

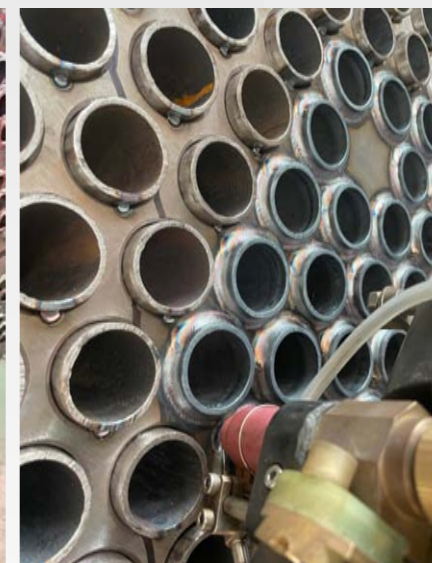
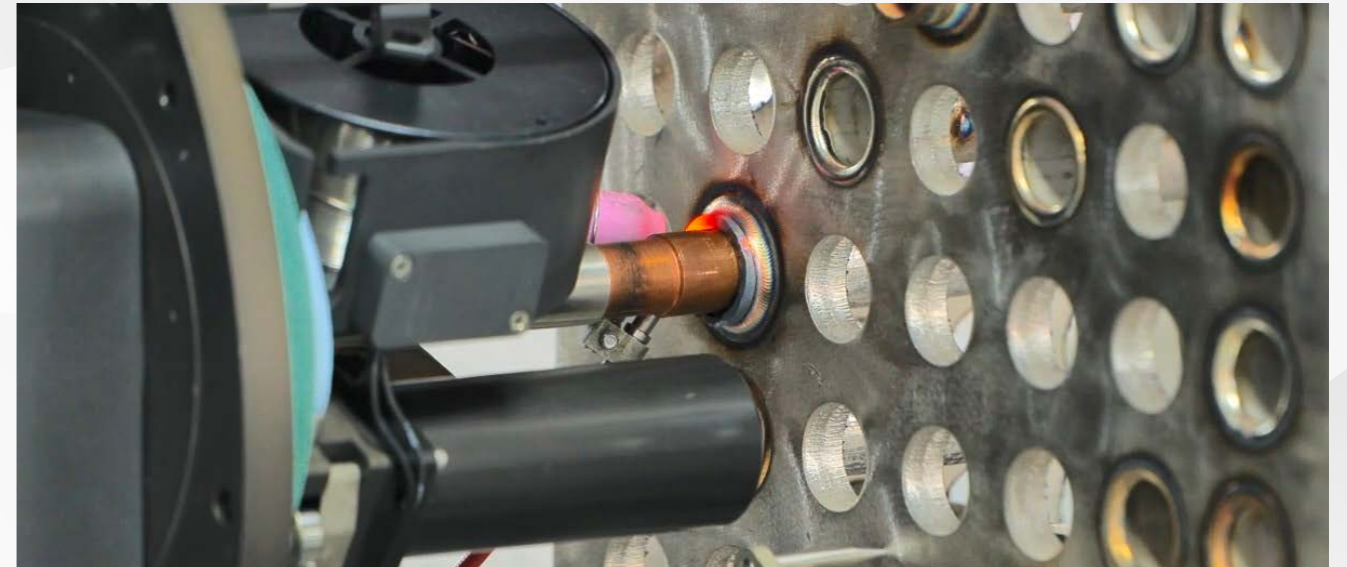
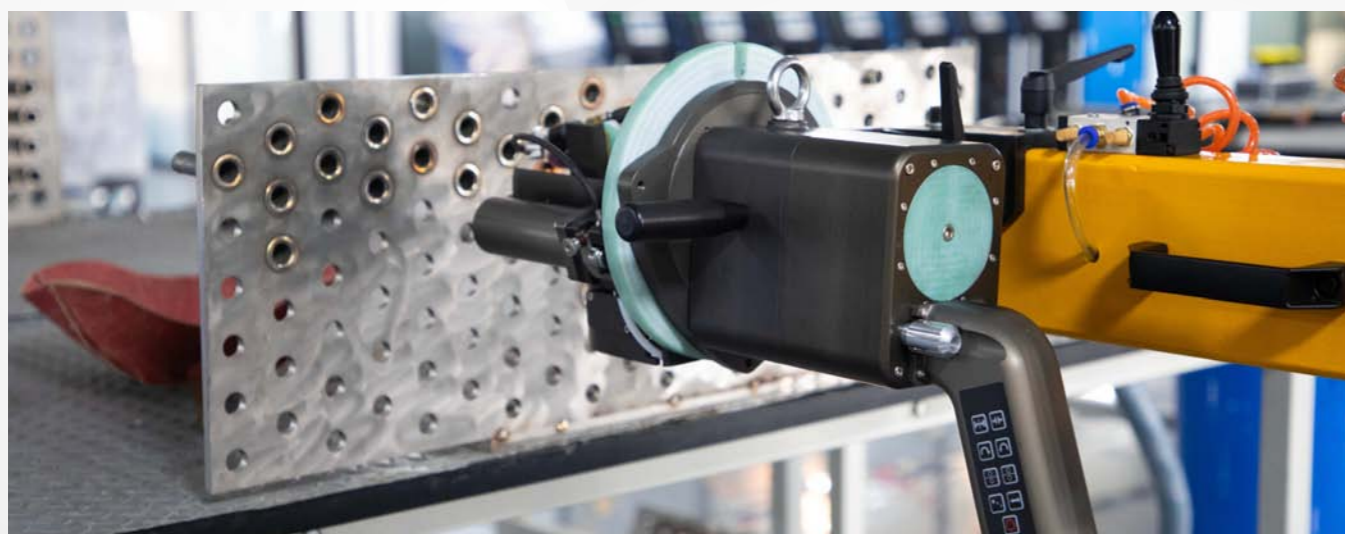
## Orbital Tube to Tubesheet Welding

