



# The Complete Orbital Welding Solution





## Orbital Welding Closed Arc Heads CA-25/50/75-M/100

### Features

- ◆ Totally Enclosed Water Cooled Weld Heads
- ◆ Compact Design to Permit Use in Situations Where Access is Limited
- ◆ Shielded-Gas Chamber to Prevent OD Discoloration
- ◆ Quick Change Collets Systems
- ◆ Welding on Actual Position
- ◆ Simple & Rugged Design
- ◆ DC Motor with Encoder

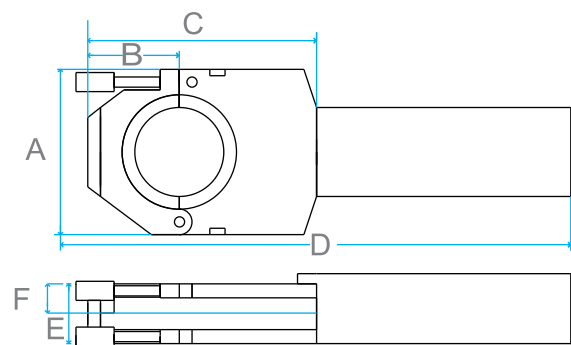


### Technical Specifications

Description	Unit	CA-25	CA-50	CA-75-M	CA-100
Diameter of Work Piece	mm	6 to 25.4	8 to 50.8	12.7 to 76.2	25.4-101.6
Speed Range	Rot / min	0.4 to 4	0.3 - 3	0.2 5- 2.5	0.16-1.6
Power	Watts	25	25	25	25
Weight	Kg	3	4.5	5	9
Cable Length	Mtr	8	8	8	8

### Dimensions

HEAD TYPE	A	B	C	D	E	F
CA-25	90	53	144	361	32	16
CA-50	130	72	180	420	48	24
CA-75-M	138	84	200	433	48	24
CA-100	200	105	280	517	50	25



### Accessories



## Compact Orbital Welding Gtaw Powersource ORBITRON-6000

### ORBITRON 6000

A true Smart digital power source for orbital weld heads. A Highly reliable, accurate, consistent, rugged, workhorse suitable for site conditions.



See Video



### Features

- ◆ “Auto programming mode” Generates weld procedures automatically.
- ◆ Stores 600 programs 200 auto and 400 Manual programs.
- ◆ Manual programs can be stored with tags
- ◆ Compact, rugged, noise proof design, weighing only 15 KG, easy carrying for site and runs on generators also.
- ◆ A simple design, easy for understanding for All operators,
- ◆ Segment wise programming with positional Reference
- ◆ In built weld data logger with USB port, pen drive or printer can be connected externally.
- ◆ Auto fault detection detects “Arc Fault”, “Rotor Jam”, “Earth Fault” ”Gas Fault” & user guidance to fix the fault.
- ◆ Suitable for all UNIVERSAL weld heads including tube to tube and tube to tube sheet.
- ◆ Password protected key functions for User levels such as welder, supervisor, admin.
- ◆ Auto tacking facility.
- ◆ Specially tuned GTAW power source with highly Stable current for Orbital welding.
- ◆ Separate compact water cooling unit for weld head cooling.

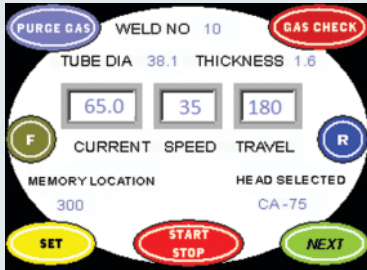
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PROJECT DONE BY			
PRAJ HIPURITY			
CLIENT NAME			
SIRUM PHARMA			
OPERATOR NAME omkar			
HEAD TYPE CA-75 (M)			
CONTROLLER TYPE ORBITRON- 6000			
MACHINE SR. NO.: 160701			
DATE 22/07/2016		TIME 16:17:34	
WELD NO.: 140			
TUBE THICKNESS 1.6		TUBE DIA 38.1	
mm		(mm)	
PREHEAT (S) 1.5			
POST FLOW (S) 30.0		PREFLOW (S) 30.0	
HIGH PULSE(S) 0.25		LOW PULSE(S) 0.25	
BASE CURRENT (A) 20			
LEVEL	TRAVEL DEGREE	SPEED %	CURRENT (A)
A	0	35	65.0
B	90	35	64.0
C	180	35	64.0
D	220	35	64.0
E	270	35	64.0
F	300	35	63.0
G	330	35	63.0
H	360	35	62.0
I	410	40	60.0
APPROVED BY:			

