

# OTTO TOOL

[www.ottotool.com](http://www.ottotool.com)

SQUARING MACHINES | TOOL BITS | COLLETS | SAW BLADES | AMI ORBITAL WELDING COLLETS  
TRI TOOL COLLETS-SADDLE + BITS | E.H. WACHS COLLETS-SADDLE + BITS



800-878-BITS (2487)

PRODUCT CATALOG | SPRING 2007



*Since 1988*

Dear Customer,

We at Otto Tool would like to thank you for your business for the past 19 years. We feel that 2007 is a strong year for Otto Tool, with many new products and improvements to offer you. All of our employees are dedicated to your satisfaction. Please take a few moments and look through our new catalog and discover our many new or improved products.

During the fall of 2006, we had our engineers working on redesigning our tube facing machines, and starting in May-07, we will introduce our two new machines: TSM-1501M & TSM-3001M. Please take a look at these new machines on pages 4-7.

Our beveling tool line will also be expanding, we will offer a full line of beveling tools from 3/4" to 10" pipe. This line of products will be expanded during the next full year.

We are also excited about our tool bits offered for all various brands of machines. Please call for a quote on tool bits for all beveling and tube facing machines on the market. If we do not have it, we will make it for you.

Thank you again for your business, we look forward to working with you and welcome any feedback that you may have. Your business is important to us.

Sincerely,

Alan Avis, President  
Otto Tool, Inc.

## OTTO TOOL

### Facing Machines and Accessories

TSM 1500	2
TSM 1501	4
TSM 3001M	6
TSM 4500M	8

### Saw Guides and Blades 10

### Orbital Welding Heads

500	11
750	12
1500	13
2000-2500	14
3500-4000	15
4500-7500	16

### AMI Orbital Welder Accessories 17

### Tri Tool Aftermarket Accessories 18

Facing Tool Bits	
Sever/Cut-Off Tool Bits	
Collets	
Saddle Collets	

### E.H. Wachs Collets 19

### Tungsten 20

Pre-Ground Tips	
-----------------	--

# TSM 1500

TSM 1500 - Size Range 1/8" to 1-1/2" Tube  
3.175 mm to 38.1 mm | Weight 9 lbs.

## Overview:

This is our first machine and the tool that started a revolution in the field of facing tools. Over the years we have made constant improvements to keep this tool the standard for all tools of this type. Besides our large size range up to 1-1/2" tube, we now offer increment feed control so you can cut burr free tubing at precision lengths. This tool comes with a variable speed motor, but we offer an optional cordless D.C. motor and our new speed control motor.



TSM 1500 Facing Machine



TSM 1500 Gear Housing



TSM 1500 Motor

### Standard Features:

- Standard 120 Volt Variable Speed Motor
- Lightweight and completely portable – only 9 lbs. (without Collet)
- Faces most metals and plastics including high nickel and carbon steels
- Either portable or mountable for high volume production
- Options available to fit any application
- Adjustable measure indicator for more accurate facing – 0.015" or longer
- Large view port for easy bit replacement and maximum viewing area
- Tool bits designed to keep chips out of polished ID tubing
- Bevel pipe to 1"
- Three piece case hardened aluminum collets for maximum holding power

Options: Variable speed control, battery powered and 230 volt options available.

# ACCESSORIES

## TSM 1500 Collets/Bits

All TSM-1500 Collets are made of case hardened aluminum for maximum hold and minimal weight. Their three-piece design ensures accurate centering while affording the most surface area contact for the greatest holding power.



### TSM 1500 Collet:

Part Number	Nominal Size
TSM - 000	1/8"
TSM - 001	1/4"
TSM - 002	3/8"
TSM - 003	1/2"
TSM - 004	5/8"
TSM - 005	3/4"
TSM - 006	7/8"
TSM - 007	1"
TSM - 008	1 1/8"
TSM - 009	1 1/4"
TSM - 010	1 1/2"
TSM - 011	1/4" Pipe
TSM - 042	3/8" Pipe
TSM - 012	1/2" Pipe
TSM - 013	3/4" Pipe
TSM - 014	1" Pipe
TSM - 017	6mm
TSM - 019	8mm
TSM - 020	10mm
TSM - 021	12mm
TSM - 023	14mm
TSM - 024	15mm
TSM - 025	18mm
TSM - 026	22mm
TSM - 022	23mm
TSM - 027	25mm
TSM - 028	28mm
TSM - 029	35mm

### Various Accessories:

Part Number	Description
TSM 202	Cap Assembly
TSM 189	Collet Repair Kit
TSM 253	Bench Mount Stand
TSM 298	Custom Carrying Case
TSM 0244-1	Standard Variable Speed Motor
TSM 1015	Variable Speed Control Motor
TSM BP	Battery Powered Motor with Battery and Charger
TSM 0238-4	230 Volt Variable Speed Motor
TSM 257	Spanner Wrench
TSM CHR	Replacement Charger for TSM-BP
TSM BAT	Replacement Battery for TSM-BP
TSM 219	Shear Pin
TSM 250	Shear Pin Replacement Kit
TSM 240	Adapter for Metabo Motor

### Bits:

Part Number	Description
TB-0202	Extended reach standard style
TB-0202LC	Extended reach laser coated
TB-1506	For use on 316 or 304 stainless
TB-1506-LC	Laser coated for abrasion resistance
TB-1506-TIN	Tin coated for superior heat resistance
TB-0204	Heavy duty for larger wall thicknesses
PB-0167	37-1/2 degree beveling bit

## TSM 1501M

TSM 1501M - Size Range 1/8" to 1" Tube  
3.175 mm to 25.4 mm | Weight 8 lbs.

*New Product!*

### Overview:

Our new Micro Facing Tool was designed to face 1/8" to 1" tubing. We also offer two collets: our standard collets for facing micro fitting or short tubing from .20" long or longer and our extended collets for 1" long and above.

This new machine will let you face quickly and squarely every time. You will also find this machine has unobstructed viewing of tool bit and tubing. Stainless collets will not damage your electro-polish tubing. Our feed indicator will give you precise lengths every time.

We offer this machine in both 120V and 230V motors. Our variable speed motor is standard, or you can up-grade to our Metabo motor with constant speed control that will keep the RPM constant under load. This speed control will help give you longer life with your tools bits. We also offer battery powered motors with long lasting batteries to keep your tool working.



### Standard Features:

- |  |
|--|
| • Standard 120 Volt Variable Speed Motor   |
| • Lightweight and completely portable – only 8 lbs. (without Collet)   |
| • Faces most metals and plastics including high nickel and carbon steels                                       |
| • Either portable or mountable for high volume production  |
| • Adjustable measure indicator for more accurate facing – 0.015" or longer                                     |
| • Large view port for easy bit replacement and maximum viewing area  |
| • Two piece stainless steel collets for maximum holding power  |
| • Available in both standard and extended collet<br>(Extender should be used when facing tubing 12" or longer) |

Options: Variable speed control, battery powered and 230 volt options available.

