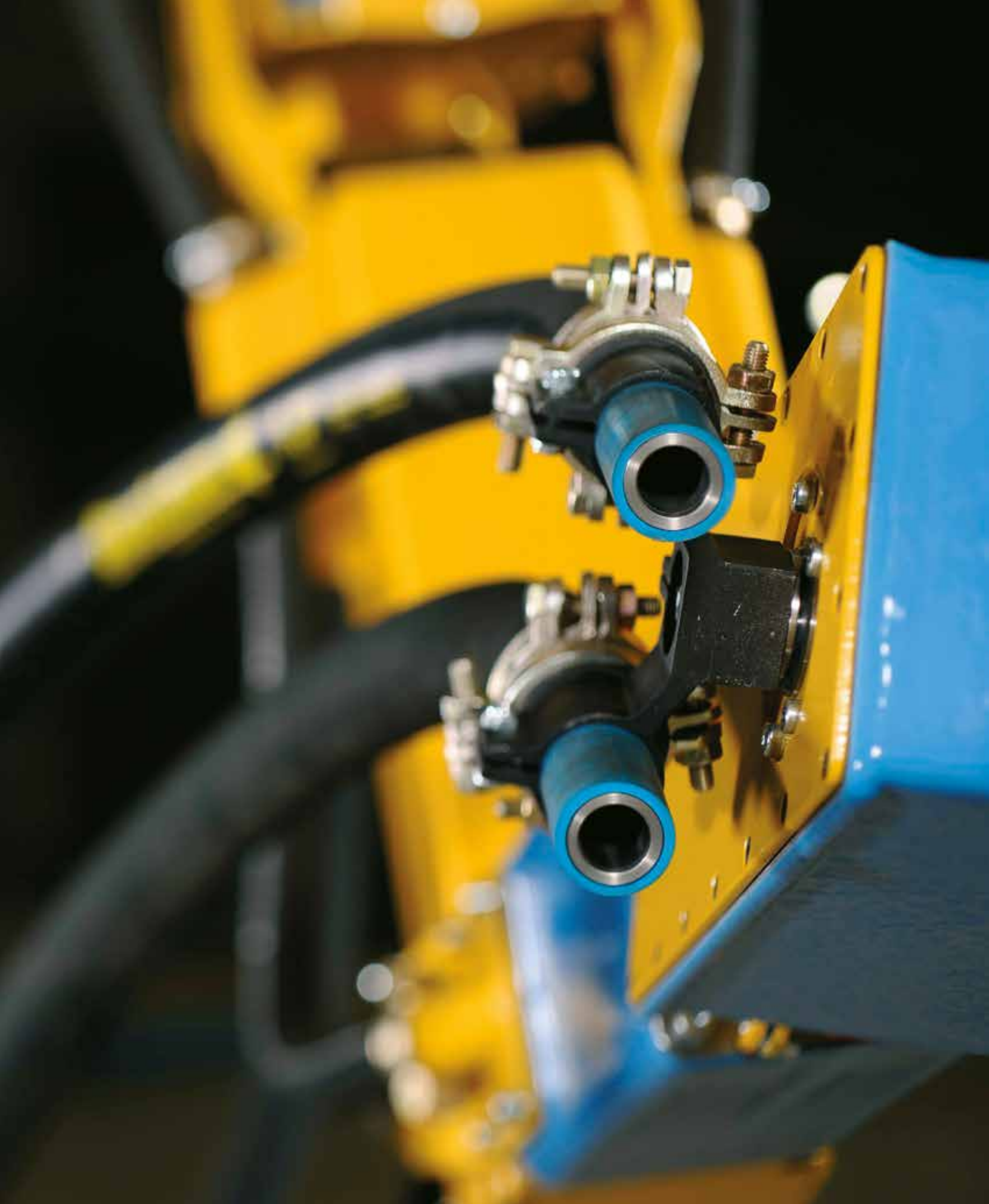




# BLASTONE ROBOTIC SOLUTIONS

BUILT FOR BLASTING





Built for Blasting

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*NOTE: We reserve the right to make technical changes or modify the content of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. Blastman does not accept any responsibility whatsoever for potential error or possible lack of information in this document.*

## BLASTMAN AN INNOVATIVE OPTION FOR TRADITIONAL BLAST CLEANING



### EFFICIENCY

---

#### PRECISE, POWERFUL AND TIRELESS

Blastman robots, more efficient than traditional manual blasting systems, are tireless workers. They achieve increased efficiency through high pressure, the precise control of large-diameter blasting nozzles, and non-stop operation. Customers receive significant increases in efficiency due to reduced fatigue on manual blasters, higher pressures, and larger nozzle sizes.

Furthermore, new operators work just as efficiently as older ones due to the robot's automation.

### RELIABILITY

---

#### DESIGNED TO PERFORM IN EXTREME CONDITIONS

Blastman has 40 years of experience in engineering, manufacturing, and delivering robotic solutions for blasting. These solutions have provided excellent reliability and performance for customers worldwide, with the longest-running installations operating for over 25 years and blasting for thousands of hours.

The robot system requires minimal maintenance that can be managed by operators or on-site maintenance teams. Blastman robots are even operating in the factories of the world's leading robotics manufacturers because of their robust design and suitability for the harsh environment of a blast booth.



## OPERABILITY

### EASY TO OPERATE

A single operator can run a multi-robot solution after a brief introductory training. The robot system operates logically without requiring any prior experience with robotics. Manipulating the robot via joysticks is similar to many heavy-duty machines and can be picked up by anyone. Many of our customers have designated their old manual blasters to operate the robot. Operating the robot is less tiring, which increases productivity and decreases the risk of injuries.



## SAFETY

### PROTECT YOUR PEOPLE

Manual blasting is extremely physically tiring, unhealthy, and dangerous. Blastman's robotic solution eliminates most safety concerns. The only protective equipment required is earplugs to prevent noise, a vast difference compared to the safety equipment required in manual blasting. These safety improvements significantly reduce the risk of workplace injuries.

## QUALITY

### OPTIMAL SURFACE QUALITY

The Blastman robotic solution eliminates the risk of human error. No matter what time of day, the solution produces a high-quality result. The desired surface finish is achieved by using a controlled blasting angle and pressure together with the right choice of abrasive material. During installation, Blastman Robotics ensures that all process parameters are set to provide its customers with optimal roughness and preparation grade. Additionally, BlastOne offers customer support in any quality issues regarding blast cleaning.

# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

Axis	Robot configuration	Range /m/°	Max. Speed	Type
Axis 1	Robot bridge Longitudinal	5 - 100 m	0,3 m/s	Lin.
Axis 2	Arm/cabin carriage across	3 - 35 m	0,25 m/s	Lin.
Axis 3	Rotation of the telescope	360°	18,7°/s	Rot.
Axis 4	Arm/Cabin vertical (Telesc.)	2 - 6 m	0,26 m/s	Lin.
Axis 5	Shoulder	175°	21,5°/s	Rot.
Axis 6	Elbow	225°	19,9°/s	Rot.
Axis 7	Arm head	360°	180°/s	Rot.
Axis 8	Nozzle	270°	215°/s	Rot.

## OPERATION MODES

Manual  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## OPERATIONAL PARAM.

Nozzle diam. 13 - 19 mm  
Nozzle diam. 1/4" - 3/4"  
No. Of Nozzles 1 or 2  
Air Pressure 4 - 11 bar  
Air Pressure 50 - 150 PSI  
Cleaning rate ...200 m<sup>2</sup>/h  
Cleaning rate ...2150 ft<sup>2</sup>/h

## TECHNICAL

Voltage 380-500V 50/60Hz  
Contr. voltage 24 VDC  
Sealing\* IP65  
Assembly Roof-mounted  
Weight\*\* 5500 kg

\*Applies to electrics in the blast room

\*\*Depends on width

## FEATURES

### Control

- Manipulator without robot features
- License for software updates
- PTP Teaching by teach pendant
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of blast room machineries

### Convenience

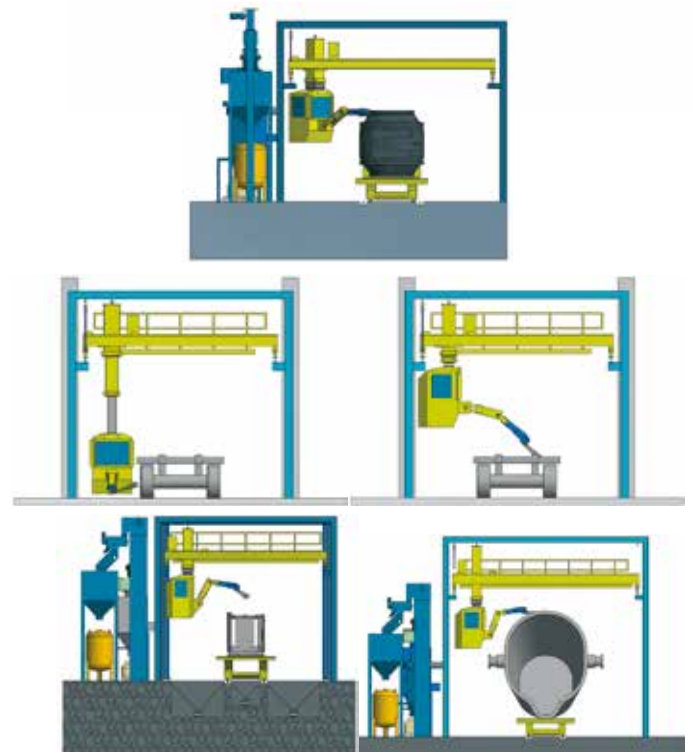
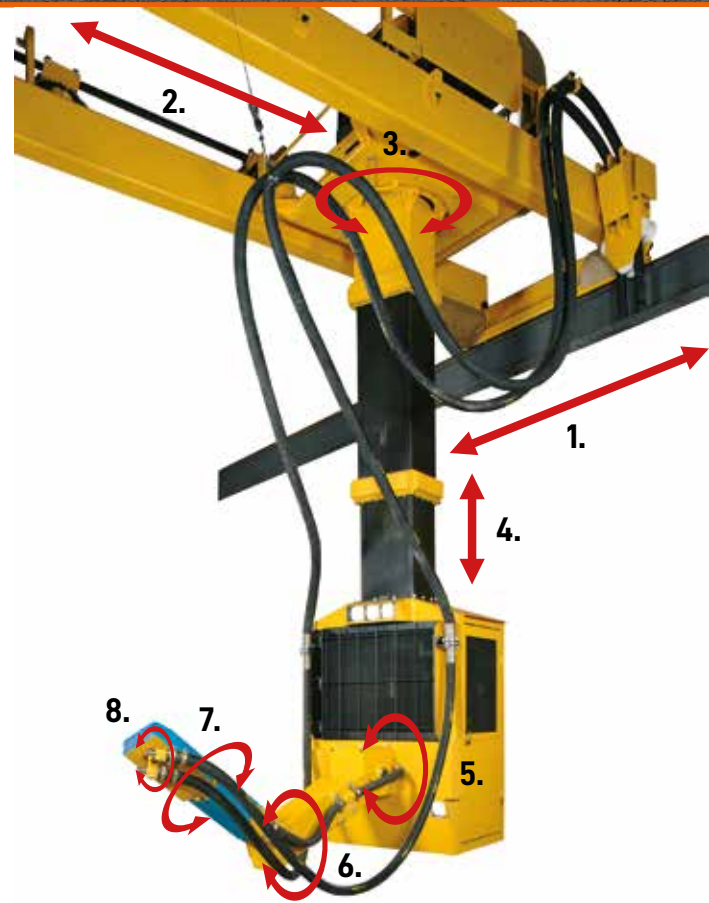
- AC in Control cabin
- Radio in Control cabin

