Panasonic
ideas for life

All new GIII controller !
Digital interface with "Full Digital" welding machine achieving advanced weld performance.

TA-1400GIII

TB-1400GIII

Panasonic pursues Only one **in welding**

TA/TB Series GⅢ

New hardware and software realizing advanced performance

All new controller with advanced performance !

● Faster and powerful CPU achieving half a minute quick boot up.
(50 % time saving compared with former model)

● Optimum kinematic calculation realizing faster acceleration and deceleration.
(Roughly 10 % air cut time reduction compared with former model)

NEW

GⅢ

## All new teach pendant with easier operation !

Operating function key

User function key

Same basic operation procedure with former model
Windows based operation realizing easy use

● Light weight design under 1 kg (0.99 kg) giving you less stress during teaching

● Liquid crystal LED back light improving impact resistance

● USB and SD memory interface realizing great expandability

● Increased number of function keys (four to eight),

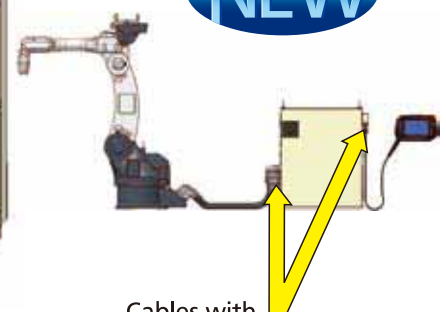enabling same action with less key strokes during teaching

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Better and easier maintenance !

● Swivel rack mechanism realizing easy maintenance and space saving at the same time.

● Cables with connectors on both ends contributing to easier and shorter robot set-up or cable exchange.

NEW
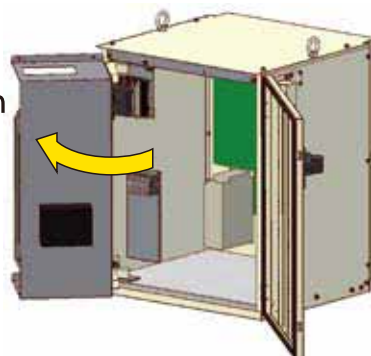
swivel rack mechanism

Cables with connector on both ends

TA/TB Series GIII

Digital interfacing with Panasonic "Full Digital" welding machine achieving stable and advanced quality welding results

"High performance manipulator" optimized for the arc welding !

TA-GIII
| 1000 |
| 1400 |
| 1600 |
| 1800 |
| 1900 |

TB-GIII
| 1400 |
| 1800 |

TA-1000   TA-1600   TA-1800   TA-1900

TA-1400
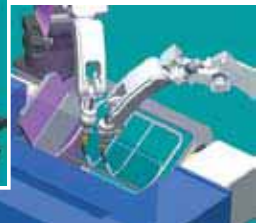
Torch cable integrated type

TB-1400   TB-1800

Integrated torch cable creates less interference and improves accessibility!

### Improved accessibility

Less interference with work piece or jig.

Less interference with multiple robot system

Robust arm with compact wrist design

## Collision detection and flex-servo control !

Preventing torch miss-alignment due to collision

Manipulator detects unexpected force (collision) applied to the arm at a high sensitivity.
Manipulator then changes its motion to flex-servo mode releasing the force preventing damage to the torch.
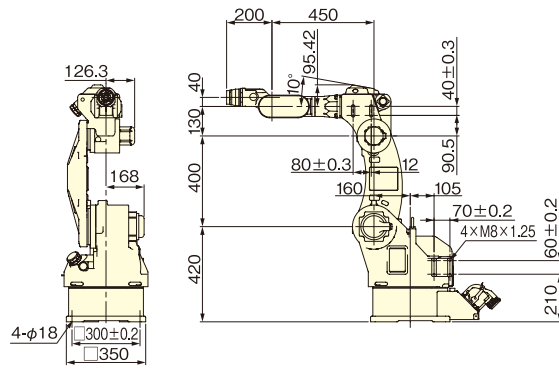