# ACCESSORIES

## TSM 1501M Collets/Bits

### Standard Tube and Metrics:

*Fitting Collets for Micro Fittings*

Part Number	Nominal Size
M1 - 001	1/8"
M1 - 002	1/4"
M1 - 003	3/8"
M1 - 004	1/2"
M1 - 005	5/8"
M1 - 006	3/4"
M1 - 007	1"
M1 - 008	7/8"



1501M Collet

*Millimeters*

Part Number	Nominal Size
M1 - 011	6mm
M1 - 013	8mm
M1 - 014	10mm
M1 - 015	12mm
M1 - 017	14mm
M1 - 018	15mm
M1 - 019	18mm
M1 - 020	22mm
M1 - 021	25mm

### Extended Style Collet:

*Extended Tube Lengths*

Part Number	Nominal Size
M2 - 030	1/8"
M2 - 031	1/4"
M2 - 032	3/8"
M2 - 033	1/2"
M2 - 034	5/8"
M2 - 035	3/4"
M2 - 038	7/8"
M2 - 036	1"

### Various Accessories:

Part Number	Description
TSM 281M	Replacement Head Assembly
TSM 219	Shear Pin
TSM 250	Shear Pin Replacement Kit
TSM 253	Bench Mount Stand
TSM 298	Custom Carrying Case
TSM 0244-1	Standard Variable Speed Reversing Motor
TSM 1015	Variable Speed Control Reversing Motor (Metabo)
TSM BP	Battery Powered Motor with Battery and Charger
TSM 0238-4	230 Volt Variable Speed Reversing Motor
TSM CHR	Replacement Charger for TSM-BP
TSM BAT	Replacement Battery for TSM-BP
TSM BMOT	Battery Power Motor

### Bits:

Part Number	Description
TB-0202	Extended reach standard style
TB-0202LC	Extended reach laser coated
TB-1506	For use on 316 or 304 stainless
TB-1506-LC	Laser coated for abrasion resistance
TB-1506-TIN	Tin coated for superior heat resistance
TB-0204	Heavy duty for larger wall thicknesses
PB-0167	37-1/2 degree beveling bit

Tool Bits are designed to keep chips out of polished ID Tubing. Our laser coated tool bits will give twice the life of standard bits. *Note: We recommend using Extended Collets if tubing is longer than 12".*

# TSM 3001M

TSM 3001M - Size Range 1/2" to 2-1/2" Tube  
Weight 14 lbs.

*New Product!*

## Overview:

This new facing tool will face tubing from 1/2" to 2-1/2" and is designed like our TSM-4500M, but lighter in weight. This tool was designed with our Pharmaceutical contract customers in mind.

Our feed knob will give you the control you need to ensure precise lengths. This machine comes with a Metabo motor with constant speed control that will keep the RPM constant under load. This speed control will help extend the life of your tool bits.



*TSM 3001M Facing Machine*

## Standard Features:

- Primarily designed to face valves and fittings under 1/2"
- Faces most metals and plastics including high nickel and carbon steels
- Easy to use two piece aluminum collets
- Either portable or mountable for high volume production
- Adjustable measure indicator for more accurate facing – 0.001 or longer
- Lightweight and completely portable - only 14 lbs. (without Collet)
- Quick close latching system dramatically reduces setup and run time
- Tool bits designed to keep chips out of polished ID tubing
- Standard 120 Volt variable speed motor
- Less than 20" in length and 8" in overall height

Options: Variable speed control, battery powered and 230 volt options available.



# ACCESSORIES

## TSM 3001M Collets/Bits

All TSM 3001M Collets are made of hard anodized aluminum for minimal weight. Their two piece design ensures accurate centering and quick Collet change out. Standard style Collets have minimal holding area of .625".

### Standard Tube and Pipe Collets:

Part Number	Nominal Size
M - 651	1/2"
M - 652	5/8"
M - 653	3/4"
M - 654	7/8"
M - 655	1"
M - 656	1 1/8"
M - 657	1 1/4"
M - 658	1 1/2"
M - 659	2"
M - 660	2 1/2"
M - 662	1/2" Pipe
M - 663	3/4" Pipe
M - 664	1" Pipe
M - 665	1 1/2" Pipe
M - 666	2" Pipe



TSM 3001M Collet (Standard)

### Various Accessories:

Part Number	Description
TSM 3034	Bench Mount Stand
TSM 3098	Custom Carrying Case
TSM 1015	Variable Speed Control Reversing Motor
TSM 1107-4	230 Volt Variable Speed Reversing Motor

### Bits:

Part Number	Description
TB-0202	Extended reach standard style
TB-0202LC	Extended reach laser coated
TB-1506	For use on 316 or 304 stainless
TB-1506-LC	Laser coated for abrasion resistance
TB-1506-TIN	Tin coated for superior heat resistance
TB-0204	Heavy duty for larger wall thicknesses
PB-0167	37-1/2 degree beveling bit

# TSM 4500M

TSM 4500M - Size Range 1" to 4-1/2" Tube  
25.4 - 114 mm | Weight 25 lbs.

## Overview:

This lightweight 25lb. Facing Machine has a wide working range of 1" to 4-1/2" OD. With our machine you do not have to change adapters if you change tubing size. Our facing tool offers floating collets that let you grip oversize or out-of-round tubing.

As with all our "M" style machines, we offer two types of collets. Use "Standard" to face short tubing or parts and use extended Collet for tubing 4" or longer. It comes with a speed control motor, allowing you to set a constant operating speed.



TSM 4500M Facing Machine

### Standard Features:

- |   |
|---|
| • Designed to face short tube and pipe lengths from 1" to 4-1/2"                                      |
| • Heavy Duty 120 Volt Variable Speed Motor with electronic feedback maintains constant RPM under load |
| • Portable or mountable for high volume production  |
| • Rugged two speed design to fit more applications  |
| • Large view port for easy bit replacement and maximum viewing area                                   |
| • Tool bits designed to keep chips out of polished ID tubing  |
| • Precision feed dial with adjustable micrometer at .001" or longer                                   |
| • Quick close latching system eliminates setup time   |
| • Spring loaded Collets help align out-of-round tubing  |
| • Cutter Head with engraved bit placement guide eliminates guesswork                                  |

## ACCESSORIES

### TSM 4500M Collets/Tube & Pipe

#### Standard Tube and Pipe Collets:

Part Number	Nominal Size
TSM - 7101	1"
TSM - 7102	1 ¼"
TSM - 7103	1 ½"
TSM - 7104	2"
TSM - 7105	2 ½"
TSM - 7106	3"

Part Number	Nominal Size
TSM - 7107	3 ½" (3" P)
TSM - 7108	4" (3 ½" P)
TSM - 7109	4 ½" (4" P)
TSM - 7110	¾" Pipe
TSM - 7111	1" Pipe
TSM - 7112	1 ½" Pipe
TSM - 7113	2" Pipe
TSM - 7114	2 ½" Pipe



Standard Tube Collet

#### Extended Tube and Pipe Collets:

Part Number	Nominal Size
TSM - 7201	1"
TSM - 7202	1 ¼"
TSM - 7203	1 ½"
TSM - 7204	2"
TSM - 7205	2 ½"
TSM - 7206	3"
TSM - 7207	3 ½" (3" P)

Part Number	Nominal Size
TSM - 7209	4 ½" (4" P)
TSM - 7210	¾" Pipe
TSM - 7211	1" Pipe
TSM - 7212	1 ½" Pipe
TSM - 7213	2" Pipe
TSM - 7214	2 ½" Pipe



Extended Tube Collet

#### Various Accessories:

Part Number	Description
TSM 1015	Variable Speed Control Reversing Motor
TSM 1107-4	230 Volt Variable Speed Reversing Motor
TSM 4535	Custom Carrying Case

#### Bits:

Part Number	Description
TB-0202	Extended reach standard style
TB-0202LC	Extended reach laser coated
TB-1506	For use on 316 or 304 stainless
TB-1506-LC	Laser coated for abrasion resistance
TB-1506-TIN	Tin coated for superior heat resistance
TB-0204	Heavy duty for larger wall thicknesses
PB-0167	37-1/2 degree beveling bit

# SAW GUIDES & BLADES

**Overview:**

The Otto Tool saw guides were designed with multiple sizes in one. These sturdy saw guides of 17-4 hardened steel guides will keep the saw blade straight for square cuts.