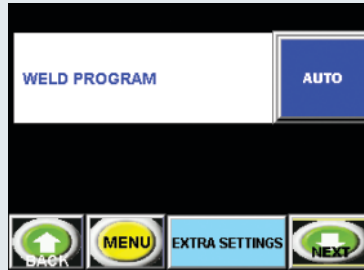
## ORBITRON 6000

### Auto Programming

New auto program generates auto weld procedures  
Need to enter tube O.D and thickness and weld head type



Startup Display



Auto Program Selection



Tube Size Selection

### Specifications:

Application	For use with all UNIVERSAL weld head, Welding lathe, SPM.
Function controlled	Weld current/ pulse, Weld head rotation, Gas solenoid
Line Power	230VAC + -15% 50Hz Single Phase, 15 A , 4KVA
Motor Control	24VDC, 1A
No of Weld Program can be stored	200 program in AUTO mode 400 program in MANUAL mode
Weld Data Logger Reading Storing capacity	2000
Data recording/ printout	Operator name, Weld ID number, O.D., Wall thickness Date, Time, Weld head model, Project, Drawing Number, Programmed Parameters
Dimensions	(L)510 (H)390 (D)220
Operating temperature	-18 c to 50 c
Output Current	10A TO 160 A
Pulse Rate	0.2 TO 100 Pulse /Sec
Open ARC Voltage	75 VDC
Weight	15 KG

