

# PRE-ENGINEERED SYSTEMS OVERVIEW



DAIHEN INC.

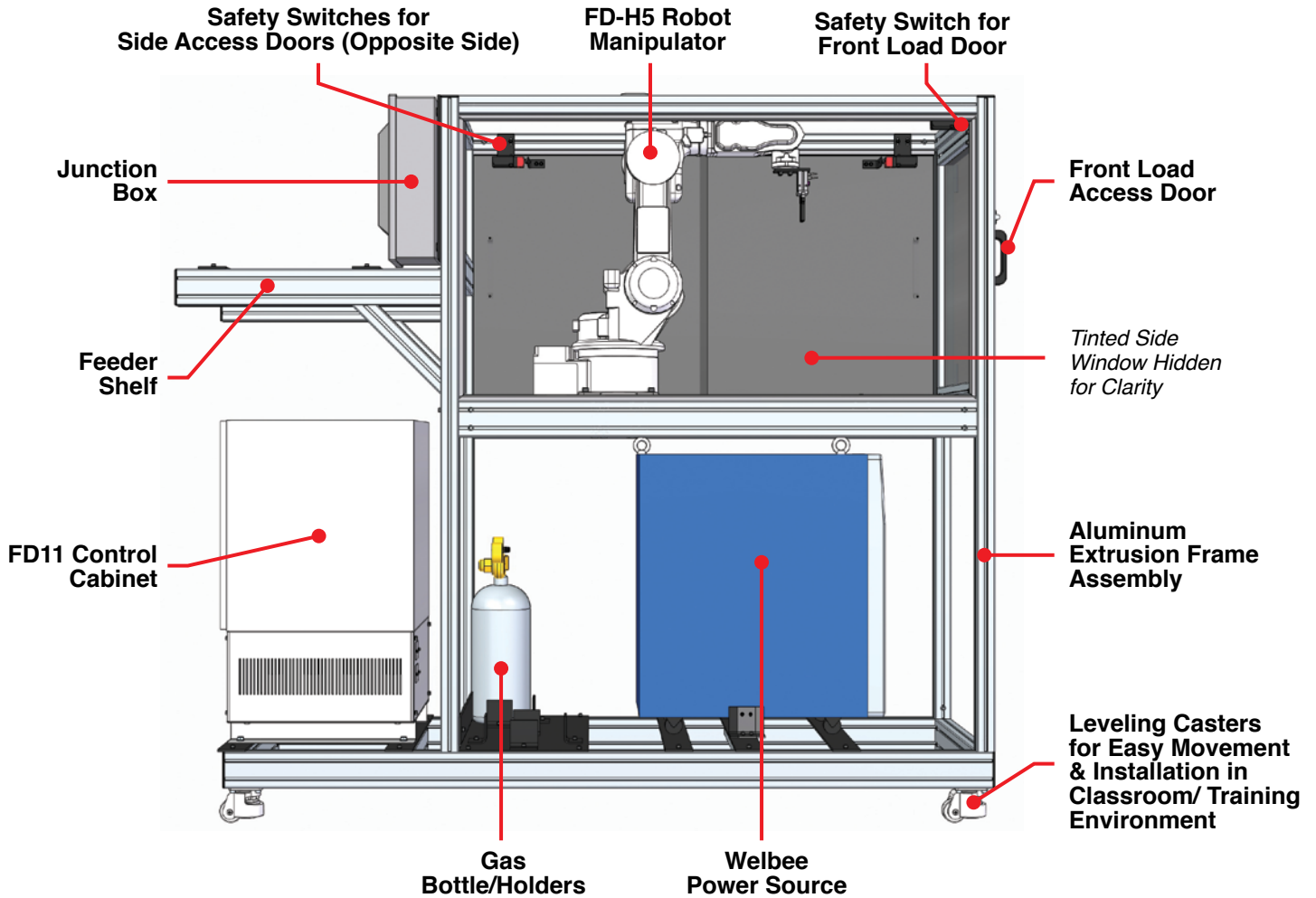
OTC Daihen Inc. considers the contents of this brochure as proprietary and confidential information. Therefore, it shall be considered unwarranted to solicit or otherwise disclose the information to any unauthorized third-party. All information and specifications are subject to change without notice.

© 2015 OTC Daihen Inc., All rights reserved.

# CONTENTS

<b>Arc Welding Cell</b>	<b>Page</b>
ED-ARC 100 . . . . .	4
ECO-ARC 200 . . . . .	6
ECO-ARC 200B . . . . .	8
ECO-ARC 200L . . . . .	10
ECO-ARC 200LB. . . . .	12
PT-ARC 600 . . . . .	14
PT-ARC 600B . . . . .	16
SERVO-ARC 600 . . . . .	18
SERVO-ARC 600B. . . . .	20
SERVO-ARC 720 . . . . .	22
SERVO-ARC 720B. . . . .	24
DT-ARC 500 . . . . .	26
ROTA-ARC 1000. . . . .	28
TRI-ARC 1000 . . . . .	30

# ED-ARC 100

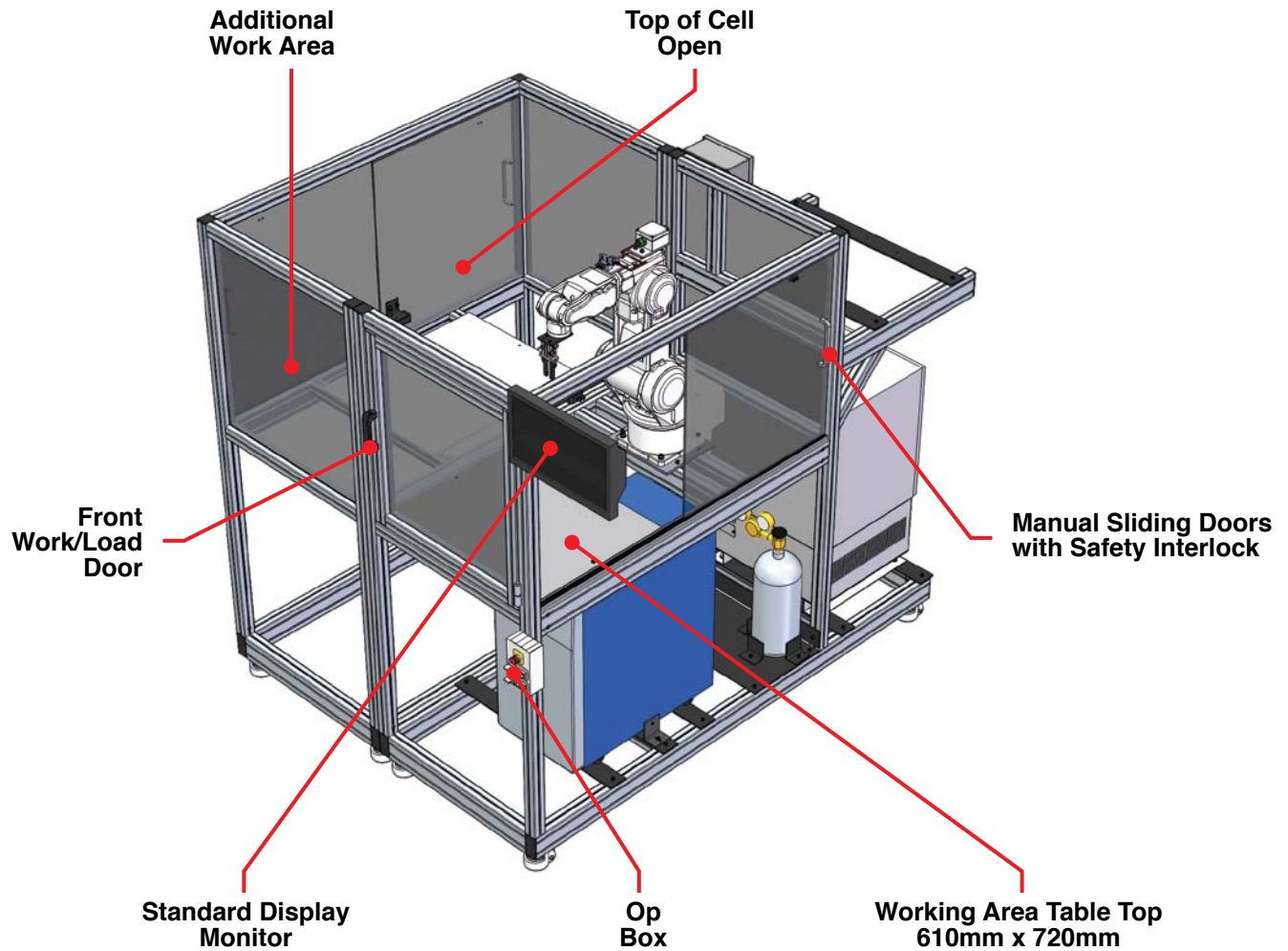


## Standard Option:

**ED-ARC 100** – Mobile, fully enclosed arc welding training station with compact robot manipulator (FD-H5)

### Details:

- Lightweight aluminum frame and polycarbonate arc flash enclosure
- Flat table top surface with 610mm x 720mm work area
- Height of work area 1177mm
- Maximum payload: 250kg
- Leveling casters for stable installation/easy movement when needed
- Weight – Approx. 550kg
- Front load access door with tinted window with safety interlock
- Side access door with tinted window for load/maintenance with safety interlock
- Tinted Panels provide better light in work area for training visibility and operator safety
- Shelf mounted welding power source
- Standard Display Monitor



## Specifications:

### Footprint Dimensions:

Width: 820mm (32.3")  
 Height: 2014mm (79.3")  
 Depth: 2230mm (87.8")

### Manipulator Type:

- FD-H5



FD-H5

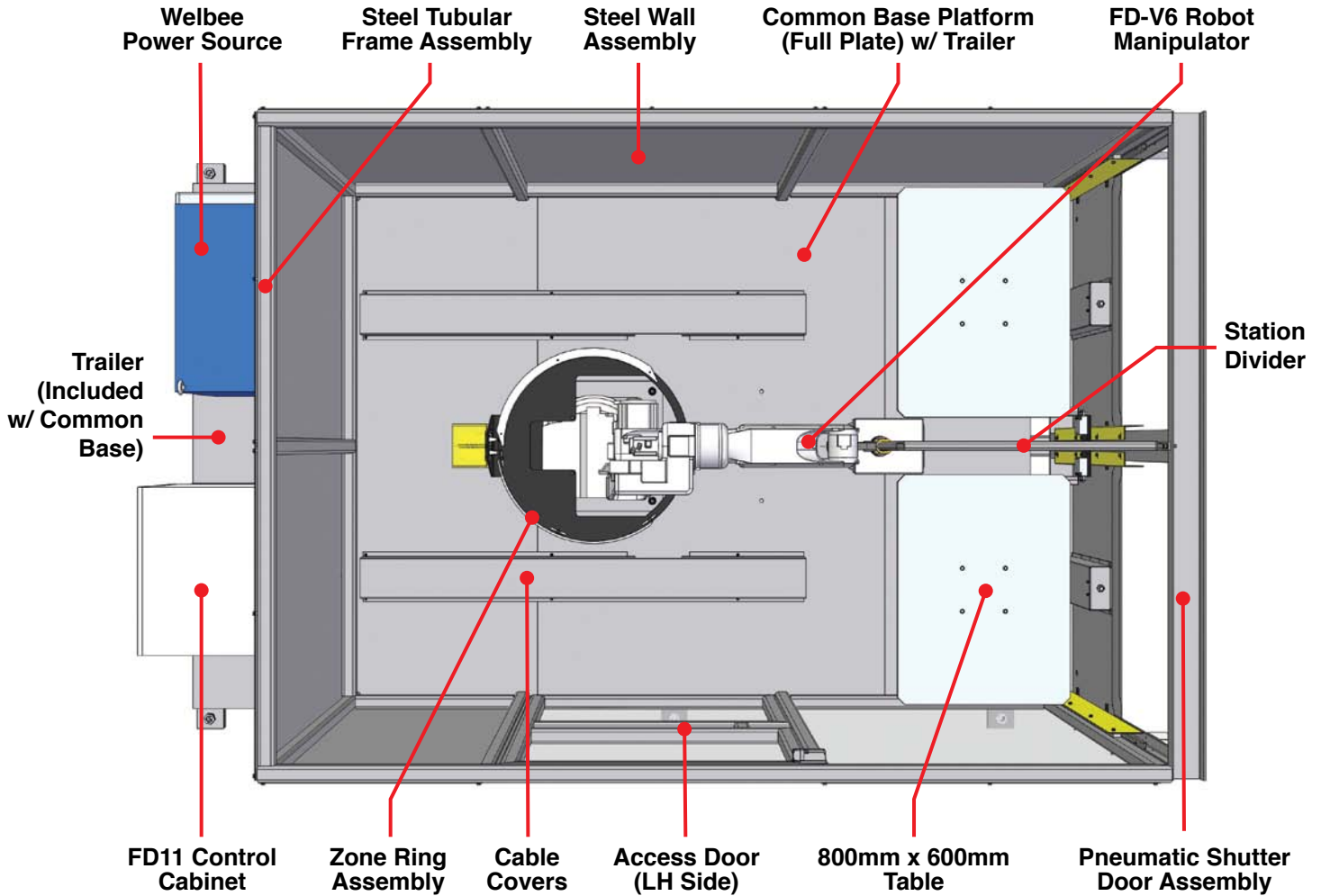
### Available I/O Slots:

32 Inputs/32 Outputs  
 (Additional Power Supply needed for Outputs)

## Additional Options:

- Optional Additional Work Area
  - Adds additional space by adding to the extruded frame and removing the long side panel without sliding doors
  - May require adding a zone kit for station designation

# ECO-ARC 200



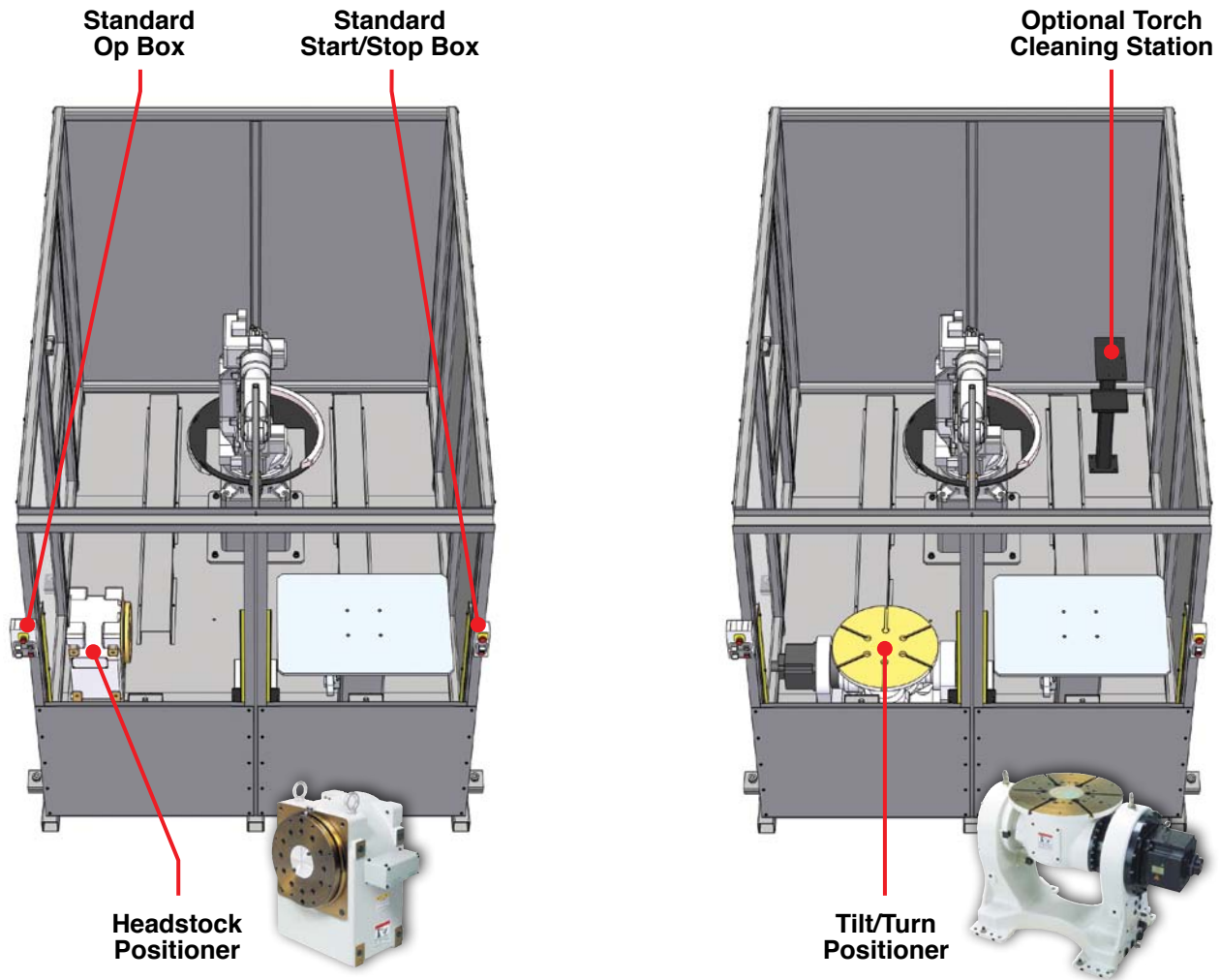
## Standard Option:

**ECO-ARC 200** – 2 stationary tables with standard robot manipulator (FD-V6)

- Tabletop Dimensions: 800mm x 600mm
- Weight – Approx. 2000kg

## Details:

- Pneumatic shutter doors
- Zone Ring for station designation
- Standard fork lift pockets in base for easy movement
- Steel wall station divider



## Specifications:

### Footprint Dimensions:

- Width: 2194mm (86.4")
- Height: 2158mm (85.0")
- Depth: 3430mm (135.0")

### Manipulator Types:

- FD-V6
- FD-B4

### Cell Options:

- 2 Stationary Tables
- Positioner/Table
- 2 Positioners

### Headstock Options:

- A2PB-250
- A2PB-500
- A2PB-1000



### Tilt/Turn Options:

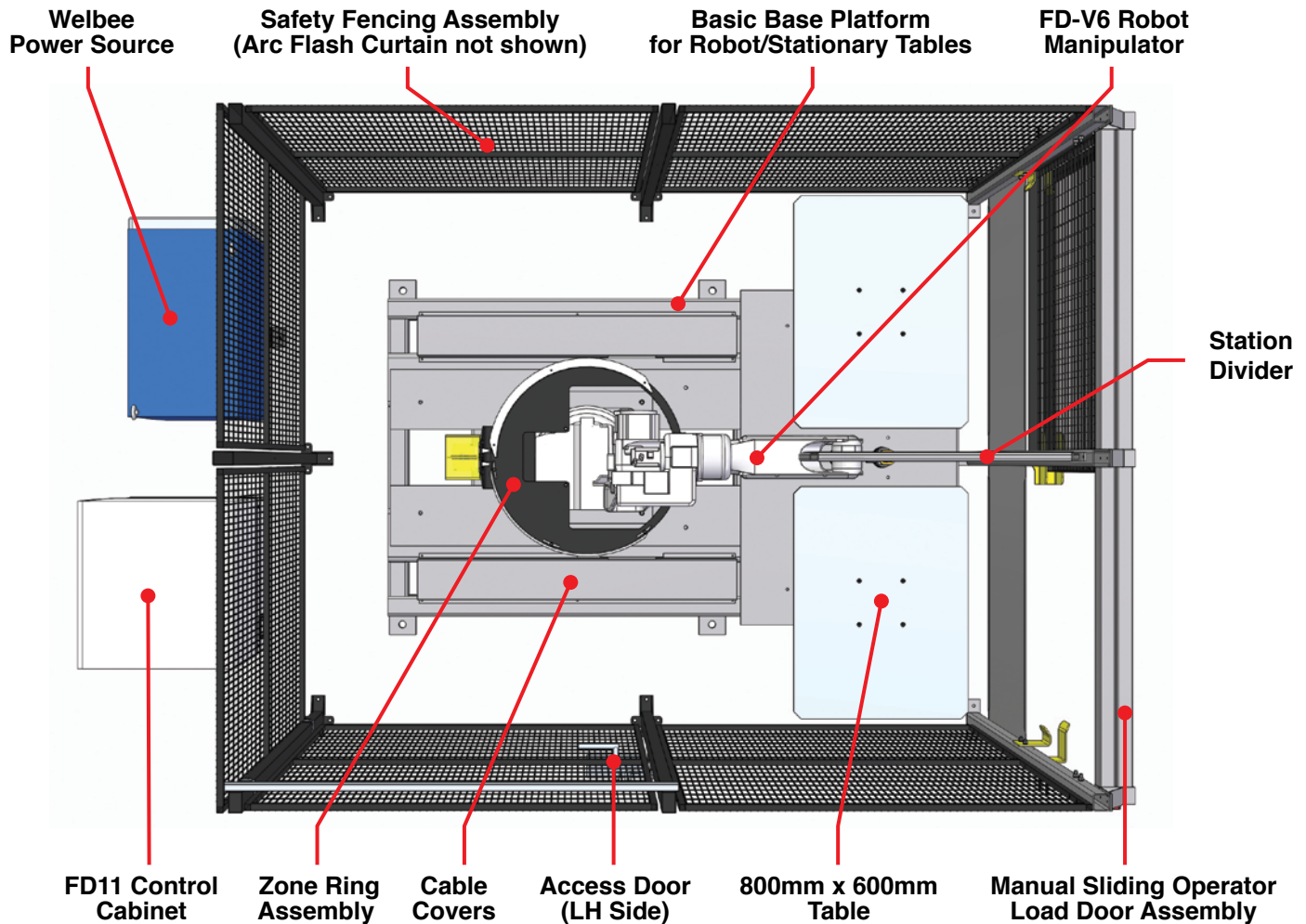
- A2PF-300
- A2PF-500
- A2PF-1000

**Available I/O Slots:** 28 Inputs/26 Outputs  
(Additional Power Supply needed for Outputs)

### Other Options:

- Basic Base Design (ECO-ARC 200B)
- Safety Fencing on Floor
- Safety Fencing on Full Base
- Access Door on RH Side
- Manual Sliding Door Assembly
- Station Lighting
- Torch Cleaning Station
- Fixture Mounting Pattern in Table Top
- Extended I/O

# ECO-ARC 200B



## Standard Option:

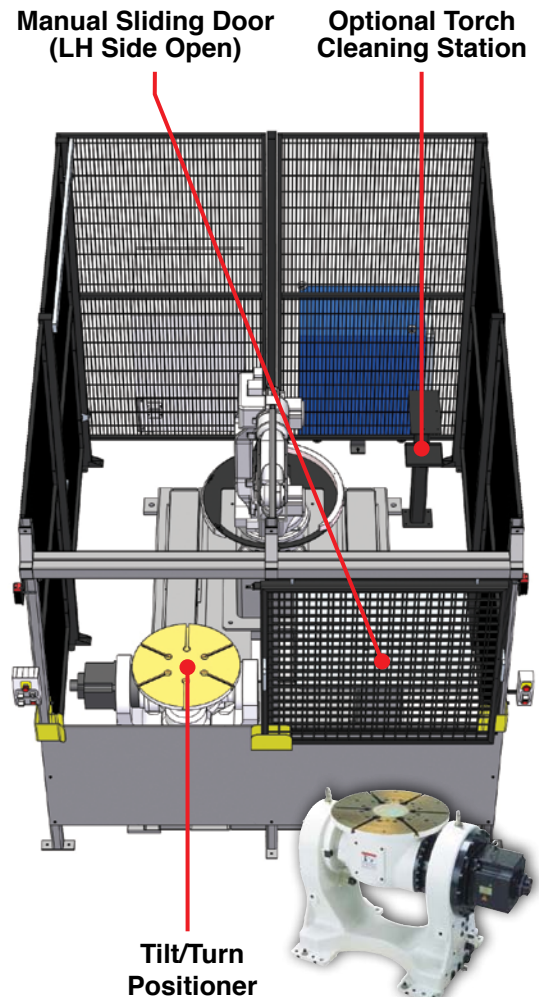
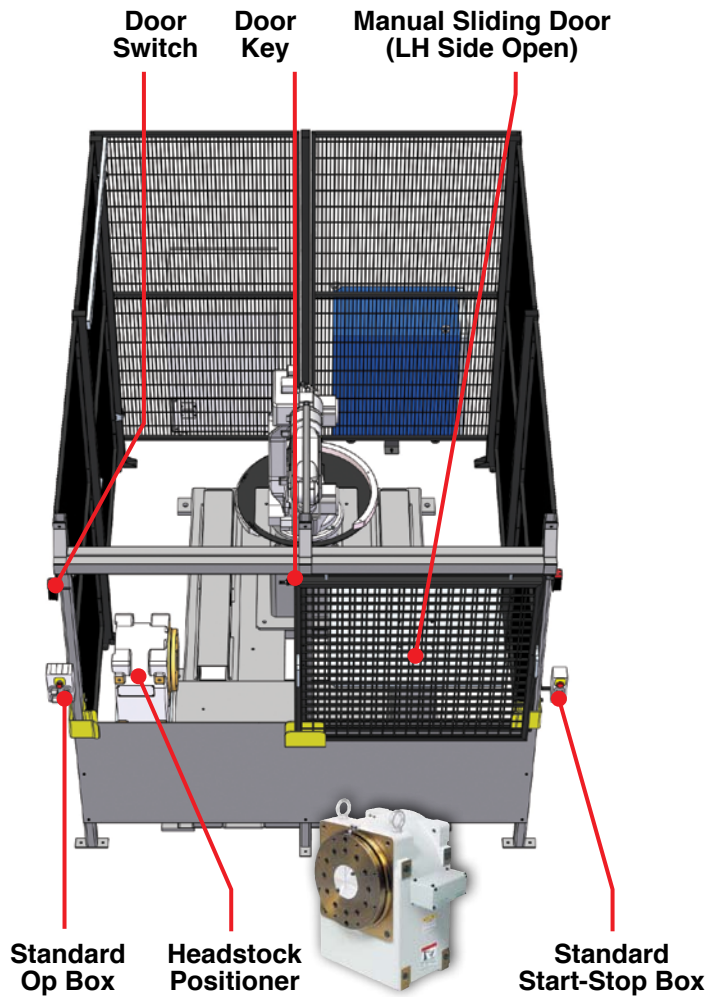
**ECO-ARC 200B** – 2 stationary tables with standard robot manipulator (FD-V6)

### Details:

- Manual sliding operator load doors
- Zone Ring for station designation
- Standard fork lift pockets in base for easy movement
- Steel wall station divider

- Tabletop Dimensions: 800mm x 600mm
- Weight – Approx. 1500kg
- Floor mounted safety fencing w/ arc flash curtains





## Specifications:

### Footprint Dimensions:

Width: 2140mm (84.2")  
 Height: 2200mm (86.6")  
 Depth: 3420mm (134.6")

### Manipulator Types:

- FD-V6
- FD-B4

### Cell Options:

- 2 Stationary Tables
- Positioner/Table
- 2 Positioners

### Headstock Options:

- A2PB-250
- A2PB-500
- A2PB-1000



### Tilt/Turn Options:

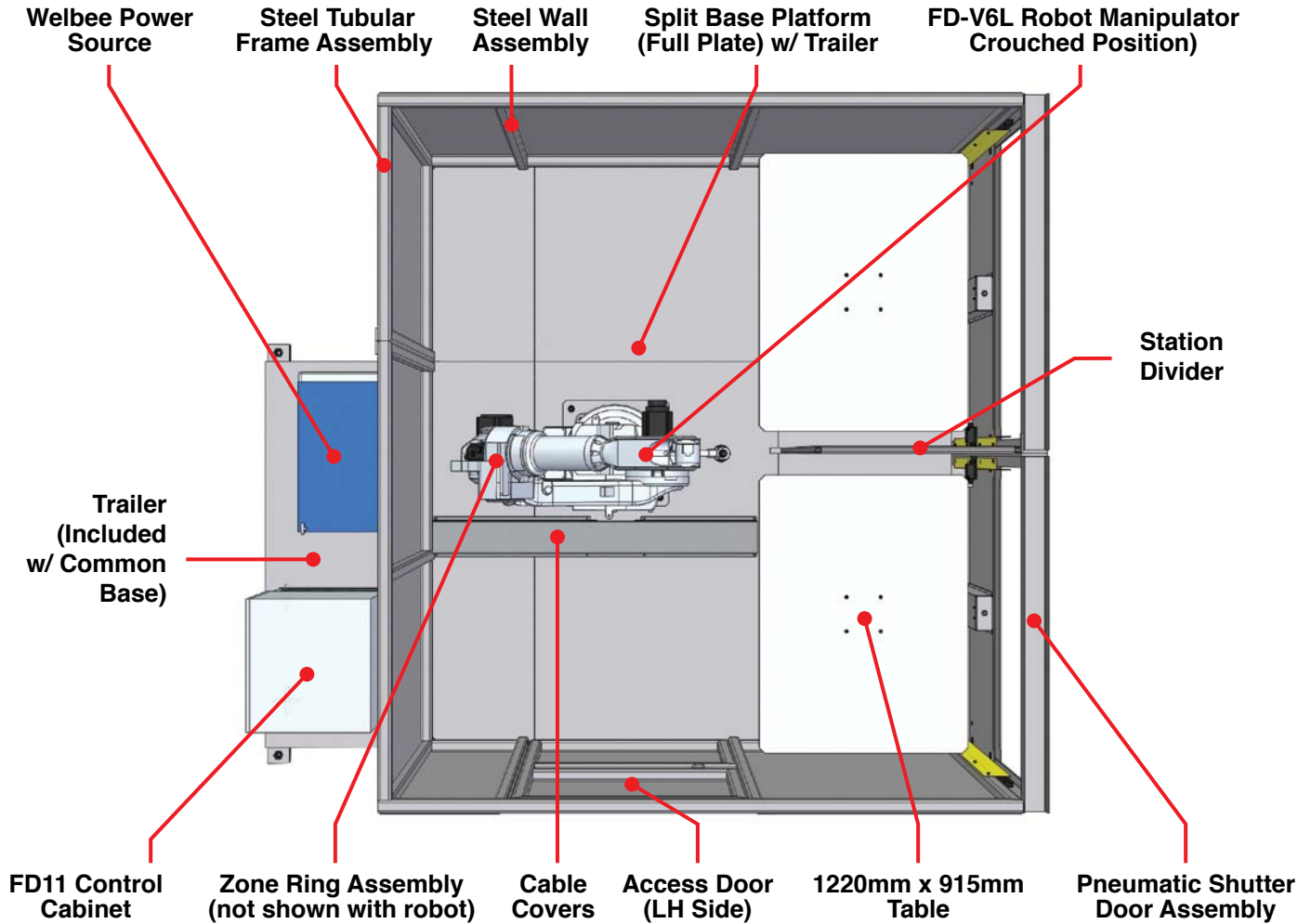
- A2PF-300
- A2PF-500
- A2PF-1000

**Available I/O Slots:** 28 Inputs/26 Outputs  
 (Additional Power Supply needed for Outputs)

### Other Options:

- Full Base Design (ECO-ARC 200)
- Mesh Fencing on Full Base
- Access Door on RH Side
- Pneumatic Shutter Door Assembly
- Station Lighting
- Torch Cleaning Station
- Fixture Mounting Pattern in Table Top
- Extended I/O
- Trailer (Base)