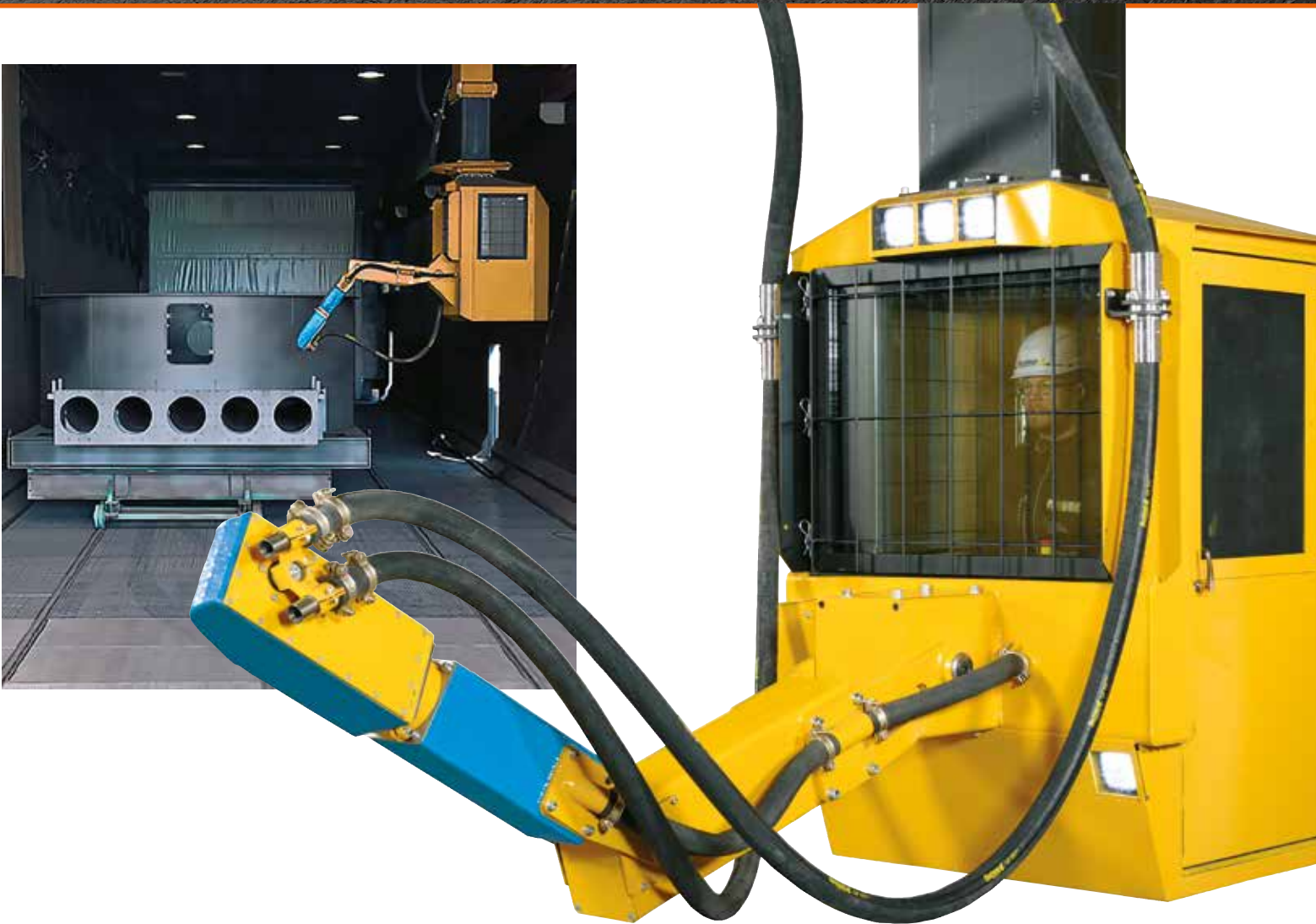
### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hose
- Blast nozzles

### Other

- Rails for the robot
- Transfer car for the workpiece
- Warranty extension
- Installation services





## **B20CX**

The Blastman B20CX, designed for the most demanding blasting environments, is controlled by an operator sitting in the control cabin and can be used in automatic mode as a full-featured robot. The Blastman B20CX is the perfect choice for diverse products, from individual items to mass production.

Applications include railway rolling stock, steel structures and castings.

# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Robot bridge longitudinal	5 - 100 m	0,3 m/s	Lin.
Axis 2	Arm carriage across	3 - 35 m	0,25 m/s	Lin.
Axis 3	Rotation of the telescope	360°	18,7 °/s	Rot.
Axis 4	Arm vertical (Telesc.)	2 - 6 m	0,26 m/s	Lin.
Axis 5	Shoulder	175°	21,5°/s	Rot.
Axis 6	Elbow	225°	19,9°/s	Rot.
Axis 7	Arm head	360°	180°/s	Rot.
Axis 8	Nozzle	270°	215 °/s	Rot.

## OPERATION MODES

Manual (Control room)  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## OPERATIONAL PARAM.

Nozzle diam. 13 - 19 mm  
Nozzle diam. 1/4" - 3/4"  
No. Of Nozzles 1 or 2  
Air Pressure 4 - 11 bar  
Air Pressure 50 - 150 PSI  
Cleaning rate ...200 m<sup>2</sup>/h  
Cleaning rate ...2150 ft<sup>2</sup>/h

## TECHNICAL

Voltage 380-500V 50/60Hz  
Contr. voltage 24 VDC  
Sealing\* IP65  
Assembly Roof-mounted  
Weight\*\* 4400 kg

\*Applies to electrics in the blast room

\*\*Depends on width

## FEATURES

### Control

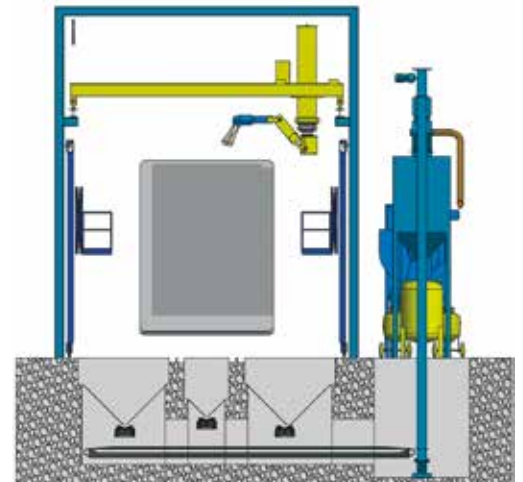
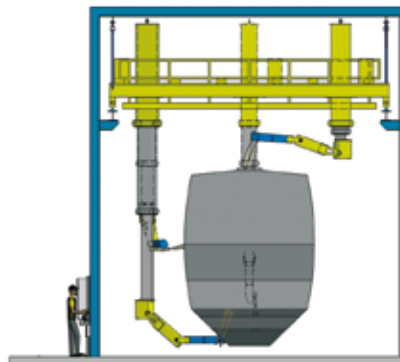
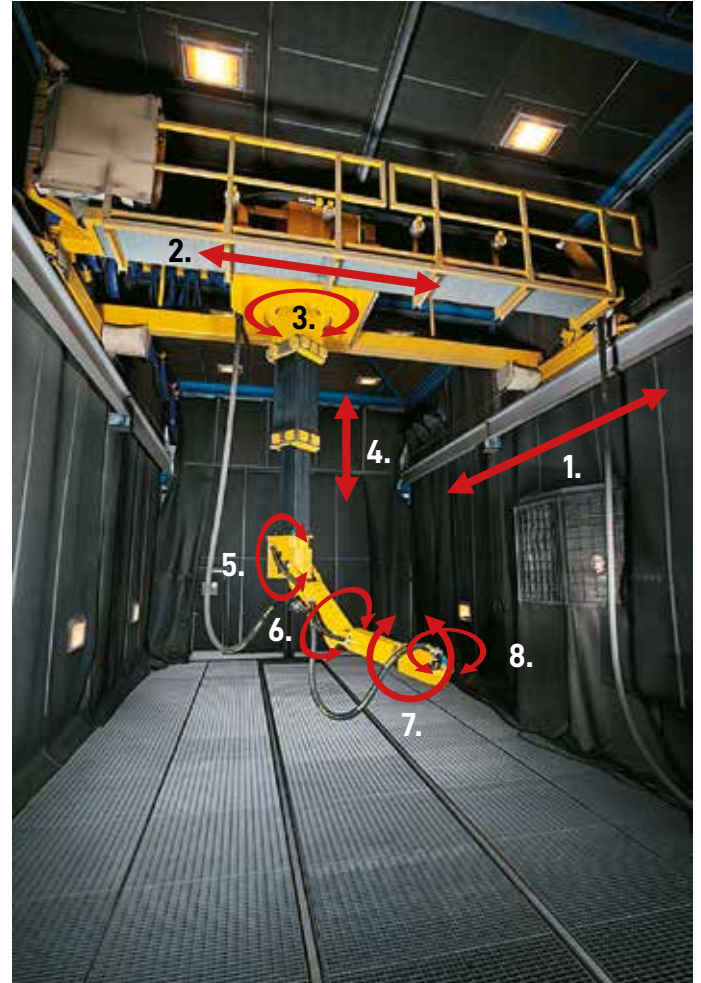
- License for software updates
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of blast room machineries

### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hose
- Blast nozzles

### Other

- Rails for the robot
- Transfer car for the workpiece
- Warranty extension
- Installation services







## B20S

The Blastman B20S is a gantry-type robot with telescopic and joint booms to direct the blasting nozzles. The Blastman B20S robot typically consists of eight (8) axes. Due to the overhead crane design, and movable telescopic arm, the robot has excellent reach and can blast clean even the most complex workpieces.

The B20S is custom designed to fit into various-sized blast rooms and meets the requirements to blast customer-specific workpieces. With its telescopic arm, the robot can reach inside railcars, through windows, or other openings to blast clean interior surfaces. Applications include railway rolling stock, steel structures and castings.

# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Robot bridge longitudinal	5 - 100 m	0,3 m/s	Lin.
Axis 2	Arm carriage across	3 - 35 m	0,25 m/s	Lin.
Axis 3	Rotation of the telescope	360°	18,7 °/s	Rot.
Axis 4	Arm vertical (Telesc.)	2 - 6 m	0,26 m/s	Lin.
Axis 5	Shoulder	175°	21,5°/s	Rot.
Axis 6	Elbow	225°	19,9°/s	Rot.
Axis 7	Arm head	360°	180°/s	Rot.
Axis 8	Nozzle	270°	215 °/s	Rot.
Axis 9	Cabin bridge	5 - 100 m	0,3 m/s	Lin.
Axis 10	Cabin carriage	3 - 35 m	0,25 m/s	Lin.
Axis 11	Cabin telescope Rotation	360°	20°/s	Rot.
Axis 12	Cabin telescope	2 - 6 m	0,26 m/s	Lin.

## OPERATION MODES

Manual  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## OPERATIONAL PARAM.