Otto Tool offers three sizes of saw guides. SG-1500 has a range of 1/2" to 1-1/2" tube. SG-3000 has a range of 1-1/2" to 3" and the SG-6000 has a range of 2" to 6" pipe. The SG-1500 & SG-3000 can be cut with a hack saw or Portable Band Saw. Our SG-6000 must use a Sawzall.

*Patent Pending*



**Saw Blades for Cutting Stainless Tubing:**  
*(also fits GF style machines):*

Part Number	Teeth	Tube Style	Tube/Pipe Size
QC-150	150	Standard	1/4" to 1/2" Tube
QC-150LC	150	Laser Coated	
QC-100	100	Standard	1/2" to 1" Tube
QC-100LC	100	Laser Coated	
QC-70	70	Standard	1" to 3" Tube
QC-70LC	70	Laser Coated	
QC-40	40	Standard	2" to 4" Tube/Pipe
QC-40LC	40	Laser Coated	SCH 5 to 10
QC-32	32	Standard	2" to 4" Tube/Pipe
QC-32LC	32	Laser Coated	SCH 40 and Up



QC-40 Saw Blade

# 500 Head

## For Use on Orbital Welding Machines

### Overview:

Otto Tool Aftermarket Orbital Welding Collets for Arc Machines weld heads are made to the highest quality standards. All our collets are made from stainless steel to give you better wear over Aluminum type collets. We have spent years redesigning our 500 heads and now we have redesigned all the collets from the 750 head to 7500 head.

Our new spring redesign collets will hold oversize, undersize tubing, new or used collet adapter better than ever. These new spring type collets have more flexibility to hold all types of tubing or pipe. Our 500 heads now offer gate screws with springs to hold the wedge up to make closing the upper gate easier. Our one-piece construction on the lower head will give you better alignment on both sides of your tubing. Please give us call for a trial on any of our orbital welding heads, if you decide they do not work for you, you can return them without any questions.

### 500 Head:

Part Number	Nominal Size
500-125	1/8" Tube
500-25	1/4" Tube
500-375	3/8" Tube
500-5	1/2" Tube

### Tungsten List for 500 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
1/8" ABW/ATW	.020/.035	TC04-0584-02	.030
1/4" ABW/ATW	.028/.049	TC04-0506-02	.045
1/4" ABW/ATW	.028/.049	TC04-0444-02	.045
.125	.020/.035	TC04-0611-01	.020
.250	.020/.035	TC04-0539-02	.030
.250	.049/.065	TC04-0524-02	.045
.375	.022/.035	TC04-0476-02	.030
.375	.049/.065	TC04-0461-02	.045
.500	.022/.035	TC04-0414-02	.030
.500	.049/.065	TC04-0399-02	.045



500 Head



Orbital Welding Head Holder

### Various Accessories and Parts for 500 Head:

Part Number	Description
500-Window	Replacement window
500-WI	Replacement window screws
500-Screw	Replacement screw for use on 9-500 Head "old"
500-Screw-1	Replacement screw for use on 9-500 Head "new"
500-Holder	Orbital Welding head holders

# 750 Head

For Use on Orbital Welding Machines

We now offer two style collets; one is the traditional collet that has been around for years. The second type is a spring design to give room for tubing that is over or undersize.

## 750 Head:

Part Number	Nominal Size
750-125	1/8"
750-25	1/4"
750-375	3/8"
750-5	1/2"
750-625	5/8"
750-75	3/4"
750-875	7/8"
750-25P	1/4" Pipe
750-375P	3/8" Pipe
750-5P	1/2" Pipe



750 Collet

## Tungsten List for 750 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
1/8" ABW/ATW	.020/.035	TC04-0890-02	.030
1/4" ABW/ATW	.028/.049	TC06-0860-03	.050
3/8" ABW/ATW	.028/.049	TC06-0745-03	.050
1/2" ABW/ATW	.028/.065	TC06-0677-03	.050
5/8" ABW/ATW	.028/.065	TC06-0612-03	.050
3/4" ABW/ATW	.028/.065	TC06-0546-03	.050
3/4" ABW/ATW	.072/.095	TC06-0526-04	.070
.125	.020/.035	TC04-0917-01	.020
.250	.022/.035	TC06-0845-02	.030
.250	.049/.065	TC06-0825-03	.050
.375	.022/.035	TC06-0782-02	.030
.375	.049/.065	TC06-0762-03	.050
.500	.022/.035	TC06-0720-02	.030
.500	.049/.083	TC06-0700-03	.050
.500	.095/.120	TC06-0680-04	.070
.540(1/2"PIPE)	5-10	TC06-0680-03	.050
.540(1/2"PIPE)	40	TC06-0660-04	.070
.625	.022/.035	TC06-0657-02	.030
.625	.049/.083	TC06-0637-03	.050
.675(1/4"PIPE)	5-10	TC06-0612-03	.050
.675(1/4"PIPE)	40	TC06-0592-04	.070
.750	.022/.035	TC06-0595-02	.030
.750	.049/.083	TC06-0575-03	.050
.750	.095/.120	TC06-0555-04	.070
.840(1/2"PIPE)	5-10	TC06-0530-03	.050

## 750 Spring Tension Head:

Part Number	Nominal Size
753-25	1/4" dia. Tube
753-375	3/8" dia. Tube
753-5	1/2" dia. Tube
753-625	5/8" dia. Tube
753-75	3/4" dia. Tube

## Various Accessories & Parts for 750 Head:

750-Window	Replacement window
750-WI	Replacement window screws
750-SI	Replacement SS Collet screws
750-Screw	Replacement screw for use on 9-750 Head
750-Holder	Orbital welding head holders for use on 9-750 Head

# 1500 Head

For Use on Orbital Welding Machines

*New Product!*

## Overview:

Collet Adapters - All our collets from 1500 head to the 7500 heads are now designed with our new springs style. This new spring design will hold your oversize or undersize tubing and pipe more firmly in the weld head. All collets are made from harden 17-4 SS. This material has the best memory to have the collet springs back to it original position.

