Automation

Clemco Industries Corp.

Pulsar 3P-iR with Integral Robotics

FANUC LR Mate 200 iC

Pulsar 3P-iR (shown with optional lower view window)
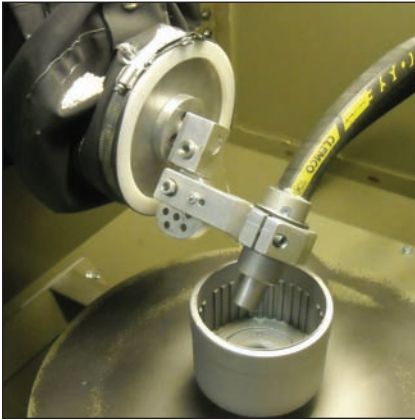
Common Applications

- Aircraft engine blades
- Ground turbine blades
- Surgical instruments
- Orthopedic implants
- Automobile parts

Install, Program, Blast

The ZERO Automated Pulsar 3P-iR is a pressure blast cabinet for today's demanding manufacturing environments. It incorporates the state-of-the-art in robotic controls for nozzle manipulation providing perfectly repeatable blasting of parts of all geometries and meets the strictest standards for automotive, aerospace, medical, and other industry applications. Additional robotic options include pick-and-place robotics for easy loading and unloading, and a vision package for automatically detecting even the most minor part defect.

The cabinet is mounted on a steel base that is easily lifted and moved into position. The separate power module provides arrangement flexibility to suit the work space and work flow. Note: Similar robotic equipment can be factory installed on other cabinet models to accommodate any application.

Pulsar 3P-iR Features:
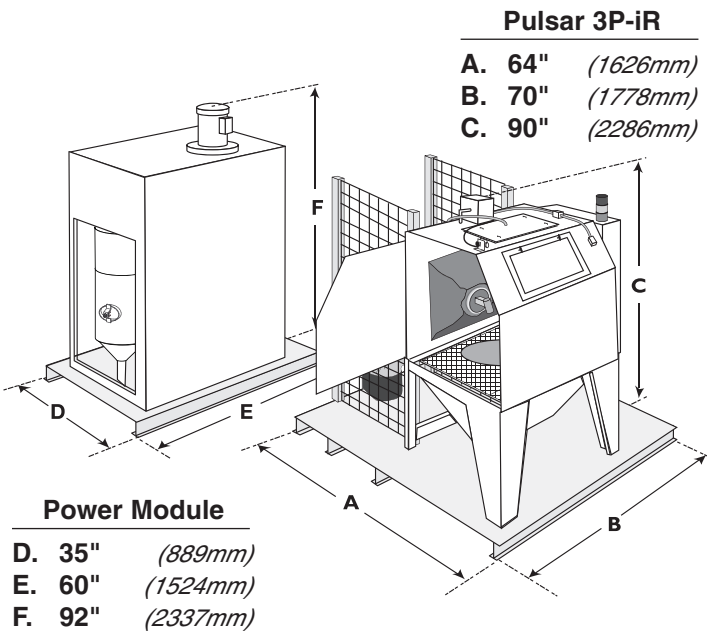### Time and Labor-saving FANUC Robotics
- 5 or 6 degrees of freedom
- Up to 5 kg payload at wrist
- 2 double-acting solenoid valves simplify tooling dressout
- Teach pendant for easy programming and custom user interface design
- Extended networked I/O capabilities
- Supports a variety of intelligent functions, i.e. vision, force sensing
- Enclosed mechanical design eliminates cables and hose snagging
- Robot features tabletop size, slim wrist, and small footprint permitting operation in tight work spaces
- Advanced communication via Ethernet and serial connections
- Integrated PMC provides ladder-logic control for peripheral devices

Industrial-quality Cabinet System
- Door interlock system interrupts blasting when either door is opened
- Optional time-delay locking system keeps doors locked for predetermined time
- Full-opening doors with lift-off hinges maximize work chamber capacity and ease loading large parts
- Servo-powered turntable
- Dual 15-watt fluorescent lights illuminate the work chamber
- ASME-code pressure vessel, 1.0 cu ft capacity, with 1" piping
- Reverse-pulse cartridge dust collector evacuates airborne dust and traps 99.7% of dust down to 0.5 micron
- Tilt-out windows allow tool-free glass changes in minutes
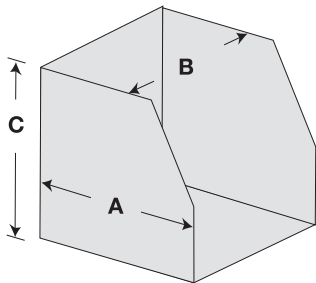
SPECIFICATIONS

COMPLETE SYSTEM

Pulsar 3P-iR

A. 64" (1626mm)
B. 70" (1778mm)
C. 90" (2286mm)

Power Module

D. 35" (889mm)
E. 60" (1524mm)
F. 92" (2337mm)

CABINET

Working Chamber Size
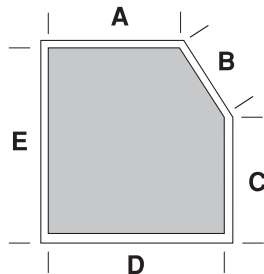
A. 35" deep (889 mm)
B. 36" wide (914 mm)
C. 37" high (940 mm)

Window Size (safety glass)

19.5" wide (495 mm)
12.5" high (317 mm)

Door Dimensions

A. 24" (610 mm)
B. 17.5" (445 mm)
C. 19" (483 mm)
D. 32.5" (826 mm)
E. 34" (864 mm)

OPTIONS

Cabinet:
    Powered vertical door
    Part fixturing
Robotics:
    Software options: singularity avoidance, collision protection, internet connectivity, KAREL programming language, other software options for control, communication, and motion.
    360° J1 axis rotation
    Fail-safe mechanical brakes on all joints
    Pick-and-place robotics

Model: Pulsar 3P-iR

Cabinet:
Heavy-duty construction 14-gauge steel cabinet shell, all-welded heavy-duty integral steel base. Safety-glass view window, 12" x 19.5" each. Fluorescent lighting with dual 15-watt bulbs. Heavy-duty industrial-quality adjustable chrome latches.

Power module:
600 cfm media reclaimer and reverse-pulse dust collector with 1 HP exhauster motor and filter area of 107 square feet. Dust drum, removable for easy material disposal. 1 cubic foot capacity ASME-code pressure vessel.

Robotics:
FANUC LR Mate 200iC, robotic nozzle manipulator.

NOZZLES

NOZZLE	NOZZLE ORIFICE	CFM at 80 PSI	M^3/Min at 5,5 BAR	CFM at 100 PSI	M^3/Min at 7 BAR
		AIR REQUIREMENTS			
No. 3	3/16"	38	1,08	45	1,3
No. 4	1/4"	68	1,93	81	2,3
No. 5	5/16"	113	3,20	137	4,0
No. 6	3/8"	161	4,56	196	5,6

The Pulsar 3P-iR cabinet is furnished with a No. 3 tungsten carbide nozzle.

ELECTRICAL

480 volt, 3 phase, 60 hz

ORDERING INFORMATION

Cabinet Model	Stock No.	Shipping Weight
Pulsar 3P-iR	25976	2894 lb

Other ZERO blast cabinets can be configured to include robotics.

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