Nozzle diam. 13 - 19 mm  
Nozzle diam. 1/4" - 3/4"  
No. Of Nozzles 1 or 2  
Air Pressure 4 - 11 bar  
Air Pressure 50 - 150 PSI  
Cleaning rate ...200 m<sup>2</sup>/h  
Cleaning rate ...2150 ft<sup>2</sup>/h

## TECHNICAL

Voltage 380-500V 50/60Hz  
Contr. voltage 24 VDC  
Sealing\* IP65  
Assembly Roof-mounted  
Weight\*\* 5000 + 5000 kg

\*Applies to electrics in the blast room

\*\*Depends on width

## FEATURES

### Control

- License for software updates
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of blast room machineries

### Convenience

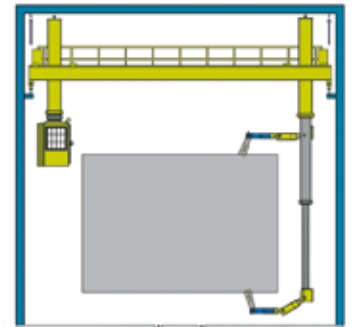
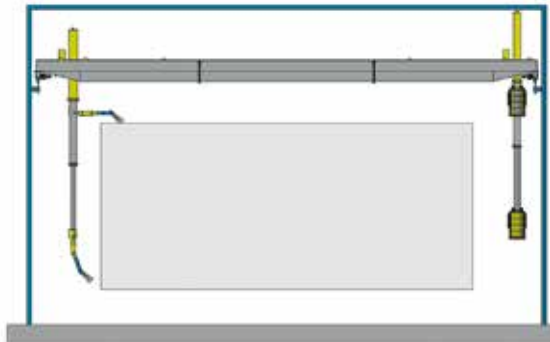
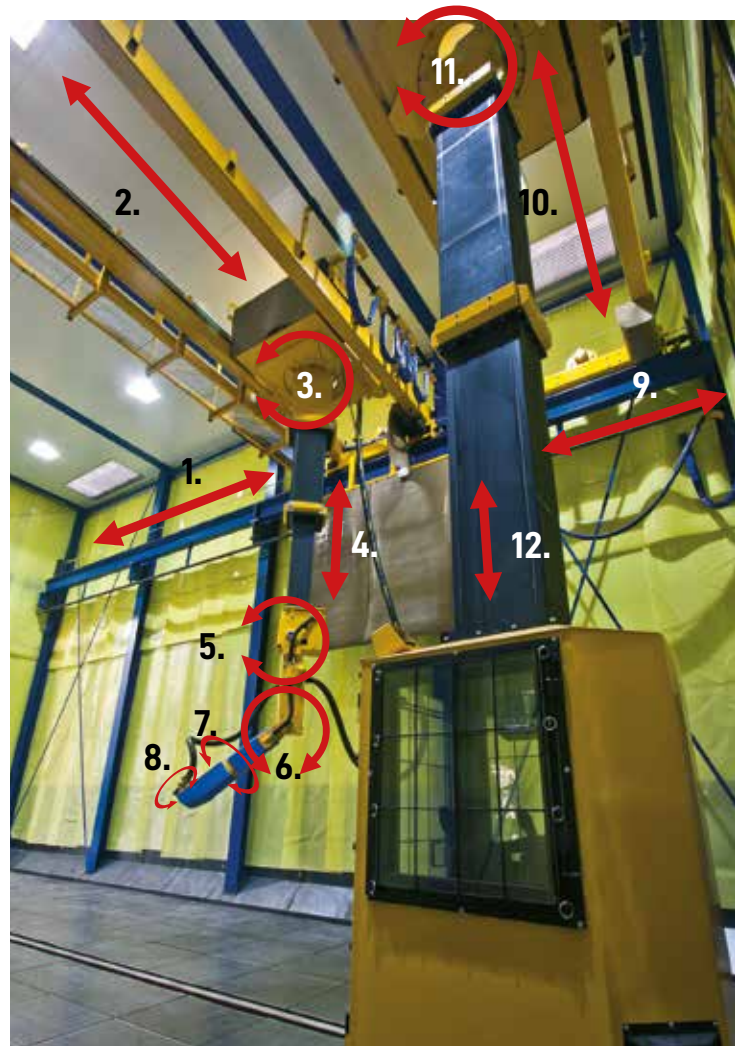
- AC in Control cabin
- Radio in Control cabin

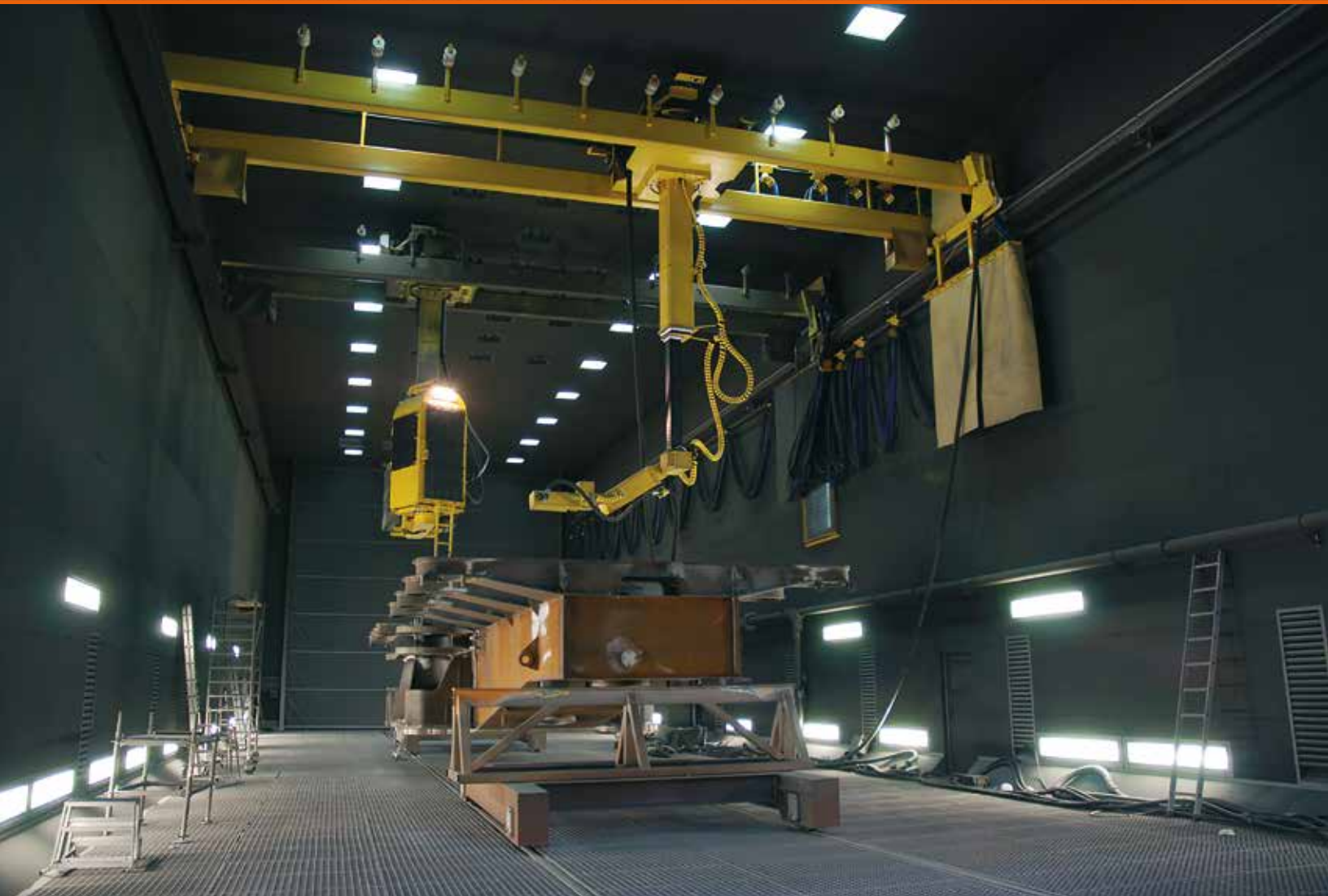
### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hose
- Blast nozzles

### Other

- Rails for the robot
- Transfer car for the workpiece
- Warranty extension
- Installation services





## B20CS

The Blastman B20CS is a bridge-type, 8-axis blast-cleaning robot designed to blast large workpieces. The B20CS has two separate bridges: one to carry the robot arm and one to carry the movable operator cabin. An operator can steer the robot with joysticks from the operator cabin, which moves on its 4-axes. When the B20CS is used automatically, the operator cabin can be driven into the other end of the blast room.

The functionality of the B20CS robot is similar to the B20S model: it is custom designed to fit into various dimensions of blast rooms and meet the requirements to blast customer-specific workpieces. With its telescopic arm, the robot can reach inside railcars, through windows, or other openings to blast clean the interior surfaces. Applications include railway rolling stock, transformers, diverse steel structures and castings.

# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Robot bridge longitudinal	5 - 100 m	0,3 m/s	Lin.
Axis 2	Arm carriage across	3 - 35 m	0,25 m/s	Lin.
Axis 3	Rotation of the telescope	360°	18,7 °/s	Rot.
Axis 4	Arm vertical (Telesc.)	2 - 6 m	0,26 m/s	Lin.
Axis 5	Shoulder	175°	21,5°/s	Rot.
Axis 6	Arm head	360°	180°/s	Rot.
Axis 7	Nozzle	270°	215 °/s	Rot.

## OPERATION MODES

Manual (Control room)  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## OPERATIONAL PARAM.

Nozzle diam. 13 - 19 mm  
Nozzle diam. 1/4" - 3/4"  
No. Of Nozzles 1 or 2  
Air Pressure 4 - 11 bar  
Air Pressure 50 - 150 PSI  
Cleaning rate ...200 m<sup>2</sup>/h  
Cleaning rate ...2150 ft<sup>2</sup>/h

## TECHNICAL

Voltage 380-500V 50/60Hz  
Contr. voltage 24 VDC  
Sealing\* IP65  
Assembly Roof-mounted  
Weight\*\* 3700 kg

\*Applies to electrics in the blast room

\*\*Depends on width

## FEATURES

### Control

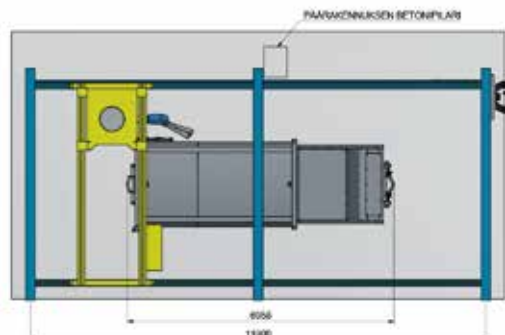
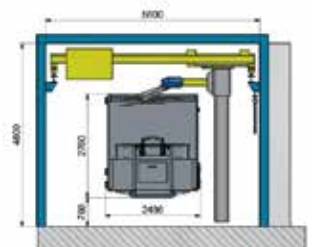
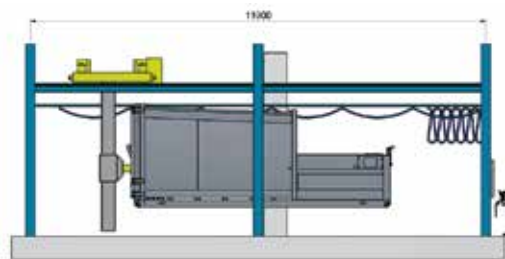
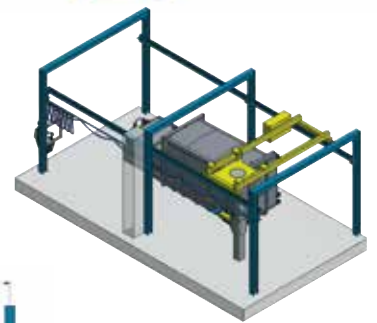
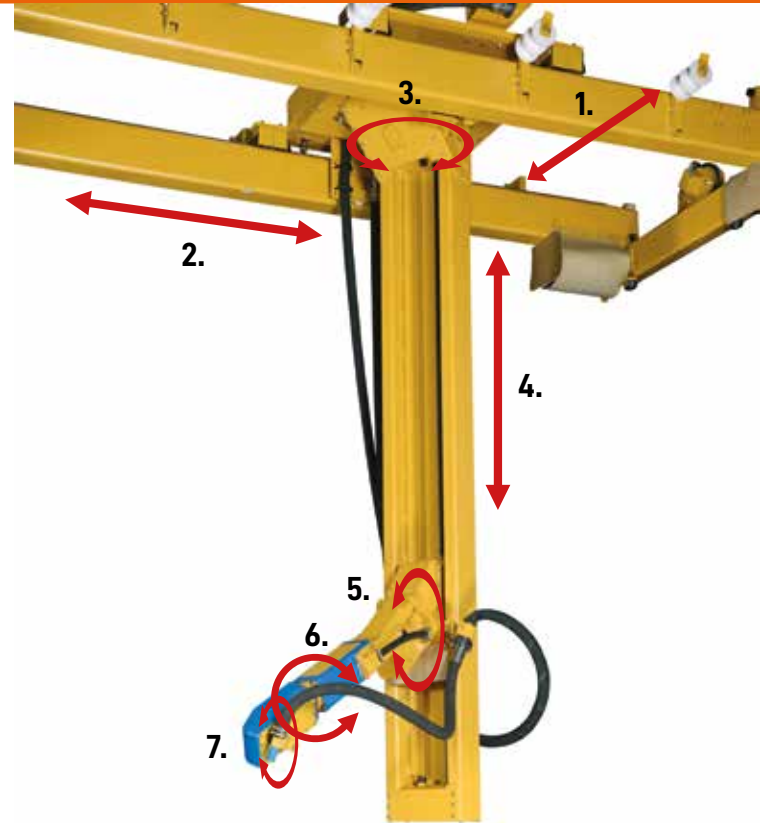
- License for software updates
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of blast room machineries

### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hose
- Blast nozzles

### Other

- Rails for the robot
- Transfer car for the workpiece
- Warranty extension





## B20LWS

The Blastman B20LWS is a gantry-type robot with seven (7) axes. The robot's overhead crane design allows the robot to move around the workpiece and blast clean it from all sides. The robot arm is moving along a vertical beam allowing blasting at the top and bottom of the workpiece.

