



台弧电机科技有限公司  
TAIARC ELECTRONIC TECHNOLOGY CO., LTD



## PLASMA ARGON ARC WELDING MACHINE FOR PIPE MAKING MACHINE



CHINA/NO. 31, NO. 7, SCIENCE AND TECHNOLOGY AVENUE, HOUJIE TOWN, DONGGUAN CITY

# COMPANY INTRODUCTION

DONGGUAN TAIHU ELECTRONIC TECHNOLOGY CO., LTD. WAS ESTABLISHED ON OCTOBER 29, 2009. TAIHU IS A TECHNOLOGY COMPANY SPECIALIZING IN THE PRODUCTION OF WELDING MACHINES FOR PIPE MANUFACTURING. OUR R&D TEAM HAS RAPIDLY ACCUMULATED KEY TECHNICAL EXPERTISE OVER THE YEARS, CONTINUOUSLY DEVELOPING AND INNOVATING, AND CONTINUOUSLY DEVELOPING NEW PRODUCTS. IN RECENT YEARS, WE HAVE FURTHER PROMOTED THE USE OF VARIOUS PIPE WELDING EQUIPMENT TO IMPROVE THE COMPANY'S PRODUCTION QUALITY.



# Contents

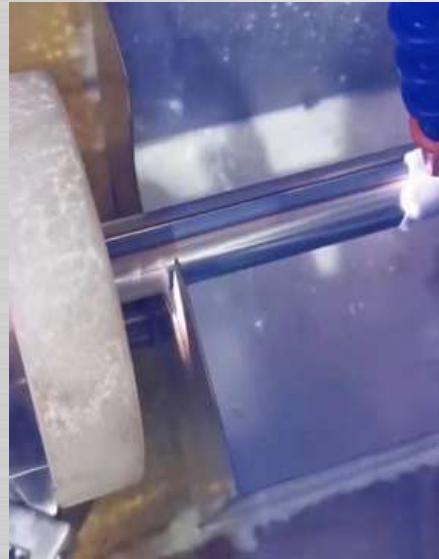
1	GT-500 DP-----1
2	TIG-500/650/800DP----3
3	TIG-500 /TIG-650 /TIG-800DP II ---4
4	PW-500/650/800 DP----5
5	TIG-500/650/800 DPS---8
6	TPS-500/650/800 DP----9

# GT-500DP



## GT-500DP

<b>RATED WORKING VOLTAGE</b>	<b>3Φ220V 380V 415V</b>
<b>RATED FREQUENCY</b>	<b>50/60 HZ</b>
<b>RATED INPUT</b>	<b>21KW</b>
<b>RATED OUTPUT CURRENT</b>	<b>10-500A</b>
<b>WELDING CURRENT RISE TIME (S)</b>	<b>0-20</b>
<b>WELDING CURRENT FALL TIME (S)</b>	<b>0-20</b>
<b>PRE-GAS SUPPLY TIME (S)</b>	<b>0-20</b>
<b>EXHAUST TIME (S)</b>	<b>0-20</b>
<b>EXTERNAL SHIELDING GAS ADJUSTMENT (L/MIN)</b>	<b>0-25</b>
<b>INTERNAL SHIELDING GAS ADJUSTMENT (L/MIN)</b>	<b>0-25</b>
<b>NO-LOAD VOLTAGE (V)</b>	<b>68V</b>
<b>AVC RANGE (V)</b>	<b>10/30</b>
<b>AVC ACCURACY (V)</b>	<b>± 0.1</b>
<b>COOLING METHOD OF THE WHOLE MACHINE</b>	<b>AIR COOLING/WATER COOLING</b>
<b>INSULATION LEVEL</b>	<b>F</b>
<b>UTILIZATION RATE</b>	<b>80%</b>
<b>DIMENSIONS</b>	<b>600*360X630MM</b>
<b>WEIGHT</b>	<b>48KG</b>



## WELDING MACHINE FEATURES

1. MADE WITH TAIWANESE TECHNOLOGY, THE MAIN UNIT UTILIZES A VARIABLE FREQUENCY DESIGN, SAVING ONE-THIRD OF THE ENERGY OF TRADITIONAL WELDING MACHINES. KEY COMPONENTS, INCLUDING THE CONTROL IC, CIRCUIT BOARD, AND TRANSFORMER, ARE MANUFACTURED IN TAIWAN.
2. COMPATIBLE WITH THE PIPE MAKING MACHINE'S MULTI-STAGE CONTROL, ENABLING INDEPENDENT START-UP, SYNCHRONIZED START-UP, AND SHUTDOWN, ALLOWING FOR FLEXIBLE CONFIGURATION.
3. GAS-SAVING DEVICE: THE WELDER FEATURES TWO SETS OF RESTRICTOR TUBES, ONE FOR WELDING AND ONE FOR THE INNER PROTECTIVE TUBE. SYNCHRONOUS ACTIVATION AND DEACTIVATION PREVENTS GAS LOSS IN THE INNER PROTECTIVE TUBE.
4. WELDING CURRENT, VOLTAGE, AND OTHER PARAMETERS ARE DISPLAYED AND CONFIGURED ON THE SAME TOUCHSCREEN AS THE UNIT.
5. ALARMS FOR WATER, GAS, AND PHASE FAILURE.
6. FULLY ENCLOSED AIR DUCT DESIGN IMPROVES DUST RESISTANCE, REDUCES FOREIGN MATTER INTRUSION, AND ENHANCES RELIABILITY.
7. THE UNIT UTILIZES BOTH AIR AND WATER COOLING, BOASTING A HIGH DUTY CYCLE AND LONG-TERM CONTINUOUS OPERATION.
8. SUITABLE FOR WELDING VARIOUS METAL MATERIALS, INCLUDING STAINLESS STEEL, DUPLEX STAINLESS STEEL, FERRITIC STAINLESS STEEL, MILD STEEL, HIGH- AND LOW-ALLOY STEELS, TITANIUM ALLOYS, COPPER, AND NICKEL.

