



CREATING METAL ARTISTS

COMPANY PROFILE & PRODUCT LINE

OTC DAIHEN Asia Co.,Ltd.



A LEADING GLOBAL COMPANY IN THE FIELD OF WELDING TECHNOLOGY AND ROBOTICS



In 1919, OTC DAIHEN developed, for the first time, new technologies for the mass production of transformers for energy distribution. The know-how gained from there soon led to the expansion of the business segments: OTC DAIHEN began developing and manufacturing high - performance welding machines and industrial robots for a wide range of applications in industrial automation, and has since been producing advanced equipment for the semiconductor industry in the rapidly developing electronics industry.

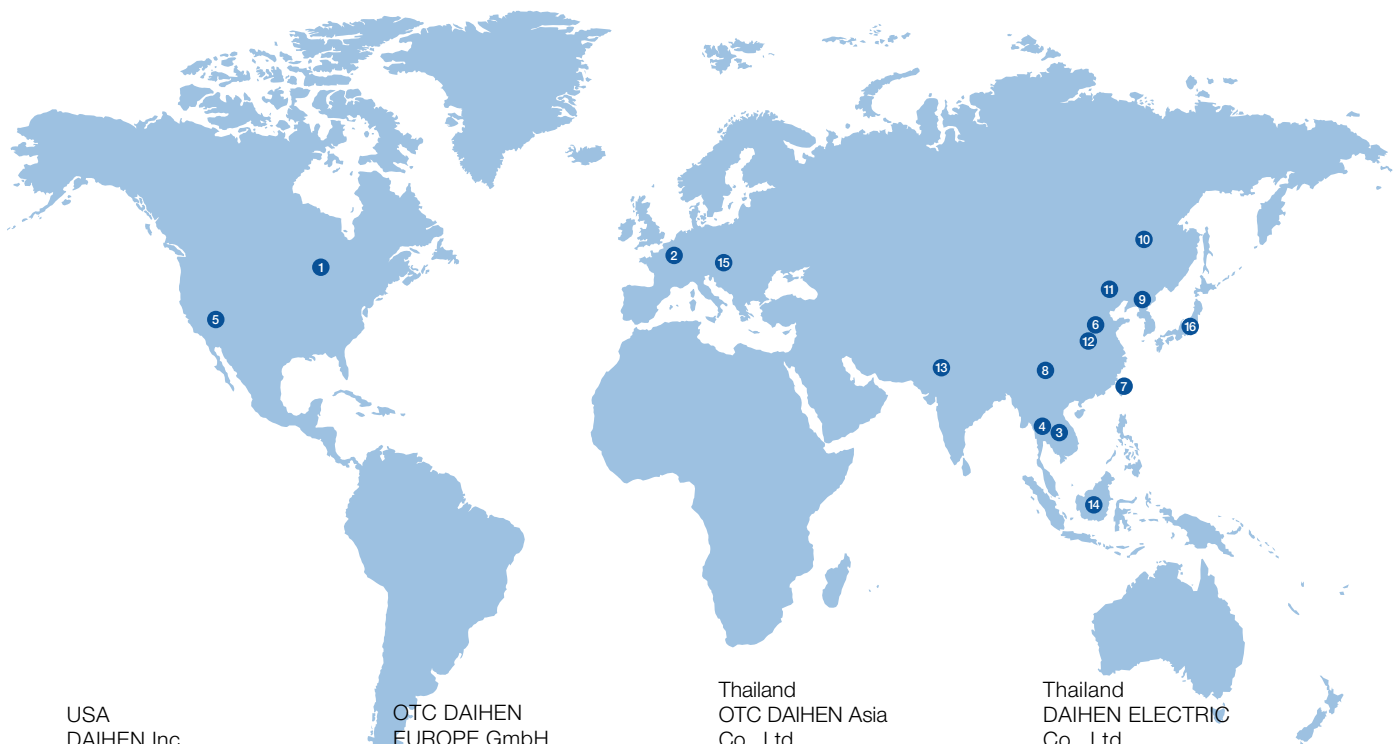
OTC DAIHEN products are now used successfully in various industrial sectors worldwide and are currently an important factor for growth and development in future-oriented markets.

Management Philosophy

The Company's eighth President, Mr. Tetsuya Tajiri, has defined the creation of greater happiness for all stakeholders surrounding the Company as its core purpose, a concept referred to as the "Simultaneous Achievement of Happiness for All." To realize this purpose, the Company has clearly established specific goals for each stakeholder group, known as the "Happiness Target Values," and formalized this approach as its fundamental management philosophy in 2012.

Guided by its basic business policy, the Company focuses on developing its unique "Only-One Products (Narawade Products)," which deliver outstanding and distinctive value. Through the creation of products and solutions that contribute to solving social issues, the Company supports the sustainability of society as a whole. The outcomes of these initiatives are reflected in sustainable growth in sales and profits.

Furthermore, the appropriate distribution of profits in line with the Happiness Target Values strengthens trust and long-term relationships with stakeholders, forming the foundation of the Company's own sustainability. All employees across the Daihen Group share an understanding of the Company's purpose and work together as one organization to fulfill their significant roles and achieve these shared objectives.



USA
DAIHEN Inc.



OTC DAIHEN
EUROPE GmbH



Thailand
OTC DAIHEN Asia
Co., Ltd.



Thailand
DAIHEN ELECTRIC
Co., Ltd.



USA
DAIHEN Advanced
Component, Inc.



China
Mudanjiang OTC
Welding Machines Co., Ltd.



Taiwan
OTC (Taiwan) Co., Ltd.



China
OTC Industrial
(Shanghai) Co., Ltd.



Korea
DAIHEN Korea Co., Ltd.



China
OTC Industrial
(Qingdao) Co., Ltd.



China
DAIHEN OTC
(Beijing) Co., Ltd



China
DAIHEN Advanced
Machinery
(Changshu) Co., Ltd.



India
OTC DAIHEN
INDIA PVT.LTD.