# ECO-ARC 200L



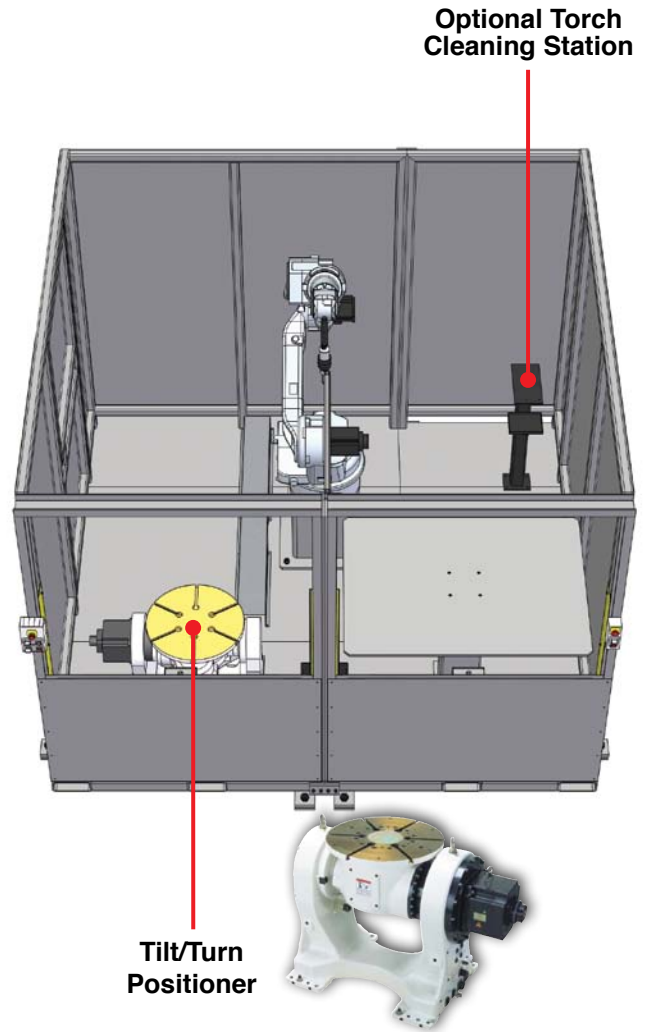
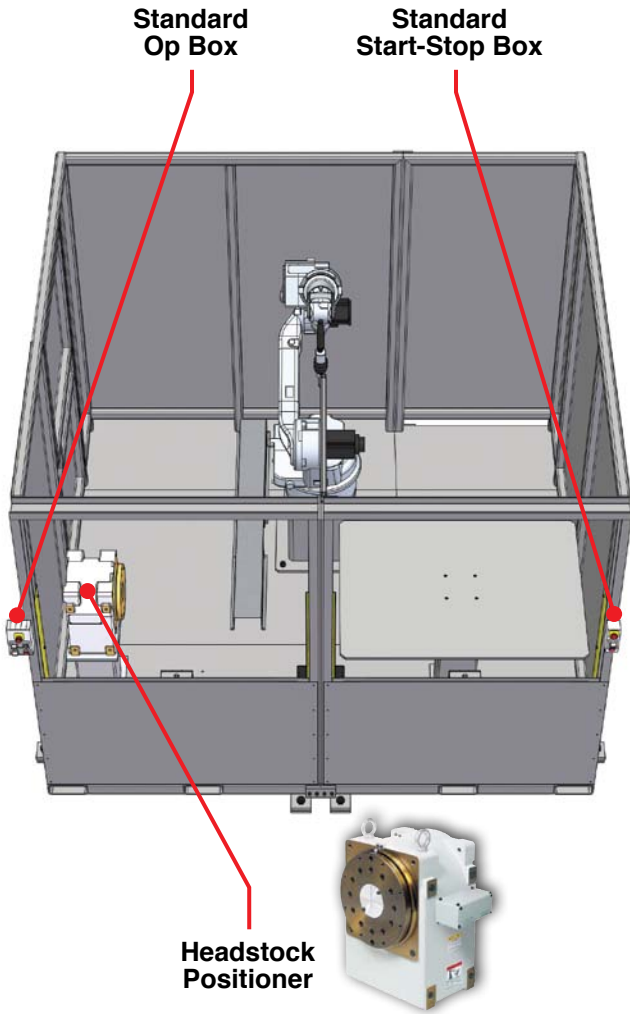
## Standard Option:

**ECO-ARC 200L** – 2 stationary tables with long reach robot manipulator (FD-V6L)

### Details:

- Pneumatic shutter doors
- Zone Ring for station designation
- Standard fork lift pockets in split base for easy movement

- Steel wall station divider
- Table Top Dimensions: 1220mm x 915mm
- Weight – Approx. 3500kg



## Specifications:

### Footprint Dimensions:

Width: 3394mm (133.6")

Height: 2148mm (84.6")

Depth: 4065mm (160.0")

### Manipulator Types:

- FD-V6L
- FD-B4L

### Cell Options:

- 2 Stationary Tables
- Positioner/Table
- 2 Positioners

### Headstock Options:

- A2PB-250
- A2PB-500
- A2PB-1000



### Tilt/Turn Options:

- A2PF-300
- A2PF-500
- A2PF-1000

### Available I/O Slots:

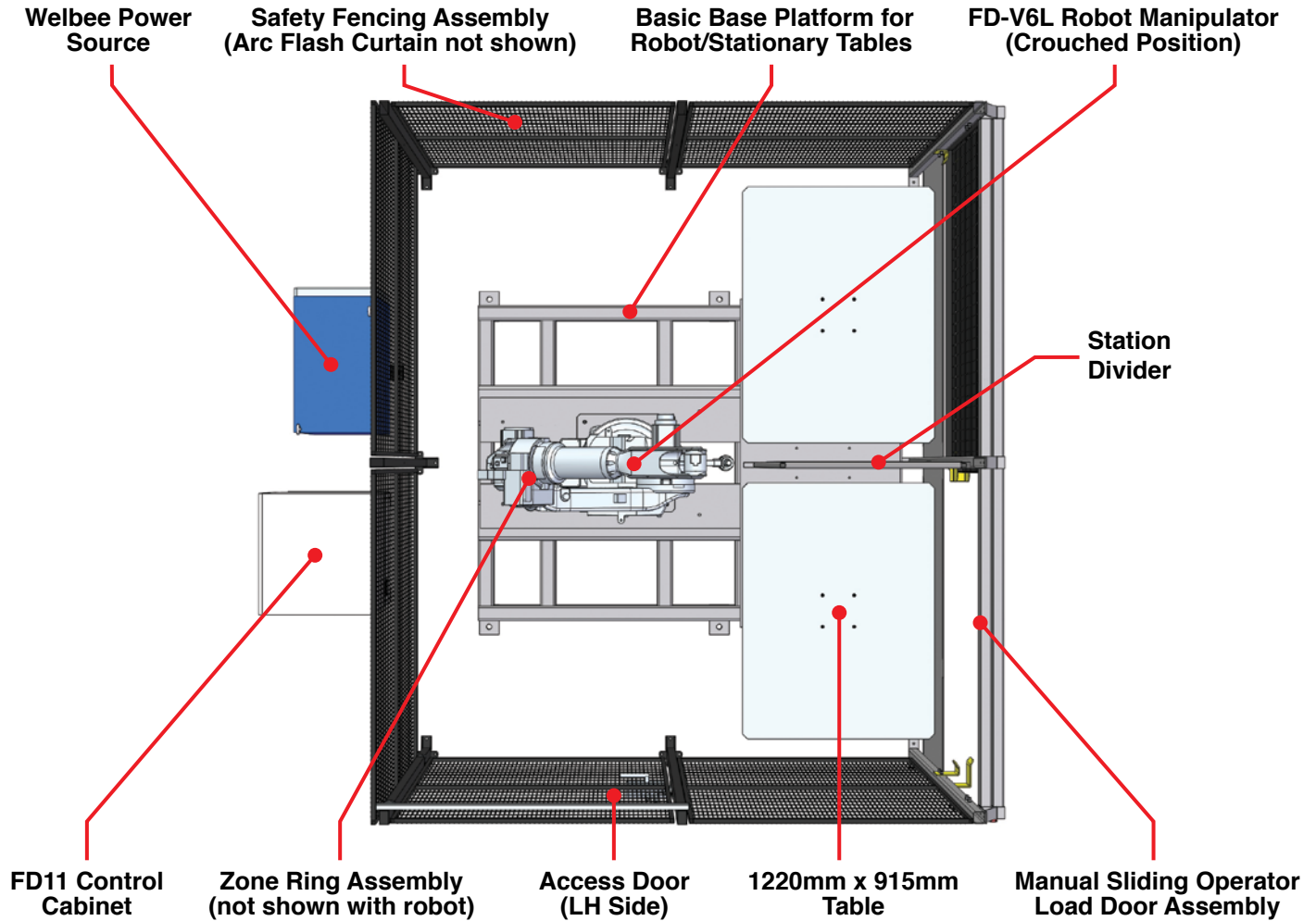
28 Inputs/26 Outputs

(Additional Power Supply needed for Outputs)

### Other Options:

- Basic Base Design (ECO-ARC 200LB)
- Safety Fencing on Floor
- Safety Fencing on Full Base
- Access Door on RH Side
- Manual Sliding Door Assembly
- Station Lighting
- Torch Cleaning Station
- Fixture Mounting Pattern in Table Top
- Extended I/O

# ECO-ARC 200LB



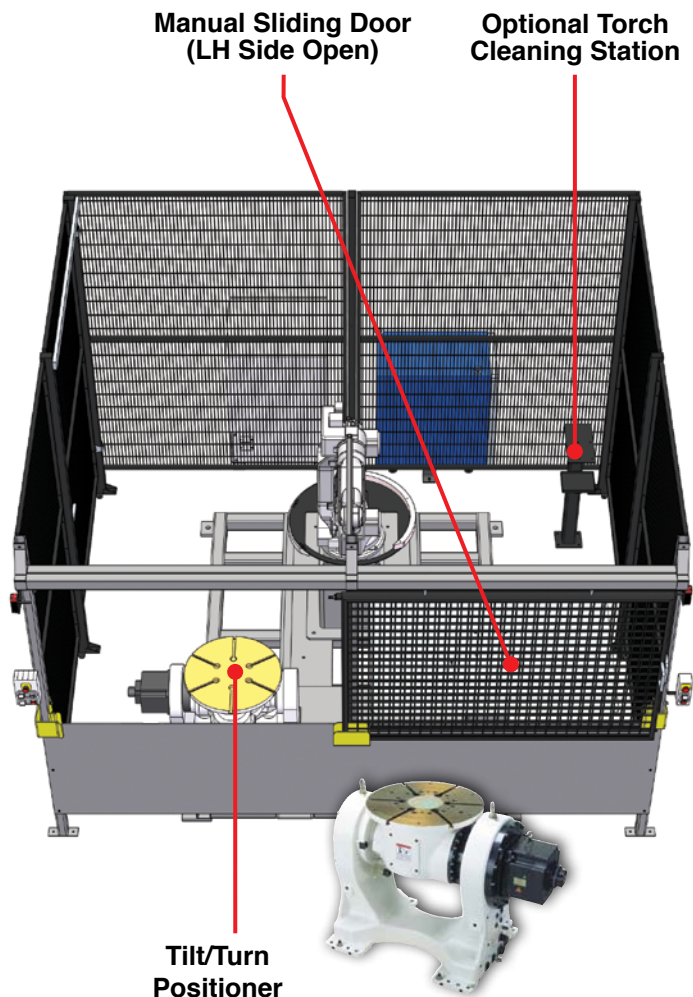
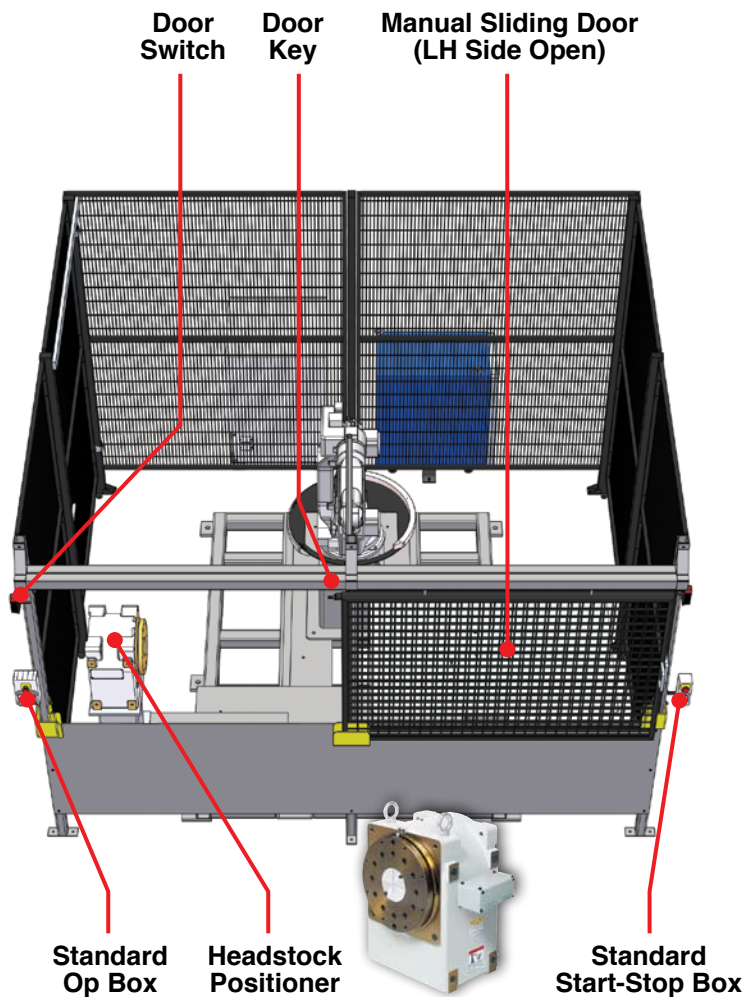
## Standard Option:

**ECO-ARC 200LB** – 2 stationary tables with long reach robot manipulator (FD-V6L)

### Details:

- Manual sliding operator load doors
- Zone Ring for station designation
- Standard fork lift pockets in base for easy movement
- Steel wall station divider

- Tabletop Dimensions: 1220mm x 915mm
- Weight – Approx. 2000kg
- Floor mounted safety fencing w/ arc flash curtains



## Specifications:

### Footprint Dimensions:

Width: 3294mm (129.7")  
 Height: 2200mm (86.6")  
 Depth: 3726mm (146.7")

### Manipulator Types:

- FD-V6L
- FD-B4L

### Cell Options:

- 2 Stationary Tables
- Positioner/Table
- 2 Positioners

### Headstock Options:

- A2PB-250
- A2PB-500
- A2PB-1000



### Tilt/Turn Options:

- A2PF-300
- A2PF-500
- A2PF-1000

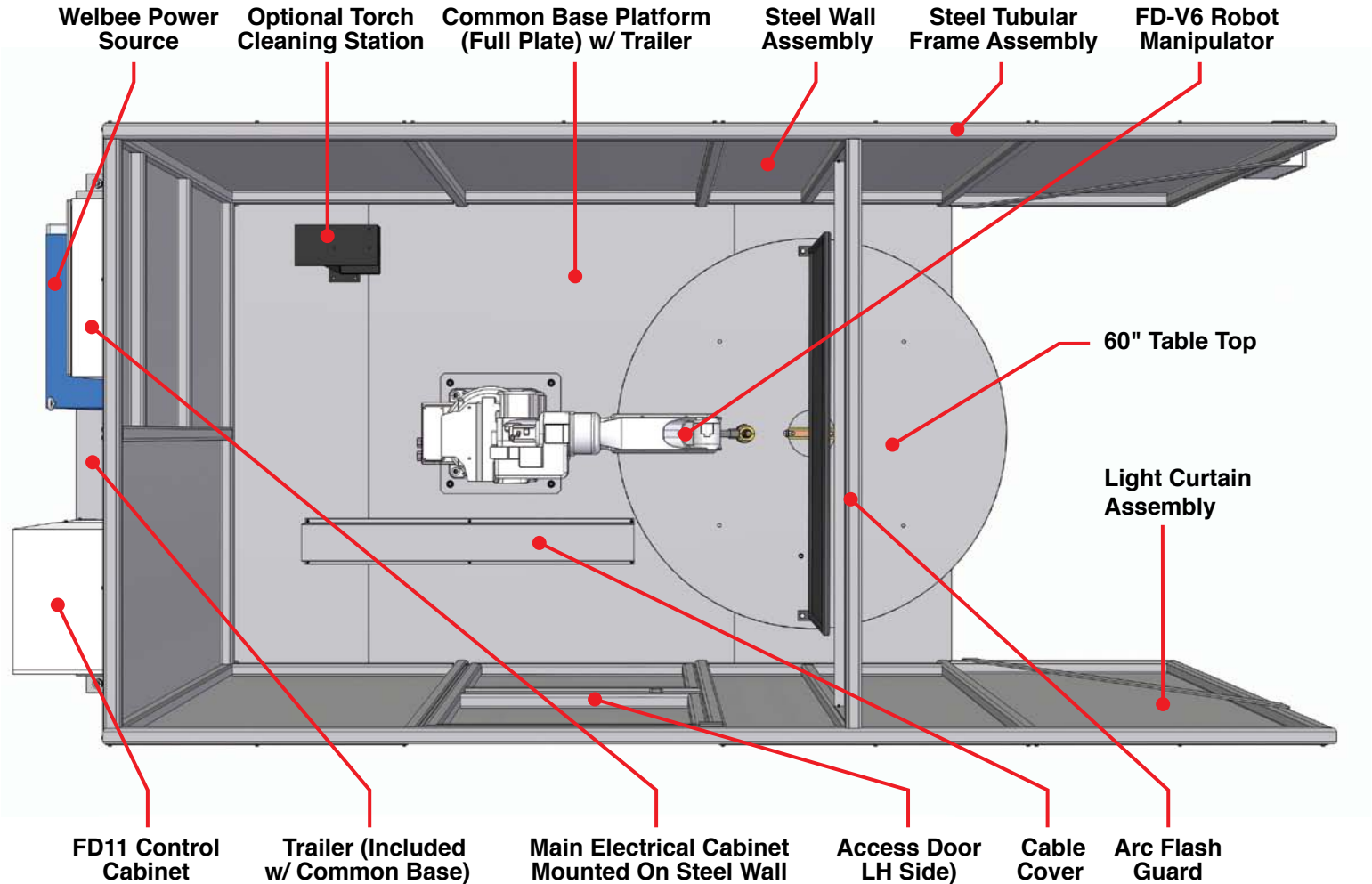
### Available I/O Slots:

28 Inputs/26 Outputs  
 (Additional Power Supply needed for Outputs)

### Other Options:

- Full Base & Wall Design (ECO-ARC 200L)
- Mesh Fencing on Full Base
- Access Door on RH Side
- Pneumatic Shutter Door Assembly
- Station Lighting
- Torch Cleaning Station
- Fixture Mounting Pattern in Table Top
- Extended I/O
- Trailer (Base)

# PT-ARC 600



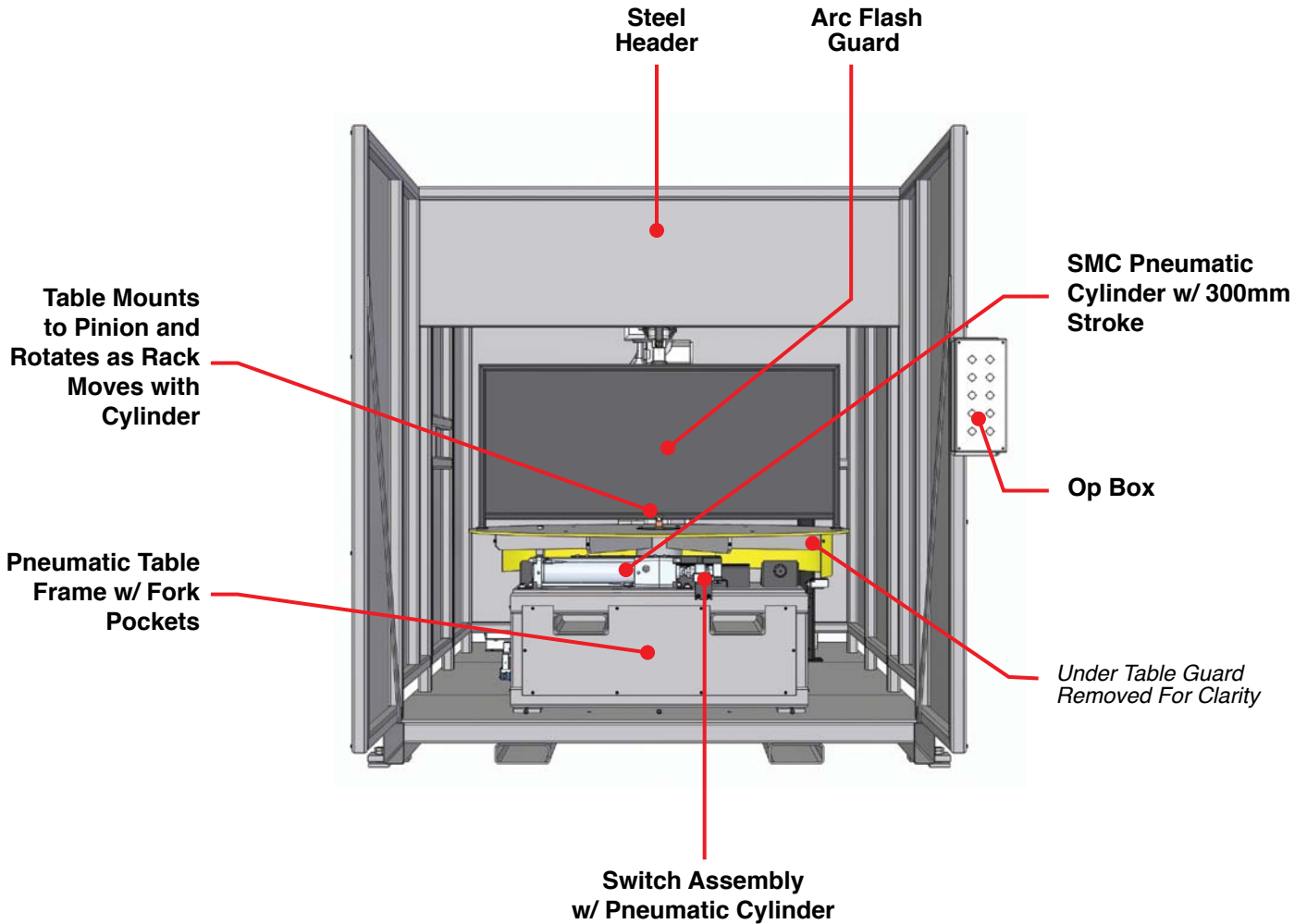
## Standard Option:

**PT-ARC 600** – 60" pneumatic indexing table

### Details:

- SMC 300mm Stroke Pneumatic Cylinder
- Omron 1495mm Light Curtains
- Omron Limit Switches for station designation
- Index Speed (180°) - 4.2 seconds
- Work Capacity – 250kg/side

- Weight – Approx. 3500kg
- Standard fork lift pockets
- Rack and Pinion Design



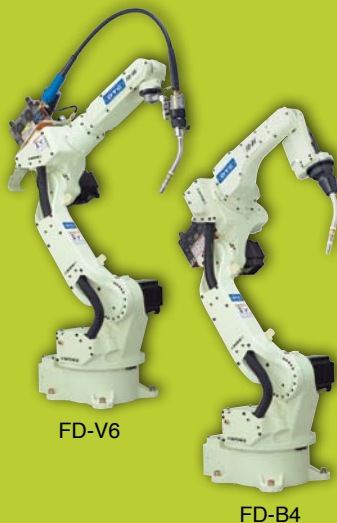
**Specifications:**

**Footprint Dimensions:**

Width: 2200mm (86.6")  
 Height: 2235mm (88.0")  
 Depth: 4584mm (180.5")

**Manipulator Types:**

- FD-V6
- FD-B4



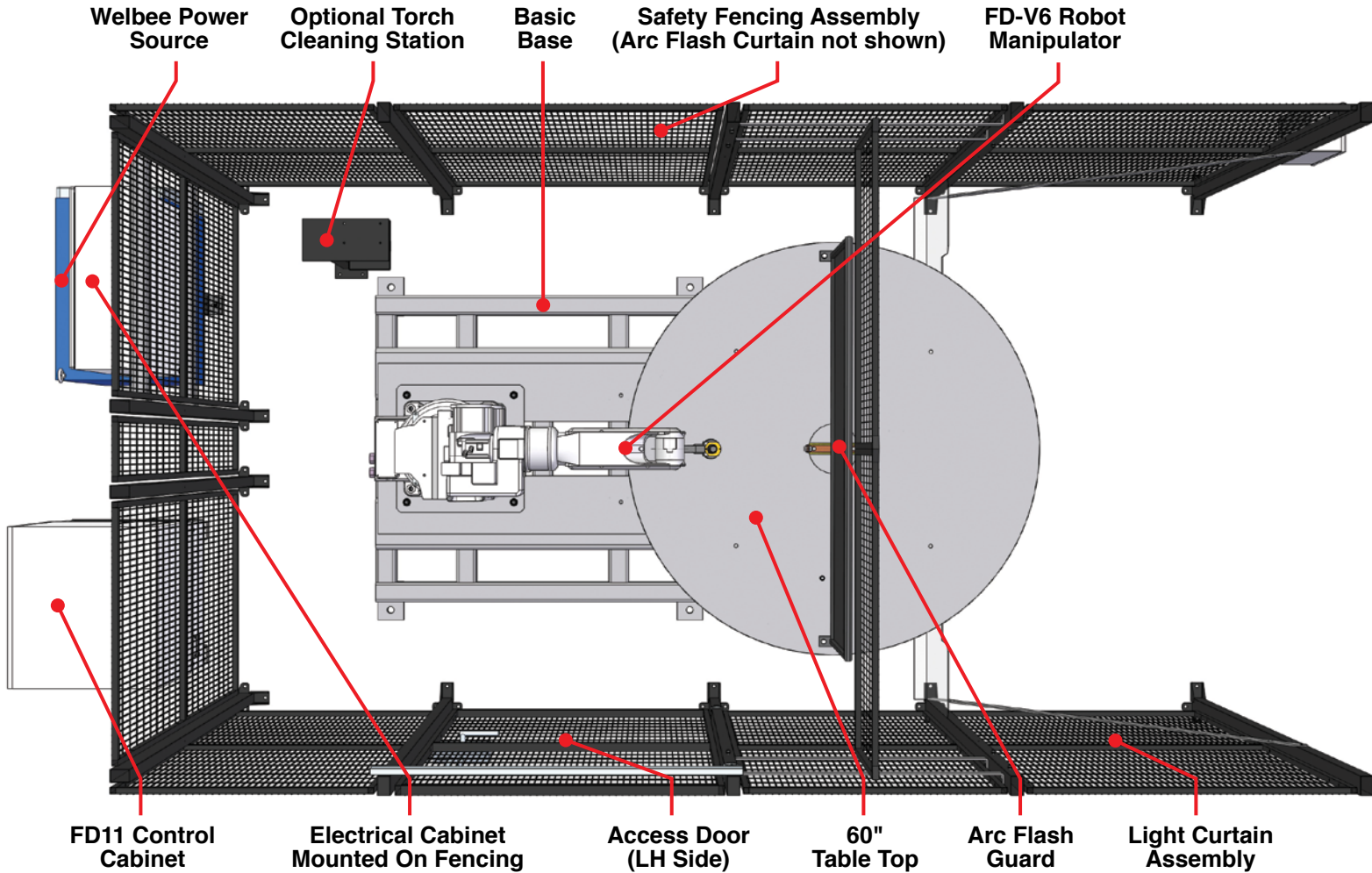
**Additional Options:**

- Fixture mounting pattern in table top
- Torch cleaning station
- Station Lighting
- Access door on RH side
- Safety Fence on Full Base
- Basic Layout (PT-ARC 600B)
- Extended I/O

**Available I/O Slots:**

22 Inputs/21 Outputs  
 (Additional Power Supply needed for Outputs)

# PT-ARC 600B



## Standard Option:

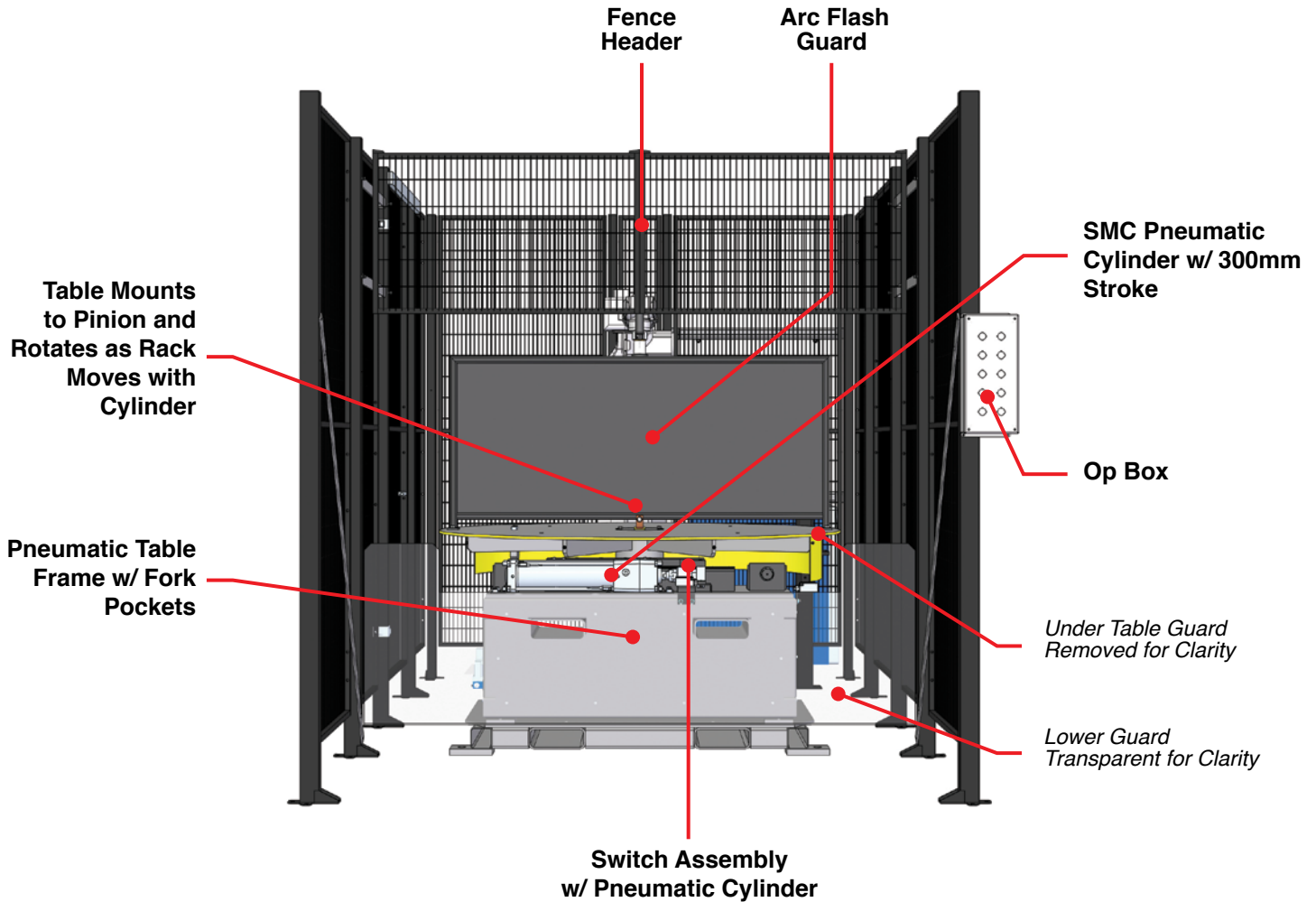
**PT-ARC 600B** – 60" pneumatic indexing table

### Details:

- SMC 300mm Stroke Pneumatic Cylinder
- Omron 1495mm Light Curtains
- Omron Limit Switches for station designation
- Index Speed (180°) - 4.2 seconds
- Work Capacity – 250kg/side
- Weight – Approx. 2000kg

- Standard fork lift pockets
- Rack and Pinion Design
- Floor mounted safety fencing w/ arc flash curtains





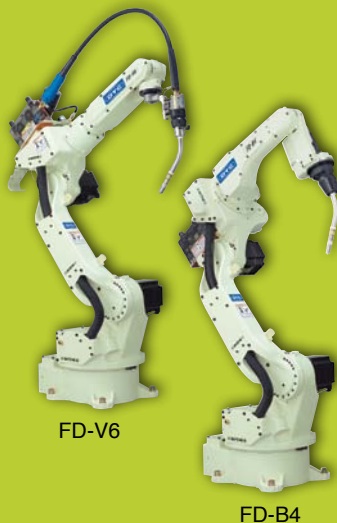
## Specifications:

### Footprint Dimensions:

Width: 2187mm (86.1")  
 Height: 2200mm (86.6")  
 Depth: 4564mm (179.7")

### Manipulator Types:

- FD-V6
- FD-B4



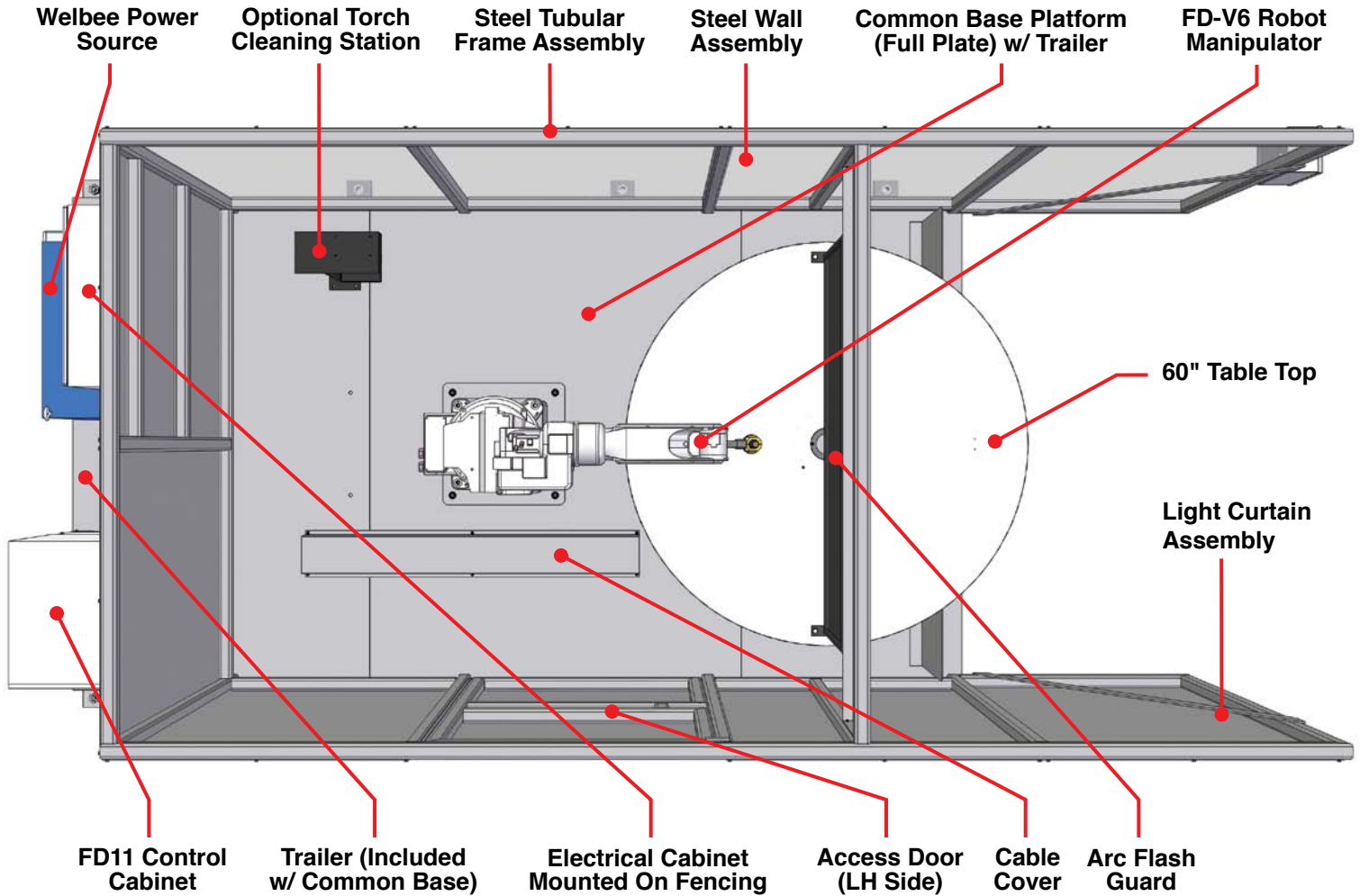
## Additional Options:

- Fixture mounting pattern in table top
- Torch cleaning station
- Station Lighting
- Access door on RH side
- Standard Layout (PT-ARC 600)
- Extended I/O

### Available I/O Slots:

28 Inputs/26 Outputs  
 (Additional Power Supply needed for Outputs)

# SERVO-ARC 600



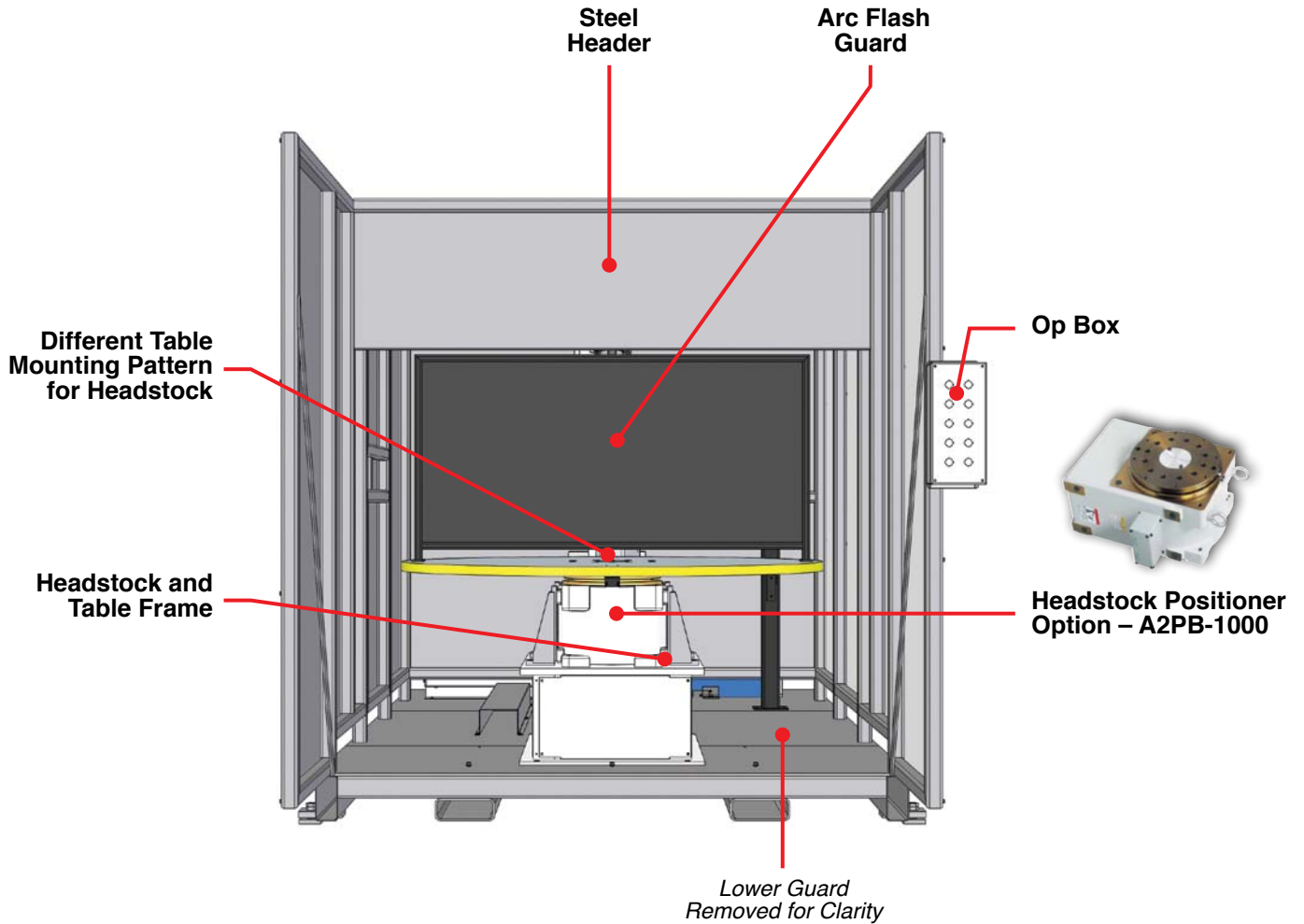
## Standard Option:

**SERVO-ARC 600** – 60" servo-driven indexing table

### Details:

- 1.2kW Servo-motor, RV-40E Gearbox
- Omron 1495mm Light Curtains
- Omron Switch/Two Actuators for station designation
- 3" through hole diameter in table top
- Index Speed (180°) - 4.2 seconds

- Work Capacity – 250kg/side
- Weight – Approx. 3000kg
- Standard fork lift pockets



## Specifications:

### Footprint Dimensions:

Width: 2200mm (86.6")  
 Height: 2235mm (88.0")  
 Depth: 4584mm (180.5")

### Manipulator Types:

- FD-V6
- FD-B4



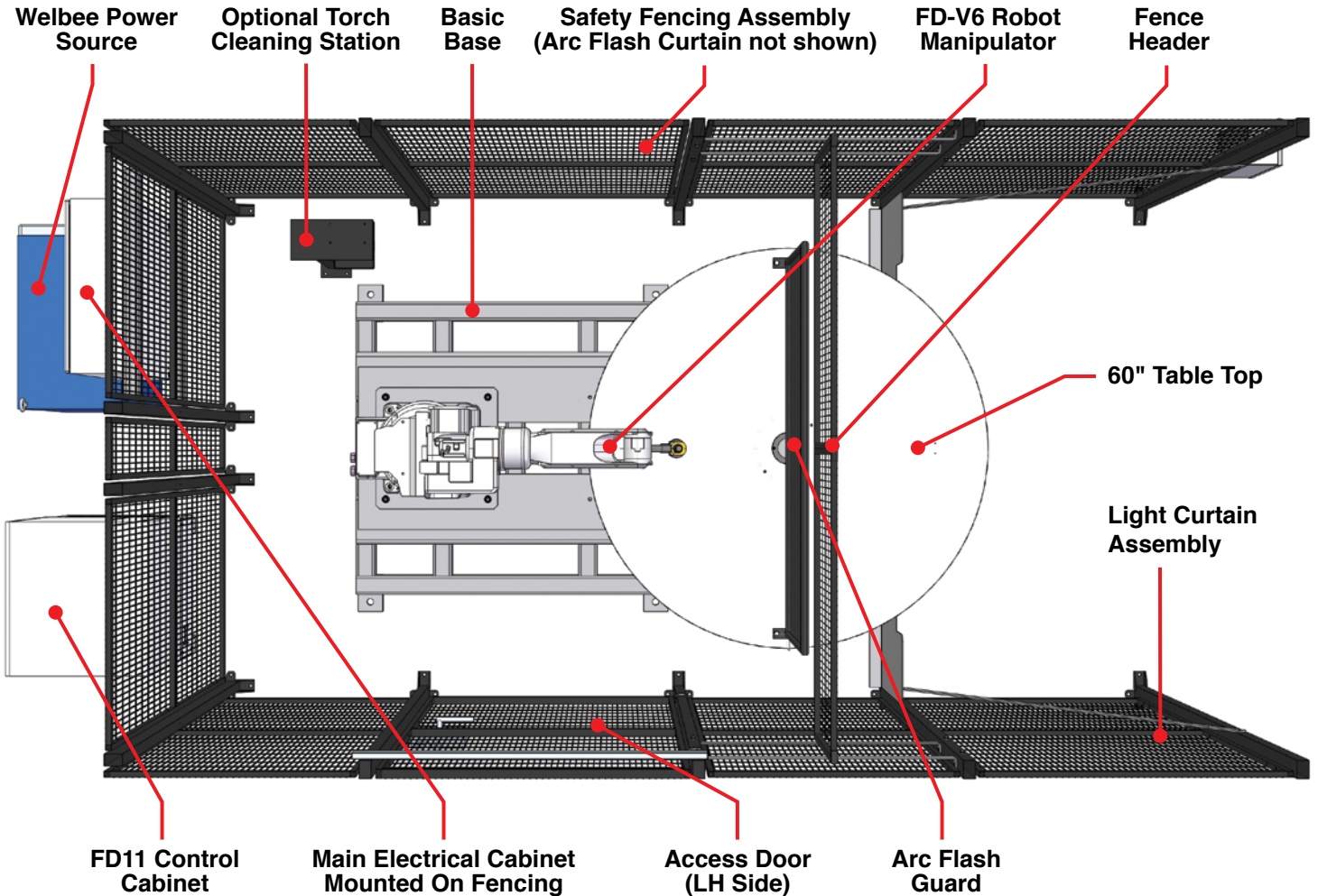
### Available I/O Slots:

23 Inputs/24 Outputs  
 (Additional Power Supply needed for Outputs)

## Additional Options:

- A2PB-1000 Headstock instead of servo-table
- Fixture mounting pattern in table top
- Torch cleaning station
- Station Lighting
- Access door on RH side
- Safety Fence on Full Base
- 48" Table Top
- Basic Layout (SERVO-ARC 600B)
- Extended I/O

# SERVO-ARC 600B



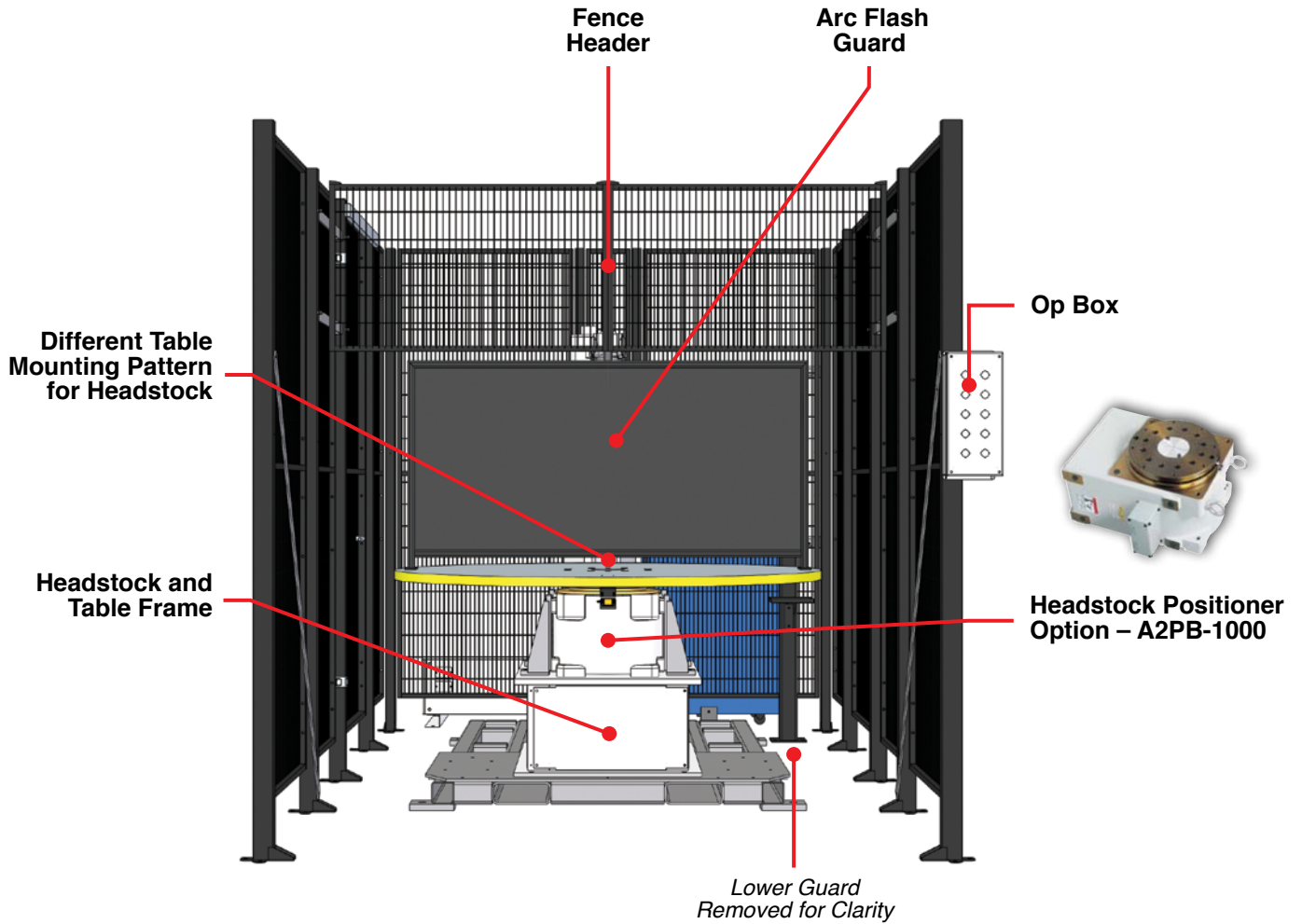
## Standard Option:

**SERVO-ARC 600B** – 60" servo-driven indexing table

### Details:

- 1.2kW Servo-motor, RV-40E Gearbox
- Omron 1495mm Light Curtains
- Omron Switch/Two Actuators for station designation
- 3" through hole diameter in table top
- Index Speed (180°) - 4.2 seconds

- Work Capacity – 250kg/side
- Weight – Approx. 2000kg
- Standard fork lift pockets
- Floor mounted safety fencing w/ arc flash curtains



## Specifications:

### Footprint Dimensions:

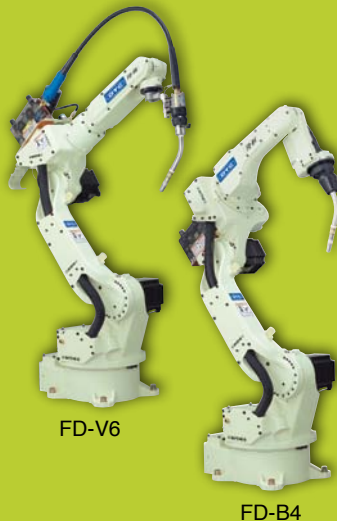
Width: 2187mm (86.1")  
 Height: 2200mm (86.6")  
 Depth: 4564mm (179.7")

### Manipulator Types:

- FD-V6
- FD-B4

### Available I/O Slots:

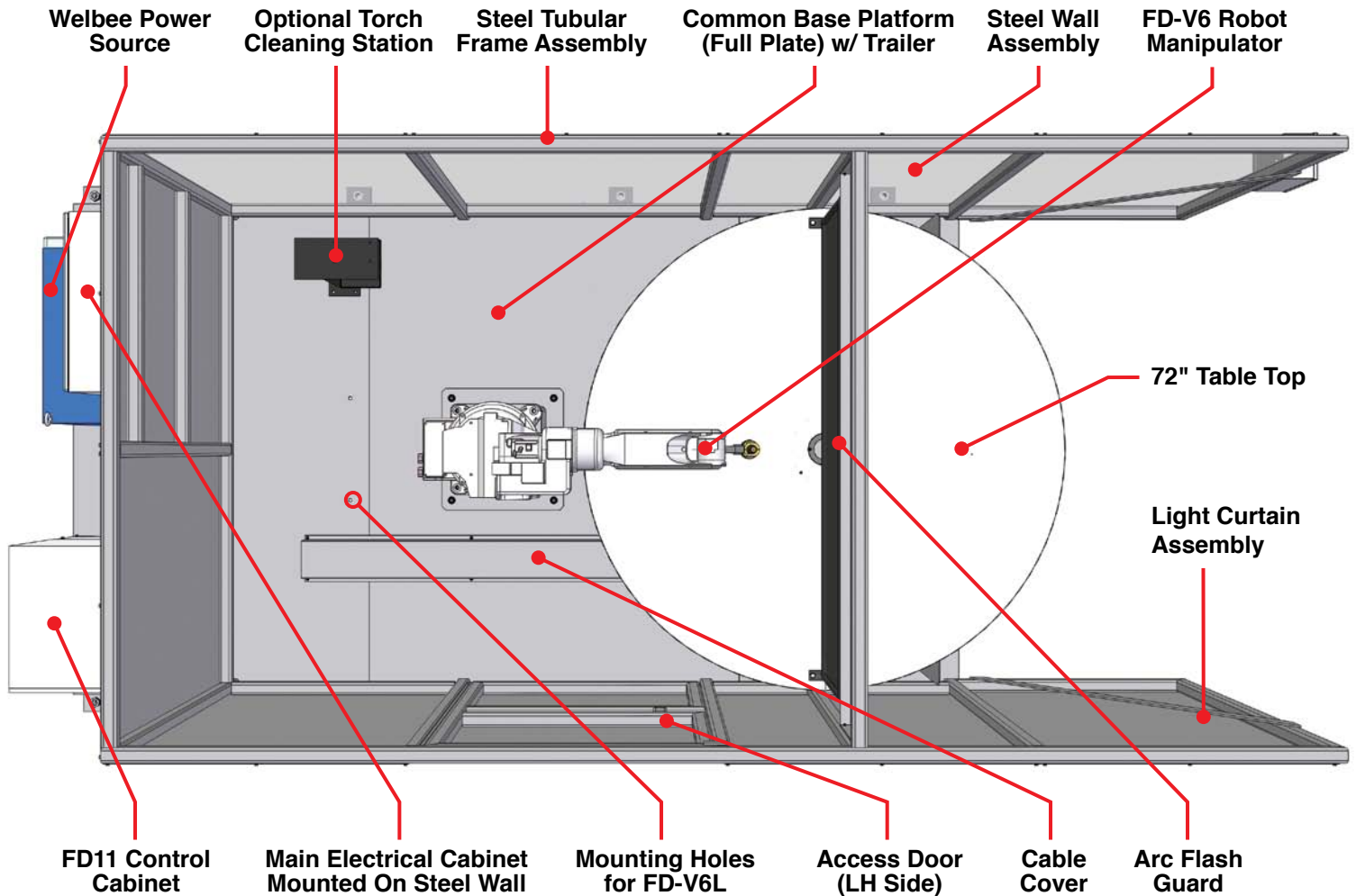
23 Inputs/24 Outputs  
 (Additional Power Supply needed for Outputs)



## Additional Options:

- A2PB-1000 Headstock instead of servo-table
- Fixture mounting pattern in table top
- Torch cleaning station
- Station Lighting
- Access door on RH side
- Safety Fence on Full Base
- 48" Table Top
- Standard Layout (SERVO-ARC 600)
- Extended I/O
- Trailer (Base)

# SERVO-ARC 720



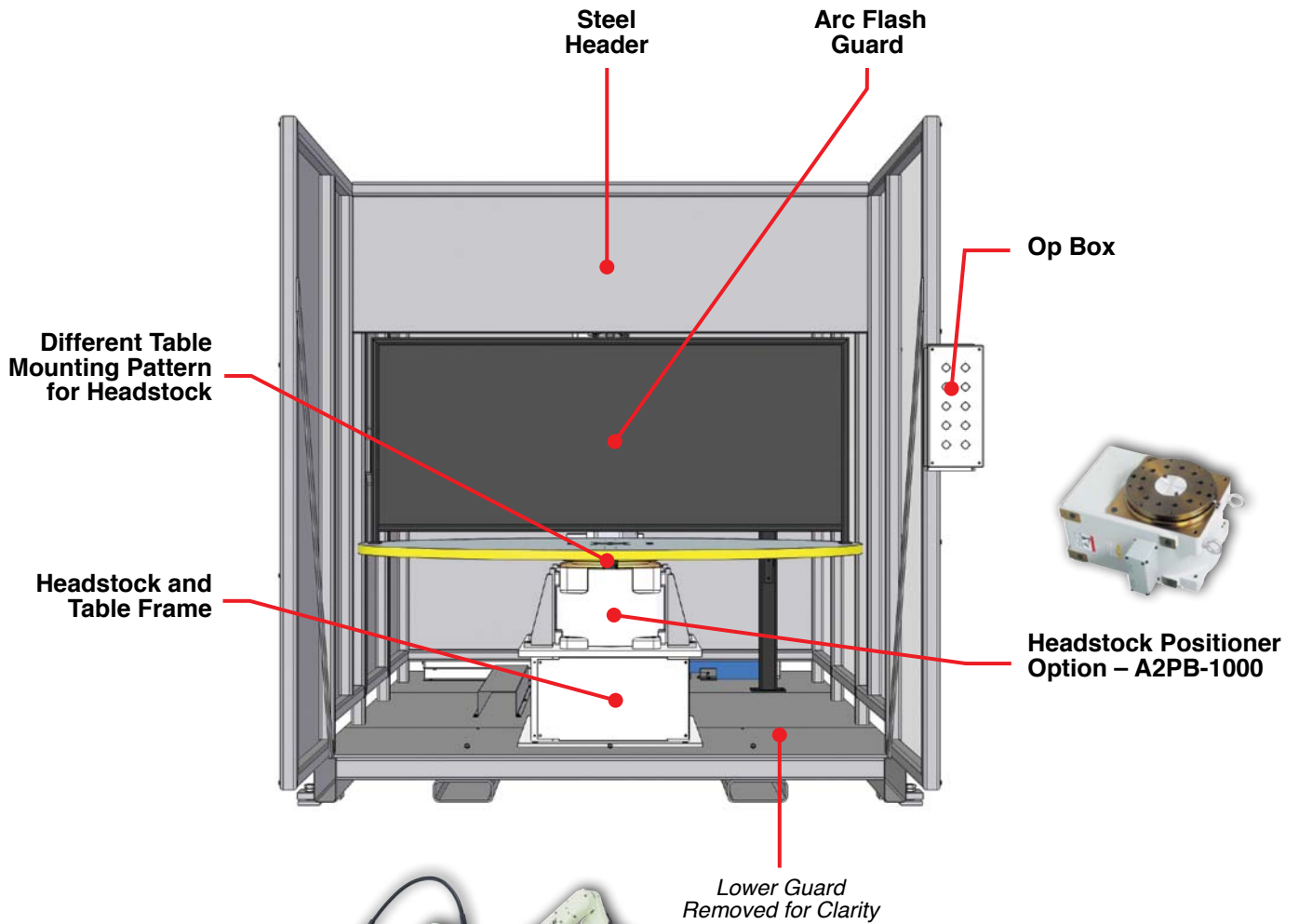
## Standard Option:

**SERVO-ARC 720** – 72" servo-driven indexing table

### Details:

- 1.2kW Servo-motor, RV-40E Gearbox
- Omron 1495mm Light Curtains
- Omron Switch/Two Actuators for station designation
- 3" through hole diameter in table top
- Index Speed (180°) - 4.2 seconds

- Work Capacity – 250kg/side
- Weight – Approx. 3200kg
- Standard fork lift pockets



**Specifications:**

**Footprint Dimensions:**

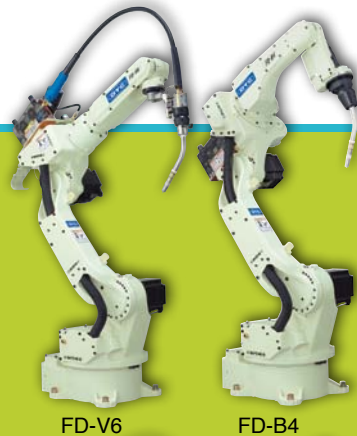
- Width: 2200mm (86.6")
- Height: 2235mm (88.0")
- Depth: 4584mm (180.5")

**Manipulator Types:**

- FD-V6, FD-V6L
- FD-B4, FD-B4L

**Available I/O Slots:**

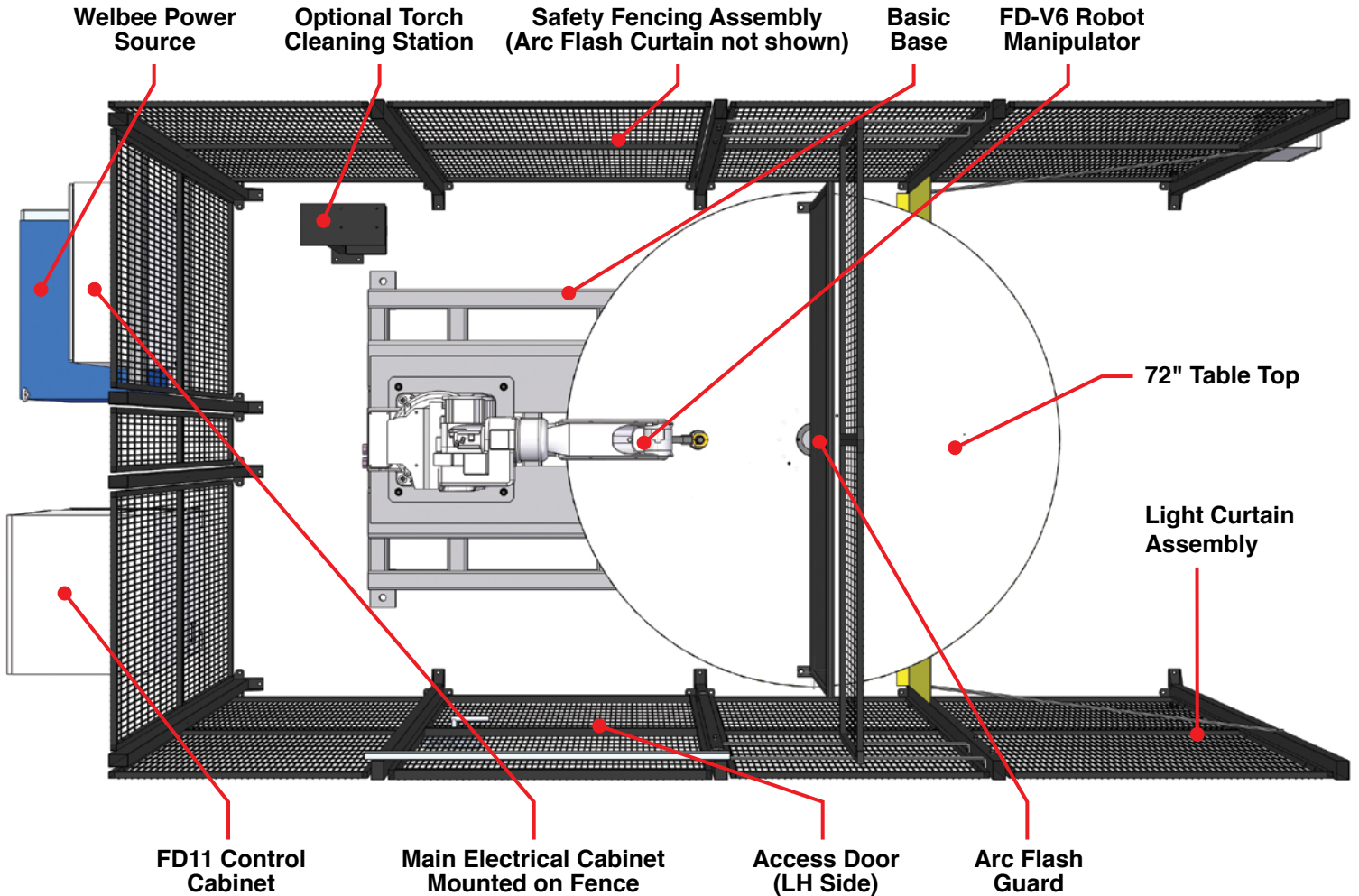
23 Inputs/24 Outputs  
(Additional Power Supply needed for Outputs)



**Additional Options:**

- A2PB-1000 Headstock instead of servo-table
- Fixture mounting pattern in table top
- Torch cleaning station
- Station Lighting
- Access door on RH side
- Safety Fence on Full Base
- Dual Manipulators
- Basic Layout (SERVO-ARC 720B)
- Extended I/O

