B	NE9	NE9ELK
	M12F	13.4	CP12-175			NE44	NE44ELK
	M14	14.5			SCP16B	NE25	NE25ELK
	M14	15.0			SCP14B	NE26	NE26ELK
	M14	15.2			SCP18B	NE39	NE39ELK



# Projection Weld Nut Assemblies

## Short Series



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Body Type	Nut Size	Panel Hole	Ceramic Coated Pins			Solid Ceramic Pins		Nut Electrode		Thread Size
			Dolphin	Castle`D	Rover Std	Cerazur	Cerazur	CuCrZr	Elkanite	
B4 M18 X1.5 3/4" 5 Deg Taper	M4	5	WPN-4P	TMS3-M4	WS17-4878-01	TPM04	TMS3M4B	WPN-C4	WPN-C4ELK	M18
	M4	6	WPN-4PRS		WS17-4878-02	TPM05		WPN-C5	WPN-C5ELK	M18
	M5	6	WPN-5P	TMS3-M5	WS17-4878-03	TPM05	TMS3M5B	WPN-C5	WPN-C5ELK	M18
	M5	7	WPN-5PRS		WS17-4878-04	TPM05		WPN-C6	WPN-C6ELK	M18
	M6	7	WPN-6P	TMS3-M6	WS17-4878-05	TPM06	TMS3M6B	WPN-C6	WPN-C6ELK	M18
	M6	8	WPN-6PRS		WS17-4878-06	TPM07		WPN-C6RS	WPN-C6RSELK	M18
	M8	9	WPN-8P	TMS3-M8	WS17-4878-07	TPM08	TMS3M8B	WPN-C8	WPN-C8ELK	M18
	M8	10	WPN-8PRS		WS17-4878-08	TPM09		WPN-C8RS	WPN-C8RSELK	M18
B5 M22 X 1.5 3/4" 5 Deg Taper	M10	11	WPN-10P	TMS3-M10	WS17-4878-09	TPM10	TMS3M10B	WPN-C10	WPN-C10ELK	M22
	M10	12	WPN-10PRS		WS17-4878-10	TPM11		WPN-C10RS	WPN-C10RSELK	M22
	M12	13	WPN-12P	TMS3-M12	WS17-4878-11	TPM12	TMS3M12B	WPN-C12	WPN-C12ELK	M22
	M12	14	WPN-12PRS		WS17-4878-12	TPM13		WPN-C12RS	WPN-C12RSELK	M22
B13-M18 M18 X1.5 1/2" BSP-25 Dia	M14	15	WPN-14P		WS17-4878-17	TPM14		WPN-C14	WPN-C14ELK	M22
	M14	16				TPM15		WCP-C15	WCP-C15ELK	M22
	M14	16.5				TPM16.5		WPN-C16.5	WPN-C16.5ELK	M22
	M16	17				TPM16		WPN-C17	WPN-C17ELK	M22



B4 ASSY



CUCRZR ELKANITE FACED



B5 ASSY



B34-M18

B5

B4

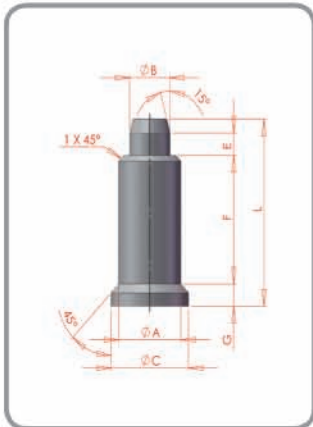


# Ceramic Coated Steel Location Pins

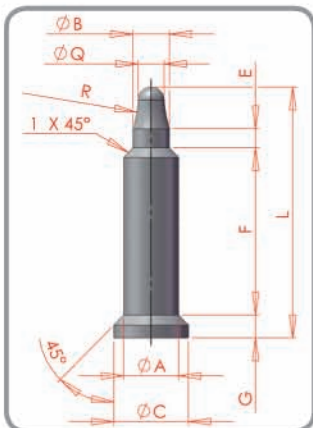
## Long Series



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CASTELLATED TYPE



DOLPHIN TYPE

Part No Dolphin	Part No Cast'd	Nut Size	Hole Dia	Dia A	Dia B	Dia C	Dim E	Dim F	Dim G	Dim L	Dia Q	Rad R
	CPM3C	M3	4	3.85	2.4	8	1.7	23		30.2		
CP1	M4	5	4.85	3.2	10	2	22	4	31	2.5	9	
CP2	M4	6	5.85	3.2	10	2	22	4	31	2.5	9	
CP30	M4	6.65	6.5	3.2	10	2	22	4	31	2.5	9	
	CP11C	M4	7	6.85	3.2	10	1.7	23	4	30.2		
CP43	M5	5.5	5.35	4.1	10	2.5	22	4	32	3	13.3	
CP3	M5	6	5.85	4.1	10	2.5	22	4	32	3	13.3	
CP3-6	M5	6.1	5.95	4.1	10	2.5	22	4	32	3	13.3	
CP4	M5	7	6.85	4.1	10	2.5	22	4	32	3	13.3	
	CP70C	M5	7.5	7.35	4.1	10	2	23	4	30.5		
	CP41C	M6	9.65	9.5	4.9	10	2.5	23	4	31.5		
CP21	M6	6.5	6.35	4.9	10	2.5	22	3	32	3.5	15.5	
CP5	M6	7	6.85	4.9	10	2.5	22	3	32	3.5	15.5	
	CP34C	M6	7.1	7.05	4.9	10	2.5	23	3	32		
CP5-7	M6	7.1	6.95	4.9	10	2.5	22	3	35	3.5	15.5	
	CP5-7C	M6	7.1	6.95	4.9	10	2.5	22	3	31.5		
CP19	M6	7.5	7.35	4.9	10	2.5	22	3	33	3.5	15.5	
CP6	M6	8	7.85	4.9	10	2.5	22	3	33	3.5	15.5	
	CP72C	M6	8.25	8.15	4.9	12	2.5	23	4	31.5		
	CP67C	M6COLL	8.7	8.55	4.9	12	4	23	4	31.5		
	CP71C	M6	9	8.85	4.9	12	2.5	23	4	31.5		
	CP17C	M6 COLL	10	9.8	4.9	16	2.5	23	4	31.5		
CP23	M6 TLESS	7	6.84	5.25	12	2.5	22	3	32	3.5	15.5	
	CP14C	M6 TLESS	7.5	7.35	5.25	12	2.5	23	4	31.5		
CP31	M8	8.5	8.35	6.6	12	3.5	23	3	34	5	17.5	
	CP49C	M8	8.75	8.6	6.6	12	3.5	23	4	32.5		
CP7	M8	9	8.85	6.6	12	3	23	3	34	5	17.5	
	CP7C	M8	9	8.85	6.6	12	3	23	4	32.5		
CP7-9	M8	9.1	8.95	6.6	12	3	24	3	39	4	32.5	
CP16	M8	9.5	9.35	6.6	12	3	23	3	34	5	17.5	
CP8	M8	10	9.85	6.6	12	3	23	3	34	5	17.5	
CP8-10	M8	10.1	9.95	6.6	12	3	23	3	34	5	17.5	
CP22	M8	10.5	10.35	6.6	12	3	23	3	34	5	17.5	
	CP66C	M8	11	10.85	6.6	16	3.5	23	4	32.5		
	CP73C	M8	11.2	11.05	6.6	16	3.5	23	4	32.5		
	CP50C	M8 TLESS	8.75	8.6	7.25	12	3.5	23	4	32.5		
CP24	M8 TLESS	9	8.84	7.25	12	3	23	3	34	5	17.5	
	CP13C	M8 TLESS	9.5	9.35	7.25	12	3.5	23	4	32.5		
	CP25C	M8 TLESS	10	9.84	7.25	15	3.5	23	4	32.5		
	CP63C	M8 TLESS	11.25	11.1	7.25	15	3.5	23	4	32.5		
	CP75C	M8 TLESS	13	12.85	7.25	15	3.5	23	4	32.5		
CP42-11.2	M8 COLL	11.3	11.2	6.6	15	3.5	24	3	32.5	7	30.5	
CP42	M8 COLL	12.2	12.05	6.6	15	3.5	24	3	37	7	30.5	
CP9	M10	11	10.85	8.33	15	4	24	3	37	7	30.5	
	CP9C	M10	11	10.85	8.33	15	4	24	3	33.5		
CP20	M10	11.5	11.35	8.33	15	4	24	3	37	7	30.5	
	CP44C	M10	11.7	11.55	8.33	15	4	23	4	33.5		
CP10	M10	12	11.84	8.33	15	4	24	3	37	7	30.5	
CP48	M10	12.2	12.1	8.5	16	4	24	3	37	7	30.5	
	CP55C	M10	12.4	12.25	8.33	16	4	23	4	33.5		
	CP52C	M10	13	12.85	8.33	16	4	23	4	33.5		
	CP26C	M10 TLESS	11	10.74	8.95	16	4	23	4	33.5		
	CP27C	M10 TLESS	11.5	11.35	8.95	16	4	23	4	33.5		
	CP56C	M10 TLESS	12	11.85	8.95	16	4	23	4	33.5		
	CP62C	M10 TLESS	13.15	13.05	9.15	16	4	23	4	33.5		
	CP53C	M10COL	14.5	14.35	8.33	16	4	23	4	33.5		
	CP61C	M12	13	12.85	10.05	16	5	23	5	34.5		
CP47	M12F	13	12.85	10.4	16	4	23	5	39	9	41	
	CP69C	M12	14	13.85	10.05	16	5	23	5	34.5		
	CP51C	M12	15.5	15.35	10.05	18	7	23	4	30		
CP28C	1/4UNF	8	7.85	5.35	12	3.5	23	4	32.5			
CP29C	5/16UNF	8.7	8.55	6.75	16	3.5	23	4	32.5			
CP59C	5/16UNF	8.95	8.8	6.75	16	3.5	23	4	32.5			
CP64C	5/16UNFCOL	12.5	12.35	6.75	16	3.5	23	4	32.5			
CP12-173	M12F	13.2	13.05	10.5	16.5	6	24	3	37	9	41	
CP12-175	M12F	13.4	13.2	10.5	16.5	5	24	3	34.5	9	41	
CP15	7/16UNF	12	11.85	9.7	16	5	23	3	37	7	30.5	
	CP76C	7/16UNF	12.6	12.4	9.7	16	5	23	4	34.5		
	CP77C	7/16UNF	13	12.85	9.7	16	5	23	4	34.5		
	CP54C	7/16COL	16.2	16	9.7	18	5	23	4	34.5		
	CP74C	M14	14.6	14.35	12.4	16.5	5	23	4	34.5		
	CP65C	3/8UNCCOL	14.5	14.35	7.9	16	5	23	4	33		

# Superior Solid Ceramic Pins

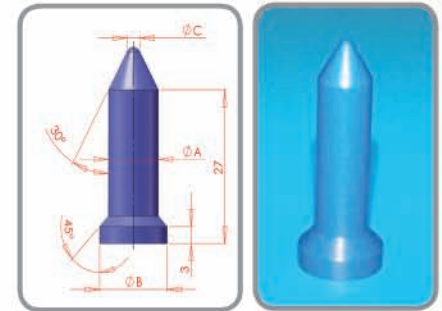
## Long And Short Series



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### Cone Design - Long Series.

Part No	Nut Size	Hole Size	A	B	C
SCP1B	M4,M5,M6	6.00	5.85	10.00	1.5
SCP2B	M6	7.00	6.85	10.00	1.5
SCP3B	M6	7.50	7.35	12.00	2.0
SCP4B	M6	8.00	7.85	12.00	2.0
SCP5B	M8	9.00	8.85	14.00	3.0
SCP6B	M8	9.50	9.35	14.00	3.0
SCP7B	M8	10.00	9.85	14.00	3.0
SCP8B	M8	10.50	10.35	14.00	3.0
SCP9B	M10	11.00	10.85	16.00	3.5
SCP10B	M10	11.50	11.35	16.00	3.5
SCP11B	M10,7/16UNF	12.00	11.85	16.00	3.5
SCP12B	M12,7/16UNF	13.00	12.85	16.00	4.5
SCP13B	M10	12.50	12.35	16.00	3.5
SCP14B	M14	15.00	14.85	18.00	5.0
SCP15B	M12	14.00	13.85	16.00	4.0
SCP16B	7/16UNF	14.50	14.35	16.00	4.5
SCP17B	7/16UNF	13.50	13.35	16.00	4.5
SCP18B	M14	15.20	15.15	17.00	5.0

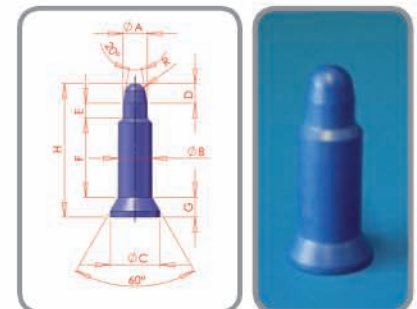


### Characteristics

Material	Cerazur	SN750
Colour	Blue	Grey
Flexural Strength	1300MPa	750MPa
Impact Resistance	12MPa m	6.7MPa m
Vickers Hardness	1.150HV 0,5	1.650HV 0,5

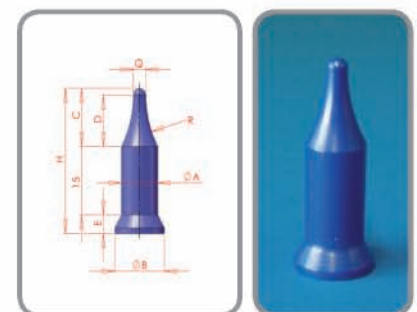
### Castellated - Short Series.

Part No	Nut Size	Hole Size	A	B	C	D	E	F	G	H
TMS3M4B	M4	5	3.2	4.8	10	2.5	2.5	16	6	27
TMS3M5B	M5	6	4.1	5.8	10	3	3	16	5	27
TMS3M6B	M6	7	4.9	6.8	10	4	3	16	4	27
TMS3M8B	M8	9	6.6	8.8	12	4.5	3.5	16	4	28
TMS3M10B	M10	11	8.5	10.8	15	6.5	4	16	5	31
TMS3M12B	M12	13	10.05	12.8	16	10.4	4	16	4	31



### Dolphin Nosed - Short Series.

Part No	Nut Size	Hole Size	A	B	L	C	D	E	Q	R
TPM04	M4	5	4.8	12	29	6.5	5.5	7.5	2	11
TPM05	M4	6	5.8	12	30	8.5	7.5	6.5	2	15
TPM05	M5	6	5.8	12	30	8.5	7.5	6.5	2	15
TPM06	M5	7	6.8	12	31.5	11	9.5	5.5	3	23
TPM06	M6	7	6.8	12	31.5	11	9.5	5.5	3	23
TPM07	M6	8	7.8	12	31.5	11	9.5	5.5	3	23
TPM08	M8	9	8.8	12	31	12	11	4	3	22
TPM09	M8	10	9.8	12	31	12	11	4	3	22
TPM10	M10	11	10.8	16	34.5	14	12	5.5	4	22
TPM11	M10	12	11.8	16	35	14	12	5.5	4	22
TPM12	M12	13	12.8	16	36	17	15	4	4	27
TPM13	M12	14	13.8	16	35	17	15	4	4	27
TPM14	M14	15	14.8	21	40	19	15	5	5	30
TPM15	M14	16	15.8	21	39	19.5	16.5	5	5	38
TPM16	M16	17	16.8	21	39	19.5	17	5	5	30
TPM16.5	M14	16.5	16.4	21	39	19.5	17	5	5	30



# Ceramic Coated Steel Location Pins

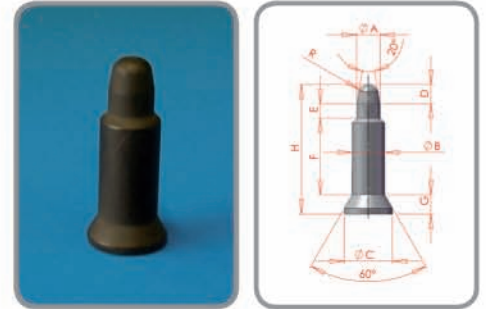


## Short Series

welding & joining technologies

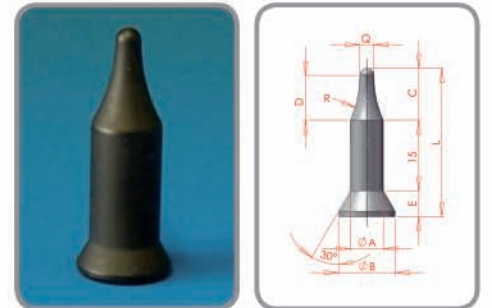
### Castellated - Short Series

Part No	Nut Size	Hole Size	A	B	C	D	E	F	G	H
TMS3-M4	M4	5	3.2	4.8	10	2.5	2.5	16	6	27
TMS3-M5	M5	6	4.1	5.8	10	3	3	16	5	27
TMS3-M6	M6	7	4.9	6.8	10	4	3	16	4	27
TMS3-M8	M8	9	6.6	8.8	12	4.5	3.5	16	4	28
TMS3-M10	M10	11	8.5	10.8	15	6.5	4	16	5	31
TMS3-M12	M12	13	10.05	12.8	16	10.4	4	16	4	31



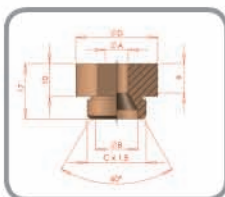
### Dolphin Nosed - Short Series

Part No	Nut Size	Hole Size	A	B	L	C	D	E	Q	R
WPN4P	M4	5	4.8	12	29	6.5	5.5	7.5	2	11
WPN4PRS	M4	6	5.8	12	30	8.5	7.5	6.5	2	15
WPN5P	M5	6	5.8	12	30	8.5	7.5	6.5	2	15
WPN5PRS	M5	7	6.8	12	31.5	11	9.5	5.5	3	23
WPN6P	M6	7	6.8	12	31.5	11	9.5	5.5	3	23
WPN6PRS	M6	8	7.8	12	31.5	11	9.5	5.5	3	23
WPN8P	M8	9	8.8	12	31	12	11	4	3	22
WPN8PRS	M8	10	9.8	12	31	12	11	4	3	22
WPN10P	M10	11	10.8	16	34.5	14	12	5.5	4	22
WPN10PRS	M10	12	11.8	16	34.5	14	12	5.5	4	22
WPN12P	M12	13	12.8	16	36	17	15	4	4	27
WPN12PRS	M12	14	13.8	16	36	17	15	4	4	27
WPN14P	M14	15	14.8	21	39	19	15	6	5	30



### Nut Electrodes - Short Series

Part No	Nut Size	Hole Size	A	B	C	D
<b>CuCrZr</b>	<b>Elkanite</b>					
WPN-C4	WPN-C4ELK	M4	5	13	M18	25
WPN-C5	WPN-C5ELK	M5	6	13	M18	25
WPN-C6	WPN-C6ELK	M6	7	13	M18	25
WPN-C6RS	WPN-C6RSELK	M6	8	13	M18	25
WPN-C8	WPN-C8ELK	M8	9	13	M18	25
WPN-C8RS	WPN-C8RSELK	M8	10	13	M18	25
WPN-C10	WPN-C10ELK	M10	11	17	M22	30
WPN-C10RS	WPN-C10RSELK	M10	12	17	M22	30
WPN-C12	WPN-C12ELK	M12	13	17	M22	30
WPN-C12RS	WPN-C12RSELK	M12	14	17	M22	30

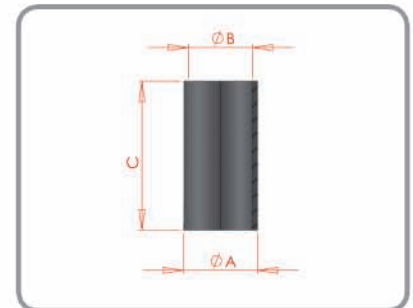
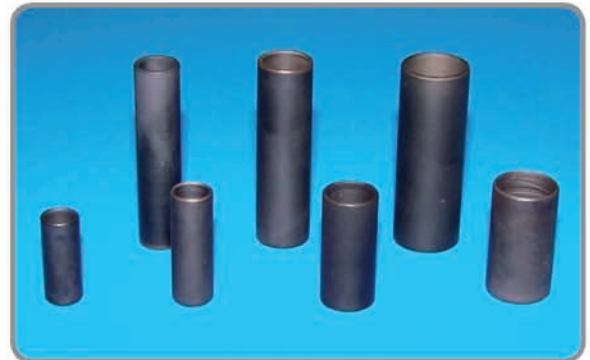


CuCrZr Elkanite faced



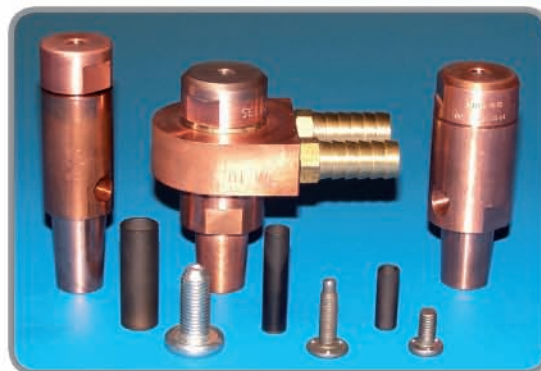
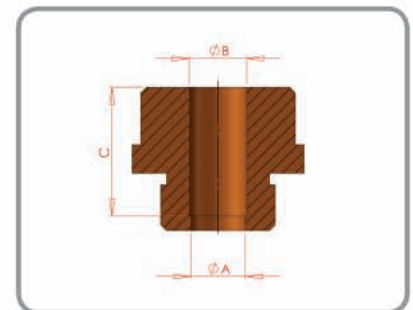
## Ceramic Coated Sleeves

Part No	Stud Size	Dia A	Dia B	Length C
CSM4	M4	5.8	4.5	22
CS1	M5	7.0	5.6	17
CS2	M6	8.0	6.6	22
CS2-6	M6	7.6	6.0	25
CS3	M8	10.0	8.6	22
CS4	M10	12.0	10.6	22
CS5		10.9	9.5	22
CS6	M8	9.5	8.1	22
CS7	M8	12.0	8.25	18
CS9	M9	10.6	9.2	22
CS8	11	12.7	11.3	22
PFT5013M5	M5	8.0	6.0	37
PFT5013M6	M6	8.5	6.4	37
96869-12		9.5	7.4	37
PFT5013M8	M8	10.5	8.5	37
CSFD	M10	12.3	10.1	18
NYW2019	M10	13.0	10.8	37
PFT5013M10	M10	13.0	11.0	37
NYW2021		14.0	11.8	37
NYW2021-12.1	M12	14.0	12.1	37



## Stud Electrodes

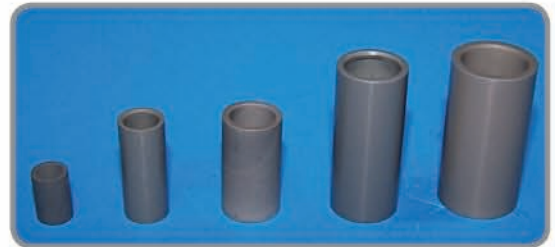
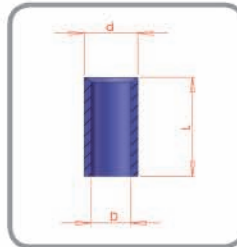
Part No CuCrZr	Part No Elkanite	Stud Size	Dia A	Dia B	Lgth C	Thread
SE0	SE0ELK	M4	4.4	5.8	22.5	M20
SE1	SE1ELK	M5	6.5	7	22.5	M20
SE2	SE2ELK	M6	7.5	8	22.5	M20
SE3	SE3ELK	M8	9.5	10	22.5	M20
SE4	SE4ELK	M10	11.5	12	22.5	M20
SE25-CS1	SE25ELK-CS1	M5	6.5	7	22.5	M18
SE25-CS2	SE25ELK-CS2	M6	7.5	8	22.5	M18
SE25-CS3	SE25ELK-CS3	M8	9.5	10	22.5	M18
SE25-CS4	SE25ELK-CS4	M10	11.5	12	22.5	M18





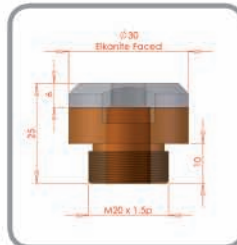
## Ceramic Bush

Stud Size	Bush Part No	Dims mm d X D X L
M4	CERBM4	6x4.3x10
M5	CERBM5	7x5.3x10
M6	CERBM6	8.5x6.3x20
M8	CERBM8	11x8.3x20
M10	CERBM10	13x10.3 x30
M12	CERBM12	16x12.3x30



## Stud Electrodes

Stud Size	Stud Electrodes	
	CuCrZr	Elkanite Faced
M4	SEBM4	SEBM4ELK
M5	SEBM5	SEBM5ELK
M6	SEBM6	SEBM6ELK
M8	SEBM8	SEBM8ELK
M10	SEBM10	SEBM10ELK
M12	SEBM12	SEBM12ELK



## Springs

Stud Size	Spring Retainer
M4	C-5506250
M5	D-11530
M6	C-5505740
M8	C-5507520
M10	C-5508780
M12	C-5511720



B1

B1-WC

B34

## Projection Welding Bodies.

Projection Welding Bodies. M20 X 1.5mm	
B1	3/4 " 5 DEG TAPER
B1WC	3/4 " 5 DEG TAPER WATER COOLED JACKET.
B13	1/2 " BSP THREAD
B34	3/4 " BSP THREAD



# Copper Tungsten Faced Electrodes



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TE13-75ELK  
1/2" 5 deg Inc



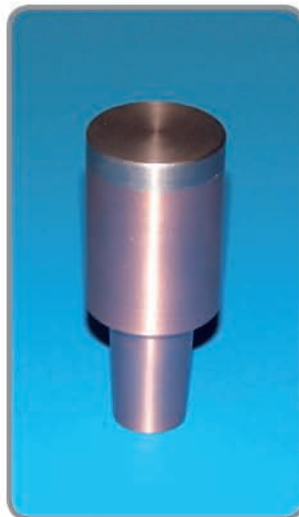
TE16-75ELK  
5/8" 5 deg Inc



TE19-75ELK  
3/4" 5 deg Inc



TE25-75ELK  
25mm Dia  
3/4" deg Inc



TE30-75ELK  
30mm Dia  
3/4" 5 deg Inc



NEBELK  
30mm Dia  
M20 x 1.5mm



DBO750ELK  
3/4" 5 deg Inc

## Insulated Nut Electrodes - Helps Prevent Nuts Being Welded Upside Down



Part No	Weld Face Dia mm
FC16M5INS85	8.5
FC16M6INS95	9.5
FC20M6INS105	10.5
FC20M8INS135	13.5
FC20M10INS17	17.0
FC20716INS195	19.5



Prospot Limited - Unit C Riverside Industrial Estate  
Atherstone Street - Fazeley - Tamworth - Staffordshire - B78 3RW  
Telephone: 01827 254 829 - Fax: 01827 254 832  
Email: sales@prospot.co.uk - Web: www.prospot.co.uk

# Nut Feeder

## High Performance Nut Feeder

ProSpot

welding & joining technologies



- High performance and accuracy in resistance welding.
- Up to 30 nuts per minute.
- Single or dual feeding.
- Top cover for low noise and high protection.

