

PACIFIC

Resistance Welding Products

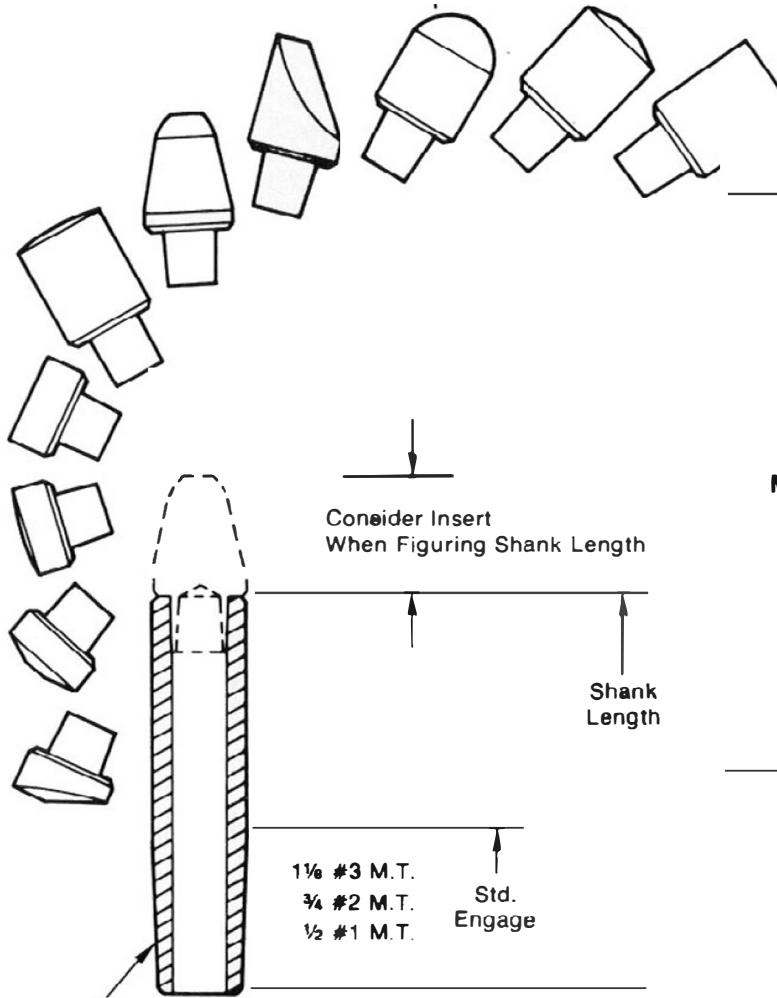
FEATURES

Buy Online
RW Electrodes.com



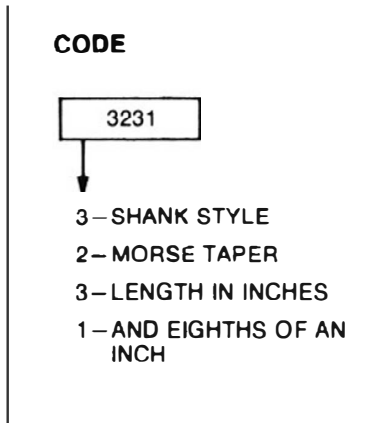
TO ORDER BY TELEPHONE,
CALL TOLL FREE: **866.RES.WELD**
(737.9353)

TO SHOP ONLINE, VISIT US AT:
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Standard Morse Tapers
 To R.W. Specifications

ALL SHANKS ARE MADE FROM
 R.W.M.A. CLASS II ALLOY

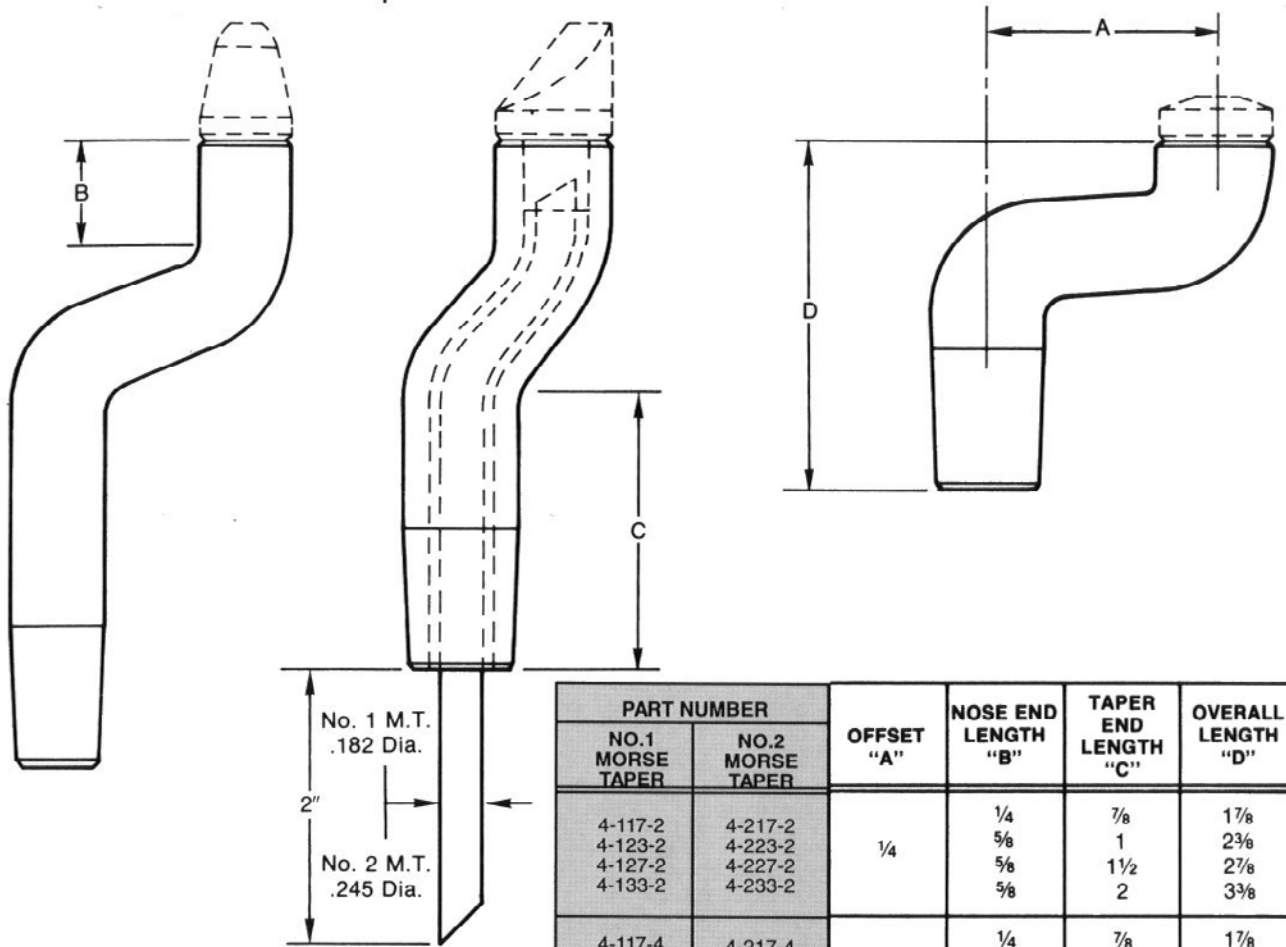


PART No.	SHANK LENGTH
3105	5/8
3107	7/8
3111	1 1/8
3113	1 3/8
No. 1 MORSE TAPER SHANKS	
3115	1 5/8
3117	1 7/8
3121	2 1/8
3123	2 3/8
3125	2 5/8
3127	2 7/8
3131	3 1/8
3133	3 3/8
3135	3 5/8
3137	3 7/8
3141	4 1/8
3143	4 3/8
No. 2 MORSE TAPER SHANKS	
3206	3/4
3207	7/8
3211	1 1/8
3213	1 3/8
3215	5/8
3217	1 1/8
3221	2 1/8
3223	2 3/8
3225	2 5/8
3227	2 7/8
3231	3 1/8
3233	3 3/8
3235	3 5/8
3237	3 7/8
3241	4 1/8
3243	4 3/8
No. 3 MORSE TAPER SHANKS	
3314	1 1/2
3320	2
3324	2 1/2
3330	3
3334	3 1/2
3340	4

DOUBLE BEND SHANKS

No. 1 MORSE TAPER – USE SERIES “1” INSERTS – PAGE 12

No. 2 MORSE TAPER – USE SERIES “2” INSERTS – PAGE 13



PART NUMBER		OFFSET "A"	NOSE END LENGTH "B"	TAPER END LENGTH "C"	OVERALL LENGTH "D"
NO.1 MORSE TAPER	NO.2 MORSE TAPER				
4-117-2	4-217-2	1/4	1/4	7/8	17/8
4-123-2	4-223-2		5/8	1	23/8
4-127-2	4-227-2		5/8	1 1/2	27/8
4-133-2	4-233-2		5/8	2	33/8
4-117-4	4-217-4	1/2	1/4	7/8	17/8
4-123-4	4-223-4		5/8	1	23/8
4-127-4	4-227-4		5/8	1 1/2	27/8
4-133-4	4-233-4		5/8	2	33/8
4-117-6	4-217-6	3/4	1/4	7/8	17/8
4-123-6	4-223-6		5/8	1	23/8
4-127-6	4-227-6		5/8	1 1/2	27/8
4-133-6	4-233-6		5/8	2	33/8
4-117-8	4-217-8	1	1/4	7/8	17/8
4-123-8	4-223-8		5/8	1	23/8
4-127-8	4-227-8		5/8	1 1/2	27/8
4-133-8	4-233-8		5/8	2	33/8
4-117-10	4-217-10	1 1/4	1/4	7/8	17/8
4-123-10	4-223-10		5/8	1	23/8
4-127-10	4-227-10		5/8	1 1/2	27/8
4-133-10	4-233-10		5/8	2	33/8
4-117-12	4-217-12	1 1/2	1/4	7/8	17/8
4-123-12	4-223-12		5/8	1	23/8
4-127-12	4-227-12		5/8	1 1/2	27/8
4-133-12	4-233-12		5/8	2	33/8
4-117-14	4-217-14	1 3/4	1/4	7/8	17/8
4-123-14	4-223-14		5/8	1	23/8
4-127-14	4-227-14		5/8	1 1/2	27/8
4-133-14	4-233-14		5/8	2	33/8