Force
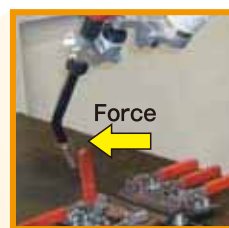
Detects collision at a high sensitivity

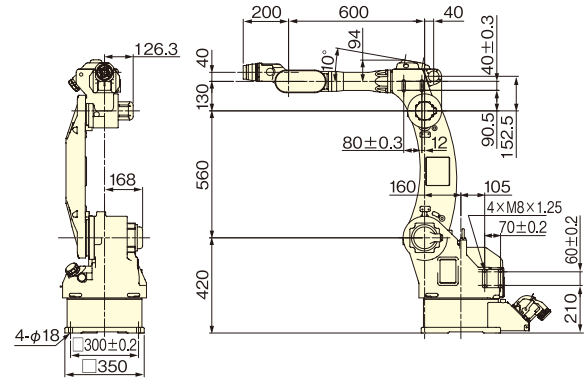Manipulator quickly switches to flex-servo mode
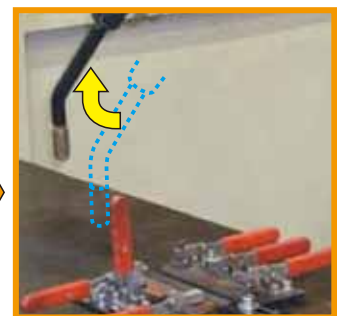
Manipulator can be easily moved away from collision scene. Quick recovery gives you more production
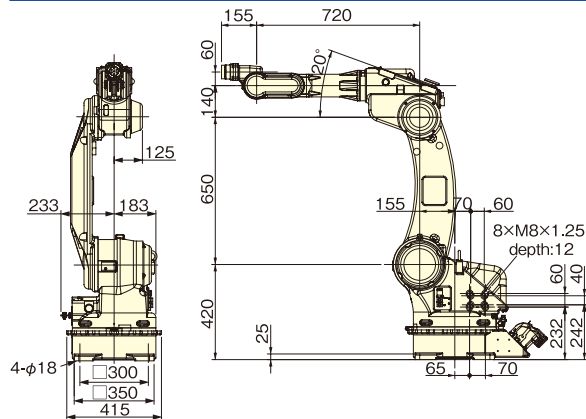
■Dimensions of Manipulators (mm)
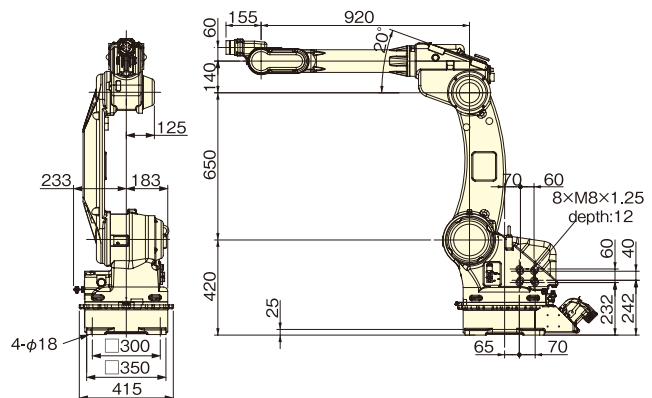
Short arm type TA-1000 Max. Reach:1068 mm GⅢ
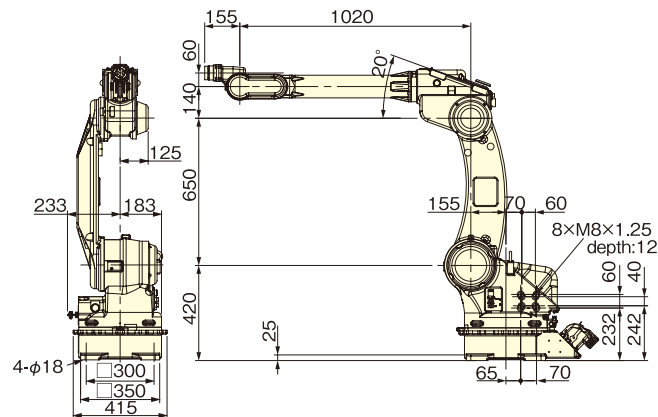