### Nut Types:

- 7/16
- M5 to M12
- Other types on request

### Nut Shapes

- Square
- Round
- Hexagonal
- With or without washer

### Options:

- "T" shape
- Rectangular
- Diamond shaped
- Hexagonal with washer
- Double square
- Rounded with washer

Technical Data	Single Feed	Dual Feed
Feeding capacity	26 - 30 nuts per minute	24-30 nuts per minute
Cycle time	2 seconds	2 + 2 seconds
Hopper capacity	10 litres	
Feeding head stroke	156 mm (205mm under request)	
Nut impeler / selector	Pneumatic	
Nut transport (to feeding rod/ centering device)	Pneumatic / Magnetic	
Noise level	72 dB	
External dimensions (H x W x L)	1400 x 507 x 560 mm	
Weigh (Without feeding head / feeding head)	144 Kg / 8,5 Kg	149 Kg / 8,5 Kg x 2
Feeding head length / interconnection	750 mm / 3 m	
Feeding head placement angle	15° to 80°	
Standard programmable relay	Allan Bradley	

### Request inlets

Power supply	400 VAC / 110 VAC * specify on order
Operating power / Consumption	0-24VG / 0,5A
Emergency power / Consumption	0-24VPEM / 1A
Air pressure	6 bar - 1/4"
Frequency	50 Hz



Pneumatic unit with filter and self-governing relay.



- High performance and accuracy in resistance welding.
- Up to 28 nuts per minute.
- Single or dual feeding.

### NUT TYPES:

- 7/16
- M5 to M12
- Other types on request

### NUT SHAPES

- Square
- Round
- Hexagonal
- With or without washer

### Options:

- "T" shape
- Rectangular
- Diamond shaped
- Hexagonal with washer
- Double square
- Rounded with washer



The hopper has a capacity of 3,5 litres. Nut movement by vibration.



Pneumatic unit with filter and self-governing relay.

### Technical Data

	Single feed	Dual feed
Feeding capacity	26 - 28 nuts per minute	
Cycle time	2 seconds	2 + 2 seconds
Hopper capacity	3,5 litres	
Feeding head stroke	156 mm (205mm under request)	
Nut impeler / selector	Pneumatic	
Nut transport (to feeding rod/ centering device)	Pneumatic / Magnetic	
Noise level	75 dB	
External dimensions (H x W x L)	1.275 x 520 x 580 mm	
Weigh (Without feeding head / feeding head)	130,5 Kg / 8,5 Kg	
Feeding head length / interconnection	750 mm / 3 m	
Feeding head placement angle	15° to 80°	
Standard programmable relay	Moeller (Easy) (Other references on request)	

### Request inlets

Power supply	400 Vac / 110 Vac * specify on order
Operating power / Consumption	0-24VG / 0,5A
Emergency power / Consumption	0-24VPEM / 1A
Air pressure	6 bar - 1/4"
Frequency	50 Hz

# Stud Feeder

Automatic - Low Noise

ProSpot

welding & joining technologies



- Feeding capacity: up to 30 bolts per minute.
- Single or dual feeding.
- Top cover for low noise and high protection.
- Control cabinet allow future upgrades.
- CE safety Norms.

Technical Features	Single Feed	Dualfeed
Power Supply	400 Vac / 110 Vac * specify on order	
Operating Power	24 Vdc	
Consumption	300 Va	350 Va
Feeding Capacity (Bolts Per Minute)	26 To 29	24 To 30
Cycle Time	2 S	4 S
Hopper Capacity	10 Lites	
Nominal Air Pressure	6 Bar	
Feeding Head Stroke / Mounting Angle	156 Mm / 30°	
Bolt Impeler / Selector	10 Bar	
Bolt Transport (To Feeding Head/ Centering Device)	Pneumatic / Mechanic	
Noise Level	72 Db	
External Dimensions (H X W X L)	1400 X 507 X 560 Mm	
Weight (Without Feeding Head / Feeding Head)	144,5 / 8,5 Kg	149,5 / 8,5(X2) Kg
Feeding Head Interconnection Length	3000 Mm	3000 (X2) Mm
Feeding Head Length	750 Mm	750 (X2) Mm



## Module 1.

A course specifically designed for production operators and line inspection personnel. This module includes resistance welding principles & methods (basic), operator health & safety, electrode dressing, changing & cooling. Good workshop practices TPM for weld station, jigs & fixtures.

Welding coated & high strength steels, BS.EN.ISO standards, Inspection & testing resistance welds.  
Ref: EN ISO 145541-1 & 2:2000 Para 6.2 (5-6 hrs) up to 8 people. Cost £520.00 per course.

## Module 2.

A course designed for Technicians, Engineers & Quality personnel, production supervision would also benefit. This module includes resistance welding, principles, methods (technical level), standards & quality control. Health & safety TPM & PPM are also included. Coated & high strength steels, BS.EN.ISO standards, inspection and testing of resistance welds. Practical problems can be addressed whilst on site.

Ref: EN ISO 145541-1 & 2 Para 6.1 (7-8 hrs) up to 8 people. Cost £560.00 per course.

## Module 3.

A course designed for Technicians, Manufacturing, commissioning & prototype build engineers. This module covers resistance welding (as mod 2) at a technical level, machine set up and try out, standard & non-standard tooling. BS EN ISO standards. Equipment manufacturers & suppliers. Weld quality control, equipment maintenance, TPM/PPM, health & safety and product liability. This module does include some practical work. Ref: EN ISO 145541-1 & 2 Para 6.1 (two days). Up to 6 people. Demonstration machine must be available. Cost £880.00 per course.

## Module 4.

A course designed for personnel responsible for setting up and monitoring resistance welding plant & equipment on robotic, multi-weld & manual operations on a daily basis. Resistance welding and methods at a technical level, machine set up & try out, standard & non-standard tooling, BS.EN.ISO standards, TPM/PPM, health & safety, quality control, product liability. This module has a high level of practical content. Ref: EN ISO 145541-1 & 2 Para 6.3 (two days) up to 6 people, working in pairs, machine availability is critical. Cost £880.00 per course.

## Module 5.

Weld Engineering Consultancy. We are able to supply an engineer with a wealth of expertise in resistance welding processes within the automotive and sheet metal industries, who can give support for the following areas:- Manufacturing & Production Engineering, quality & conformance engineering, maintenance engineering.

### Normative references:-

EN ISO 14554-1:2001 Quality requirements for welding-  
Resistance welding of metallic materials-  
Part 1: Comprehensive quality requirements.  
Part 2: Elementary quality requirements.

Note: - All modules can be tailored to suit the client's standards, processes & procedures.  
Modules 2 to 4 include course notes.  
All modules require an overhead projector, screen (but can be supplied if required)



## Resistance Spot Welding Guidelines

Single Sheet Thickness mm	Electrode Tip Dia mm	Electrode Force Kgf					Weld Time 50 Hz					Weld Current K Amps					Single Sheet Thickness mm	Min Slug Dia mm
		Uncoated Mild Steel		Coated Mild Steel			Uncoated Mild Steel		Coated Mild Steel			Uncoated Mild Steel		Coated Mild Steel				
		Medium Force Setting	High Force Setting	Hot Dip Zinc	E Z	I Z & Zinc Nickel	Medium Force Setting	High Force Setting	Hot Dip Zinc	E Z	I Z & Zinc Nickel	Medium Force Setting	High Force Setting	Hot Dip Zinc	E Z	I Z & Zinc Nickel		
0.4 - 0.6	4 from	90	133	150	150	140	5	4	6	6	4	4	5	7	6	6		
	to	115	183	204	204	196	7	5	8	8	6	6	8	9	8	8.5		
0.6 - 0.8	4 from	125	175	194	194	183	7	6	8	8	6	5	6	8	7	7	0.6	3.9
	to	133	204	224	224	224	10	8	10	10	8	7	9	10	9	9.5	0.7	4.2
0.8 - 1.0	5 from	140	194	224	224	214	9	7	9	9	7	6	7	9	8	8	0.8	4.5
	to	150	265	296	296	285	12	10	12	12	10	8	10	11	10	10.5	0.9	4.7
1.0 - 1.2	5 from	163	255	285	285	275	11	8	10	10	8	7	8	10	9	9	1.0	5.5
	to	183	326	367	367	347	15	12	13	13	12	9	12	13	13	12	1.1	5.5
1.2 - 1.6	6 from	194	306	347	347	326	14	9	11	11	9	8	10	14	12	11	1.2	5.5
	to	214	408	459	459	438	18	13	15	15	13	11	13	16	15	14	1.4	5.9
1.6 - 2.0	7 from	265	398	449	449	428	18	10	12	12	10	9	12	18	14	13	1.6	6.3
	to	296	527	561	561	540	22	14	16	16	14	13	15	21	17	16.5	1.8	6.7
2.0 - 2.5	8 from	347	510	550	550	530	22	12	14	14	12	10	14	22	17	16	2.0	7.1
	to	377	632	693	693	663	28	16	18	18	16	15	18	26	22	21	2.2	7.4
2.5 - 3.0	9 from	449	612	673	673	652	28	15	17	17	15	12	17	26	19	18	2.5	7.9
	to	479	765	815	815	795	35	20	21	21	20	17	20	30	24	23	3.0	8.6

Taken from British Standards BS 1140 : 1993 Resistance spot welding of uncoated & coated low carbon steel.

IMPORTANT: These are recommendations only, settings must take account of actual conditions and be verified using a destruct test.

NOTES: When welding sheets of dissimilar thickness, welding conditions may be based on the thinner sheet or the second thinnest sheet on three thicknesses.

## Welding Conditions For Square Weld Nuts

Thread Size	Sheet Thickness mm	Electrode Force kN	Weld Time Cycles	Current KA	Min Torsional Load Test Nm
M4	1.0 - 2.0	2.9 - 3.1	5	7.5 - 8.0	6
M5	1.0 - 2.0	3.6 - 3.8	5	9.0 - 9.5	12
M6	1.0 - 2.0	4.2 - 4.5	6	10.5 - 11.0	20
M8	1.0 - 2.0	4.9 - 5.1	9	17.0 - 18.0	50
M10	2.0	6.0 - 6.5	10	21.0 - 22.0	100
M12	2.0	7.1 - 7.4	12	24.0 - 25.0	180



## Welding Conditions For Weld Bolts

Bolt Size	Sheet Thickness mm	Electrode Force kN	Weld Time Cycles	Current KA	Min Torsional Load Test Nm
M5	1.0 - 2.0	2.7	12	8.0	6
M6	1.5 - 2.5	3.5	14	8.5	10
M8	1.5 - 2.5	3.5	15	9.5	23
M10	2.0 - 3.0	4.5	16	11.0	40



# Weldability Chart



welding & joining technologies

	INVAR	KOVAR	MILD STEEL	LEAD	STAINLESS STEEL	TUNGSTEN	SILVER	GOLD	ZINC	MANGANESE	TITANIUM	PLATINUM	INCOEL	TANTALUM	MAGNESIUM	BRONZE	BERYLLIUM COPPER	PHOSPHOR BRONZE	NIOBENIUM	BIPERITAL	COPPER	ALUMINIUM & ALLOYS	YELLOW BRASS (25-40% ZINC)	RED BRASS (10-25% ZINC)	NIQUEL & ALLOYS
INVAR	U																								
KOVAR	U	CCZ																							
MILD STEEL	CCZ	CCZ	U																						
LEAD	CCZ	P	CCZ	U																					
STAINLESS STEEL	CCZ	P	CCZ	U	CCZ	U																			
TUNGSTEN	CCZ	P	CCZ	U	CCZ	U	CCZ	U																	
SILVER	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U															
GOLD	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U													
ZINC	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U											
MANGANESE	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U									
TITANIUM	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U							
PLATINUM	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
INCOEL	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
TANTALUM	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
MAGNESIUM	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
BRONZE	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
BERYLLIUM COPPER	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
PHOSPHOR BRONZE	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
NIOBENIUM	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
BIPERITAL	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
COPPER	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
ALUMINIUM & ALLOYS	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
YELLOW BRASS (25-40% ZINC)	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
RED BRASS (10-25% ZINC)	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					
NIQUEL & ALLOYS	CCZ	P	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U	CCZ	U					

### ADDITIONAL GUIDANCE

- a Wide range of Settings
- b Heavy Current, Short Time
- c Synchronous Welding Control Required
- d Frequent Electrode Cleaning Required
- e Low Mechanical Weld Strength
- f Inconsistent Weld Results
- g Difficult Combination
- h Light Thicknesses of Material
- i Embrittlement Occurs - May require Post Heat Treatment

### ELECTRODE MATERIAL GUIDANCE

- |       |   |
|-------|---|
| CCZ   | Copper Chromium Zirconium Alloy                   |
| AS940 | Copper Nickel Silicon Dispersion Hardened Alloy   |
| Mo    | Molybdenum - Can often be substituted by Tungsten |
| Si    | Silver  |

### WELDABILITY GUIDE

- |   |                |
|---|----------------|
| E | Excellent      |
| G | Good           |
| P | Poor           |
| U | Unsatisfactory |



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Prospot No	Adaptors BS 807 5 Deg To ISO 1:10 Taper	Dia	Taper Dia	Hole Dia	Cap Taper	Taper Lgth	L
A13-26	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	31
A13-30	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	35
A13-36	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	41
A13-41	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	46
A13-47	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	52
A13-50	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	55
A13-55	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	60
A13-60	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	65
A13-68	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	73
A13-73	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	78
A13-80	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	85
A13-86	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	91
A13-93	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	98
A13-99	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	104
A13-106	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	110
A13-133	1/2" Adaptor To Suit 13mm Caps	13	12.7	7.5	10	15	133
A16-44	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	44
A16-51	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	51
A16-58	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	58
A16-64	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	64
A16-68	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	68
A16-73	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	73
A16-76	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	76
A16-89	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	89
A16-102	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	102
A16-108	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	108
A16-114	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	114
A16-120	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	120
A16-140	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	140
A16-150	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	150
A16-160	5/8" Adaptor To Suit 16mm Caps	16	16	8.0	12	25	160
A19-45	3/4" Adaptor To Suit 16mm Caps	19	19	8.5	12	23	45
A19-50	3/4" Adaptor To Suit 16mm Caps	19	19	8.5	12	23	50
A19-63	3/4" Adaptor To Suit 16mm Caps	19	19	8.5	12	23	63
A19-75	3/4" Adaptor To Suit 16mm Caps	19	19	8.5	12	23	75
A19-88	3/4" Adaptor To Suit 16mm Caps	19	19	8.5	12	23	88
A19-100	3/4" Adaptor To Suit 16mm Caps	19	19	8.5	12	23	100
A19-113	3/4" Adaptor To Suit 16mm Caps	19	19	8.5	12	23	113
A20-45	3/4" Adaptor To Suit 20mm Caps	19	19	8.5	15	23	45
A20-50	3/4" Adaptor To Suit 20mm Caps	19	19	8.5	15	23	50
A20-75	3/4" Adaptor To Suit 20mm Caps	19	19	8.5	15	23	75
A20-88	3/4" Adaptor To Suit 20mm Caps	19	19	8.5	15	23	88
A20-100	3/4" Adaptor To Suit 20mm Caps	19	19	8.5	15	23	100
A20-113	3/4" Adaptor To Suit 20mm Caps	19	19	8.5	15	23	113



Adaptors with different tapers ie, 1:10 & 1:20 are also available. Please ask for details.

Prospot No	Reducing Adaptors	Male Taper	Dia	Female Taper	Dia	L
A16-A13	5/8" 5 Deg Male To 1/2" 5 Deg Female	16	5 Deg	12.7	5 Deg	45
AMT16-A13	5/8" MT Male To 1/2" 5 Deg Female	16	No2 MT	12.7	5 Deg	45
A19-A13	3/4" 5 Deg Male To 1/2" 5 Deg Female	19	5 Deg	12.7	5 Deg	45
A19-A16	3/4" 5 Deg Male To 5/8" 5 Deg Female	19	5 Deg	16.0	5 Deg	70

## Double Bend Cap Adaptors

Prospot No	Adaptors BS 807 5 Deg To ISO 1:10 Taper	Cap Dia	Cap Dia	Taper Dia	Taper Dia	Hole Dia	Cap Dia	Taper Lgth	O/A Lgth	Off Set	Hole Dia
DBA 13	1/2" Adaptor To Suit 13mm Caps	13mm	13	12.7	5 Deg	7.0	10	18	70	19.0	6.5
DBA16-125-13	5/8" Adaptor To Suit 13mm Caps	13mm	16	16	5 Deg	7.0	10	25	80	12.5	6.5
DBA16-32-13	5/8" Adaptor To Suit 13mm Caps	13mm	16	16	5 Deg	7.0	10	25	90	32.0	6.5
DBA16-125-16	5/8" Adaptor To Suit 16mm Caps	16mm	16	16	5 Deg	8.0	12	25	80	12.5	8.0
DBA16-32-16	5/8" Adaptor To Suit 16mm Caps	16mm	16	16	5 Deg	8.0	12	25	90	32.0	8.0
DBA16-125-20	5/8" Adaptor To Suit 20mm Caps	20mm	16	16	5 Deg	8.0	15	25	80	12.5	9.0
DBA16-16MT	5/8" Adaptor To Suit 16mm Caps	16mm	16	16	No2 MT	8.0	12	25	90	32.0	8.0
DBA 0	3/4" Adaptor To Suit 13mm Caps	13mm	19	19	5 Deg	9.0	10	30	110	32.0	6.5
DBA 1	3/4" Adaptor To Suit 16mm Caps	16mm	19	19	5 Deg	9.0	12	30	110	32.0	8.0
DBA 2	3/4" Adaptor To Suit 20mm Caps	20mm	19	19	5 Deg	9.0	15	30	110	32.0	9.0
DBA 3	3/4" Adaptor To Suit 16mm Caps	16mm	19	19	5 Deg	9.0	12	30	85	14.0	8.0

Adaptors with different tapers ie, 1:10 & 1:20 are also available. Please ask for details.



## Threaded Adaptors

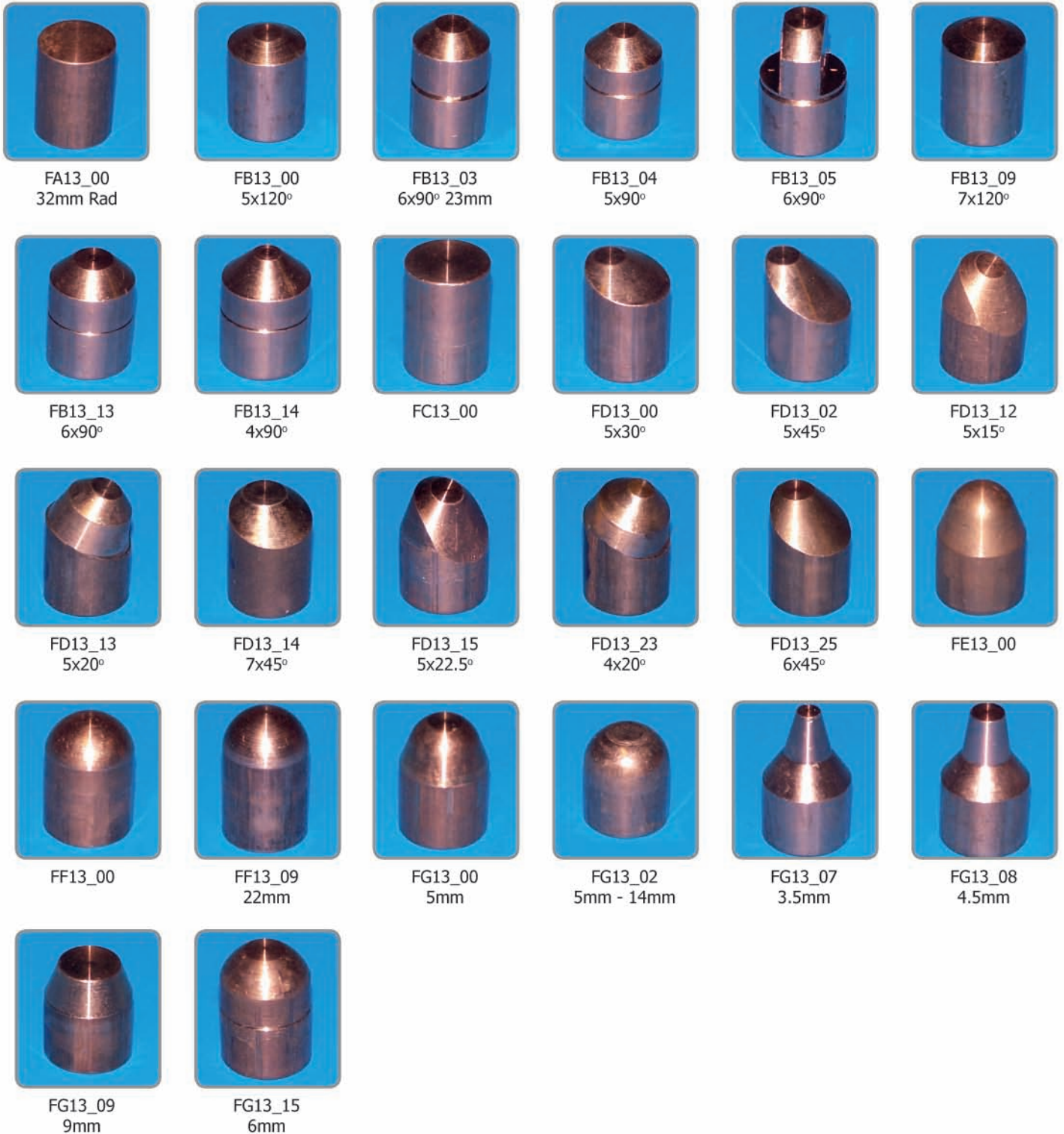
Threaded adaptors are available in numerous configurations with any thread and taper combinations.



# 13mm Cap Electrodes



welding & joining technologies



All cap electrodes are cold formed and are available in up to three materials, and different geometries.

**Z-TRODE** CuZr ie FB13Z00

For light to medium gauge coated steels and aluminium.

**NITRODE** Dispersion Strengthened Copper ie FB13N00

For coated steels and heavy duty applications giving superior performance and reduced sticking on coated steels.

**A-TRODE** CuCrZr ie FB13C00

For general uncoated applications.



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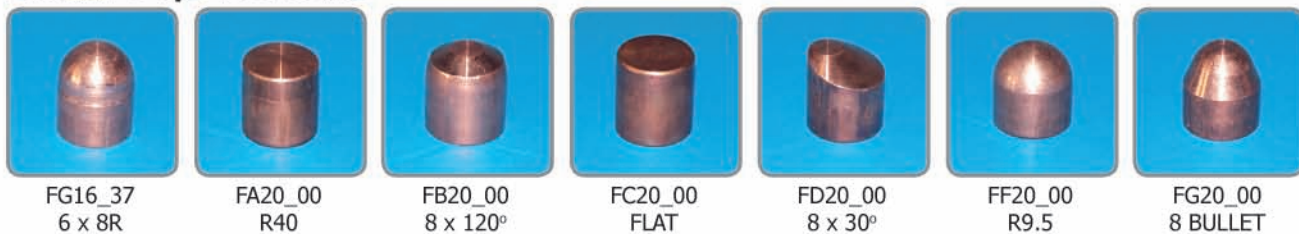
# 16mm & 20mm Cap Electrodes



welding & joining technologies



## 20mm Cap Electrodes



All cap electrodes are cold formed and are available in up to three materials, and different geometries.

**Z-TRODE** CuZr ie FB16Z00

For light to medium gauge coated steels and aluminium.

**NITRODE** Dispersion Strengthened Copper ie FB16N00

For coated steels and heavy duty applications giving superior performance and reduced sticking on coated steels.

**A-TRODE** CuCrZr ie FB16C00

For general uncoated applications.



