

Low cost arc welding robot

FANUC Robot **ARC Mate OiB**

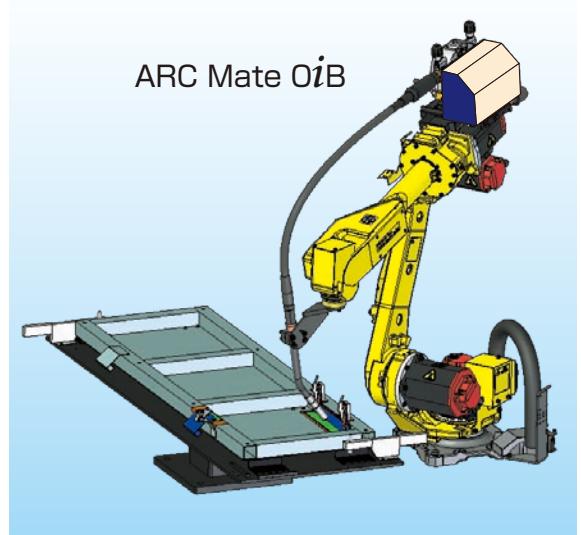


FEATURES

FANUC Robot ARC Mate OiB is a low cost arc welding robot, more extremely lightweight and compact, specifically designed for arc welding applications.

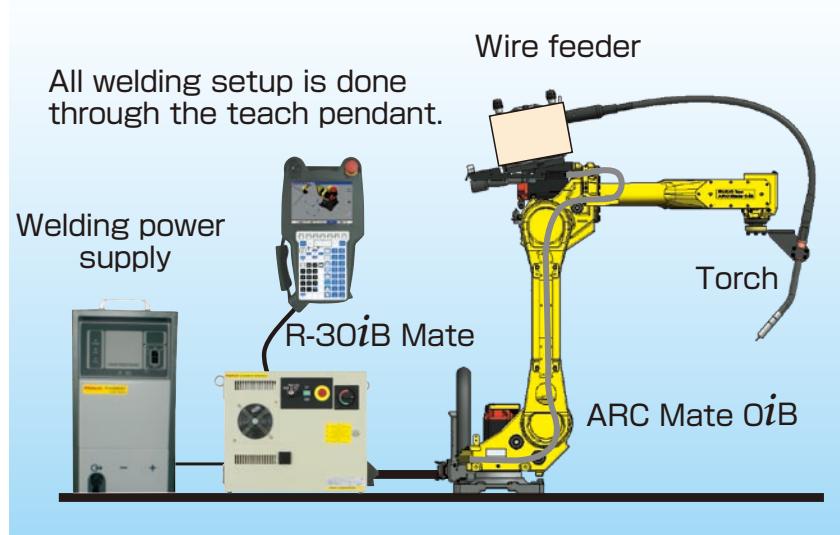
- The lightweight under 100 kg, slim arm and compact base, the form of ARC Mate OiB is optimized for arc welding applications that needs delicate motion.
- ARC Mate OiB keeps the high reliable performance and the maintenance ability is enhanced by easier replaceable robot cable.
- The latest servo technology of high grade robot controller R-30iB Mate provides high speed and accuracy of the robot motion and minimizes the interaction of the operator to increase the efficiency of the arc welding system.
- R-30iB Mate controller is filled with the newest arc welding robot software. 4D graphic function supports customer's teaching kindly to reach high quality arc welding easily and quickly.
- Integrated with the latest arc welding power supply, ARC Mate OiB provides various welding technique such as thin metal spatter-less welding, high quality controlled pulse welding, that can satisfy customers.