## 1500 Head:

Part Number	Nominal Size
1503-25	¼" tube
1503-375	⅜" tube
1503-5	½" tube
1503-625	⅝" tube
1503-75	¾" tube
1503-1	1" tube
1503-1.25	1 ¼" tube
1503-1.5	1 ½" tube
1503-5P	½" pipe
1503-75P	¾" pipe
1503-1P	1" pipe



## Tungsten List for 1500 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
.250	.022/.035	TC06-1438-02	.030
.250	.049/.065	TC06-1418-03	.050
.375	.022/.035	TC06-1376-02	.030
.375	.049/.065	TC06-1356-03	.050
.500	.022/.035	TC06-1313-02	.030
.500	.049/.083	TC06-1293-03	.050
.500	.095/.120	TC09-1273-04	.070
.540 1/4" PIPE	5-40	TC06-1273-03	.050
.625	.022/.035	TC06-1251-02	.030
.625	.049/.083	TC06-1231-03	.050
.675 3/8" PIPE	5-10	TC06-1206-03	.050
.675 3/8" PIPE	40	TC09-1186-04	.070
.750	.022/.035	TC06-1188-02	.030
.750	.049/.083	TC06-1168-03	.050
.750	.095/.120	TC09-1148-04	.070
.840 1/2" PIPE	5-10	TC06-1123-03	.050
.840 1/2" PIPE	40	TC09-1103-04	.070
1.000	.049/.083	TC06-1043-03	.050
1.000	.095/.120	TC09-1023-04	.070
1.050 3/4" PIPE	5-10	TC06-1018-03	.050
1.050 3/4" PIPE	40	TC09-0998-04	.070
1.250	.049/.083	TC06-0918-03	.050
1.315 1" PIPE	5	TC06-0886-03	.050
1.315 1" PIPE	10-40	TC09-0866-04	.070
1.500	.049/.083	TC06-0793-03	.050
1.500	.095/.120	TC09-0773-04	.070

## Tungsten List for 9E-1500 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
.250	.022/.035	TC06-1188-02	.030
.250	.049/.065	TC06-1168-03	.050
.375	.022/.035	TC06-1125-02	.030
.375	.049/.065	TC06-1105-03	.050
.500	.022/.035	TC06-1063-02	.030
.500	.049/.083	TC06-1043-03	.050
.500	.095/.120	TC09-1023-04	.070
.540 1/4" PIPE	5-40	TC06-1023-03	.050
.625	.022/.035	TC06-1001-02	.030
.625	.049/.083	TC06-0981-03	.050
.675 3/8" PIPE	5-10	TC06-0956-03	.050
.675 3/8" PIPE	40	TC09-0936-04	.070
.750	.028/.035	TC06-0938-02	.030
.750	.049/.083	TC06-0918-03	.050
.750	.095/.120	TC09-0898-04	.070
.840 1/2" PIPE	5-10	TC06-0873-03	.050
.840 1/2" PIPE	40	TC09-0853-04	.070
1.000	.049/.083	TC06-0793-03	.050
1.000	.095/.120	TC09-0773-04	.070
1.050 3/4" PIPE	5-10	TC06-0768-03	.050
1.050 3/4" PIPE	40	TC09-0748-04	.070
1.250	.049/.083	TC06-0668-03	.050
1.315 1" PIPE	5	TC06-0638-03	.050
1.315 1" PIPE	10-40	TC09-0616-04	.070

## 2000 - 2500 Head

For Use on Orbital Welding Machines

### 2000 Head:

Part Number	Nominal Size
2003-5	1/2" tube
2003-.75	3/4" tube
2003-1	1" tube
2003-1.5	1 1/2" tube
2003-2	2" tube
2003-5P	1/2" Pipe
2003-375P	3/8" Pipe
2003-.75P	3/4" Pipe
2003-1P	1" Pipe
2003-1.5P	1 1/2" Pipe



2000 Collet

### 2500 Head:

Part Number	Nominal Size
2503-75	3/4" tube
2503-1	1" tube
2503-1.5	1 1/2" tube
2503-2	2" tube
2503-2.5	2 1/2" tube
2503-75P	3/4" pipe
2503-1P	1" pipe
2503-1.5P	1 1/2" pipe
2503-2P	2" pipe



2503 Spring Style Collet

### Tungsten List for 2000 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
.500	.022/.035	TC06-1446-02	.030
.500	.049/.083	TC06-1426-03	.050
.500	.095/.120	TC09-1406-04	.070
.540 1/4" PIPE	5-40	TC06-1406-03	.050
.625	.028/.035	TC06-1383-03	.030
.625	.049/.083	TC06-1363-03	.050
.675 3/8" PIPE	5-10	TC06-1338-03	.050
.675 3/8" PIPE	40	TC09-1318-04	.070
.750	.049/.083	TC06-1301-03	.050
.750	.095/.120	TC09-1281-04	.070
.840 1/2" PIPE	5-10	TC06-1256-03	.050
.840 1/2" PIPE	40	TC09-1236-04	.070
1.000	.049/.083	TC06-1176-03	.050
1.000	.095/.120	TC09-1156-04	.070
1.050 3/4" PIPE	5-10	TC06-1151-03	.050
1.050 3/4" PIPE	40	TC09-1131-04	.070
1.250	.049/.083	TC06-1051-03	.050
1.315 1" PIPE	5	TC06-1018-03	.050
1.315 1" PIPE	10-40	TC09-0998-04	.070
1.5000	.049/.083	TC06-0926-03	.050
1.5000	.095/.120	TC09-0906-03	.070
1.660 1-1/4" PIPE	5	TC06-0846-03	.050
1.660 1-1/4" PIPE	10-40	TC09-0826-04	.070
1.900 1-1/2" PIPE	5	TC06-0726-03	.050
1.900 1-1/2" PIPE	10-40	TC09-0706-04	.070
2.000	.049/.083	TC06-0676-03	.050
2.000	.095/.120	TC09-0656-04	.070

### Tungsten List for 2500 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
.750	.049/.083	TC06-1765-03	.050
.750	.095/.120	TC09-1745-04	.070
.840 1/2" PIPE	5-10	TC06-1720-03	.050
.840 1/2" PIPE	40	TC09-1700-04	.070
1.000	.049/.083	TC06-1640-03	.050
1.000	.095/.120	TC09-1620-04	.070
1.050 3/4" PIPE	5-10	TC06-1615-03	.050
1.050 3/4" PIPE	40	TC09-1595-04	.070
1.250	.049/.083	TC06-1515-03	.050
1.315 1" PIPE	5	TC06-1482-03	.050
1.315 1" PIPE	10-40	TC09-1462-04	.070
1.500	.049/.083	TC06-1390-03	.050
1.500	.095/.120	TC09-1370-04	.070
1.660 1-1/4" PIPE	5	TC06-1310-03	.050
1.660 1-1/4" PIPE	10-40	TC09-1290-04	.070
1.900 1-1/2" PIPE	5	TC06-1190-03	.050
1.900 1-1/2" PIPE	10-40	TC09-1170-04	.070
2.000	.049/.083	TC06-1140-03	.050
2.000	.095/.120	TC09-1120-04	.070
2.375 2" PIPE	5	TC06-0952-03	.050
2.375 2" PIPE	10-40	TC09-0932-04	.070
2.500	.049/.083	TC06-0870-03	.070
2.500	.095/.120	TC09-0870-04	.070



# 3500 - 4000 Head

For Use on Orbital Welding Machines

## 3500 Head:

Part Number	Nominal Size
3503-1.5	1 1/2" tube
3503-2	2" tube
3503-2.5	2 1/2" tube
3503-3	3" tube
3503-1.5P	1 1/2" pipe
3503-2P	2" pipe
3503-2.5P	2 1/2" pipe
3503-3.5	3 1/2" tube (3" pipe)