### INTELLIGENT WELDING GUN HOLDER

1. AUTOMATICALLY RAISES AND LOWERS THE WELDING GUN WHEN CHANGING THE TUNGSTEN NEEDLE, AND THE TOUCHSCREEN DISPLAYS THE REAL-TIME WELDING GUN POSITION.
2. X, Y, AND Z COORDINATES ARE PRECISELY MANUALLY ADJUSTABLE.
3. MAIN TRANSMISSION COMPONENTS UTILIZE PRECISION BALL SCREWS AND LINEAR GUIDES.



# TIG-500/650/800 DP



MODEL	TIG-500DP	TIG-650DP	TIG-800DP
RATED WORKING VOLTAGE	3Φ4W (220V/380V/415V)	3Φ4W (220V/380V/415V)	3Φ4W (220V/380V/415V)
RATED FREQUENCY	50/60 HZ	50/60 HZ	50/60 HZ
RATED INPUT	25KW	30 KW	33KW
RATED OUTPUT CURRENT	10-500A	10-650A	10-800A
WELDING CURRENT RISE TIME (S)	0-20	0-20	0-20
WELDING CURRENT FALL TIME (S)	0-20	0-20	0-20
PRE-GAS SUPPLY TIME (S)	0-20	0-20	0-20
EXHAUST TIME (S)	0-20	0-20	0-20
EXTERNAL SHIELDING GAS ADJUST	0-25	0-25	0-25
INTERNAL SHIELDING GAS ADJUST	0-25	0-25	0-25
AVC RANGE (V)	10/30	10/30	10/30
AVC ACCURACY (V)	±0.1	±0.1	±0.1
COOLING METHOD	AIR COOLING/WATER COOLING	AIR COOLING/WATER COOLING	AIR COOLING/WATER COOLING
INSULATION LEVEL	F	F	F
UTILIZATION RATE	100%	100%	100%
DIMENSIONS	700*560*850MM	700*560*850MM	700*560*850MM
WEIGHT	80KG	86KG	92KG

# TIG-500 /TIG-650 /TIG-800 DP II



MODEL	TIG-500 DP II	TIG-650 DP II	TIG-800 DP II
RATED WORKING VOLTAGE	<b>3Φ 4W (220V/380V/415V)</b>		
RATED FREQUENCY	50/60 HZ	50/60 HZ	50/60 HZ
RATED INPUT	25 KW/25KW	30 KW/30KW	33 KW/33 KW
RATED OUTPUT CURRENT	10-500A/10-500A	10-650A/10-650A	10-800A/10-800A
WELDING CURRENT RISE TIME (S)	0-20/0-20	0-20/0-20	0-20/0-20
WELDING CURRENT DECREASE TIME (S)	0-20/0-20	0-20/0-20	0-20/0-20
EARLY GAS SUPPLY TIME (S)	0-20/0-20	0-20/0-20	0-20/0-20
EXHAUST TIME (S)	0-20/0-20	0-20/0-20	0-20/0-20
EXTERNAL PROTECTIVE GAS ADJUSTMENT (L/MIN)	0-10/0-10	0-10/0-10	0-10/0-20
INTERNAL PROTECTIVE GAS ADJUSTMENT (L/MIN)	0-10/0-10	0-10/0-10	0-10/0-10
AVC RANGE (V)	10/30/10-30	10/30/10/30	10/30/10/30
AVC ACCURACY (V)	±0.1/±0.1	±0.1/±0.1	±0.1/±0.1
MACHINE COOLING METHOD	AIR COOLING/WATER COOLING	AIR COOLING/WATER COOLING	AIR COOLING/WATER COOLING
INSULATION LEVEL	F	F	F
USAGE RATE	100%	100%	100%
OVERALL DIMENSIONS	700*560*980MM	700*560*980MM	700*560*980MM
WEIGHT	115KG	125KG	135KG

