

**BULLETIN NUMBER 34**

**MANUFACTURER'S CROSS REFERENCES  
OF STANDARD RESISTANCE  
WELDING ELECTRODE NUMBERS  
AND ALLOYS**



SEEDORFF ACME Corporation, Anaheim, CA  
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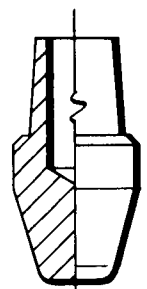
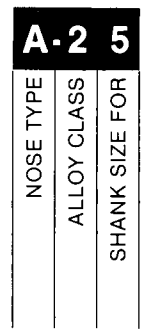


RESISTANCE WELDER MANUFACTURERS' ASSOCIATION

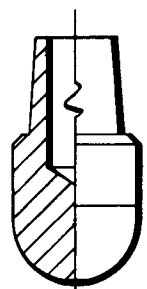
# Replaceable Male Cap Tips

	NOSE TYPE	TO FIT ADAPTER SIZE	OVERALL LENGTH	RWMA CODE	AMPCO	CMW	CADI	CENTERLINE	ELECTROLOY	HERCULES	TIPALLOY	TUFFALOY	*WELDALOY	WELFORM
<b>ALLOY CLASS 1</b>	A	4 RWMA	1-1/8	A-14	WA-14	MA-14	CA-14	WA-14	A-14	WA-14	CA-11	TA-14	WP-71	A-14
	B			B-14	WB-14	MB-14	CB-14	WB-14	B-14	WB-14	CB-11	TB-14	WP-72	B-14
	C			C-14	WC-14	MC-14	CC-14	WC-14	C-14	WC-14	CC-11	TC-14	WP-73	C-14
	D			D-14	WD-14	MD-14	CD-14	WD-14	D-14	WD-14	CD-11	TD-14	WP-74	D-14
	E			E-14	WER-14-2	ME-14	CE-14	WER-14-2	E-14	WE-14	CT-11	TE-14		E-14
	F			F-14	WCT-14	MF-14	CF-14	WCT-14	F-14	WF-14	CR-11	TF-14		F-14
	B	5 RWMA	1-1/4	A-15	WA-15	MA-15	CA-15	WA-15	A-15	WA-15	CA-12	TA-15	WP-42	A-15
	B			B-15	WB-15	MB-15	CB-15	WB-15	B-15	WB-15	CB-12	TB-15	WP-43	B-15
	C			C-15	WC-15	MC-15	CC-15	WC-15	C-15	WC-15	CC-12	TC-15	WP-45	C-15
	D			D-15	WD-15	MD-15	CD-15	WD-15	D-15	WD-15	CD-12	TD-15	WP-47	D-15
	E			E-15	WER-15-2	ME-15	CE-15	WER-15-2	E-15	WE-15	CT-12	TE-15	WP-53	E-15
	F			F-15	WCT-15	MF-15	CF-15	WCT-15	F-15	WF-15	CR-12	TF-15	WP-49	F-15
B	6 RWMA	1-5/8	A-16	WA-16	MA-16	CA-16	WA-16	A-16	WA-16	CA-16	TA-16	WP-56	A-16	
B			B-16	WB-16	MB-16	CB-16	WB-16	B-16	WB-16	CB-16	TB-16	WP-57	B-16	
C			C-16	WC-16	MC-16	CC-16	WC-16	C-16	WC-16	CC-16	TC-16	WP-58	C-16	
D			D-16	WD-16	MD-16	CD-16	WD-16	D-16	WD-16	CD-16	TD-16	WP-59	D-16	
E			E-16	WER-16-2	ME-16	CE-16	WER-16-2	E-16	WE-16	CT-16	TE-16	WP-64	E-16	
F			F-16	WCT-16	MF-16	CF-16	WCT-16	F-16	WF-16	CR-16	TF-16	WP-60	F-16	
B	7 RWMA	1-5/8	A-17	WA-17	MA-17	CA-17	WA-17	A-17	WA-17	CA-13	TA-17	WP-67	A-17	
B			B-17	WB-17	MB-17	CB-17	WB-17	B-17	WB-17	CB-13	TB-17	WP-68	B-17	