Indonesia
PT.OTC DAIHEN
INDONESIA



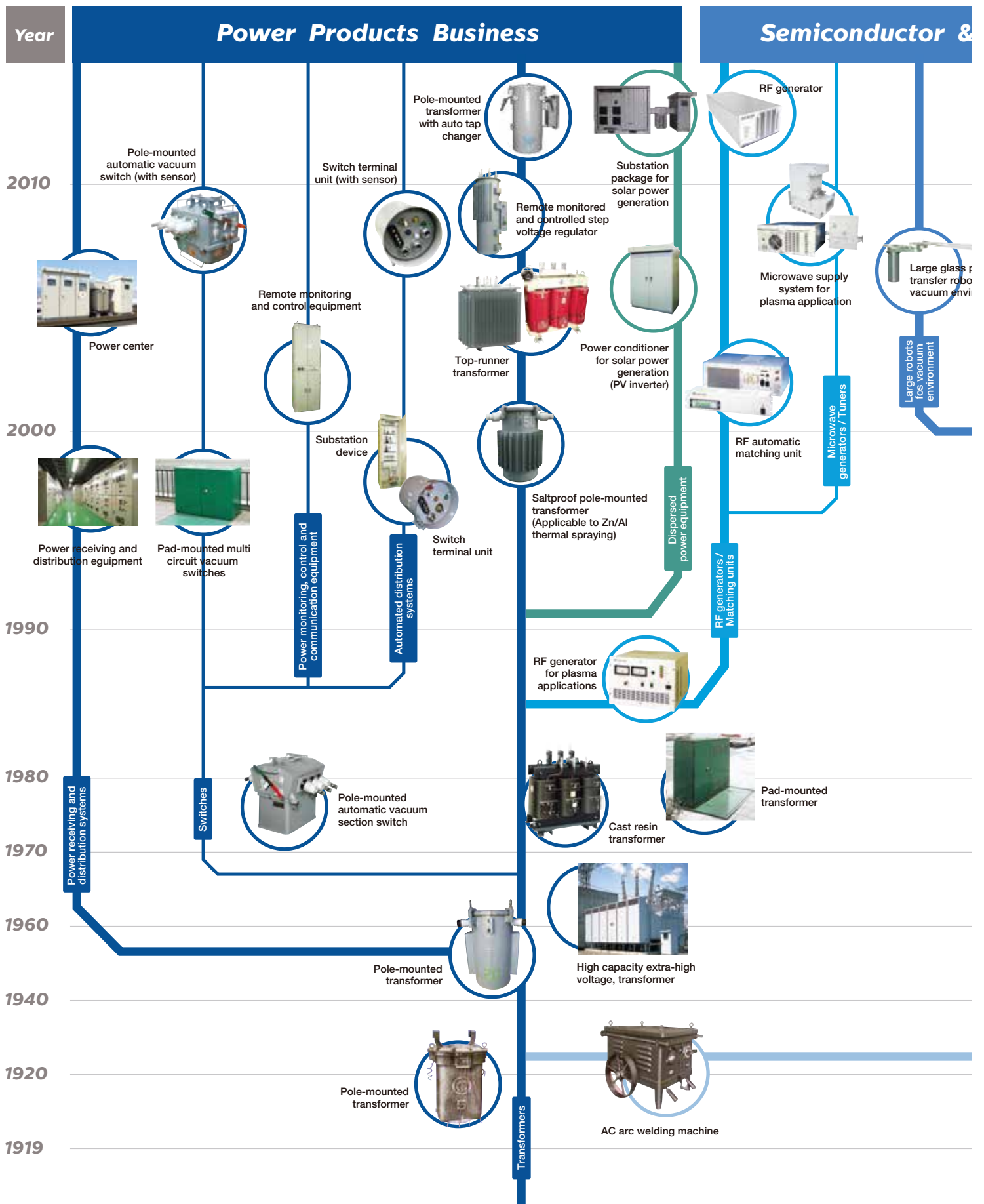
Slovenia
DAIHEN VARSTROJ d.d.



Japan
Rokko Plant (KOBE)



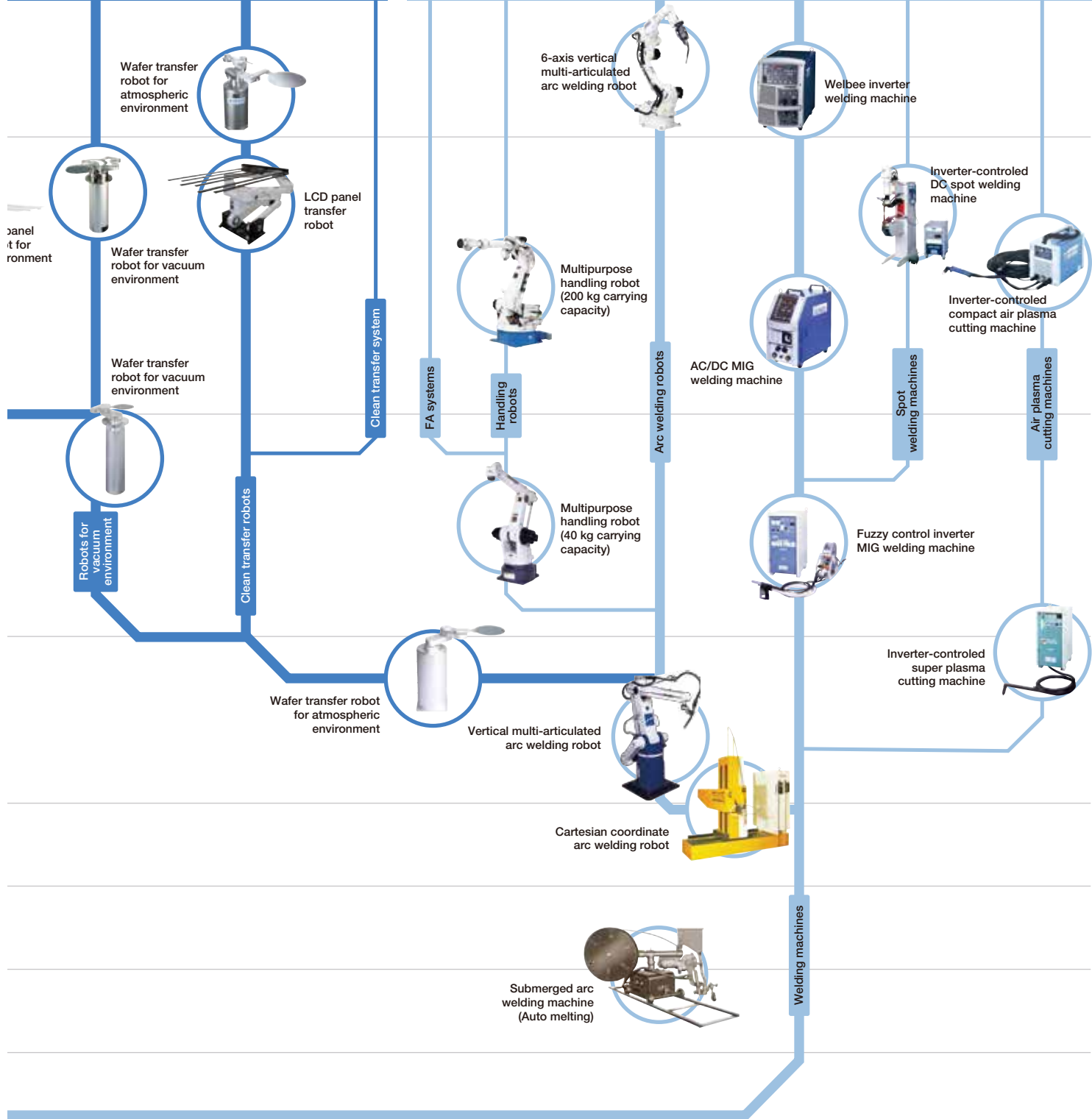
HISTORY OF PRODUCT DEVELOPMENT





FPD related Business

Welding & Mechatronics Business



Corporate Motto Based on “QCD”

OTC DAIHEN Asia Co., Ltd. was established at Navanakorn Industrial Estate, Pathumthani in April 1989, and started to produce electric welding and cutting machines and their components since July 1990.

Our company has production lines by thorough process from raw materials to finished goods which are based on “**Q C D**” for working operations.

Our Products have been used around the world and contributed to the development of metal working industries.