## **WELDING MACHINE FEATURES**

1. DUAL TIG WELDING POWER SUPPLIES, INTEGRATED STRUCTURE AND CONTROL, TAKE UP MINIMAL SPACE.
2. WATER-COOLED, HIGH UTILIZATION, STABLE AND RELIABLE PERFORMANCE.
3. ADJUSTABLE WELD BEAD WIDTH.
4. TWO-STAGE WELDING CONTROL: STANDARD AND HIGH PENETRATION, ENHANCING PENETRATION WELDING (1.5-4.0MM).
5. PANEL-MOUNTED GAS FLOW ADJUSTMENT FOR CONVENIENT CONTROL OF WELDING AND INTERNAL PROTECTION GAS FLOW.
6. COMPATIBLE WITH THE PIPE MAKING MACHINE'S MULTI-STAGE CONTROL, ENABLING INDEPENDENT START-UP, SIMULTANEOUS START-UP AND SHUTDOWN FOR FLEXIBILITY.
7. OPTIONAL EXTERNAL PLC CONTROL.
8. MANUFACTURED WITH TAIWANESE TECHNOLOGY, THE MAIN UNIT UTILIZES A VARIABLE FREQUENCY DESIGN, SAVING ONE-THIRD OF THE ENERGY OF CONVENTIONAL WELDING MACHINES. KEY COMPONENTS, INCLUDING THE CONTROL IC, CIRCUIT BOARD, AND TRANSFORMER, ARE MANUFACTURED IN TAIWAN.
9. A SINGLE UNIT CAN PERFORM BOTH T+T AND T WELDING METHODS, COVERING ALL DIFFERENT METAL MATERIALS.
10. GAS CONSERVATION DEVICE: THE CONTROL BOX FEATURES THREE THROTTLE TUBES: TWO FOR WELDING AND ONE FOR THE INTERNAL PROTECTION TUBE. SYNCHRONOUS START AND STOP OF THE THREE SETS PREVENTS GAS LOSS IN THE INTERNAL PROTECTION TUBE.
11. OPTIONAL WELDING CURRENT, VOLTAGE, AND OTHER PARAMETERS ARE DISPLAYED AND CONFIGURED ON THE SAME TOUCHSCREEN.
12. FAULT ALARMS FOR WATER SHORTAGE, AIR SHORTAGE, AND PHASE FAILURE.
13. FULLY ENCLOSED AIR DUCT DESIGN IMPROVES DUST RESISTANCE, REDUCES FOREIGN MATTER INTRUSION, AND ENHANCES RELIABILITY.
14. THE ENTIRE MACHINE UTILIZES BOTH AIR AND WATER COOLING, OFFERING A HIGH DUTY CYCLE AND LONG-TERM CONTINUOUS OPERATION.
15. SUITABLE FOR WELDING VARIOUS METAL MATERIALS, INCLUDING STAINLESS STEEL, DUPLEX STAINLESS STEEL, FERRITIC STAINLESS STEEL, LOW CARBON STEEL, HIGH AND LOW ALLOY STEEL, TITANIUM ALLOY, COPPER, AND NICKEL.

## **OPTIONAL INTELLIGENT WELDING GUN HOLDER.**

1. AUTOMATICALLY RAISES AND LOWERS THE WELDING GUN WHEN CHANGING THE TUNGSTEN NEEDLE, AND THE TOUCHSCREEN DISPLAYS THE REAL-TIME POSITION OF THE WELDING GUN.
2. XYZ TRIPLE COORDINATE SYSTEM WITH PRECISE MANUAL ADJUSTMENT.
3. MAIN TRANSMISSION COMPONENTS UTILIZE PRECISION BALL RODS AND LINEAR GUIDES.



#### **WELDING MACHINE FEATURES**

1. WATER-COOLED, HIGH UTILIZATION, STABLE AND RELIABLE PERFORMANCE
2. EASY INSTALLATION AND OPERATION, SELF-EXPLANATORY
3. ADJUSTABLE WELD BEAD WIDTH
4. TWO-STAGE WELDING CONTROL: STANDARD/HIGH PENETRATION, ENHANCING PENETRATION WELDING (1.5-3MM)
5. PANEL-MOUNTED GAS FLOW ADJUSTMENT FOR CONVENIENT CONTROL OF WELDING AND INTERNAL PROTECTION GAS FLOW
6. COMPATIBLE WITH THE TUBE MAKING MACHINE'S MULTI-STAGE CONTROL, ENABLING INDEPENDENT START-UP, SIMULTANEOUS START-UP AND SHUTDOWN FOR FLEXIBILITY
7. OPTIONAL EXTERNAL PLC CONTROL
8. MANUFACTURED WITH TAIWANESE TECHNOLOGY, THE MAIN UNIT UTILIZES A VARIABLE FREQUENCY DESIGN, SAVING 1/3 THE ENERGY OF CONVENTIONAL WELDING MACHINES. KEY COMPONENTS, INCLUDING THE CONTROL IC, CIRCUIT BOARD, AND TRANSFORMER, ARE MANUFACTURED IN TAIWAN.
9. GAS-SAVING DEVICE: THE WELDER FEATURES TWO SETS OF THROTTLE TUBES, ONE FOR WELDING AND ONE FOR THE INTERNAL PROTECTION TUBE. SYNCHRONOUS START AND STOP OF THE TWO SETS PREVENTS GAS LOSS IN THE INTERNAL PROTECTION TUBE.
10. OPTIONAL WELDING CURRENT, VOLTAGE, AND OTHER PARAMETERS ARE DISPLAYED AND CONFIGURED ON THE SAME TOUCHSCREEN AS THE UNIT.
11. ALARMS FOR WATER, GAS, AND PHASE FAILURE.
12. FULLY ENCLOSED AIR DUCT DESIGN IMPROVES DUST RESISTANCE, REDUCES FOREIGN MATTER INTRUSION, AND ENHANCES RELIABILITY.
13. THE UNIT UTILIZES BOTH AIR AND WATER COOLING, OFFERING A HIGH DUTY CYCLE AND LONG-TERM CONTINUOUS OPERATION.
14. SUITABLE FOR WELDING VARIOUS METAL MATERIALS, INCLUDING STAINLESS STEEL, DUPLEX STAINLESS STEEL, FERRITIC STAINLESS STEEL, LOW CARBON STEEL, HIGH AND LOW ALLOY STEELS, TITANIUM ALLOYS, COPPER, AND NICKEL.