Standard arm type TA-1400 Max. Reach:1374 mm GⅢ

Middle arm type TA-1600 Max. Reach:1598 mm GⅢ

Long arm type TA-1800 Max. Reach:1796 mm GⅢ
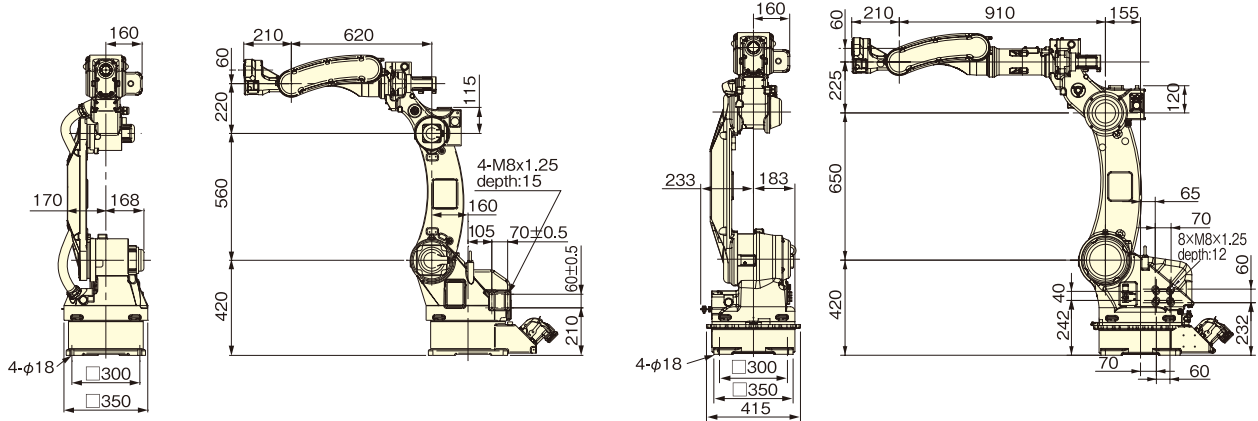

Long arm type TA-1900 Max. Reach:1895 mm GⅢ

■Standard specifications <Manipulators>

Model			TA-1000	TA-1400	TA-1600	TA-1800	TA-1900	TB-1400	TB-1800
Type			Short arm	Standard arm	Middle arm	Long arm		Torch cable integrated	
Structure			Independent articulated						
Degree of freedom			6						
Maximum payload			6 kg		8 kg		6 kg	4 kg	
Robot working area	Maximum accessible distance		1068 mm	1374 mm	1598 mm	1796 mm	1895mm	1437 mm	1802 mm
	Minimum accessible distance		362 mm	352 mm	360 mm	472 mm	551mm	376 mm	480 mm
Momentary maximum speed	Arm	Rotation(RT)	2.97 rad/s（170°/s)					2.97 rad/s（170°/s)	
		Upper arm(UA)	3.32 rad/s（190°/s)		2.97 rad/s（170°/s)			2.97 rad/s（170°/s)	
		Front arm(FA)	3.32 rad/s（190°/s)		3.05 rad/s（175°/s)			3.32 rad/s（190°/s)	3.05 rad/s（175°/s)
	Wrist	Rotating(RW)	6.46 rad/s（370°/s)		6.28 rad/s（360°/s)			5.93 rad/s（340°/s)	
		Bending(BW)	6.54 rad/s（375°/s)		6.11 rad/s（350°/s)			6.54 rad/s（375°/s)	
		Twisting(TW)	10.5 rad/s（600°/s)		9.42 rad/s（540°/s)			10.5 rad/s（600°/s)	
Positioning repetition precision			±0.1 mm or less			±0.15 mm or less		±0.1 mm or less	
Brake			All axis are provided with brakes						
Installation position			Floor, Ceiling (factory option)						
Weight of manipulator			About 145 kg	About 161 kg	About 203 kg	About 204 kg		About 171 kg	About 214 kg