Example system



Smaller part arc welding system by ARC Mate OiB

Example of system configuration

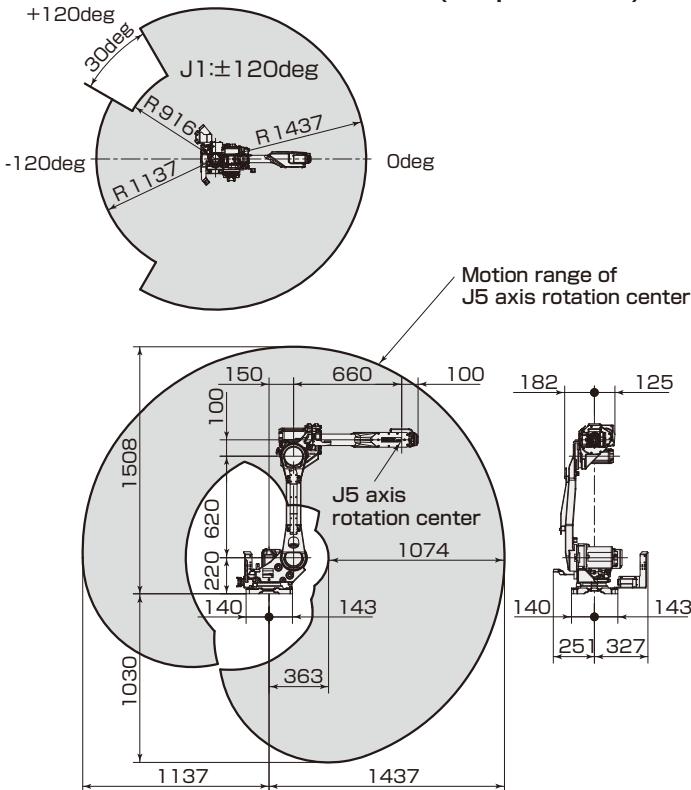


Arc welding robot package with ARC Mate OiB

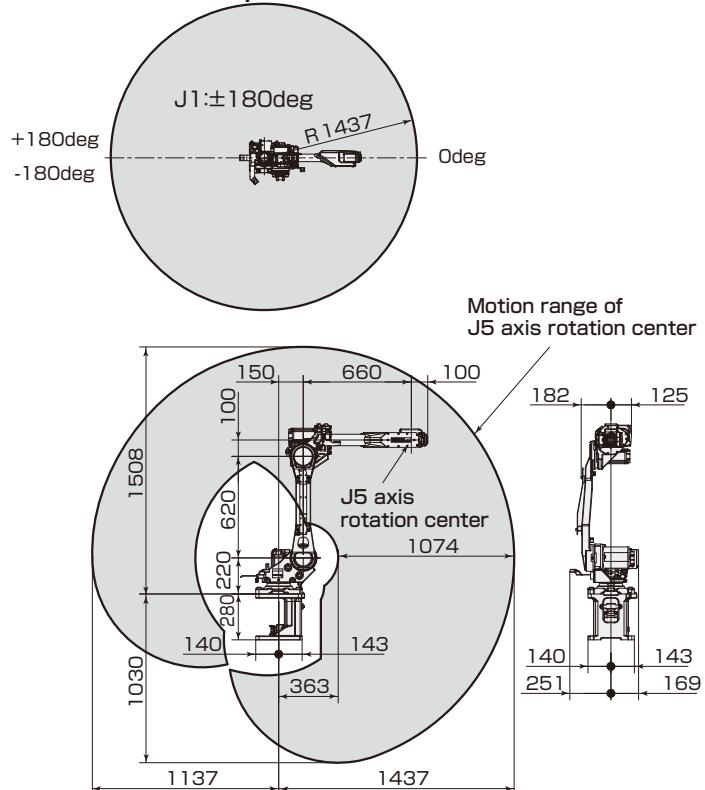
FANUC Robot ARC Mate OiB

Operating space

Standard installation (no pedestal)



Pedestal option installation



Robot Specifications

Model	ARC Mate OiB
Controlled axes (Note 1)	6 axes (J1, J2, J3, J4, J5, J6)
Reach	1,437 mm
Installation	Floor, Upside-down, Angle mount
Motion range (Maximum speed) (Note 2, 3)	J1 axis rotation 240°(360°)(225°/s) 4.19(6.28) rad (3.93 rad/s) (Note 4) J2 axis rotation 250°(215°/s) 4.36 rad (3.75 rad/s) J3 axis rotation 455°(225°/s) 7.94 rad (3.93 rad/s) J4 axis wrist rotation 380°(425°/s) 6.63 rad (7.42 rad/s) J5 axis wrist swing 280°(425°/s) 4.89 rad (7.42 rad/s) J6 axis wrist rotation 720°(625°/s) 12.57 rad (10.91 rad/s)
Maximum load capacity at wrist	3kg
Allowable load moment at wrist	J4 axis 8.9 N·m J5 axis 8.9 N·m J6 axis 3.0 N·m
Allowable load inertia at wrist	J4 axis 0.280 kg·m ² J5 axis 0.280 kg·m ² J6 axis 0.035 kg·m ²
Repeatability	± 0.08mm
Robot mass	99[145]kg (Note 4)
Installation environment	Ambient temperature : 0 ~ 45°C Ambient humidity : Normal 75%RH or less (No dew nor frost allowed) Short term : 95%RH or less (within one month) Vibration acceleration : 4.9m/s ² (0.5G) or less

Note 1) In case of using robot combined with aux. axis, please consult with FANUC.