#### **OPTIONAL INTELLIGENT WELDING GUN HOLDER.**

1. AUTOMATICALLY RAISES AND LOWERS THE WELDING GUN WHEN CHANGING THE TUNGSTEN NEEDLE, AND THE TOUCHSCREEN DISPLAYS THE REAL-TIME WELDING GUN POSITION.
2. X, Y, AND Z COORDINATES ARE PRECISELY MANUALLY ADJUSTABLE.
3. MAIN DRIVE COMPONENTS UTILIZE PRECISION BALL SCREWS AND LINEAR GUIDES.

## WELDING MACHINE FEATURES

1. WATER-COOLED, HIGH UTILIZATION, STABLE AND RELIABLE PERFORMANCE
2. EASY AND SIMPLE INSTALLATION AND OPERATION
3. ADJUSTABLE WELD BEAD WIDTH ACCORDING TO NEEDS
4. TWO-STAGE WELDING CONTROL: STANDARD AND HIGH PENETRATION, WITH A MAXIMUM PENETRATION OF 12MM
5. PANEL-MOUNTED GAS FLOW ADJUSTMENT FOR CONVENIENT CONTROL OF WELDING AND INTERNAL PROTECTION GAS FLOW
6. COMPATIBLE WITH THE TUBE MAKING MACHINE'S MULTI-STAGE CONTROL, ENABLING INDEPENDENT START-UP, SIMULTANEOUS START-UP, AND SYNCHRONOUS SHUTDOWN FOR FLEXIBILITY
7. OPTIONAL EXTERNAL PLC CONTROL
8. MANUFACTURED WITH TAIWANESE TECHNOLOGY, THE MAIN UNIT UTILIZES A VARIABLE FREQUENCY DESIGN, SAVING 1/3 THE ENERGY OF CONVENTIONAL WELDING MACHINES. KEY COMPONENTS, INCLUDING THE CONTROL IC, CIRCUIT BOARD, AND TRANSFORMER, ARE ALSO MANUFACTURED IN TAIWAN.
9. GAS-SAVING DEVICE: THE WELDER FEATURES TWO THROTTLE TUBES, ONE FOR WELDING AND ONE FOR THE INTERNAL PROTECTION TUBE. SYNCHRONOUS START AND STOP OF THE TWO SETS PREVENTS GAS LOSS IN THE INTERNAL PROTECTION TUBE.
10. OPTIONAL WELDING CURRENT, VOLTAGE, AND OTHER PARAMETERS ARE DISPLAYED AND CONFIGURED ON THE SAME TOUCHSCREEN AS THE UNIT.
11. ALARMS FOR WATER, GAS, AND PHASE FAILURE.
12. FULLY ENCLOSED AIR DUCT DESIGN IMPROVES DUST RESISTANCE, REDUCES FOREIGN MATTER INTRUSION, AND ENHANCES RELIABILITY.
13. THE UNIT UTILIZES BOTH AIR AND WATER COOLING, OFFERING A HIGH DUTY CYCLE AND LONG-TERM CONTINUOUS OPERATION.
14. SUITABLE FOR WELDING VARIOUS METAL MATERIALS, INCLUDING STAINLESS STEEL, DUPLEX STAINLESS STEEL, FERRITIC STAINLESS STEEL, LOW-CARBON STEEL, HIGH- AND LOW-ALLOY STEELS, TITANIUM ALLOYS, COPPER, AND NICKEL.

## OPTIONAL INTELLIGENT WELDING GUN HOLDER.

1. AUTOMATICALLY RAISES AND LOWERS THE WELDING GUN WHEN CHANGING THE TUNGSTEN NEEDLE, AND THE TOUCHSCREEN DISPLAYS THE REAL-TIME WELDING GUN POSITION.
2. X, Y, AND Z COORDINATES ARE PRECISELY MANUALLY ADJUSTABLE.
3. MAIN DRIVE COMPONENTS UTILIZE PRECISION BALL SCREWS AND LINEAR GUIDES.