■Dimensions of Manipulators （mm）

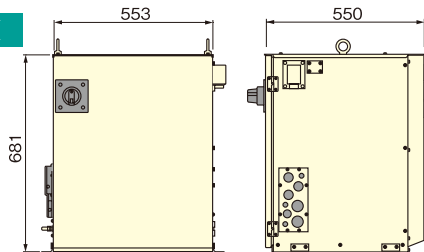**Torch cable integrated type** **TB-1400** Max. Reach：1437 mm GⅢ

160
210　620
60
220
115
560
420
170　168
4-φ18　□300　□350
4-M8x1.25 depth:15
160
105　70±0.5
60±0.5
210

Torch cable integrated type **TB-1800** Max. Reach：1802 mm GⅢ

160
60　210　910　155
225
650
420
233　183
4-φ18　□300　□350　415
120
65
70
8×M8×1.25 depth:12
60
242　40
232
70　60

■Specifications ＜Controller＞ （mm）

■Controller

GⅢ

553　550
681

■Teach pendant

GⅢ

290　76
178

Model	GⅢ
Dimensions (mm)※1	（W）553×（D）550×（H）681
Weight (kg)※2	60
Memory capacity	40 000 points
Position control method	Software servo control
External memory	Teach Pendant : SD memory card slot and USB2.0(Hi-speed not supported)2 ports
The number of control axes	6 axes simultaneously (Max.27 axes)
Input and output	Input:40 points (Option : expandable to 2048 points) Output:40 points (Option : expandable to 2048 points)
Input power source	3-phase,200-220 VAC±20 V,3 kVA,50/60 Hz

※1 : Protruding portions not included
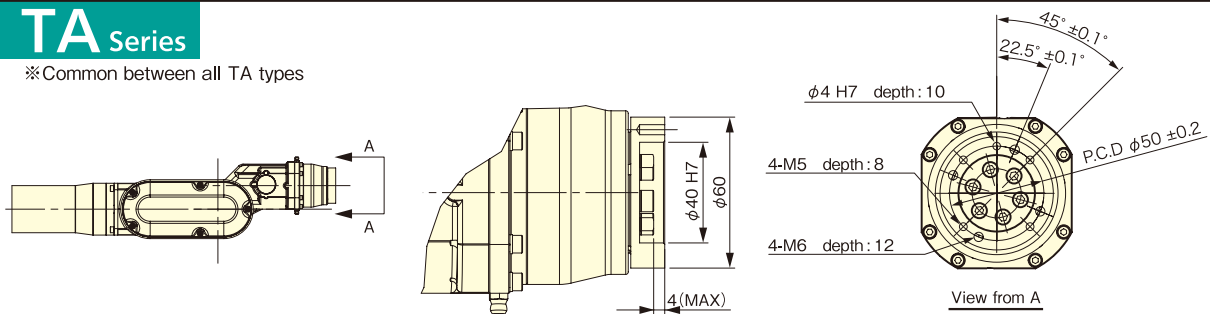※2 : Excluding the Teach Pendant and connecting cable
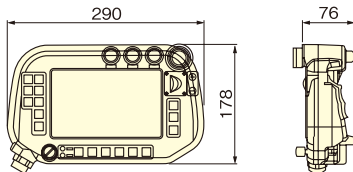
■Dimensions of the wrist flange （mm）

TA Series
※Common between all TA types

A　A
φ40 H7　φ60
4(MAX)
45°±0.1°
22.5°±0.1°
φ4 H7　depth：10
4-M5　depth：8
P.C.D φ50 ±0.2
4-M6　depth：12
View from A

TB Series
※Common between all TB types

A　A
3.5
φ40　φ57 h7　φ75
90°　4-M5　depth：10
P.C.D. 50 ±0.2
φ4 H7　depth：5
View from A