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HEX03  
10mm AF M6



HEX01  
14mm AF M6



FDN-519  
12.7 Dia M8



MN13C31  
6x90° M8



MN16C49  
14mm AF  
6x120° M10x1.25



MN16C50  
14mm AF  
M10x1.25



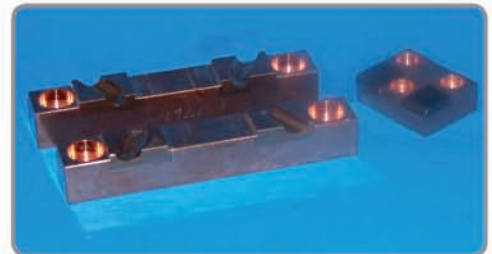
MN16C50-8  
14mm AF  
8x120° M10x1.25



MN20C10  
20mm Dia  
M10x1.25



LWE 50850  
12.7 Dia  
3x120° M8



Block Electrodes



Composite Electrodes



Tungsten Electrodes



Prospot manufacture the Hirst Holden & Hunt range of electrodes



Prospot manufacture a vast range of male electrodes

# 1/2" Bsp Screwed Electrodes



FE 7301 95mm x 25mm



FE 7303 114mm x 38mm



FE 7303 100mm x 28mm



FE 7306 90mm x 90mm



FE 7603 78mm x 60mm



FE 7604 82mm x 35mm



DE 427/1 76mm x 32mm



FE 7606 120mm x 88mm



FE 7605 100mm x 63mm



DE 143 117mm x 98mm



DE 144 127mm x 89mm



DE 427/3 127mm x 32mm



DE 872 128mm x 22.5mm



DE 873 79mm x 120mm



DE 874 152mm x 38mm

## Flat Electrodes BS 807 5 Degree Inc Tapers.

Material CuCrZr

Prospot No	Description	Electrode Dia	Taper Dia	Hole Dia	Taper Length	O/A Length
PST13-35F	1/2" Flat Electrode	12.7	12.7	8	16	35
PST13-55F	1/2" Flat Electrode	12.7	12.7	8	16	55
PST16-50F	5/8" Flat Electrode	16	16	9	20	50
PST16-65F	5/8" Flat Electrode	16	16	9	20	65
PST19-50F	3/4" Flat Electrode	19	19	10	25	50
PST19-75F	3/4" Flat Electrode	19	19	10	25	75
PST19-100F	3/4" Flat Electrode	19	19	10	25	100



## Centre Electrodes BS 807 5 Degree Inc Tapers

Material CuCrZr

Prospot No	Description	Electrode Dia	Taper Dia	Hole Dia	Taper Length	O/A Length	Spot Dia
PST13-25	1/2" Centre Electrode	12.7	12.7	8	16	25	5
PST13-35	1/2" Centre Electrode	12.7	12.7	8	16	35	5
PST13-45	1/2" Centre Electrode	12.7	12.7	8	16	45	5
PST13-55	1/2" Centre Electrode	12.7	12.7	8	16	55	5
PST13-65	1/2" Centre Electrode	12.7	12.7	8	16	65	5
PST13-75	1/2" Centre Electrode	12.7	12.7	8	16	75	5
PST13-85	1/2" Centre Electrode	12.7	12.7	8	16	85	5
PST13-95	1/2" Centre Electrode	12.7	12.7	8	16	95	5
PST16-35	5/8" Centre Electrode	16	16	9	20	35	6
PST16-50	5/8" Centre Electrode	16	16	9	20	50	6
PST16-75	5/8" Centre Electrode	16	16	9	20	75	6
PST19-50	3/4" Centre Electrode	19	19	10	25	50	6
PST19-75	3/4" Centre Electrode	19	19	10	25	75	6
PST19-100	3/4" Centre Electrode	19	19	10	25	100	6



## Vertical Offset Electrodes BS 807 5 Degree Inc Tapers

Material CuCrZr

Prospot No	Description	Electrode Dia	Taper Dia	Hole Dia	Taper Length	O/A Length	Spot Dia
PST13-55VO	1/2" Vertical Offset Electrode	12.7	12.7	8	16	55	5
PST16-50VO	5/8" Vertical Offset Electrode	16	16	9	20	50	6
PST16-75VO	5/8" Vertical Offset Electrode	16	16	9	20	75	6
PST19-75VO	3/4" Vertical Offset Electrode	19	19	10	25	75	6



# Male Electrodes BS 807 Range



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## Angled Offset Electrodes BS 807 5 Degree Inc Taper

Material CuCrZr

Prospot No	Description	Electrode Dia	Taper Dia	Hole Dia	Taper Length	O/A Length	Spot Dia
PST13-45AO	1/2" Angled Offset Electrode	12.7	12.7	8	16	45	5
PST13-65AO	1/2" Angled Offset Electrode	12.7	12.7	8	16	65	5
PST16-55AO	5/8" Angled Offset Electrode	16	16	9	20	55	6
PST16-75AO	5/8" Angled Offset Electrode	16	16	9	20	75	6
PST19-75AO	3/4" Angled Offset Electrode	19	19	10	25	75	6



## Single Crank Offset Electrodes BS 807 5 Degree Inc Tapers.

Material CuCrZr

Prospot No	Description	Electrode Dia	Taper Dia	Hole Dia	Taper Length	O/A Length	Spot Dia	Offset
500SCO	1/2" Single Crank Offset	12.7	12.7	8	20	60	5	19
625SCO	5/8" Single Crank Offset	16	16	9	28	88	5	38
750SCO	3/4" Single Crank Offset	19	19	9.5	38	100	6	25
750SCOL	3/4" Single Crank Offset	19	19	9.5	38	100	6	44



## Double Bend Offset Electrodes BS 807 5 Degree Inc Tapers.

Material CuCrZr

Prospot No	Description	Electrode Dia	Taper Dia	Hole Dia	Taper Length	O/A Length	Spot Dia	Offset
500DBO	1/2" Double Bend Offset	12.7	12.7	8	20	75	5	25
625DBO	5/8" Double Bend Offset	16	16	9	28	92	5	32
625DBOL	5/8" Double Bend Offset	16	16	9	28	92	5	38
750DBO	3/4" Double Bend Offset	19	19	9.5	38	108	6	32



## Swivel Electrodes BS 807 5 Degree Inc Tapers

Material CuCrZr

Prospot No	Description	Electrode Dia	Taper Dia	Hole Dia	Taper Length	O/A Length
SE1	1/2" Non Direct Cooled Swivel	30	12.7	8	13	50
SE1-22	1/2" Non Direct Cooled Swivel	22	12.7	8	13	50
SE2	5/8" Non Direct Cooled Swivel	30	16	9	20	60
SE2-22	5/8" Non Direct Cooled Swivel	22	16	9	20	60
SE3	3/4" Non Direct Cooled Swivel	30	19	9	22	60
SE1-DC	1/2" Direct Cooled Swivel	30	12.7	8	13	50
SE1-DC22	1/2" Direct Cooled Swivel	22	12.7	8	13	50
SE2-DC	5/8" Direct Cooled Swivel	30	16	9	20	60
SE3-DC	3/4" Direct Cooled Swivel	32	19	9	23	57





## Standard Meritus Electrode Fittings - No2 Morse Taper



7100211



7100485



7100208



7100486



7100394



7100395



7101485

## Standard Meritus Electrode Fittings - 3/4" BS 807 5 Deg Taper.



7101450



7101211



7101486



7101011



7101010



2390040



2390041

## Standard Meritus Electrode Fittings - For PS-6-8B & AS15 BCT



7100916  
NO1 MORSE



7100916  
NO1 MORSE



7100917  
12.7 DIA



Toolposts

Part No	Dia	Length
3601579	31.75	460
3600580	31.75	180
3600579	31.75	305
3200117	25.4	460
3200024	25.4	125
3200017	25.4	260



Angled Toolpost

Part No	Dia	Length
3600954	31.75	260



Angled Holder

Part No	Dia	Length
3601579	31.75	460
3600580	31.75	180
3600579	31.75	305
3200117	25.4	460
3200024	25.4	125
3200017	25.4	260



Horizontal Adapter

Part No	Dia	Length
3200954	25.4	160
3601954	31.75	160



90 Deg Holder

Part No	Dia	Length
3201063	25.4	131
3200219	25.4	122



W/Cooled Angled Electrode

Part No	Dia	Length
3200487	25.4	61 X 120
OPP		



T-Bar Holder

Part No	Dia	Length
3601048	25.4	75



Electrode Holder Adapter

Part No	From	To
7308043	NO2MT	3/4 807
7308143	NO2MT	NO1MT



Split Sleeve

Part No	From	To
7308000	31.7	25.4
7308001	38.1	31.7
7308003	38.1	25.4



Dog leg electrode holder

Part No	Dia	Length
3600662	31.75	127
3200662	25.4	127



Pad Bolt

Part No	Dia
3204002	25.4
3204003	31.75



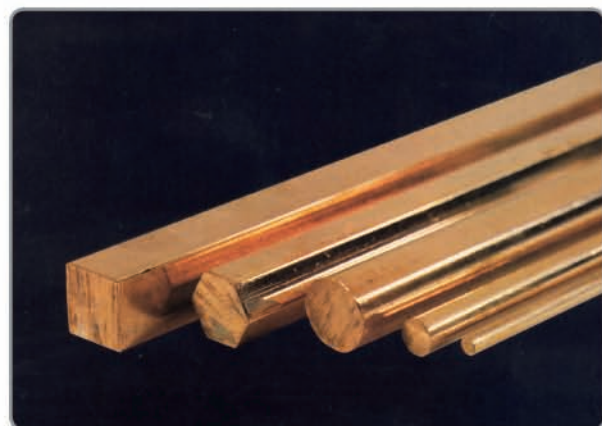
Short Toolpost

Part No	Dia	Length
3200488	25.4	75

Prospot are able to supply a wide range of welding materials suitable for all types of resistance welding applications.

Material Type	Group Type	Nominal Composition %	Softening Temperature degrees C	Electrical Conductivity % IACS.	Hardness Min VPN	Typical application areas.
Hard Drawn Copper	A1	99.9Cu	150	98	85	Welding fixtures, machine arms
Zirconium Copper	A2/4	0.1 Zr Cu	500	92	120	Aluminium alloys, Uncoated and coated steels
Chromium Zirconium Copper	A2/2	1Cr 0.1Zr Cu	525	72	120	Uncoated and coated steels
Al/O Copper (Nitrode)	B20	1.1 CuAl <sub>2</sub> O <sub>3</sub>	925	83	160	Coated steels, excellent non sticking characteristics
Cobalt Beryllium Copper	A3/1	2.5 Co 0.4Be Cu	500	32	200	Stainless steels, heat resisting materials
Nickel Silicon Copper	A3/2	2.0Ni 0.7Si Cu	500	32	200	Stainless steels, heat resisting materials
Copper Tungsten	B11	75W Cu	1000	30	220	Inserts for projection welding or for miniature welds in high conductivity materials
Molybdenum	B13	99.5 Mo	1000	30	225-260	
Tungsten	B14	99.5W	1000	30	450	

This information is for guidance only.  
Please speak to our technical staff for more assistance in selecting the correct materials.



# Electrode Holders

## Standard Electrode Holders



welding & joining technologies



PSTH90-13  
3/4BSP 12.7mm 5°



PSTH90-16  
3/4BSP 16mm 5°



PSTH225-13  
3/4BSP 12.7mm 5° 22.5°



PSTH225-16  
3/4BSP 16mm 5° 22.5°



PSTH1  
3/4BSP 16MM CAP



PSTH10-3/4  
3/4BSP 13MM CAP



PSTH24  
3/4BSP 16MM CAP



PSTH5  
1/2BSP 8MM 1:10



PSTH10  
1/2BSP 13MM CAP



PSTH4  
1/2BSP 13MM CAP 22.5°



PSTH42  
3/4BSP VARIOUS TIPS



PSTH41  
3/4BSP M10 X 1.25



PSTH26  
31.75 DIA TO 3/4 5°



FORD NE1  
3/4 5° M10 X 1.25



1/2 BSP WASHER 1/2 BSP NUT  
3/4 BSP WASHER 3/4 BSP NUT



Prospot can design and manufacture electrode holders to suit any application either bend and machined or cast and machined.



# Gun Arms

## Manual Or Robot Applications



welding & joining technologies

Prospot has the ability to design and manufacture gun arms for robot and manual welding guns, made from CuCrZr or high strength aluminium. We have the capability to bend over 65mm CuCrZr arms using our 60T hydraulic press.



Aluminium robot gun arms - copper coated



CuCrZr manual welding gun arms with cast holders



CuCrZr double bent gun arms Fiat Type



CuCrZr bent and fabricated manual gun arm



Modular robot gun arms with linear slides made from both high strength aluminium and CuCrZr.



### Toolpost

Part No.	Dia A mm	Taper / Fitting.
TP25-3/4-5 DEG	25.00	19mm 5 Deg Inc
TP30-3/4-5 DEG	30.00	19mm 5 Deg Inc
TP31.75-3/4-5 DEG	31.75	19mm 5 Deg Inc
TP35-3/4-5 DEG	35.00	19mm 5 Deg Inc
TP38-3/4-5 DEG	38.00	19mm 5 Deg Inc
TP40-3/4-5 DEG	40.00	19mm 5 Deg Inc

All brass toolposts are 300mm long with brass water connectors.

### Toolpost

TP30-1/2 BSP	30.00	1/2" BSP
TP31.75-1/2 BSP	31.75	1/2" BSP
TP35-1/2 BSP	35.00	1/2" BSP
TP38-1/2 BSP	38.00	1/2" BSP
TP40-1/2 BSP	40.00	1/2" BSP

### Toolpost

TP31.75-3/4 BSP	31.75	3/4" BSP
TP35-3/4 BSP	35.00	3/4" BSP
TP38-3/4 BSP	38.00	3/4" BSP
TP40-3/4 BSP	40.00	3/4" BSP

### Toolpost

TP25-16-5 DEG	25.00	16MM 5 DEG INC
TP25-16-1:10	25.00	16MM 1:10 INC
TP25-3/8 BSP	25.00	3/8" BSP

### Toolpost-Angled

TP31.75-22.5	31.75	1/2" 5 DEG INC 22.5 DEG
TP31.75-22.5-16	31.75	5/8" 5 DEG INC 22.5 DEG

### Water Connectors

Part No	Fitting
WC-1	1/2" BSP
WC-2	3/8" BSP

### Water Tubes

FBT-6	6mm	Flexible Brass Tube
FBT-5	5mm	Flexible Brass Tube
FSS-6	6mm	Flexible S/S Tube
FSS-5	5mm	Flexible S/S Tube
WT M8	6mm	Cu Tube With M8 Brass Thread
WT-3/4 BSF	6mm	Brass Tube With 1/4"BSf Thread
PROM0098	6mm	Swaged Cu Tube 6.4mm Id -6.0mm Od
PROM0099	5mm	Swaged Cu Tube 6.4mm Id - 5.0mm Od

### Horizontal Adaptors

Part No	DIA A mm	DIA B mm
HA1	31.75	31.75
HA2	31.75	30.00
HA3	31.75	35.00
HA4	31.75	25.00
HA5	31.75	40.00
HA6	31.75	38.00
HA7	25.00	31.75



## Horizontal Toolpost Holder

Part No	Dia A mm
HTH-1	31.75
HTH-2	35.00
HTH-3	25.00

## Bolster

Part No	Taper / Fitting
BOL-1	19mm 5 DEG INC
BOL-2	1/2" BSP
BOL-3	3/4" BSP

## Horse Shoe Adaptor

Part No	Dia A mm	Fitting
HSA1	31.75	INC PAD BOLT
HSA2	35.00	"
HSA3	25.00	"
HSA4	38.00	"
HSA5	40.00	"

## Pad Bolts

PAD1	25.4mm
------	--------

## Machine Arms

Machine arms manufactured to suit any machine and size.

## Platters

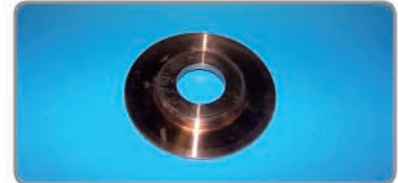
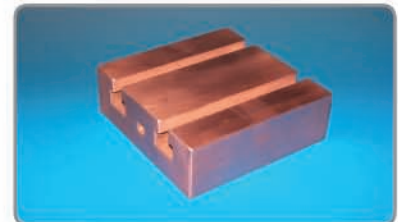
Replacement platters or convert your spot welder to a projection welder.

## Seam Welding Wheels

Manufactured to your requirements.

## Laminated Shunts

Flexible laminated shunts supplied to your requirements.





### Weld Current Meter

- The WA1 weld analyser offers the engineering professional the facilities to analyse, fault find, and improve the process quality on today's sophisticated welding control systems.
- Full NAMAS traceability gives you the confidence in your processes that your customers demand.
- Includes 150mm flexible toroid, 3 x AA batteries, charger and carry case
- Measures 0—60 kA , 9999 cycles AC, 199 seconds DC, no of pulses, conduction angle, weld time.
- Fitted with RS232 communications port.



### Weld Gauge

Part No	Pressure Lbs	Pressure Kgs	Pressure N
Presstotest A	0-600	0-275	0-2750
Presstotest B	0-1000	0-450	0-4500
Presstotest C	0-2000	0-900	0-9000
Presstotest D	0-4000	0-1800	0-18000



### Cap Removal Tools

Part No	Description
CRT 1	Cam Type 10mm-22mm
PRO-M00483	Jaw Type With Hammer 10mm-16mm
CRT8HD	Jaw Type 16mm-20mm
CRT6HD	Jaw Type 10mm-16mm



### Tapered Reamers

Part No	Description
1/2 Reamer	1/2" BS807 5 Degree Inc Reamer
5/8 Reamer	5/8" BS807 5 Degree Inc Reamer
3/4 Reamer	3/4" BS807 5 Degree Inc Reamer



### Torque Testing Sockets For Square Nuts

Part No	A/F mm	Drive A/F mm
M4	7	3/8"
M5	9	3/8"
M6	10	3/8"
M8	14	1/2"
M10	17	1/2"
M12 & 7/16	19	1/2"



The INSULATION BAND is used where permanent insulation of the part is required.

Fibreglass band coated in epoxy resin guarantees a permanent insulation up to 11,000 volts and is heat resistant up to 300 deg C.

50mm wide x 1500mm long



### Jointing And Sealing Compounds

HERMATITE RED - Semi hardening gasket compound.

COPPER GREASE - Conductive grease.

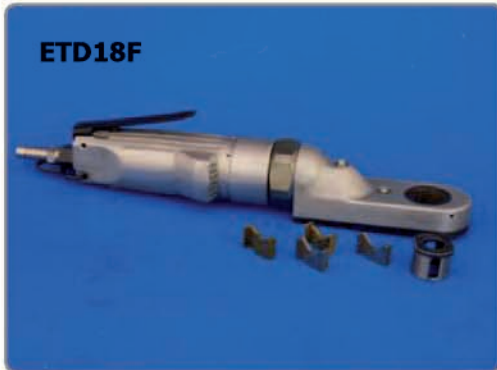


# Tip Dressers

## Pedestal And Hand Held



welding & joining technologies



**ETD18F**

**KYOKUTOH CO., LTD.**

The ETD18F manual pneumatic tip dresser is a cost effective way of re cutting your welding electrodes. It can dress both 13mm & 16mm electrodes depending on the cutter collet fitted.  
RPM 1,300 1.6kg Weight



**SK11D**

The SK11D is designed to use off line as a pedestal drill tip dresser, for both 13mm and 16mm electrodes depending on which cutter collet is fitted.

### Cutter classification chart



When ordering select 13mm collet or 16mm collet.



**Pt No 18-1307**

Manual tip dresser 18-1307 can quickly remove the mushroomed portions of the electrodes and renews the operating contour. The dresser machines both upper and lower electrodes "on the job". The dresser is 250mm long with a replaceable hardened tool steel cutter (18-130701)  
Cuts 5mm dia x 120 angle



**KYOKUTOH CO., LTD.**

## Auto Tip Dresser K - Type

- Small and lightweight body made of aluminium with all the performance of D-type dresser was included into this compact body.
- Simultaneous dressing the upper and lower electrodes enables you to reduce dressing time and be always in alignment of tip face after dressing.
- Floating unit comes as standard.
- The revolution can be confirmed by proximity sensor.
- Splash proof for terminal box.



## Auto Tip Dresser D- type

High torque, high speed auto tip dresser with a one second dress time.

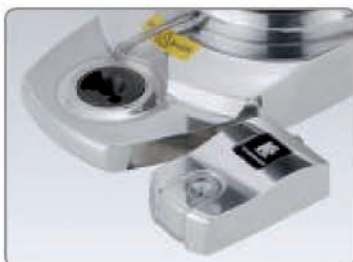
- 1) High torque, high speed rotation.
- 2) The direction of dressing rotation is clockwise.
- 3) Dressing time is just 1 second! (When a tip diameter is dressed from 8 dia to 6 dia)
- 4) Because the floating unit is installed in Auto Tip Dresser, it greatly absorbs stress on welding gun and dresser.
- 5) KTW cutter simultaneously dresses the upper and lower cap electrodes.
- 6) Recommended dressing pressure is 1470[N](150kgf). Special cutter is available for applications up to 2450[N](250kgf).



## Auto Tip Dresser CDM Series

- 1) Three-phase motor with multi-voltage capabilities.(200v-480v)
- 2) Confirm cutter rotation with LED indicator.
- 3) Power supply lamp included.
- 4) Monitor cutter life with dress time counter and indicator. Allows for ease in scheduling cutter replacement.
- 5) Signals the detection of abnormal current within the motor.
- 6) Motor mounted above gearbox. (Splash proof effect)
- 7) Floating system comes as standard.

■ Power (V)	AC200-AC480	(Multi-voltage function)
■ Revolution (rpm)	225~283	(CDM-HB 700~860)
■ Output (W)	1000	
■ Dress time (sec)	0.5~1.0	(CDM-HB 1.0~2.0)



[OPTION]  
Tip manager for checking  
the redressed tip diameter



Swarf Collector



Air Blow System



Manual Welding Gun  
Dresser With Auto  
Start



Machine Dresser

## Air Cooled Jumper Cables



Prospot carry a large range of air cooled jumper cables in stock with different cross sectional areas. All cables are shrouded in oil and water resistant tubing.

## Water Cooled Jumper Cables



Prospot carry a range of water cooled jumper cables with different end terminals.

## Water Cooled kickless Cables



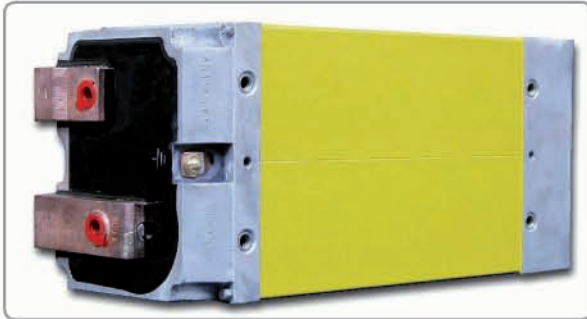
Prospot can supply kickless water cooled jumper cables for hanging gun applications.

## Laminated Shunts



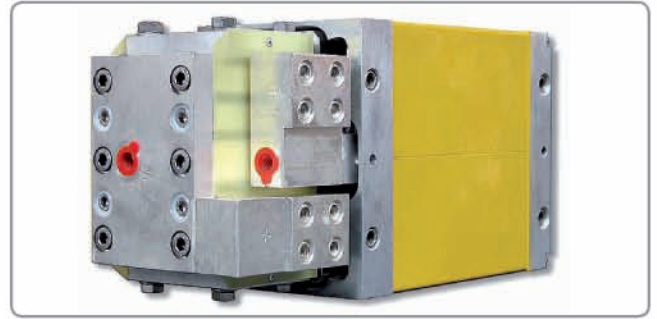
Prospot can manufacture laminated welding shunts for all applications

## AC Welding Transformers



Prospot are able to supply a whole range of AC welding transformers from 1kva to 500kva.

## DC Medium Frequency Welding Transformers



Prospot are able to supply medium frequency welding transformers for all applications.

## 3 Phase DC Welding Transformers

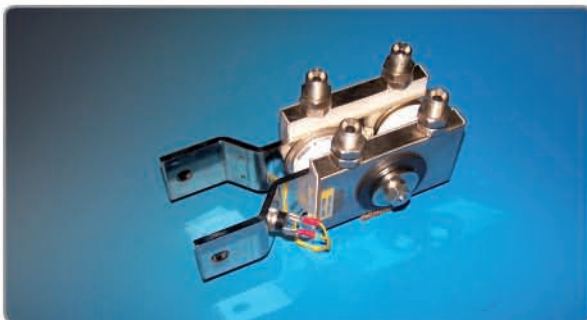


3 Phase DC welding transformers are also available but might require the fitting of compatible welding control.

## Welding Controls



Prospot are able to supply, build and install welding controls to suit AC,DC or MF applications.



Prospot has a service department which can carry out all types of service and repair work either on site or at our customer's premises, work undertaken;-

- Breakdown Repairs
- Monitoring Controls Fitted
- Counters Fitted
- Annual Servicing
- Welding Training Courses

- Safety Upgrades
- Timer Upgrades
- Machine Refurbishment
- Calibration Services
- PLC Upgrades

# Serratron 1b

## Weld Controller For Resistance Welding



welding & joining technologies



- 127 welding programs
- Integrated programming unit
- Proportional valve control
- Sequence with 3 weld times
- Electrode wear compensation
- Electrode tip dressing control
- Ethernet connectivity
- Wide weld sequences:  
CHAINED MODE, SUCCESSION...

### Working Modes

2

### Physical Characteristics

Hanging stations (number of weld programs)	MAN (127)	Dimensions (H x W x D)	202 x 134 x 49 mm
Pedestal welders (number of weld programs)	STA (127)	Weight	1,0 Kg
Robots (number of weld programs)	STA (127)	Working temperature	-5° to 60°

### Basic Functions

Max. number of power units	1
Communication network	Ethernet + TCP/IP
Control modes: constant current, current monitoring, firing angle	•
Electrode wear compensation through editabe curves	•
Sequence of 3 weld times	•
Log of the latest welds / Log of the latest error messages	512
Parameter storage without the need of battery back up	•

### Electrical Characteristics

Synchronisation	20 VCA
Frequency (automatic detection)	50/60 Hz
Power supply	24 VA +15%/-20%
Power rating	12 W

### Inputs - Outputs

Digital inputs (18...28V/10 mA)	18
Current measuring input (20÷2300 mV / kA)	1
Firing outputs (24 VDC / 1A, 5kHz pulses)	1
Digital outputs (24 VDC / 1A)	8

### Optionals

CPC-connect	Central programming software via Ethernet
SERRAstick	Memory stick for data log



Prospot Limited - Unit C Riverside Industrial Estate  
Atherstone Street - Fazeley - Tamworth - Staffordshire - B78 3RW  
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Email: sales@prospot.co.uk - Web: www.prospot.co.uk

# CS200 Welding Control

## Programable Welding Control

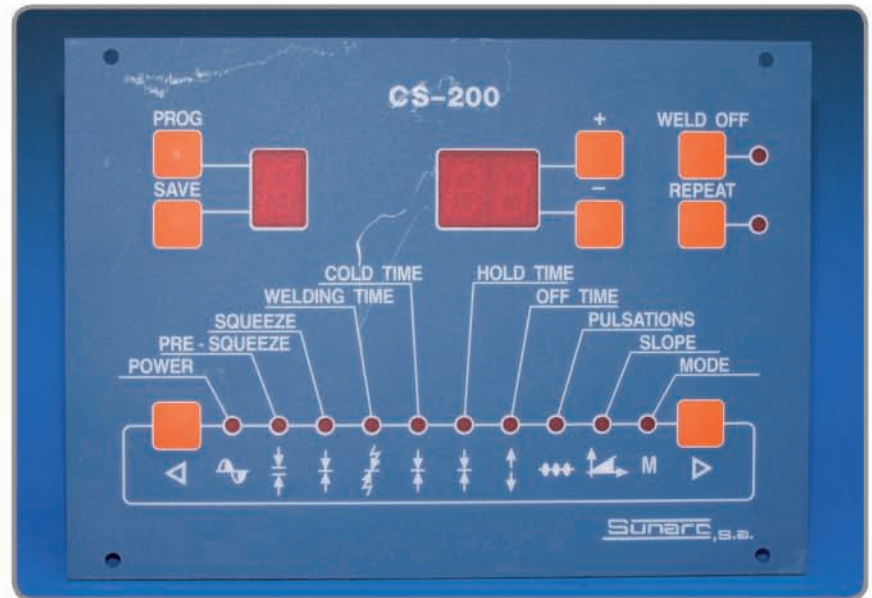


welding & joining technologies

The programmable welding control unit cs-200 allows the control of time functions and welding parameters in electric-resistance welding machines. It has been created to control any type of resistance machine with manual or automatic conditions.