P400 Power Source / Tube-Sheet Welding Head



Based on extensive experience and confidence, NODHA show you how much we trust in the durability and reliability of our products. We provide 3-years warranty free of charge all over the world. Consult us for details.

YouTube



## P400 Power Source

### Program-Controlled



### Introduction

P400 digital welding power source is an automatic program-controlled welding power source. The welding power source adopts the new inverter power supply and control technology in the welding field, with the 7" color touch screen as the human-machine interface, which is advanced, digital, easy to operate, intelligent, expandable, and reliable. The power source provides precise control of current, rotation, shielding gas, cooling and wire feeding, centrally sets and stores various functional parameters in all-position welding, and distributes synchronous and precise control. The power supply is specially designed and manufactured for our tube sheet welding head and pipe-flange welding. Mainly used in chemical, food, medicine, boiler, pressure vessel, various heat exchangers and other industries.

### Features

- **Equipment Composition**  
Control system, inverter integrated circuit, water cooling tank, etc
- **Preferred configuration**  
Siemens PLC control system, EWM welding movement, Swiss Maxon Drive Motor
- **Module composition**  
Modular design for easy maintenance and maintenance
- **Easy to move**  
Equipped with four wheels for easy movement
- **Parameter storage**  
It has functions such as parameter saving/printing, and can be operated with basic welding knowledge

### Specification

Model	P400
Power Type	Inverter
Power Cable Length	5M
Welding Current	5~400A
Duty Cycle(20 °C)	400A 60% 310A 100%"
Unload Voltage	73V
Input Voltage	AC 380V±10% 50/60Hz
Power	13.2 KVA
Screen	7"
Programming	Manual / Automatic
Insulation Grade	F
Protection	IP21
Control Function	Gas/Current/Rotation/Cooling/ Wire feeding
Cooling	Water
Cooling Tank	16L
Number of storable program	70
Adjustable Welding Section	Standard: 4
Weight	90 kgs
Shipping Weight	144 kgs
Package	Plywood case
Package Size	1250*650*1150mm



Remote hand controller

### Standard Supply

p400 Power source
Hand Controller
4M Ground cable

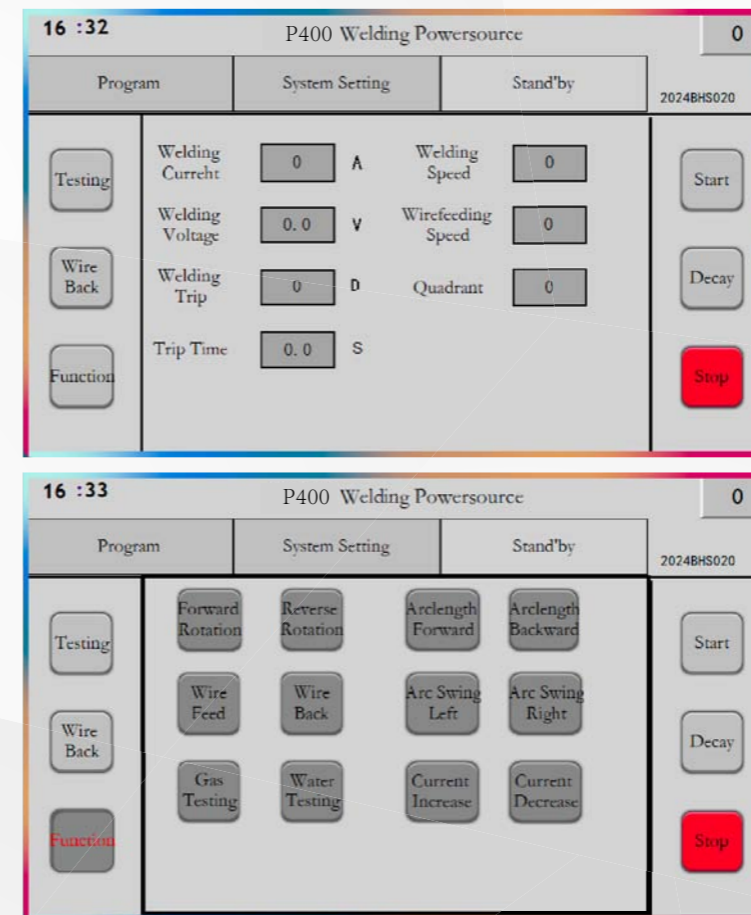
## Performance

- Function of automatic calculation of various welding parameters, which can easily realize the automatic welding process parameter matching
- With parameter library, it can calculate and generate welding programs for different pipe diameters and wall thicknesses automatically
- Special power source for tube-sheet, pipe-flange welding heads
- Compatible with all BH Series and TS Series welding heads
- Realize the import and export operation of U disk program, and easily replace the welding process program
- Super circulating water pump and 16L water tank ensure the continuous operation of the system
- Highly modular design, easy to customize according to customer needs