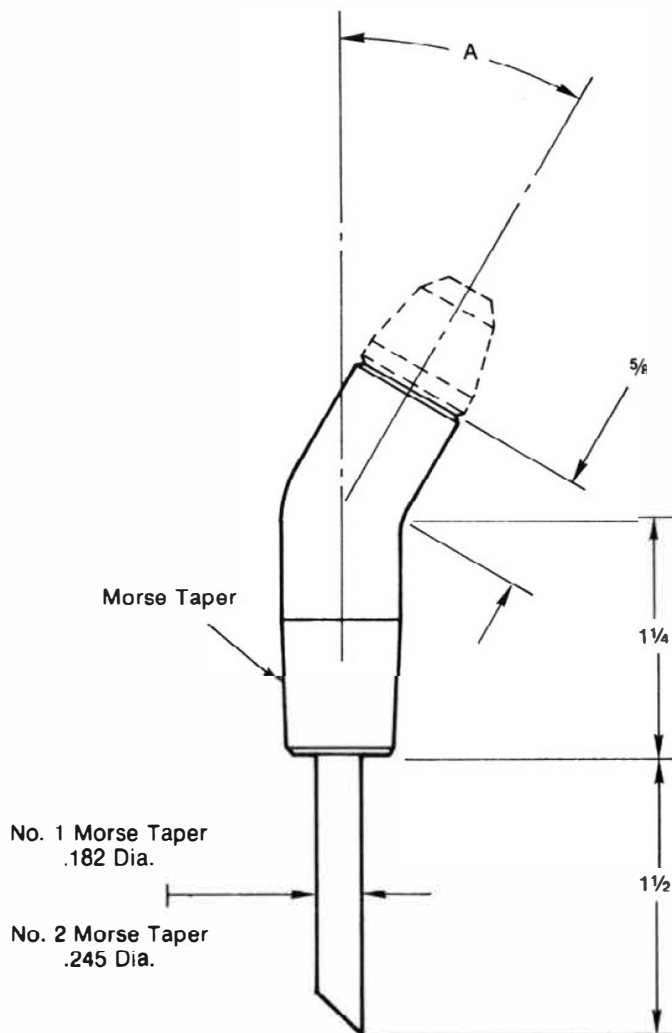
**ALL SHANKS ARE FURNISHED
WITH WATER TUBES**

**ALL SHANKS ARE COLD FORMED
FROM R.W.M.A. CLASS II ALLOY**

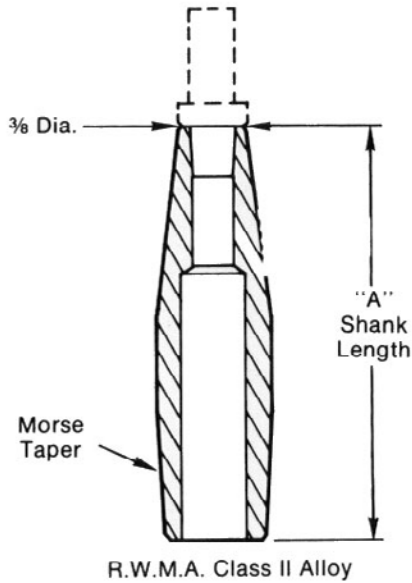
PACIFIC

SINGLE BEND SHANKS

COLD FORMED FROM R.W.M.A. CLASS II COPPER
 FOR USE WITH INSERTS SHOWN ON PAGES 12 AND 13

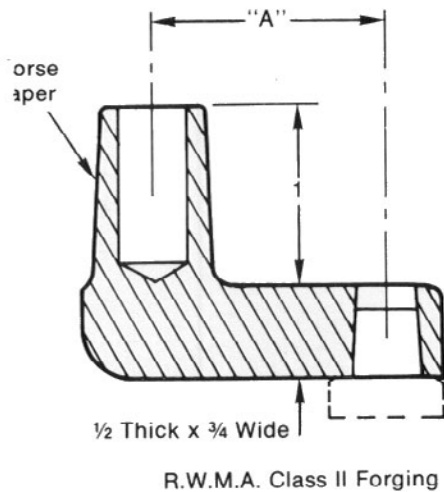


	A BEND	PART No.
No. 1 MORSE TAPER	15°	51-15
	30°	51-30
	45°	51-45
	60°	51-60
	75°	51-75
	90°	51-90
No. 2 MORSE TAPER	15°	52-15
	30°	52-30
	45°	52-45
	60°	52-60
	75°	52-75
	90°	52-90



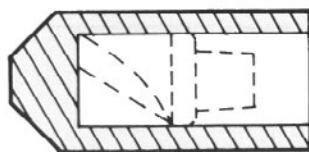
TAPER NOSE SHANKS

PART NUMBER		"A" SHANK LENGTH	USE WITH INSERTS
No. 1 MORSE TAPER	No. 2 MORSE TAPER		
2114 2120 2124	2214 2220 2224	1½ 2 2½	Series "O" Page 11
2130 2134 2140	2230 2234 2240	3 3½ 4	



OFFSET FORGED SHANKS

PART NUMBER		"A" OFFSET	USE WITH INSERTS
No. 1 MORSE TAPER	No. 2 MORSE TAPER		
OSF-10 OSF-11 OSF-12	OSF-20 OSF-21 OSF-22	1¼ 1¼ 1¼	Series "O" Page 11 Series "1" Page 12 Series "2" Page 13



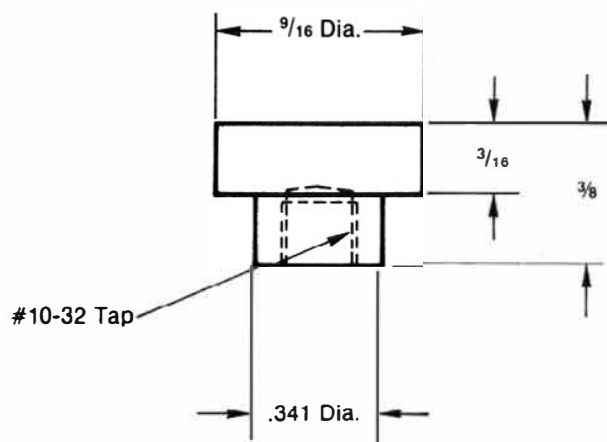
INJECTOR PUNCH

PART NUMBER	USE WITH INSERTS
OP-1	Series "1" Page 12
OP-2	Series "2" Page 13

PACIFIC

SOCKET ELECTRODES SERIES "T" INSERTS

FOR USE WITH HOLDERS SHOWN ON PAGE 25



T-F-1	T-C-1	T-R-1	T-O-1	T-A-1
T-F-2	T-C-2	T-R-2	T-O-2	T-A-2

LAST DASH No. INDICATES CLASS OF ALLOY

**ECONOMICAL "O" SERIES INSERTS.
 OFFERED IN FOUR ALLOY CLASSES,
 DESIGNED FOR USE WITH THE
 FOLLOWING PACIFIC SHANKS.**

TAPER NOSE SHANKS (NO. 1 AND NO. 2 MORSE TAPER) PAGE 9

OFFSET FORGED SHANKS (NO. 1 AND NO. 2 MORSE TAPER) PAGE 9

CODE

O-S5-2



O - INSERT SERIES

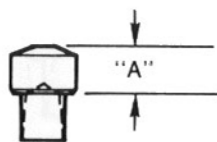
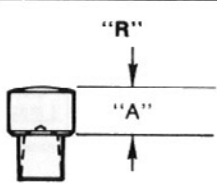
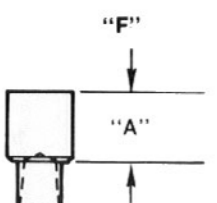
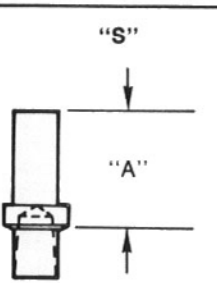
-

S - NOSE SHAPE

5 - "A" LENGTH IN EIGHTHS

-

2 - CLASS ALLOY

"C"	PART NUMBER			"A" HEAD LENGTH	WELDING FACE DIA.	HEAD DIA.	SKIRT LENGTH
	CLASS I	CLASS II	CLASS III				
	O-C-1	O-C-2	O-C-3	1/4	5/32	3/8	1/4
	O-R-1	O-R-2	O-R-3	1/4	2" R	3/8	1/4
	O-F2-1 O-F3-1 O-F5-1	O-F2-2 O-F3-2 O-F5-2	O-F2-3 O-F3-3 O-F5-3	1/4 3/8 5/8	3/8	3/8	1/4
	O-S3-1 O-S4-1 O-S5-1 O-S7-1 O-S8-1	O-S3-2 O-S4-2 O-S5-2 O-S7-2 O-S8-2	O-S3-3 O-S4-3 O-S5-3 O-S7-3 O-S8-3	3/8 1/2 5/8 7/8 1"	1/4	3/8	1/4

PACIFIC

SERIES "1" INSERTS

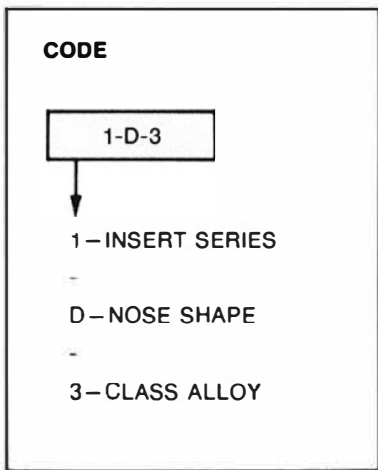
FOR USE WITH No. 1 MORSE TAPER PACIFIC SHANKS