C			C-17	WC-17	MC-17	CC-17	WC-17	C-17	WC-17	CC-13	TC-17	WP-69	C-17	
D			D-17	WD-17	MD-17	CD-17	WD-17	D-17	WD-17	CD-13	TD-17	WP-70	D-17	
E			E-17	WER-17-2	ME-17	CE-17	WER-17-2	E-17	WE-17	CT-13	TE-17	*Alloy must be indicated	E-17	
F			F-17	WCT-17	MF-17	CF-17	WCT-17	F-17	WF-17	CR-13	TF-17		F-17	
<b>ALLOY CLASS 2</b>	A	4 RWMA	1-1/8	A-24	WA-24	MA-24	CA-24	WA-24	A-24	WA-24	CA-21	TA-24	WP-71	A-24
	B			B-24	WB-24	MB-24	CB-24	WB-24	B-24	WB-24	CB-21	TB-24	WP-72	B-24
	C			C-24	WC-24	MC-24	CC-24	WC-24	C-24	WC-24	CC-21	TC-24	WP-73	C-24
	D			D-24	WD-24	MD-24	CD-24	WD-24	D-24	WD-24	CD-21	TD-24	WP-74	D-24
	E			E-24	WER-24-2	ME-24	CE-24	WER-24-2	E-24	WE-24	CT-21	TE-24		E-24
	F			F-24	WCT-24	MF-24	CF-24	WCT-24	F-24	WF-24	CR-21	TF-24		F-24
	B	5 RWMA	1-1/4	A-25	WA-25	MA-25	CA-25	WA-25	A-25	WA-25	CA-22	TA-25	WP-42	A-25
	B			B-25	WB-25	MB-25	CB-25	WB-25	B-25	WB-25	CB-22	TB-25	WP-43	B-25
	C			C-25	WC-25	MC-25	CC-25	WC-25	C-25	WC-25	CC-22	TC-25	WP-45	C-25
	D			D-25	WD-25	MD-25	CD-25	WD-25	D-25	WD-25	CD-22	TD-25	WP-47	D-25
	E			E-25	WER-25-2	ME-25	CE-25	WER-25-2	E-25	WE-25	CT-22	TE-25	WP-53	E-25
	F			F-25	WCT-25	MF-25	CF-25	WCT-25	F-25	WF-25	CR-22	TF-25	WP-49	F-25
B	6 RWMA	1-5/8	A-26	WA-26	MA-26	CA-26	WA-26	A-26	WA-26	CA-26	TA-26	WP-56	A-26	
B			B-26	WB-26	MB-26	CB-26	WB-26	B-26	WB-26	CB-26	TB-26	WP-57	B-26	
C			C-26	WC-26	MC-26	CC-26	WC-26	C-26	WC-26	CC-26	TC-26	WP-58	C-26	
D			D-26	WD-26	MD-26	CD-26	WD-26	D-26	WD-26	CD-26	TD-26	WP-59	D-26	
E			E-26	WER-26-2	ME-26	CE-26	WER-26-2	E-26	WE-26	CT-26	TE-26	WP-64	E-26	
F			F-26	WCT-26	MF-26	CF-26	WCT-26	F-26	WF-26	CR-26	TF-26	WP-60	F-26	
B	7 RWMA	1-5/8	A-27	WA-27	MA-27	CA-27	WA-27	A-27	WA-27	CA-23	TA-27	WP-67	A-27	
B			B-27	WB-27	MB-27	CB-27	WB-27	B-27	WB-27	CB-23	TB-27	WP-68	B-27	
C			C-27	WC-27	MC-27	CC-27	WC-27	C-27	WC-27	CC-23	TC-27	WP-69	C-27	
D			D-27	WD-27	MD-27	CD-27	WD-27	D-27	WD-27	CD-23	TD-27	WP-70	D-27	
E			E-27	WER-27-2	ME-27	CE-27	WER-27-2	E-27	WE-27	CT-23	TE-27		E-27	
F			F-27	WCT-27	MF-27	CF-27	WCT-27	F-27	WF-27	CR-23	TF-27		F-27	