## Interface introduction



## Main Interface



## Main Component

Control System	Program controlled welding power source software V1.0
Touch Screen	WEINTEK HIM/MT807lie, Taiwan
PLC control module	SIEMENS PLC/S7-1200, Germany
Inverter	Standard: Self-develop dtp-400. Or ewm, Germany for option
Control Relay	OMRON 2662201, Japan
Power Switch	TAYEE ZW42A2, Shanghai
Water Pump	CEME WED-3510(220V), Italy
Drive Motor	Standard: SHA YANG YE DM300264, Taiwan. Or maxon, Swiss for option
Wire Feeder Motor	SHA YANG YE DM300264-F0401R(DC 24V), Taiwan
Water/Gas quick Couple	LEGRIS 21KBTF04MFN, Germany
Control cable & Jacket	HELUKABEL, Germany
Control Plug	TE AMP, U.S.

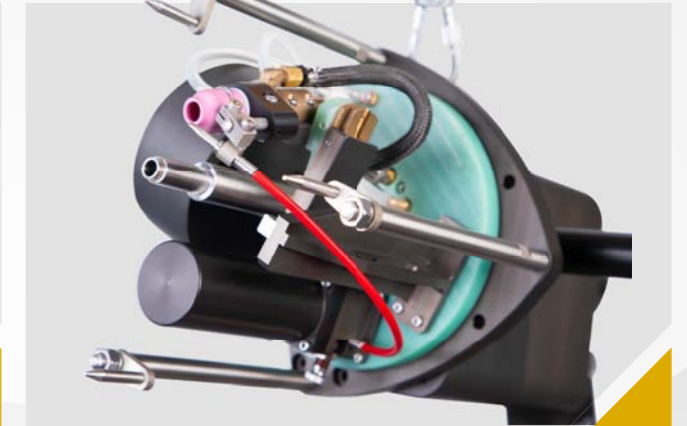
## Tube-Sheet Welding Head TS80



**TS80**  
PRODUCT  
DETAILS

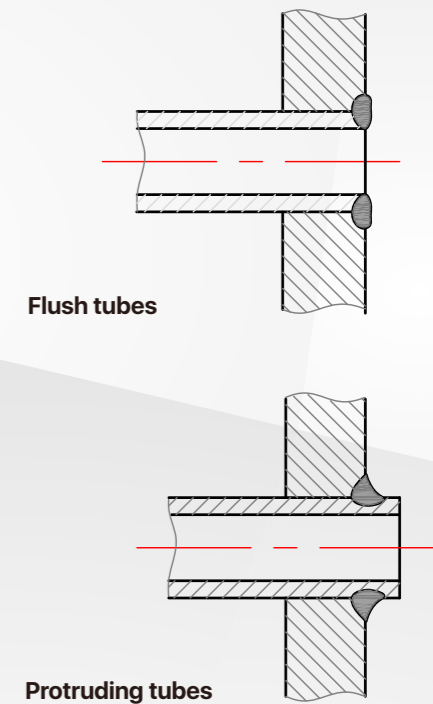
### Features

- Adopts air clamping and positioning, makes the welding head firmly positioned on the tube sheet
- With automatic arc length control device, but the arc length can be adjusted manually
- Using the water-cooled TIG welding torch, it is convenient and quick to replace or adjust the tungsten electrode
- Equips with an integrated wire feeder with 1.5kg wire reel
- Water, electricity and gas all realize the function of no winding
- Operation buttons on the welding head conform to the ergonomic design