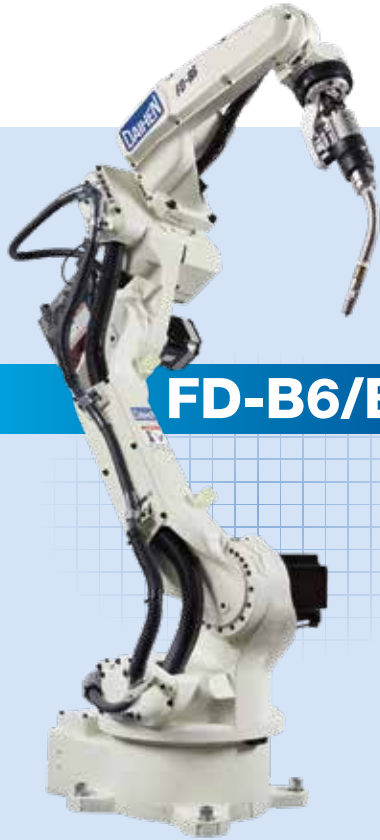
& Head Office Factory

Name	OTC DAIHEN Asia Co., Ltd.
Establishment	April 5, 1989 (Start operation from 1990)
Head Office & Factory	60/86 Mu 19, Navanakorn Industrial Estate, Phase 3, Klong Nueng, Klong Luang, Pathumthani 12120, Thailand
Home Page	http://www.otcdaihenasia.com
Paid-in Capital	80 Million Baht
Share holder	DAIHEN Corporation (Japan) (100%)
Products	Electrical Arc Welding Torch, TIG Torch, Plasma Cutting Torch, and their components. CO2/MAG Semi-Automatic Welding Machine, and Wire Feeder.



WELDING & MULTIPURPOSE ROBOT

Almega Friendly Series II



FD-B6/B6L

Main features

- Fastest cycle times in the industry, resulting in to shorter tact time.
- Built-in wrist motor eliminates interference with jigs and workpieces.
- Slim arm enables high-density installations.
- Synchro-feed welding cables are built into the arm.
- Eliminates the interference normally caused by weld cables behind the arm.
- A signal line and air hose are also built-in, supporting a variety of advanced tools.
- Payload is 6 kg, providing surplus payload for torch and sensor models.
- Accommodates advanced welding technologies such as Synchro-feed and Cold Tandem.
- IP64 environmental raiting: dust-proof and rainproof.

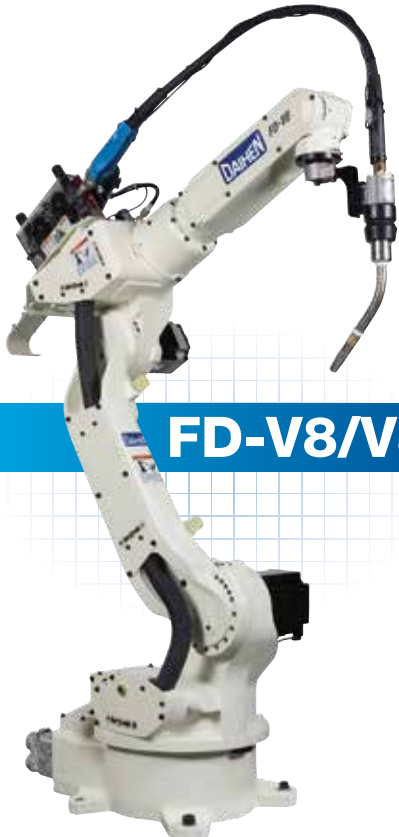
Specification

Item	Specifications
Model Name	NB6
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	6 kg
Weight	145 kg
Load of upper arm	10 kg

These specifications are subject to change without prior notice.

Item	Specifications
Model Name	NB6L
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	6 kg
Weight	278 kg
Load of upper arm	20 kg

These specifications are subject to change without prior notice.



FD-V8/V8L

Main features

- Many cables and air hoses are built - in, and assorted advanced tools are accommodated.
- Corresponds to IP54 and is dust-proof and rainproof.
- Payload upped 1.3 times to 8 kg. Diverse sensors can be installed and it accommodates AI.
- Speed of all axes upped (maximum 15%). Highest speed specs in the industry realized with shorter tact time.
- 5% slimmer lower arm realized. Accommodates high density installations.
- Weight reduction 3% to 140 kg realized.
- With suspension or wall mount systems, equipment installation cost is reduced.
- All the cables except the conduit and one wire power cable are built into the arm. It's ideal for high end welding such as Synchro-feed.
- The cable behind the arm is gone decreasing interference. The back interference area is reduced about 30%. The spacing between robots is reduced about 20% enabling high density installations.
- Contributes to reducing line length.

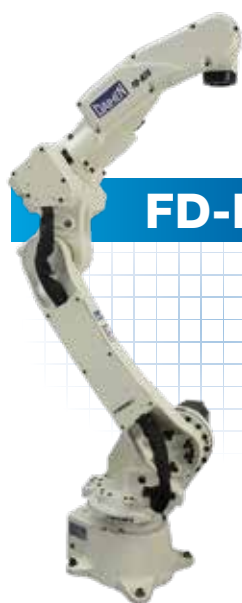
Specification

Item	Specifications
Model Name	NV8
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	8 kg
Weight	140 kg
Load of upper arm	10 kg

(Note) Specifications for wall mounting appear in parentheses.

Item	Specifications
Model Name	NV8L
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	8 kg
Weight	273 kg
Load of upper arm	20 kg

(Note) Specifications for wall mounting appear in parentheses.



FD-B26

Main features

- New type with built-in cable for medium class robots
Useful in a variety of automation situations!
- Best for integrated wiring and piping for applications
Applicable to a wide range of hand tools!
- Enough payload of 26 kg to attach various tools such as welding and handling!
*Suitable for hand switching by water-cooled torch with sensor, double hand, tool changer, etc.

Specification

Item	Specifications
Model Name	NB26
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	26 kg
Weight	257 kg
Load of upper arm	10 kg

(Note) The wrist payload changes the upper arm payload. These specifications are subject to change without prior notice.

FD-V25

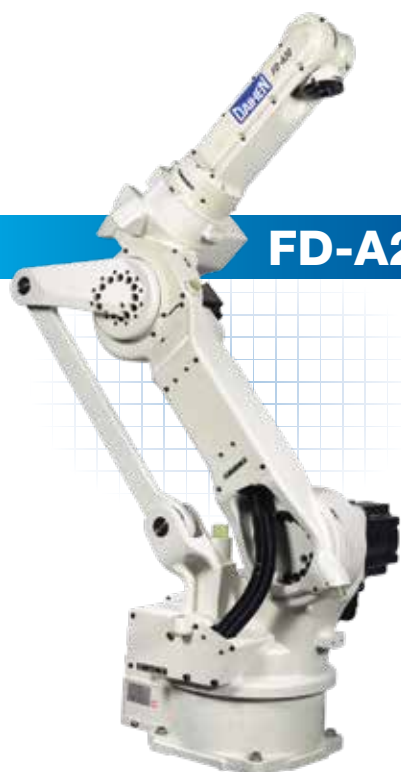
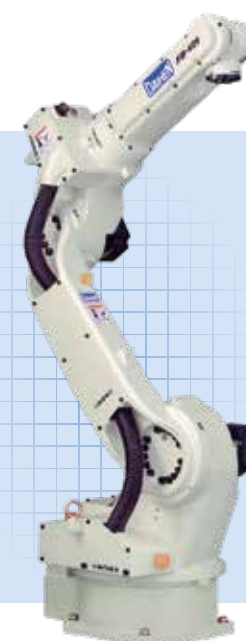
Main features

- Due to the industry's fastest speeds, cycle times are reduced.
- The maximum payload has been increased by 25%, up to 25 kg. Expands support for various handling applications.
- Integrated signal cables and air hoses to accommodate a variety of end effectors.
- Splash-proof and dust-proof design equivalent to IP64 enclosure rating.

Specification

Item	Specifications
Model Name	NV25
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	25 kg
Weight	278 kg
Load of upper arm	10 kg (Wrist capacity : 25kg)

(Note) The end effect is when the maximum payload capacity is loaded. These specifications are subject to change without prior notice.



