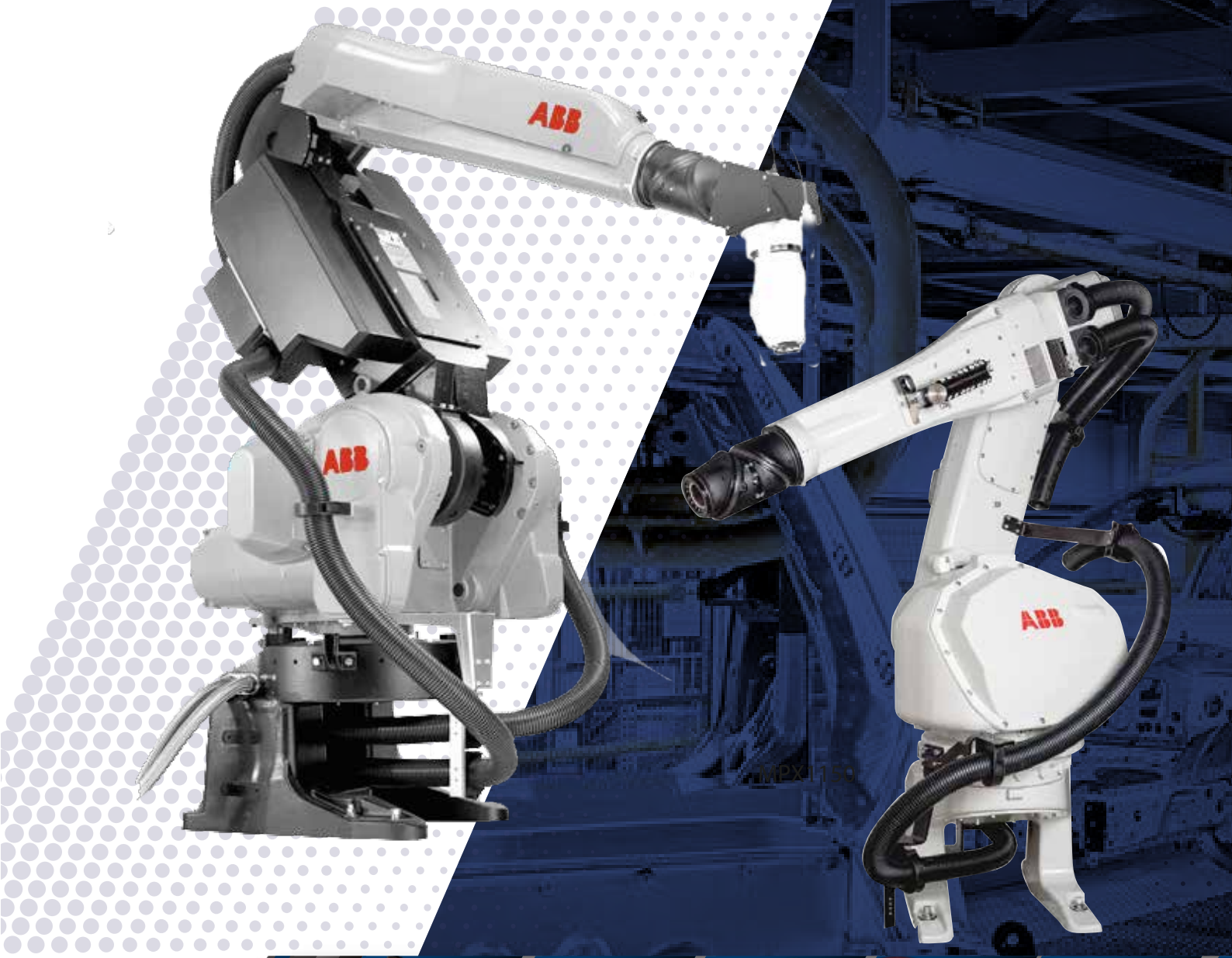
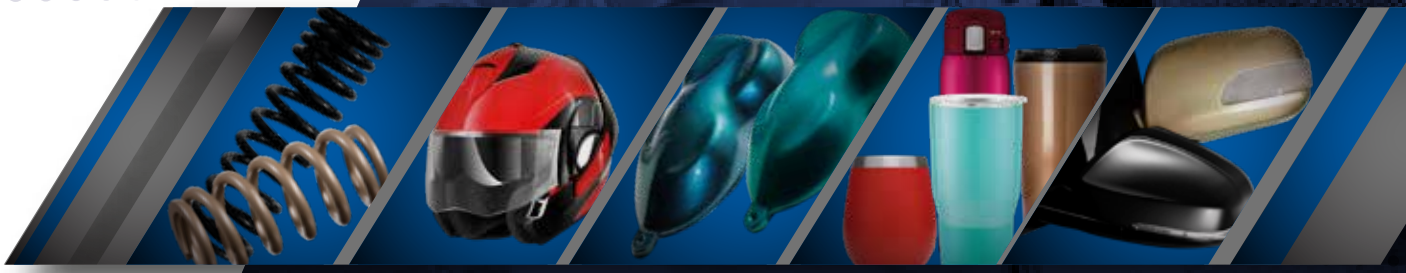
ThaiPollutech
Machinery

ABB





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ROBOT CONTROL

PAINT ROBOTIC

Robot Specifications

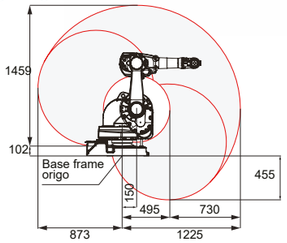
Model	Axes	Payload (kg.)	Vertical Reach (mm.)	Horizontal Reach(mm.)	Weight (kg.)	Mounting
ABB IRB 52	6	7	1561	1225	250	Floor, inverted, wall, tilted
ABB IRB 5510	6	13	2446	2561	587	Floor, elevated, inverted
ABB IRB 5400	6	25	3575	2824	970	Floor, Rail
ABB IRB 5500	6	13	3900	2975	600	Wall, floor, tilted, inverted, clean-wall rail



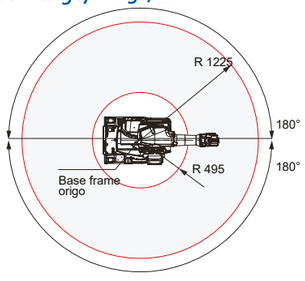
ROBOTICS
IRB 52
A compact painting specialist.