3503 Spring Style Collet

## Tungsten List for 3500 Head:

TUBE O.D.	WALL		PART NUMBER	ARC GAP
		THICKNESS		
1.000		.049/.083	TC06-2140-03	.050
1.000		.095/.120	TC09-2120-04	.070
1.050 3/4" PIPE		5-10	TC06-2115-03	.050
1.050 3/4" PIPE		40	TC09-2095-04	.070
1.315 1" PIPE		5	TC06-1982-03	.050
1.315 1" PIPE		10-40	TC09-1962-04	.070
1.500		.049/.083	TC06-1890-03	.050
1.500		.095/.120	TC09-1870-04	.070
1.660 1-1/4" PIPE		5	TC06-1810-03	.050
1.660 1-1/4" PIPE		10-40	TC09-1790-04	.070
1.900 1-1/2" PIPE		5	TC06-1690-03	.050
1.900 1-1/2" PIPE		10-40	TC09-1670-04	.070
2.000		.049/.083	TC06-1640-03	.050
2.000		.095/.120	TC09-1620-04	.070
2.375 2" PIPE		5	TC06-1452-03	.050
2.375 2" PIPE		10	TC09-1432-04	.070
2.500		.065/.083	TC06-1370-03	.070
2.500		.095/.120	TC09-1370-04	.070
2.875 2-1/2" PIPE		5	TC06-1182-03	.070
2.875 2-1/2" PIPE		10	TC09-1182-04	.070
3.000		.065/.083	TC06-1120-03	.070
3.000		.095/.120	TC09-1120-04	.070
3.500		.065/.083	TC06-0870-03	.070
3.500		.095/.120	TC09-0870-04	.070
3.500 3" PIPE		5-10	TC09-0870-04	.070

## 4000 Head:

Part Number	Nominal Size
4003-1	1" tube
4003-1.5	1 1/2" tube
4003-2	2" tube
4003-2.5	2 1/2" tube
4003-3	3" tube
4003-3.5	3 1/2" tube (3" pipe)
4003-4	4" tube (3 1/2" pipe)
4003-4.5	4 1/2" tube (4" pipe)
4003-2P	2" pipe
4003-2.5P	2 1/2" pipe



4000 Collet

## Tungsten List for 4000 Head:

TUBE O.D.	WALL		PART NUMBER	ARC GAP
		THICKNESS		
1.000		.049/.083	TC06-2105-03	.050
1.000		.095/.120	TC09-2085-04	.070
1.050 3/4" PIPE		5-10	TC06-2080-03	.050
1.050 3/4" PIPE		40	TC09-2060-04	.070
1.315 1" PIPE		5	TC06-1947-03	.050
1.315 1" PIPE		10-40	TC09-1927-04	.070
1.500		.049/.083	TC06-1855-03	.050
1.500		.095/.120	TC09-1835-04	.070
1.660 1-1/4" PIPE		5	TC06-1775-03	.050
1.660 1-1/4" PIPE		10-40	TC09-1755-04	.070
1.900 1-1/2" PIPE		5	TC06-1655-03	.050
1.900 1-1/2" PIPE		10-40	TC09-1635-04	.070
2.000		.049/.083	TC06-1605-03	.050
2.000		.095/.120	TC09-1585-04	.070
2.375 2" PIPE		5	TC06-1417-03	.050
2.375 2" PIPE		10-40	TC09-1397-03	.070
2.500		.065/.083	TC06-1335-03	.070
2.500		.095/.120	TC09-1335-04	.070
2.875 2-1/2" PIPE		5	TC06-1147-03	.070
2.875 2-1/2" PIPE		10	TC09-1147-04	.070
3.000		.065/.083	TC06-1085-03	.070
3.000		.095/.120	TC09-1085-04	.070
3.500 3" PIPE		5-10	TC09-0835-04	.070
4.000		.065/.083	TC06-0585-03	.070
4.000		.095/.120	TC09-0585-04	.070
4.000 3-1/2" PIPE		5-10	TC09-0585-04	.070

# 4500 - 7500 Head

For Use on Orbital Welding Machines

## 4500 Head:

Part Number	Nominal Size
4503-1	1" tube
4503-1.5	1 ½" tube
4503-2	2" tube
4503-2.5	2 ½" tube
4503-3	3" tube
4503-3.5	3 ½" tube (3" pipe)
4503-4	4" tube (3 ½" pipe)
4503-4.5	4 ½" tube (4" pipe)
4503-2P	2" pipe
4503-2.5P	2 ½" pipe



4503 Spring Style Head

## Tungsten List for 4500 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
1.500	.049/.083	TC06-2637-03	.050
1.500	.095/.120	TC09-2617-04	.070
1.660 1-1/4" PIPE	5	TC06-2557-03	.050
1.660 1-1/4" PIPE	10-40	TC09-2537-04	.070
1.900 1-1/2" PIPE	5	TC06-2437-03	.050
1.900 1-1/2" PIPE	10-40	TC09-2417-04	.070
2.000	.049/.083	TC06-2387-03	.050
2.000	.095/.120	TC09-2367-04	.070
2.375 2" PIPE	5	TC06-2200-03	.050
2.375 2" PIPE	10-40	TC09-2180-04	.070
2.500	.065/.083	TC06-2117-03	.070
2.500	.095/.120	TC09-2117-04	.070
2.875 2-1/2" PIPE	5	TC06-1910-03	.070
2.875 2-1/2" PIPE	10	TC09-1910-04	.070
3.000	.065/.083	TC06-1867-03	.070
3.000	.095/.120	TC09-1867-04	.070
3.500	.065/.083	TC06-1617-03	.070
3.500	.095/.120	TC09-1617-04	.070
3.500 3" PIPE	5	TC06-1617-03	.070
3.500 3" PIPE	10	TC09-1617-04	.070
4.000	.065/.083	TC06-1367-03	.070
4.000	.095/.120	TC09-1367-04	.070
4.000 3-1/2" PIPE	5	TC06-1367-03	.070
4.000 3-1/2" PIPE	10	TC09-1367-04	.070
4.500	.095/.120	TC09-1117-04	.070
4.500 4" PIPE	5	TC06-1117-03	.070
4.500 4" PIPE	10	TC09-1117-04	.070

## 7500 Head:

Part Number	Nominal Size
7503-3.5	3 ½" tube (3" pipe)
7503-4	4" tube (3 ½" pipe)
7503-4.5	4 ½" tube (4" pipe)
7503-6	6" tube
7503-6P	6" pipe

## Tungsten List for 7500 Head:

TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
2.875 2-1/2" PIPE	5	TC06-3712-03	.070
2.875 2-1/2" PIPE	10	TC09-3712-04	.070
3.000	.065/.083	TC06-3650-03	.070
3.000	.095/.120	TC09-3650-04	.070
3.500	.065/.083	TC06-3400-03	.070
3.500	.095/.120	TC09-3400-04	.070
3.500 3" PIPE	5-10	TC09-3400-04	.070
4.000	.065/.083	TC06-3150-03	.070
4.000	.095/.120	TC09-3150-04	.070
4.000 3-1/2" PIPE	5-10	TC09-3150-04	.070
4.500	.083/.120	TC09-2990-04	.070
4.500 4" PIPE	5-10	TC09-2990-04	.070
5.000	.065/.083	TC06-2650-03	.070
5.000	.095/.120	TC09-2650-04	.070
5.563 5" PIPE	5-10	TC09-2368-04	.070
6.000	.065/.083	TC06-2150-03	.070
6.000	.095/.120	TC09-2150-04	.070
6.625 6" PIPE	5-10	TC09-1837-04	.070
7.000	.095/.120	TC09-1650-04	.070