FD-A20

Main features

- High tracking accuracy throughout the entire robot work envelope.
- High accuracy delivered in both straight-line and small-arc applications.
- Standard interface with easy teaching and integration to production-ready laser oscillators.
- Standard interface with easy teaching and integration to production-ready laser oscillators.
- Your laser cutting programs are automatically generated from your CAD data via our offline teaching application software: FD-ST.
- 20kg payload accommodate a laser welding torch.
- Even though it uses a parallel link structure, optional reverse rotation of the 3rd-axis is enabled, supporting expanded work envelope to the rear of the robot.

Specification

Item	Specifications
Model Name	NA20
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	20 kg
Weight	355 kg
Load of upper arm	20 kg

(Note) The end effect is when the maximum payload capacity is loaded. These specifications are subject to change without prior notice.



FD-VC4/FD-VC4L/FD-VC8

Main features

- Achieves high accuracy that enables high-quality welding.
- Can be installed without isolation from people by a safety fence.
- Best robot stops when human contact is detected.
- Move to the site where you need into operation immediately.
- Various welding methods can be selected.

Specification

Item	Specifications		
	NVC4	NVC4L	NVC8
Model Name	NVC4	NVC4L	NVC8
Structure	Vertical articulated type		
Number of Axes	6		
Wrist Payload	4 kg		8 kg
Weight	37 kg	47kg	44 kg

(Note) Position repeatability corresponds to values at the center of standard tools.

FD-V25L

Main features

- 3m reach robot with 25kg payload
- Contributes to improved productivity with the highest operating speed in the same class
- A payload capacity of 25 kg is sufficient to attach various tools such as welding and handling!

Specification

Item	Specifications
Model Name	NV25L
Structure	Vertical articulated type
Number of Axes	6
Wrist Payload	25 kg
Weight	620 kg
Load of Upper Arm	10kg(*)

(Note) The capacity of the upper arm varies with the wrist capacity. These specifications are subject to change without prior notice.



Accessories/Options



Robot Cell



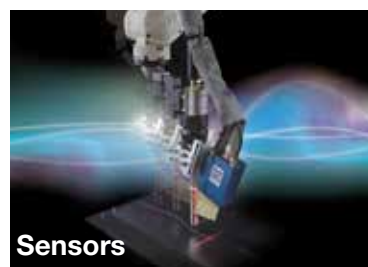
Clean Kit



Gas Saver



PC Software



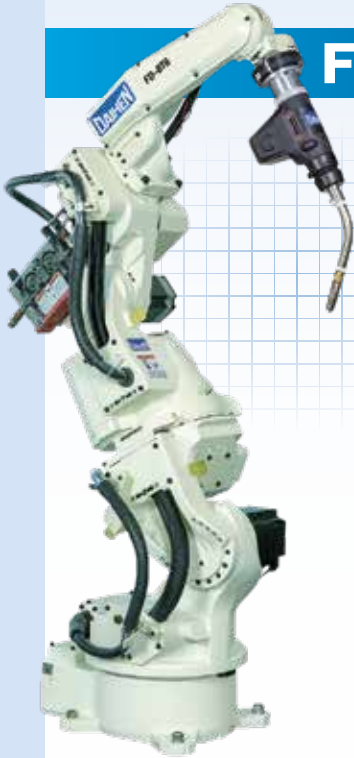
Sensors



External Axis

7 AXIS ROBOT

FD-BT6/FD-BT6L



Main features

- The welding torch position and angle can be maintained while changing the robots posture.
- While teaching for a 7-axis robot tends to be a complex operation, Daihen's Synchro-motion technology maintains torch attitude and angle while teaching weld path positions.
- The welding power cable being built into the 7th axis robot is the first of its kind. Teaching can be done without concern of interference with jigs or workpieces.

Specification

Item	Specifications	
	Model Name	NBT6
Structure	Vertical articulated type	
Number of Axes	7	
Wrist Payload	6 kg	
Weight	185 kg	338 kg
Load of upper arm	10 kg	

(Note) The end effect is when the maximum payload capacity is loaded. These specifications are subject to change without prior notice.

FD-VT20

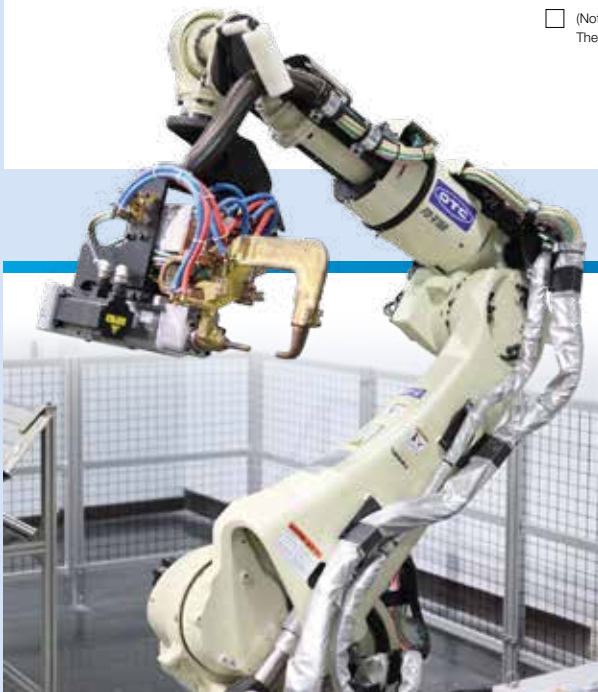
Main features

- Teaching with competing 7-axis robots is cumbersome. Our simplified teaching maintains torch attitude using our exclusive Synchro-motion technology.
- Payload 20kg. Well-suited for medium load material handling and welding.

Specification

Item	Specifications	
	Model Name	NVT20
Structure	Vertical articulated type	
Number of Axes	7	
Wrist Payload	20 kg	
Weight	336 kg	
Load of upper arm	5 kg	

(Note) The end effect is when the maximum payload capacity is loaded. These specifications are subject to change without prior notice.



Application

Spot welding

Spot welding guns are mounted on robots and used to spot weld steel. They are used to assemble auto bodies, parts, and frames. Welding guns are controlled by the robots so weld spatter does not occur for high quality welds and high productivity in a clean and quiet environment.

Welding Best Electronic Engine

Welbee II



Low Spatter & High Speed
Advanced Model

M350LII

Characteristic

Digital inverter controlled low spatter
CO₂ / MAG automatic welding machine

- Significant reduction of spatter generation from low current area to high current area
- Suppresses spatter generation even at high speed welding and realizes high quality welding

Specification

Welding power supply	WB-M350LII
Rated input	3Phase 380 / 400 V
Rated output	350 A / 36 V
Output adjustment range	30~350 A / 12~36 V
Rated usage rate	60 %
Mass (dimension)	62 kg (395 x 710 x 640 mm)
Wire feeder	CMV-7403
Welding Torch	BT3500V-30

High Quality Standard Model

M350II/M500II

Characteristic

Digital inverter controlled type CO₂ / MAG automatic welding machine

- Stability of the arc is greatly improved from the low current area to the high current area
- Voltage fluctuation is small even at high speed welding, realizing a beautiful bead appearance with bead edges
- Welbee high dustproof and easy maintenance (M 500) with side flow structure

Specification

Welding power supply	WB-M350II	WB-M500II
Rated input	3 Phase 380 / 400 V	3Phase 380 / 400 V
Rated output	350 A / 36 V	500 A / 45 V
Output adjustment range	30~350 A / 12~36 V	30~500 A / 12~45 V
Rated usage rate	60%	100%
Mass (dimension)	61 kg (395x710x640 mm)	77 kg (395x710x810 mm)
Wire feeder	CM-7403	CM-7403
Welding Torch	BT3500-30	BT5000-30