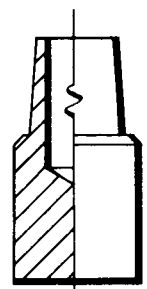
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TO RWMA  
CODE NUMBERS



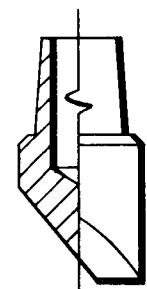
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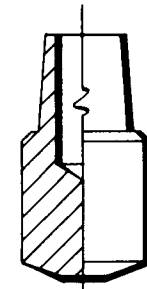
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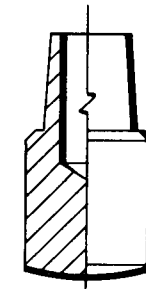
TYPE 'C'



TYPE 'D'



TYPE 'E'



TYPE 'F'



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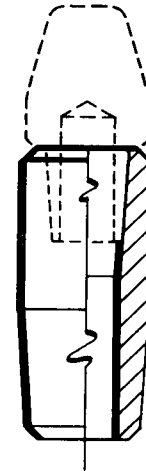
# Male Cap Adapter Shanks

ALLOY CLASS  
**2**

TAPER NO.	SHANK LENGTH	ASSM'D LENGTH	RWMA	AMPCO	CMW	CADI	CENTERLINE	ELECTROLOY	HERCULES	TIPALOY	TUFFALOY	WELDALOY	WELFORM	
4 RWMA	1 1/4	2	G-2405	WG-2405	3012	CG-2405	G-2405	G-2405	WG-2405	CS-215	TG-2405	WPS-5000	MR-2405	
	1 1/2	2 1/4	G-2406	WG-2406	3013	CG-2406	G-2406	G-2406	WG-2406	CS-216	TG-2406	WPS-5001	MR-2406	
	1 3/4	2 1/2	G-2407	WG-2407	3014	CG-2407	G-2407	G-2407	WG-2407	CS-217	TG-2407	WPS-5002	MR-2407	
	2	2 3/4	G-2408	WG-2408	3015	CG-2408	G-2408	G-2408	WG-2408	CS-218	TG-2408	WPS-5003	MR-2408	
	2 1/4	3	G-2409	WG-2409	3016	CG-2409	G-2409	G-2409	WG-2409	CS-219	TG-2409	WPS-5004	MR-2409	
	2 1/2	3 1/4	G-2410	WG-2410	3017	CG-2410	G-2410	G-2410	WG-2410	CS-2110	TG-2410	WPS-5005	MR-2410	
	2 3/4	3 1/2	G-2411	WG-2411	3018	CG-2411	G-2411	G-2411	WG-2411	CS-2111	TG-2411	WPS-5006	MR-2411	
	3	3 3/4	G-2412	WG-2412	3019	CG-2412	G-2412	G-2412	WG-2412	CS-2112	TG-2412	WPS-5007	MR-2412	
	3 1/4	4	G-2413	WG-2413	30112	CG-2413	G-2413	G-2413	WG-2413	CS-2113	TG-2413	WPS-5008	MR-2413	
	3 1/2	4 1/4	G-2414	WG-2414	30114	CG-2414	G-2414	G-2414	WG-2414	CS-2114	TG-2414	WPS-5009	MR-2414	
	3 3/4	4 1/2	G-2415	WG-2415	30116	CG-2415	G-2415	G-2415	WG-2415	CS-2115	TG-2415	WPS-5010	MR-2415	
	4	4 3/4	G-2416	WG-2416	30118	CG-2416	G-2416	G-2416	WG-2416	CS-2116	TG-2416	WPS-5011	MR-2416	
	5 RWMA	1 1/4	2	G-2505	WG-2505	3022	CG-2505	G-2505	G-2505	WG-2505	CS-225	TG-2505	WP-6000	MR-2505
		1 1/2	2 1/4	G-2506	WG-2506	3023	CG-2506	G-2506	G-2506	WG-2506	CS-226	TG-2506	WP-6001	MR-2506
1 3/4		2 1/2	G-2507	WG-2507	3024	CG-2507	G-2507	G-2507	WG-2507	CS-227	TG-2507	WP-6002	MR-2507	
2		2 3/4	G-2508	WG-2508	3025	CG-2508	G-2508	G-2508	WG-2508	CS-228	TG-2508	WP-6003	MR-2508	
2 1/4		3	G-2509	WG-2509	3026	CG-2509	G-2509	G-2509	WG-2509	CS-229	TG-2509	WP-6004	MR-2509	
2 1/2		3 1/4	G-2510	WG-2510	3027	CG-2510	G-2510	G-2510	WG-2510	CS-2210	TG-2510	WP-6005	MR-2510	
2 3/4		3 1/2	G-2511	WG-2511	3028	CG-2511	G-2511	G-2511	WG-2511	CS-2211	TG-2511	WP-6006	MR-2511	
3		3 3/4	G-2512	WG-2512	3029	CG-2512	G-2512	G-2512	WG-2512	CS-2212	TG-2512	WP-6007	MR-2512	
3 1/4		4	G-2513	WG-2513	30212	CG-2513	G-2513	G-2513	WG-2513	CS-2213	TG-2513	WP-6008	MR-2513	
3 1/2		4 1/4	G-2514	WG-2514	30214	CG-2514	G-2514	G-2514	WG-2514	CS-2214	TG-2514	WP-6009	MR-2514	
3 3/4		4 1/2	G-2515	WG-2515	30216	CG-2515	G-2515	G-2515	WG-2515	CS-2215	TG-2515	WP-6010	MR-2515	
4		4 3/4	G-2516	WG-2516	30218	CG-2516	G-2516	G-2516	WG-2516	CS-2216	TG-2516	WP-6011	MR-2516	
6 RWMA		2	3	G-2608	WG-2608	3045	CG-2608	G-2608	G-2608	WG-2608	CS-2608	TG-2608	WP-7000	MR-2608
		2 1/2	3 1/2	G-2610	WG-2610	3047	CG-2610	G-2610	G-2610	WG-2610	CS-2610	TG-2610	WP-7002	MR-2610
	3	4	G-2612	WG-2612	3049	CG-2612	G-2612	G-2612	WG-2612	CS-2612	TG-2612	WP-7004	MR-2612	
	3 1/2	4 1/2	G-2614	WG-2614	30414	CG-2614	G-2614	G-2614	WG-2614	CS-2614	TG-2614	WP-7006	MR-2614	
	4	5	G-2616	WG-2616	30418	CG-2616	G-2616	G-2616	WG-2616	CS-2616	TG-2616	WP-7008	MR-2616	
7 RWMA	2	3	G-2708	WG-2708	3035	CG-2708	G-2708	G-2708	WG-2708	CS-238	TG-2708	WP-8054	MR-2708	
	2 1/2	3 1/2	G-2710	WG-2710	3037	CG-2710	G-2710	G-2710	WG-2710	CS-2310	TG-2710	WP-8056	MR-2710	
	3	4	G-2712	WG-2712	3039	CG-2712	G-2712	G-2712	WG-2712	CS-2312	TG-2712	WP-8058	MR-2712	
	3 1/2	4 1/2	G-2714	WG-2714	30314	CG-2714	G-2714	G-2714	WG-2714	CS-2314	TG-2714	WP-8060	MR-2714	
	4	5	G-2716	WG-2716	30318	CG-2716	G-2716	G-2716	WG-2716	CS-2316	TG-2716	WP-8062	MR-2716	