# Accessories for AMI Orbital Welders

## Replacement Window Screws:

Part Number
500-WI
750-WI
1500-WI
2500-WI
3500-WI
4500-WI
7500-WI



500 Head Screws & Window

## Replacement Window:

Part Number
500-WINDOW
750-WINDOW
1500-WINDOW
2500-WINDOW
3500-WINDOW
4500-WINDOW
7500-WINDOW



Replacement Window & 750 Thumb Screw

## Replacement Filters/Paper:

Part Number	
OW-1107	Replacement Filter for #107 Machine
OW-1207	Replacement Filter for #207 Machine
OW-1000	Printer Paper for #207 Machine



Paper Roll

## Head Holders:

Part Number
500-HOLDER For 500 Head Only
750-HOLDER For 750 to 7500 Heads



500 Head Holder

## Replacement Thumbscrews:

Part Number
500-SCREW
750-SCREW

# Aftermarket TRI-TOOLS

## Facing Tools Collets and Tool Bits

### Facing Tool Bits:

TRI TOOL Part Number	OTTO TOOL Part Number	Description
Durabit-1	TB-1506-LC	Facing Bit Laser coated
99-1046	TB-1046	Heavy Duty Facing Bit
99-1506	TB-1506	Facing Bit
99-1506-Tin	TB-1506-Tin	Facing Bit Tin Coated
99-1506-LC	TB-1506-LC	Facing Bit Laser Coated
99-1445C	TB-1445-C	Facing Bit Carbide
99-5000	TB-0202	Facing Bit Extended Reach
99-5176	TB-5176	Facing Bit Extended Reach



TB-1046 Bit

### Sever/Cut-Off Bits:

TRI TOOL Part Number	OTTO TOOL Part Number	Description
99-2959	TB-2959	For 572 Facing Tool
99-3143	TB-3143	For 574 Facing Tool
99-3347	TB-3347	For 574 Facing Tool



Sever Bit

### Collets for Facing Tools:

301 Facing Tool

TRI TOOL Part Number	OTTO TOOL Part Number	Description
30-0065	301-0065	1/4" COLLET
30-0066	301-0066	3/8" COLLET
30-0067	301-0067	1/2" COLLET
30-0068	301-0068	5/8" COLLET
30-0069	301-0069	3/4" COLLET
30-0070	301-0070	1" COLLET



301 Facing Tool

### Tri-Tool 301SP Saddle Collets:

Standard Saddles		
SP-3635	1/8"	.125"
SP-3640	1/4"	.250"
SP-3649	3/8"	.375"
SP-3662	1/2"	.500"
SP-3673	5/8"	.625"
SP-3684	3/4"	.750"
SP-3699	1"	1.00"
SP-3689	1/2" PIPE	.840"
SP-3700	3/4" PIPE	1.050"

Short Perch Saddles		
SP-3705	1/8"	.125"
SP-3710	1/4"	.250"
SP-3719	3/8"	.375"
SP-3732	1/2"	.500"
SP-3743	5/8"	.625"
SP-3754	3/4"	.750"
SP-3699	1"	1.00"
SP-3759	1/2" PIPE	.840"
SP-3770	3/4" PIPE	1.050"

### Tri-Tool 304 Saddle Collets:

Part Number	Nominal Size
304-3997	1/4"
304-4005	3/8"
304-4015	1/2"
304-4026	5/8"
304-4037	3/4"
304-4041	1/2" PIPE
304-4052	1"
304-4054	3/4" PIPE
304-4065	1" PIPE
304-4072	1 1/2"
304-4085	1 1/2" PIPE

Part Number	Nominal Size
304-4091	2"
304-4101	2" PIPE
304-4106	2 1/2"
304-4113	2 1/2" PIPE
304-4118	3"
304-4123	3 1/2" & 3" PIPE
304-4130	4" & 3 1/2" PIPE
304-4134	4 1/2" & 4" PIPE

### E. H. Wachs Collets

#### Wachs TSE Tube Squaring Machine Collets:

Part Number		
TSE-18-404-00	1/8"	.125"
TSE-18-404-04	3/8"	.375"
TSE-18-404-08	5/8"	.625"
TSE-18-404-14	1"	1.00"

Part Number		
TSE-18-404-01	1/4"	.250"
TSE-18-404-06	1/2"	.500"
TSE-18-404-10	3/4"	.750"

#### Wachs TFS Tube Squaring Machine Collets (2 1/2" HEAD):

Part Number		
TFS-19-070-05	1/2"	.500"
TFS-19-070-10	1."	1.00"
TFS-19-070-30	1 1/2"	1.50"
TFS-19-070-60	2"	2.00"
TFS-19-070-80	2 1/2"	2.50"

Part Number		
TFS-19-070-07	3/4"	.750"
TFS-19-070-20	1" PIPE	1.315"
TFS-19-070-50	1 1/2" PIPE	1.90"
TFS-19-070-70	2" PIPE	2.38"

#### Wachs TFS Tube Squaring Machine Collets (4 1/2" HEAD):

Part Number		
TFS-19-071-20	3"	3.00"
TFS-19-071-30	3 1/2"	3.50"
TFS-19-071-40	4"	4.00"
TFS-19-071-50	4 1/2"	4.50"

Part Number		
TFS-19-071-10	2 1/2" PIPE	2.88"
TFS-19-071-30	3" PIPE	3.50"
TFS-19-071-40	3 1/2" PIPE	4.00"
TFS-19-071-50	4" PIPE	4.50"

# Tungsten (500-2500)

## Pre-ground Tips

ELECTRODE SELECTOR FOR INCH (O.D.) TUBE AND IPS PIPE SIZES

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9-500	1/8" ABW/ATW	.020/.035	TC04-0584-02	.030
	1/4" ABW/ATW	.028/.049	TC04-0506-02	.045
	1/4" ABW/ATW	.028/.049	TC04-0444-02	.045
	.125	.020/.035	TC04-0611-01	.020
	.250	.020/.035	TC04-0539-02	.030
	.250	.049/.065	TC04-0524-02	.045
	.375	.022/.035	TC04-0476-02	.030
	.375	.049/.065	TC04-0461-02	.045
	.500	.022/.035	TC04-0414-02	.030
	.500	.049/.065	TC04-0399-02	.045

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9-750	1/8" ABW/ATW	.020/.035	TC04-0890-02	.030
	1/4" ABW/ATW	.028/.049	TC06-0860-03	.050
	3/8" ABW/ATW	.028/.049	TC06-0745-03	.050
	1/2" ABW/ATW	.028/.065	TC06-0677-03	.050
	5/8" ABW/ATW	.028/.065	TC06-0612-03	.050
	3/4" ABW/ATW	.028/.065	TC06-0546-03	.050
	3/4" ABW/ATW	.072/.095	TC06-0526-04	.070
	.125	.020/.035	TC04-0917-01	.020
	.250	.022/.035	TC06-0845-02	.030
	.250	.049/.065	TC06-0825-03	.050
	.375	.022/.035	TC06-0782-02	.030
	.375	.049/.065	TC06-0762-03	.050
	.500	.022/.035	TC06-0720-02	.030
	.500	.049/.083	TC06-0700-03	.050
	.500	.095/.120	TC06-0680-04	.070
	.540(1/2"PIPE)	5-10	TC06-0680-03	.050
	.540(1/2"PIPE)	40	TC06-0660-04	.070
	.625	.022/.035	TC06-0657-02	.030
	.625	.049/.083	TC06-0637-03	.050
	.675(1/4"PIPE)	5-10	TC06-0612-03	.050
	.675(1/4"PIPE)	40	TC06-0592-04	.070
	.750	.022/.035	TC06-0595-02	.030
	.750	.049/.083	TC06-0575-03	.050
	.750	.095/.120	TC06-0555-04	.070
	.840(1/2"PIPE)	5-10	TC06-0530-03	.050