# TIG-500/650/800 DPS



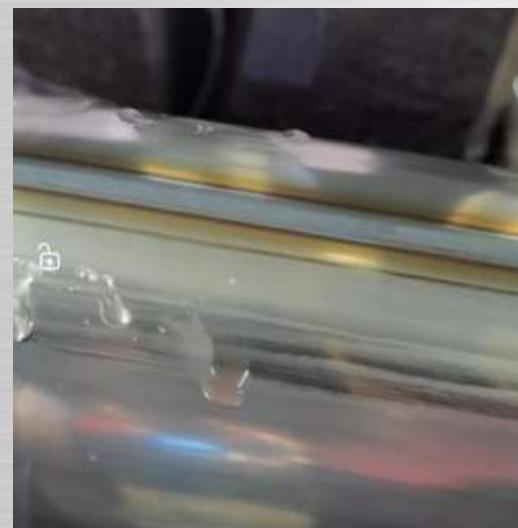
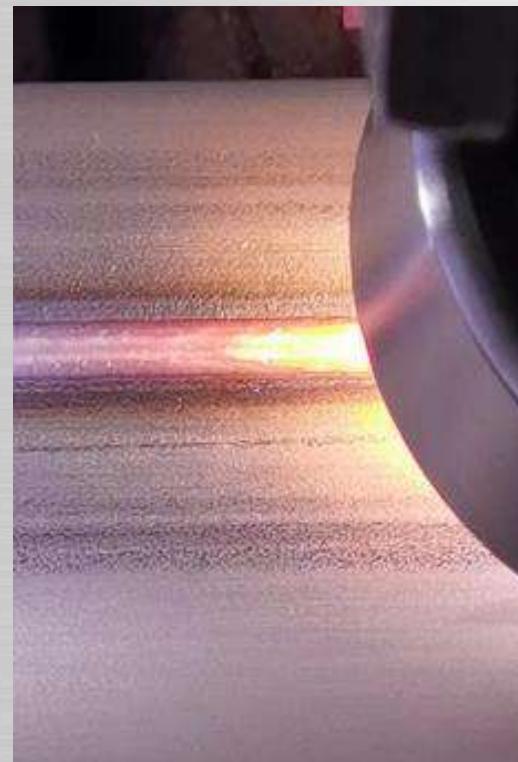
MODEL	TIG-500DPS	TIG-650DPS	TIG-800DPS
RATED WORKING VOLTAGE	3Φ5W 220V 380V 415V	3Φ5线220V 380V 415V	3Φ5线 220V 380V 415V
RATED FREQUENCY	50/60 HZ	50/60 HZ	50/60 HZ
RATED INPUT	25KVA	28KVA	32KVA
RATED OUTPUT CURRENT	10-500A	10-650A	10-800A
WELDING CURRENT RISE TIME (S)	0-20	0-20	0-20
WELDING CURRENT FALL TIME (S)	0-20	0-20	0-20
PRE-GAS SUPPLY TIME (S)	0-20	0-20	0-20
EXHAUST TIME (S)	0-20	0-20	0-20
EXTERNAL SHIELDING GAS ADJUST	0-25	0-25	0-25
INTERNAL SHIELDING GAS ADJUST	0-25	0-25	0-25
NO-LOAD VOLTAGE (V)	68V	68V	68V
LOAD VOLTAGE (V)	10-40VDC	10-40VDC	10-40VDC
AVC RANGE (V)	10/30	10/30	10/30
AVC ACCURACY (V)	±0.1	±0.1	±0.1
COOLING METHOD	AIR COOLING/WATER COOLING	AIR COOLING/WATER COOLING	AIR COOLING/WATER COOLING
WATER TANK CAPACITY (L)	16	16	16
MAXIMUM WATER PUMP HEAD (M)	35	35	35
MAXIMUM WATER PUMP FLOW RATE (L/MIN)	30	30	30
CIRCULATING WATER COOLING METHOD	COMPRESSOR REFRIGERATION	COMPRESSOR REFRIGERATION	COMPRESSOR REFRIGERATION
INSULATION LEVEL	F	F	F
UTILIZATION RATE	100%	100%	100%
DIMENSIONS	1000X620X1100MM	1000X620X1100MM	1000X620X1100MM
WEIGHT	180KG	190KG	200KG