M350II



M500II

P400II

Characteristic

Digital Inverter Controlled Pulse MAG /
MIG · CO₂ / MAG / MIG Automatic
Welding Machine

- High-quality pulse welding realized by waveform control optimized for various materials
- Excellent stability of the arc even at high speed welding

Specification

Welding power supply	WB-P400II
Rated input	3Phase 380/400V
Rated output	350 A / 36 V
Output adjustment range	30~350 A / 12~36 V
Rated usage rate	60 %
Mass (dimension)	60 kg (395x710x640mm)
Wire feeder	CM-7403, CMA-7403, CMAW-7403
Welding Torch	BT3510-30, BTA300-30, BTAW400-30



P400LII/500LII

Characteristic

Digital Inverter Controlled Pulse
MAG / MIG · CO₂ / MAG / MIG
Automatic Welding Machine

- Significant reduction in spatter generation from low current to high current
- High-quality pulse welding realized by waveform control optimized for various materials

Specification

Welding power supply	WB-P400LII	WB-P500LII
Rated input	3Phase 380/400V	3Phase 380/400V
Rated output	400	500 (Direct current) / 400 (pulse)
Output adjustment range	30~400A	30~500 (Direct current) / 30~400 (pulse)
Rated usage rate	60 %	60 % (Direct current) / 80 % (pulse)
Mass (dimension)	62 kg (395x710x640mm)	79 kg (395x710x810mm)
Wire feeder	CM-7403, CMV-7403, CMA-7403	CM-7403, CMV-7403, CMW-743, CMA-7403, CMAW-743
Welding Torch	BT3510-30, BT3510V-30, BTA300-30	BT5000-30, BT3510V-30, WTCW-5001, BTA300-30, WTCW-5002



P500LII

W400



Characteristic

AC / DC pulse MAG / MIG automatic welding machine

- Daiheng's proprietary AC pulse welding method realizes high efficiency and high quality welding of ultrathin plates
- Evolutionary wave pulse enables welding quality with less vessel
- Aluminum · mild steel · stainless steel, and high quality welding possible for various plate thickness
- Output current 17% UP! High efficiency welding is achieved up to middle thickness

Specification

Welding power supply	WB-W400
Rated input	3 Phase 380 / 400 V
Rated output	400 A / 36 V
Output adjustment range	30~400 A
Rated usage rate	60 %
Mass (dimension)	86 kg (395×710×835mm)
Wire feeder	CM-7403, CMA-7403, CMAW-7403
Welding Torch	BT3510-30, WTS3000-SD, BTA300-30, BTAW400-30

F300P



Characteristic

- Keyhole welding realizes high-speed welding and high quality welding
- Pulse frequency and pulse machine can be freely changed, a solid pulse function to prevent distortion and melting down
- Torch recognition function to prevent torch and consumable parts from burning
- Torch has a double nozzle type that suppresses consumption of electrodes and stabilizes output for a long time and a single nozzle type that can be miniaturized while adapting to a large current

Specification

Welding power supply	WB-F300P					
Rated input voltage	3 Phase 380 / 400 V (common 50/60Hz)					
Rated output	300 A					
Output adjustment range	0.5~300 A					
Rated usage rate	100 %					
Mass (dimension)	95 kg (395×710×820mm)					
Wire feeder	CM-7403, CMA-7403, CMAW-7403					
Welding Torch	PTW-0151	PTPW-0701 PTW-0701	PTPW-1001 PTW-1001	PTPW-1501 PTW-1501	PTPW-2001 PTW-2001	PTPW-3001E
Base material side power cable	BKPTF-0305	BKPTF-2205		BKPTF-6005		BKPTF-8005
Gas hose	BKHGFF-0705					
Water hose	BKWCF-0805					
Air Hose	BKACF-0805					

A350P



Characteristic

- High quality welding of ultrathin plates
- High efficiency utilization of thick plates is supported
- Automatic setting of welding conditions with "welding setting guide" function
- Compatible with Fieldbus Interface

Improve convenience when connecting an automatic machine

Specification

Welding power supply	WB-A350P
Rated input	3 Phase 380 / 400 V
Rated output	350 A
Output adjustment range	AC5~350A / DC2~350A
Rated usage rate	40 %
Mass (dimension)	68 kg (395×710×640mm)
Welding Torch	AWD-17, AWD-26, AWD-18
Base metal side power cable	BKPDT-3803
Gas hose	BKGFF-0603
Water hose (for tap water)	BBDW-3001
Water hose (for water tank)	BBPU-3002

T500P



Characteristic

High efficiency welding with large capacity 500 A output

- Constant current stability is improved, and a wide current range from thin plate to thick plate can be handled by one unit
- Startability · Stability of the arc greatly improved
- Automatic setting of welding conditions with "welding setting guide" function
- Early detection of welding abnormality by welding management function

Specification

Welding power supply	WB-T500P
Rated input voltage	3 Phase (single phase) 380 / 400 V
Rated output	500 A
Output adjustment range	2~500 A
Rated usage rate	60 %
Mass (dimension)	61 kg (395×710×640mm)
Welding Torch	AW-12
Welding torch adapter	BBAWD-1201
Base metal side power cable	BKPDT-6003
Gas hose	BKGFF-0603
Water hose (for tap water)	BBDW-3001
Water hose (for water tank)	BBPU-3002

**CO2/MAG/MIG
Inverter**



DM350

200/220V 400V CO2/MAG

Inverter Controlled CO2/MAG Welding Machine for Higher Quality and Efficiency Welding Substantially Small Size and Light Weight

CPVE 400II/500II

380V 400V 415V CO2/MAG

Full Digital Inverter CO2/MAG Welding Machine. High Power Factor, Saving Energy. Welding conditions can be read and operated from remote control box.



Thyristor



XD250C

200/220V 400V CO2/MAG

Digital Synergic Controlled CO2/MAG Welding Machine with Wire Feeder Built-in Big Wheel and Handle for Easy Carrying

XD350SII / 500SII

220V 380V 415V CO2/MAG

Digital Synergic Control with Quality One knob Synergic Control & Penetration Control



DC Arc Welding Machine



VR400II

380V 415V DC STICK

Inverter Controlled High Performance DC Arc Welding Machine. IGBT Inverter Control Results Superior Arc Stability. Arc Drive Control ensures High Quality Welding Can weld with Cellulose-coated electrode at any positions



MR400

220V 380V 415V DC STICK

IC Thyristor Controlled DC Arc Welding Machine. Heavy Duty Cycle Machine suitable for medium and thick plate welding. (Rated duty cycle 60%) constant current characteristics features stable and constant welding

TIG Welding Machine

DT300P II



This is The Most Intelligent TIG Welding Machine with TIG Synergic Function



(ACCUTIG)

AEP300/500



AC+DC Hybrid Pulse TIG Welding Machine delivers "High Quality Welding" and "User Friendly Operations"



MR315T



Multi Mode for High Performance High Quality with DC TIG welding High Efficiency with DC Stick Welding



Multi Purpose Welding Machine



MRA630



Digital Controlled High Performance DC Arc Welding and Gouging Machine with Micro Processor Suitable for Low carbon steel, High-strength steel, High-resistant steel, stainless steel and copper alloy-Safety design, multiple protection, easy maintenance

XD600G



Thyristor Controlled CO2/MAG Welding & Gouging Machine 3 in 1 Micro-processor digital controlled multi-function welding machine