Note 2) In case of short distance motion, the axis speed may not reach the maximum value stated.

Note 3) Motion range of wrist axis may be restricted by torch to less than the values given.

Note 4) The value in [] shown above need the pedestal option.

Welding Power Supply Specifications(CV type)

Model	FH350i
Type	CO2/MAG
Rated Input Voltage	AC200V, 3φ
Input Frequency	50 · 60Hz
Rated Input Power	16.0kVA
Output Current	DC40~350A
Output Voltage	DC12~36V
Rated duty	100% at 270A
Welding power supply Mass	60kg
Outer dimensions	W290 x D540 x H630 mm

Welding Power Supply Specifications(STT,PULSED type)

Model	Power Wave R350
Type	CO2/MAG/MIG/Pulsed
Rated Input Voltage	AC208/230/380-415/460/575V, 3φ
Input Frequency	50 · 60Hz
Rated Input Power	17.0kVA
Output Current	DC5~350A
Output Voltage	DC14~38V
Rated duty	100% at 300A
Welding power supply Mass	Main unit: 39kg, STT module: 21kg
Outer dimensions	Main body: W356 x D630 x H518 (mm) STT module: W353 x D645 x H292 (mm)

FANUC CORPORATION

• Headquarters Oshino-mura, Yamanashi 401-0597, Japan
Phone: 81-555-84-5555 Fax: 81-555-84-5512 <http://www.fanuc.co.jp>

• Overseas Affiliated Companies

FANUC America Corporation
FANUC Europe Corporation, S.A.
SHANGHAI-FANUC Robotics CO., LTD.
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PT. FANUC INDONESIA
FANUC OCEANIA PTY. LIMITED
FANUC SOUTH AFRICA (PROPRIETARY) LIMITED

3900 West Hamlin Road, Rochester Hills, MI 48309-3253, U.S.A.
Zone Industrielle, L-6468 Ecchternach, Grand-Duché de Luxembourg
No. 1500 Fulian Road, Baoshan Area, Shanghai, China
101, Wanam-ro(st), Seongsan-gu, Changwon-si, Gyeongsangnam-do, 641-290 Republic of Korea
No.10, 16th Road, Taichung Industrial Park, Taichung, Taiwan
41-A, Electronics City, Bangalore, 560 100, India
No.1, Teban Gardens Crescent, Singapore 608919, Singapore
1301 Pattanakarn Road, Kwaeng Suanluang, Khet Suanluang, Bangkok 10250 Thailand
No.32, Jalan Pengacara U1/48, Temasya Industrial Park, Section U1, Glenmarie,
40150 Shah Alam, Selangor Darul Ehsan, Malaysia
JL. Boulevard Kuta Gading Raya Blok R, Jakarta 12420 Indonesia
10 Healey Circuit, Huntingwood, NSW 2148, Australia
17 Loper Ave. Aeropost Industrial Ests, Spartan Ext.2 P.O.Box 219, Isando 1600, Republic of South Africa

Phone: 1-248-377-7000 Fax: 1-248-377-7477
Phone: 352-727777-1 Fax: 352-727777-403
Phone: 86-21-5032-7700 Fax: 86-21-5032-7711
Phone: 82-55-278-1200 Fax: 82-55-284-9826
Phone: 886-4-2359-0522 Fax: 886-4-2359-0771
Phone: 91-80-2852-0057 Fax: 91-80-2852-0051
Phone: 65-6567-8566 Fax: 65-6566-5937
Phone: 66-2-714-6111 Fax: 66-2-714-6120
Phone: 60-3-7628-0110 Fax: 60-3-7628-0220
Phone: 62-21-4584-7285 Fax: 62-21-4584-7288
Phone: 61-2-8822-4600 Fax: 61-2-8822-4666
Phone: 27-11-392-3610 Fax: 27-11-392-3615

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