### Suitable For :-

- Spot
- Projection
- Butt
- Seam



#### Options On Front Panel.

- Selection Of Unique Or Repeated Cycle
- Selection For Welding Yes Or No.
- Function To Select Program.
- Increase Or Decrease Of Parameters.
- Program Memory.
- Number Program Indicator.
- Parameter Or Error Codes.

#### Programable Parameters.

Selection Of 10 Welding Programs.

Welding Power	00-99steps
Pre Squeeze Time	00-99 Cycles
Squeeze Time	00-99 Cycles
Weld Time	00-99 Cycles
Cold Time	00-99 Cycles
Hold Time	00-99 Cycles
Pulses	01-09 Pulses
Slope Time	00 To (Welding-1)
Operating Mode	00-02.
Mode 00	Single Or Repeat Cycle
Mode01	Chained Sequence
Mode02	Successive Sequence

#### Technical Data.

Supply Voltage	20v (+/- 10%),50hz
Maximum Demand	15va (Without Soleniod Valve)
Soleniod Valve	24v Dc, 20w
Dimensions	195x140x65



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# Serratron 100

Weld Controller For Ac And Medium Frequency Resistance Welding

ProSpot

welding & joining technologies



### Operating modes

- MUX: One thyristor group (AC single phase welding)
- MFI: Medium Frequency Inverter (three phase, Direct Current welding)

### 127 welding programs

- 3 welding times sequence + pulsations + up / down slope
- Operation in phase shifting, Current Monitoring or Constant Current Mode.
- Voltage changes compensation function.
- 1/2 wave welding function.

### Electrode wear compensation

- Predefined curves (can be edited)
- Easy tuning, few parameters to be adjusted

### Tip dressing function Field Bus for robot installations (under request)

- InterBus-STM (SERRATRON 100ib)
- DeviceNet™ (SERRATRON 100net)
- ProfiBus-DPTM (SERRATRON 100dp)

### Central Programming Network

- Ethernet 10BaseT
- Ethernet 10BaseFL (Optical Fiber) (under request)
- TCP/IP Protocol

### V24/RS-232 Serial Programming Port

- For programming unit TP-10
- For lap-top (software package CPC-100©)

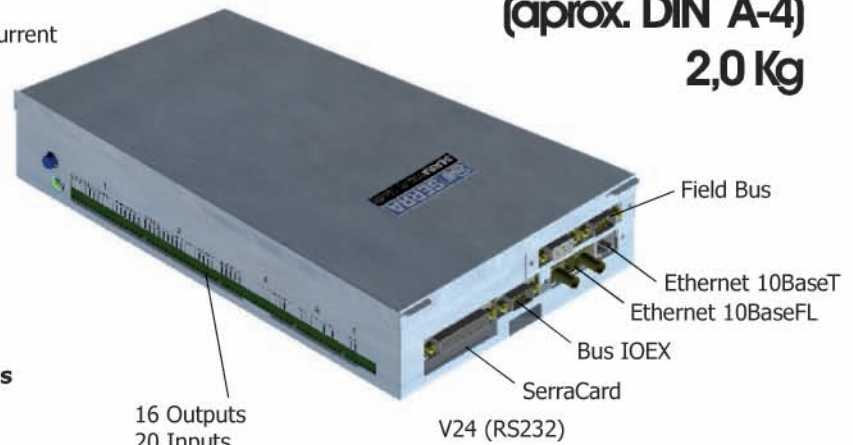
### PLC

- 20 Inputs
- 16 Outputs 0,7 A short circuit protected.
- Up to 132 I + 128 O using expansion module MES 32 (Bus IOEX)
- User interface TP-10: messages and commands managed by PLC program.
- Ladder mode programming (up to 512 equations)
- Marks, latches, timers, counters, welding functions

### Analogue Output for Proportional Valve

- 0 – 10 V / 4 – 20 mA / 0 – 20 mA

Dimensions :300 x 185,5 x 60 mm  
(aprox. DIN A-4)  
2,0 Kg



### SerraCard

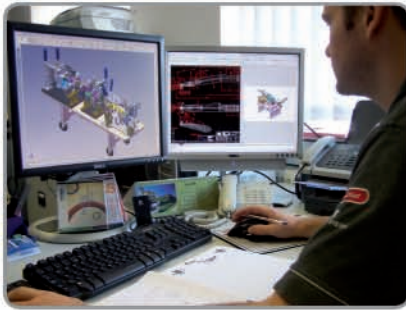


### Optional feature.

Compact, high capacity and easy to use memory card, Serra Card is the perfect storage media for a quick loading and unloading of programmable welding parameters, as well as for access restriction to only authorized users.



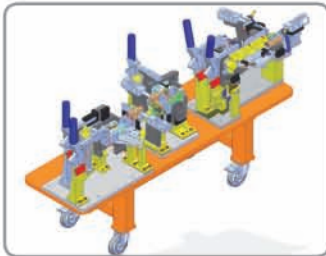
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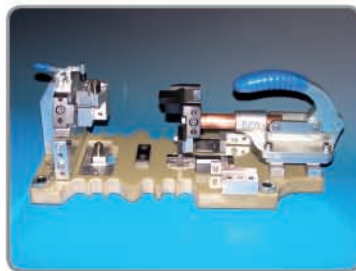
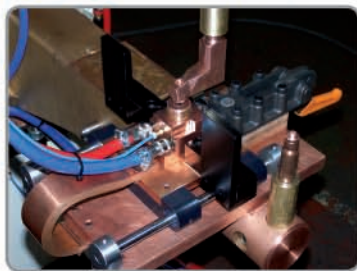
Prospot are able to design and manufacture welding fixtures for all types of welding applications including spot, projection, seam, mig, tig, capacitor discharge and other joining processes.

Together with our in house highly skilled manufacturing capacity and our LCM facility in slovakia we are able to give our customers the best solution to their requirements.

## Hanging Gun Welding Fixtures



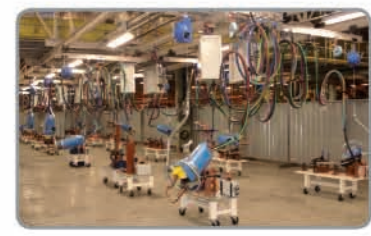
## Pedestal Welder Projection And Spot Welding Fixtures



## Robot Welding Fixtures



Compensating Tooling



Multi Fixture Production Lines





**WRC 500**



**UR 5**



**CHWM 11—36**

**Technical Data**

**Water Coolers**

**Refridgerated Chillers**

15°C / 10°C Air At + 30°C		<b>WRC 500</b>	<b>UR5</b>	<b>CHWM 11</b>	<b>CHWM 21</b>	<b>CHWM 26</b>	<b>CHWM36</b>
Cooling Capacity	Kw	0.32	0.75	1.1	2.1	2.6	3.6
Pump Min / Max	M3 /Hr	0.48	0.48	0.1/2.1	0.3/2.4	0.3/2.4	0.3/2.4
Pressure Max / Min	Bar	3	3	3.1/0.3	3.8/0.5	3.8/0.5	3.8/0.5
Rated Power	Kw	0.18	0.18	0.95	1.21	1.38	1.49
Tank Capacity	Litres	26	5	10	10	10	10
Power Supply	V	230/1/50	230/1/50	240/1/50	240/1/50	240/1/50	240/1/50
Max Consumption	A	1.5	1.5	6	7.8	9.1	8.3
Water Connections	Bsp	3/8bsp	3/8bsp	1/2bsp	1/2bsp	1/2bsp	1/2bsp
Dim Width	Mm	390	385	445	445	445	445
Dim Length	Mm	520	300	575	575	575	575
Dim Height	Mm	690	640	540	540	640	640
Weight	Kg	33	28	52	55	58	77



## Light Duty Welding Gun



Technical Data		Sp2
Max Power	Kva	12
Rated Power @ 50%	Kva	2.2
Mains Fuse Req'd	A	25
Short Circuit Current	A	7000
Welding Current	A	5600
Sec. No Load Voltage	V	1.65
Std Arm Length	Mm	120
Capacity On Mild Steel	Mm	2 + 2
Timer		Built In
Duty Cycle		3 Spots /Minute
Dimensions Lx Wxh	Mm	350 X 180 X 90 (No Arms)
Weight	Kg	9.6kg

## Heavy Duty Welding Guns



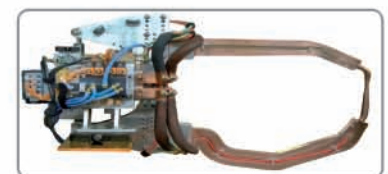
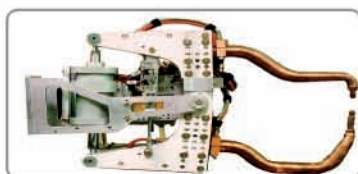
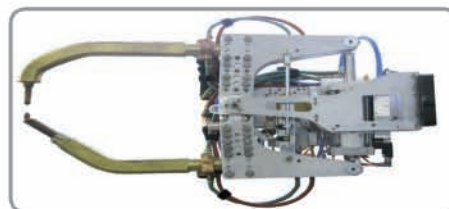
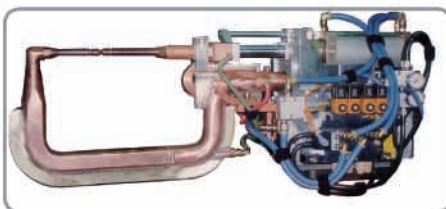
### C Type

Technical Details	Pneumatic Drive	Electric Drive
Power At 50% Dc	45kva	65kva
Secondary Voltage	45kva:7,1v	65kva:8,5v
Welding Cylinder	100mm	100mm
Cylinder Stroke	100mm + 45mm	130mm
Max Air Pressure	6 Bar	-
Water Consumption	10 L/Min	10 L/Min
Throat Gap	150mm	150mm
Max Force	460dan	750dan
Weight 45 Kva Gun(Ex Arms)	57kg	60kg
Weight 65kva Gun(Ex Arms)	60kg	63kg

### XL Type

Technical Details	Pneumatic Drive	Electric Drive
Power At 50% Dc	45kva	65kva
Secondary Voltage	45kva:7,1v	65kva:8,5v
Welding Cylinder	100mm	100mm
Throat Depths	300mm 400mm	500mm 600mm
Cylinder Stroke	25mm + 30mm	-
Max Air Pressure	6 Bar	-
Water Consumption	10 L/Min	10 L/Min
Throat Gap	250mm (Option 10 Deg)	-
Max Force	460dan	500dan
Weight 45 Kva Gun(Ex Arms)	62kg	66kg
Weight 65kva Gun(Ex Arms)	65kg	69kg

## Robot Welding Guns



All Guns Available In The Following Styles.

- Electrically operated
- Ac
- Pneumatic
- Medium frequency 1000hz



### Electronic Timer Serratron 1a

- 16 welding programs.
- Constant Current Regulation.
- 12 digital inputs and 7 outputs.
- Electrode wear compensation.



### Options

- Without table.
- Other voltages and frequencies that 400V / 50 Hz.
- Automatic boltfeeder or nutfeeder.

### Technical Features

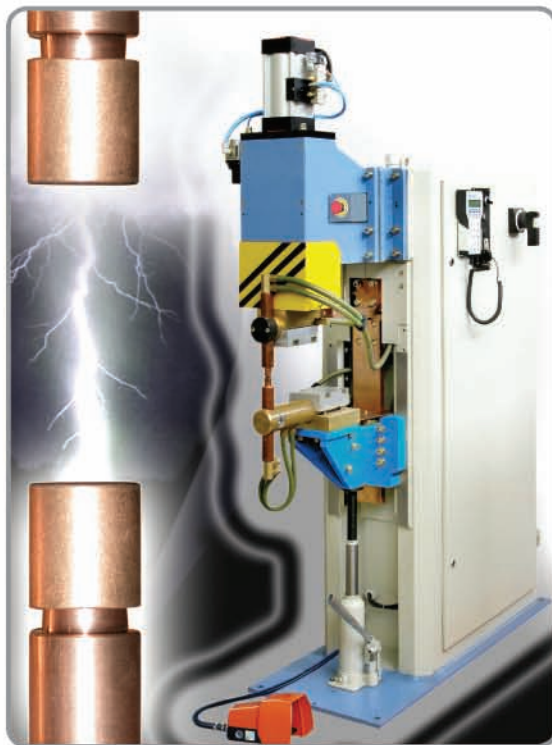
Power at 50% DC	16 kVA
Cylinder force at 6 bar	12 daN
Maximum welding power in short circuit	9,6 kA
Throat depth / daylight between electrodes	182 / 45 mm
Cylinder Ø / Cylinder stroke	Ø 60 - 50 mm
Secondary voltage in vacuum	2,7 V
Number of cycles per minute	38
Power supply	400 V

# Alfa 209 Spot Welder

AC - Medium Frequency 1000 Hz  
Pneumatic Drive - Servo Drive

ProSpot

welding & joining technologies



### Equipment:

- Pneumatic circuit with single pressure system
- I/O water valves 1/2"
- Air Inlet valve 1/2"
- Electric pedal
- Isolator
- Adjustable hydraulic jack in lower arm

### Optionals:

- Circuit breaker (incorporated in MF welders)
- Distance between arms 550 mm
- Servo driven head. Force 750 daN.
- Pneumatic circuit with counterpressure system
- Proportional valve
- Flowmeter



**MFC-3000**  
Medium Frequency Inverter  
with adaptative controller

### Technical features

Main Voltage	V	400 (50 Hz)
Electrode diameter (conical 10°)	mm	19
Electrode holder diameter	mm	35
Arms diameter	mm	70
Distance between arms min/max	mm	140-450
Cylinder stroke	mm	100
Cycles per minute (10 mm gap)	m/min	90

Alfa 209 - Machine Codes		A2122	A2152	A2153	A2183	A2124	A2186	A2222	A2253	A2224	A2256	A2323
Welding frequency	Hz	50	50	50	50	1000	1000	50	50	1000	1000	50
Power at 50 % D.C.	kVA	100	100	125	125	100	170	100	125	100	170	125
DIN throat depth	mm	400	400	400	400	400	400	600	600	600	600	750
Force at 6 bar	daN	450	750	750	900	450	900	450	750	450	750	450
Max. short circuit current (5 periods)	kA	40	40	50	50	26	45	35	42	26	45	38
Max. welding current (5 periods)	kA	32	32	40	40	26	45	28	33	26	45	30
Air consumption 50mm / 6 bar	NI	2,67	4,17	4,17	5,34	2,67	5,34	2,67	4,70	2,67	4,17	2,67
Cooling water consumption	l/h	360	360	360	360	720	720	360	360	720	720	360
Lower arm	-	-	-	-	-	-	-	•	•	•	•	•
Admissible power	kVA	200	200	250	250	160	250	200	250	160	250	250
Delayed fuses	A	200	200	250	250	160	250	200	250	160	250	250
Main supply section by phase	mm2	90	90	120	120	70	120	90	120	70	120	120
Secondary voltage	V	7,7/9	7,7/9	8,6/11	8,6/11	10	10	7,7/9	8,6/11	10	10	8,6/11
Width	mm	500	500	500	500	500	500	500	500	500	500	500
Length	mm	1230	1230	1230	1230	1230	1230	1630	1630	1630	1630	1790
Heigh	mm	1893	1893	1893	2152	1893	2152	1893	1893	1893	1893	1893
Weight	kg	610	620	640	640	580	600	610	630	580	600	660
Medium Frequency Inverter	MFC	-	-	-	-	3007	3015	-	-	3007	3015	-

# Alfa 314 Spot Welder

AC - Medium Frequency 1000 Hz  
Pneumatic Or Electric Drive

ProSpot

welding & joining technologies



### Equipment:

- Pneumatic circuit with single pressure system
- I/O water valves 3/4"
- Air Inlet valve 3/4"
- Electric pedal
- Isolator
- Adjustable hydraulic jack in lower arm

### Optionals:

- Circuit breaker (incorporated in MF welders)
- Servo driven head. Force 1500 daN
- Proportional valve
- Flowmeter
- Pneumatic circuit with counterpressure system
- Double stroke (80+40) for 750 daN
- Transformer 300 kVA (50Hz)



### MFC-3000

Medium Frequency Inverter with adaptative controller

### Technical features

	V	400 (50 Hz)
Main Voltage	V	400 (50 Hz)
Electrode diameter (conical 10°)	mm	24
Electrode holder diameter	mm	40
Arms diameter	mm	80
Distance between arms min-max	mm	140-500
Approach /welding stroke	mm	0/120
Manoeuvres / minute (10 mm)	min-1	90

Alfa 314 - Machine Codes		A3141	A3144	A3146	A3241	A3244	A3246	A3341	A3344	A3346
Welding frequency	Hz	50	1000	1000	50	1000	1000	50	1000	1000
Power at 50 % D.C.	kVA	200	170	340	200	170	340	200	170	340
DIN throat depth	mm	400	400	400	600	600	600	750	750	750
Force at 6 bar	daN	1400	1400	1400	1400	1400	1400	1400	1400	1400
Max. short circuit current (5 periods)	kA	60	45	80	50	42	72	40	38	64
Max. welding current (5 periods)	kA	48	45	80	40	42	72	32	38	64
Air consumption at 50 mm / 6 bar	NI	8,4	8,4	8,4	8,4	8,4	8,4	8,4	8,4	8,4
Cooling water consumption	l/h	360	720	720	360	720	720	360	720	720
Lower arm	-	-	-	-	•	•	•	•	•	•
Admissible power	kVA	500	250	500	500	250	500	500	250	500
Delayed fuses	A	500	250	500	500	250	500	500	250	500
Main supply section by phase	mm2	240	120	240	240	120	240	240	120	240
Secondary voltage	V	8,5/10,5	10,0	10,0	8,5/10,5	10,0	10,0	8,5/10,5	10,0	10,0
Width	mm	640	640	640	640	640	640	640	640	640
Length	mm	1600	1600	1600	1800	1800	1800	1950	1950	1950
Heigh	mm	2333	2333	2333	2333	2333	2333	2333	2333	2333
Weight	Kgs	870	800	820	910	830	880	950	850	900
Medium Frequency Inverter MFC-3015	nr	-	1	2	-	1	2	-	1	2



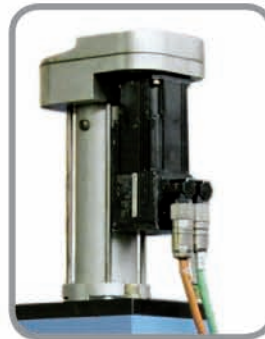
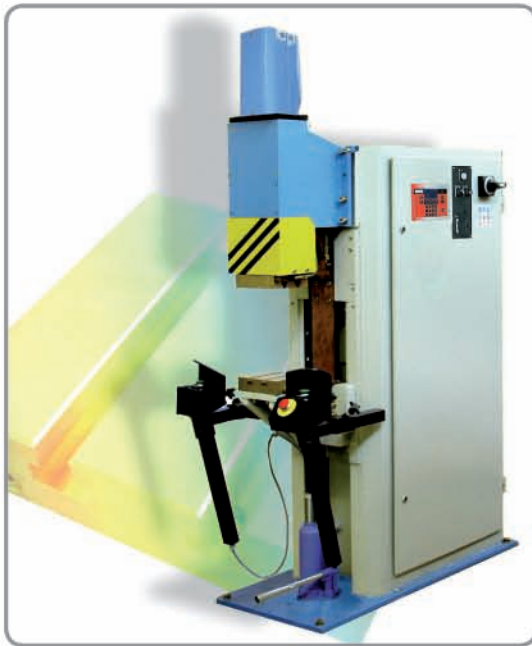
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# Beta 214 Projection Welder

AC - Medium Frequency 1000 Hz  
Pneumatic Or Servodrive

**ProSpot**

welding & joining technologies



### Servo controlled electric drive

- Adjustable and programmable stroke (accuracy: +/- 0,1 mm)
- Thickness detection and welding program automatic selection.
- Machine stop in case of no detection of due thickness: bad bolt or nut placement, sheet absence.
- Head integration in automated applications (7° axis function).
- Seating control during weld time.

### Equipment:

- Pneumatic circuit with counterpressure system
- Elastomer for head tracking
- I-O water valves 1/2"
- Air water valve 1/2"
- Two hands start.
- Force control

### Optionals:

- Circuit breaker (incorporated in MF welders)
- DIN throat depth 300 mm
- Daylight between platforms 650 mm
- Proportional valve
- Flowmeter
- Automation integration set
- Autonomous cooling set

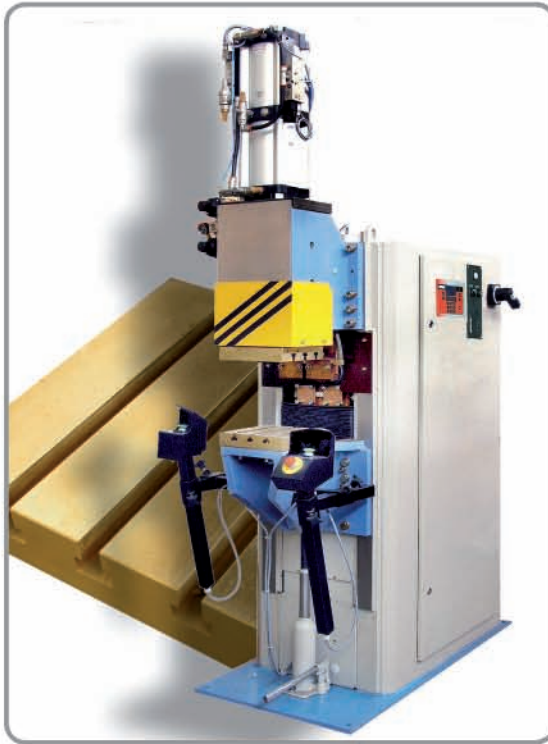
Beta 214 - Machine Codes		AC 50 Hz		ServoDrive MF 1000 Hz			
		B2122	B2143	B2124	B2146	B2104	B2106
Welding frequency	Hz	50	50	1000	1000	1000	1000
Power at 50 % D.C.	kVA	100	125	100	170	100	170
DIN throat depth	mm	250	250	250	250	250	250
Force (pneumatic cylinder at 6 bar)	daN	750	1400	750	1400	-	-
Force (servodrive head)	daN	-	-	-	-	1500	1500
Max. short circuit current CC (5 per.)	kA	60	75	26	52	26	52
Max. welding current (in 5 periods)	kA	48	60	26	52	26	52
Air consumption 50mm / 6 bar	NI	4,7	8,4	4,7	8,4	-	-
Cooling water consumption	l/h	360	360	720	720	720	720
Admissible power	kVA	200	250	160	250	160	250
Delayed fuses	A	200	250	160	250	160	250
Main supply section by phase	mm <sup>2</sup>	90	120	70	120	70	120
Secondary voltage	V	7.7 / 9	8.6 / 11	10	10	10	10
Working stroke	mm	100	100	100	100	0-100 adjustable and programmable	
Width	mm	500	500	500	500	500	500
Length	mm	1230	1230	1230	1230	1230	1230
Heigh	mm	1893	2152	1893	2152	1960	1960
Weight	kg	610	640	580	610	590	620
Medium Frequency Inverter	Ref.	-	-	MFC-3007	MFC-3015	MFC-3007	MFC-3015

# Beta 323 Projection Welder

AC - Medium Frequency 1000 Hz  
Pneumatic Or Servodrive

ProSpot

welding & joining technologies

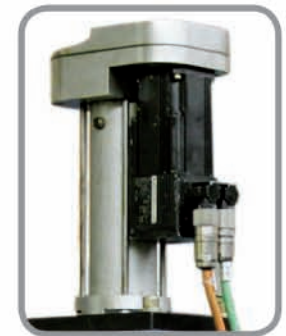


### Equipment:

- Pneumatic circuit with counterpressure system.
- Elastomer for head tracking.
- I-O water valves 3/4".
- Air water valve 3/4".
- Two hands start.
- Circuit breaker
- Isolator

### Optionals:

- Servo driven head.
- Force 2500 daN
- Circuit breaker (incorporated in MF welders)
- Daylight between platforms 600 mm
- Proportional valve
- Flowmeter
- Automation integration set
- Force controller