The dimensions of the B20LWS are custom designed to match the size of the blast room, and to meet the requirements of the workpiece. The small size of the robot makes it ideal for narrow blast rooms. Applications include railway rolling stock, steel structures and castings.

# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Main frame horiz.	3 - 50 m	0,3 m/s	Lin.
Axis 2	Robot Arm Vert.	2 - 10m	0,3 m/s	Lin.
Axis 3	Arm rotation	180°	25,2°/s	Rot.
Axis 4	Shoulder	175°	21,5°/s	Rot.
Axis 5	Elbow	225°	19,9°/s	Rot.
Axis 6	Arm head	360°	180°/s	Rot.
Axis 7	Nozzle	270°	215 °/s	Rot.

## OPERATION MODES

Manual (Control room)  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## OPERATIONAL PARAM.

Nozzle diam. 13 - 19 mm  
Nozzle diam. 1/4" - 3/4"  
No. Of Nozzles 1 or 2  
Air Pressure 4 - 11 bar  
Air Pressure 50 - 150 PSI  
Cleaning rate ...200 m<sup>2</sup>/h  
Cleaning rate ...2150 ft<sup>2</sup>/h

## TECHNICAL

Voltage 380-500V 50/60Hz  
Contr. voltage 24 VDC  
Sealing\* IP65  
Assembly Wall-mounted  
Weight\*\* 3000 kg

\*Applies to electrics in the blast room  
\*\*Depends on height

## FEATURES

### Control

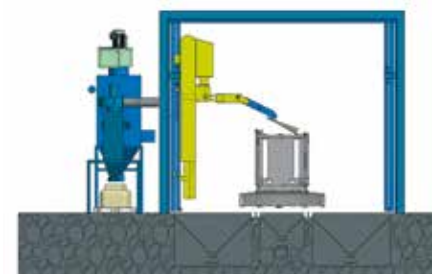
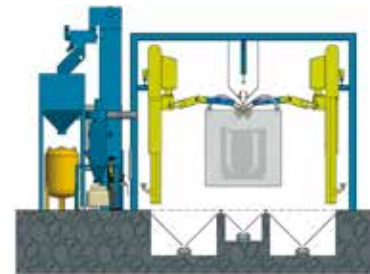
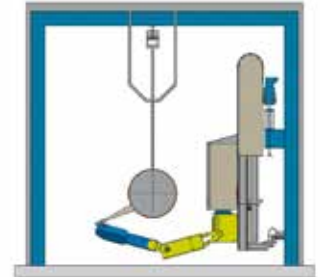
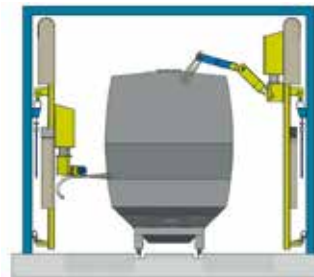
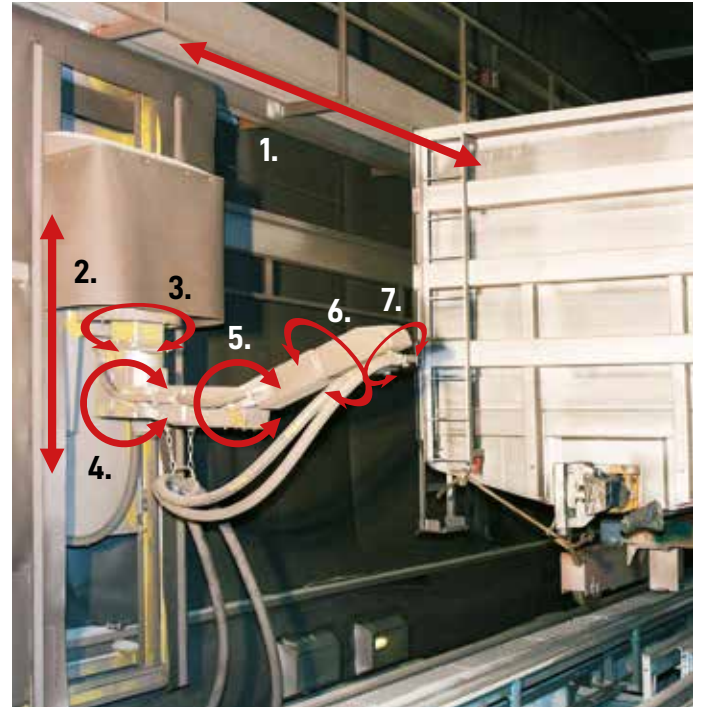
- Manipulator without robot features
- License for software updates
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of blast room machineries

### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hoses
- Blast nozzles

### Other

- Rails for the robot
- Transfer car for the workpiece
- Warranty extension
- Installation services



## B16S

The Blastman B16S is a wall-mounted blasting robot. The frame of the robot moves the robot arm in the longitudinal direction of the blast room on rails that are fixed on the walls. The hoist carriage moves the robot arm vertically on the mainframe.

The robot arm is used to direct and move the blasting nozzles. The Blastman B16S robot typically consists of seven (7) axes.

A pair of Blastman B16S robots combined with overhead (monorail) conveyors provide an efficient and flexible blasting solution for even the most complicated workpieces.



# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Main frame horiz.	3 - 50 m	0,3 m/s	Lin.
Axis 2	Arm rotation	180°	18,7°/s	Rot.
Axis 3	Robot Arm Vert.	2 - 6 m	0,26 m/s	Lin.
Axis 4	Shoulder	175°	21,5°/s	Rot.
Axis 5	Elbow	225°	19,9°/s	Rot.
Axis 6	Arm head	360°	180°/s	Rot.
Axis 7	Nozzle	270°	215 °/s	Rot.

## OPERATION MODES

Manual (Control room)  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## OPERATIONAL PARAM.

Nozzle diam. 13 - 19 mm  
Nozzle diam. 1/4" - 3/4"  
No. Of Nozzles 1 or 2  
Air Pressure 4 - 11 bar  
Air Pressure 50 - 150 PSI  
Cleaning rate .....200 m<sup>2</sup>/h  
Cleaning rate .....2150 ft<sup>2</sup>/h

## TECHNICAL

Voltage 380-500V 50/60Hz  
Contr. voltage 24 VDC  
Sealing\* IP65  
Assembly Wall-mounted  
Weight\*\* 2500 kg

\*Applies to electrics in the blast room  
\*\*Depends on height

## FEATURES

### Control

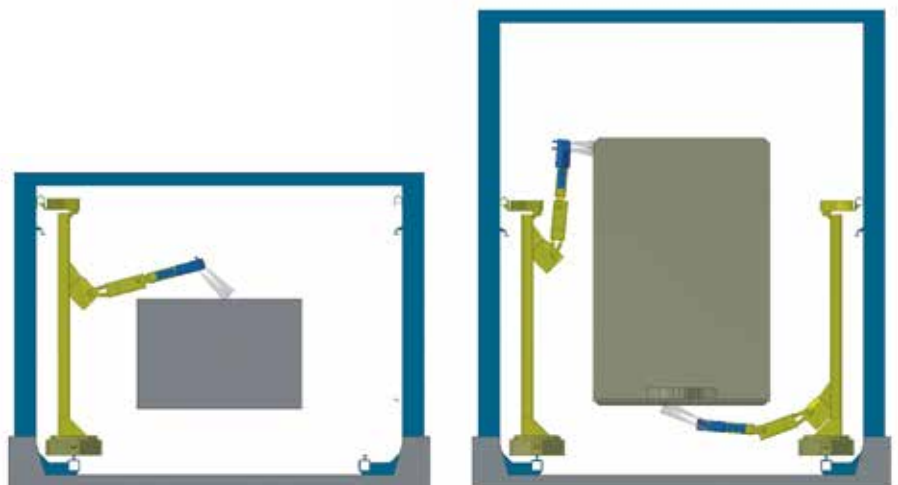
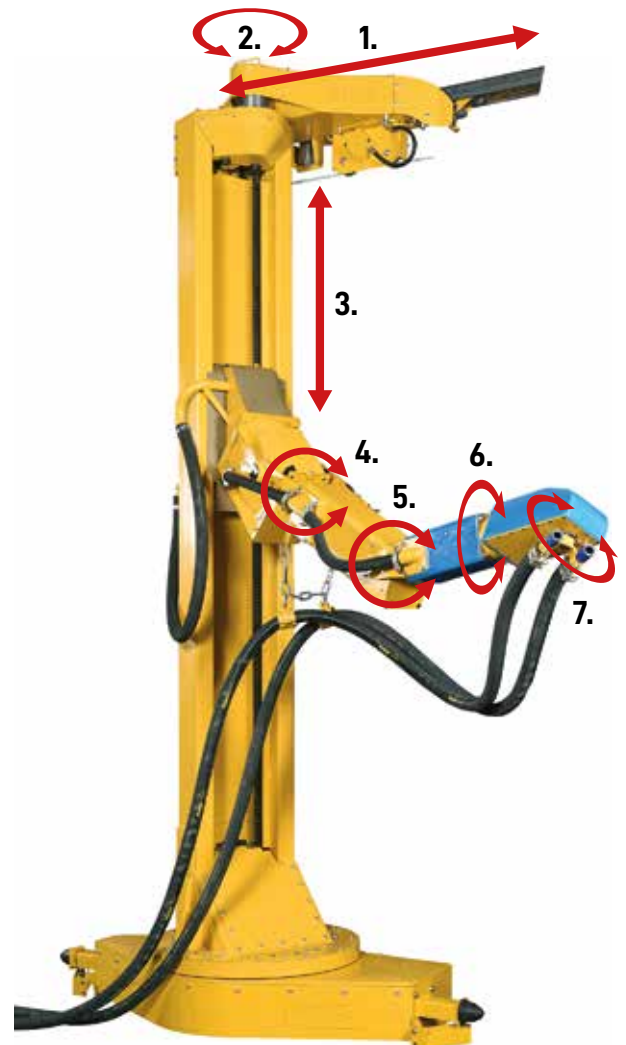
- Manipulator without robot features
- License for software updates
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of blast room machineries

### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hoses
- Blast nozzles

### Other

- Rails for the robot
- Transfer car for the workpiece
- Warranty extension
- Installation services





## B16XS

The Blastman B16XS is the latest wall-mounted blast cleaning robot. The slim frame of the robot allows for better movement in smaller workspaces and more flexibility with complex workpieces. The small and flexible design of the B16XS makes it easy to retrofit into existing blast chambers. The robot arm of the B16XS moves in a longitudinal direction on rails, fixed to the floor. The hoist carriage moves the robot arm vertically on the mainframe. The robot arm is used to direct and move the blasting nozzles. The Blastman B16XS robot typically consists of seven (7) axes similar to the B16S robot.

The design of the B16XS allows for the use of an overhead conveyor as a means of transporting the workpiece. A single B16XS robot can also work in tandem with a turntable.



# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Main frame horiz.	3 - 50 m	0,3 m/s	Lin.
Axis 2	Shoulder	145°	20°/s	Rot.
Axis 3	Arm head	360°	180°/s	Rot.
Axis 4	Nozzle	270°	215°/s	Rot.
Axis 5	Rotating stand			Ext.

## OPERATION MODES

Manual (control room)  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## OPERATIONAL PARAM.