KEY  
TO RWMA  
CODE NUMBERS

<b>G-2406</b>			
MALE CAP TIP SHANK	ALLOY CLASS	TAPER SIZE	OVERALL LENGTH IN 1/4" INCREMENTS



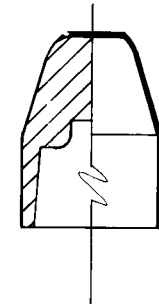
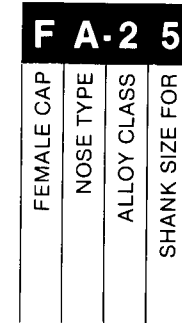
RESISTANCE WELDER MANUFACTURERS' ASSOCIATION

# Replaceable Female Cap Tips

**ALLOY CLASS**  
**2**

NOSE TYPE	TO FIT ADAPTER SIZE	OVERALL LENGTH	RWMA	AMPCO	CMW	CADI	CENTERLINE	ELECTROLOY	HERCULES	TIPALOY	TUFFALOY	WELDALOY	WELFORM
A	4 RWMA	.84	FA-24	WA-24-FC	MPA-24	CFA-24	CLFA-24	FA-24	WA-F-24	CAF-24	TP-24A	WP-20	FA-24
B			FB-24	WB-24-FC	MPB-24	CFB-24	CLFB-24	FB-24	WB-F-24	CBF-24	TP-24B	WP-21	FB-24
C			FC-24	WC-24-FC	MPC-24	CFC-24	CLFC-24	FC-24	WC-F-24	CCF-24	TP-24C	WP-22	FC-24
D			FD-24	WD-24-FC	MPD-24	CFD-24	CLFD-24	FD-24	WD-F-24	CDF-24	TP-24D		FD-24
E			FE-24	WE-24-FC	MPE-24	CFE-24	CLFE-24	FE-24	WE-F-24	CEF-24			FE-24
F			FF-24	WF-24-FC	MPF-24	CFF-24	CLFF-24	FF-24	WF-F-24	CFF-24			FF-24
A	5 RWMA	.88	FA-25	WA-25-FC	MPA-25	CFA-25	CLFA-25	FA-25	WA-F-25	CAF-25	TP-25A	WP-23	FA-25
B			FB-25	WB-25-FC	MPB-25	CFB-25	CLFB-25	FB-25	WB-F-25	CBF-25	TP-25B	WP-24	FB-25
C			FC-25	WC-25-FC	MPC-25	CFC-25	CLFC-25	FC-25	WC-F-25	CCF-25	TP-25C		FC-25
D			FD-25	WD-25-FC	MPD-25	CFD-25	CLFD-25	FD-25	WD-F-25	CDF-25	TP-25D	WP-2216	FD-25
E			FE-25	WE-25-FC	MPE-25	CFE-25	CLFE-25	FE-25	WE-F-25	CEF-25			FE-25
F			FF-25	WF-25-FC	MPF-25	CFF-25	CLFF-25	FF-25	WF-F-25	CFF-25		WP-25	FF-25
A	6 RWMA	1.00	FA-26	WA-26-FC	MPA-26	CFA-26	CLFA-26	FA-26	WA-F-26	CAF-26	TP-26A	WP-26	FA-26
B			FB-26	WB-26-FC	MPB-26	CFB-26	CLFB-26	FB-26	WB-F-26	CBF-26	TP-26B	WP-27	FB-26
C			FC-26	WC-26-FC	MPC-26	CFC-26	CLFC-26	FC-26	WC-F-26	CCF-26	TP-26C		FC-26
D			FD-26	WD-26-FC	MPD-26	CFD-26	CLFD-26	FD-26	WD-F-26	CDF-26	TP-26D	WP-29	FD-26
E			FE-26	WE-26-FC	MPE-26	CFE-26	CLFE-26	FE-26	WE-F-26	CEF-26			FE-26
F			FF-26	WF-26-FC	MPF-26	CFF-26	CLFF-26	FF-26	WF-F-26	CFF-26		WP-28	FF-26
A	7 RWMA		FA-27	WA-27-FC	MPA-27	CFA-27	CLFA-27		WA-F-27	CAF-27		WP-67	FA-27
B		FB-27	WB-27-FC	MPB-27	CFB-27	CLFB-27		WB-F-27	CBF-27			WP-68	FB-27
C		FC-27	WC-27-FC	MPC-27	CFC-27	CLFC-27		WC-F-27	CCF-27			WP-69	FC-27
D		FD-27	WD-27-FC	MPD-27	CFD-27	CLFD-27		WD-F-27	CDF-27			WP-70	FD-27
E		FE-27	WE-27-FC	MPE-27	CFE-27	CLFE-27		WE-F-27	CEF-27				FE-27
F		FF-27	WF-27-FC	MPF-27	CFF-27	CLFF-27		WF-F-27	CFF-27				FF-27