### Specification

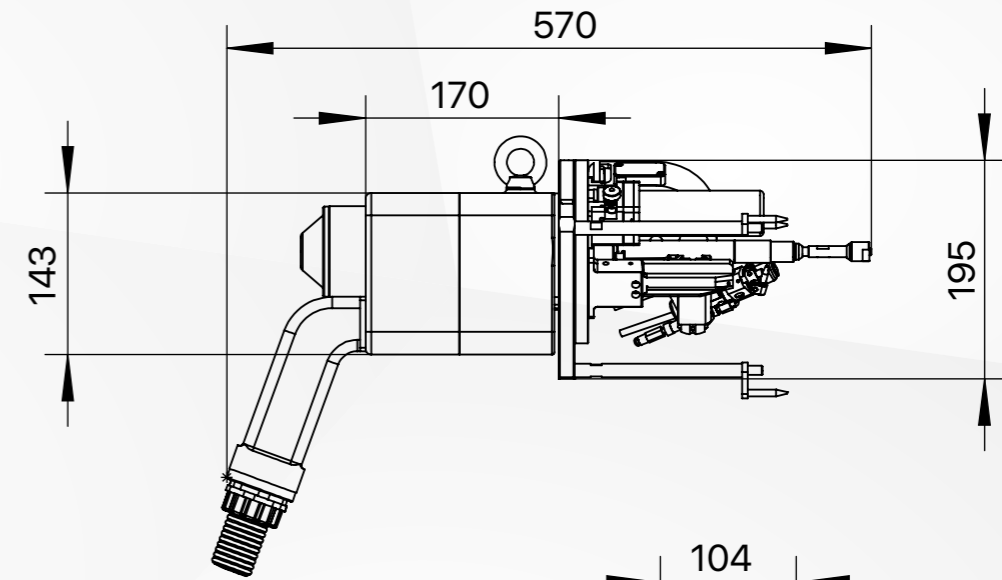
Model	TS80
Power Source	P400
Weldable Material	CS, SS, Ti alloy
Tube OD	12-60mm(Manipulator+Localizer) 19-60mm(Spring balance+collet)
Inch	1/2"- 2 1/2"(Manipulator+Localizer) 3/4"- 2 1/2"(Spring balance+collet)
Tube sheet shape	Flush tube, Protruding tube
Wire Diameter	0.8 / 1.0mm
Wire Spool	Max. 1.0 kg
Torch inclination	0°-30° adjustable
Duty Cycle	300A 60%
Arc length adjustment spacing	20mm
Max. Wire feed Speed	3000mm/Min
Rotation Speed	0.4-7.3 rpm
Tungsten Electrode Dia.	2.4 / 3.2mm
Shielding Gas	Argon
Cable Assembly Length	6 M
Cooling	Water
Cooling flow	≥600 ml/Min
Weight	13 kgs (W/o cable)
Shipping Weight	36 kgs
Package Size	700*490*350mm