STRAIGHT SHANKS PAGE 6

DOUBLE BEND SHANKS PAGE 7

SINGLE BEND SHANKS PAGE 8

OFFSET FORGED SHANKS PAGE 9



"OH"
 OFFSET
 SHORT HEAD



"FH"
 FLAT
 SHORT HEAD



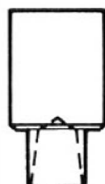
"RH"
 RADIUS
 SHORT HEAD



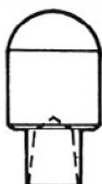
"CH"
 CONE
 SHORT HEAD



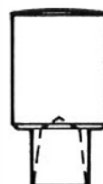
"P"
 POINTED



"F"
 FLAT



"D"
 DOME



"R"
 RADIUS



"C"
 CONE



"O"
 OFFSET

		PART NUMBER			WELDING FACE DIA.	HEAD DIA.	HEAD LENGTH	SKIRT LENGTH
		CLASS I	CLASS II	CLASS III				
POINTED FLAT DOME	"P"	1-P-1	1-P-2	1-P-3	$\frac{3}{16}$ $\frac{1}{2}$ $\frac{1}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{5}{16}$
	"F"	1-F-1	1-F-2	1-F-3				
	"D"	1-D-1	1-D-2	1-D-3				
RADIUS CONE OFFSET	"R"	1-R-1	1-R-2	1-R-3	2" R $\frac{3}{16}$ $\frac{3}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{5}{16}$
	"C"	1-C-1	1-C-2	1-C-3				
	"O"	1-O-1	1-O-2	1-O-3				
SHORT HEAD	"OH" "FH" "RH" "CH"	1-OH-1 1-FH-1 1-RH-1 1-CH-1	1-OH-2 1-FH-2 1-RH-2 1-CH-2	1-OH-3 1-FH-3 1-RH-3 1-CH-3	$\frac{3}{16}$ $\frac{1}{2}$ 2" R $\frac{3}{16}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$

PACIFIC

SERIES "2" INSERTS

FOR USE WITH No. 2 MORSE TAPER PACIFIC SHANKS

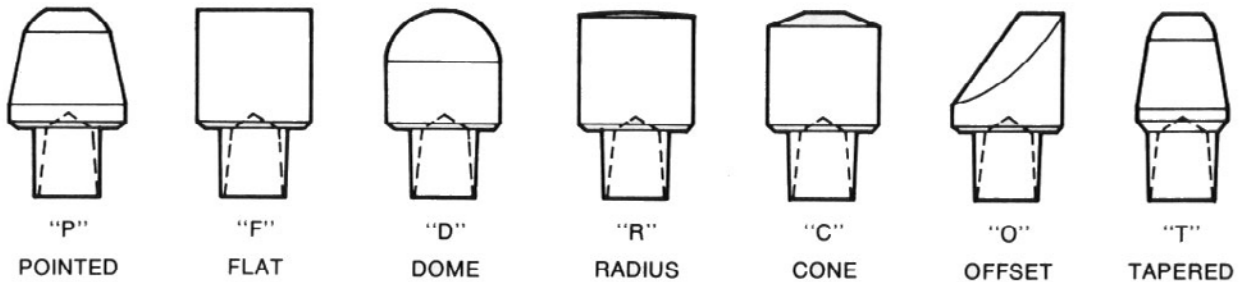
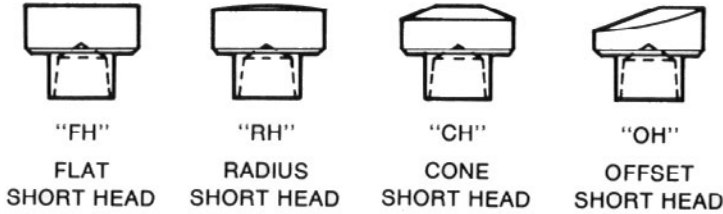
STRAIGHT SHANKS PAGE 6
 DOUBLE BEND SHANKS PAGE 7
 SINGLE BEND SHANKS PAGE 8
 OFFSET FORGED SHANKS PAGE 9

CODE

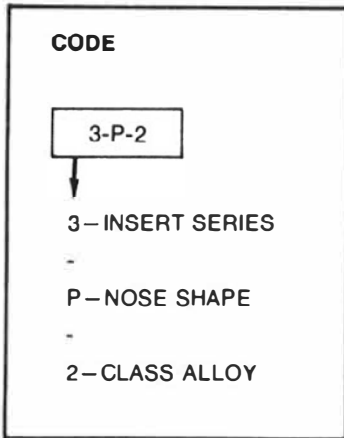
2-P-2

↓

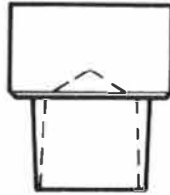
2-INSERT SERIES
 -
 P-NOSE SHAPE
 -
 2-CLASS ALLOY



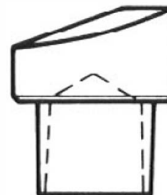
		PART NUMBER			WELDING FACE DIA.	HEAD DIA.	HEAD LENGTH	SKIRT LENGTH
		CLASS I	CLASS II	CLASS III				
POINTED FLAT DOME	"P"	2-P-1	2-P-2	2-P-3	1/4 5/8 1/8	5/8	5/8	3/8
	"F"	2-F-1	2-F-2	2-F-3				
	"D"	2-D-1	2-D-2	2-D-3				
RADIUS CONE OFFSET	"R"	2-R-1	2-R-2	2-R-3	2" R 1/4 1/4	5/8	5/8	3/8
	"C"	2-C-1	2-C-2	2-C-3				
	"O"	2-O-1	2-O-2	2-O-3				
TAPERED	"T"	2-T-1	2-T-2	2-T-3	1/4	1/2		
SHORT HEAD	"FH"	2-FH-1	2-FH-2	2-FH-3	5/8 2" R 1/4 1/4	5/8	1/4	1/4
	"RH"	2-RH-1	2-RH-2	2-RH-3				
	"CH"	2-CH-1	2-CH-2	2-CH-3				
	"OH"	2-OH-1	2-OH-2	2-OH-3				



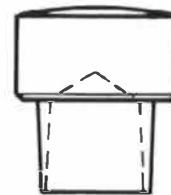
FLAT
SHORT HEAD
"FH"



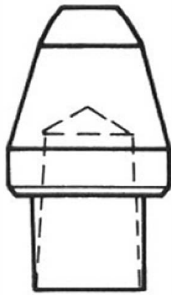
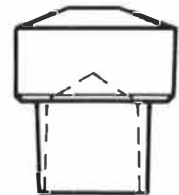
OFFSET
SHORT HEAD
"OH"



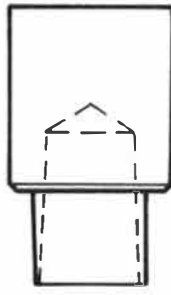
RADIUS
SHORT HEAD
"RH"



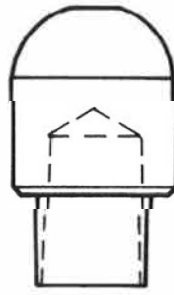
CONE
SHORT HEAD
"CH"



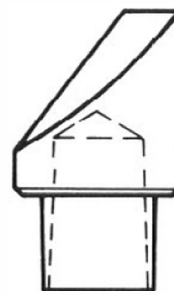
"P"
POINTED



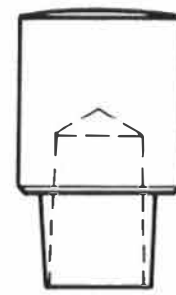
"F"
FLAT



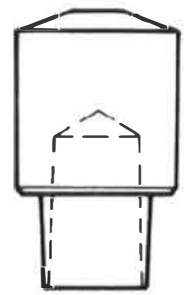
"D"
DOME



"O"
OFFSET



"R"
RADIUS



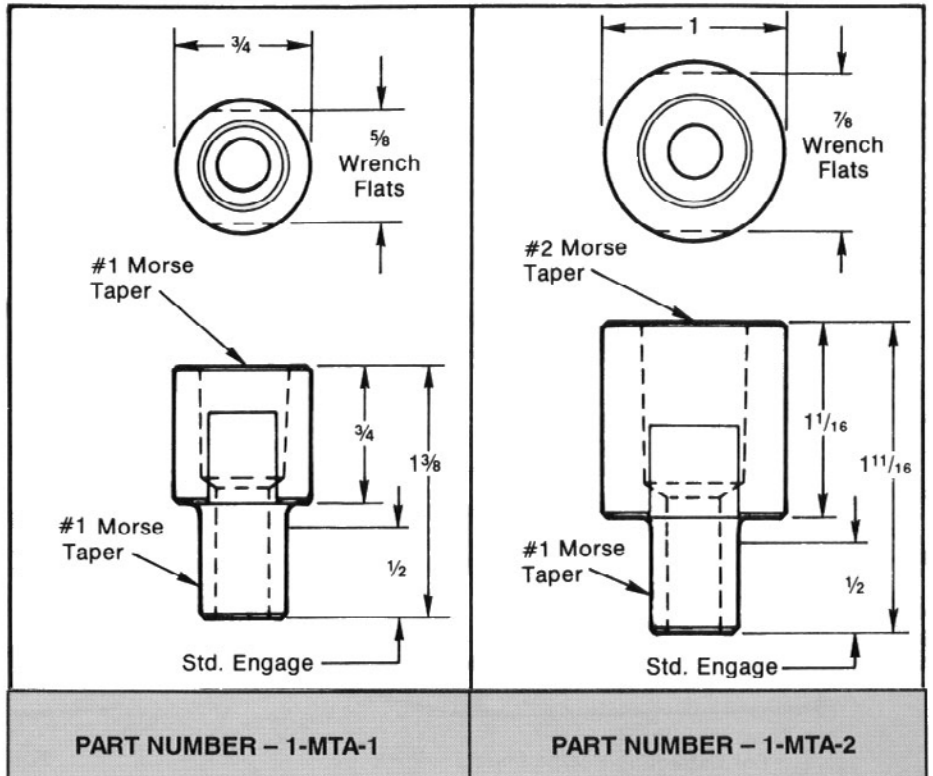
"C"
CONE

		PART NUMBER			WELDING FACE DIA.	HEAD DIA.	HEAD LENGTH	SKIRT LENGTH
		CLASS I	CLASS II	CLASS III				
POINTED FLAT DOME	"P"	3-P-1	3-P-2	3-P-3	5/16 7/8 1/4	7/8	1"	1/2
	"F"	3-F-1	3-F-2	3-F-3				
	"D"	3-D-1	3-D-2	3-D-3				
OFFSET RADIUS CONE	"O"	3-O-1	3-O-2	3-O-3	5/16 2" R. 5/16			
	"R"	3-R-1	3-R-2	3-R-3				
	"C"	3-C-1	3-C-2	3-C-3				
SHORT HEAD	"FH"	3-FH-1	3-FH-2	3-FH-3	7/8 5/16 2" R. 5/16	7/8	1/2	1/2
	"OH"	3-OH-1	3-OH-2	3-OH-3				
	"RH"	3-RH-1	3-RH-2	3-RH-3				
	"CH"	3-CH-1	3-CH-2	3-CH-3				