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9-1500	.250	.022/.035	TC06-1438-02	.030
	.250	.049/.065	TC06-1418-03	.050
	.375	.022/.035	TC06-1376-02	.030
	.375	.049/.065	TC06-1356-03	.050
	.500	.022/.035	TC06-1313-02	.030
	.500	.049/.083	TC06-1293-03	.050
	.500	.095/.120	TC09-1273-04	.070
	.540 1/4" PIPE	5-40	TC06-1273-03	.050
	.625	.022/.035	TC06-1251-02	.030
	.625	.049/.083	TC06-1231-03	.050
	.675 5/8" PIPE	5-10	TC06-1206-03	.050
	.675 5/8" PIPE	40	TC09-1186-04	.070
	.750	.022/.035	TC06-1188-02	.030
	.750	.049/.083	TC06-1168-03	.050
	.750	.095/.120	TC09-1148-04	.070
	.840 1/2" PIPE	5-10	TC06-1123-03	.050
	.840 1/2" PIPE	40	TC09-1103-04	.070
	1.000	.049/.083	TC06-1043-03	.050
	1.000	.095/.120	TC09-1023-04	.070
	1.050 3/4" PIPE	5-10	TC06-1018-03	.050
	1.050 3/4" PIPE	40	TC09-0998-04	.070
	1.250	.049/.083	TC06-0918-03	.050
	1.315 1" PIPE	5	TC06-0886-03	.050
	1.315 1" PIPE	10-40	TC09-0866-04	.070
	1.500	.049/.083	TC06-0793-03	.050
	1.500	.095/.120	TC09-0773-04	.070

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9E-1500	.250	.022/.035	TC06-1188-02	.030
	.250	.049/.065	TC06-1168-03	.050
	.375	.022/.035	TC06-1125-02	.030
	.375	.049/.065	TC06-1105-03	.050
	.500	.022/.035	TC06-1063-02	.030
	.500	.049/.083	TC06-1043-03	.050
	.500	.095/.120	TC09-1023-04	.070
	.540 1/4" PIPE	5-40	TC06-1023-03	.050
	.625	.022/.035	TC06-1001-02	.030
	.625	.049/.083	TC06-0981-03	.050
	.675 3/8" PIPE	5-10	TC06-0956-03	.050
	.675 3/8" PIPE	40	TC09-0936-04	.070
	.750	.028/.035	TC06-0938-02	.030
	.750	.049/.083	TC06-0918-03	.050
	.750	.095/.120	TC09-0898-04	.070
	.840 1/2" PIPE	5-10	TC06-0873-03	.050
	.840 1/2" PIPE	40	TC09-0853-04	.070
	1.000	.049/.083	TC06-0793-03	.050
	1.000	.095/.120	TC09-0773-04	.070
	1.050 3/4" PIPE	5-10	TC06-0768-03	.050
	1.050 3/4" PIPE	40	TC09-0748-04	.070
	1.250	.049/.083	TC06-0668-03	.050
	1.315 1" PIPE	5	TC06-0638-03	.050
	1.315 1" PIPE	10-40	TC09-0616-04	.070

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
8-2000	.500	.022/.035	TC06-1446-02	.030
	.500	.049/.083	TC06-1426-03	.050
	.500	.095/.120	TC09-1406-04	.070
	.540 1/4" PIPE	5-40	TC06-1406-03	.050
	.625	.028/.035	TC06-1383-03	.030
	.625	.049/.083	TC06-1363-03	.050
	.675 3/8" PIPE	5-10	TC06-1338-03	.050
	.675 3/8" PIPE	40	TC09-1318-04	.070
	.750	.049/.083	TC06-1301-03	.050
	.750	.095/.120	TC09-1281-04	.070
	.840 1/2" PIPE	5-10	TC06-1256-03	.050
	.840 1/2" PIPE	40	TC09-1236-04	.070
	1.000	.049/.083	TC06-1176-03	.050
	1.000	.095/.120	TC09-1156-04	.070
	1.050 3/4" PIPE	5-10	TC06-1151-03	.050
	1.050 3/4" PIPE	40	TC09-1131-04	.070
	1.250	.049/.083	TC06-1051-03	.050
	1.315 1" PIPE	5	TC06-1018-03	.050
	1.315 1" PIPE	10-40	TC09-0998-04	.070
	1.500	.049/.083	TC06-0926-03	.050
	1.500	.095/.120	TC09-0906-03	.070
	1.660 1-1/4 PIPE	5	TC06-0846-03	.050
	1.660 1-1/4 PIPE	10-40	TC09-0826-04	.070
	1.900 1-1/2 PIPE	5	TC06-0726-03	.050
	1.900 1-1/2 PIPE	10-40	TC09-0706-04	.070
	2.000	.049/.083	TC06-0676-03	.050
	2.000	.095/.120	TC09-0656-04	.070

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9-2500	.750	.049/.083	TC06-1765-03	.050
	.750	.095/.120	TC09-1745-04	.070
	.840 1/2" PIPE	5-10	TC06-1720-03	.050
	.840 1/2" PIPE	40	TC09-1700-04	.070
	1.000	.049/.083	TC06-1640-03	.050
	1.000	.095/.120	TC09-1620-04	.070
	1.050 3/4" PIPE	5-10	TC06-1615-03	.050
	1.050 3/4" PIPE	40	TC09-1595-04	.070
	1.250	.049/.083	TC06-1515-03	.050
	1.315 1" PIPE	5	TC06-1482-03	.050
	1.315 1" PIPE	10-40	TC09-1462-04	.070

# Tungsten Continued (2500-7500)

## Pre-ground Tips

9-2500 Continued				
	1.500	.049/.083	TC06-1390-03	.050
	1.500	.095/.120	TC09-1370-04	.070
	1.660 1-1/4" PIPE	5	TC06-1310-03	.050
	1.660 1-1/4" PIPE	10-40	TC09-1290-04	.070
	1.900 1-1/2" PIPE	5	TC06-1190-03	.050
	1.900 1-1/2" PIPE	10-40	TC09-1170-04	.070
	2.000	.049/.083	TC06-1140-03	.050
	2.000	.095/.120	TC09-1120-04	.070
	2.375 2" PIPE	5	TC06-0952-03	.050
	2.375 2" PIPE	10-40	TC09-0932-04	.070
	2.500	.049/.083	TC06-0870-03	.070
	2.500	.095/.120	TC09-0870-04	.070