**KEY**  
TO RWMA  
CODE NUMBERS



**NOTE:**  
For other nose types  
and codes,  
see page 7  
- Replaceable Male Cap Tips

RESISTANCE WELDER MANUFACTURERS' ASSOCIATION

# Female Cap Adapter Shanks

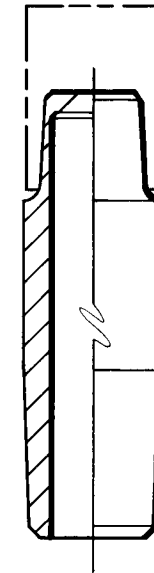
**ALLOY CLASS**  
**2**

TAPER NO.	SHANK LENGTH	ASSM'D LENGTH	RWMA	AMPCO	CMW	CADI	CENTERLINE	ELECTROLOY	HERCULES	TIPALOY	TUFFALOY	WELDALOY	WELFORM
4 RWMA	1-3/16	1-3/4	FG-2405	WGM-2407	MP-3012	CFG-2405	CLF-2419	7274-1	WGM-2405	CSF-245		WP-3052	MRS-2405
	1-7/16	2	FG-2406	WGM-2408	MP-3013	CFG-2406	CLF-2423	7274-2	WGM-2406	CSF-246	TP-2406	WP-3053	MRS-2406
	1-11/16	2-1/4	FG-2407	WGM-2409	MP-3014	CFG-2407	CLF-2427	7274-3	WGM-2407	CSF-247	TP-2407	WP-3054	MRS-2407
	1-15/16	2-1/2	FG-2408	WGM-2410	MP-3015	CFG-2408	CLF-2431	7274-4	WGM-2408	CSF-248	TP-2408	WP-3055	MRS-2408
	2-3/16	2-3/4	FG-2409	WGM-2411	MP-3016	CFG-2409	CLF-2435	7274-5	WGM-2409	CSF-249	TP-2409	WP-3056	MRS-2409
	2-7/16	3	FG-2410	WGM-2412	MP-3017	CFG-2410	CLF-2439	7274-6	WGM-2410	CSF-2410	TP-2410	WP-3057	MRS-2410
5 RWMA	1-3/16	1-3/4	FG-2505	WGM-2507	MP-3022	CFG-2505	CLF-2519	7270-7	WGM-2505	CSF-255		WP-4051	MRS-2505
	1-7/16	2	FG-2506	WGM-2508	MP-3023	CFG-2506	CLF-2523	7270-8	WGM-2506	CSF-256	TP-2506	WP-4052	MRS-2506
	1-11/16	2-1/4	FG-2507	WGM-2509	MP-3024	CFG-2507	CLF-2527	7270-9	WGM-2507	CSF-257	TP-2507	WP-4053	MRS-2507
	1-15/16	2-1/2	FG-2508	WGM-2510	MP-3025	CFG-2508	CLF-2531	7270-10	WGM-2508	CSF-258	TP-2508	WP-4054	MRS-2508
	2-3/16	2-3/4	FG-2509	WGM-2511	MP-3026	CFG-2509	CLF-2535	7270-11	WGM-2509	CSF-259	TP-2509	WP-4055	MRS-2509
	2-7/16	3	FG-2510	WGM-2512	MP-3027	CFG-2510	CLF-2539	7270-12	WGM-2510	CSF-2510	TP-2510	WP-4056	MRS-2510
6 RWMA	1-3/4	2-3/8	FG-2607	WGM-2609		CFG-2607	CLF-2628		WGM-2607	CSF-267		WP-9053	MRS-2607
	2-1/4	2-7/8	FG-2609	WGM-2611		CFG-2609	CLF-2636		WGM-2609	CSF-269		WP-9055	MRS-2609
	2-3/4	3-3/8	FG-2611	WGM-2613		CFG-2611	CLF-2644		WGM-2611	CSF-2611		WP-9057	MRS-2611
	3-1/4	3-7/8	FG-2613	WGM-2615		CFG-2613	CLF-2652		WGM-2613	CSF-2613		WP-9059	MRS-2613