Nozzle diam. 13 - 19 mm  
Nozzle diam. 1/4" - 3/4"  
No. Of Nozzles 1 or 2  
Air Pressure 4 - 11 bar  
Air Pressure 50 - 150 PSI  
Cleaning rate ...200 m<sup>2</sup>/h  
Cleaning rate ...2150 ft<sup>2</sup>/h

## TECHNICAL

Voltage 380-500V 50/60Hz  
Contr. voltage 24 VDC  
Sealing\* IP65  
Assembly Wall-mounted  
Weight\*\* 1500 kg

\*Applies to electrics in the blast room

\*\*Depends on height

## FEATURES

### Control

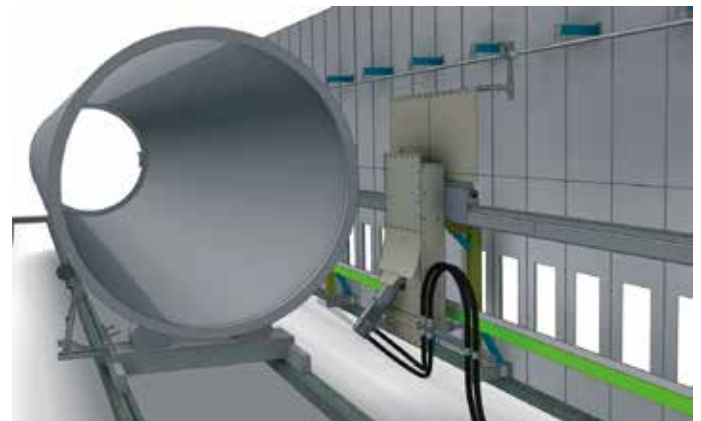
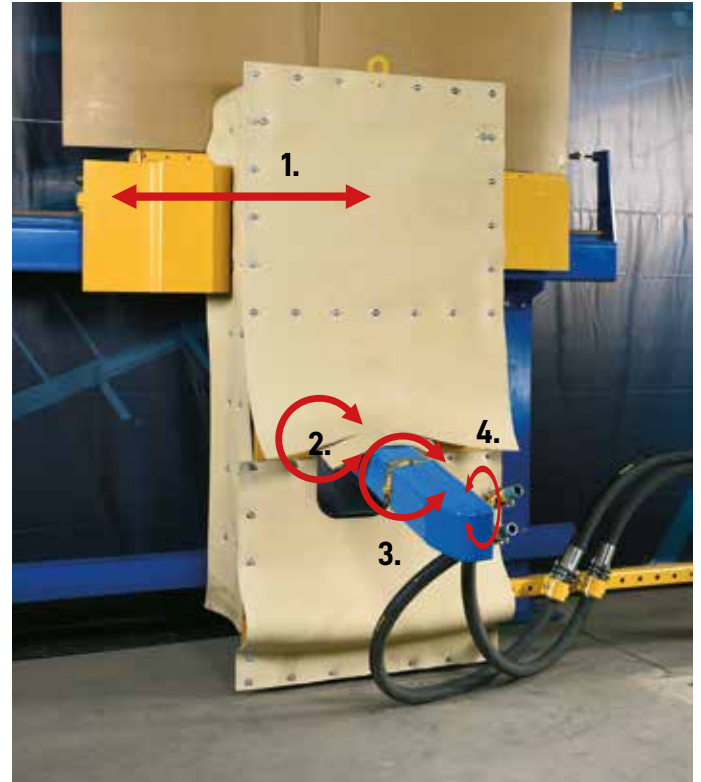
- License for software updates
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of the rotating units
- Control of blast room machineries

### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hoses
- Blast nozzles

### Other

- Rails for the robot
- Warranty extension
- Installation services





## B12S

The Blastman B12S is a wall-mounted blasting robot developed for blasting tubular workpieces, such as sections of wind turbine towers. The frame of the robot moves the robot arm in the longitudinal direction of the blast room on rails that are fixed on the walls. The purpose of the robot arm is to direct and move the blasting nozzles. The Blastman B12S robot typically consists of four (4) axes and one external axis which controls the rotating stand of the workpiece.

The Blastman B12S robot applications include tubular workpieces, such as windmill tower sections.

# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION

Axis	Function	Range /m/°	Max. Speed	Type
Axis 1	Arm Rotation	270°	25,2°/s	Rot.
Axis 2	Shoulder	175°	21,5°/s	Rot.
Axis 3	Elbow	225°	19,9°/s	Ext.
Axis 4	Arm Head	360°	180°/s	Rot.
Axis 5	Nozzle	270°	215°/s	Rot.
Axis 6	Linear (option)	10 m	0,3 m/s	Lin.

## OPERATION MODES

Manual (control room)  
Automatic  
Parameter based automatic

## TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

## TECHNICAL

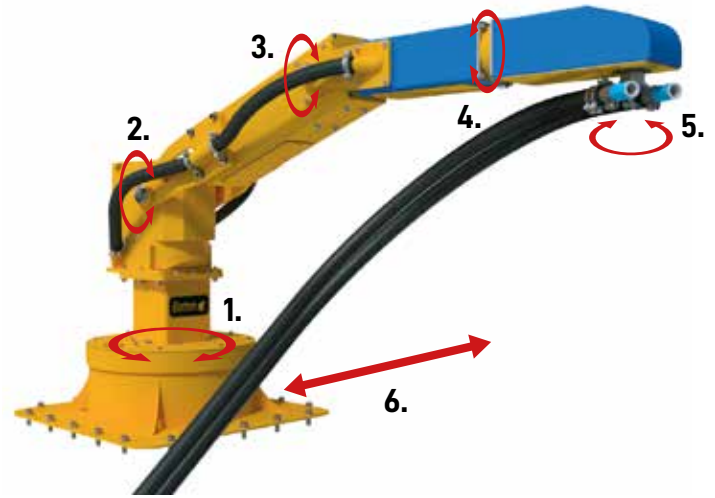
Voltage	380-500V 50/60Hz
Contr. voltage	24 VDC
Sealing*	IP65
Assembly	Roof-mounted / Floor-mounted
Weight**	700 kg

\*Appl. to electrics in the blast room

\*\*Depends on height

## OPERATIONAL PARAM.

Nozzle diam.	11 - 19 mm
Nozzle diam.	7/16" - 3/4"
No. Of Nozzles	1 or 2
Air Pressure	4 - 11 bar
Air Pressure	50 - 150 PSI
Cleaning rate	....200 m <sup>2</sup> /h
Cleaning rate	....2150 ft <sup>2</sup> /h



## FEATURES

### Control

- License for software updates
- Offline teaching
- Automatic teaching in offline environment
- VPN connection for remote diagnosis and SW updates
- Remote process monitoring
- Control of the rotating units
- Control of blast room machineries

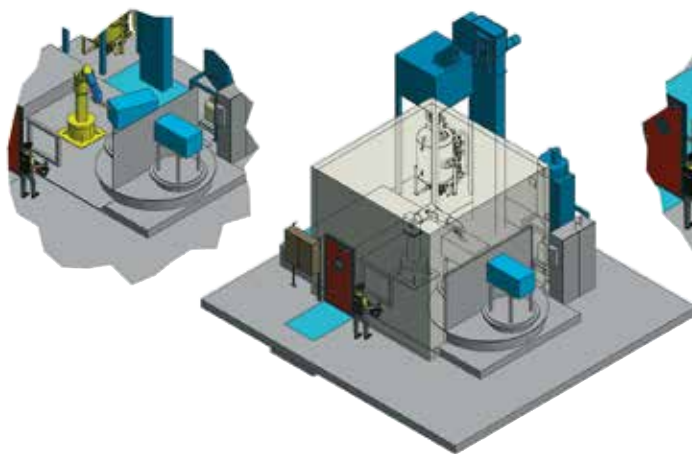
### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hoses
- Blast nozzles