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9-3500	1.000	.049/.083	TC06-2140-03	.050
	1.000	.095/.120	TC09-2120-04	.070
	1.050 3/4" PIPE	5-10	TC06-2115-03	.050
	1.050 3/4" PIPE	40	TC09-2095-04	.070
	1.315 1" PIPE	5	TC06-1982-03	.050
	1.315 1" PIPE	10-40	TC09-1962-04	.070
	1.500	.049/.083	TC06-1890-03	.050
	1.500	.095/.120	TC09-1870-04	.070
	1.660 1-1/4" PIPE	5	TC06-1810-03	.050
	1.660 1-1/4" PIPE	10-40	TC09-1790-04	.070
	1.900 1-1/2" PIPE	5	TC06-1690-03	.050
	1.900 1-1/2" PIPE	10-40	TC09-1670-04	.070
	2.000	.049/.083	TC06-1640-03	.050
	2.000	.095/.120	TC09-1620-04	.070
	2.375 2" PIPE	5	TC06-1452-03	.050
	2.375 2" PIPE	10	TC09-1432-04	.070
	2.500	.065/.083	TC06-1370-03	.070
	2.500	.095/.120	TC09-1370-04	.070
	2.875 2-1/2" PIPE	5	TC06-1182-03	.070
	2.875 2-1/2" PIPE	10	TC09-1182-04	.070
	3.000	.065/.083	TC06-1120-03	.070
	3.000	.095/.120	TC09-1120-04	.070
	3.500	.065/.083	TC06-0870-03	.070
	3.500	.095/.120	TC09-0870-04	.070
	3.500 3" PIPE	5-10	TC09-0870-04	.070

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
8-4000	1.000	.049/.083	TC06-2105-03	.050
	1.000	.095/.120	TC09-2085-04	.070
	1.050 3/4" PIPE	5-10	TC06-2080-03	.050
	1.050 3/4" PIPE	40	TC09-2060-04	.070
	1.315 1" PIPE	5	TC06-1947-03	.050
	1.315 1" PIPE	10-40	TC09-1927-04	.070
	1.500	.049/.083	TC06-1855-03	.050
	1.500	.095/.120	TC09-1835-04	.070
	1.660 1-1/4" PIPE	5	TC06-1775-03	.050
	1.660 1-1/4" PIPE	10-40	TC09-1755-04	.070
	1.900 1-1/2" PIPE	5	TC06-1655-03	.050
	1.900 1-1/2" PIPE	10-40	TC09-1635-04	.070
	2.000	.049/.083	TC06-1605-03	.050
	2.000	.095/.120	TC09-1585-04	.070
	2.375 2" PIPE	5	TC06-1417-03	.050
	2.375 2" PIPE	10-40	TC09-1397-03	.070
	2.500	.065/.083	TC06-1335-03	.070
	2.500	.095/.120	TC09-1335-04	.070
	2.875 2-1/2" PIPE	5	TC06-1147-03	.070
	2.875 2-1/2" PIPE	10	TC09-1147-04	.070
	3.000	.065/.083	TC06-1085-03	.070
	3.000	.095/.120	TC09-1085-04	.070
	3.500 3" PIPE	5-10	TC09-0835-04	.070
	4.000	.065/.083	TC06-0585-03	.070
	4.000	.095/.120	TC09-0585-04	.070
	4.000 3-1/2" PIPE	5-10	TC09-0585-04	.070

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9-4500	1.500	.049/.083	TC06-2637-03	.050
	1.500	.095/.120	TC09-2617-04	.070
	1.660 1-1/4" PIPE	5	TC06-2557-03	.050
	1.660 1-1/4" PIPE	10-40	TC09-2537-04	.070
	1.900 1-1/2" PIPE	5	TC06-2437-03	.050
	1.900 1-1/2" PIPE	10-40	TC09-2417-04	.070
	2.000	.049/.083	TC06-2387-03	.050
	2.000	.095/.120	TC09-2367-04	.070
	2.375 2" PIPE	5	TC06-2200-03	.050
	2.375 2" PIPE	10-40	TC09-2180-04	.070
	2.500	.065/.083	TC06-2117-03	.070
	2.500	.095/.120	TC09-2117-04	.070
	2.875 2-1/2" PIPE	5	TC06-1910-03	.070
	2.875 2-1/2" PIPE	10	TC09-1910-04	.070
	3.000	.065/.083	TC06-1867-03	.070
	3.000	.095/.120	TC09-1867-04	.070
	3.500	.065/.083	TC06-1617-03	.070
	3.500	.095/.120	TC09-1617-04	.070
	3.500 3" PIPE	5	TC06-1617-03	.070
	3.500 3" PIPE	10	TC09-1617-04	.070
	4.000	.065/.083	TC06-1367-03	.070
	4.000	.095/.120	TC09-1367-04	.070
	4.000 3-1/2" PIPE	5	TC06-1367-03	.070
	4.000 3-1/2" PIPE	10	TC09-1367-04	.070
	4.500	.095/.120	TC09-1117-04	.070
	4.500 4" PIPE	5	TC06-1117-03	.070
	4.500 4" PIPE	10	TC09-1117-04	.070

WELD HEAD MODEL	TUBE O.D.	WALL THICKNESS	PART NUMBER	ARC GAP
9-7500	2.875 2-1/2" PIPE	5	TC06-3712-03	.070
	2.875 2-1/2" PIPE	10	TC09-3712-04	.070
	3.000	.065/.083	TC06-3650-03	.070
	3.000	.095/.120	TC09-3650-04	.070
	3.500	.065/.083	TC06-3400-03	.070
	3.500	.095/.120	TC09-3400-04	.070
	3.500 3" PIPE	5-10	TC09-3400-04	.070
	4.000	.065/.083	TC06-3150-03	.070
	4.000	.095/.120	TC09-3150-04	.070
	4.000 3-1/2" PIPE	5-10	TC09-3150-04	.070
	4.500	.083/.120	TC09-2990-04	.070
	4.500 4" PIPE	5-10	TC09-2990-04	.070
	5.000	.065/.083	TC06-2650-03	.070
	5.000	.095/.120	TC09-2650-04	.070
	5.563 5" PIPE	5-10	TC09-2368-04	.070
	6.000	.065/.083	TC06-2150-03	.070
	6.000	.095/.120	TC09-2150-04	.070
	6.625 6" PIPE	5-10	TC09-1837-04	.070
	7.000	.095/.120	TC09-1650-04	.070

### Pre-ground Tips:

All pre-ground Tungstens are polished and must pass our demanding quality control process and we ship 2% cerriated unless otherwise specified. Most popular sizes are available in stock. Order sizes may be found from various manufacturers suggested length guides or by giving the weld head type, size, tube/pipe outside diameter and the tube/pipe wall thickness. Part numbers correspond to the type of Tungsten.

### How to Order Pre-ground Tips:

Diameter (A) Tip Diameter (C) Products
1. Need diameter of Tungsten (A) 04.040 (1mm) .020 C/Cerriated
2. Need length of Tungsten (B) 06 1/16" (1/58mm) .030 T/Thoriated
3. Tip diameter of Tungsten (C) 09 3/32 (2.38mm) .040
4. Material needed 12 1/2 .050

**Example:** TC-06-1040-03 = 1/16 Diameter 1.040 in length with a .030 tip diameter, cerriated Tungsten.



**OTTO TOOL, INC.**

3921 Sandstone Drive, Suite 5 • El Dorado Hills, CA • 95762

Toll Free: 800-878-BITS (2487) • Phone: 916-939-3400 • Fax: 916-939-0912

[www.ottotool.com](http://www.ottotool.com)