**KEY**  
TO RWMA  
CODE NUMBERS

**FG-2406**

FEMALE CAP TIP	ALLOY CLASS	OVERALL LENGTH
SHANK	TAPER SIZE	IN 1/4" INCREMENTS



# Irregular Tips

ALLOY CLASS	TAPER NO.	OVERALL LENGTH	AMPCO	CMW	CADI	CENTERLINE	ELECTROLOY	HERCULES	TIPALLOY	TUFFALOY	WELDALOY	WELFORM
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## 30° Offset Tips

2	4 RWMA	2	WX-2402	16-2494	C-218	WX-2402	4316	H-3410	SP-219-1		2WP-170	WX-2402
2	5 RWMA	2-1/2"	WX-2502-1	16-2495	C-219	WX-2502-1	4276	H-720	SP-219-2		2WP-171	WX-2502-1

## 1" Diameter Face Tips

2	4 RWMA	1-1/4"	WC-2405-D8	16-3010	C-161	WC-2405-D8	4895	C-2405-D8	SP-222	309	WP-271	WC-2405-D8
2	5 RWMA	1-1/2"	WC-2506-D8	16-3020	C-183	WC-2506-D8	4791	C-2506-D8	SP-223	311	WP-211	WC-2506-D8

## Swivel Head Tips

		FACE DIA.										
	4 RWMA	1"	WES-100A-1	16-2312	C-216	WES-100A-1	6078	H-50-1	SN-148	S-350	WP1S-100-H	WES-100A-1
	4 RWMA	1-1/4"	WES-100A-2	16-2310	C-204	WES-100A-2	4880	H-50	SN-1410	S-351	WP1S-125-H	WES-100A-2
	5 RWMA	1"	WES-101A-1	16-2313	C-120	WES-101A-1	5903	H-60-1	SN-158	S-353	WP2S-100-H	WES-101A-1
	5 RWMA	1-1/4"	WES-101A-2	16-2311	C-217	WES-101A-2	4456	H-60	SN-1510	S-354	WP2S-125-H	WES-101A-2

## Rectangular Faced Tips

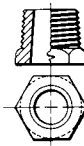
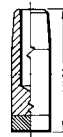
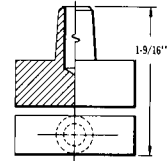
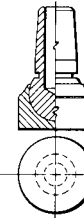
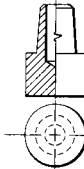
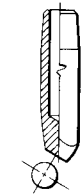
		FACE SIZE										
2	4 RWMA	2"x 5/8"	WTA-2406	16-3111	C-127	WTA-2406	4332	C-2407-S16	SP-220-1		WP-339	WTA-2406
2	5 RWMA	2"x 5/8"	WTA-2506	16-3121	C-125	WTA-2506	4286	C-2507-S16	SP-220-2	226	WP-252	WTA-2506