## Welding head button



## Dimension Figure



## Collet & Localizer

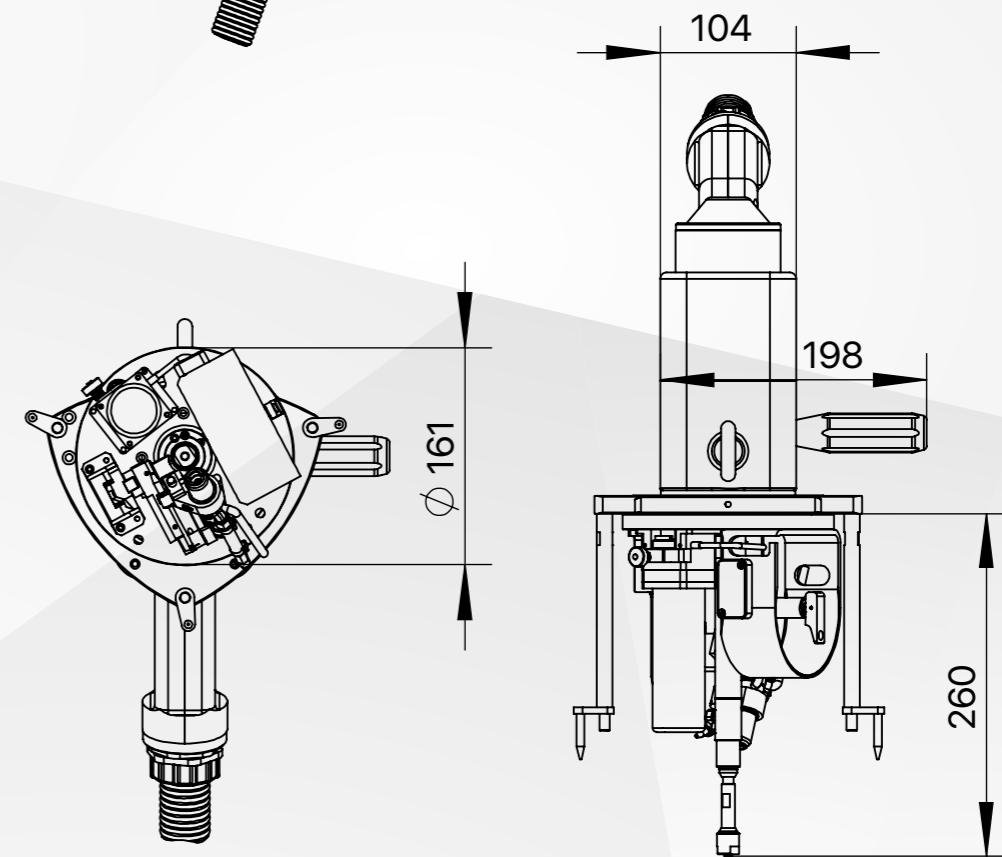


## Standard Supply

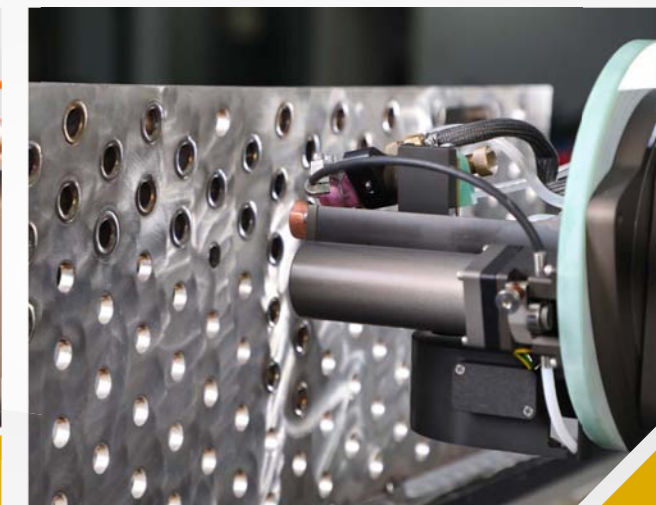
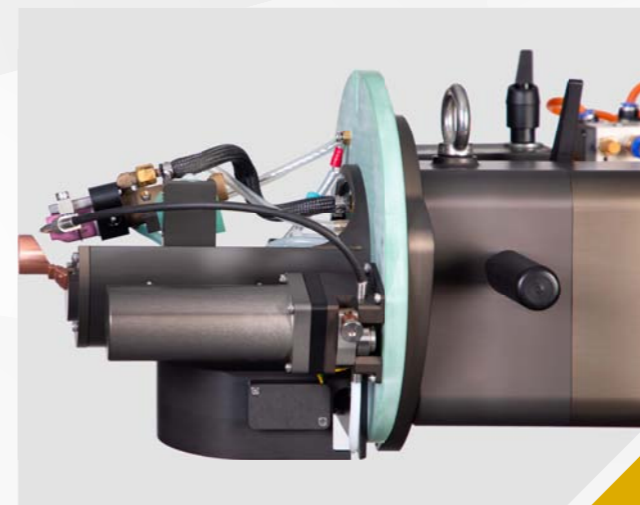
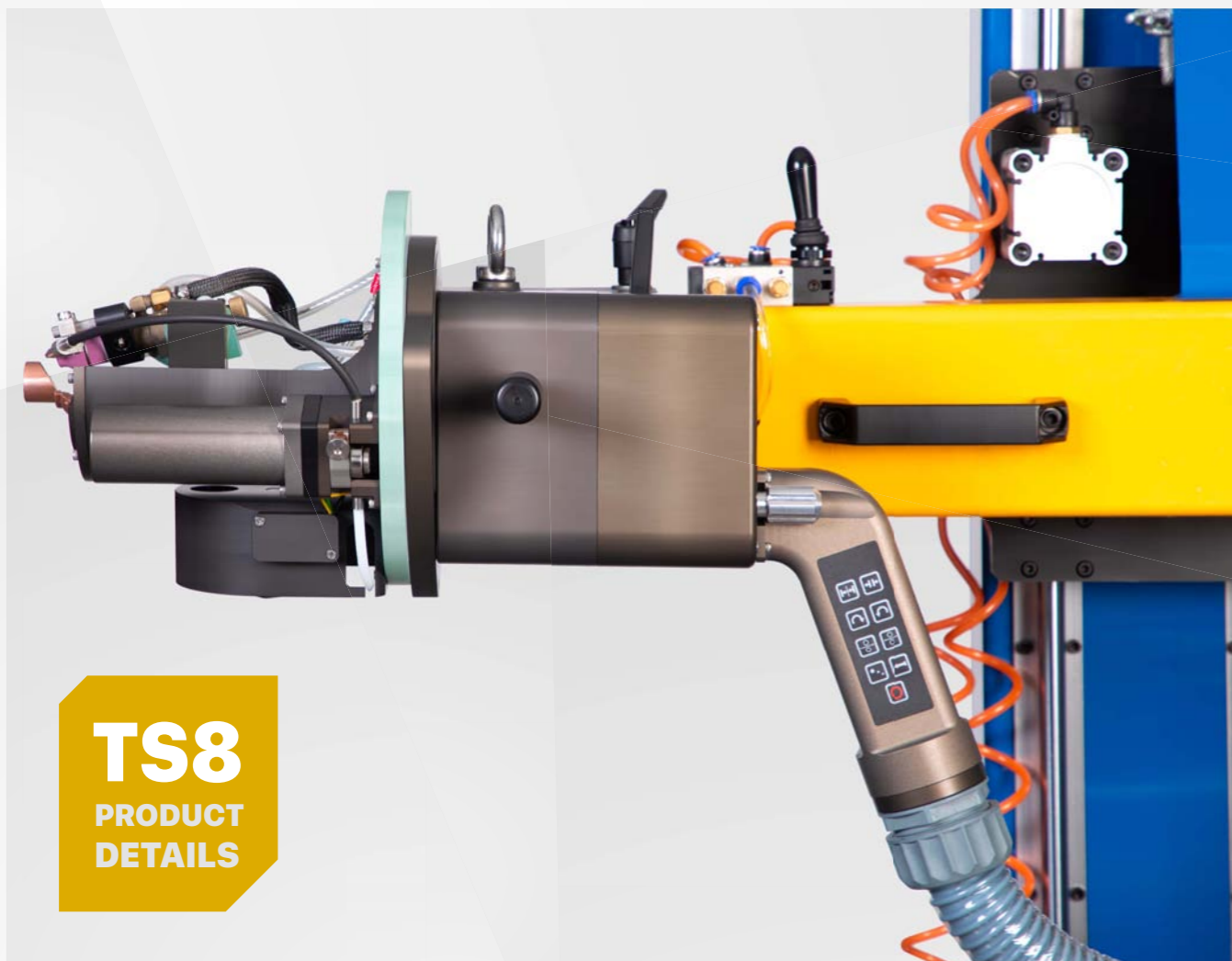
TS80 Welding Head - 1 pce
6M cable assembly - 1 pce
Water and electricity tube - 1 pce
Wire feed tube - 1 pce
Wire feed nozzle - 1 pce
Tungsten clamp - 2 pcs
Ceramic nozzle - 2 pcs
Striking arc ring - 1 pce
Tungsten electrode - 2 pcs
Diagonal pliers - 1 pce
Hex key - 1 set
localizer or collet - 5 sizes