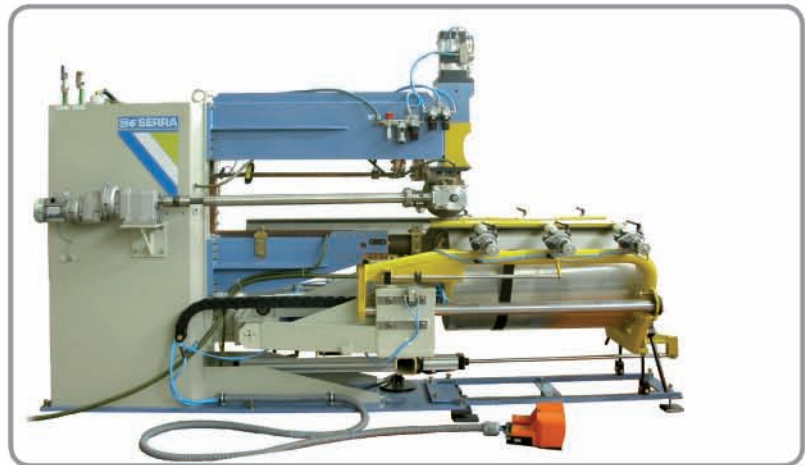
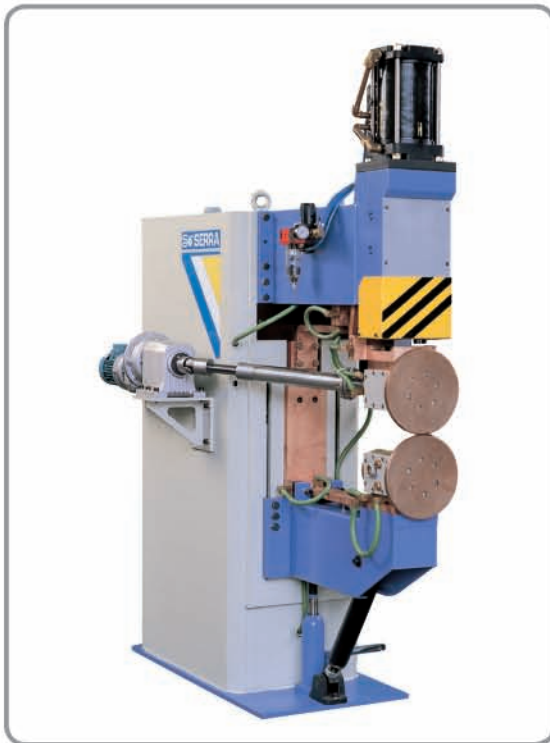


### Technical features

Main Voltage	V	400 (50 Hz)
Platform dimensions	mm	250x250
Platform slots	nr	3
Distance between slots	mm	63
Distance between platforms (mín.-máx.)	mm	140-450
Manoeuvres / minute (in 10 mm)	min-1	90

### Beta 323 - Machine Codes

		<b>B3121</b>	<b>B3124</b>	<b>B3126</b>
Welding frequency	Hz	50	1000	1000
Power at 50 % D.C.	kVA	200	170	340
DIN throat depth	mm	250	250	250
Force at 6 bar	daN	2300	2300	2300
Max. short circuit current CC (5 periods)	kA	90	52	108
Max. welding current (in 5 periods)	kA	74	52	100
Air consumption 50mm / 6 bar	NI	13,7	13,7	13,7
Cooling water consumption	l/h	360	720	720
Admissible power	kVA	630	250	500
Delayed fuses	A	500	250	500
Main supply section by phase	mm <sup>2</sup>	240	120	240
Secondary voltage	V	8.5 / 10,51	10	10
Working stroke	mm	120	120	120
Width	mm	650	650	650
Length	mm	1650	1650	1650
Heigh	mm	2310	2310	2310
Weight	kg	870	780	850
Medium Frequency Inverter	No	-	1	2



### Equipment:

- Lower arm (except longitudinal type)
- Electronic flowmeter

### Optionals:

- Increase ment 220 V
- Wheel trimmer
- Double drive and differential
- Double peripheral drive

	GAMMA 100									GAMMA 200								
	TRANSVERSAL			LONGITUDINAL			MIXED			TRANSVERSAL			LONGITUDINAL			MIXED		
Ref.	73101	73102	73103	73104	73105	73111	73106	73107	73108	73109	73110	73113	73114	73115	73117	73118		
Power at 50 % D.C.	kVA			130									250					
Cylinder force at 6 bar	daN			750									1200					
Cylinder stroke	mm			100									150					
DIN throat depth (head axle)	mm	600	750	1050	600	750	1050	600	750	600	750	1050	600	750	1050	710	860	
Daylight	mm	710	860	1160	600	750	1050	710	860	710	860	1160	600	750	1050	710	860	
Max. welding power in Sh.C.	kA	24	19,2	16	24	19,2	16	24	24	24	30	24	24	24	27	24	27	
Max. tangential speed	m/min	3,4	4,5	4,5	4,5	4,5	4,5	4,5	4,5	5	6	6	6	6	6	6	6	
Min. tangential speed	m/min	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	
Height	mm	2060	2060	2060	2060	2060	2060	2060	2060	2060	2060	2060	2060	2060	2060	2060	2060	
Lenght	mm	1610	1760	2060	1610	1760	1660	1610	1760	1610	1760	2060	1610	1760	2060	1610	2060	
Width	mm	722	722	722	722	722	722	722	722	722	722	722	722	722	722	722	722	
Wheel diameter	mm	170	170	170	170	170	170	170	170	250	250	250	250	250	250	250	250	
Weight	kg	1200	1250	1300	1250	1200	1250	1200	1300	1290	1340	1390	1330	1360	1390	1300	1350	
Isolator	-	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	
Weld controller	-										SERRATRON 1A							
Power supply	V										400 (50 Hz)							



# Projection Welding

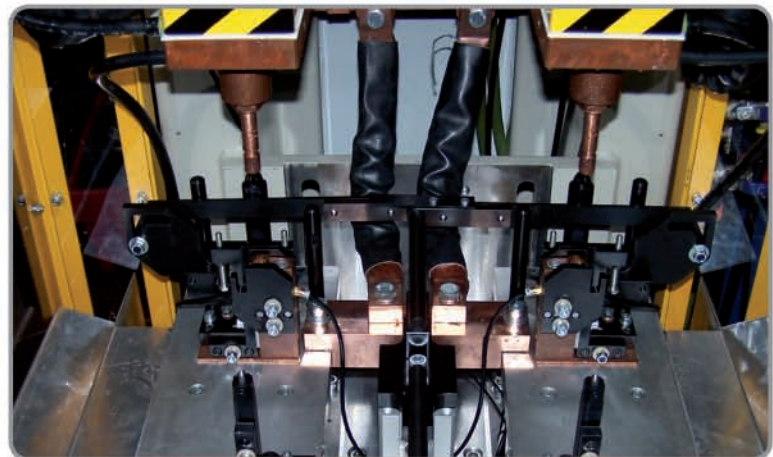
## Pedestal Machine Type III



welding & joining technologies



- Up to two transformers incorporated. AC or MF power sources
- Choice of welding timer
- Operator panel integrated on the side mounted electric cabinet. Includes the programming unit and display
- Palm buttons and/or foot switch
- Adjustable knee height
- Multiple weld heads



### Technical Data

Power at 50% D.C.	2 x 100 kVA	2 x 125 kVA
DIN throat depth to platform center	250 mm	250 mm
Secondary voltage in vacuum	10 V	11 V
Maximum secondary current in Short C.	24 kA	28 kA
Maximum primary current at 50% D.C.	250 A	312 A
Max. wavering allowable in main supply	+/-10%	+/-10%
Nominal air pressure	10 bar	10 bar
Nominal water pressure	4 bar	4 bar
Water cooling flow	17 l / mn	17 l / mn
Power supply cable section length < 15 m.	90 mm <sup>2</sup>	90 mm <sup>2</sup>
Distance between platforms (max. / min.)	800 mm	600 mm
Dimensions (H x W x L mm)	1960x740x1190	1960x740x1190
Weight	820 kg	860 kg



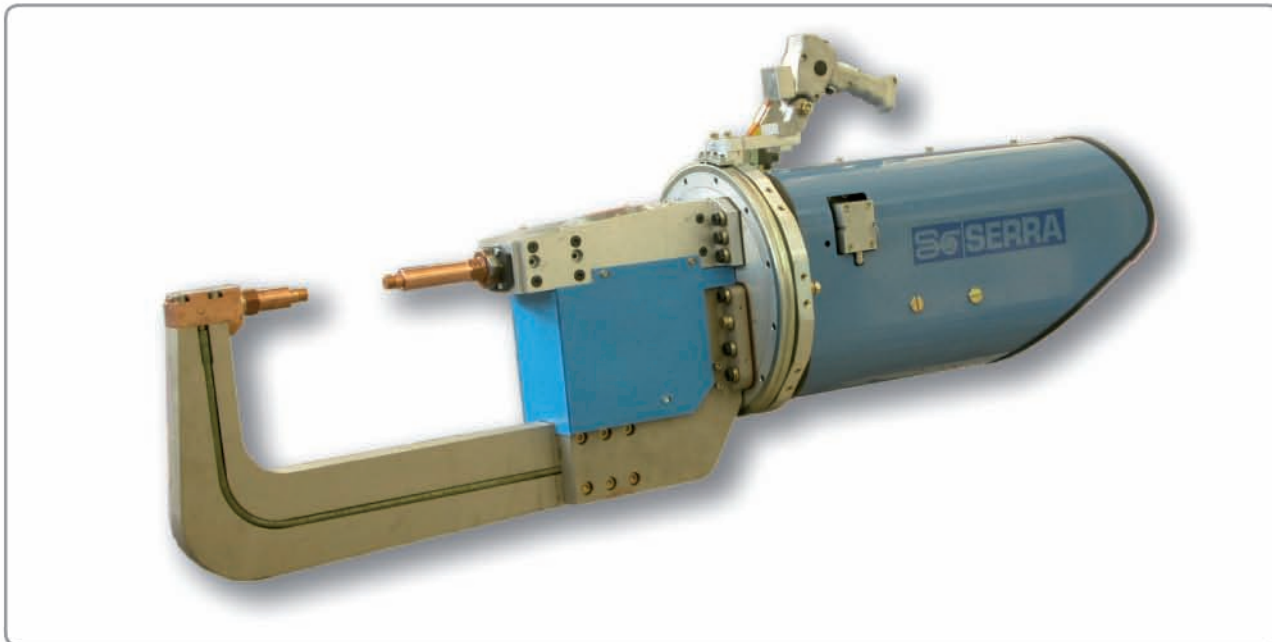
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# PTB2-CF

## High Performance Welding Guns With Integrated Transformer



welding & joining technologies



### Features

		SSPTB2-CF-100	SSPTB2-CF-170
Transformer Power at 50% DC	kvA	100 MF	170 MF
Transformer Power at 100% DC	kvA	71	120
Maximum welding power in Short Circuit	kA	27	37
Secondary voltage	V	10	10
Primary voltage at 50% DC	A	250	340
Primary thermic voltage	A	180	240
Cylinder Stroke	mm	40 + 100	40 + 100
Air consumption per spot at 6 bar	NI	13,3	13,3
Water cooling flow Transformer / arms	l/min	12	12
Maximum working pressure	bar	6	6
water input / output differential pressure	bar	3	3
min/max water inlet temperature	°C	15-30	15-30
Wire section by phase (max. distance to cabinet 10m.)	mm <sup>2</sup>	35	50
Weight (without arms)	kg	69	75

### Chart of forces between electrodes

2 bar	3 bar	4 bar	5 bar	6 bar
432 daN	689 daN	864 daN	1080 daN	1300 daN



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# Integrated Transformer Welding Guns

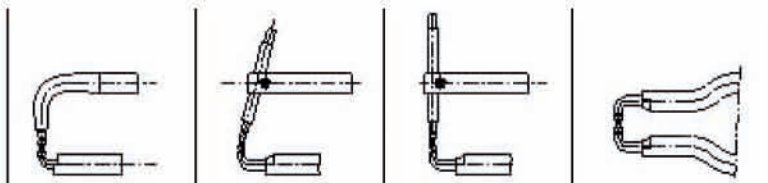
## XL Sigma Gun

ProSpot

welding & joining technologies



### Possible arm configurations



#### Pneumatic drive

#### Electric drive

Power at 50% DC	AC: 45 - 65 kVA • MF: 100 kVA	
Secondary voltage	45 kVA: 7,1 V • 65 kVA : 8,5 V • MF : 9,0 V	
Available throat depths	300 mm • 400 mm • 500 mm • 600 mm	
∅ Welding cylinder	100 mm	-
Available welding forces	413 daN • 337 daN • 284 daN • 245 daN	
Cylinder stroke	25+30 mm	
Maximum air pressure	6 bar	-
Cooling water consumption	10 l/m	
Clearance between arms	250 mm (Option 10°)	
Maximum force	460 daN	500 daN
Weigh 45 kVA gun (without arms)	90 kg	94 kg
Weigh 65 kVA gun (without arms)	93 kg	97 kg



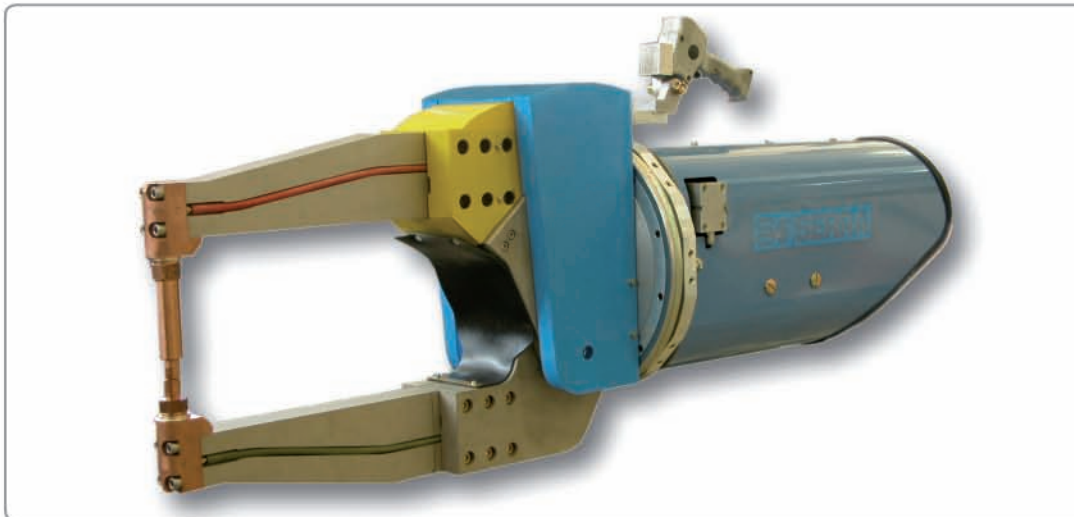
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# PTB2-XF

## High Performance Welding Guns With Integrated Transformer

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### Chart of forces between electrodes

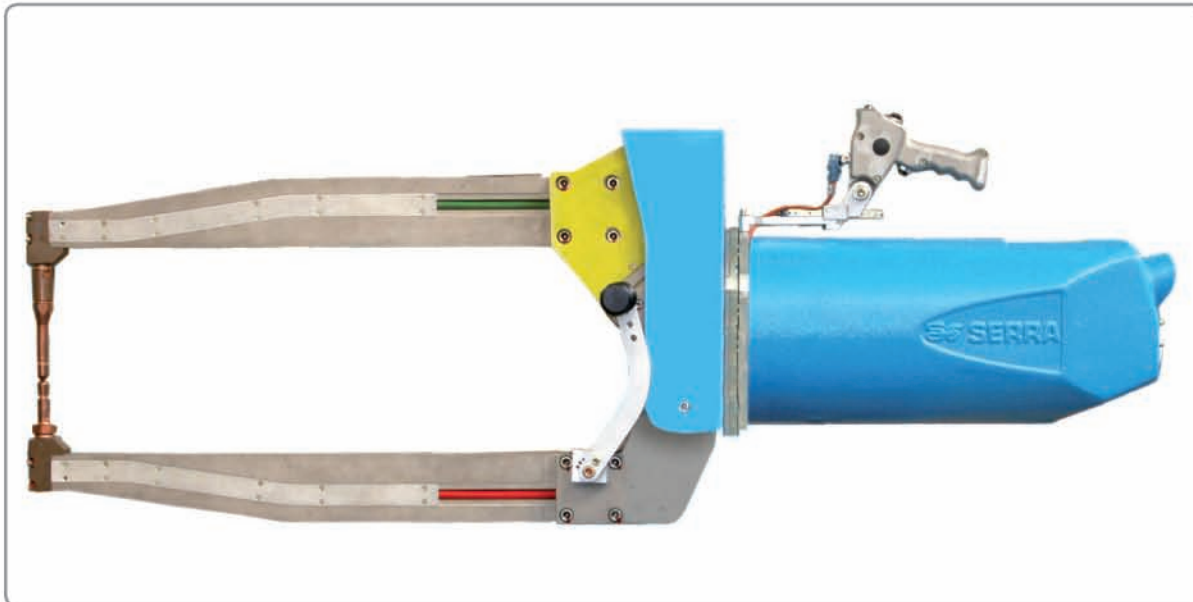
Throat depth	2 bar	3 bar	4 bar	5 bar	6 bar
400 mm	388 daN	583 daN	777 daN	966 daN	1166 daN
500 mm	333 daN	500 daN	666 daN	828 daN	1000 daN
600 mm	291 daN	437 daN	583 daN	725 daN	875 daN
700 mm	259 daN	388 daN	518 daN	644 daN	777 daN
800 mm	233 daN	350 daN	466 daN	580 daN	700 daN
900 mm	212 daN	318 daN	424 daN	527 daN	636 daN
1000 mm	194 daN	291 daN	388 daN	483 daN	583 daN

### Features

		SSPTB2-XF-100	SSPTB2-XF-170
Transformer Power at 50% DC	kvA	100 MF	170 MF
Transformer Power at 100% DC	kvA	71	120
Secondary Voltage	V	10	10
Maximum welding power in Short Circuit (100 ms)	kA	27	37
Primary voltage at 50% DC	A	250	340
Primary thermic voltage	A	180	240
Cylinder Stroke	mm	25+30	25+30
Air consumption per spot at 6 bar	NI	21,6	21,6
Water cooling flow Transformer / arms	l/min	12	12
Maximum pressure air / water	bar	6	6
Water input/output differential pressure	bar	3	3
min/max water inlet temperature	°C	15-30	15-30
Wire section by phase (max. distance to cabinet 10m.)	mm2	35	50
Weight (without arms)	kg	71	77



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### Chart of forces between electrodes

Throat depth	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar
400 mm	187 daN	281 daN	375 daN	468 daN	562 daN	656 daN	750 daN
500 mm	158 daN	237 daN	316 daN	395 daN	474 daN	553 daN	632 daN
600 mm	136 daN	205 daN	273 daN	341 daN	410 daN	478 daN	547 daN
700 mm	120 daN	180 daN	241 daN	301 daN	361 daN	421 daN	482 daN
800 mm	107 daN	161 daN	215 daN	268 daN	322 daN	376 daN	430 daN
900 mm	97 daN	145 daN	194 daN	243 daN	291 daN	340 daN	389 daN
1000 mm	89 daN	133 daN	177 daN	221 daN	266 daN	310 daN	355 daN

### Features

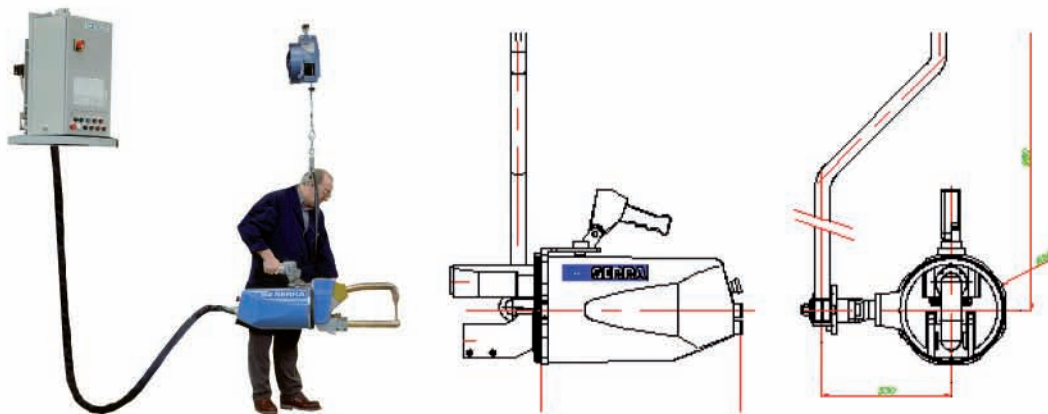
		AC	MF
Transformer Power at 50% DC	kvA	65	100
Secondary Voltage	V	8,5	10
Ø Welding Cylinder	mm	100 (x4)	100 (x4)
Cylinder Stroke	mm	25 + 30	25 + 30
Max. Force between arms at 8 bar	daN	2250	2250
Distance between arms	mm	300	300
Max. arm length	mm	1000	1000
Rectangular arm section	mm	40x100	40x100
Gun rotation angle	mm	9,5°-6,4°	9,5°-6,4°
Max. air pressure	bar	8	8
Cooling water consumption	l/min	10	10
min/max water inlet temperature	°C	10-30	10-30
Weight (without arms)	kg	99	91

# Type C

## Integrated Transformer Welding Guns



welding & joining technologies

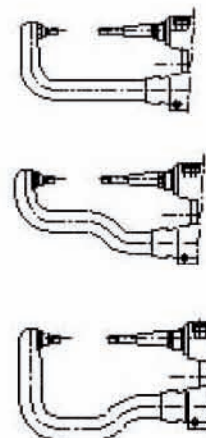


### Pneumatic drive

### Electric drive

Power at 50% DC	AC: 45 - 65 kVA • MF: 100 kVA	
Secondary voltage	45 kVA: 7,1 V • 65 kVA : 8,5 V • MF : 9,0 V	
∅ welding cylinder	100 mm	-
Cylinder stroke	100+45 mm	130 mm
Maximum air pressure	6 bar	-
Cooling water consumption	10 l/m	
Clearance between arms	150 mm	
Maximum force	460 daN	750 daN
Weigh 45 kVA gun (ex arms)	57 Kg	60 Kg
Weigh 65 kVA gun (ex arms)	60 Kg	63 Kg

### Possible arm configurations



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Analogue Control



CS200 Control



UR5 Water Cooler is designed to work with these machines.

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

# Prima Multi 200

Bodyshop Welding Equipment



welding & joining technologies

**PRIMA**  
Welders

## Mig Welding - Mig Brazing - Tig Welding - Mma Welding Manual - Synergic - Pulse - Double Pulse - Full Automatic Levels

**PRIMA Multi 200, is a synergic MIG/MAG/TIG/MMA pulsed arc welding machine with inverter technology. Touch screen that displays icons and values.**

Programmes; manual, synergic, pulsed, full automatic levels, only the type, thickness of the material and diameter of the wire is set with the synergic programmes. Wire feed motors with encoders for keeping the wire at a constant speed. The machine uses three Mig torches; one for steel, one for aluminium and one for Mig brazing. An optional Tig torch can be used for conventional Tig welding and repairing laser welded joints and single sided spot welding. A further option is to fit a MMA torch for welding up to 4mm rods.

The rear compartment holds two cylinders (medium or large); a cylinder with mixed gas co2/argon and an argon gas cylinder. Three reels of 5Kg coils fit in the sides and one in the top panel. Comes complete with a wall support for the three torches.

Input Voltage	1 ph 230 V 50Hz
Max Installed Power@60%	5.4 KVA
Duty cycle A/%	200/40 180/60
Fuse Rating	16 Amps
Wire Size Steel	0.6-0.8-1.0 mm
Wire Size Aluminium	1.0 mm
Wire Size CuSi	0.8-1.0 mm
MMA / TIG DC	200 Amps
Protection Class	IP21S
Dimensions	860 x 550 x 1160 mm
Weight	72 Kg

tig welding & spoting



Single sided spot tig tool DRT, with fast earth system DRMT

ALUMINIUM



PRIMATEX 130

STEEL



RPD



MIG BRAZE



TO 2030 TORCH

PGP 6 0.6mm  
PGP 8 0.8mm  
PGP 10 1.0mm



UP20



SG 20



LANCIA 20



RU 4068 0.6/0.8mm  
RU 4012 1.0/1.2mm



PPE

Tig Torch Spares



PET 2.4

UCT 9.8

PPET 2.4

Tungsten

TOT 2640 TIG TORCH



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# Punto Star - Inverter Spot Welder

Bodyshop Welding Equipment

ProSpot

welding & joining technologies

**PRIMA**  
Welders

## Spot welding machine with inverter technology

- Patented Inverter system with variable frequency.
- Spot welding gun with transformer on board.
- Water cooling system, gun, arms, electrode.
- Three phase power supply.
- Great welding power.
- Big electrode force.
- Welding with constant current regulation.
- Lightweight welding gun with arms made from aluminium and carbon fibre.
- Carbon fibre cover.



Electrical Specification.	Punto Star
Power Supply	3 Ph 400 V 50Hz
Fuses	16 A
Secondary Welding Current	12,000 A
Welding Capacity On Sheet Steel	3 X 2.5 mm
Electrode Force At 6.5Bars	450 daN
Electrode Force At 8.0Bars	560 daN
Weight Of Gun	6.5 Kg
Built In Cooling System	Water

# Punto 8

## Bodyshop Welding Systems



welding & joining technologies

### PRIMA Welders



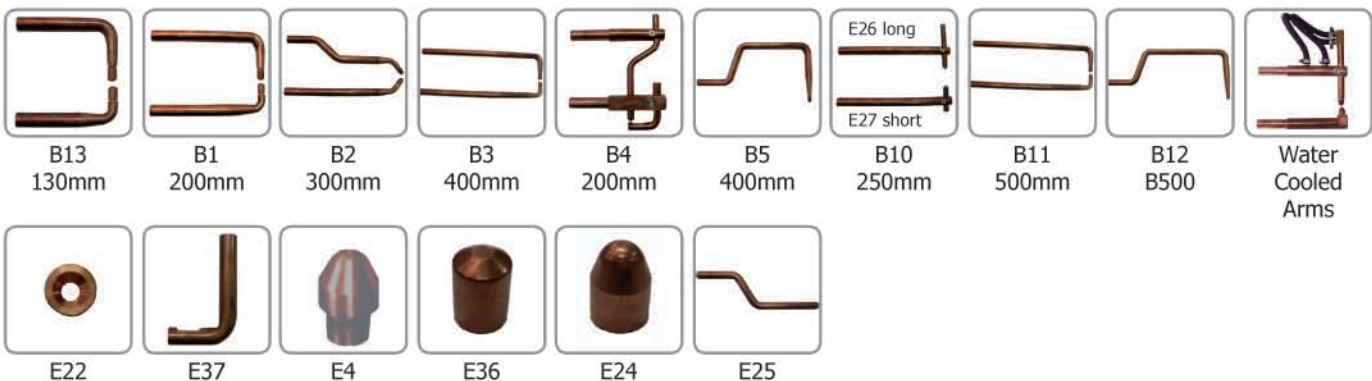
The PUNTO range of bodyshop welders are fitted with a mobile balancing arm enabling the operator to raise and manoeuvre the gun without any effort.