# SERVO-ARC 720B



## Standard Option:

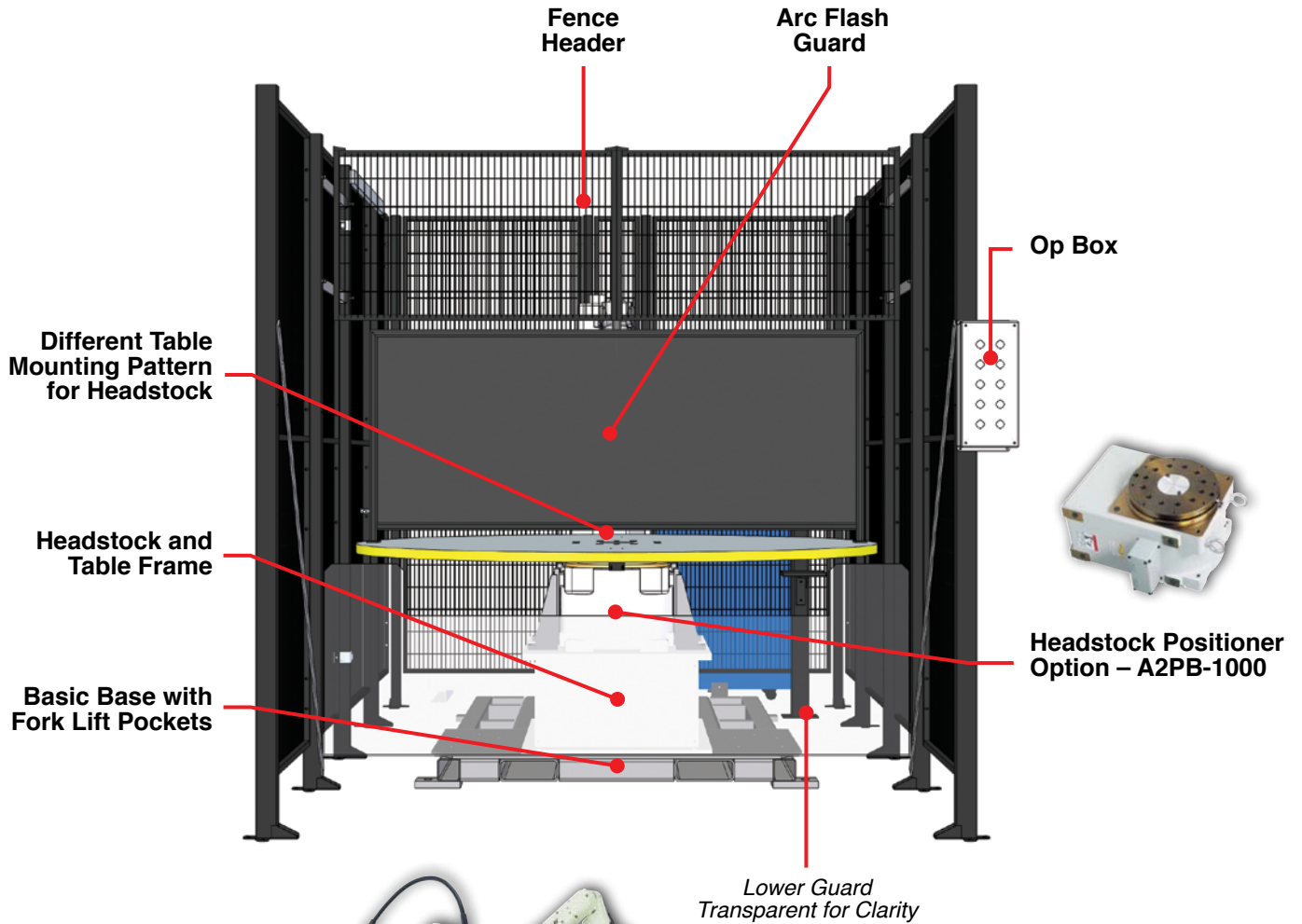
**SERVO-ARC 720B** – 72" servo-driven indexing table

### Details:

- 1.2kW Servo-motor, RV-40E Gearbox
- Omron 1495mm Light Curtains
- Omron Switch/Two Actuators for station designation
- 3" through hole diameter in table top
- Index Speed (180°) - 4.2 seconds

- Work Capacity – 250kg/side
- Weight – Approx. 2200kg
- Standard fork lift pockets
- Floor mounted safety fencing w/ arc flash curtains





## Specifications:

### Footprint Dimensions:

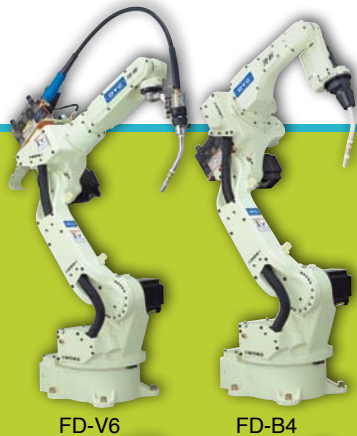
- Width: 2187mm (86.1")
- Height: 2200mm (86.6")
- Depth: 4564mm (179.7")

### Manipulator Types:

- FD-V6, FD-V6L
- FD-B4, FD-B4L

### Available I/O Slots:

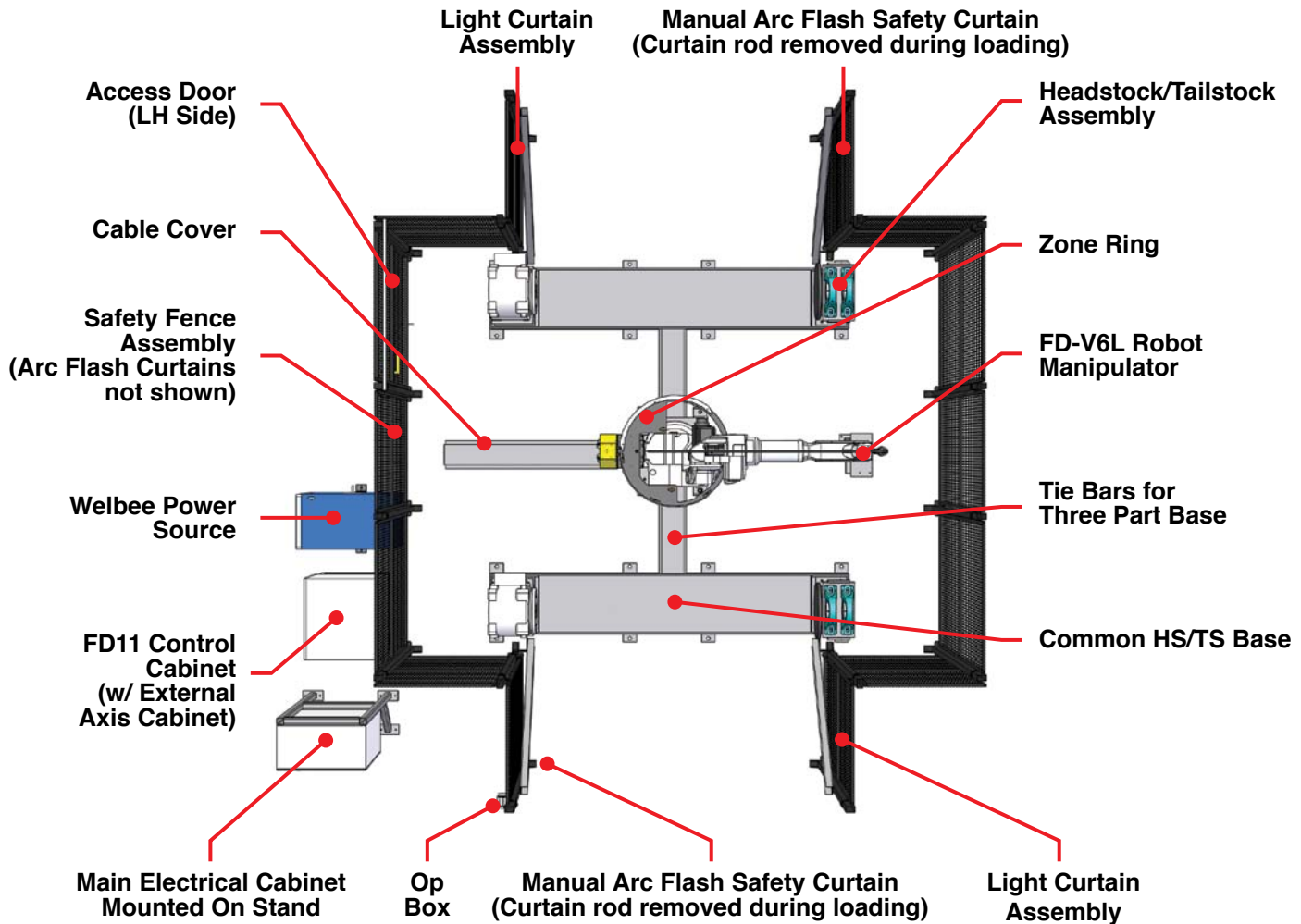
23 Inputs/24 Outputs  
(Additional Power Supply needed for Outputs)



## Additional Options:

- A2PB-1000 Headstock instead of servo-table
- Fixture mounting pattern in table top
- Torch cleaning station
- Station Lighting
- Access door on RH side
- Dual Manipulators
- Standard Layout (SERVO-ARC 720)
- Extended I/O
- Trailer (Base)

# DT-ARC 500

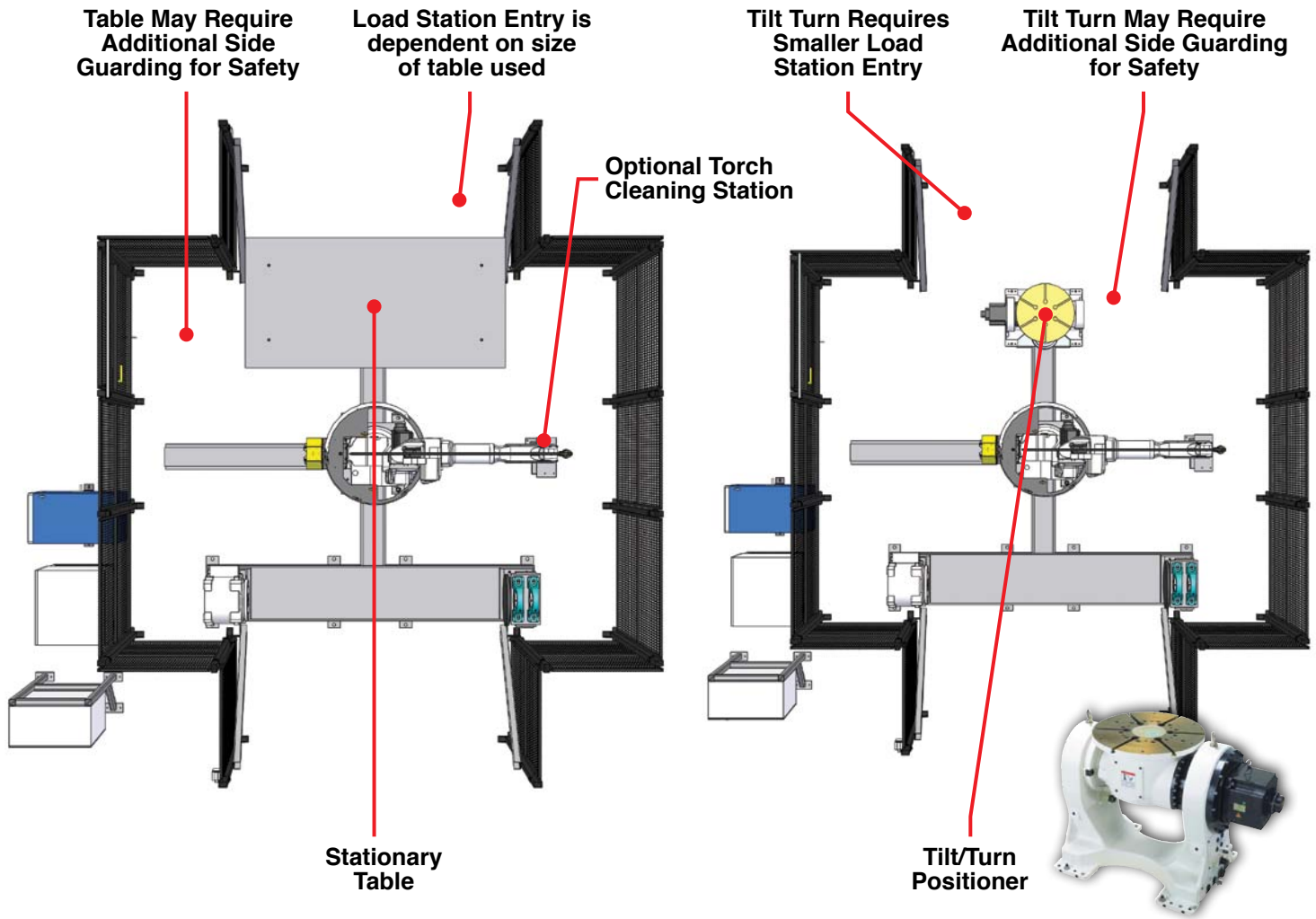


## Standard Option:

**DT-ARC 500** – Dual Servo-controlled Head and Tailstock Positioning Cell

### Details:

- Dual A2PB-500 Headstock positioners
- Work Capacity – 500kg/side
- Omron 1495mm Light Curtains
- Manual arc flash safety curtain at individual operator stations
- Weight – Approx. 3000kg
- Common base for HS/TS Assembly
- Three part base connected with tie bars
- Standard HS/TS span: 2000mm
- Maximum span: 3100mm
- HS/TS swing diameter: 1000mm
- Zone Ring for station designation
- Access door on LH side
- Arc flash curtain for cross station protection
- Floor mounted safety fencing w/ arc flash curtains



## Specifications:

### Footprint Dimensions:

Width: 4188mm (165")  
 Height: 2360mm (93")  
 Depth: 5770mm (227")

### Manipulator Types:

• FD-V6L • FD-B4L

### Cell Options:

• Stationary Table(s)  
 • H/S-T/S Assembly(s)  
 • Tilt/Turn Positioner(s)

### Headstock Options:

• A2PB-250 (250kg) • A2PB-1000 (1000kg)



### Tilt/Turn Options:

• A2PF-300 (300kg) • A2PF-500 (500kg)  
 • A2PF-1000 (1000kg)

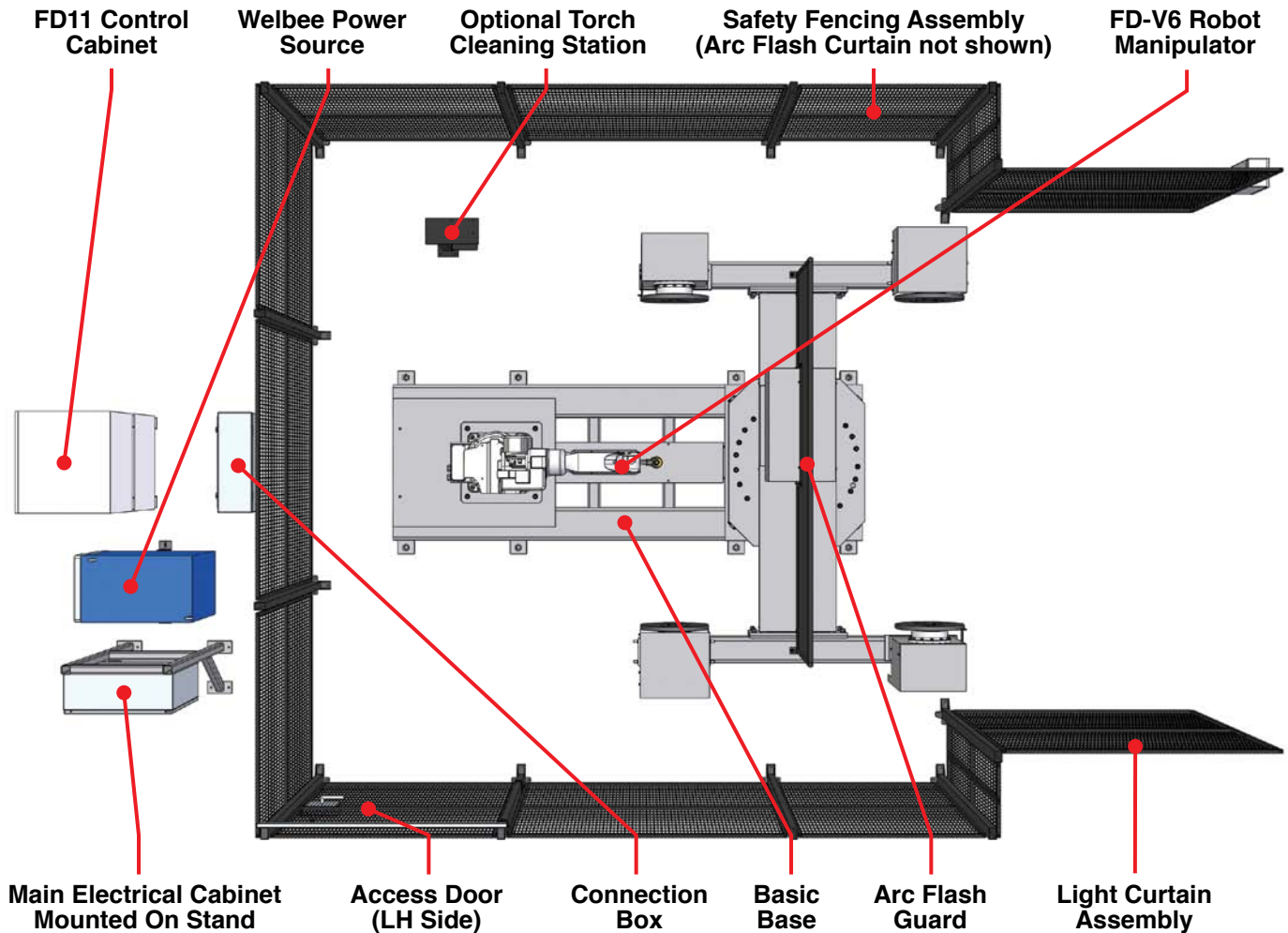
### Available I/O Slots:

15 Inputs/24 Outputs  
 (Additional Power Supply needed for Outputs)

### Additional Options:

- Roll up arc flash door at individual operator stations – OTC design or Frommelt
- Full Base w/ steel wall assembly
- 120° configuration
- Torch cleaning station
- Access door on RH side
- Utility Trailer
- Multiple Manipulators w/ platform (connected with tie bars)
- Extended I/O

# ROTA-ARC 1000

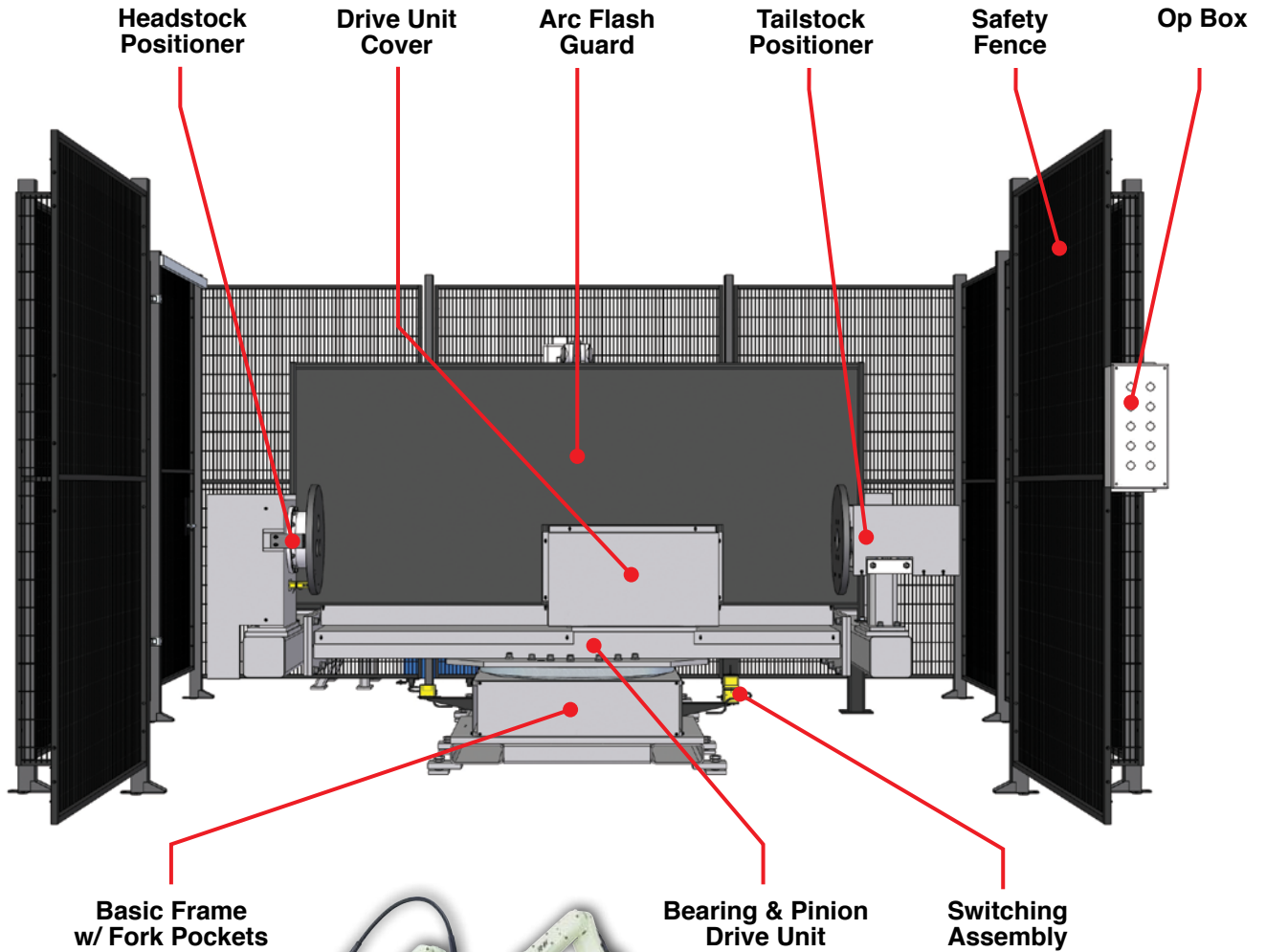


## Standard Option:

**ROTA-ARC 1000** – Rotating H-Frame w/ (2) Headstock/Tailstock assemblies

### Details:

- 3-Axis, Servo-controlled Positioner
- 4.5 kW motor for main axis rotation
- Omron 1495mm Light Curtains
- Omron Limit Switches for station designation
- Center mounted arc flash shield
- Index Speed (180°) - 6 seconds
- RV-110E gear box
- Work Capacity – 1000kg/side
- Weight – Approx. 2500kg
- Standard fork lift pockets in base
- Bearing and Pinion Design
- Standard HS/TS span: 1500mm
- HS/TS swing diameter: 1000mm
- Floor mounted safety fencing w/ arc flash curtains



## Specifications:

### Footprint Dimensions:

Width: 3398mm (133.8")

Height: 2200mm (86.6")

Depth: 6115mm (240.7")

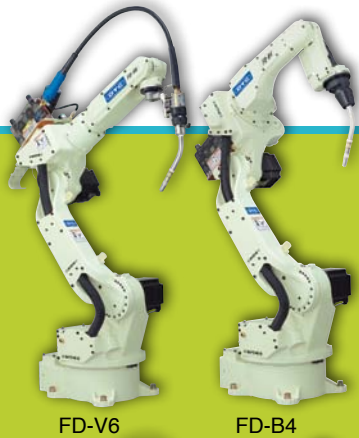
### Manipulator Types:

• FD-V6 • FD-V6L

• FD-B4 • FD-B4L

### Available I/O Slots:

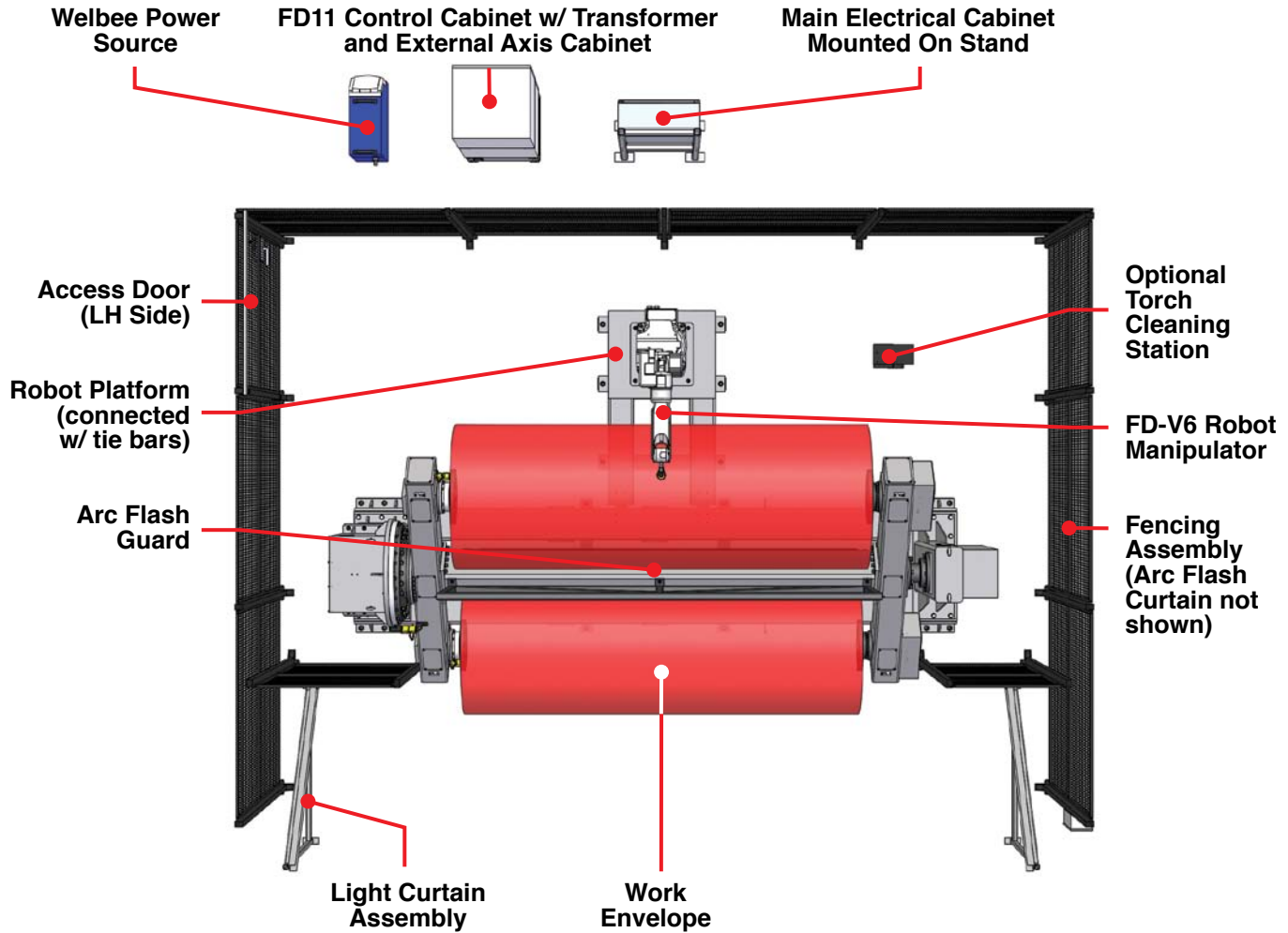
28 Inputs/26 Outputs  
(Additional Power Supply needed for Outputs)



## Additional Options:

- HS/TS span of 2000mm max.  
(with FD-V6L/FD-B4L Manipulators)
- Torch cleaning station
- Access door on RH side
- Utility Trailer
- Multiple Manipulators w/ platform  
(connected with tie bars)
- Extended I/O

# TRI-ARC 1000

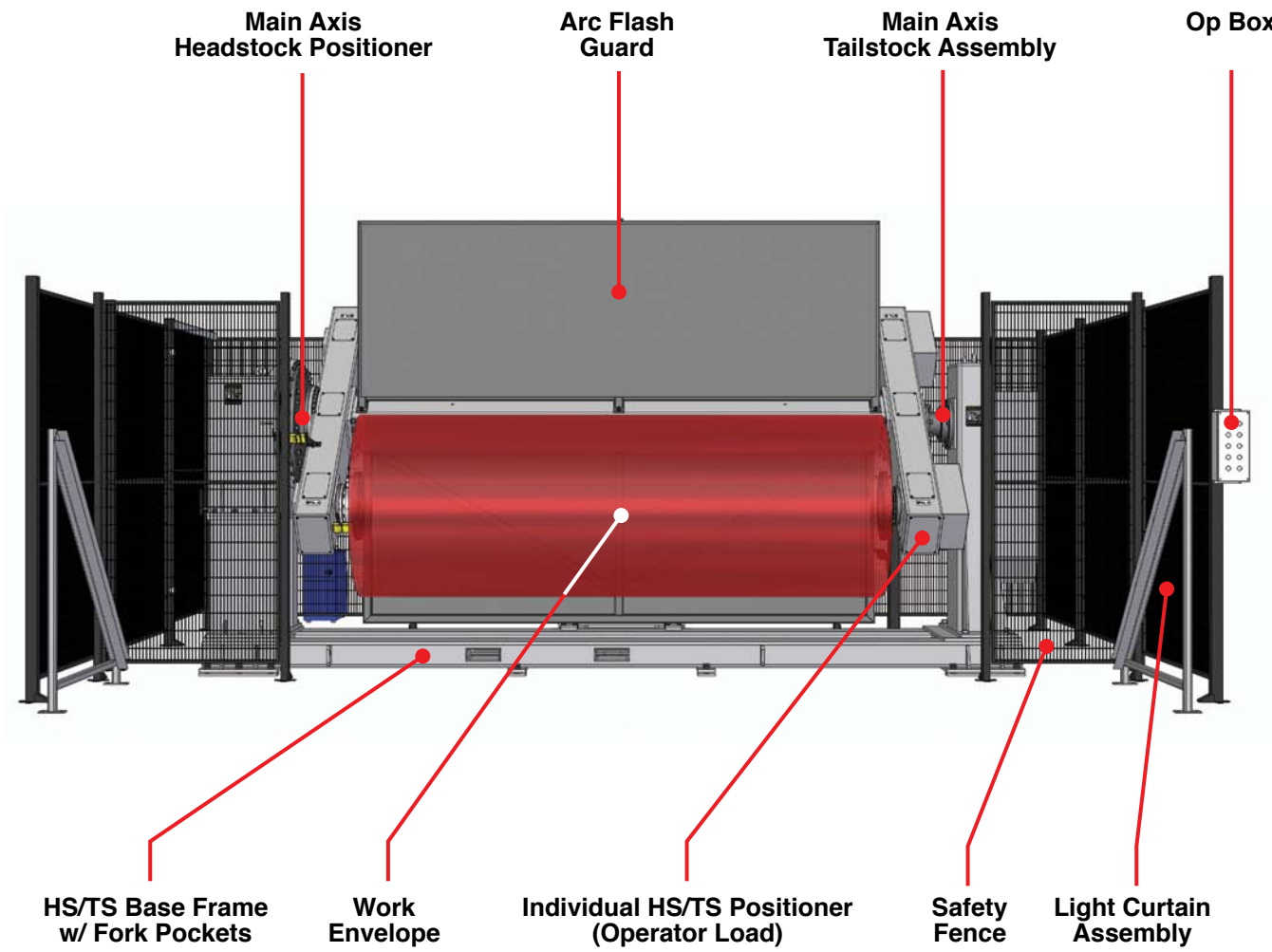


## Standard Option:

**TRI-ARC 1000** – Rotating Ferris Wheel w/ (2) Headstock/Tailstock assemblies

### Details:

- 3-Axis, Servo-controlled Positioner
- 4.5 kW motor for main axis rotation
- RV-320E Gear box for main axis
- Omron 1495mm Light Curtains
- Single Load/Unload point
- 2 kW motor for individual axis rotation
- RV-110E Gear box for individual axis
- Work Capacity – 1000kg/side
- Weight – Approx. 4100kg
- Standard fork lift pockets in base
- Standard HS/TS span: 3000mm
- Index Speed - 5 seconds
- HS/TS swing diameter: 1050mm
- Robot platform connected with tie bars
- Floor mounted safety fencing w/ arc flash curtains



## Specifications:

### Footprint Dimensions:

Width: 6258mm (246.4")  
 Height: 3048mm (120")  
 Depth: 5736mm (225.8")

### Manipulator Types:

- FD-V6L
- FD-B4L



### Available I/O Slots:

1 Input/10 Outputs  
 (Additional Power Supply needed for Outputs)

## Additional Options:

- HS/TS span of 3500mm max.
- Torch cleaning station
- Access door on RH side
- Utility Trailer
- Multiple manipulators w/ platform (connected with tie bars)
- Extended I/O (recommended)



DAIHEN Inc.

[www.daihen-usa.com](http://www.daihen-usa.com)

1400 Blauser Dr, Tipp City, OH 45371

**888-OTC-ROBO**