- CO2/MAG function
- DC Gouging function
- DC Stick function

Very suitable for work like back side gouging, or welding defect removing



Plasma Cutting Machine



D-12000



- High Power and 100 % for Precision High Speed Cutting Max Cutting Capacity 60 mm
- High Power and 100 % Duty Cycle for Precision High Speed Cutting
- Max Cutting Capacity 60 mm (2.4in)
- Built-in "Torch Guard" function monitors tip and electrode consumption

C-70



Max Cutting Capacity 35 mm , 60% Duty Cycle at maximum current Double the Cutting Speed at Half the Cost compare to Oxy/Fuel Cutting



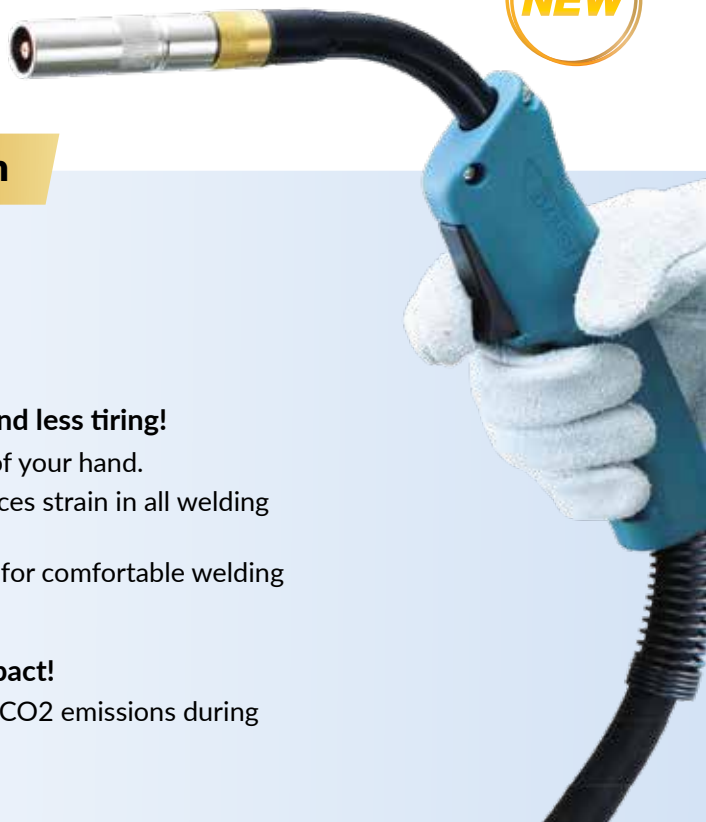
BLUE TORCH IV



New and more powerful design

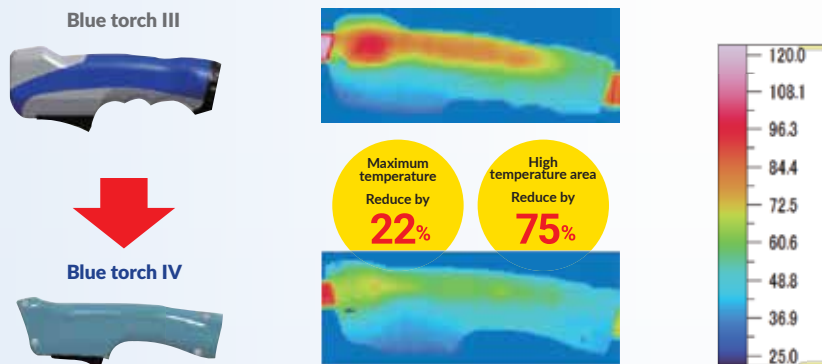
A CO2/MAG welding torch that fits everyone!

- **New Design makes it even easier to use and less tiring!**
 - Handle design that fits snugly in the palm of your hand.
 - Increased flexibility of the torch cable reduces strain in all welding positions.
 - Controls handle temperature rise, allowing for comfortable welding even in high-use environments.
- **Contribute to reducing environmental impact!**
 - New biomass materials are used to reduce CO2 emissions during torch manufacturing.



“Less” likely to get hot!

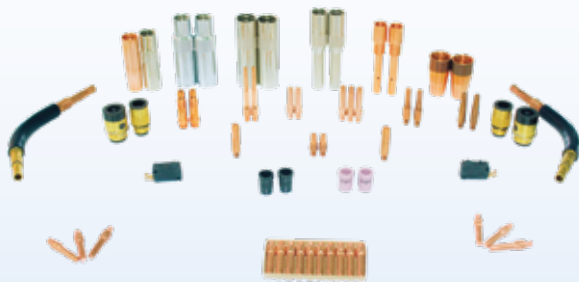
- Heat is not easily transferred to the handle, making welding easy for long periods.



▼ Option



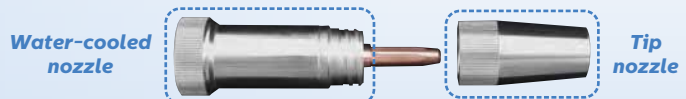
Attach the heat shield with one touch for extended comfort.



OTC Genuine Consumable Parts







NEW water-cooled MIG welding torch (BTAW500) can achieve high-quality aluminum welding.




- **High shielding performance**
The path for shielding gas at the torch tip is optimized. Air entrapment has been reduced by 80% max by regulating the shielding gas flow (*in comparison with conventional torch).
- **Reduction of blowholes**
Dew point performance has been improved by 30% by using a hose that does not easily transmit moisture into the gas path of the torch.
- **Improved cleaning workability by adapting the split nozzle structure**




No cooling water leaks during cleaning work and thus no moisture enters the shielding gas, thereby reducing the occurrence of blowhole.

Choose from a wide range of models, from 180A to 500A, including small and large handles and flexible types

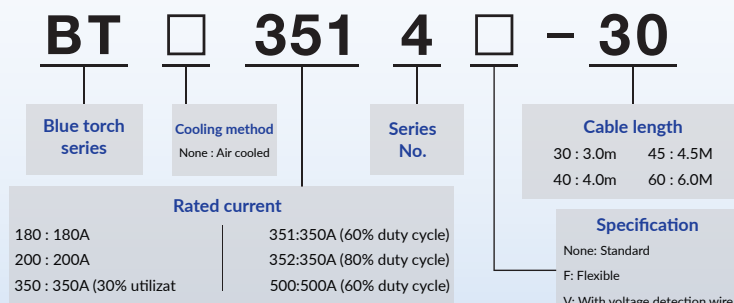
CO ₂ /MAG	Small handle type						Large handle type								
Rated duty cycle	180A (CO ₂) 130A (MAG)		200A (CO ₂) 160A (MAG)		350A (CO ₂) 200A (MAG)		350A (CO ₂) 300A (MAG)			350A (CO ₂) 350A (MAG)			500A (CO ₂) 450A (MAG)		
Model	BT1804 -30		BT2004 -30(40)		BT3504 -30(45-60)		BT3514 -30(45-60)			BT3524 -30(45-60)			BT5004 -30(45-60)		
															
Rated duty cycle (%)	40 (CO ₂) 30 (MAG)		50 (CO ₂) 30 (MAG)		30 (CO ₂) 30 (MAG)		60 (CO ₂) 30 (MAG)			80 (CO ₂) 30 (MAG)			60 (CO ₂) 30 (MAG)		
Applicable wire size (mm)	(0.6) 0.8		(0.8) 0.9 (1.0) (1.2)		(0.9) (1.0) 1.2		(0.9) (1.0) 1.2 (1.4)			1.2 (1.4) (1.6)			(1.2) 1.4 (1.6)		
Cooling method	Air cooled		Air cooled		Air cooled		Air cooled			Air cooled			Air cooled		
Cable length (m)	3		3 4		3 4.5 6		3 4.5 6			3 4.5 6			3 4.5 6		
Mass (kg)	1.9		2.2 2.6		2.5 3.3 4.1		3.0 3.9 4.9			3.2 4.3 5.3			3.6 4.8 5.9		