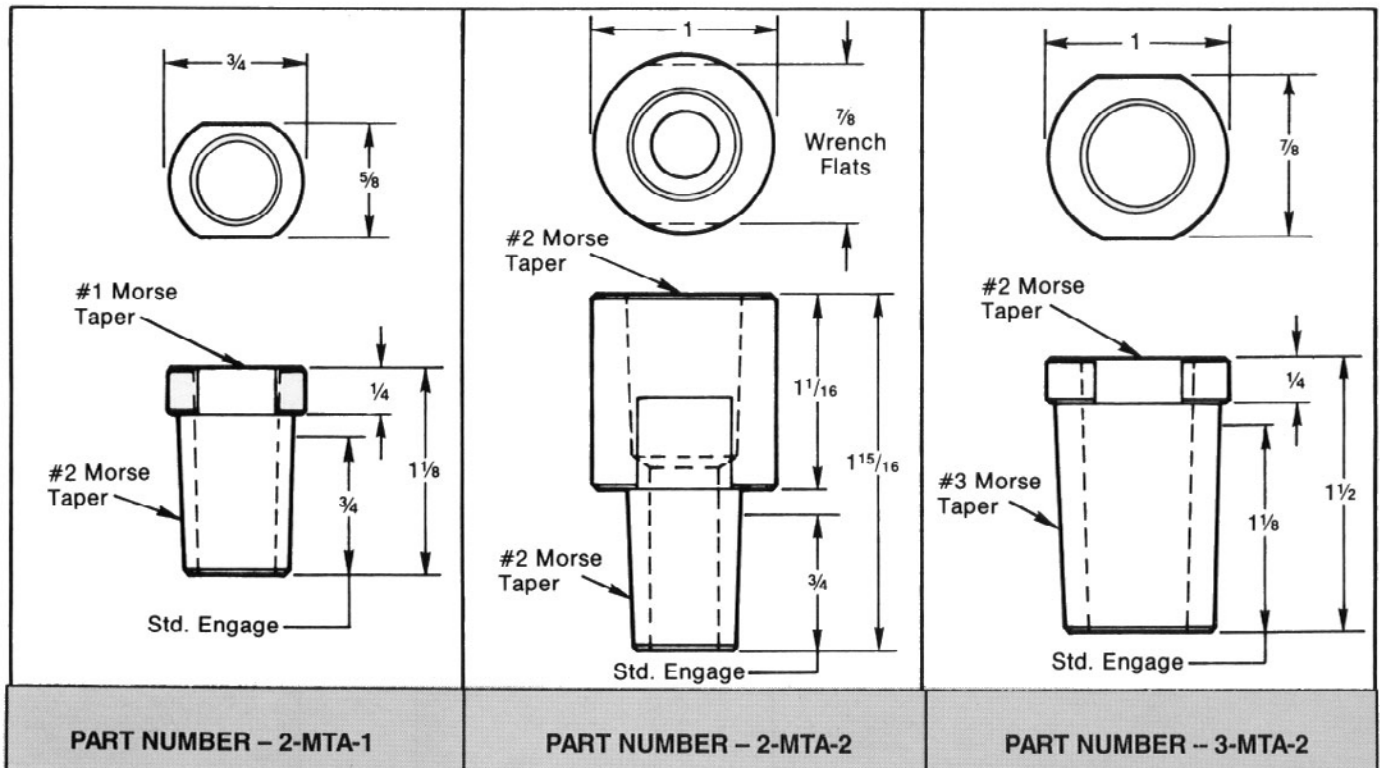
MORSE TAPER ADAPTERS

OTHER TAPER AND
 THREADED ADAPTERS
 ON REQUEST.

ELECTRODE ADAPTERS
 FOR PACIFIC UNIVERSAL
 AND THREADED HOLDERS
 SHOWN ON PAGE 27



ALL ADAPTERS - R.W.M.A. CLASS II ALLOY



PACIFIC

ONE-PIECE STRAIGHT ELECTRODES

OVERALL LENGTH	<p>POINTED</p> <p>No. 1 Morse Taper</p>																					
	A	B																				
	<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>P-112-1</td> <td>P-112-2</td> </tr> <tr> <td>P-114-1</td> <td>P-114-2</td> </tr> <tr> <td>P-116-1</td> <td>P-116-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	P-112-1	P-112-2	P-114-1	P-114-2	P-116-1	P-116-2	<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>F-112-1</td> <td>F-112-2</td> </tr> <tr> <td>F-114-1</td> <td>F-114-2</td> </tr> <tr> <td>F-116-1</td> <td>F-116-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	F-112-1	F-112-2	F-114-1	F-114-2	F-116-1	F-116-2
PART NUMBER																						
CLASS I	CLASS II																					
P-112-1	P-112-2																					
P-114-1	P-114-2																					
P-116-1	P-116-2																					
PART NUMBER																						
CLASS I	CLASS II																					
F-112-1	F-112-2																					
F-114-1	F-114-2																					
F-116-1	F-116-2																					
1 1/4 1 1/2 1 3/4	1/2 1/2 3/4																					
2 2 1/4 2 1/2	3/4																					
2 3/4 3 3 1/4	3/4																					

No. 1 MORSE TAPER

<p>FLAT</p>	<p>DOMED</p>	<p>OFFSET</p>																			
<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>D-112-1</td> <td>D-112-2</td> </tr> <tr> <td>D-114-1</td> <td>D-114-2</td> </tr> <tr> <td>D-116-1</td> <td>D-116-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	D-112-1	D-112-2	D-114-1	D-114-2	D-116-1	D-116-2	<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>O-112-1</td> <td>O-112-2</td> </tr> <tr> <td>O-114-1</td> <td>O-114-2</td> </tr> <tr> <td>O-116-1</td> <td>O-116-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	O-112-1	O-112-2	O-114-1	O-114-2	O-116-1	O-116-2
PART NUMBER																					
CLASS I	CLASS II																				
D-112-1	D-112-2																				
D-114-1	D-114-2																				
D-116-1	D-116-2																				
PART NUMBER																					
CLASS I	CLASS II																				
O-112-1	O-112-2																				
O-114-1	O-114-2																				
O-116-1	O-116-2																				

OVERALL LENGTH	<p>POINTED</p> <p>No. 2 Morse Taper</p>																					
	A	B																				
	<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>P-212-1</td> <td>P-212-2</td> </tr> <tr> <td>P-214-1</td> <td>P-214-2</td> </tr> <tr> <td>P-216-1</td> <td>P-216-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	P-212-1	P-212-2	P-214-1	P-214-2	P-216-1	P-216-2	<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>F-212-1</td> <td>F-212-2</td> </tr> <tr> <td>F-214-1</td> <td>F-214-2</td> </tr> <tr> <td>F-216-1</td> <td>F-216-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	F-212-1	F-212-2	F-214-1	F-214-2	F-216-1	F-216-2
PART NUMBER																						
CLASS I	CLASS II																					
P-212-1	P-212-2																					
P-214-1	P-214-2																					
P-216-1	P-216-2																					
PART NUMBER																						
CLASS I	CLASS II																					
F-212-1	F-212-2																					
F-214-1	F-214-2																					
F-216-1	F-216-2																					
1 1/4 1 1/2 1 3/4	1/2 3/4 3/4																					
2 2 1/4 2 1/2	1 1/8																					
2 3/4 3 3 1/4	1 1/8																					

OTHER STANDARD NOSE SHAPES AVAILABLE (C) CONE (R) RADIUS

No. 2 MORSE TAPER

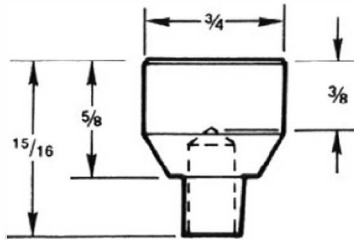
<p>FLAT</p>	<p>DOMED</p>	<p>OFFSET</p>																			
<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>D-212-1</td> <td>D-212-2</td> </tr> <tr> <td>D-214-1</td> <td>D-214-2</td> </tr> <tr> <td>D-216-1</td> <td>D-216-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	D-212-1	D-212-2	D-214-1	D-214-2	D-216-1	D-216-2	<table border="1"> <thead> <tr> <th colspan="2">PART NUMBER</th> </tr> <tr> <th>CLASS I</th> <th>CLASS II</th> </tr> </thead> <tbody> <tr> <td>O-212-1</td> <td>O-212-2</td> </tr> <tr> <td>O-214-1</td> <td>O-214-2</td> </tr> <tr> <td>O-216-1</td> <td>O-216-2</td> </tr> </tbody> </table>	PART NUMBER		CLASS I	CLASS II	O-212-1	O-212-2	O-214-1	O-214-2	O-216-1	O-216-2
PART NUMBER																					
CLASS I	CLASS II																				
D-212-1	D-212-2																				
D-214-1	D-214-2																				
D-216-1	D-216-2																				
PART NUMBER																					
CLASS I	CLASS II																				
O-212-1	O-212-2																				
O-214-1	O-214-2																				
O-216-1	O-216-2																				

BACK-UP INSERTS AND ELECTRODES

BACK-UP INSERTS R.W.M.A. CLASS II ALLOY

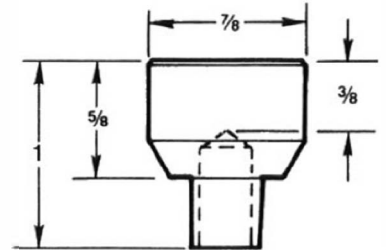
FOR USE WITH NO. 1 AND NO. 2
 MORSE TAPER PACIFIC SHANKS.