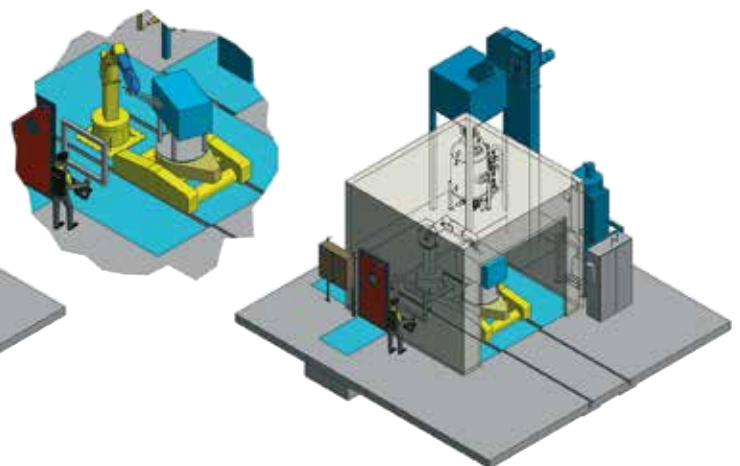
### Other

- Rails for the robot
- Warranty extension
- Installation services

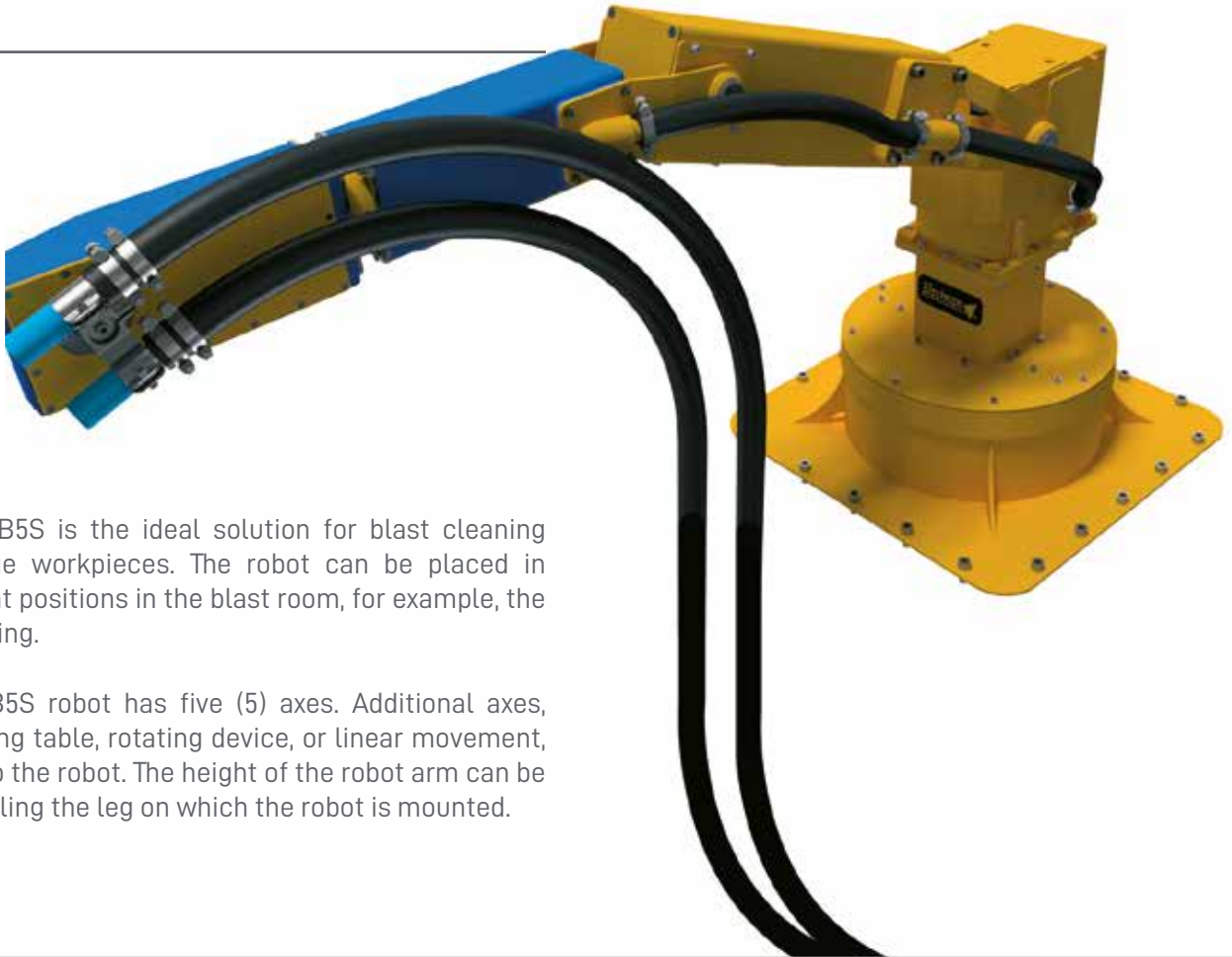
## B5S + TURNING TABLE



## B5S + TRANSFER CAR FOR THE WORKPIECE



# B5S

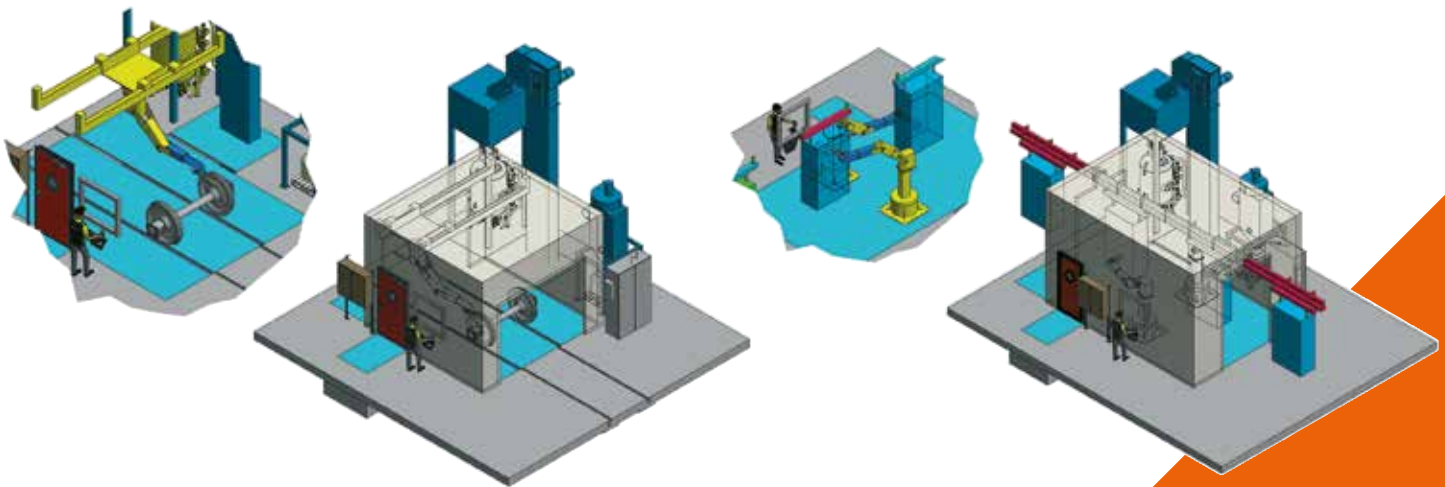


The Blastman B5S is the ideal solution for blast cleaning small and large workpieces. The robot can be placed in various different positions in the blast room, for example, the floor or the ceiling.

The standard B5S robot has five (5) axes. Additional axes, such as a turning table, rotating device, or linear movement, can be added to the robot. The height of the robot arm can be adjusted by scaling the leg on which the robot is mounted.

**B5S ROOF-MOUNTED, ARM CARRIAGE ACROSS**

**B5S + OVERHEAD MONORAIL CONVEYOR**



# BLASTMAN ROBOTIC SOLUTIONS

## ROBOT CONFIGURATION / HORIZONTAL BOOM

		Max. move	Max. Speed	Type
Axis 1	Vehicle drive	Configurable	0,6 m/s	Lin.
Axis 2	Vehicle turn (both axels)	+/-30°	5,5°/s	Rot.
Axis 3	Linear movement	13 000 mm	0,4 m/s	Lin.
Axis 4	Nozzle	65°	180°/s	Rot.

### VEHICLE

Weight	4 100 kg
Length	5 000 mm
Width	2 600 mm
Height	1 700 mm

### HORIZONTAL BOOM

Weight	1 200 kg
Length	800 mm
Width	7 000 / 13 000 mm
The extensions to the boom	3,000 mm
Height	1 500 mm

### TECHNICAL

Voltage	380-500V 50/60Hz
Control Voltage	24 VDC
Power Supply	80 Amp
Sealing	IP65
Assembly	On Wheels

## ROBOT CONFIGURATION / ARM

		Max. move	Max. Speed	Type
Axis 1	Vehicle drive	Configurable	0,6 m/s	Lin.
Axis 2	Vehicle turn (both axels)	+/-30°	5,5°/s	Rot.
Axis 3	Linear movement	13 000 mm	0,4 m/s	Lin.
Axis 4	Arm rotation	180°	25,2°/s	Rot.
Axis 5	Shoulder	175°	21,5°/s	Rot.
Axis 6	Elbow	225°	19,9°/s	Rot.
Axis 7	Arm head	360°	180°/s	Rot.
Axis 8	Nozzle	270°	215 °/s	Rot.

### OPERATION MODES

Manual  
Automatic  
Parameter based automatic

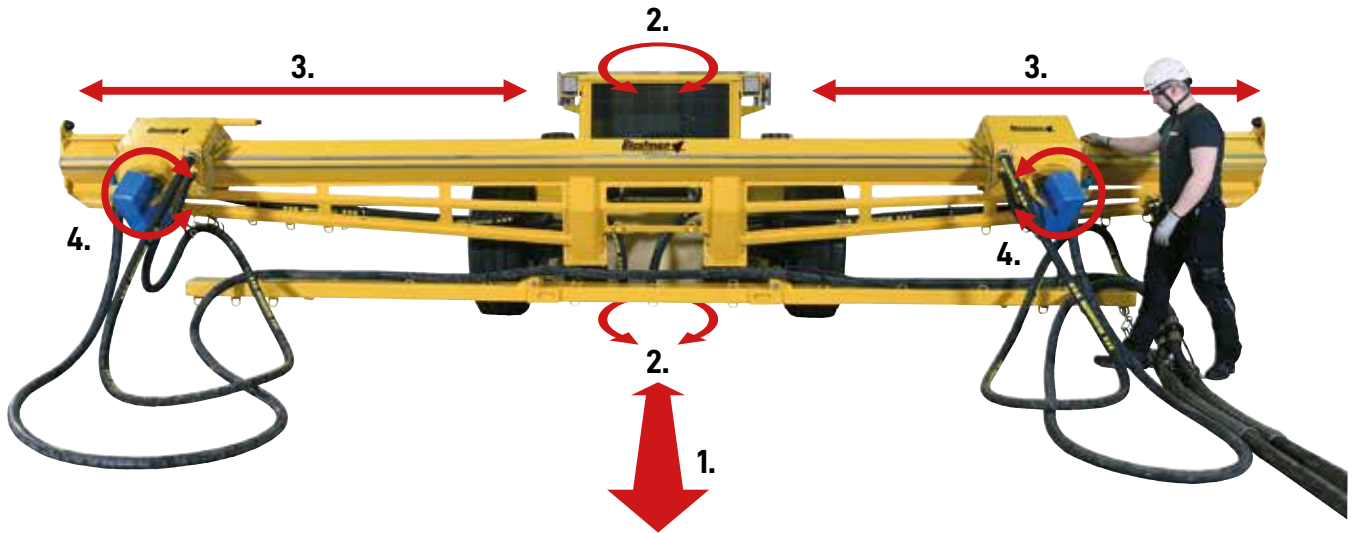
### TEACHING METHODS

Teach In  
PTP  
Offline  
Parameter based (option)

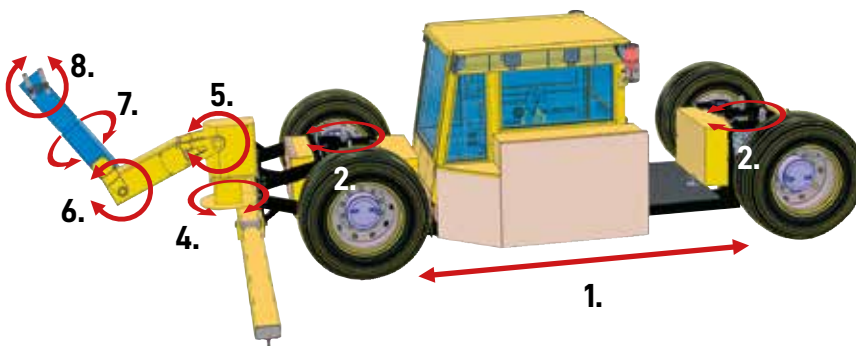
### OPERATIONAL PARAM.

Nozzle diam.	13 - 19 mm
Nozzle diam.	1/4" - 3/4"
No. Of Nozzles	1 or 2
Air Pressure	4 - 11 bar
Air Pressure	50 - 150 PSI
Cleaning rate	.....200 m <sup>2</sup> /h
Cleaning rate	.....2150 ft <sup>2</sup> /h

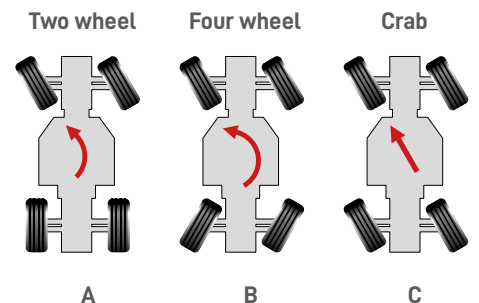
## BLASTMAN MBU / HORIZONTAL BOOM



## BLASTMAN MBU / ARM



## STEERING OPTIONS



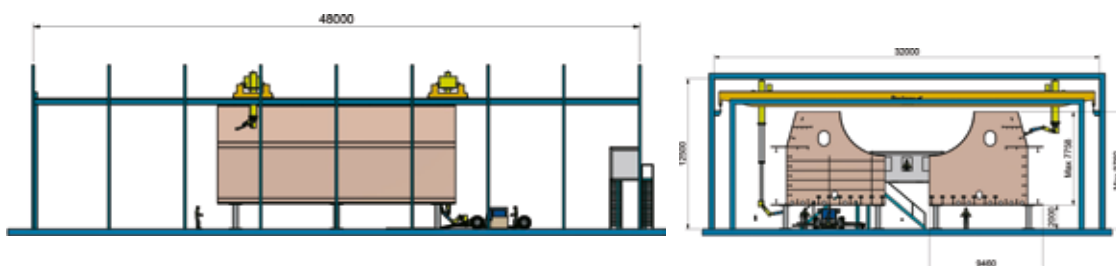


# BLASTMAN MBU

Blastman MBU is a movable blasting robot/manipulator, which provides very high efficiency with large blasting nozzles.

## THE SMART OPERATING INTERFACE AND DRIVE MECHANISM

Blastman MBU provides excellent flexibility for your blasting application. Blasting is controlled by the operator from an ergonomic and air-conditioned cabin. The movements of the MBU are controlled from joysticks or the user interface in the panel PC.



# BLASTMAN ROBOTIC SOLUTIONS



## OFFLINE PROGRAMMING

Offline programming is done on a separate PC with special software. Blast room, robot(s) and workpiece are 3D modelled into the software. Programs are made offline, by Blastman trained personnel, well in advance and imported into the robot system. Programs can be made for multiple robots simultaneously and simulated before actual blasting.