## WELDING MACHINE FEATURES

1. MADE WITH TAIWANESE TECHNOLOGY, THE MAIN UNIT UTILIZES A VARIABLE FREQUENCY DESIGN, SAVING ONE-THIRD OF THE ENERGY OF TRADITIONAL WELDING MACHINES. KEY COMPONENTS, INCLUDING THE CONTROL IC, CIRCUIT BOARD, AND TRANSFORMER, ARE MANUFACTURED IN TAIWAN.
2. COMPATIBLE WITH THE TUBE MAKING MACHINE'S MULTI-STAGE CONTROL, ENABLING INDEPENDENT START AND SIMULTANEOUS START AND SHUTDOWN, WITH FLEXIBLE SWITCHING.
3. THE WELDER FEATURES A GAS CONSERVATION DEVICE. THE CONTROL BOX IS EQUIPPED WITH TWO SETS OF RESTRICTOR TUBES: ONE FOR WELDING AND ONE FOR THE INNER PROTECTIVE TUBE. THESE TWO SETS START AND STOP SYNCHRONOUSLY, PREVENTING GAS LOSS IN THE INNER PROTECTIVE TUBE.
4. THE MAIN UNIT FEATURES A BUILT-IN COOLING SYSTEM, ELIMINATING THE NEED FOR EXTERNAL COOLING WATER TO COOL THE WELDING MACHINE AND WELDING GUN. THIS MAKES IT CONVENIENT, SIMPLE, ENERGY-EFFICIENT, AND HIGHLY EFFICIENT.
5. THE COOLING SYSTEM, POWERED BY A COMPRESSOR, PROVIDES STABLE COOLING WATER TO COOL THE WELDING GUN FOR EXTENDED PERIODS OF HIGH CURRENT WELDING. THIS ENSURES EFFICIENT COOLING OF THE WELDING GUN, ENSURING A DURABLE TUNGSTEN ELECTRODE, A STABLE ARC, AND BEAUTIFUL, UNIFORM WELDS ON BOTH SIDES DURING CONTINUOUS WELDING.
6. ALARMS FOR WATER, AIR, AND PHASE FAILURE.
7. A FULLY ENCLOSED AIR DUCT DESIGN IMPROVES DUST RESISTANCE, REDUCES FOREIGN MATTER INTRUSION, AND ENHANCES RELIABILITY.
8. THE ENTIRE UNIT UTILIZES BOTH AIR AND WATER COOLING, OFFERING A HIGH DUTY CYCLE AND LONG-TERM CONTINUOUS OPERATION.
9. SUITABLE FOR WELDING A VARIETY OF METAL MATERIALS, INCLUDING STAINLESS STEEL, DUPLEX STAINLESS STEEL, FERRITIC STAINLESS STEEL, MILD STEEL, HIGH- AND LOW-ALLOY STEELS, TITANIUM ALLOYS, COPPER, AND NICKEL.
10. WELDING THICKNESSES FROM 0.5MM TO 3.0MM.

## OPTIONAL INTELLIGENT WELDING GUN HOLDER.

1. AUTOMATICALLY RAISES AND LOWERS THE WELDING GUN WHEN CHANGING THE TUNGSTEN NEEDLE, AND THE TOUCHSCREEN DISPLAYS THE REAL-TIME WELDING GUN POSITION.
2. X, Y, AND Z COORDINATES ARE PRECISELY MANUALLY ADJUSTABLE.
3. MAIN DRIVE COMPONENTS UTILIZE PRECISION BALL SCREWS AND LINEAR GUIDES.



# TPS-500/650/800 DP



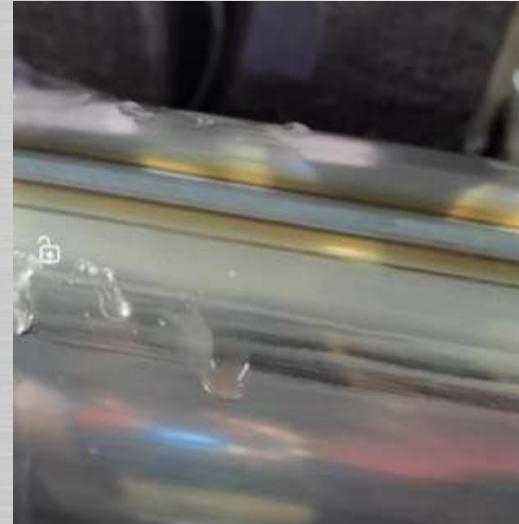
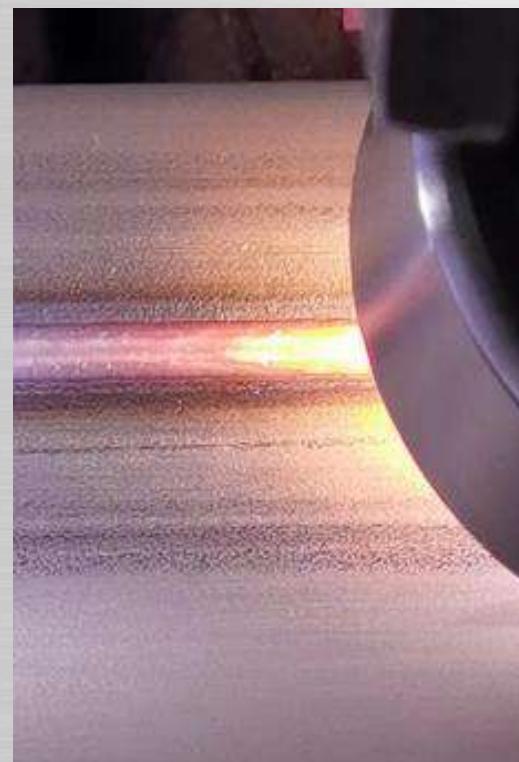
MODEL	TPS-500DP	TPS-650DP	TPS-800DP
WORKING VOLTAGE	3Φ5W (220V 380V)	3Φ5W (220V 380V)	3Φ5W (220V 380V)
RATED FREQUENCY	50/60 HZ	50/60 HZ	50/60 HZ
RATED INPUT	32KVA	37KVA	42KVA
RATED OUTPUT CURRENT	10-500A	10-650A	10-800A
CURRENT ADJUSTMENT RANGE (A)	0-25	0-25	0-25
WELDING CURRENT RISE TIME (S)	0-20	0-20	0-20
WELDING CURRENT DROP TIME (S)	0-20	0-20	0-20
PRE-FLOW TIME (S)	0-20	0-20	0-20
POST-FLOW TIME (S)	0-20	0-20	0-20
P PROTECTIVE GAS ADJUSTMENT (L/MIN)	0-25	0-25	0-25
P CENTER GAS ADJUSTMENT (L/MIN)	0.5-8	0.5-8	0.5-8
T PROTECTIVE GAS ADJUSTMENT (L/MIN)	2/25	2/25	2/25
INTERNAL PROTECTIVE GAS ADJUSTMENT (L/MIN)	2/25	2/25	2/25
NO-LOAD VOLTAGE	68V	68V	68V
AVC RANGE (V)	2/25	2/25	2/25
AVC ACCURACY (V)	±0.1	±0.1	±0.1
MACHINE COOLING METHOD	AIR COOLING/ WATER COOLING	AIR COOLING/ WATER COOLING	AIR COOLING/ WATER COOLING
WATER TANK CAPACITY(L)	24	24	24
MAXIMUM LIFT OF WATER MERCURY	35	35	35
MAXIMUM FLOW RATE OF WATER MERCURY (L/MIN)	30	30	30
COOLING HOUSE	COMPRESSOR	COMPRESSOR	COMPRESSOR
INSULATION LEVEL	F	F	F
USAGE RATE	100%	100%	100%
DIMENSIONS	1200X750X1250MM	1200X750X1250MM	1200X750X1250MM
WEIGHT	380KG	400KG	420KG