REFER TO PAGE 6 FOR MATING SHANKS.



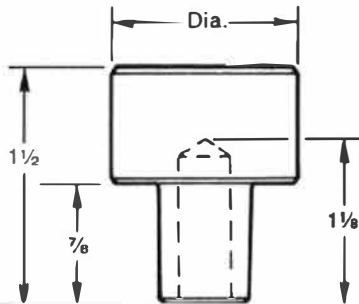
SERIES "1" INSERT

PART NUMBER - 1-B-2



SERIES "2" INSERT

PART NUMBER - 2-B-2

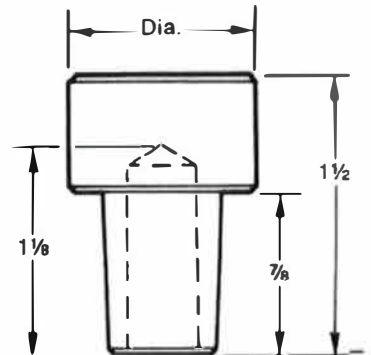


NO. 1 MORSE TAPER

BACK-UP ELECTRODES R.W.M.A. CLASS II ALLOY

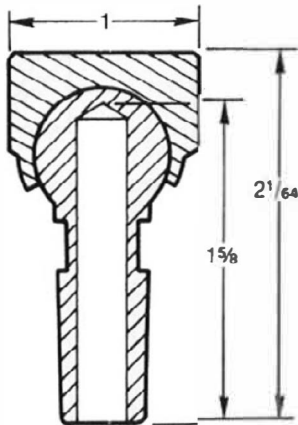
PART NUMBER

NO. 1 MORSE TAPER	Dia.	NO. 2 MORSE TAPER
1B-75-2	3/4	2B-75-2
1B-87-2	7/8	2B-87-2
1B-100-2	1"	2B-100-2
1B-125-2	1 1/4	2B-125-2



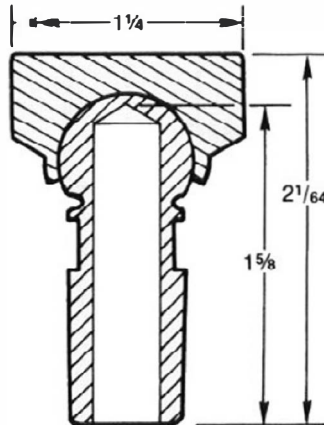
NO. 2 MORSE TAPER

SWIVEL HEAD ELECTRODES



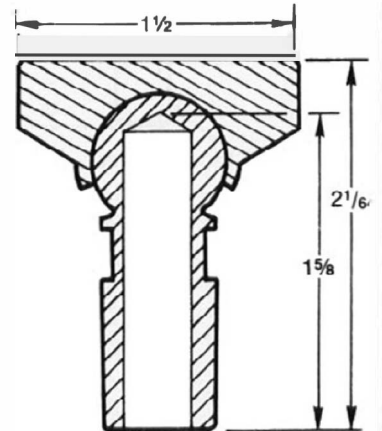
PART NUMBER

NO. 1 MORSE TAPER ± 1ST-100-1
 NO. 2 MORSE TAPER ± 2ST-100-1



PART NUMBER

NO. 1 MORSE TAPER ± 1ST-125-1
 NO. 2 MORSE TAPER ± 2ST-125-1



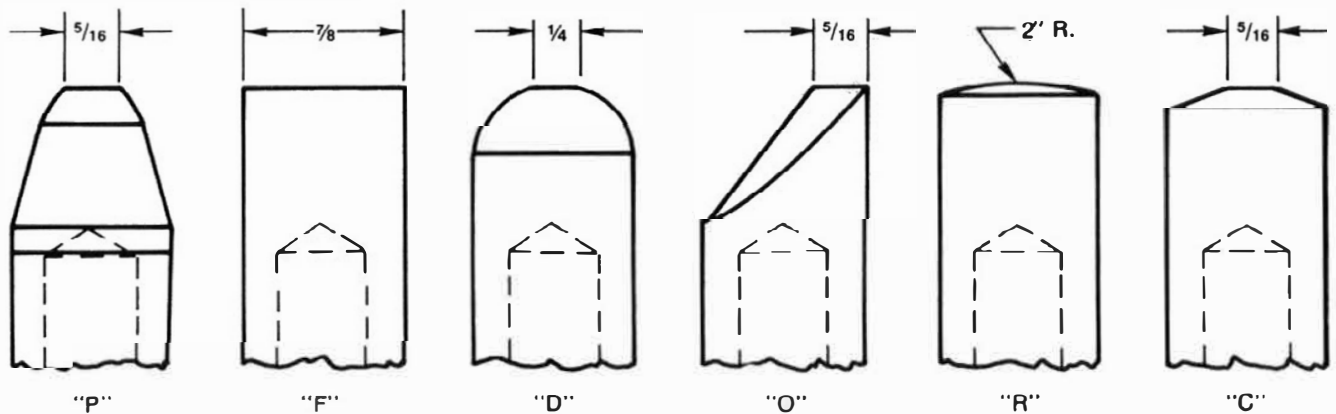
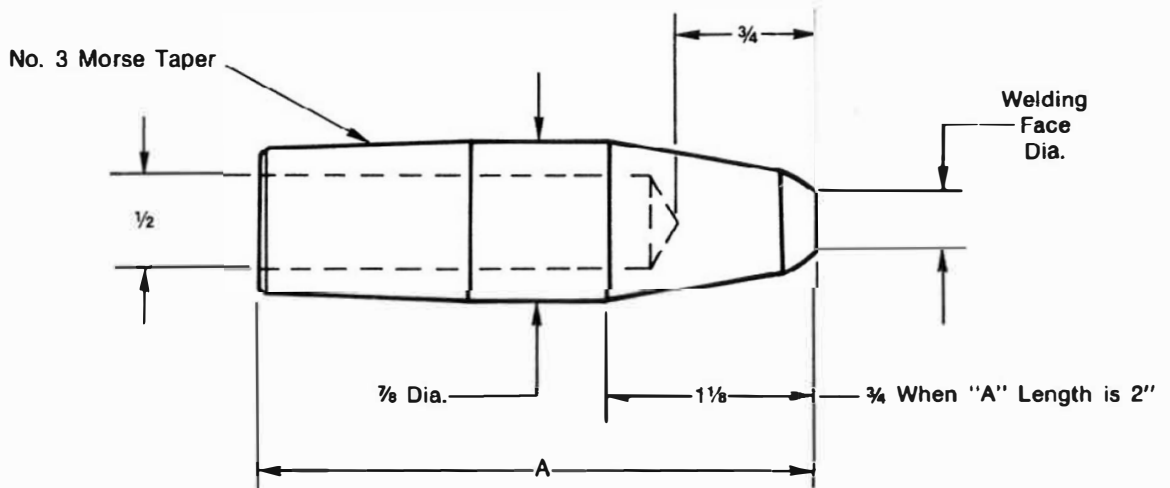
PART NUMBER

NO. 1 MORSE TAPER ± 1ST-150-1
 NO. 2 MORSE TAPER ± 2ST-150-1

PACIFIC

ONE-PIECE STRAIGHT ELECTRODES

No. 3 MORSE TAPER



A OVERALL LENGTH	PART NUMBER						A OVERALL LENGTH
	R.W.M.A. CLASS I ALLOY COPPER						
	"P"	"F"	"D"	"O"	"R"	"C"	
2 2 1/2 3	P-320-1 P-324-1 P-330-1	F-320-1 F-324-1 F-330-1	D-320-1 D-324-1 D-330-1	O-320-1 O-324-1 O-330-1	R-320-1 R-324-1 R-330-1	C-320-1 C-324-1 C-330-1	2 2 1/2 3
	R.W.M.A. CLASS II ALLOY COPPER						
2 2 1/2 3	P-320-2 P-324-2 P-330-2	F-320-2 F-324-2 F-330-2	D-320-2 D-324-2 D-330-2	O-320-2 O-324-2 O-330-2	R-320-2 R-324-2 R-330-2	C-320-2 C-324-2 C-330-2	2 2 1/2 3

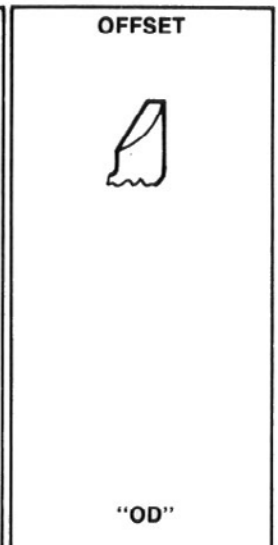
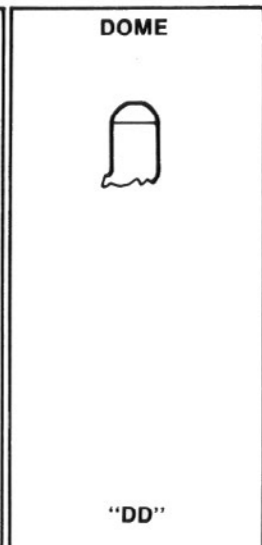
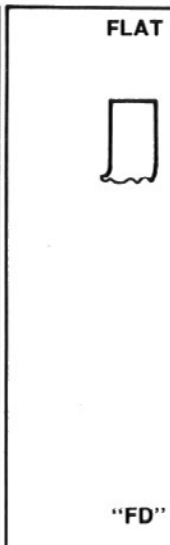
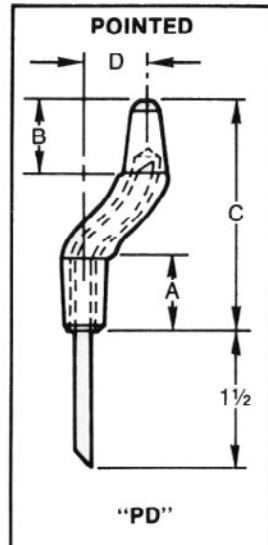
ONE-PIECE DOUBLE BEND ELECTRODES

COLD FORMED FROM R.W.M.A. CLASS I AND II ALLOY

For Nose Dimensions
Refer To Page 18

Other Nose Shapes
Available—
"CD"—Cone
"RD"—2" Radius

Water Tube Size
No. 1 Morse Taper .182 Dia.
No. 2 Morse Taper .245 Dia.