#### Punto 8

Rated Power @ 50%	8 KVA
Max Power	65 KVA
Fuses at 400 v 50Hz	32 Amp
Secondary No Load Voltage	5 V
Max secondary welding current	13,000 Amps
Secondary Short Circuit Current	11,500 Amps
Duty Cycles	8%
Welding Capacity On Mild Steel	2 x 2.5 mm
Electrode Force At 6.5 bar	300 daN
Electrode Force At 8.0 bar	450 daN
Water cooling	Built In
Throat Depth	120mm
Electrode Arm Diameter	20mm
Electrode Arm Length	120mm—500mm
Electrode Stroke	12 + 55mm
Working Height	2500mm
Max Radius	2300mm
Dimensions Rest Position WxLxH	1030x815x1250mm
Welding Gun Dimensions WxLxH	130x350x380mm



An attachment DPC can be fitted to the X gun to convert to C gun.



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### PRIMA Welders



The PUNTO range of bodyshop welders are fitted with a mobile balancing arm enabling the operator to raise and manoeuvre the gun without any effort.



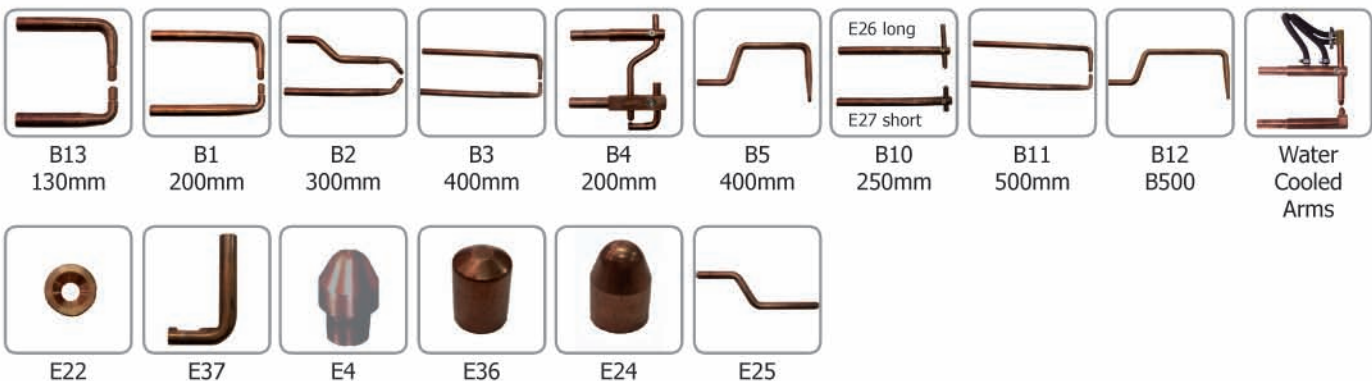
BC 1 Arm set with EC2 & EC1 electrodes

An attachment DPC can be fitted to the X gun to convert to C gun.

Punto Plus	
Rated Power @ 50%	8 KVA
Max Power	65 KVA
Fuses at 400 v 50Hz	32 Amp
Secondary No Load Voltage	5 V
Max secondary welding current	13,000 Amps
Secondary Short Circuit Current	11,500 Amps
Duty Cycles	8%
Welding Capacity On Mild Steel	2 x 2.5 mm
Electrode Force At 6.5 bar	300 daN
Electrode Force At 8.0 bar	450 daN
Water cooling	Built In
Throat Depth	120mm
Electrode Arm Diameter	20mm
Electrode Arm Length	120mm—500mm
Electrode Stroke	12 + 55mm
Working Height	2500mm
Max Radius	2300mm
Dimensions Rest Position WxLxH	1030x815x1250mm
Welding Gun Dimensions WxLxH	130x350x380mm



BC 2 with E22



# Punto Plus 9 & Punto Plus 9 CC

Bodyshop Welding Systems

ProSpot

welding & joining technologies

**PRIMA**  
Welders

PEUGEOT CITROËN RENAULT TOYOTA



The PUNTO range of bodyshop welders are fitted with a mobile balancing arm enabling the operator to raise and manoeuvre the gun without any effort.

### Punto Plus 9

Rated Power @ 50%	9 KVA
Max Power	96 KVA
Fuses at 400 v 50Hz	32 Amp
Secondary No Load Voltage	6.5 V
Max secondary welding current	13,500 Amps
Secondary Short Circuit Current	15,000 Amps
Duty Cycles	9%
Welding Capacity On Mild Steel	3 x 2.5 mm
Electrode Force At 6.5 bar	455 daN
Electrode Force At 8.0 bar	560 daN
Water cooling	Built In
Throat Depth	120mm
Electrode Arm Diameter	25mm
Electrode Arm Length	120mm—600mm
Electrode Stroke	12 + 55mm
Working Height	2500mm
Max Radius	2300mm
Dimensions Rest Position WxLxH	1030x815x1250mm
Welding Gun Dimensions WxLxH	130x350x410mm



BC 1 Arm set with EC2 & EC1 electrodes



The X gun is available with 20mm cap electrodes or 13mm.

An attachment DPC can be fitted to the X gun to convert to C gun.

### PUNTO PLUS 9 CC

As above specification but with Multi program welding control and proportional valve.



B101 130mm B102 260mm B103 300mm B104 B105 400mm B105 500mm B106 500mm B107 500mm B400SP B400 ID B200 SP B200 ID



E22 E37 E38/8 E39 90020150 90020151 E4 E36

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# Primacut 32 Plasma Cutter

Bodyshop Welding Equipment

ProSpot

welding & joining technologies

**PRIMA**  
Welders



CM 10 EARTH  
CABLE

TORCH TO 400P

The PRIMACUT 32 uses the latest inverter technology guaranteeing accurate and clean plasma cutting up to 10mm thickness.

Easy to handle and operate, this system is suitable for cutting thin materials at high speed. The front panel is provided with clear and simple graphics for the adjustment of the cutting current and to indicate the intervention of any of the internal safety devices.

### Primacut 32

Supply Voltage	1 Ph 230 V 50 Hz
Absorbed Power	60% KVA 3.5
No Load Voltage	350 V
Current Range	5 - 30 A
Cutting Current	35% 30A
Cutting Depth On Steel	10 mm
Compressed Air Pressure	5 - 5.5 bar
Compressed Air Capacity	100 l /min
Insulation Class	H
Protection Degree	IP22
Noise Level	65 dBA
Dimensions WxLxH	220x400x220 mm
Weight	11 Kg



CA 35



E 35



DIF 35



UG 35



DIS 35

# Alspotter - Top Car 28 - Combi Car

## Bodyshop Welding Equipment



welding & joining technologies

### PRIMA Welders



Alspotter is a capacitor discharge welding system for welding aluminium studs to repair aluminium bodypanels using the prima pulling systems.



Spotter with 2800 A welding power and air cooling. Controlled by the sophisticated MICRO DIGITAL 5 microprocessor control for heating, deformation, and straightening. Welding of all particular studs, nails, washers and rivets. The TELEMICRO 5 enables to control the power source remotely.



Combi Car is both a Spotter for welding studs, nails, rivets, and washers, and a CD welder for welding aluminium studs for use with the prima pulling system for repairing aluminium body panels.



	ALSPOTTER	TOP CAR 28	COMBI CAR
Power Supply	1 ph 230 V 50Hz	1 ph 230V 50Hz	1 ph 230 V 50Hz
Rated Power @ 50%		2 KVA	2 KVA
Max Power	0.6 KVA	16 KVA	8 KVA
Fuses @ 230 V	16 A	16 A	16 A
Sec No Load Voltage	17 V	7 V	7 V
Sec Short Circuit Current		2.8 KA	2.8 KA
Duty Cycles		5%	5%
Capacitance	33,000 uF		33,000 uF
Welding Cable	4m x 25mm <sup>2</sup>	2m x 50mm <sup>2</sup>	3m x 50mm <sup>2</sup>
Dimensions L x W x H mm	320x150x220	400x220x220	320x300x220
Weight	8 Kg	22 Kg	21 Kg



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# Prima Pulling System

And Prima Accessories

ProSpot

welding & joining technologies

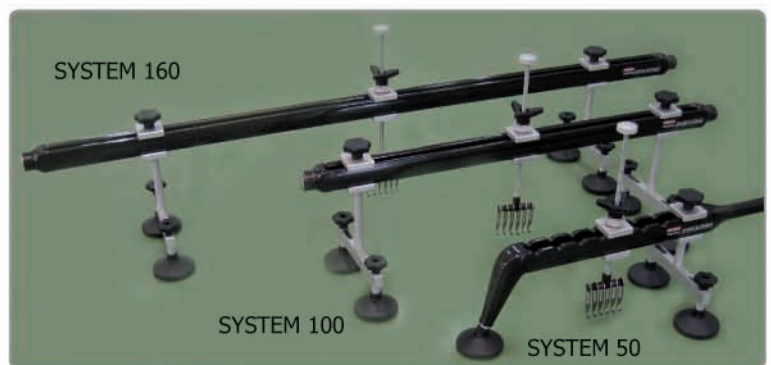
## PRIMA Welders



Example of COMBI CAR system with CAR 3 trolley and PA rear perforated panel to hold SYSTEM 50 and SYSTEM 100.



The PRIMA pulling systems consist of strong lightweight carbon composite supports from 500mm to 1600mm in length, either used conventionally or with the fast puller.



The PRIMA ANALYSER is a portable hardness testing tool for determining which grade of steel the area of the car body to be repaired is made from, to enable the correct choice of repairing method and welding parameters.



The PRIMATEX 130 is a protective blanket which will protect up to 1300 deg C. size 900mm x 2000mm.



The EVOLUTION welding mask has a lcd 2000 v filter for complete protection and useability.



The PULIPUNTO tool is used for removing paintwork prior to welding.

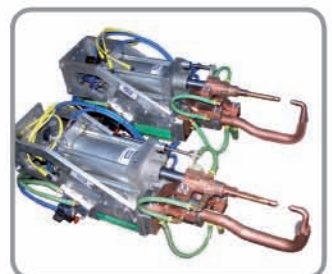
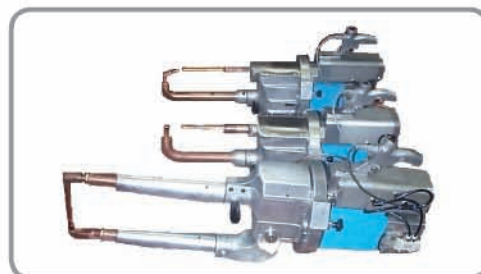


The PRIMA TERM thermal gel, is sprayed in a masked area around the area to be welded which minimises the heat affected zone and reduces distortion to the panel, thus saving time and money on preparation work.



Prospot has a comprehensive stock of resistance welding machines ready to be refurbished to our customers requirements, we have all types of machines available including rocker arm machines, linear machines, projection welding machines, butt welders, nut feeders, manual guns, robot guns, and multi headed welders.

Prospot can also refurbish or upgrade your existing welding machine. All machines are fully reconditioned with new welding controls and come complete with a 12 months parts and labour warranty.





# AC Micro Welders

## Precision Ac Welding Power Supplies And Welders



welding & joining technologies

This is the most widely used power source as the design is simple and easy to use, reliable and cost effective. However the thermal efficiency is not good, and thermal impact on the work occurs easily and is not suited for ultra high precision welding. It is often used for welding of ferrous type materials which are easy to weld.



### AP5KC

Is a pneumatic pressure adjustable double pulse AC integral precision spot welding machine, with automatic mains voltage compensation.

Supply Voltage	220v 50Hz
Rating Power	5KA
Weld Programmes	10
Weld Time	0.5—99 cycles
Current Setting	0 – 99%
Weld Head	SW1QA
Rating Power	3000 A



### AP5KB

Is a pneumatic double independence pressure adjustable double pulse AC integral precision spot welding machine, with automatic mains voltage compensation. Ideal for welding of batteries.

Supply Voltage	220v 50Hz
Rating Power	5KA
Weld Programmes	10
Weld Time	0.5—99 cycles
Current Setting	0 – 99%
Weld Head	SW2QA
Rating Power	3000 A



### AC5K

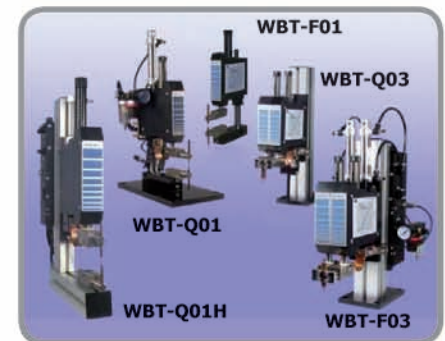
Is a AC welding power supply and timer suitable for use with various weld heads with automatic mains voltage compensation, current monitor, direct display of welding parameters, half frequency control, and weld counter.

Dimensions	L42xW25xH34	Weight	35Kg
Supply Voltage	220v 50Hz	Rating Power	5KA
Weld Programmes	10	Weld Time 1 & 2	0—99 cycles
Current Setting	0 – 99%	Weld Head	ANY
Rating Power	3800 A		



High performance weld heads built for durability. Linear guide type design ensures the precision and repetitiveness of welding. Low inertia, fast follow up designs Pneumatic or manual actuation.

**Weld force for the SW series = 445N - 667N  
And the WBT series = 89N - 178N**



	SW Precision Weld Heads.			WBT Precision Weld Heads.						
	SW2FA	SW1Q	SW2QA	WBT-H1	WBT-H2	WBT-Q01H	WBT-Q01	WBT-F01	WBT-Q03	WBT-F03
Max Force	89N	89N	89N	29N	49N	445N	89N	89N	89N	89N
Electrode Dia	3 & 6	3 & 6	3 & 6	3	6	6	3 & 6	3 & 6	3 & 6	3 & 6
Max Stroke	25mm	25mm	25mm	15mm	6mm	32mm	25mm	25mm	25mm	25mm
Throat Size(H*D)	120x200mm	90x130mm	120x200mm	20x60mm	n/a	155x281mm	49x152mm	49x152mm	157x159mm	157x159mm
Actuation	Manual	Air	Air	Manual	Manual	Air	Air	Manual	Air	Manual



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# High Frequency Inverter Welders



## High Frequency Inverter Welding Power Supplies & Weld Heads

welding & joining technologies

Our double pulse high frequency DC inverter welding power supplies deliver the heat continuously and efficiently giving excellent thermal efficiency with short welding times keeping the thermal impact to a minimum and power consumption down. High speed feedback control ensures stable welding quality keeping splash to a minimum and making high precision welding possible.



### HF25KA & UF25

- Is a double pulse high frequency inverter welding power supply which can work in constant voltage, and constant current modes.
- Constant voltage control for welding for welding output pulse can effectively eliminate welding splash and is especially applicable to welding of round and bar shaped work pieces.
- Constant current control for welding output pulse can avoid quality problems due to superficial conditions of welding parts, so it is especially suited to welding of thin work pieces.
- Multiple fault detection and protection functions against over temperature, over voltage and over current improve the stability and reliability of the equipment.

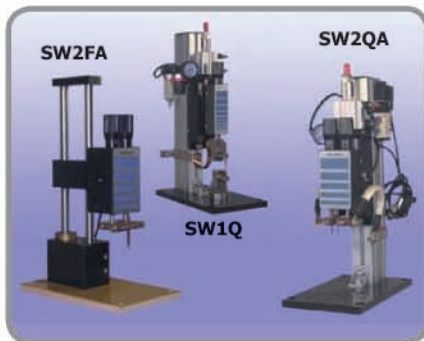
Supply Voltage	220v 50Hz	Current Setting	0 - 2500 A
Voltage Settings	0 - 9.99 V	Weld Head	ANY
Weld Time	0 - 99 MS	Output Pulse	Double



### HF50KA

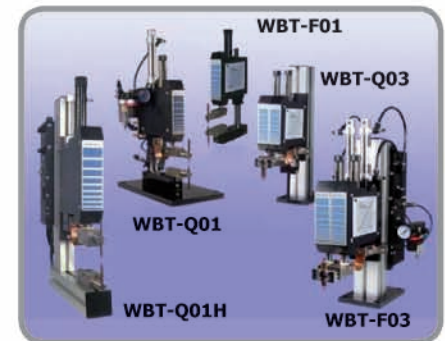
- Is a double pulse high frequency inverter welding power supply which can work in constant voltage, and constant current modes, designed separately to facilitate matching and installation.
- Constant voltage control for welding for welding output pulse can effectively eliminate welding splash and is especially applicable to welding of round and bar shaped work pieces.
- Constant current control for welding output pulse can avoid quality problems due to superficial conditions of welding parts, so it is especially suited to welding of thin work pieces.
- Multiple fault detection and protection functions against over temperature, over voltage and over current improve the stability and reliability of the equipment.

Supply Voltage	220v 50Hz	Current Setting	0 - 5000 A
Voltage Settings	0 - 9.99 V	Weld Head	ANY
Weld Time	0 - 99 MS	Output Pulse	Double



High performance weld heads built for durability. Linear guide type design ensures the precision and repetitiveness of welding. Low inertia, fast follow up designs Pneumatic or manual actuation.

**Weld force for the SW series = 445N - 667N  
And the WBT series = 89N - 178N**



	SW Precision Weld Heads.			WBT Precision Weld Heads.						
	SW2FA	SW1Q	SW2QA	WBT-H1	WBT-H2	WBT-Q01H	WBT-Q01	WBT-F01	WBT-Q03	WBT-F03
Max Force	89N	89N	89N	29N	49N	445N	89N	89N	89N	89N
Electrode Dia	3 & 6	3 & 6	3 & 6	3	6	6	3 & 6	3 & 6	3 & 6	3 & 6
Max Stroke	25mm	25mm	25mm	15mm	6mm	32mm	25mm	25mm	25mm	25mm
Throat Size(H*D)	120x200mm	90x130mm	120x200mm	20x60mm	n/a	155x281mm	49x152mm	49x152mm	157x159mm	157x159mm
Actuation	Manual	Air	Air	Manual	Manual	Air	Air	Manual	Air	Manual



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# Capacitor Discharge Welders



## Capacitor Discharge Welding Power Supplies And Weld Heads

welding & joining technologies

Our double pulse capacitor discharge welding power supplies works by charging the capacitors and then discharging them at once providing a high current on welding. So this type of power supply can be used on aluminium, copper, brass, and other materials with good thermal conductivity, it is particularly suited to welding small and precise parts.

### DP125 & DP250

- Are multi-functional dual pulse power supplies with 125 & 250 watts/second (joule) capacitance discharge. Many small and precise components can be welded with these power sources. The welding lock function can ensure that outside line voltages, operating frequency and speed do not affect the welding quality.
- The dual pulse function not only improves welding quality but reduces splash. Each welding schedule includes two independent and changed pulse discharges, one pulse is used to clear plated coatings or contaminants to improve the surface condition of the work pieces whilst another pulse welds them.
- These power source can be used with manual or air actuated heads or with automatic heads on automatic lines.



	DP125	DP250
Supply Voltage	220v 50Hz	220v 50Hz
Current Setting	0 - 100%	0 - 100%
Min Output	0.75WS	1.5WS
Max Output	250WS	125WS
Weld Progs	10	10
Weld Head	ANY	ANY
Weld Time	0 - 99 MS	0 - 99 MS
Output Pulse	Double	Double

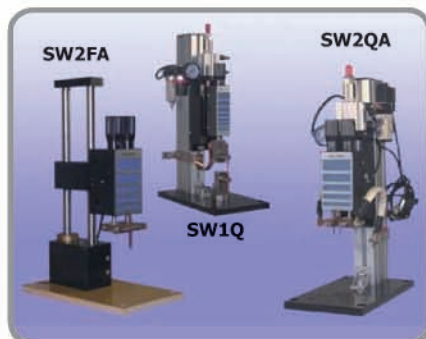
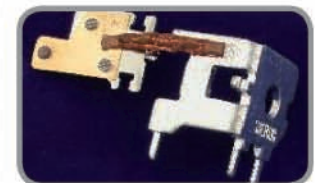


### DP500 & DP875

- Are multi-functional dual pulse power supplies with 500 & 875 watts/second (joule) capacitance discharge. Many small and precise components can be welded with these power sources. The welding lock function can ensure that outside line voltages, operating frequency and speed do not effect the welding quality.
- The dual pulse function not only improves welding quality but reduces splash. Each welding schedule includes two independent and changed pulse discharges, one pulse is used to clear plated coatings or contaminants to improve the surface condition of the work pieces whilst another pulse welds them.
- These power source can be used with manual or air actuated heads or with automatic heads on automatic lines.

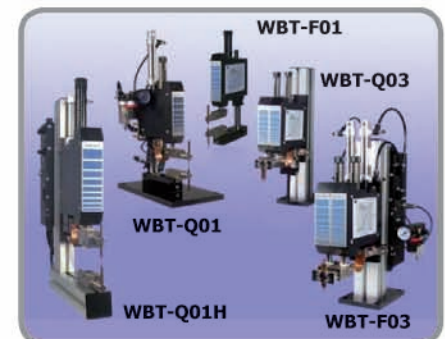


	DP500	DP875
Supply Voltage	220v 50Hz	220v 50Hz
Current Setting	0 - 100%	0 - 100%
Min Output	3WS	3WS
Max Output	875WS	500WS
Weld Progs	10	10
Weld Head	WBT-Q01H	WBT-Q01H
Weld Time	0 - 99 MS	0 - 99 MS
Output Pulse	Double	Double



High performance weld heads built for durability. Linear guide type design ensures the precision and repetitiveness of welding. Low inertia, fast follow up designs Pneumatic or manual actuation.

**Weld force for the SW series = 445N - 667N  
And the WBT series = 89N - 178N**



#### SW Precision Weld Heads.

	SW2FA	SW1Q	SW2QA	WBT-H1	WBT-H2	WBT-Q01H	WBT-Q01	WBT-F01	WBT-Q03	WBT-F03
Max Force	89N	89N	89N	29N	49N	445N	89N	89N	89N	89N
Electrode Dia	3 & 6	3 & 6	3 & 6	3	6	6	3 & 6	3 & 6	3 & 6	3 & 6
Max Stroke	25mm	25mm	25mm	15mm	6mm	32mm	25mm	25mm	25mm	25mm
Throat Size(H*D)	120x200mm	90x130mm	120x200mm	20x60mm	n/a	155x281mm	49x152mm	49x152mm	157x159mm	157x159mm
Actuation	Manual	Air	Air	Manual	Manual	Air	Air	Manual	Air	Manual

#### WBT Precision Weld Heads.



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Our pulse heat welding supplies are most suitable for reliable soldering and thermal compression bonding. Pulse heating can ensure accurate bonding because the work piece is pressurised and fixed during the course of the heating and cooling. Used on reflow soldering, thermo-compression bonding, FPC, ACF bonding and coil wires.



### HP215 & HP315

- Are pulse welding power supplies, that provide exceptional temperature data trace of the pulse-heated weld head. HP215 & HP315 can be applied to connect the welding material and thermo-compression when it is matched with reflow soldering such as WBT-F01A, WBT-Q01A, SW-F01 AND SW-Q01.
- Temperature monitoring function, LCD display of the current welding temperature and temperature curve during the course of welding.
- Dual pulse precise setting, 1st pulse temperature, 2nd pulse temperature, time, and temperature rising respectively.
- Can store 10 different welding programs for use in automatic lines.

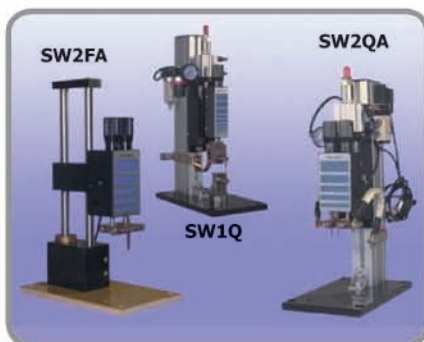


	HP215	HP315
Supply Voltage	220v 50Hz	220v 50Hz
Temperature Setting	600 deg C	600 deg C
Max Output	1500 W	3000W
Thermocouple Input	K, J	K, J
Transformer Output	5	3
Weld Head	WBT-HP01	WBT-HP01
Weld Progs	8	8



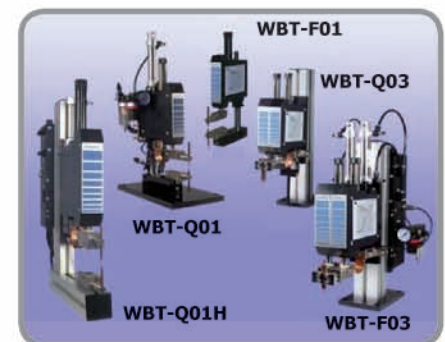
### WBT-HP01

Max Force	59N
Max Stroke	10mm
Pressure Range	4.9 N - 44.1 N
Throat Size (H*D)	49x152mm
Dims	W 77 x D 212 x H 360mm
Actuation	Air



High performance weld heads built for durability. Linear guide type design ensures the precision and repetitiveness of welding. Low inertia, fast follow up designs Pneumatic or manual actuation.

**Weld force for the SW series = 445N - 667N  
And the WBT series = 89N - 178N**



	SW Precision Weld Heads.			WBT Precision Weld Heads.						
	SW2FA	SW1Q	SW2QA	WBT-H1	WBT-H2	WBT-Q01H	WBT-Q01	WBT-F01	WBT-Q03	WBT-F03
Max Force	89N	89N	89N	29N	49N	445N	89N	89N	89N	89N
Electrode Dia	3 & 6	3 & 6	3 & 6	3	6	6	3 & 6	3 & 6	3 & 6	3 & 6
Max Stroke	25mm	25mm	25mm	15mm	6mm	32mm	25mm	25mm	25mm	25mm
Throat Size(H*D)	120x200mm	90x130mm	120x200mm	20x60mm	n/a	155x281mm	49x152mm	49x152mm	157x159mm	157x159mm
Actuation	Manual	Air	Air	Manual	Manual	Air	Air	Manual	Air	Manual

## SLEE

### MICRO WELDING SYSTEMS

Prospot manufacture the SLEE range of micro bench welding systems to suit our customers requirements.