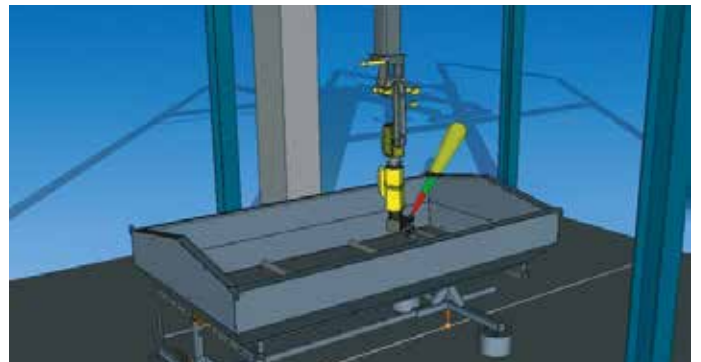
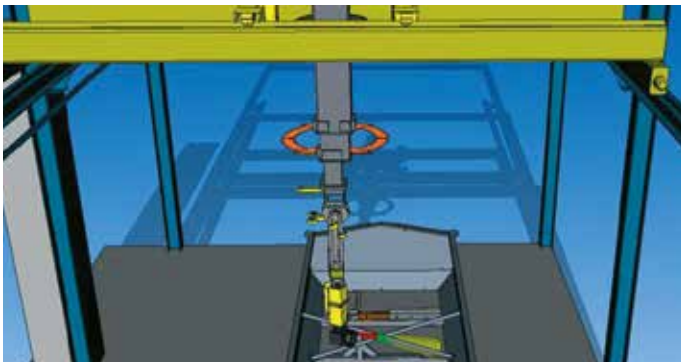
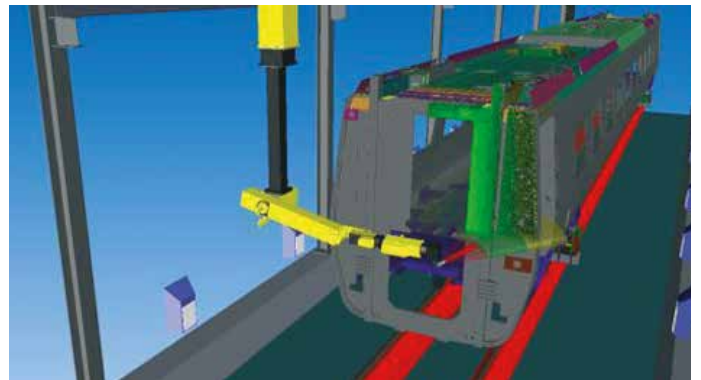
The method is excellent for complicated workpieces and constant production. Optimizing and modifying the programs is fast and easy.



## BENEFITS

By choosing Blastman Offline solution you will get these benefits:

- Reduce blasting times by more accurate and effective programs
- Increase blasting speed of programs up to 25% compared to hand panel programs
- Zero process downtime for programming and program modifications
- Consistent surface finishing quality







## OFFLINE PROGRAMMING

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BlastOne is committed to improving your investment value through an offline programming application that provides effective simulations and increases lead times.

With an offline program, your personnel will have the skills to program robot operations independently from a computer workstation when the robot is in production.

# BLASTMAN ROBOTIC SOLUTIONS

## MAN LIFT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Bridge longitudinal	3 - 100 m	0,3 m/s	Lin.
Axis 2	Platform carriage	3 - 35 m	0,25 m/s	Lin.
Axis 3	Platf. telescope Rotation	360°	20°/s	Rot.
Axis 4	Platform telescope	2 - 6 m	0,26 m/s	Lin.

## OPERATION MODES

Manual by push buttons  
External outside the blast room

## OPERATIONAL PARAM.

Max load 300kg/2 person  
Safety certificate

## TECHNICAL

Voltage	380-500V 50/60Hz
Contr. voltage	24 VDC
Sealing*	IP65
Assembly	Roof-mounted
Weight**	5800 kg

\*Applies to electrics in the blast room

\*\*Depends on height

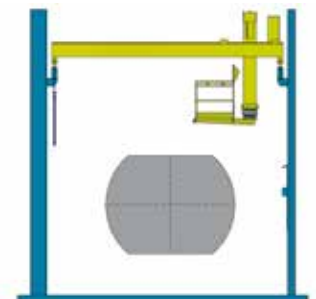
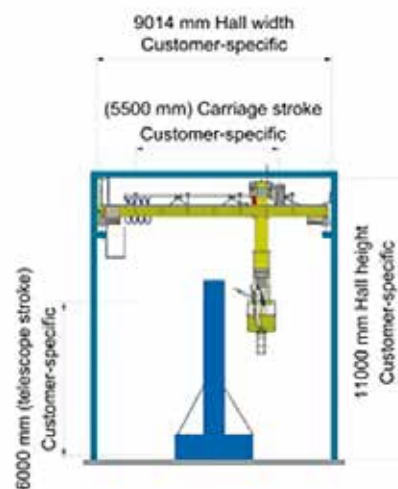
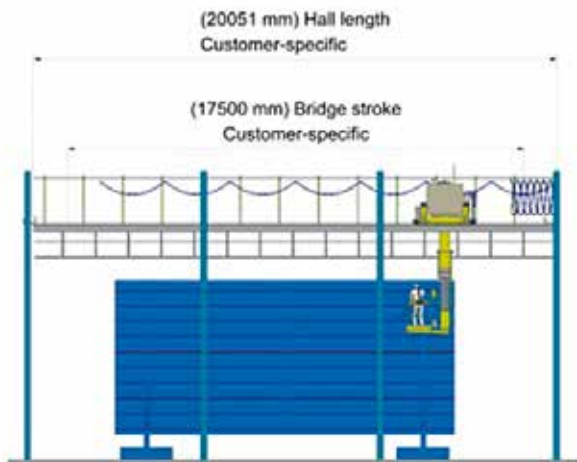
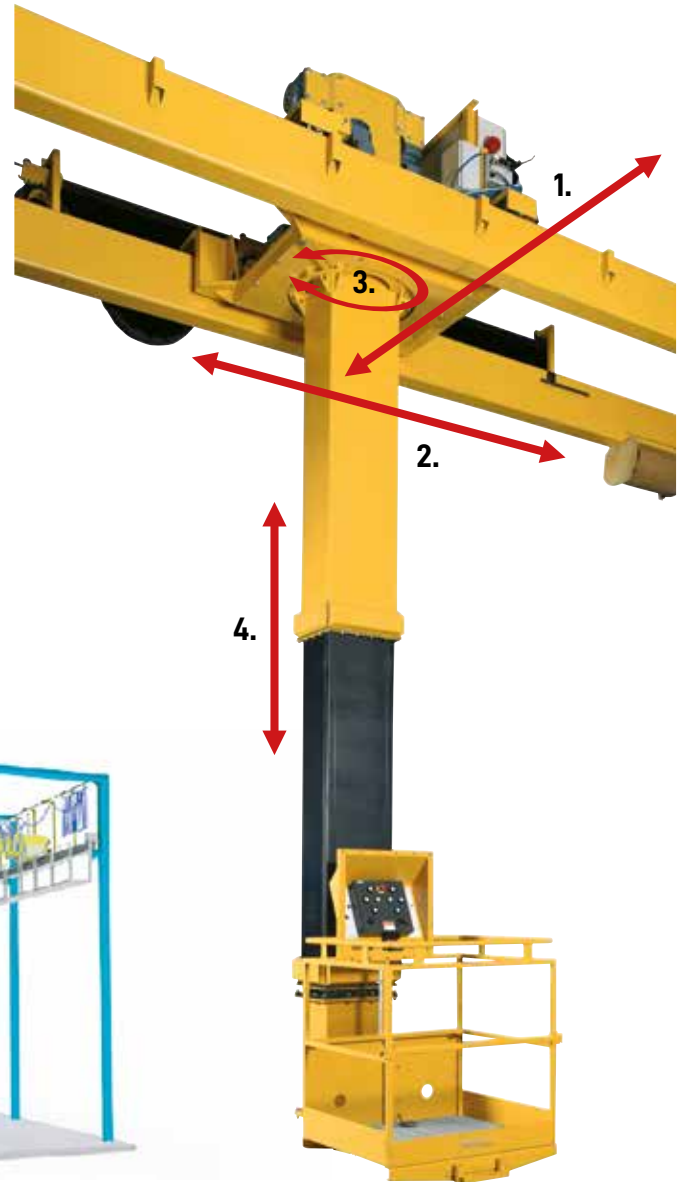
## FEATURES

### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hoses
- Blast nozzles

### Other

- Rails for the man lift
- Warranty extension
- Installation services



## B20ML

The Blastman B20ML is a gantry-type man lift with a telescopic boom to move the operator platform around the workpiece. The Blastman B20ML has been engineered for both blast and paint rooms.

The Blastman B20ML operates as an overhead crane and provides the best possible access around large workpieces without any scaffolding, movable boom lifts or ladders. The B20ML can be installed in painting chambers replacing the traditional scaffolding and boom lifts.



# BLASTMAN ROBOTIC SOLUTIONS

## MAN LIFT CONFIGURATION

		Range /m/°	Max. Speed	Type
Axis 1	Main frame horiz.	3 - 50 m	0,3 m/s	Lin.
Axis 2	Platform vertical	2 - 7m	0,15 m/s	Lin.
Axis 3	Platform rotation	180°	20°/s	Rot.

## OPERATION MODES

Manual by push buttons  
External outside the blast room

## OPERATIONAL PARAM.

Max load 300 kg  
Safety certificate

## TECHNICAL

Voltage	380-500V 50/60Hz
Contr. voltage	24 VDC
Sealing*	IP65
Assembly	Wall-mounted
Weight**	2000 kg

\*Applies to electrics in the blast room

\*\*Depends on height

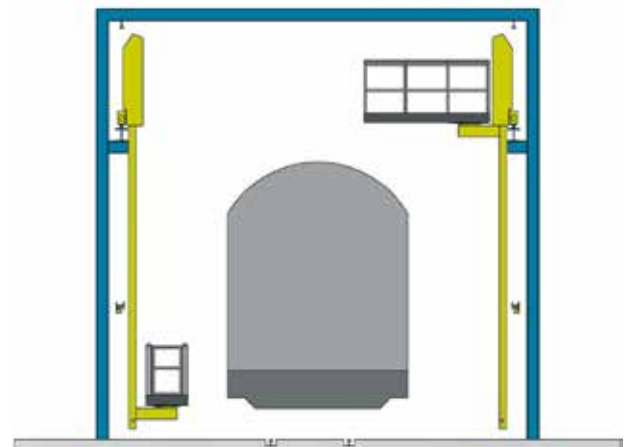
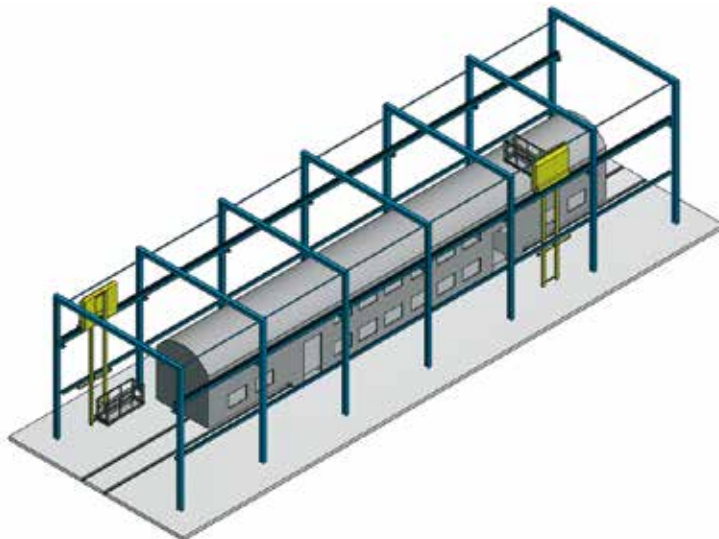
## FEATURES

### Blast equipment

- Complete operational blast room
- Blast pot for robot
- Blast hoses
- Blast nozzles

### Other

- Rails for the man lift
- Warranty extension
- Installation services



## B16ML

The Blastman B16ML is robust and specifically engineered for the harsh blast room environment. The man lift helps the operator move vertically along the wall of the blast chamber. The man lift can also be used for touch up, inspections and quality control.

The lift is controlled by the operator using a control panel located on the platform. The lift travels on a rail system fixed to the wall of the blast room. The longitudinal movement allows the lift to travel back and forth along the length of the blast room. The hoist of the platform provides the ability to elevate the operator platform from a low position to a higher position. The platform can be rotated in order to access objects across the full width of the blast room.