For CO ₂ /MAG	Flexible type								
Rated current	200A (CO ₂) 160A (MAG)			350A (CO ₂) 200A (MAG)			350A (CO ₂) 300A (MAG)		
Model	BT2004F-30(40)			BTW3504F-30(45-60)			BT3514F-30(45-60)		
									
Duty Cycle (%)	50% (CO ₂) 30% (MAG)			30% (CO ₂) 30% (MAG)			60% (CO ₂) 30% (MAG)		
Applicable wire size (mm)	(0.8) 0.9 (1.0) (1.2)			(0.9) (1.0) (1.2)			(0.9) (1.0) 1.2 (1.4)		
Cooling Length (m)	Air cooled			Air cooled			Air cooled		
Cable length (m)	4			3 4.5 6			3 4.5 6		
Weight (kg)	2.6			2.5 3.3 4.1			3.0 3.9 4.9		

For CO ₂ /MAG	Flexible type														
Rated current	200A (CO ₂) 160A (MAG)			350A (CO ₂) 200A (MAG)			350A (CO ₂) 300A (MAG)			350A (CO ₂) 350A (MAG)					
Model	BT2004F-30(40)			BTW3504F-30(45-60)			BT3514F-30(45-60)			BT3524F-30(45-60)					
															
Duty Cycle (%)	50 (CO ₂) 30 (MAG)			30 (CO ₂) 30 (MAG)			60 (CO ₂) 30 (MAG)			80 (CO ₂) 30 (MAG)					
Applicable wire size (mm)	(0.8) 0.9 (1.0) (1.2)			(0.9) (1.0) (1.2)			(0.9) (1.0) 1.2 (1.4)			1.2 (1.4) (1.6)					
Cooling Length (m)	Air cooled			Air cooled			Air cooled			Air cooled					
Cable length (m)	3		4	3		4.5	6	3		4.5	6	3		4.5	6
Weight (kg)	2.2		2.6	2.5		3.3	4.1	3.0		3.9	4.9	3.2		4.3	5.3

● BLUE TORCH IV

Formal representation



Same display of production part display light

● Standard specification ● is alternating current spot projection welding machine

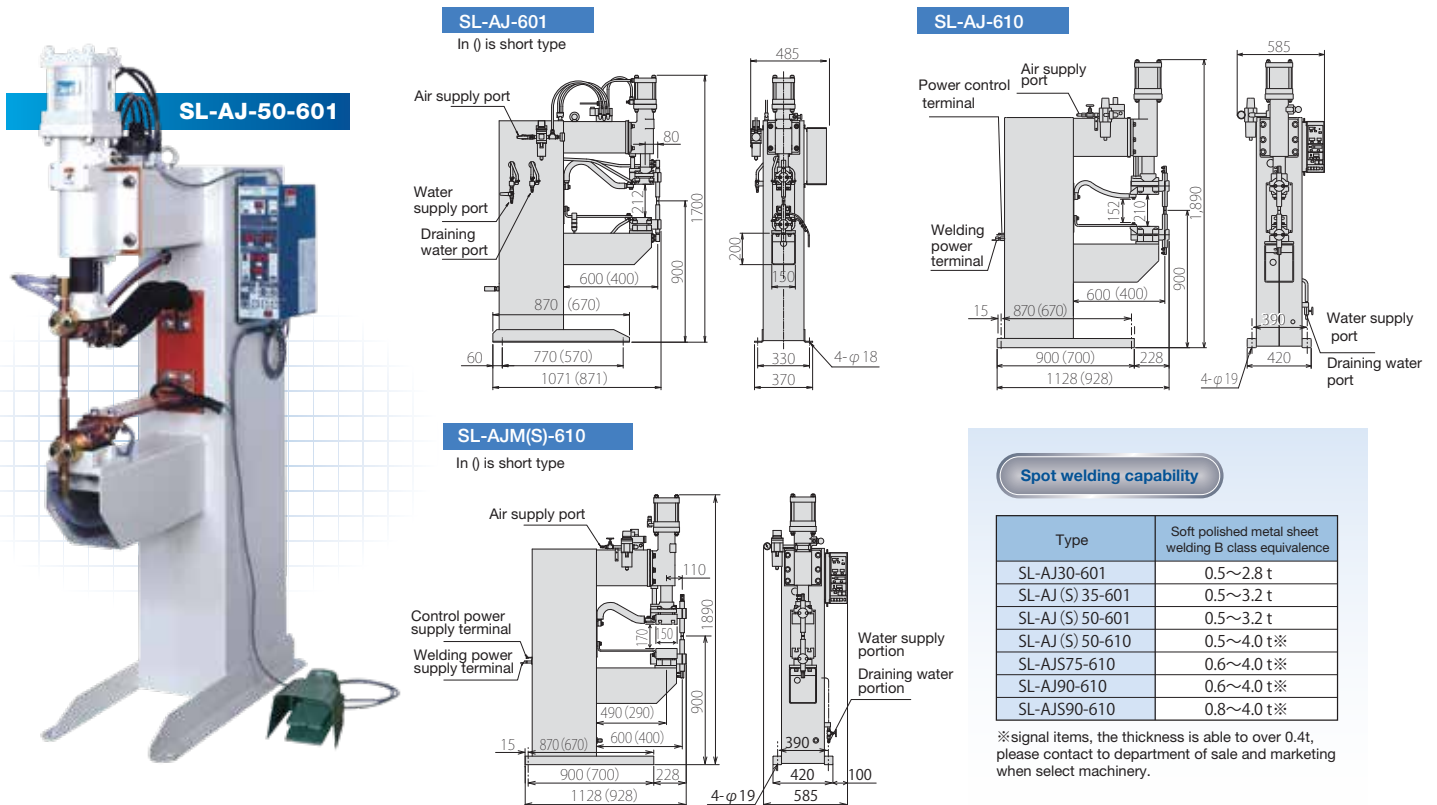
Specification Type	Rated capacity		Secondary short circuit current (MAX)		Maximum welding current		Rated electrode force (at 0.49MPa)	Throat depth		Throat gap	Rated duty cycle	Frequency	Rated supply voltage (Direct current) Three phase (Alternating current) (Single phase)	Platen diameter	Electrode stroke	Electrode taper	Electrode diameter		Electrode holder		Diameter of electrode horn	Weight	Timer type	Power supply control
	kVA	kVA	A	A	A	A		kN (kgf)	mm								mm	mm	mm	mm				
	Platen position	Tip position	Platen position	Tip position	Platen position	Tip position	Platen position	Tip position	Platen position	Tip position														
SLAJ30-601	30	60 [66.7]		13,400		12,000	5.6 (570)	600			12.0 [10]	380V 50Hz	200 or 400				16	25	180	60	256	VX-300K or R-50T	100	
SLAJ35-601	35	85 [96]		16,000		14,400		600			8.3 [6.6]													
SLAJS35-601		72 [80]		16,000		14,400		400	212		11.8 [9.5]													
SLAJ50-601	50	129 [150]		20,000		18,000		600			7.5 [5.5]													
SLAJS50-601		104 [117]		19,500		17,550		400			11.7 [9.1]													
SLAJ50-610		129 [150]		20,000		18,000		600			7.5 [5.5]													
SLAJS50-610		104 [117]		19,500		17,550		400	210		11.7 [9.1]													
SLAJ75-610	75	161 [188]		25,000		22,500		400			10.0 [8.0]													
SLAJ90-610	90	196 [225]		30,000		27,000		600			7.2 [5.5]													
SLAJS90-610		235 [270]		30,000		27,000		400			7.2 [5.5]													
SLAJMS50-610**	50	138 [156]	26,000	21,000	23,400	18,900	9.3 (950)	290	400		6.6 [5.1]	380V 50Hz	200 or 400			18	32	220	70	376	VX-300K or R-50T	100		
SLAJMS75-610**	75	209 [244]	32,500	26,500	29,300	23,900		290	400		6.4 [4.7]													
SLAJMS90-610**	90	305 [351]	39,000	31,500	35,100	28,400		290	400		4.3 [3.3]													
SLAJM50-610**	50	156 [182]	24,000	20,500	21,600	18,500		490	600		5.2 [3.8]													
SLAJM90-610**	90	237 [272]	30,000	26,000	27,000	23,400		490	600		7.3 [5.5]													