### Water Cooling Unit (WT4)

Capacity	4 Ltrs.
Dimension (mm0	L (350) H (165) W (150)
Weight	4 Kg

### Accessories



Water cooling unit

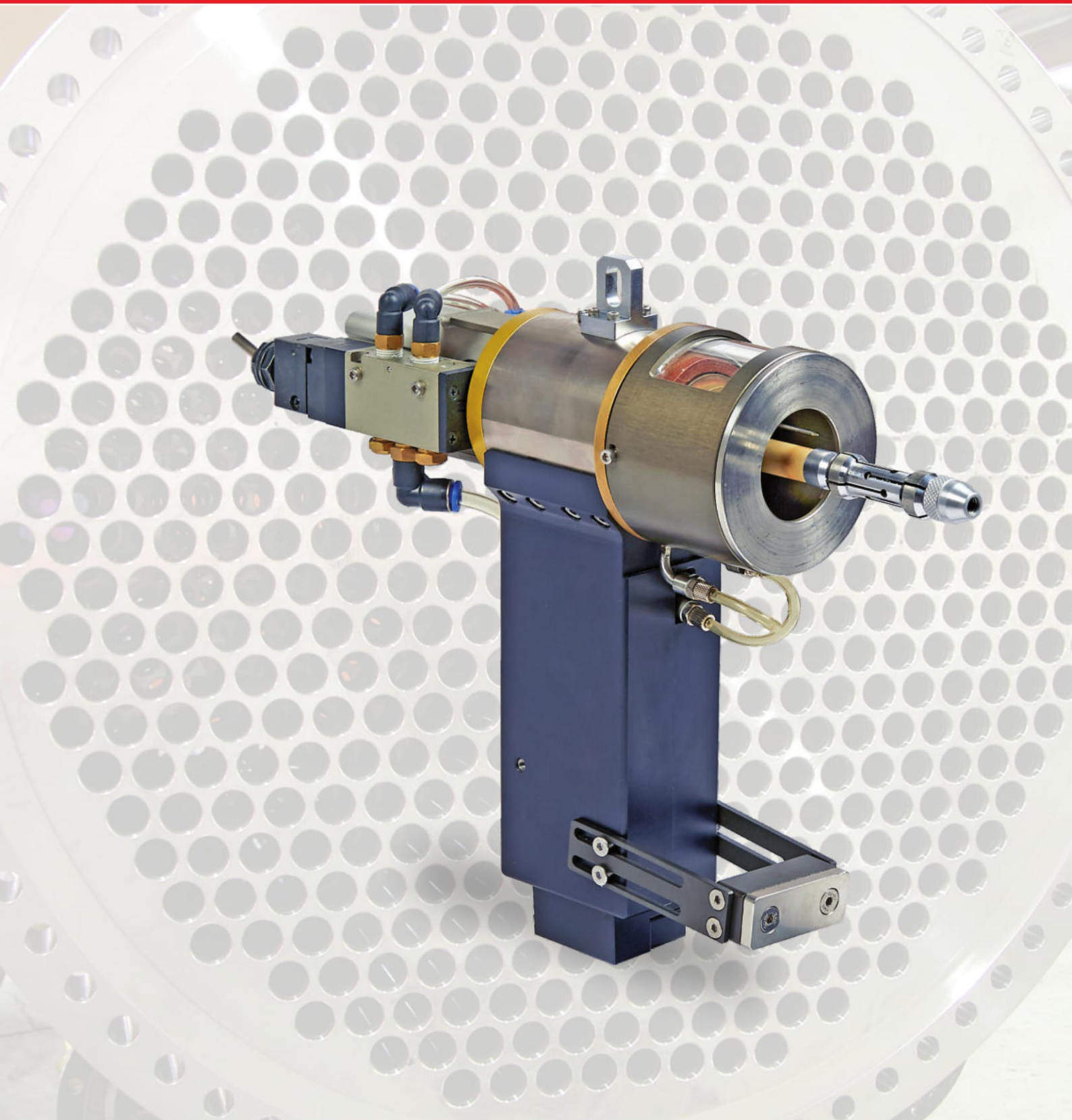


Printer



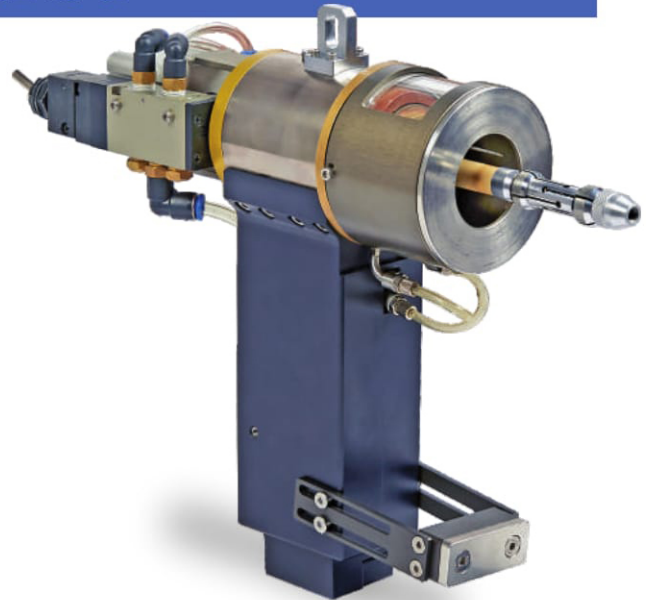
Carrying case

# Tube To Tube-sheet Orbital Weld Head TTS-37



# Tube To Tube-sheet Orbital Weld Head TTS-37

TTS 37 welding head for condenser welding.  
 Light weight and easy to use.  
 Especially, It is designed for welding of stainless, duplex, and inconel.  
 An operator can install maximum 4 welding heads at a time while operating.  
 High quality level, oxidation free welds.



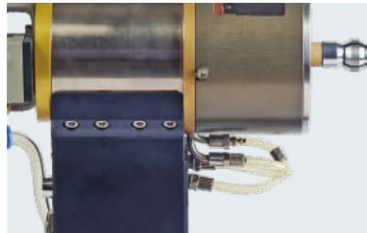
## Technical Specifications

Tube diameter	I.D.14.0-37.0mm (0.55-1.45")	Torch cooling	Water cooled
Welding current	Max.125A	Welding position	horizontal, vertical
Welding process	Protruding(Max.0.5mm), Flush, Recessed welding type	Welding procedure	TIG without filler wire
Support on Tube-sheet	Expanding centering cartridge	Electrode size	1.6mm / 2.4mm
		Weight	3 KG

## Air Locking System



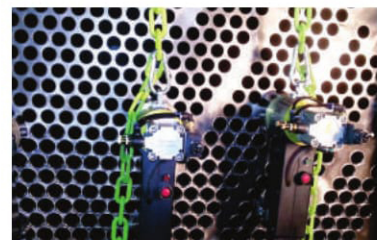
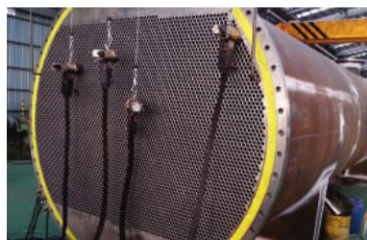
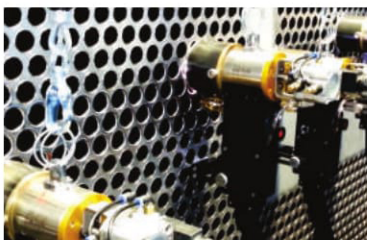
## Front Water Cooling



