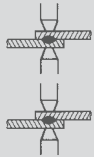


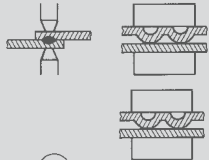
PMS

RESISTANCE WELDING MACHINE

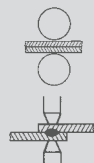
PMS 11-6



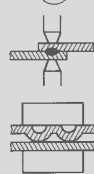
A SPOT welding machine



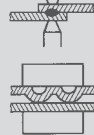
B COMB. SPOT-PROJECTION welding machine



C PROJECTION welding machine



N SEAM welding machine with cross or longitudinal arms



AN COMB. SPOT/SEAM welding machine



BN COMB. SPOT/PROJECTION welding machine



TECHNICAL DETAILS

- non-distortion machine frame with ribbed shell construction
- generously-dimensioned switching cabinet for taking welding and machine controls
- absolute separation between machine and switching unit
- infinitely adjustable height of lower arm
- electrode force cylinder with precision guide and external rotational protection
- very good performance factor via the close coupling of the secondary circuits
- electrode force can be infinitely regulated
- speed of working and return strokes of the cylinders can be regulated separately via throttle
- 4 separate cooling water circuits for cooling the current-carrying parts and the power stage
- welding transformer cast in resin for water-cooling and thermal protective switch is fully enclosed in the primary side
- primary and secondary coils vacuum cast
- compressed air service unit as standard, consisting of filter, regulator and manometer

Ausführung	Maß H
A-EH	1705
A-DH	1761
A-DHZ	1825
A-DHZF	1873

TECHNICAL DATA

Power rating at 50 % d.c.	80 or 100 kVA
Throat depth	250, 350, 550, 750 or 1050 mm
Electrode force	100 - 600 daN or 20 - 600 daN or 190 - 1140 daN
Electrode stroke	max. 90 mm

OPTIONAL FEATURES

- double stroke cylinder (DH), 65 + 25 mm stroke
- double stroke cylinder + travel for working stroke (DHZ), 0 - 65 mm working stroke + 25 - 90 mm operational stroke
- double stroke cylinder with approach stroke and sequencing (DHZF) 0 - 90 mm approach stroke for working stroke, 0 - 90 mm operational stroke or 90 mm long stroke
- cylinder with extended force range 20 - 600 daN
- cylinder with increased force range 190 - 1140 daN
- flow monitor for monitoring the cooling water amount
- adjusting device for raising and lowering the lower arm
- pressure-free lowering of upper arm via hand-valve
- electronic electrode force switch
- doubled secondary idling voltage
- 4-step switch mounted in switching cabinet
- main switch mounted in switching cabinet
- pressure-compensator to reconcile tool tolerances
- model as 3-phase direct current machine
- synchronised thyristor control acc. to choice