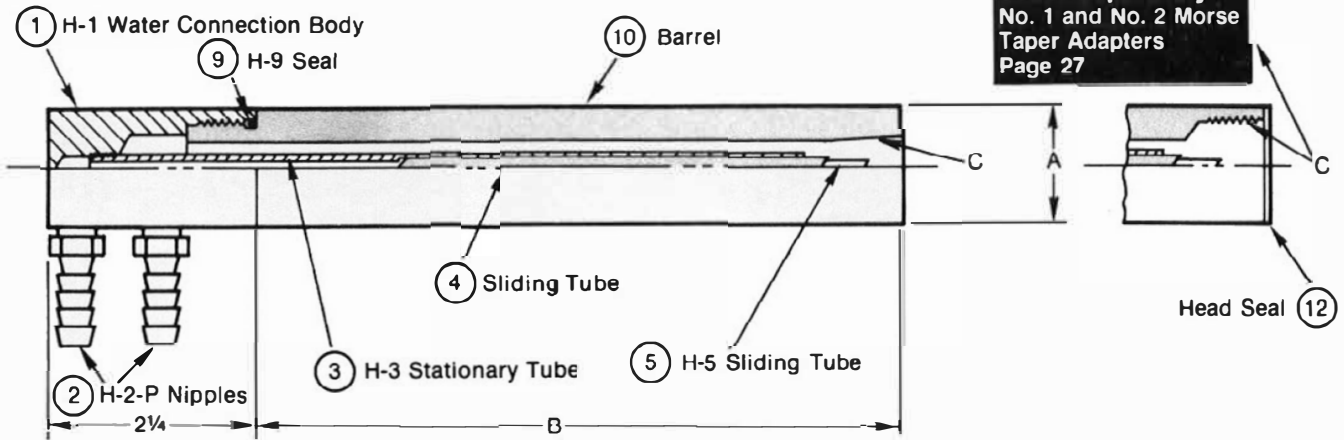


No. 1 MORSE TAPER

TAPER LENGTH "A"	NOSE LENGTH "B"	OVERALL LENGTH "C"	OFFSET "D"	PART NUMBER		PART NUMBER		PART NUMBER		PART NUMBER	
				CLASS I	CLASS II	CLASS I	CLASS II	CLASS I	CLASS II	CLASS I	CLASS II
3/4	3/4	2	1/2	PD-11-A4	PD-12-A4	FD-11-A4	FD-12-A4	DD-11-A4	DD-12-A4	OD-11-A4	OD-12-A4
1 3/4	3/4	3		PD-11-B4	PD-12-B4	FD-11-B4	FD-12-B4	DD-11-B4	DD-12-B4	OD-11-B4	OD-12-B4
3/4	1 3/4	3		PD-11-C4	PD-12-C4	FD-11-C4	FD-12-C4	DD-11-C4	DD-12-C4	OD-11-C4	OD-12-C4
3/4	3/4	2	3/4	PD-11-A6	PD-12-A6	FD-11-A6	FD-12-A6	DD-11-A6	DD-12-A6	OD-11-A6	OD-12-A6
1 3/4	3/4	3		PD-11-B6	PD-12-B6	FD-11-B6	FD-12-B6	DD-11-B6	DD-12-B6	OD-11-B6	OD-12-B6
3/4	1 3/4	3		PD-11-C6	PD-12-C6	FD-11-C6	FD-12-C6	DD-11-C6	DD-12-C6	OD-11-C6	OD-12-C6
3/4	3/4	2	1	PD-11-A8	PD-12-A8	FD-11-A8	FD-12-A8	DD-11-A8	DD-12-A8	OD-11-A8	OD-12-A8
1 3/4	3/4	3		PD-11-B8	PD-12-B8	FD-11-B8	FD-12-B8	DD-11-B8	DD-12-B8	OD-11-B8	OD-12-B8
3/4	1 3/4	3		PD-11-C8	PD-12-C8	FD-11-C8	FD-12-C8	DD-11-C8	DD-12-C8	OD-11-C8	OD-12-C8
3/4	3/4	2 1/8	1 1/4	PD-11-A10	PD-12-A10	FD-11-A10	FD-12-A10	DD-11-A10	DD-12-A10	OD-11-A10	OD-12-A10
1 3/4	3/4	3 1/8		PD-11-B10	PD-12-B10	FD-11-B10	FD-12-B10	DD-11-B10	DD-12-B10	OD-11-B10	OD-12-B10
3/4	1 3/4	3 1/8		PD-11-C10	PD-12-C10	FD-11-C10	FD-12-C10	DD-11-C10	DD-12-C10	OD-11-C10	OD-12-C10

No. 2 MORSE TAPER

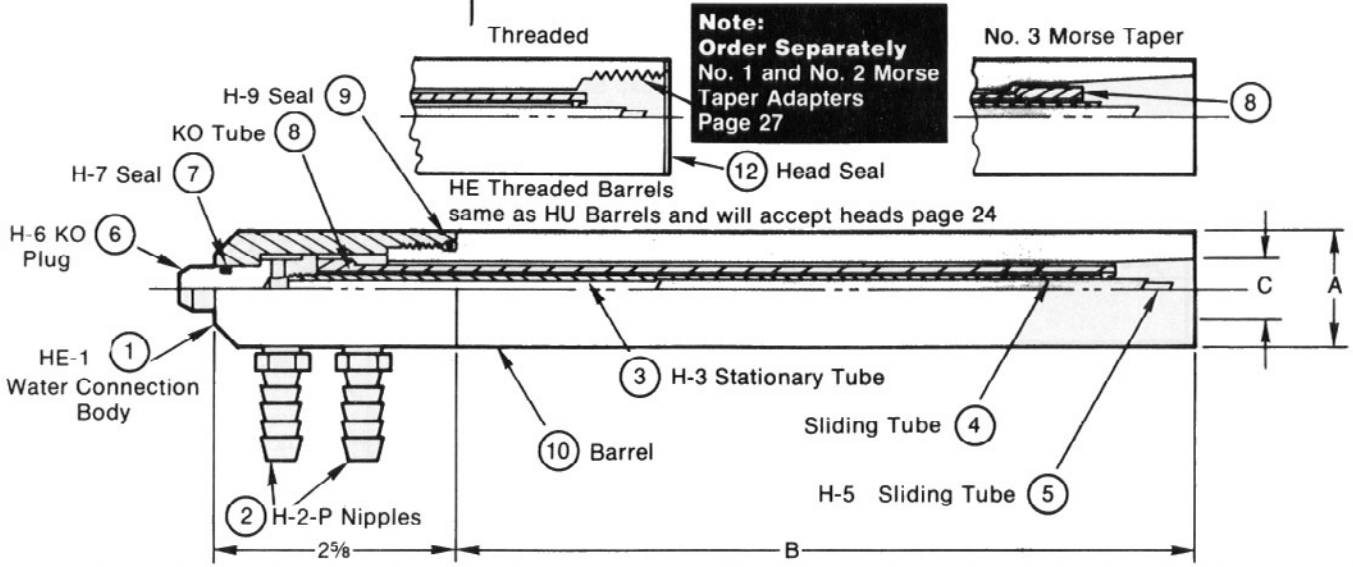
TAPER LENGTH "A"	NOSE LENGTH "B"	OVERALL LENGTH "C"	OFFSET "D"	PART NUMBER		PART NUMBER		PART NUMBER		PART NUMBER	
				CLASS I	CLASS II	CLASS I	CLASS II	CLASS I	CLASS II	CLASS I	CLASS II
1	1	2 1/2	1/2	PD-21-A4	PD-22-A4	FD-21-A4	FD-22-A4	DD-21-A4	DD-22-A4	OD-21-A4	OD-22-A4
1 3/4	1	3 1/4		PD-21-B4	PD-22-B4	FD-21-B4	FD-22-B4	DD-21-B4	DD-22-B4	OD-21-B4	OD-22-B4
1	1 3/4	3 1/4		PD-21-C4	PD-22-C4	FD-21-C4	FD-22-C4	DD-21-C4	DD-22-C4	OD-21-C4	OD-22-C4
1	1	2 5/8	3/4	PD-21-A6	PD-22-A6	FD-21-A6	FD-22-A6	DD-21-A6	DD-22-A6	OD-21-A6	OD-22-A6
1 3/4	1	3 3/8		PD-21-B6	PD-22-B6	FD-21-B6	FD-22-B6	DD-21-B6	DD-22-B6	OD-21-B6	OD-22-B6
1	1 3/4	3 3/8		PD-21-C6	PD-22-C6	FD-21-C6	FD-22-C6	DD-21-C6	DD-22-C6	OD-21-C6	OD-22-C6
1	1	2 5/8	1	PD-21-A8	PD-22-A8	FD-21-A8	FD-22-A8	DD-21-A8	DD-22-A8	OD-21-A8	OD-22-A8
1 3/4	1	3 3/8		PD-21-B8	PD-22-B8	FD-21-B8	FD-22-B8	DD-21-B8	DD-22-B8	OD-21-B8	OD-22-B8
1	1 3/4	3 3/8		PD-21-C8	PD-22-C8	FD-21-C8	FD-22-C8	DD-21-C8	DD-22-C8	OD-21-C8	OD-22-C8
1	1	2 3/4	1 1/4	PD-21-A10	PD-22-A10	FD-21-A10	FD-22-A10	DD-21-A10	DD-22-A10	OD-21-A10	OD-22-A10
1 3/4	1	3 1/2		PD-21-B10	PD-22-B10	FD-21-B10	FD-22-B10	DD-21-B10	DD-22-B10	OD-21-B10	OD-22-B10
1	1 3/4	3 1/2		PD-21-C10	PD-22-C10	FD-21-C10	FD-22-C10	DD-21-C10	DD-22-C10	OD-21-C10	OD-22-C10