## Centering Cartridge



## Example Tool Application



# Orbital Pipe Cutter

R4 LITE

## Features

- ♦ Reliable & cost effective solution to square cut for all types of metal pipe
- ♦ A precise, square and clean cut
- ♦ Unnecessary to do any additional preparation work on the cut-off face for orbital welding
- ♦ Light weight sturdy design

## Technical Specifications

Pipe O.D.	1/2" - 4"
Wall Thickness (inch)	0.02" - 0.12"
Wall Thickness (mm)	0.5 - 3
Approximate Weight (kg)	25
Power Input	1000 W
Voltage / Frequency	220V / 50-60Hz



# Tube Facing Machine TF-4

The portable tube squaring machine is specially designed to flatten and bevel tube end, making it burr-free, and perfect straight to the axis of the tube.

After facing, the tube would be ready for orbital welding or other tube fabrication, ideal for high purity / high sanitary industry use, such as Beverage, Dairy, Pharmaceuticals, Water treatment, Food, Semi-conductor industry etc.



## Features

- ♦ Faces and Bevel most metals including stainless steel, nickel and carbon steels, , chrome, copper-nickel alloy, aluminum
- ♦ Wide range of collets (clamp)/ OD Mounting Saddles available, to avoid any tube distortion
- ♦ TF 4 Model Range : 1" OD to 4 "OD
- ♦ Can face and bevel tube wall thickness up to 8 mm
- ♦ 120/220 V powerful Metabo electrical motor
- ♦ Micro feed system
- ♦ Supply full range of bevel and squaring Bit

## Technical Specifications

Pipe O.D.	1" - 4"
Wall Thickness (inch)	0.04" - 0.31"
Wall Thickness (mm)	1 - 8
Approximate Weight (kg)	19
Power Input	1000 W
Voltage / Frequency	220V / 50-60Hz

## Tungsten Grinder

The Tungsten grinder TS-PPE is an excellent tool for hand orbital welding when using tungsten electrodes. The grind is always consistent for precise arc striking and concentration. The standard unit has a fixed angle 20 degrees included.

The diamond wheel is double sided and the movable disk allows the settings for two grooves on the top; as well as, two on the bottom so the entire wheel is used for grinding.



### Features

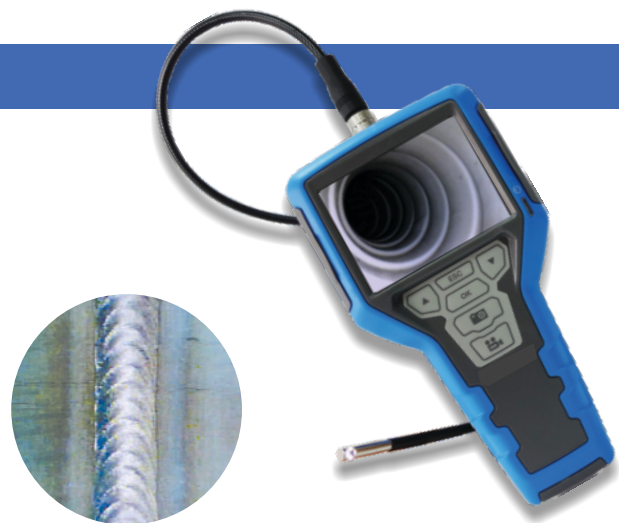
- ◆ Double Sided Diamond Wheel
- ◆ 230 Volt AC Motor with Variable Speed
- ◆ Collets for 1.6, 2, 2.4, 3.2 mm Tungsten
- ◆ Double Insulated Motor
- ◆ Stainless Steel Collets



## Video Borescope

### Features

- ◆ Diameters : 5.8, 8, 10 mm
- ◆ Lengths : 2 to 10 Meter Length Available
- ◆ Without Articulation / With Articulation : 4-Way
- ◆ High Resolution CCD Image
- ◆ High Definition VGA LCD Display
- ◆ Built-in Video Recording & Digital Image Capture



Due to continues development, product specifications are subject to change.

  
**UNIVERSAL  
ORBITAL  
SYSTEMS  
PVT. LTD.**

36/2/7, Narhe Dhayari Road, Narhe Gaon,  
Pune-411041  
Phone : + 91 - 20 - 87930 89870 / 71  
M : +91 90 11 14 04 71  
Email : response@orbitronsystems.com  
www.orbitronsystems.com

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