# BLASTMAN ROBOTIC SOLUTIONS



## MODEL BP1400

Max robot nozzles	2 pcs
Max nozzle amount	4 pcs
Possible combinations (robot+manual nozzles)	N1 N1+1 N1+2 N1+3 N2 N2+1 N2+2
Blast pot volume (air)	1400 l
Pressure vessel diameter	1112
Connection flange	DN150
Drawing number	B2013189 (B1400 N1+1) B2012262 (BP1400 N2) B2014520 (BP1400 N2+2)

## TECHNICAL

Dimensions	1550 x 1300 x 2635 mm
Weight	600 kg
Air capacity	1,4 m <sup>3</sup>
Media capacity	850 l
Max nozzle size	19 mm
Working pressure	5-10 bar
Certificated countries	EU, Canada, China, USA, Russia

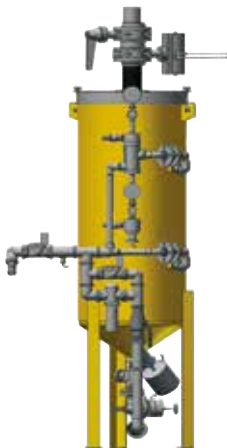


## MODEL BP1100

Max robot nozzles	2 pcs
Max nozzle amount	3 pcs
Possible combinations (robot+manual nozzles)	N1 N1+1 N1+2 N2 N2+1
Blast pot volume (air)	1100 l
Pressure vessel diameter	962
Connection flange	DN150
Drawing number	B2014691 (B1100 N2+1) B2015712 (BP1100 N2)

## TECHNICAL

Dimensions	1400 x 1250 x 2635 mm
Weight	500 kg
Air capacity	1,1 m <sup>3</sup>
Media capacity	650 l
Max nozzle size	19 mm
Working pressure	5-10 bar
Certificated countries	EU, Canada, China, USA, Russia



## MODEL BP350

Max robot nozzles	1 pcs
Max nozzle amount	1 pcs
Possible combinations (robot+manual nozzles)	N1
Blast pot volume (air)	350 l
Pressure vessel diameter	622
Connection flange	DN100
Drawing number	B2007273

## TECHNICAL

Dimensions	900 x 900 x 2635 mm
Weight	250 kg
Air capacity	0,35 m <sup>3</sup>
Media capacity	210 l
Max nozzle size	19 mm
Working pressure	5-10 bar
Certificated countries	EU, Canada, China, USA, Russia

# BLASTMAN BLAST POT

The blast pot operates as the heart of the blast cleaning system and the most critical component of the process. As part of the robot-operated blasting process, an accurate and reliable blast pot is also needed. Blastman's development of the blast pot has always been based on the specific needs of the robot operation.

The main function of the blast pot is to mix the abrasive into compressed air. To achieve efficient blast cleaning, accurate dosing of abrasive into the airflow is essential.

Blastman's blast pots are designed especially for robotic blasting. The dual-chamber pressure vessel and automatic valve control ensure continuous blasting. Blastman's blast pot is built for the biggest nozzles on the market. The large nozzles provide the highest possible efficiency.

## IDEAL FOR ROBOT BLASTING

The blast pot is integrated to the robot control system allowing live monitoring through the user interface. The user can set up warning levels to the process and adjust the blasting pressure during blasting. For preventing break-downs, the system has alarms and monitoring for wear part maintenance.

## LOW MAINTENANCE

The blast pot's unique chamber design maximizes abrasive media capacity, which keeps the refilling cycle time long and guarantees low maintenance costs.

## VARIOUS DUTIES IN ONE

To save money and space, the blast pot has 4 nozzle connections. Adding a second robot or manual blasting nozzle to the same pot gives you the full advantage of the pot and lowers your investment costs.



## CERTIFICATES

Blastman has customers all around the world which is why its blast pot are available in PED, ASME, TR ZU or TSG certifications.

# BLASTMAN ROBOTIC SOLUTIONS

## TECHNICAL

		Range /m/°	Max. Speed	Type
Axis 1	Longitudinal	3 - 100 m	0,3 m/s	Lin
Axis 2	Rotation (optional)		20°/s	Rot.

## OPERATION MODES

Manual by push buttons  
External outside the blast room

## OPERATIONAL PARAM.

Max load / unit 60 t  
Max load / pair 120t

## TECHNICAL

Voltage	380-500V 50/60Hz
Contr. voltage	24 VDC
Sealing*	IP65
Assembly	On the rails
Weight**	

\*Applies to electrics in the blast room

\*\*Depends on load

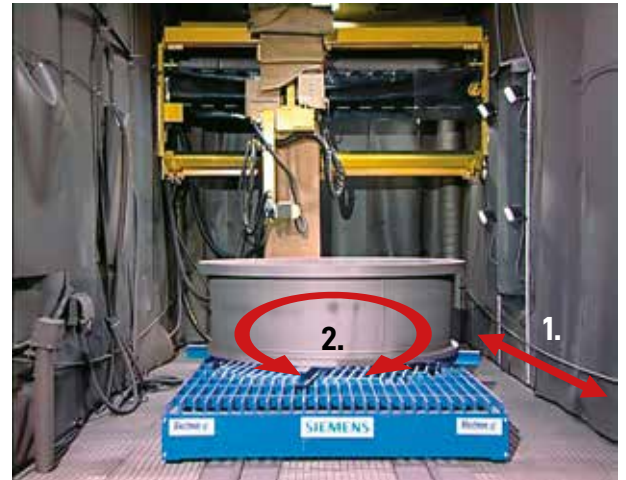
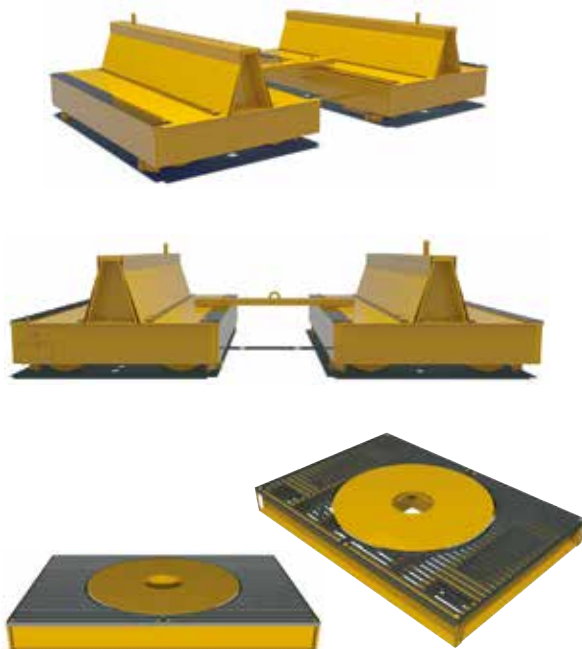
## FEATURES

### Control

- Electrical drives
- Hydraulic drives
- Wireless control
- Positioning
- Linked into line automation

### Other

- Rails for the transfer car robot
- Warranty extension
- Installation services







## BLASTMAN TRANSFER CARS FOR BLAST ROOM

To serve our customers with their blasting applications, we have developed supporting machines and systems for blast rooms. It is often a challenge to move objects in and out of a blast room. Therefore, we have developed a product family of transfer cars for different loads. Blastman transfer cars operate reliably and accurately.

One of our most popular models has been the adjustable pair of transfer cars. The distance between the transfer cars can be adjusted according to the dimensions of the workpiece.



## THE VERTIDRIVE INDUSTRIAL BLASTING ROBOT

Perhaps the most revolutionary product to be introduced in the last 25 years, the VertiDrive blasting robot keeps your crew both out of harm's way, and the billowing dust, while offering productivity 2.5-3X that of a standard blaster.

### USE UP TO THREE NOZZLES

Accommodates up to three (3) #8 nozzles

### AUTOMATE TIMING AND SPEED

Set the reach, pace, and crawl of the robot.

### WALLS. FLOORS. EVEN CEILING.

Powerful enough to hang upside down.

### AUTOMATE TIMING AND SPEED

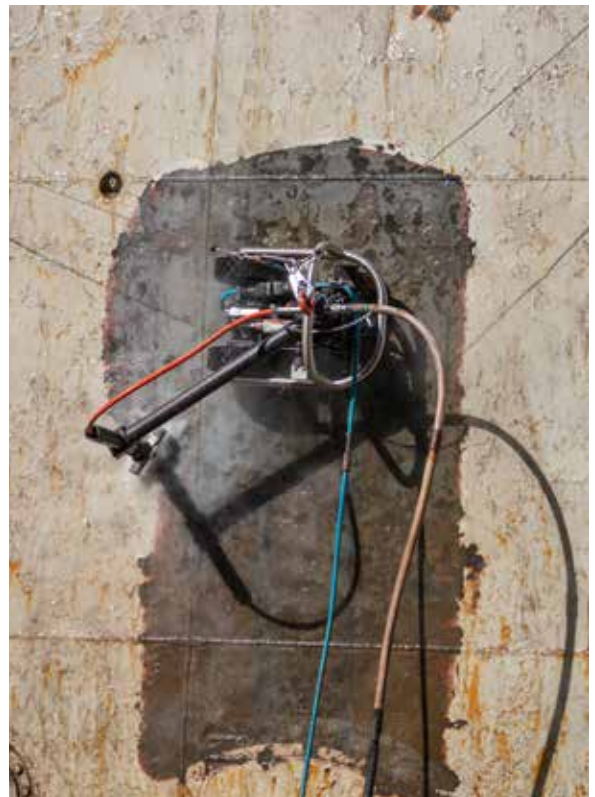
Heights, noise, dust, back-thrust – all avoided.

## IS THE VERTIDRIVE RIGHT FOR MY PROJECT?

- ▶ The following are key indicators in determining whether the Vertidrive is a solution for your project.
- ▶ Project Size – due to the rental cost and one week minimum, renting the Vertidrive becomes cost effective on projects 10,000 ft<sup>2</sup> and greater.
- ▶ We recommend a 1600 cfm compressor to utilize a 3-nozzle set-up.
- ▶ As the robot adheres to the wall via a magnet, the substrate needs to be magnetic, with a plate thickness of 3/8" minimum. 1/4" steel is not recommended.
- ▶ Being magnetic, you cannot use steel grit or shot. It will quickly coat the magnet and eventually cause it to dislodge from the surface.
- ▶ Storage Tanks need a minimum 15ft diameter to allow the robot to run sideways.

## VALUABLE CONSIDERATIONS

- ▶ The Vertidrive will typically blast approximately 85%-90% of a storage tank. Hand blasting will still be required to touch up difficult areas, stairs, rails, or welds possibly under-blasted due to the angle of the nozzles.
- ▶ The Vertidrive can effectively traverse welds or plate laps up to 5/8" high. Anything greater can cause the robot to detach from the surface.
- ▶ The Vertidrive is safe-guarded on vertical surfaces by a safety retractable line. It requires 3 SRL's to operate upside down on the underside of a floating roof tank or bottom of a ship.





## INDUSTRIAL PAINT ROBOTIC SOLUTIONS

BlastOne offers a wide range of robotic painting products and technology to help streamline your process, produce a quality finish, and subsidize labor storage.

Across several industries, from large to small applications, BlastOne is equipped to find robotic paint solutions that support your needs.

## WHY CHOOSE PAINTING ROBOTICS?

- HIGHLY FLEXIBLE**  
Paint in hard to reach places with ease
- ACCURATE**  
Robots apply coatings with great precision and evenness
- PROVIDES SHORTER CYCLE TIMES**  
Automation makes it easy to complete more products in less time, while drastically reducing downtime seen with manual painters
- PROCESS OPTIMIZATION**  
Robotics allows you to set parameters to achieve to same, high-quality finish each time
- PAINT QUALITY ASSURANCE**  
Options are available to create a program that ensures a quality finish each time
- INCREASED PRODUCTION UPTIME**  
By decreasing manual labor, you are able to increase production through automation
- INCREASED WORKPLACE SAFETY**  
Robots drastically decrease the risk of workplace injuries







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