## WELDING MACHINE FEATURES

1. MADE WITH TAIWAN TECHNOLOGY, THE HOST ADOPTS VARIABLE FREQUENCY DESIGN, WHICH SAVES 1/3 OF ELECTRICITY COMPARED WITH TRADITIONAL WELDING MACHINES. THE IMPORTANT COMPONENTS, CONTROL IC, CIRCUIT BOARD AND TRANSFORMER ARE MADE IN TAIWAN.
2. IT CAN BE MATCHED WITH THE MULTI-STAGE CONTROL OF THE PIPE MAKING MACHINE, START SEPARATELY, START SYNCHRONOUSLY AND SHUT DOWN SYNCHRONOUSLY, AND CAN BE SWITCHED FREELY.
3. THE GAS SAVING DEVICE OF THE WELDING MACHINE, THE CONTROL BOX IS EQUIPPED WITH TWO SETS OF THROTTLE TUBES, ONE SET IS USED FOR WELDING AND THE OTHER SET IS USED FOR THE INNER PROTECTION TUBE. THE TWO SETS OF ACTIONS START AND SHUT DOWN SYNCHRONOUSLY, WHICH CAN PREVENT THE WASTE OF GAS IN THE INNER PROTECTION TUBE.
4. THE MAIN MACHINE HAS ITS OWN COOLING SYSTEM, AND NO EXTERNAL COOLING WATER IS REQUIRED TO COOL THE WELDING MACHINE AND WELDING GUN, WHICH IS CONVENIENT, SIMPLE, ENERGY-SAVING AND EFFICIENT.
5. THE COOLING SYSTEM IS REFRIGERATED BY A COMPRESSOR, WHICH PROVIDES STABLE TEMPERATURE COOLING WATER TO COOL THE WELDING GUN FOR LONG-TERM HIGH-CURRENT WELDING. THE WELDING GUN HAS AN EFFICIENT COOLING EFFECT. DURING CONTINUOUS WELDING OPERATIONS, THE TUNGSTEN ELECTRODE OF THE WELDING GUN IS DURABLE, THE ARC IS STABLE, AND THE FRONT AND BACK OF THE WELD ARE BEAUTIFULLY FORMED AND UNIFORM IN SIZE.
6. FAULT ALARMS SUCH AS LACK OF WATER, LACK OF AIR, AND LACK OF PHASE
7. THE FULLY ENCLOSED AIR DUCT DESIGN IS ADOPTED TO IMPROVE DUSTPROOF PERFORMANCE, REDUCE THE ENTRY OF FOREIGN MATTER, AND IMPROVE RELIABILITY
8. THE WHOLE MACHINE ADOPTS TWO COOLING METHODS, AIR AND WATER, WITH A HIGH TEMPORARY LOAD RATE AND CAN WORK CONTINUOUSLY FOR A LONG TIME
9. IT IS SUITABLE FOR WELDING VARIOUS METAL MATERIALS SUCH AS STAINLESS STEEL, DUPLEX STAINLESS STEEL, FERRITIC STAINLESS STEEL, LOW CARBON STEEL, HIGH AND LOW ALLOY STEEL, TITANIUM ALLOY, COPPER, NICKEL, ETC.
10. WELDING THICKNESS 0.5MM~3.0MM