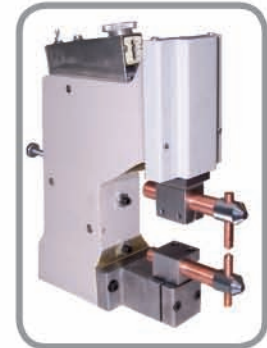
All bench systems are available with a choice of heads and either 240V or 415V supply.



**RK22 HEAD**



**RK2 HEAD**



**VK4 HEAD**



**Refurbished Bench Welder, Complete With New Type Bench**

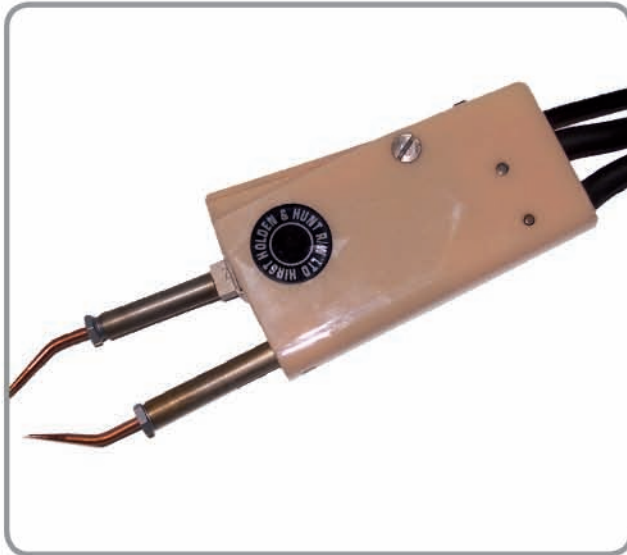


**Type 95 Bench Welding System**

Technical Data	RK22	RK2	VK4
Nominal KVA	1.5	2	4
Sec. Output KVA	15	17	29
Short Cct. Current KA	3	3.5	7
Throat Depth. Max	100mm	106mm	150mm
Pressure Min / Max	0.3 / 7 Kg	7.2 kg	14 kg
Dimensions mm	230x40x152	235x76x203	267x81x254

# SLEE

## MICRO WELDING SYSTEMS



**CT 2 TWEEZER**

The CT2 welding tweezers fit naturally into the hand and may be operated throughout the day without undue fatigue. Lightness in both weight and control is the secret of their successful performance.

- Weld Pressure Control
- Over Run Stop
- Pressure Sensitive Initiation
- Fitted with 864mm Long Power Leads
- Fitted With 1.32 Electrodes As Standard
- Weight With Leads 380g
- Size 185mm x 55mm x 22mm



**PW 500 POWER UNIT**

The PW 500 power unit houses a 500VA welding transformer, solid state synchronous timer with phase shift heat control contained in a steel casing.

- 1 - 10 Weld Cycles
- 5-100% Phase Heat Control
- 500VA Transformer
- Illuminated ON/OFF Switch
- Mains Supply 240V AC 50Hz
- Weight 9kg
- Size 295x290x167mm

# Meritus MPW8

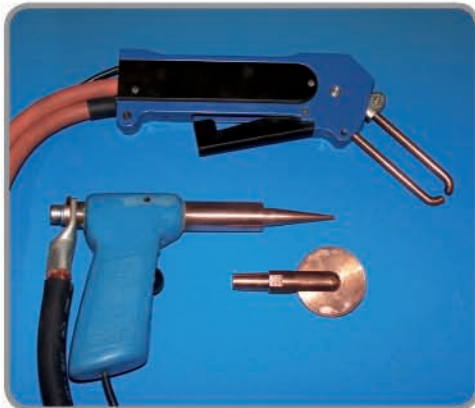
## Spot And Seam Welding Machine



welding & joining technologies



### TW3 PINCER GUN



### PG2 POKE/SEAM GUN



The MERITUS MPW8 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 MPW8 offers the end user maximum flexibility through the incorporation of the latest electronic technology. The timer and heavy duty welding transformer are all built into this compact unit enabling it to be used in the most confined areas.

#### Technical Data

Welding Power Supply	4kva or 8kva welding transformer @ 50% duty cycle
Electrical Supply	220/240V single phase 50Hz or 60Hz
Welding Timer	CS200 multi schedule control
Welding Heat Control	Infinitely adjustable phase shift control
Welding Contractor	Solid state 90amp power thyristor
Hand Gun	Lightweight moulding with trigger switch and plug in lead
Supplied With Handgun PG2	Centre tip spot weld electrode 50mm diameter seam wheel attachment Interconnecting leads, plugs and sockets
Optional Extra	Pincer gun TW3
Dimensions W x D x H mm	500 x 320 x 220
Weight	40 kgs



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# Meritus PS8b & AS15BCT

## Bench Type Spot Welders



welding & joining technologies



**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.



**AS15BCT 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	Digital	Pedal
			2 X 6.25mm Steel Rod		
AS15BCT	15	225 - 300mm	2 X 1.6mm Steel Sheet	Digital	Air
			2 X 0.9mm Aluminium & Brass		



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# Meritus RAS & AS Series Welders

Air Operated Spot Welding Machines  
From 30kva To 150kva

ProSpot

welding & joining technologies



## AUTOFORGE Spot Welders

There are five standard sizes covering 30,50,75,100 and 150 kva. These machines are particularly suitable for high speed continuous welding.



Upper driven Longitudinal seam welder



Lower driven Circumferential seam welder

**All of the AUTOFORGE range of rocker arm spot welders are fitted with twin foot pedals with a HIGH-LIFT facility for improving welding access and speed of production.**

All machines have water cooled electrodes, holders, timers and transformers. Each machine is fitted with telescopic arms enabling the machine throat to be easily adjusted without removal from the machine, provision is made for both electrode holders to be set at an angle of 20 degrees from the vertical if required. All machines can be fitted with either a standard multi program digital timer or a more sophisticated welding control with constant current control and other features.

### Optional Extras

All versions can be fitted with variable speed motorised seam welding attachments for both circumferential and longitudinal seam welding, either upper or lower driven.

Technical Data	RAS30A5	RAS50A5	AS75A5	AS100A5	AS150A5
Rating Kva	30	50	75	100	150
Mains Voltage V	400	400	400	400	400
Electrode Diameter mm	16 No 2 MT	16 No 2 MT	19 3/4 5 deg inc	19 3/4 5 deg inc	19 3/4 5 deg inc
Arm Length mm	150-600	150-600	350-600	350-600	350-600
Fuse Size A	50	80	125	160	250
Air Supply L/M	6	6	6	6	6
Electrode Pressure Kgf	280	280	570	570	570
Weight Kg	260	300	450	480	500



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# MSP Spot & Projection Welders

## Heavy Duty Super Compact Welders

ProSpot

welding & joining technologies



- High capacity, low power requirements.
- Super compact dimensions.
- Robust, heavy duty performance.
- Flexibility, toolpost or plattern.
- Adjustable lower knee.
- Twin button / footpedal start.
- Manufactured in the uk.
- Wide range of electrodes and arms.
- Monitoring facility.

### 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
- Available in medium frequency dc



Technical Data		MSP75	MSP100	MSP125	MSP150	MSP130MF
Rating	kva	50	50	50	50	130
Mains Voltage	v	400	400	400	400	400 3 PHASE
Weld Cylinder (Single Stroke)	mm	100 X 80	100 X 80	100 X 80	100 X 80	100 X 80
Weld Cylinder (Double Stroke)	mm	100 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	mm	19	19	19	19	19
Electrode Holder Diameter	mm	31.75	31.75	31.75	31.75	31.75
Throat To Centre Of Electrode	mm	400	400	400	400	400
Throat To Centre Of Platterns	mm	300	300	300	300	300
Plattern Size	mm	150 X 150	150 X 150	150 X 150	150 X 150	150 X 150
Gap Between Platterns.	mm	110 - 390	110 - 390	110 - 390	110 - 390	110 - 390
Mains Cable	mm <sup>2</sup>	50	70	95	95	50
Fuse Size	a	125	150	200	200	100
Air Supply	bar	6	6	6	6	6
Water Supply	l/m	20	20	20	20	20
Height	mm	1750	1750	1750	1750	1750
Width	mm	500	500	500	500	500
Depth	mm	1100	1100	1100	1100	1100
Weight	kg	400	420	440	460	300



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Fleximan is a modular series of semi automatic crosswire (and spot welding) machines specifically designed and developed by meritus for maximum flexibility in welding flat or profiled panels using precut length wires.



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

### Ideal for;-

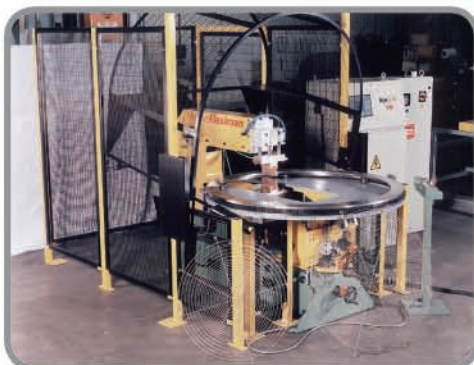
- Shop merchandising equipment
- Animal cages
- Oven & refrigerator shelves
- Display panels
- Fan guards
- Drainer & freezer baskets
- Barbeque grills
- Bed mesh
- Ventilator grills



Double Head Fleximan Fm2 100 8b Model

### Fleximan Features

- Machines from 600mm wide x 1100mm long to 2400mm x 3000mm
- Single or double headed machines
- Single electrode/twin electrode/rotating electrodes
- CNC control with teach and touch screen programming
- Full colour screen
- Dual jig cross shuttle transfer
- Single/repeat auto cycle
- AC servo drives
- Programmable weld pressures
- Multi schedule weld controls
- Medium frequency inverter system (optional)



Fleximan With Programmable Rotary Table For The Production Of Fan Guards



### Advantages Of Fleximan

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



**The MULTIMAN welding system 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.

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



**A modular resistance welding system developed for medium to high volume production of flat or profiled panels using pre-cut length wire.**

### Ideal for

- Oven And Microwave Shelves
- Merchandise Display Shelves
- Supermarket Trolleys
- Shop Equipment
- Drainer And Freezer Baskets
- Refrigerator Shelves
- Barbecue Griddles
- Animal Cages And Pens

### Multiman features

- Flexibility to increase capacity by adding extra two head welding modules
- Easy to convert from cross wire to spot welding
- Can be built with either manual load - manual index or manual load - auto index
- Welding parameters can be set on each pair of welding heads to facilitate varying wire diameters or metal thickness.
- Option to incorporate two jigs and a transfer cross shuttle system.
- Reciprocating knee to ensure clearance of the welding jigs during indexing allowing lower electrode to rise and fall.
- Programmable auto indexing system.

The butt-upset welders are designed for welding of circular, square, rectangular intersection rods made of low alloy and alloy steel, copper and aluminium of diameters from 0.3 up to 20mm.

Simple construction, reliable operation and high quality of welds are a common features of this group of welders. Welding annealing unit is attached to each welder in order to improve plastic properties of the weld.



Welding Capability	Units	ZDZ-0.6
Low Carbon Steel	mm	0.3-2.5
Alloy Steel	mm	0.3-2.5
Cu	mm	0.5-2.0
Al	mm	1.0-3.0
Work Parameters		
Rated Power P50%	Kva	0.6
Secondary Short Circuit Current	KA	2.3
No Of Adjustment Steps		8
Welding Force Type		manual
Supply Power		
Power Supply Voltage	V	230
Water Cooling		no
Dimensions		
Overall Dimensions Lxdxh	mm	470x490x1040
Weight	kg	21



Welding Capability	Units	ZDZ-2.5
Low Carbon Steel	mm	2.0-8.0
Alloy Steel	mm	1.8-8.0
Cu	mm	2.0-6.0
Al	mm	3.0-3.0
Work Parameters		
Rated Power P50%	Kva	2.5
Secondary Short Circuit Current	KA	7.3
No Of Adjustment Steps		8
Welding Force Type		manual
Supply Power		
Power Supply Voltage	V	400
Water Cooling		no
Dimensions		
Overall Dimensions Lxdxh	mm	660x640x1045
Weight	kg	35



Welding Capability	Units	ZDZ-7
Low Carbon Steel	mm	4.0-14.0
Alloy Steel	mm	4.8-12.0
Cu	mm	5.0-10.0
Al	mm	6.0-12.0
Work Parameters		
Rated Power P50%	Kva	7
Secondary Short Circuit Current	KA	34
No Of Adjustment Steps		16
Welding Force Type		manual
Supply Power		
Power Supply Voltage	V	400
Water Cooling		no
Dimensions		
Overall Dimensions Lxdxh	mm	840x655x1350
Weight	kg	160



Welding Capability	Units	ZDZ-16
Low Carbon Steel	mm	10.0-20.0
Alloy Steel	mm	10.0-17.0
Cu	mm	10.0-17.0
Al	mm	10.0-17.0
Work Parameters		
Rated Power P50%	Kva	16
Secondary Short Circuit Current	KA	50
No Of Adjustment Steps		8
Welding Force Type		manual
Supply Power		
Power Supply Voltage	V	400
Water Cooling		no
Dimensions		
Overall Dimensions Lxdxh	mm	1180x1120x1415
Weight	kg	200

**The butt-upset welders are designed for welding of circular, square, rectangular intersection rods made of low alloy and alloy steel, copper and aluminium of diameters from 2.0 up to 25mm.**

Simple construction, reliable operation and high quality of welds are a common features of this group of welders. Welding annealing unit is attached to each welder in order to improve plastic properties of the weld.

**These welders are built on the basis of:-**

Welding transformers of 50% duty cycle, using ASM-911 welding control with eight programmes.

Welding Capability	units	ZDZ-4P	ZDZ-7P	ZDZ-16P	ZDZ-40P
Low Carbon Steel	mm	2.0-10.0	4.0-14.0	8.0-20.0	12.0-25.0
Alloy Steel	mm	2.0-8.0	4.0-12.0	8.0-16.0	12.0-20.0
Cu	mm	2.0-6.0	5.0-10.0	6.0-12.0	10.0-18.0
Al	mm	3.0-7.0	6.0-12.0	6.0-12.0	14.0-18.0
Work Parameters					
Rated Power P50%	Kva	4	7	16	40
Short Circuit Power	Kva	22.5	99	132	429
Secondary Short Circuit Current	KA	10	30	40	52
Max 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	10.0-58.0	70-340	110-540	400-900
Supply Power					
Installed Power	V	400(50Hz)	400(50Hz)	400(50Hz)	400(50Hz)
Required Compressed Air Pressure	Mpa	0.6	0.6	0.6	0.6
Compressed Air Usage At 0.6mpa	L/weld	3	4.5	5.5	14.5
Required Cooling 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
Dimensions					
Overall Dimensions Lxdxh	mm	620X600X1100	790X580X1320	790X580X1320	1120X960X1625
Weight	kg	84	160	200	650



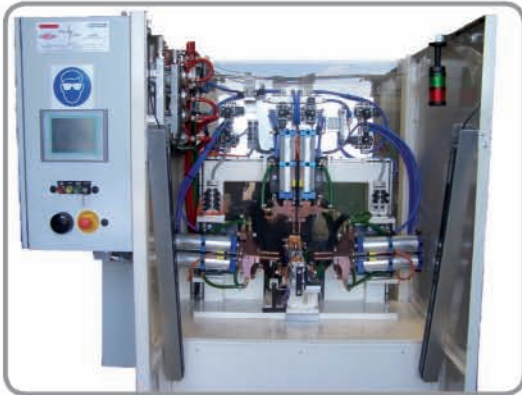
# Special Purpose Welding Machines



welding & joining technologies



Prospot has the ability to design and build special purpose welding and assembly machines for all types of welding applications including MIG, TIG, SPOT, SPOT SEAM, BUTT, CAPACITOR DISCHARGE and PROJECTION WELDING.



6 Headed multi spot welder



3 Headed spot welder for welding fuel hose necks



3 Headed multi projection welder with eject station



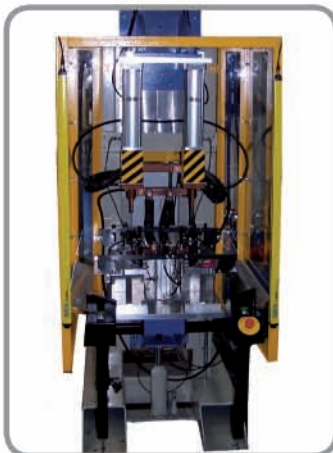
Twin headed projection welding machine with servo controlled fixture for multi component welding



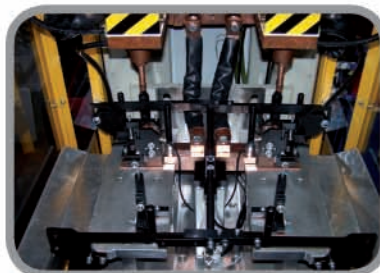
Capacitor discharge stud welding machine



Semi automatic filter seam welder



Twin headed spot welder



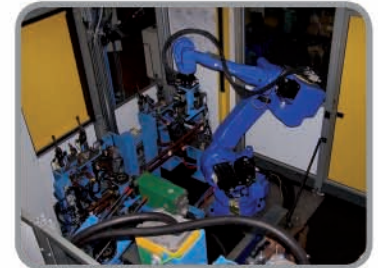
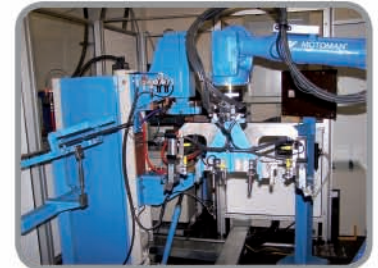
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Prospot has the capability to design and manufacture robot welding systems for all types of welding applications either using new equipment, refurbished equipment or utilise our customer's own redundant machines to make cost effective solutions.



Robot welding cells for BMW mini Airbag covers



Mig welding robot cell with orbital turntable for welding fascia assemblies



Triple robot cell for welding rear quarter bodyside assemblies



Larger projects can be undertaken with our partner SERRA who are specialist builders of large assembly lines.





# Welding hasn't changed...

...but the amount of gas needed for a professional weld has.



The new REDuX Advanced Gas Control MIG welding torch can reduce your welding gas bill by 50% - It's also the most environmentally friendly MIG torch on the planet – So by using one of the new REDuX torches not only are you saving money, but your also helping to save the planet.



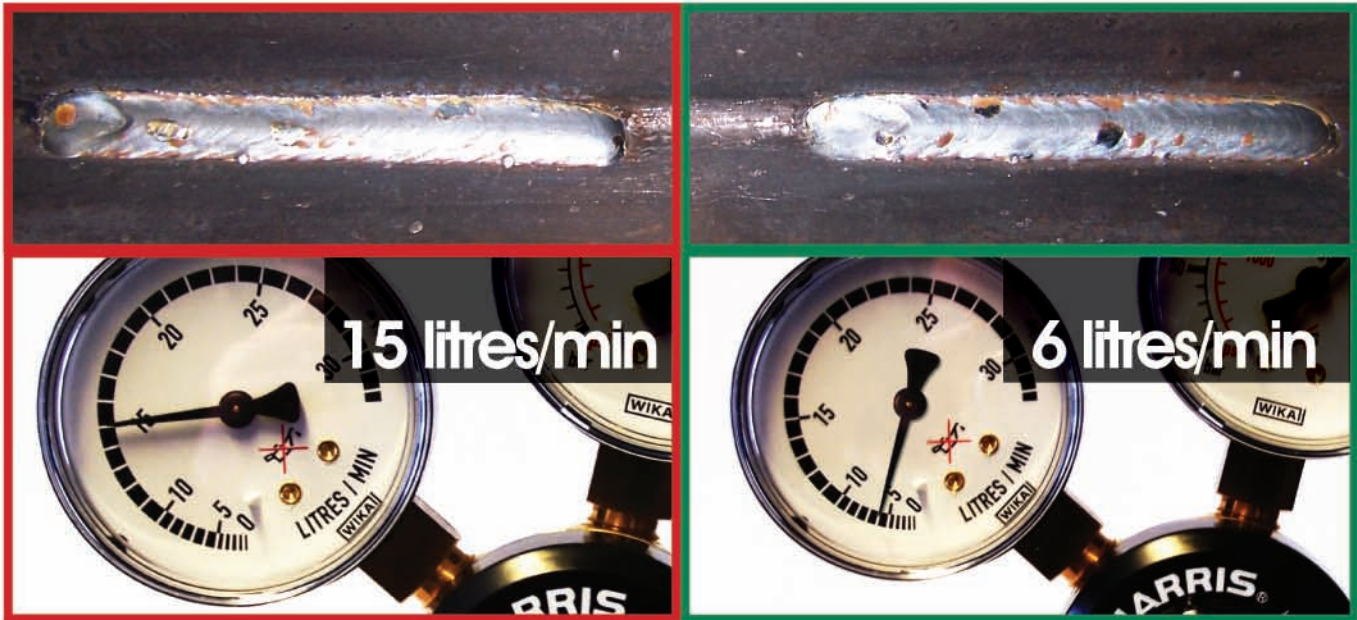
**50% savings & a reduced carbon footprint !!**

Both professional welds...

...with one BIG difference

ProSpot

welding & joining technologies



With the **REDUX AGC- Advanced Gas Control** range of MIG torches you can save money and save the planet!

**You worry about the price of a Kg of welding wire yet your gas cost per Kg of deposited weld is often the more costly of the two consumables-. Redux AGC offers you a 50+% saving the moment you press the trigger!**

**Two unique patented processes:**

- A unique gas nozzle design allowing Gas consumption reduction of up to 50+%. This means massive reductions in your Carbon Footprint and massive cost savings to make you more competitive.
- A Unique spatter release action prolonging consumable life and ensuring high quality welds every time.

**PRACTICAL** -Better handling, improved comfort when welding, made possible by the ball joint handle -system; high resistance and flexible cable assembly. Precision engineered to ensure excellent current transfer for 100% repeatability. Increased temperature stability (only 40°C at the Handle level). Self-cleaning Nozzle (Semi-automatic).

**ECONOMICAL**- Massive reduction of expensive shielding gas consumption up to 60% (50% minimum) means Increased profits, along with a patented cleaning action means extended life of moving parts.