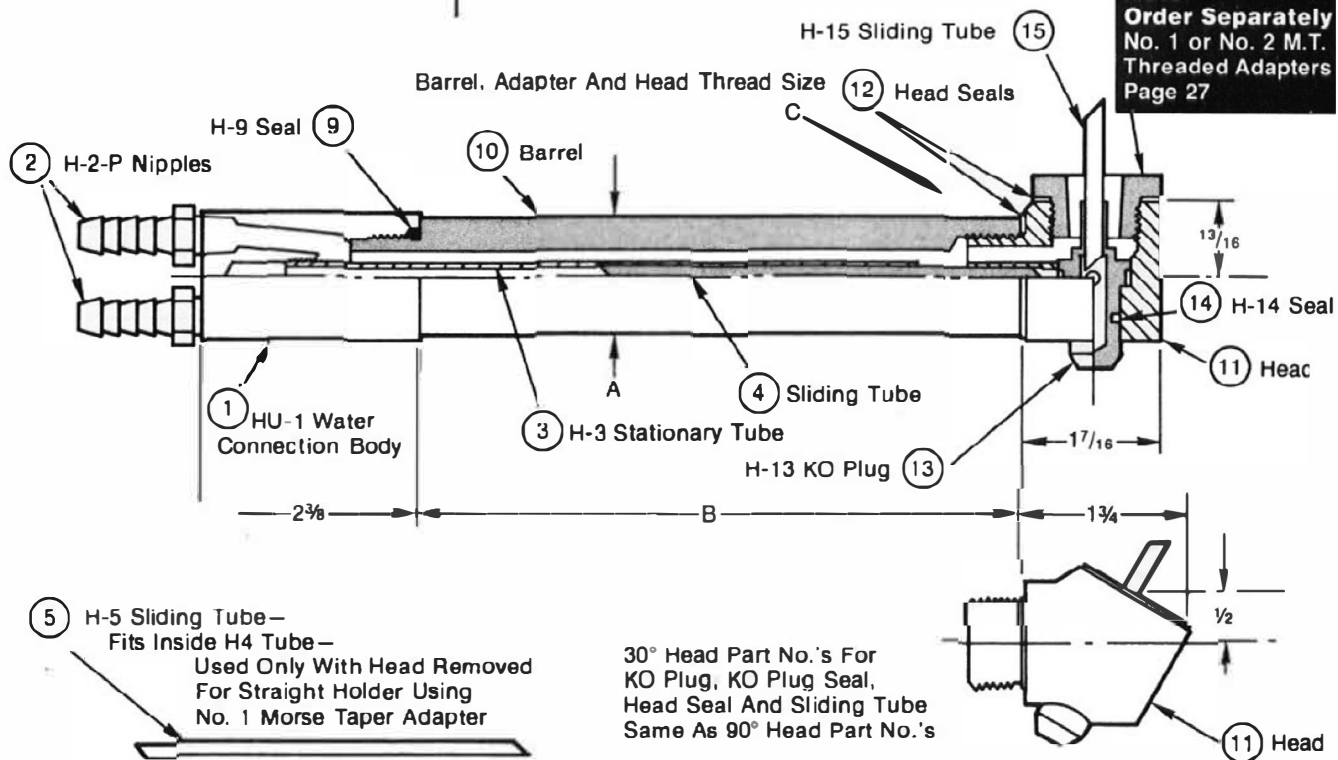
A DIA.	B LENGTH	C TAPER OR THREAD	HOLDER ASSY. No.	WATER CONNECTION ASSY. No. INCLUDES PARTS ① ② ③ ●	SLIDING TUBE ④	SLIDING TUBE ⑤	HEAD SEAL ⑫	BARREL WITH SEALS ● ⑩ ⑫
1	8	1	H-408-1	WC-8	H-4-8	H-5		H1-408
		2	H-408-2			H2-408		
		7/8-14	H-408-T			HT-408		
	12	1	H-412-1	WC-12	H-4-12	H-5	H-12-4	H1-412
		2	H-412-2			H2-412		
		7/8-14	H-412-T			HT-412		
1 1/4	8	1	H-508-1	WC-8	H-4-8	H-5		H1-508
		2	H-508-2			H2-508		
		3	H-508-3			H3-508		
		1-14	H-508-T			HT-508		
	12	1	H-512-1	WC-12	H-4-12	H-5		H1-512
		2	H-512-2			H2-512		
		3	H-512-3			H3-512		
		1-14	H-512-T			HT-512		
1 1/2	8	2	H-608-2	WC-8	H-4-8			H2-608
		3	H-608-3					H3-608
		1-14	H-608-T					HT-608
	12	2	H-612-2	WC-12	H-4-12			H2-612
		3	H-612-3					H3-612
		1-14	H-612-T					HT-612

HE SERIES HOLDERS

WATER COOLED EJECTOR TYPE



A DIA.	B LENGTH	C TAPER OR THREAD	HOLDER ASSY. No.	WATER CONNEXION ASSY. No.	SLIDING TUBE	SLIDING TUBE	KO TUBE	HEAD SEAL	BARREL WITH SEALS	
				INCLUDES PARTS ① ② ③ ④ ⑥ ⑦	④	⑤	⑧	⑫	⑨ ⑩ ⑫	
1	8	1	HE-408-1	WC-E8	H-4-8	H-5	H8-8-1		H1-408	
		2	HE-408-2			H8-8-2	H2-408			
		7/8 - 14	HE-408-T			H-5	H8-8-T		H-12-4	HT-408
	12	1	HE-412-1	WC-E12	H-4-12	H-5	H8-12-1		H1-412	
		2	HE-412-2			H8-12-2	H2-412			
		7/8 - 14	HE-412-T			H-5	H8-12-T		H-12-4	HT-412
1 1/4	8	1	HE-508-1	WC-E8	H-4-8	H-5	H8-8-1		H1-508	
		2	HE-508-2			H8-8-2	H2-508			
		3	HE-508-3			H8-8-3	H3-508			
		1-14	HE-508-T			H-5	H8-8-T		H-12-5	HT-508
	12	1	HE-512-1	WC-E12	H-4-12	H-5	H8-12-1		H1-512	
		2	HE-512-2			H8-12-2	H2-512			
		3	HE-512-3			H8-12-3	H3-512			
		1-14	HE-512-T			H-5	H8-12-T		H-12-5	HT-512
1 1/2	8	1	HE-608-1	WC-E8	H-4-8	H-5	H8-8-1		H1-608	
		2	HE-608-2			H8-8-2	H2-608			
		3	HE-608-3			H8-8-3	H3-608			
		1-14	HE-608-T			H-5	H8-8-T		H-12-5	HT-608
	12	1	HE-612-1	WC-E12	H-4-12	H-5	H8-12-1		H1-612	
		2	HE-612-2			H8-12-2	H2-612			
		3	HE-612-3			H8-12-3	H3-612			
		1-14	HE-612-T			H-5	H8-12-T		H-12-5	HT-612