## Cable Assembly

Positive/Negative cable
14 pins AMP aviation plug
7 pins AMP aviation plug - wire feed control
7 pins AMP aviation plug - rotation control
9 pins AMP aviation plug - Arc swing control
Water hose - 2 pcs
Compressed air hose
Argon shielding gas hose

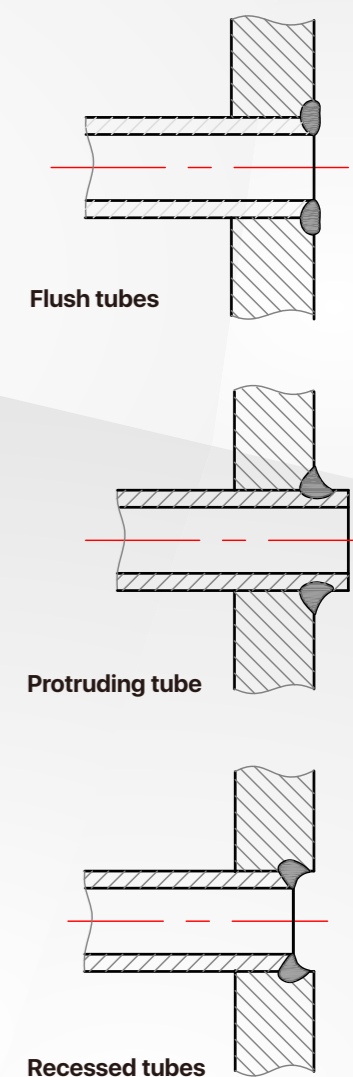


## Tube-Sheet Welding Head TS8



### Specification

Model	TS8
Power Source	P400
Weldable Material	CS, SS, Ti alloy
Tube OD	Φ8-Φ32mm
Inch	3/8 - 1 1/4 in.
Tube sheet shape	Flush tube, Protruding tube, Recessed tube
Wire Diameter	0.8 / 1.0mm
Wire Spool	Max. 1.0 kg
Torch inclination	0°-30° adjustable
Duty Cycle	300A 60%
Arc length adjustment spacing	20mm
Max. Wire feed Speed	3000mm/Min
Rotation Speed	0.4-7.3 rpm
Tungsten Electrode Dia.	2.4 / 3.2mm
Shielding Gas	Argon
Cable Assembly Length	6 M
Cooling	Water
Cooling flow	≥600 ml/Min
Weight	13 kgs (W/o cable)
Shipping Weight	36 kgs
Package Size	700*490*350mm



**TS8**  
PRODUCT  
DETAILS

### Features

Adopts air clamping and positioning, makes the welding head firmly positioned on the tube sheet

With automatic arc length control device, but the arc length can be adjusted manually

Using the water-cooled TIG welding torch, it is convenient and quick to replace or adjust the tungsten electrode

Equips with an integrated wire feeder with 1.5kg wire reel

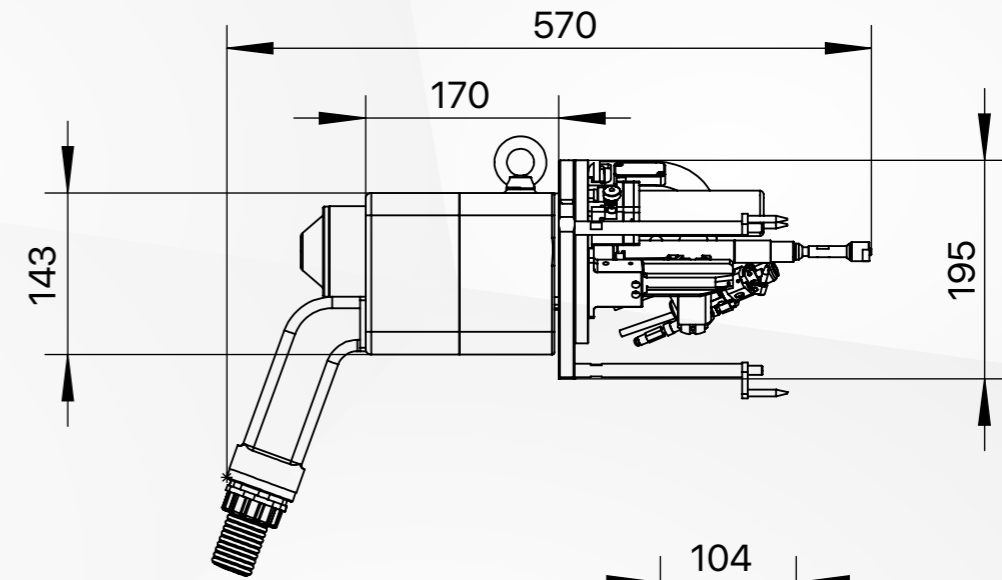
Water, electricity and gas all realize the function of no winding