**Ecological-Reduces Your Companies Carbon Footprint By 50-60% Due To Reduced Gas Use**

- Air-cooled from 150 to 500 A
- Water-cooled 240 to 650A
- Automatic and Robot variants-custom builds available
- Ergonomic and comfortable
- Energy Saving Environmentally aware Technology for a New Age



**REDuX Torches are available in the following configurations**

**REDUX 180 AGC -**  
High Performance Air-Cooled  
180 AMP Mig Torch  
TM1803 -180 Amp. Redux AGC MIG Torch - 3 m  
TM1804 - 180 Amp. Redux AGC MIG Torch - 4 m  
TM1805 - 180 Amp. Redux AGC MIG Torch - 5 m

**REDUX 250 AGC -**  
High Performance Air-Cooled  
250 AMP Mig Torch  
TM2503 - 250 Amp. Redux MIG Torch - 3 m  
TM2504 - 250 Amp. Redux MIG Torch - 4 m  
TM2505 - 250 Amp. Redux MIG Torch - 5 m

**REDUX 350 AGC -**  
High Performance Air-Cooled  
350 AMP Mig Torch  
TM3503 350 Amp. Redux MIG Torch - 3 m  
TM3504 350 Amp. Redux MIG Torch - 4 m  
TM3505 350 Amp. Redux MIG Torch - 5 m

**REDUX 400 AGC -**  
High Performance Air-Cooled  
400 AMP Mig Torch  
TM4003 400 Amp. Redux MIG Torch - 3 m  
TM4004 400 Amp. Redux MIG Torch - 4 m  
TM4005 400 Amp. Redux MIG Torch - 5 m

The redux 500a & 650a water-cooled range is available in 3m/4m/5m lengths – Call your distributor for details



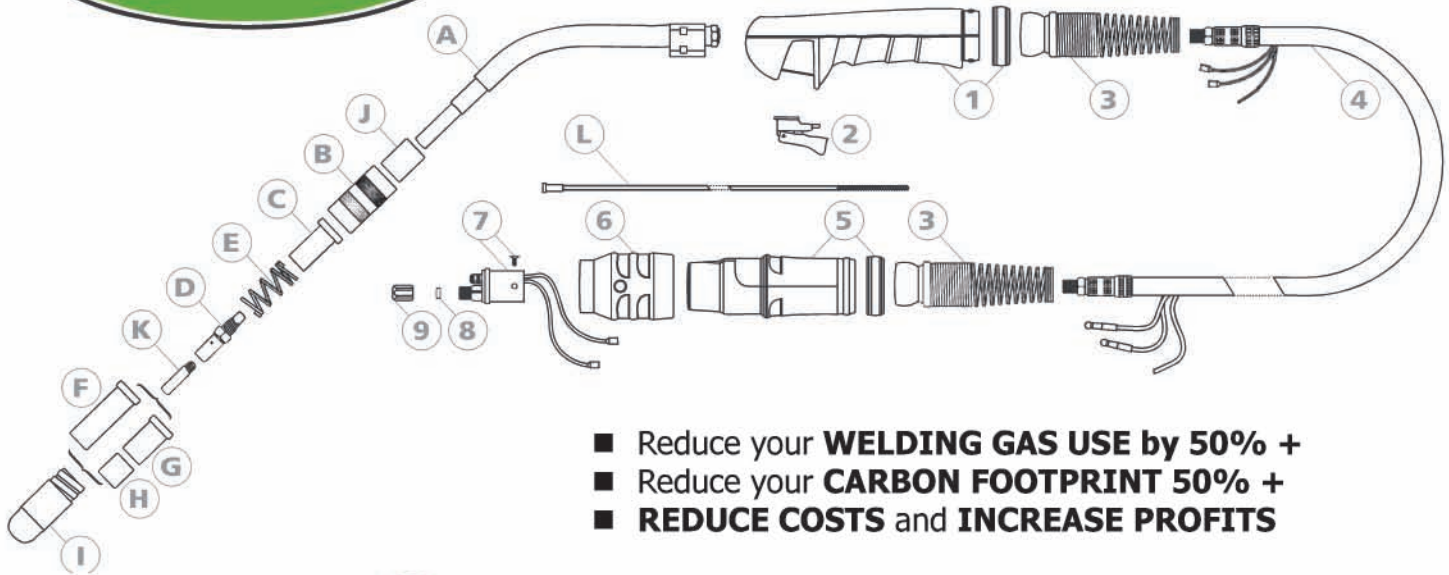
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# Mig / Mag Torch

High Performance Air-Cooled 180 Amp. Mig Torch

ProSpot

welding & joining technologies



- Reduce your **WELDING GAS USE** by 50% +
- Reduce your **CARBON FOOTPRINT** 50% +
- **REDUCE COSTS** and **INCREASE PROFITS**



4L/mn

## Torches

TM1803	180 Amp. Redux MIG Torch - 3 m
TM1804	180 Amp. Redux MIG Torch - 4 m
TM1805	180 Amp. Redux MIG Torch - 5 m

## Parts & Components

P/N	Description
1	NPT Handle (with ring, without Trigger)
2	GN Trigger for Handle
A	1010 Swan Neck for 180
B	1021 Shroud retainer for 180
C	1030 Insulation Spring 180
D	1040 Gas Tip Adaptor for 180
E	1050 Spring for 180
F	1070 Insulation Bush for 180
G	1070.2 Insulation Bush for 180 (short)
H	1070.1 Ceramic Bush for 180
I	1081 Shroud for 180
J	1060 Insulation Ring for 180 Swan Neck
K	006 Contact Tip M6 — 0,6 mm
K	008 Contact Tip M6 — 0,8 mm

P/N	Description
K	010 Contact Tip M6 — 1mm
L	GM500 Guide Spiral liner 0,6-0,8 — 3 m
L	GM501 Guide Spiral liner 0,6-0,8 — 4 m
L	GM502 Guide Spiral liner 0,6-0,8 — 5 m
L	GM600 Guide Spiral liner Ptfе 0,6-0,8 — 3 m
L	GM601 Guide Spiral liner Ptfе 0,6-0,8 — 4 m
L	GM602 Guide Spiral liner Ptfе 0,6-0,8 — 5 m
3	NTRR Cable Support Spring
4	CC16xM Power Cable (3m / 4m / 5m)
5	NTCC Rear connector (with ring)
6	NTBDF Coupling Cap
7	NTCA Central Adaptor + Pan Head Screw
8	NTPBF Teflon® Ring
9	NTBFP Coupling Nut (long)



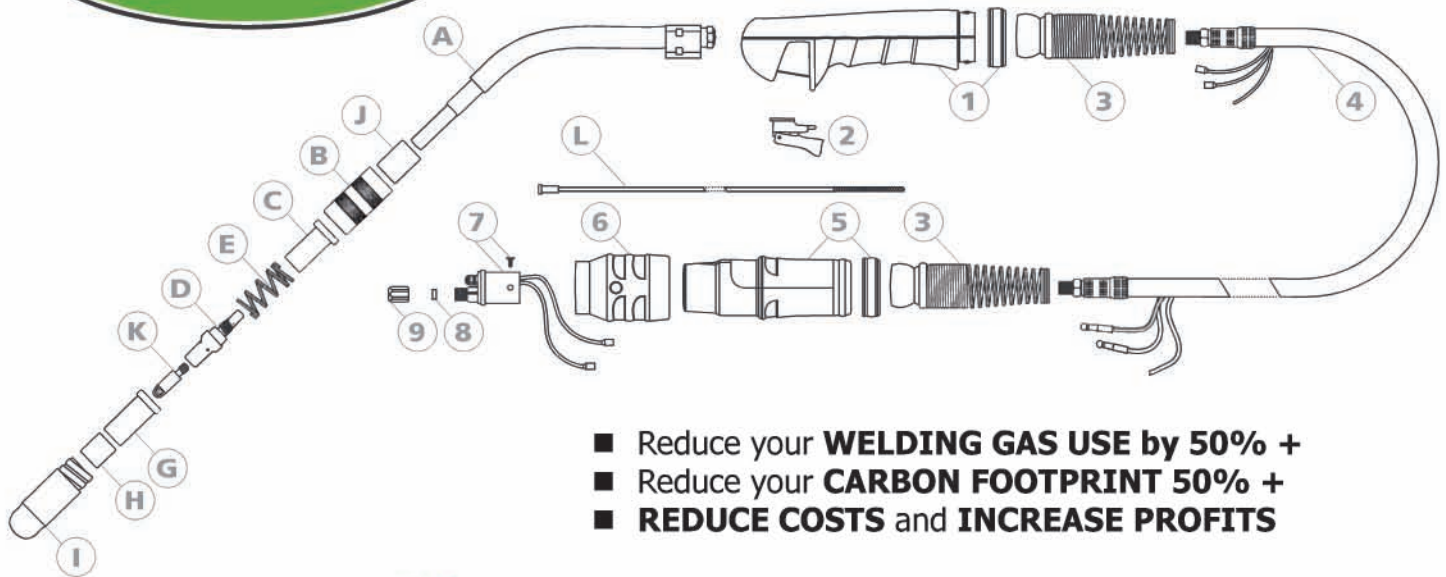
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# Mig / Mag Torch

High Performance Air-Cooled 250 Amp. Mig Torch

ProSpot

welding & joining technologies



- Reduce your **WELDING GAS USE** by 50% +
- Reduce your **CARBON FOOTPRINT** 50% +
- **REDUCE COSTS** and **INCREASE PROFITS**



5L/mn

## Torches

TM2503	250 Amp. Redux MIG Torch - 3 m
TM2504	250 Amp. Redux MIG Torch - 4 m
TM2505	250 Amp. Redux MIG Torch - 5 m

## Parts & Components

P/N	Description
1	NPT Handle (with ring, without Trigger)
2	GN Trigger for Handle
A	1110 Swan Neck for 250
B	1121 Shroud retainer for 250
C	1130 Insulation Spring 250
D	1140 Gas Tip Adaptor for 250
E	1150 Spring
G	1170.2 Insulation Bush for 250
H	1170.1 Ceramic Bush for 250
I	1181 Shroud for 250
J	1160 Insulation Ring for 250 Swan Neck
K	108 Contact Tip M6 — 0,8 mm
K	110 Contact Tip M6 — 1 mm
K	112 Contact Tip M6 — 1,2 mm

P/N	Description
L	GM510 Guide Spiral liner 1,0-1,2 — 3 m
L	GM511 Guide Spiral liner 1,0-1,2 — 4 m
L	GM512 Guide Spiral liner 1,0-1,2 — 5 m
L	GM600 Guide Spiral liner Ptfе 1,0-1,2 — 3 m
L	GM601 Guide Spiral liner Ptfе 1,0-1,2 — 4 m
L	GM602 Guide Spiral liner Ptfе 1,0-1,2 — 5 m
3	NTRR Cable Support Spring
4	CC25xM Power Cable (3m / 4m / 5m)
5	NTCC Rear connector (with ring)
6	NTBDF Coupling Cap
7	NTCA Central Adaptor + Pan Head Screw
8	NTPBF Teflon® Ring
9	NTBFP Coupling Nut (long)



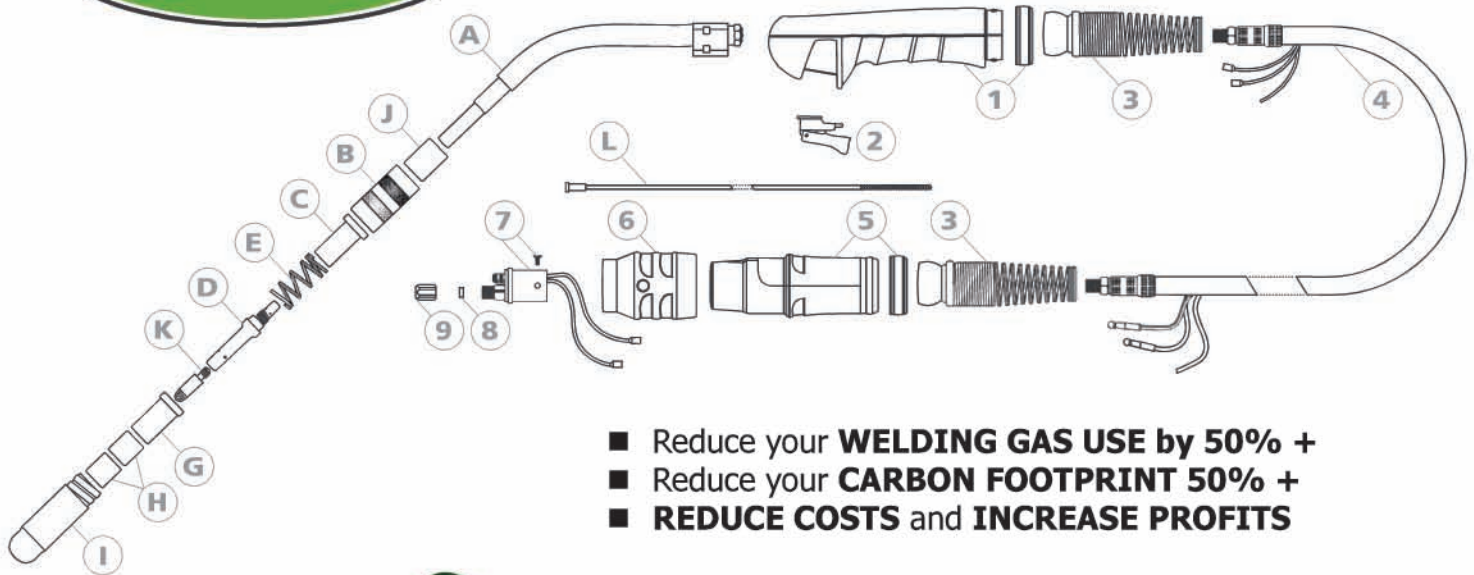
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# Mig / Mag Torch

High Performance Air-Cooled 350 Amp. Mig Torch

ProSpot

welding & joining technologies



- Reduce your **WELDING GAS USE** by 50% +
- Reduce your **CARBON FOOTPRINT** 50% +
- **REDUCE COSTS** and **INCREASE PROFITS**



6L/mn

## Torches

TM3503	350 Amp. Redux MIG Torch - 3 m
TM3504	350 Amp. Redux MIG Torch - 4 m
TM3505	350 Amp. Redux MIG Torch - 5 m

## Parts & Components

P/N	Description
1	NPT Handle (with ring, without Trigger)
2	GN Trigger for Handle
A	1110 Swan Neck for 350
B	1121 Shroud retainer for 350
C	1130 Insulation Spring 350
D	1140 Gas Tip Adaptor for 350
E	1150 Spring
G	1170.2 Insulation Bush for 350
H	1170.1 Ceramic Bush for 350
I	1181 Shroud for 350
J	1160 Insulation Ring for 350 Swan Neck
K	210 Contact Tip M8 — 1 mm
K	212 Contact Tip M8 — 1,2 mm
K	216 Contact Tip M8 — 1,6 mm

P/N	Description
L	GM540 Guide Spiral liner 1,2-1,6 — 3 m
L	GM541 Guide Spiral liner 1,2-1,6 — 4 m
L	GM542 Guide Spiral liner 1,2-1,6 — 5 m
L	GM610 Guide Spiral liner Ptfe 1,2-1,6 — 3 m
L	GM611 Guide Spiral liner Ptfe 1,2-1,6 — 4 m
L	GM612 Guide Spiral liner Ptfe 1,2-1,6 — 5 m
3	NTRR Cable Support Spring
4	CC50xM Power Cable (3m / 4m / 5m)
5	NTCC Rear connector (with ring)
6	NTBDF Coupling Cap
7	NTCA Central Adaptor + Pan Head Screw
8	NTPBF Teflon® Ring
9	NTBFP Coupling Nut (long)



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# Mig / Mag Torch

High Performance Air-Cooled 400 Amp. Mig Torch

ProSpot

welding & joining technologies



- Reduce your **WELDING GAS USE** by 50% +
- Reduce your **CARBON FOOTPRINT** 50% +
- **REDUCE COSTS** and **INCREASE PROFITS**



7L/mn

## Torches

TM4003	400 Amp. Redux MIG Torch - 3 m
TM4004	400 Amp. Redux MIG Torch - 4 m
TM4005	400 Amp. Redux MIG Torch - 5 m

## Parts & Components

P/N	Description
1	NPT Handle (with ring, without Trigger)
2	GN Trigger for Handle
A	1410 Swan Neck for 400
B	1421 Shroud retainer for 400
C	1130HT Insulation Spring for 400
D	1440 Gas Tip Adaptor for 400
E	1150 Spring
G	1170.2R Insulation Bush for 400
H	1170.1 Ceramic Bush for 400
F	210 Contact Tip M8 — 1 mm
F	212 Contact Tip M8 — 1,2 mm
F	216 Contact Tip M8 — 1,6 mm
J	1160 Insulation Ring for 400 Swan Neck
I	1481 Shroud for 400

P/N	Description
L	GM540 Guide Spiral liner 1,2-1,6 — 3 m
L	GM541 Guide Spiral liner 1,2-1,6 — 4 m
L	GM542 Guide Spiral liner 1,2-1,6 — 5 m
L	GM610 Guide Spiral liner Ptfе 1,2-1,6 — 3 m
L	GM611 Guide Spiral liner Ptfе 1,2-1,6 — 4 m
L	GM612 Guide Spiral liner Ptfе 1,2-1,6 — 5 m
3	NTRR Cable Support Spring
4	CC50xM Power Cable (3m / 4m / 5m)
5	NTCC Rear connector (with ring)
6	NTBDF Coupling Cap
7	NTCA Central Adaptor + Pan Head Screw
8	NTPBF Teflon® Ring
9	NTBFP Coupling Nut (long)



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# LORCH

Founded in 1957 LORCH are recognized as one of the top three welding machine manufacturers in Germany. Renowned for quality and innovation LORCH have a range of over 200 machines. All of these machines are covered by a full THREE years parts and labour warranty supported by a uk base and dealer network.

LORCH offer a full range of equipment to cover all aspects of welding from portable inverter MMA units to automated robotic systems. With ongoing research and development LORCH remain at the forefront on innovation and technology.

Ask about SPEEDPULSE and SPEEDARC to increase your productivity, full demonstrations will be given at customers request.

## TIG Welders

TIG weld with the H, HT, T, and V series. For top duty cycles and the highest seam quality – for construction and for operation in the production plant. 230V or 400V, 180 to 500 amperes. DC and AC/DC.



## MMA Electrode Inverter Welders



LORCH offer a full range of MMA inverter welders including the H140, H150, ISI 5CL and X180, for the best performance at 230V or 400V.

## MIG - MAG & MIG Brazing Welders



The choice is up to you - LORCH have the right solution, with the M, Mpro, C, S, or P series with synergy or conventional, 22 units from 140 to 500 amperes. For mobile or workshop use.



For up to 30% faster welding, ask about speed pulse and speed arc.

# Hypertherm Cutting Systems

3 Year Warranty



welding & joining technologies

## Hypertherm®

**A Powermax plasma system is a versatile tool. Whether in a shop, factory, at home, or in the field, Powermax systems cut and gouge a wide variety of metal types, thicknesses and forms.**

Hypertherm's Powermax line of products consists of six systems that will help you get your cutting and gouging jobs done faster, easier, more reliably. All equipment comes with a full THREE year warranty. Just ask us for a demonstration.



### Powermax1000

Handheld cut capacity  
Recommended 3/4" (19 mm)  
Maximum 1" (25 mm)  
Severance 1-1/4" (32 mm)  
Mechanized pierce capacity  
Maximum 1/2" (12 mm)



### Powermax30

Handheld cut capacity  
Recommended 1/4" (6 mm)  
Maximum 3/8" (10 mm)  
Severance 1/2" (12 mm)



### Powermax1250

Handheld cut capacity  
Recommended 7/8" (22 mm)  
Maximum 1-1/8" (29 mm)  
Severance 1-1/2" (38 mm)  
Mechanized pierce capacity  
Maximum 5/8" (16 mm)



### Powermax45

Handheld cut capacity  
Recommended 1/2" (12 mm)  
Maximum 3/4" (19 mm)  
Severance 1" (25 mm)



### Powermax1650

Handheld cut capacity  
Recommended 1-1/4" (32 mm)  
Maximum 1-1/2" (38 mm)  
Severance 1-3/4" (44 mm)  
Mechanized pierce capacity  
Maximum 3/4" (19 mm)

System	Amps (A)	Rated output (VDC)	Input power (V)	Phase	Duty Cycle	Weight lbs(kgs)	Motor Engine Drive rating (kW)	Generator System output (A)	Operation Performance (arc stretch)
Powermax30	15-30	83	120/230	1	35-50%	20 (9)	5.5	30	Full
							4	25	Limited
Powermax45	20-45	132	200/240 (230 CE) (400 CE)	1 1 3	50%	37 (17)	8	45	Full
							6	45	Limited
							6	30	Full
Powermax1000	20-60	140	200-600 (230-400 CE)	1/3 3	40-50%	83 (37)	15	60	Full
							12	60	Limited
							12	40	Full
							8	40	Limited
Powermax1250	25-80	150	200-600 480 (230-400 CE)	1/3 3	40-60%	96 (44)	8	30	Full
							20	80	Full
							15	70	Limited
							15	60	Full
							12	60	Limited
							12	40	Full
Powermax1650	30-100	160	200-600 (230-400 CE)	3 3	60-80%	128 (58)	8	40	Limited
							8	30	Full
							30	100	Full
							22.5	100	Limited
							22.5	80	Full
15	80	Limited							
15	60	Full							



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# Manual Riveting Machines

Superior Welding Technology



welding & joining technologies



**AGME was founded in 1948 and has become the market leader in joining technology with proven products in radial riveters, cnc riveting machines, roller presses, pneumatic presses, hydraulic presses, marking equipment, manual and nipping presses.**

Industrias Agme manufactures a wide range of radial riveting machines. The range of machines available is capable of riveting most assemblies, from small intricate components to the large heavy duty applications. The maximum diameter of the riveted head can vary from 4 mm (riveter RR-4) to 30 mm (riveter RR-30). There are many other models within their range and Agme has a machine to suit most of your requirements.

All Agme riveting machines use a radial riveting system. This working system is based on a planetary movement which produces components with perfect riveted joints with very little effort.



- C300 control is fitted as standard to all riveters.
- Time control
- Cycle counter
- LCD screen
- Password protected
- Optional pressure control

**Optional Features**

- Constant Height Control CAC
- Process Control CP1 or CP2
- End of stroke detector
- Double or multiple Riveting tool heads
- Workholder fixture
- Mechanical Hold down device
- Rubber Hold down device

RR12 fitted with CP2  
Quality control system

**CP-1 Quality Assurance System**

The quality of the riveted parts is guaranteed by using the CP-1 to control the riveting operation (OK/NOK). A pressure transducer and a linear transducer monitor the process and provide feedback to accept or reject the riveted part.

This solution is suitable for units to be assembled where the rivet is short (small bolts, shafts), where there are few elements to join and their thickness is very stable. Its use is also necessary when the upper surface of the components to be joined to the rivet cannot be sensed.

**CP-2 Quality Assurance System**

The CP-2 quality assurance system is similar to the CP-1. It monitors the process and provides feedback to accept or reject the riveted part. It also permits the measure of the final riveted head. In this system, the riveting head incorporates a floating device which senses the components to be joined by the rivet, this sensing determines the "0" reference surface on which the rest of the parameters will be measured.

The most common application is for riveting very long rods or shafts where there can be great variation in the total tolerance. It is also ideal on large axles which bend when subjected to the riveting load or where the tolerances of the components to rivet are very wide.



These riveting head units are designed to be integrated into special machines and can work in any position.



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# Riveting Machines CNC

Agme Superior Assembly Technology



welding & joining technologies



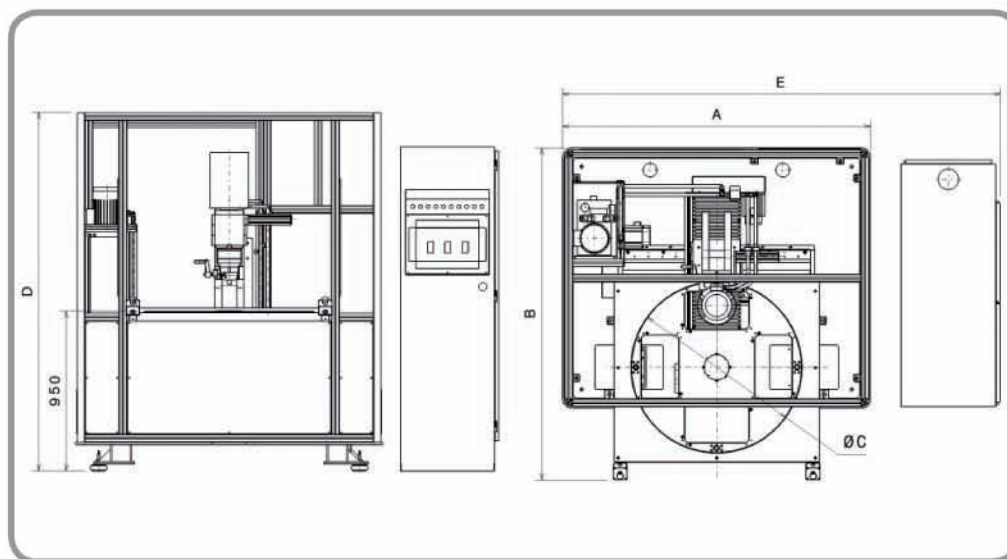
The AGME riveting centres improve the productivity and flexibility of current riveting systems. The machines are very flexible and are perfect for the use on components that require a number of different types of rivets to be riveted.

The CNC control is very simple to work and it is possible to program the machine without specific CNC knowledge. A programmer can very quickly become familiar with the general working of the machine.

There are a number of machine sizes available and all have the option of having a machine with two or three CNC slides. All machines are very flexible and offer great savings when compared to standard single station machines.



	A	B	ØC	D	E
RR – 6 NCD	1500	1810	600	1900	2115
RR – 12 NCD	1500	1810	800	1900	2115
RR – 14 NCD	1800	1940	1000	2100	2360
RR – 16 NCD	1800	1940	1000	2100	2360
RR – 18 NCD	1800	1940	1000	2100	2360
RR – 20 NCD	1800	1940	1000	2100	2360



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**AGME designs and produces a standard, versatile range of Hydraulic Presses (PH-15, PH-30, PH-60) that meets most assembly requirements: punching, bending, riveting, cutting, pressing and assembly.**

AGME hydraulic presses allow the machines to be manufactured to customers' requirements. They can be supplied with:

Special spindle strokes - Special Throat Dimensions - Double Column Machines - Rotary tables - Process Controllers. Moreover, our presses can be delivered with a complete turnkey solution, thus providing the customer with the most suitable fixture for his needs and particular situation.

### AGME Hydraulic Mini Presses

AGME desktop hydraulic presses are used mainly in operations that require substantial force, when a pneumatic force is not powerful enough. The application of these machines is universal. It is possible to use them for marking, punching, deforming, etc. They are designed for use in automatic workstations, special machines or automated lines.

Each press is equipped with a hydraulic center with adjustable pressure and a cylinder that can be adjusted to the work height, between 100 and 250 mm. All the processes (operation times, program memories and operation mode) are controlled and supervised by means of a microprocessor that is duly protected and installed in a control cabinet integrated into the machine.



### AGME Hydraulic Presses

Pro-type AGME hydraulic presses are complete with automatic stroke positioning and pressure control. This enables the machines to be changed over quickly and replaces the manual settings that were fitted to the older machine.



### AGME Toggle Presses

The AGME Toggle Presses are designed for high production assembly operations with minimum down time and where the force is required during a short period of time.

These machines are ideal for applications such as marking, riveting, punching, bending, etc.



### PRN-50 Pneumatic Toggle Press

The Pneumatic Toggle Presses have a power range between 15 and 50 KN. They are fast and flexible and are suitable for a wide range of applications.

They are capable of producing high loads with very little power consumption. Their main characteristics are:

- Extremely precise stroke adjustment
- Regulation of the working stroke
- Double acting cylinder

# Agme Assembly Equipment

## Linear & Rotary Assembly Modules



welding & joining technologies



AGME designs and manufactures many types of assembly modules, from simple pressing or riveting machines to more sophisticated units where assembly processes are required. In its engineering department assembly solutions are provided with the most modern technology that is available for our client's automation requirements. AGME standard machines are integrated into automated assembly modules with all equipment that is necessary to meet the client's technical specs.



AGME designs and produces rotary table transfer machines that include Agme standard machines as well as other equipment with high technology in the automation industry.

The rotary transfers permit rapid component movement between the different workstations through a rotary movement. They are customized special machines that are designed and manufactured to meet the client's production and automation needs.

The rotary or dial transfer machines that Agme manufactures can perform most types of forming and assembly operations from simple pressing, riveting and marking operations to more special operations such as pin, spring or bush insertion, parts folding, flaring, crimping, screwing and so on.

These rotary transfer machines can provide the client with fast efficient solutions to their high volume business and offer huge reductions in cycle time when compared to the standard machine method.



AGME special machines engineering department also designs and develops turnkey projects and provides global assembly solutions. For this purpose, different linear transfers can be designed to form a complete assembly line.

In these special machines, the parts movement between workstations is linear. These transfers can be fully automatic or semi automatic with capacity for using as many workstations as required.

Apart from riveting machines and presses, this special machinery includes many other devices as: automatic feeding systems, positioning and adjusting units, horizontal or vertical manipulators, robots, subassemblies control and checking stations, as well as the necessary fixture to perform assembling and forming operations.

These customized machines assemble many different components from a variety of industries including automotive components, locks, electrical appliances, household appliances, medical equipment and industry in general.



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