RESISTANCE WELDING MACHINE PMS 11-6

Technical Data according to DIN 44753

		Nominal Throat Depth 250 mm							
Group	Parameters		Model			Model			
			A	B	C	A	B	C	
Electrical Part	Machine power	Power rating (50 % d.c.)	kVA	80			100		
		Continuous output	kVA	56,6			70,7		
		Maximum short-circuit power	kVA	296	359	370	402	491	520
		Maximum welding power	kVA	237	287	296	322	392	416
	Machine voltage	Secondary idling	V	7,0 i.e. 3,5 / 4,75 / 5,93 / 7,0 ¹²⁾			8,26 i.e. 4,13 / 5,5 / 6,9 / 8,26 ¹²⁾		
		Number of regulating steps		0 i.e. 4 ¹²⁾			0 i.e. 4 ¹²⁾		
	Mains connection	Rated primary voltage	V	400			400		
		Rated primary current	A	210			263		
		Rated frequency	Hz	50			50		
		Supply power	kVA	177	215	222	241	294	312
		Main switch / Fusing ¹⁾	A	HL 125/125			HL 250/160		
		Wire range ^{1) 13)}	mm ²	25	35			35	50
	Secondary current	Rated operating current	kA	11,31	11,36	11,37	11,96	12,0	12,03
		Permanent current ²⁾	kA	8,0	8,03	8,04	8,46	8,49	8,51
		Short-circuit current	kA	42,2	50,5	52,2	48,5	59,2	62,8
		Highest welding current	kA	33,8	40,4	41,8	38,8	47,4	50,2
		permitt. duty cycle at max. weld. curr.	%	5,6	4	3,7	4,8	3,2	2,9
Mechanical Part	Cylinder EH	Electrode stroke max	mm	90			90		
		Electrode force min. / max.	daN	100 / 600 i.e. 190 / 1140 ¹⁰⁾			100 / 600 i.e. 190 / 1140 ¹⁰⁾		
		Max. movements / 10mm stroke	min ⁻¹	400			400		
		Air consumption / 1000 strokes ³⁾	m ³	0,9 i.e. 1,0 ¹⁰⁾			0,9 i.e. 1,0 ¹⁰⁾		
	Cylinder DH, DHZ, DHZF	Electrode stro. max. work+operat. str..	mm	90 / DH = 65 + 25 / DHZ = 0 - 65 + 25 - 90 / DHZF = 0 - 90 + 0 - 90					
		Electrode force min. / max.	daN	100 / 600 i.e. 190 / 1140 ¹⁰⁾ only DHZF					
		Max. movements / 10mm stroke	min ⁻¹	400			400		
		Air consumption / 1000 strokes ³⁾	m ³	1,1 i.e. 1,2 ¹⁰⁾			1,1 i.e. 1,2 ¹⁰⁾		
	Spot mounting	Throat gap min./max.	mm	115 / 415			115 / 415		
		Electrode arm-Ø	mm	60			60		
		Electrode holder-Ø	mm	30			30		
		Electrode holder adjustability	mm	180			180		
		Spot electrode seat no./outerØ	mm	2 / 19			2 / 19		
	Projection mounting	Clamping plate above W x D	mm	130 x 130			130 x 130		
		Clamping plate below W x D	mm	130 x 130			130 x 130		
		Clamping plate sep. min/max.	mm	140 / 440			140 / 440		
		T-grooves/separation mm x no	mm	10 DIN 650 / 63 x 2			10 DIN 650 / 63 x 2		
	Seam mounting	Roller electr. above Ø cross/long	mm	—			—		
		Roller electr. below Ø cross/long	mm	—			—		
		Working stroke speed min. / max.	m/min ⁻¹	—			—		
Comp. air	Pipe conn. / nom. width / thread.		NW 16 / R 1/2			NW 16 / R 1/2			
	Operating pressure min. / max.	bar	6 / 10			6 / 10			
Cooling water	Pipe conn. / nom. width / thread		NW 20 / R 3/4			NW 20 / R 3/4			
	Operating pressure min. / max..	bar	2/5			2/5			
	Consumption at max. loading	l/min ⁻¹	12 i.e. 8 ⁷⁾			12 i.e. 8 ⁷⁾			
Machine dimensions	Width x depth x height ⁶⁾	mm	780 x 1253 x 1560 EH / 1636 DH / 1703 DHZ / 1757 DHZF / 1645 EH ¹⁰⁾ / 1889 DHZF ¹⁰⁾						
	Weight machine / cabinet ⁴⁾	kg	485/65	495/65	505 ¹¹⁾ /65	495/65	505/65	515 ¹¹⁾ /65	
	Gross weight ⁴⁾	kg	720	730	740 ¹¹⁾	730	740	790 ¹¹⁾	
Shipping data	Box: Width x depth x height	mm	930 x 1403 x 1710 EH / 1786 DH / 1853 DHZ / 1907 DHZF / 1795 DHZF ¹⁰⁾ 7 1889 DHZF ¹¹⁾						
	Volume	m ³	2,2 EH / 2,3 DH / 2,4 DHZ / 2,5 DHZF / 2,3 EH ¹⁰⁾ / 2,7 DHZF ¹⁰⁾						
Op. Part	Welding values	Steel sheet C-content < 0,2 % ⁵⁾	mm	8 + 8			8 + 8		
		Brass sheet ⁵⁾	mm	5 + 5			5 + 5		
		Aluminium sheet ⁵⁾	mm	3 + 3			3 + 3		
		Round steel Ø C-content <0,2 % ⁵⁾	mm	22 + 22			22 + 22		
	Power stage	Thyristor power stage	IW	1/500			1/500		1/900
Notes	Technical alterations reserved. The table contents refer to standard models.								
	1) operating class. gL 2) at max. transformer level 3) at operating pressure 6 bar, stroke 20 mm 4) DH+10 kg, DHZ+12 kg, DHZF + 15 kg 5) subject to size influences			6) excl. switching cabinet, width = 510 mm 7) excl. thyristor power stage 8) act. throat depth = at model A + 5 mm/ B, C-10mm 9) special models with extended electrode force range			10) special equipment with increased electrode force range 11) increased electrode force range + 10 kg 12) for special equipment with 4-step switching 13) cable length < 15 m		