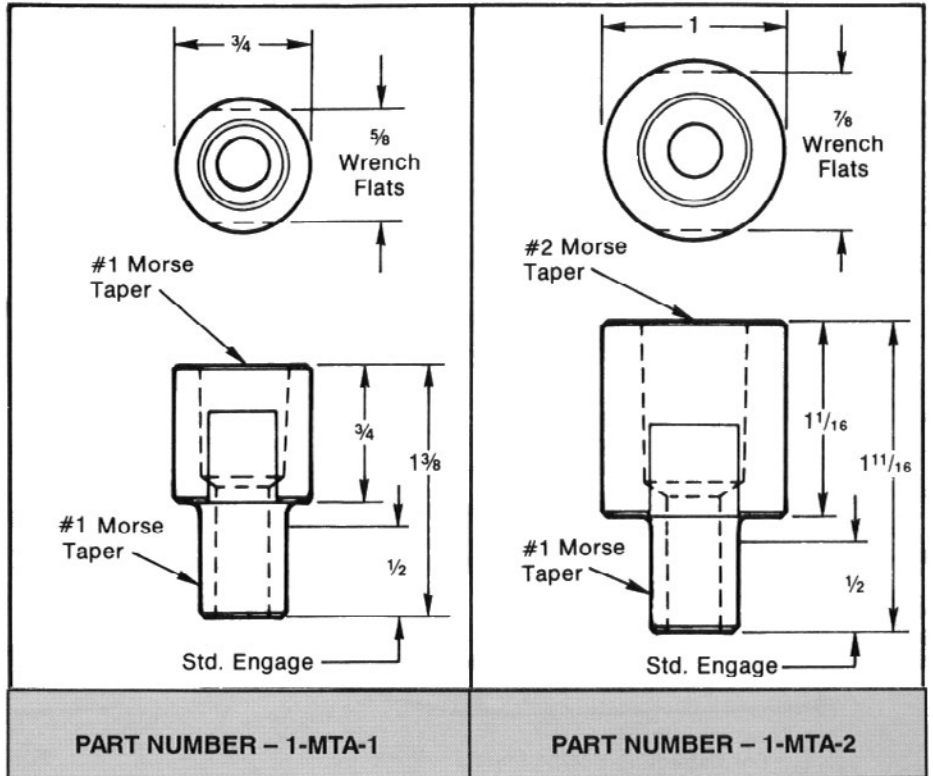


A DIA.	B LENGTH	C THREAD	HOLDER ASSY. NUMBER -90 IS 90 HEAD -30 IS 30 HEAD	HEAD ASSY. NUMBER INCLUDES PARTS ⑪ ⑫ ⑬ ⑭ ⑮	HEAD ⑪	WATER CONNEC-TION ASSY. No. INCLUDES PARTS ① ② ③ ④	SLIDING TUBE ④	HEAD SEALS ⑫	BARREL WITH SEALS ⑨ ⑩ ⑬	
1	8	7/8-14	HU-408-30	HU-430	H-11-430	WC-U8	H-4-8	H-12-4	HT-408	
			HU-408-90	HU-490	H-11-490					
	12	7/8-14	HU-412-30	HU-430	H-11-430	WC-U12	H-4-12			HT-412
			HU-412-90	HU-490	H-11-490					
1 1/4	8	1-14	HU-508-30	HU-530	H-11-530	WC-U8	H-4-8	H-12-5	HT-508	
			HU-508-90	HU-590	H-11-590					
	12	1-14	HU-512-30	HU-530	H-11-530	WC-U12	H-4-12			HT-512
			HU-512-90	HU-590	H-11-590					
1 1/2	8	1-14	HU-608-30	HU-530	H-11-530	WC-U8	H-4-8	H-12-5	HT-608	
			HU-608-90	HU-590	H-11-590					
	12	1-14	HU-612-30	HU-530	H-11-530	WC-U12	H-4-12			HT-612
			HU-612-90	HU-590	H-11-590					

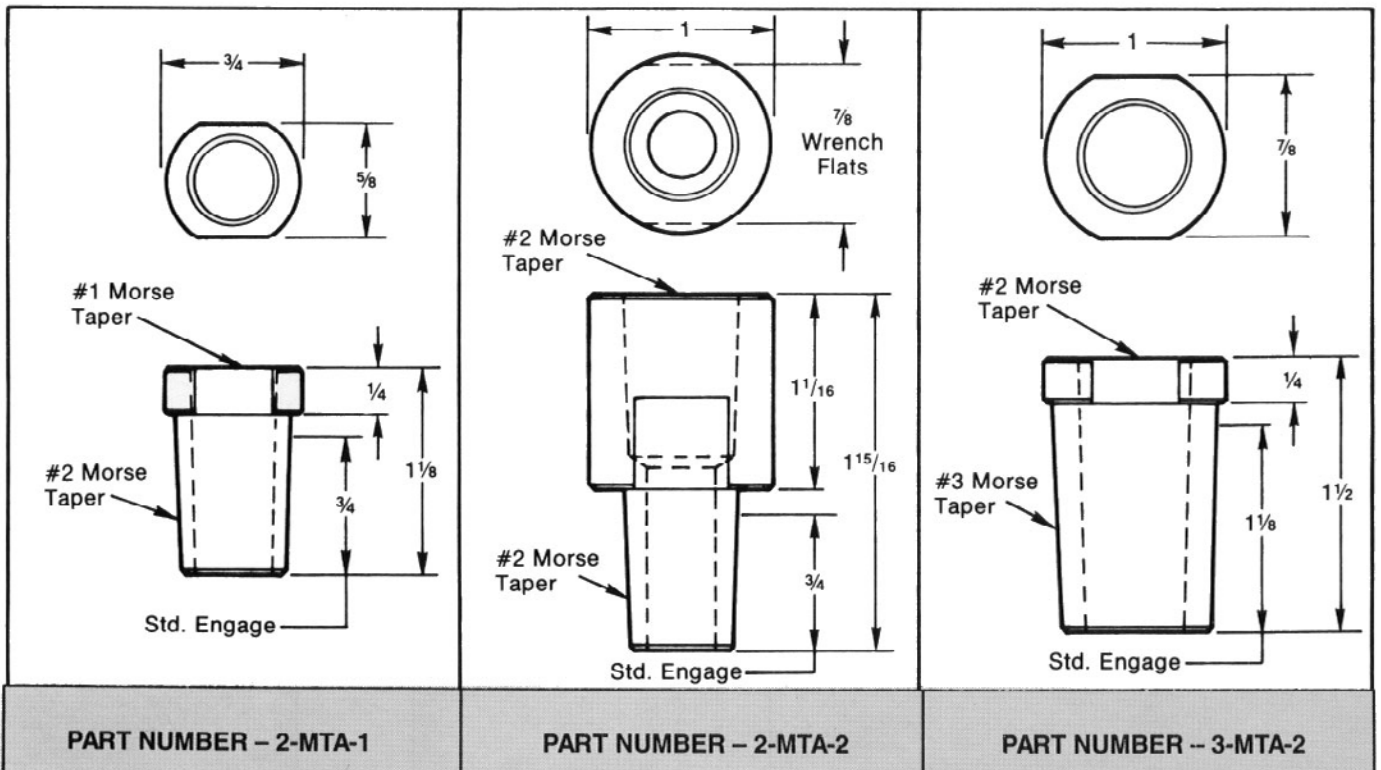
MORSE TAPER ADAPTERS

**OTHER TAPER AND
 THREADED ADAPTERS
 ON REQUEST.**

**ELECTRODE ADAPTERS
 FOR PACIFIC UNIVERSAL
 AND THREADED HOLDERS
 SHOWN ON PAGE 27**

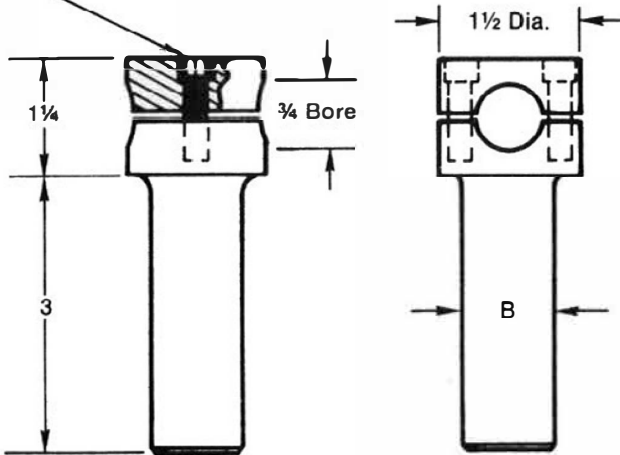


ALL ADAPTERS - R.W.M.A. CLASS II ALLOY



LIGHT DUTY

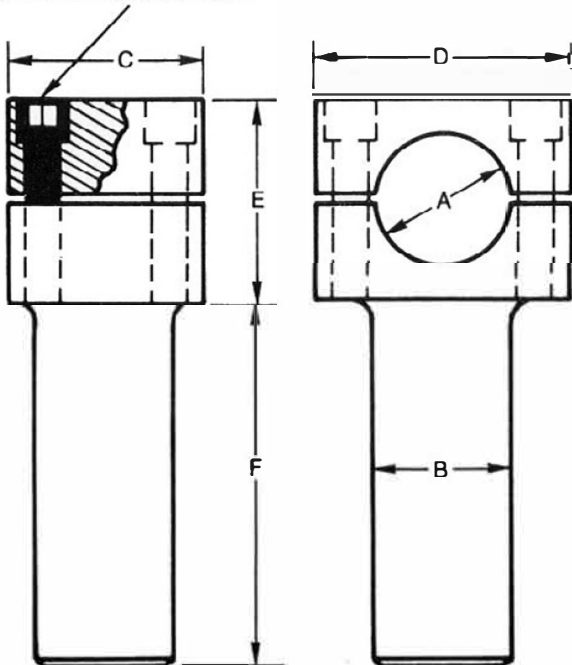
Two Stainless Steel Bolts



PART No.	B DIA.
T-33	3/4
T-34	1
T-35	1 1/4

REGULAR AND HEAVY DUTY

Four Stainless Steel Bolts



PART No.	A HOLE DIA.	B SHANK DIA.	C	D	E	F
T-44	1	1	1 3/4	2 1/2	1 3/4	3 1/4
T-45	1	1 1/4				
T-46	1	1 1/2				
T-54	1 1/4	1				
T-55	1 1/4	1 1/4				
T-56	1 1/4	1 1/2				
T-65	1 1/2	1 1/4				
T-66	1 1/2	1 1/2				

THREADED MORSE TAPER ADAPTERS

FOR ALL THREADED HOLDERS AND HEADS

<p>Head Seal Furnished With Holders - Order Separately From Holder Page</p> <p>1"</p> <p>7/8-14 Thd.</p> <p>A</p> <p>B</p>	A	B	PART No.
	No. 1 M.T.	3/16	1-A-1
	No. 2 M.T.	5/16	1-A-2

CLASS II COPPER

<p>Head Seal Furnished With Holders - Order Separately From Holder Page</p> <p>1 1/4"</p> <p>1 1/4-14 Thd.</p> <p>A</p> <p>B</p>	A	B	PART No.
	No. 1 M.T.	3/16	2-A-1
	No. 2 M.T.	5/16	2-A-2

CLASS II COPPER

SLEEVE ADAPTERS

<p>2 1/2"</p> <p>A</p> <p>B</p>	A	B	PART No.
	3/4	1	3-S-4
		1 1/4	3-S-5
		1 1/2	3-S-6
	1	1 1/4	4-S-5
		1 1/2	4-S-6
1 1/4	1 1/2	5-S-6	

CLASS II COPPER