Operation buttons on the welding head conform to the ergonomic design.

## Welding head button



## Dimension Figure



## Collet & Localizer

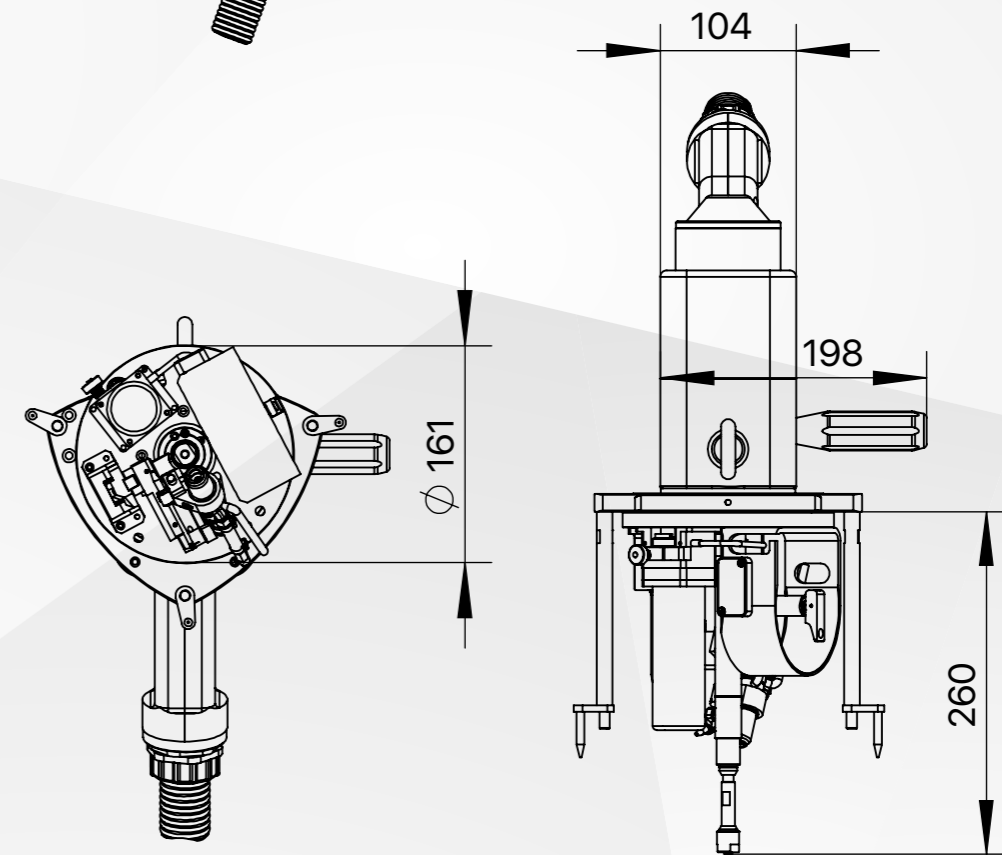


## Standard Supply

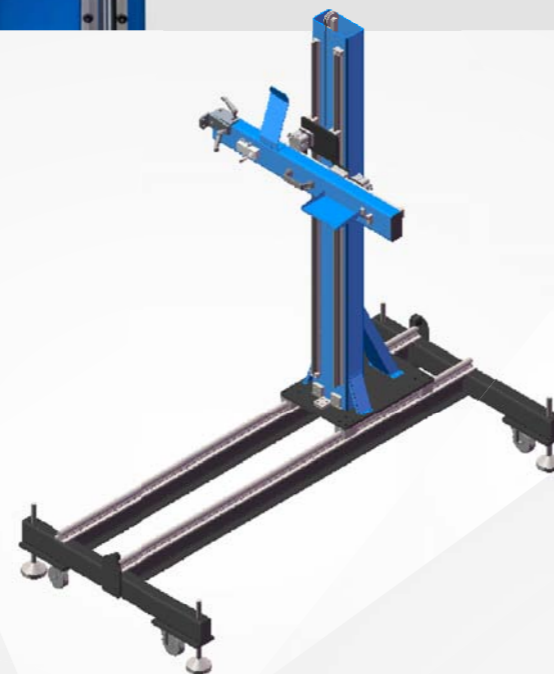
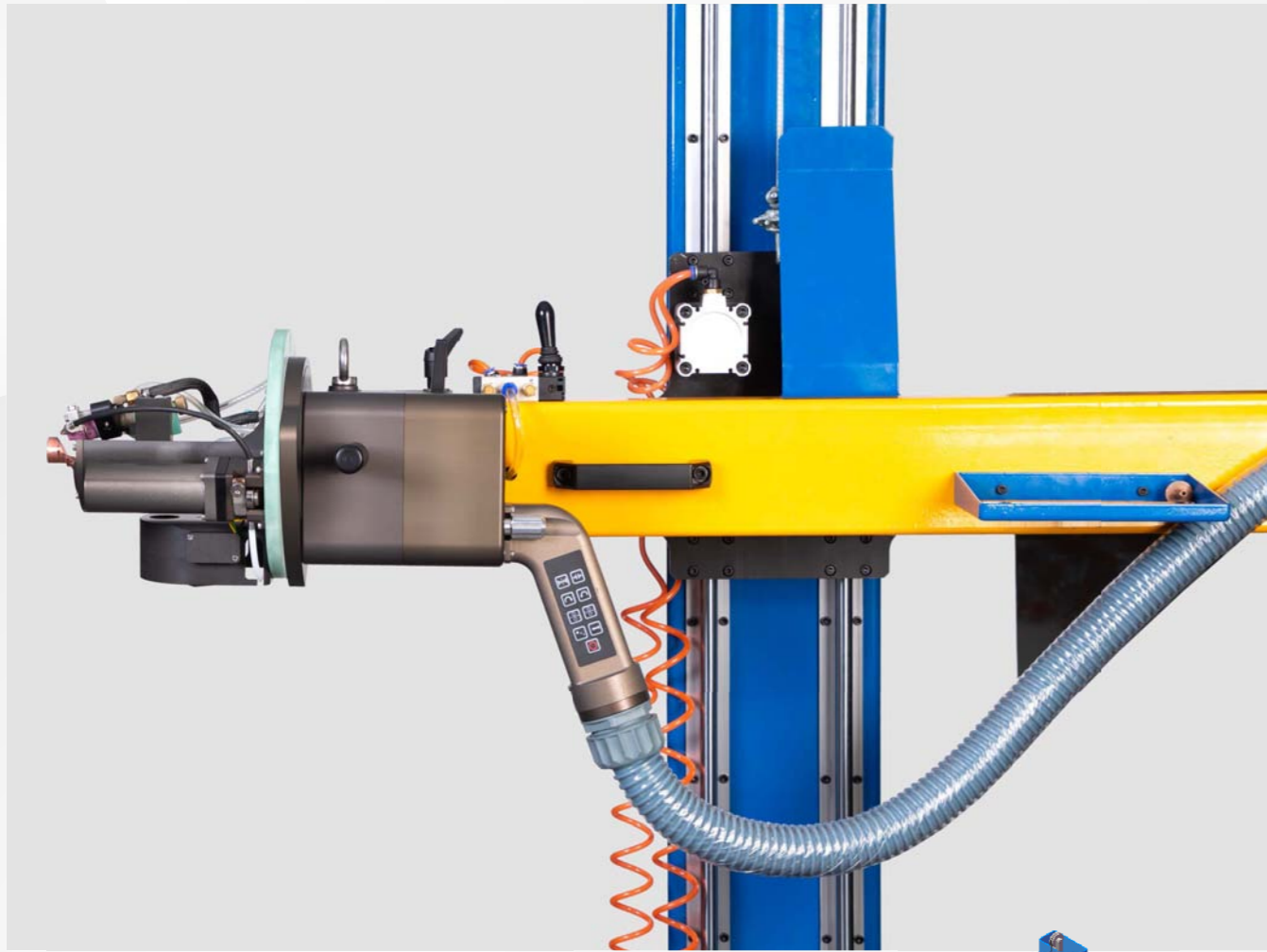
TS8 Welding Head - 1 pce
6M cable assembly - 1 pce
Water and electricity tube - 1 pce
Wire feed tube - 1 pce
Wire feed nozzle - 1 pce
Tungsten clamp - 2 pcs
Ceramic nozzle - 2 pcs
Striking arc ring - 1 pce
Tungsten electrode - 2 pcs
Diagonal pliers - 1 pce
Hex key - 1 set
localizer - 5 sizes

## Cable Assembly

Positive/Negative cable
14 pins AMP aviation plug
7 pins AMP aviation plug - wire feed control
7 pins AMP aviation plug - rotation control
9 pins AMP aviation plug - Arc swing control
Water hose - 2 pcs
Compressed air hose
Argon shielding gas hose



## Welding Manipulator



### Specifications

Model	WM20
Locking Power Supply	Air 0.7Mpa
Horizontal move distance	1500 mm
Vertical move distance	1300 mm
Forward and backward move distance	450 mm
Lowest position of torch from the ground	600 mm
Highest position of torch from the ground	2100 mm
Net weight	280 kgs
Gross weight	400 kgs
Package	Plywood case

### Features

- Three-axis pneumatic sub-control locking control
- Equipped with four wheels for easy movement
- 4 Supporting legs makes the operation more stable

### Dimension Figure