## Refractory Metal Faced Tips

FACE ALLOY		FACING MAT'L										
11	4 RWMA	Copper Tungsten	WC-F-2408-11	631050	FF10-408	WC-F-2408-11	FTF-14-10	C-2408-CT	CT-1587	C-2408-10W	2F1-200-20CT	WC-F-2408-11M
14	4 RWMA	Molybdenum	WC-F-2408-14M	831050	FFM-408	WC-F-2408-14M	FTF-14-500	C-2408-M	M-1588	C-2408-100M	2F1-200-M	WC-F-2408-14M
13	4 RWMA	Tungsten	WC-F-2408-13W	931050	FFT-408	WC-F-2408-13W	FTF-14-100	C-2408-T	CT-1586	C-2408-100W	2F1-200-W	WC-F-2408-13W
11	5 RWMA	Copper Tungsten	WC-F-2508-11	632050	FF10-508	WC-F-2508-11	FTF-24-10	C-2508-CT	CT-1590	C-2508-10W	2F2-200-20CT	WC-F-2508-11
14	5 RWMA	Molybdenum	WC-F-2508-14M	832050	FFM-508	WC-F-2508-14M	FTF-24-500	C-2508-M	M-1591	C-2508-100M	2F2-200-M	WC-F-2508-14M
13	5 RWMA	Tungsten	WC-F-2508-13W	932050	FFT-508	WC-F-2508-13W	FTF-24-100	C-2508-T	CT-1589	C-2508-100W	2F2-200-W	WC-F-2508-13W
11	7 RWMA	Copper Tungsten	WC-F-2708-11	633050	FF10-708	WC-F-2708-11	FTF-34-10	C-2708-CT	CT-1593	C-2708-10W	2F3-200-20CT	WC-F-2708-11
14	7 RWMA	Molybdenum	WC-F-2708-14M	833050	FFM-708	WC-F-2708-14M	FTF-34-500	C-2708-M	M-1594	C-2708-100M	2F3-200M	WC-F-2708-14M
13	7 RWMA	Tungsten	WC-F-2708-13W	933050	FFT-708	WC-F-2708-13W	FTF-34-100	C-2708-T	CT-1592	C-2708-100W	253-200-W	WC-F-2708-13W

## 1" Hex Adapters

	FEMALE TAPER	MALE END										
	4 RWMA	1/2"-14 NPT	WG-34A-3	18-746	C-214	WG-34A-3	6044	WG-34A-3	AP-H24B-7	AD-124	HWP-108	WG-34A-3
	4 RWMA	5/8"-14 NPT	WU-214-5814	18-748	C-188	WU-214-5814	4543	WG-34B-3	AP-H24C-7	AD-584	HWP-110	WU-214-5814
	4 RWMA	5 RW Taper	WU-225	18-741	C-220	WU-225	6043	WG-2-1	AT-R245-9	A-54-1	HWP-100	WU-225
	5 RWMA	1/2"-14 NPT	WG-35A-3	18-747	C-189	WG-35A-3	6045	WG-35A-3	AP-H25B-7	AD-125	HWP-109	WG-35A-3
	5 RWMA	5/8"-14 NPT	WU-224-5814	18-749	C-221	WU-224-5814	4544	WG-35B-3	AP-H25C-7	AD-585	HWP-111	WU-224-5814

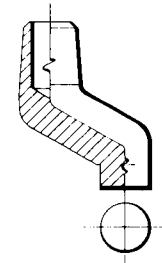


ALLOY CLASS	TAPER NO.	OVERALL LENGTH	AMPCO	CMW	CADI	CENTERLINE	ELECTROLOY	HERCULES	TIPALLOY	TUFFALOY	WELDALOY	WELFORM
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## 25/32" Offset Tips

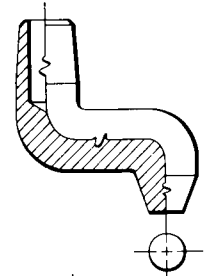
2	4 RWMA	1-3/4"	WEF-2407	16-3873	C-226	WEF-2407	4179	H-130	OF1-2532	N-13	WP-183	WEF-2407
2	5 RWMA	1-3/4"	WEF-2507	16-3874	C-227	WEF-2507	4135	H-140	OF2-2532	N-24	WP-184	WEF-2507

DRAWINGS SHOWN  
HALF SIZE



## 1-1/4" Offset Tips

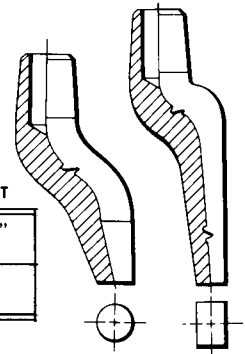
2	4 RWMA	2"	WF-2408	16-3860	C-223	WF-2408	4140	H-80	OF1-1250S	N-15	WP-124	WF-2408
2	4 RWMA	2-3/8"	WF-2409	16-3861	C-224	WF-2409	4164	H-90	OF1-1250	N-16	WP-125	WF-2409
2	5 RWMA	2"	WF-2508	16-3862	C-225	WF-2508	4206	H-100	OF2-1250S	N-27	WP-126	WF-2508
2	5 RWMA	2-3/8"	WF-2509	16-3863	C-184	WF-2509	4125	H-20	OF2-1250	N-28	WP-127	WF-2509



## Offset Tips

2	4 RWMA	2"	WE-2408	16-3870	C-170	WE-2408	4156	H-30	OF1-1932	1-5005	WP-122	WE-2408	19/32"
2	5 RWMA	2"	WE-2508	16-3871	C-134	WE-2508	4111	H-40	OF2-875	2-5005	WP-123	WE-2508	7/8"
2	4 RWMA	2-7/8"	WX-2412-2	16-3820	C-222	WX-2412-2	4236	H-1820-1	OF1-500	SE-4277	WP-328	WX-2412-2	1/2
2	5 RWMA	2-7/8"	WX-2512-2	16-3821	C-117	WX-2512-2	4273	H-1820	OF2-500	SE-4278	WP-328A	WX-2512-2	1/2