※Remark production part

- Maximum short circuit is measured when the throat is displayed
- [] is 60Hz time
- Alternating current · projection welding machine weight is not included attached equipment weight
- Direct inverter spot · projection welding machine weight is not included inverter power supply weight.

External dimension figure

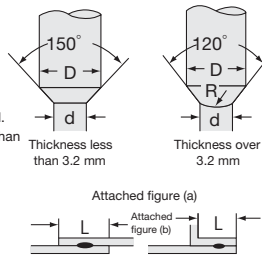
※There is no power terminal control in inverter power supply machine.



Mild steel sheet spot welding condition chart (Reference value) Alternating spot

Sheet thickness	Electrode			Minimum pitch	Minimum lap	Best condition (A class)				Medium condition (B class)				Normal condition (C class)			
	max ϕ d	min ϕ D	R			Welding time		Electrode force	Welding current	Welding time		Electrode force	Welding current	Welding time		Electrode force	Welding current
						50Hz	60Hz			50Hz	60Hz			50Hz	60Hz		
mm	mm	mm	mm	mm	mm	Cycle	Cycle	kN	A	Cycle	Cycle	kN	A	Cycle	Cycle	kN	A
0.25	3.2	10		6	10	3	4	0.9	4,000	4	5	0.6	3,700	13	15	0.3	3,000
0.4	3.2	10		8	10	4	5	1.1	5,200	7	8	0.7	4,500	17	20	0.4	3,500
0.5	3.5	10		9	11	5	6	1.3	6,000	8	10	0.9	5,000	20	24	0.4	4,000
0.6	4.0	10		10	11	6	7	1.5	6,600	10	12	1.0	5,500	22	26	0.5	4,300
0.8	4.5	10		12	11	7	8	1.9	7,800	13	15	1.2	6,500	25	30	0.6	5,000
1.0	5.0	13		18	12	8	10	2.2	8,800	17	20	1.5	7,200	30	36	0.7	5,600
1.2	5.5	13		20	14	10	12	2.6	9,800	19	23	1.7	7,800	33	40	0.8	6,100
1.4	6.0	13		23	15	12	14	3.0	10,600	22	26	2.1	8,500	38	46	1.0	6,600
1.6	6.3	13		27	16	13	16	3.5	11,500	25	30	2.4	9,100	42	50	1.1	7,000
1.8	6.7	16		31	17	15	18	4.0	12,500	28	33	2.7	9,700	45	54	1.3	7,500
2.0	7.0	16		35	18	17	20	4.6	13,300	30	36	2.9	10,300	48	58	1.5	8,000
2.4	7.8	16		40	20	20	24	5.7	15,000	37	44	3.6	11,300	54	65	1.8	8,600
2.8	8.5	16		45	21	23	28	6.9	16,200	43	52	4.2	12,100	60	72	2.2	9,400
3.2	9.0	16	75	50	22	25	30	8.0	17,500	50	60	5.1	12,900	65	78	2.5	10,000
3.6	10.3	22	100	57	29	34	41	9.1	18,200	60	72	5.5	13,600	85	102	2.7	10,600
4.0	11.1	22	100	67	32	42	50	10.1	18,900	73	88	6.3	14,100	104	125	3.1	11,000

- Remark (1) Minimum pitch comes from practical shunt effect depended on adjoining spot welding to show the neglect limit.
 (2) Minimum lap displays in (b) figure.
 (3) In case of different thickness 2 sheets welding, please refer to the thin sheet thickness for safety.
 (However, in case of thickness comparison, it is less than 1:3 in case that the convex of electrode is in thin sheet side)
 Also, less than 4 sheets welding layer becomes safety standard.
 (However, in case of sum of thickness sheet, it should be less than 4 times of one sheet.)



- In case of spot or projection welding which the accuracy of parallel degree of electrode is important, please separately consult.
- Projection welding which is able to operate with general-purpose machine, also can do nut projection easily

When do such below welding

(Refer to soft metal sheet spot welding condition chart)

	★In case of black surface	★In case of bonding sheet
Electrode pressure force	10~20% Increase	5~10% Increase
Welding current	5~10% Decrease	5~10% Increase
Welding time	Same	Same
Upslope	1~5 Cycle	1~5 Cycle

Stainless metal sheet reference welding condition

(Please refer to soft steel sheet spot welding condition chart)

Electrode pressure force increases 50%, welding current reduces 30% and welding time reduces 30%

Important equipment

- is alternative spot • projection welding machine

Function	Main circuit power supply				Power supply control		Cooling water		Compressed air		Installation	Grounding
	Power supply volta	Power supply capacity	Switch	Connecting cable	Power supply voltage	Connecting Lead line	Cooling water volume	Hose diameter	Compressor capacity	Hose diameter	Base bolt	Earth cable
Type	V	kVA	A	mm ²	V	mm ²	ℓ/min	φ mm	kW	φ mm		mm ²
SLAJ30-601	380V 50Hz	30	Over 150(75)	Over 38(22)	100	1.25	5	12	2.2	13	M16	14
SLAJ35-601		35										
SLAJS35-601		35										
SLAJ50-601		50	Over 300(150)	Over 60(38)			6					
SLAJS50-601									50			
SLAJ50-610									50			
SLAJS50-610		50	Over 400(200)	Over 80(50)			10		3.7	19		
SLAJS75-610		75										
SLAJ90-610		90										
SLAJS90-610		90	Over 500(250)	Over 100(60)			10		3.7	19		
SLMS50-610		50										
SLAJM(S)50-610		50										
SLMS75-610		75	Over 400(200)	Over 80(60)			10		3.7	19		
SLAJMS75-610		75										
SLMS90-610		90										
SLAJM(S)90-610	90	Over 500(250)	Over 100(60)	10	3.7	19						

Remark

- The cooling water pressure is due to water supply portion 0.1~0.3 MPa
- Compressed air is due to air supply port 0.5~0.7 MPa range, please use dry air. ※In case of the value number of power supply main circuit is over 50kW for high pressure receiving equipment, please refer to displayed value.
- Use value in () u when 400V utilization ※For receiving equipment which is less than 50kW, the value of main circuit power supply cannot be referred (Abolish power supply voltage value). Therefore, please refer to standard electrical power of each receiving equipment. The volume of cooling water is possible to depend on consumption in electrode heat sink. We provide an option part to improve consumption heat sink



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