## INTELLIGENT WELDING GUN HOLDER OPTIONAL

1. WHEN REPLACING THE TUNGSTEN NEEDLE, THE WELDING GUN IS AUTOMATICALLY MOVED UP AND DOWN, AND THE TOUCH SCREEN DISPLAYS THE REAL-TIME POSITION OF THE WELDING GUN.
2. XYZ THREE-COORDINATE PRECISION CAN BE ADJUSTED MANUALLY
3. THE MAIN TRANSMISSION COMPONENTS USE PRECISION BALL SCREWS AND LINEAR GUIDES



## WELDING MACHINE FEATURES

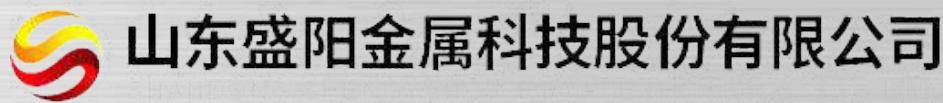
1. MANUFACTURED WITH TAIWANESE TECHNOLOGY, THE MAIN UNIT UTILIZES A VARIABLE FREQUENCY DESIGN, SAVING ONE-THIRD OF THE ENERGY OF CONVENTIONAL WELDING MACHINES. KEY COMPONENTS, INCLUDING THE CONTROL IC, CIRCUIT BOARD, AND TRANSFORMER, ARE MANUFACTURED IN TAIWAN.
2. A SINGLE UNIT CAN PERFORM FOUR WELDING METHODS: T+P, T+T, AND T+P, COVERING ALL METAL THICKNESSES.
3. THE WELDER FEATURES A GAS-SAVING DEVICE. THE CONTROL BOX IS EQUIPPED WITH FOUR SETS OF THROTTLE TUBES: THREE FOR WELDING AND ONE FOR THE INNER PROTECTIVE TUBE. THESE FOUR SETS ACTIVATE AND DEACTIVATE SYNCHRONOUSLY, PREVENTING GAS LOSS IN THE INNER PROTECTIVE TUBE.
4. THE PLASMA POWER SOURCE AND COOLING SYSTEM ARE INTEGRATED WITH INTEGRATED CONTROL, RESULTING IN A HIGH DEGREE OF AUTOMATION, SIMPLE OPERATION, A SMALL FOOTPRINT, AND EASY INSTALLATION.
5. THE MAIN UNIT FEATURES A BUILT-IN COOLING SYSTEM, ELIMINATING THE NEED FOR EXTERNAL COOLING WATER TO COOL THE WELDING MACHINE AND WELDING GUN. THIS IS CONVENIENT, SIMPLE, ENERGY-EFFICIENT, AND HAS A LONG COMPRESSOR LIFE.
6. THE COOLING SYSTEM, POWERED BY A COMPRESSOR, PROVIDES STABLE TEMPERATURE COOLING WATER FOR LONG-TERM, HIGH-CURRENT WELDING. THIS ENSURES EFFICIENT COOLING OF THE WELDING GUN, ENSURING A DURABLE TUNGSTEN ELECTRODE, A STABLE ARC, AND BEAUTIFUL, UNIFORM WELDS ON BOTH SIDES DURING CONTINUOUS WELDING.
7. THE TPS-500'S VERSATILE WELDING METHODS OFFER EXCELLENT WELD FORMATION, FAST WELDING SPEEDS, MINIMAL DEFORMATION, AND EXCELLENT MECHANICAL PROPERTIES. THE WELDS ARE FLAT, SMOOTH, AND EASY TO POLISH, MAKING THEM WIDELY USED AND WELL-RECEIVED IN THE INDUSTRIAL PIPE MANUFACTURING INDUSTRY.
8. WELDING THICKNESSES RANGE FROM 1.0MM TO 12MM.

## OPTIONAL INTELLIGENT WELDING GUN HOLDER.

1. AUTOMATICALLY RAISES AND LOWERS THE WELDING GUN WHEN CHANGING THE TUNGSTEN NEEDLE, AND THE TOUCHSCREEN DISPLAYS THE REAL-TIME WELDING GUN POSITION.
2. X, Y, AND Z COORDINATES ARE PRECISELY MANUALLY ADJUSTABLE.
3. MAIN DRIVE COMPONENTS UTILIZE PRECISION BALL SCREWS AND LINEAR GUIDES.



# exceptional service



*exceptional*  
service



LESSO 联塑



友发钢管集团

Jopar 中牌机械



中财管道  
ZHONGCAI PIPES

日丰



金牛管业  
KINGBULL

**技术及其他方面如有改动,恕不另行通知!**

**东莞市台弧电机科技  
广东省东莞市厚街镇厚街科技大道7号  
31号楼802室  
手机： 13724463661(李先生)  
电话：0769-85926651**