OFFSET



## RESISTANCE WELDER MANUFACTURERS' ASSOCIATION

**Classification of Comparative Alloys**

RWMA MANUFACTURER	GROUP A COPPER BASE ALLOYS						GROUP B REFRACTORY METAL COMPOSITIONS				
	CLASS 1	CLASS 1A	CLASS 2	CLASS 3	CLASS 4	CLASS 5	CLASS 10	CLASS 11	CLASS 12	CLASS 13	CLASS 14
Ampco		Ampcoloy 98	Ampcoloy 97	Ampcoloy 940	Ampcoloy 84	Ampcoloy 92	Ampcoloy 40	Ampcoloy 42	Ampcoloy 43	Ampcoloy 80	
CMW	Elkaloy® A	CMW 2	CMW 3	CMW 100	CMW 73	Elkaloy® D	Elkonite® 1W3	Elkonite® 10W3	Elkonite® 30W3	Elkonite® 100W	Elkonite® 100M
Cadi	C-1	C-1A	C-2	C-3	C-4	C-5	C-1W	C-10	C-20	C-T	C-M
Centerline	Centerline CL-1	Centerline CL-1A	Centerline CL-2	Centerline CL-3	Centerline CL-4	Centerline CL-5	Centerline 1W3	Centerline 10W3	Centerline 20W3	Centerline 100W	Centerline 100M
Electroloy	Electroloy A	Electroloy 100-A	Electroloy XX	Electroloy TX	Electroloy B	Electroloy Molin-2	Electroloy 1	Electroloy 10	Electroloy 20	Electroloy 100	Electroloy 500
Hercules	H-1	H-1A	H-2	H-3	H-4	H-5	H-1W	H-10W	H-20W	H-100W	H-14M
Tipaloy	#100	100-A	#130	200/240	T-5	T-5	T-1W	T-10W	T-20W	T-100W	T-100M
Tuffaloy Products	Tuffaloy 88	Tuffaloy 88-A	Tuffaloy 77	Tuffaloy 55	Tuffaloy 44	Tuffaloy 66	Tuffaloy 1W	Tuffaloy 10W	Tuffaloy 20W	Tuffaloy 100W	Tuffaloy 100M
Weldaloy	Weldaloy 10	Weldaloy 20HC	Weldaloy 20	Weldaloy 60	Weldaloy 40	Weldaloy 50	Weldtung 10CT8	Weldtung 20CT	Weldtung 30CT	Weldtung W	Weldtung M
Welform	CL-1	CL-1A	CL-2	CL-3	CL-4	CL-5	W-1W	W-10W	W-20W	W-100W	W-100M
Availability	Bars Forgings	Bars Forgings Castings	Bars Forgings Castings	Bars Forgings Castings	Bars Forgings Castings	Castings	Bars Inserts	Bars Inserts	Bars Inserts	Bars Inserts	Bars Inserts

# BULLETINS AVAILABLE

Resistance Welder Manufacturers' Association • 1900 Arch Street • Philadelphia, Pennsylvania 19103  
(215) 564-3484

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Electro-Brazing Methods .....	6	Spot Welding 65-35 Brass on Single-Phase Equipment With Slope Control.....	25
The Spot Welding Properties of Rust-Proofed Mild Steel Sheet.....	9	Spot Welding of Inconel "X" in Thickness Range of .032 to .188.....	26
Flash Butt Welding Technique and Variables in Welding Low Alloy Steels and Flash Welding Alloy Steels — Physical and Metallurgical Characteristics.....	10	Seam Welding Galvanized Steel .....	28
Flash Butt Welded Joints, Their Design and Properties .....	12	Tip Life Studies in the Spot Welding of 5052 Aluminum Alloy.....	29
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Resistance Welding Equipment Standards....	16	Resistance Seam Welding of Terne Plate. Evaluation of Resistance Seam Welds by a Shear Peel Test. High Speed Seam Welding of Terne Plate .....	33
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Electrical and Metallurgical Characteristics of Mash Seam Welds.....	21	"Quickie" Reference Welding Manual	
Spot Welding of Magnesium with Three-Phase Low Frequency Equipment .....	22	"Resistance Welding" Audio-visual program on the basics of resistance welding. Four modules, 262 slides (35 mm.), four synchronized audio tapes	
Seam Welding Low-Carbon Steel and Seam Welding Dissimilar Thicknesses of Low Carbon Steel.....	23		
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