The IRB 52 is a compact painting robot designed specifically for painting small and medium sized parts in a wide range of industries. It provides you with an affordable, professional and high-quality painting solution

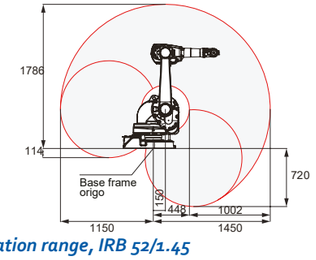
Working range, IRB 52/1.2



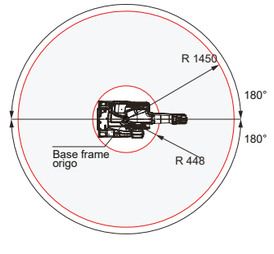
Rotation range, IRB 52/1.2



Working range, IRB 52/1.45



Rotation range, IRB 52/1.45

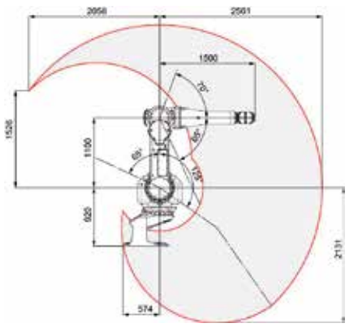


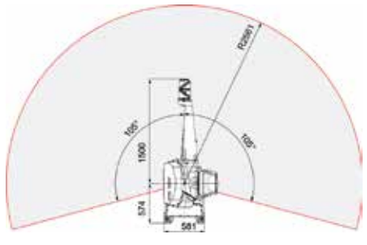


ROBOTICS
IRB 5510
Medium-sized paint robot

IRB 5510 FlexPainter is a highly flexible and accurate mediumsized paint robot for automotive small parts and general industrial painting.

Working range, IRB 5510



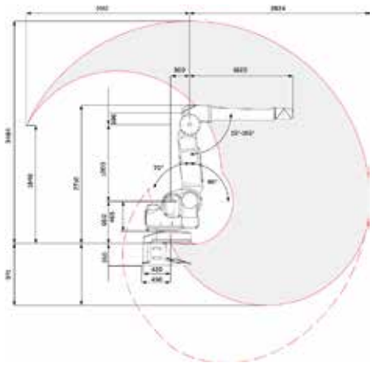




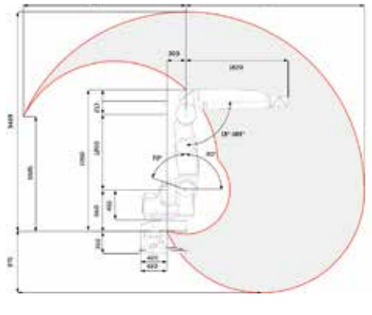
ROBOTICS
IRB 5400
High performance paint process robot

A highly efficient paint robot with high acceleration, high load capacity, large work envelope and integrated process equipment. It saves cycle time and it saves paint.

Working range, IRB 5400-12 slim arm



Working range, IRB 5400-22 process arm

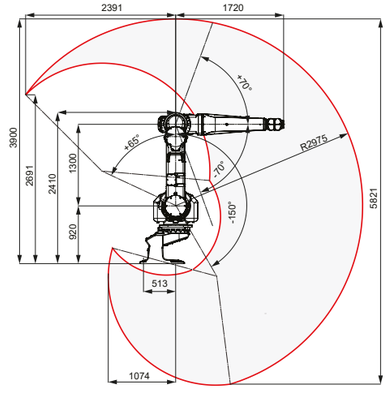




ROBOTICS
IRB 5500
FlexPainter
A new way of exterior painting

The IRB 5500 FlexPainter takes painting closer to perfection by integrating the paint application equipment. Combined with its large work area and high acceleration and painting speed, the result is the most efficient and flexible paint robot solution for basically any application.

IRB 5500-22 Floor mounted working range



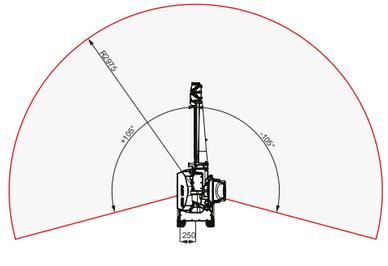




ABB Robot Control : IRC5P

Designed for painting
The IRC5P is the newest generation paint robot con trol system specifically designed for the paint shop. Key elements of its user friendly interface are the Exi certified FlexPaint pendent with multi-language support, and the customizable PC software for paint cell supervision, RobView 5.

Selection according to the system

Robot
- ☐ IRB 52
- ☐ IRB 5400
- ☐ IRB 5510
- ☐ IRB 5500

Step1
Selection the Robot

Gun Standard Unit
- ☐ AA
- ☐ AB
- ☐ AC

Step2
Selection the Gun control
Refer to Table 1

Turn Table
- ☐ TA
- ☐ TB-2
- ☐ TB-4
- ☐ (Option TX)

Step
Selection the Turn table
Refer to Table 2

Gun Standard Unit

For control volume of shaping air, atomizer air, paint flow rate and color change.

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Air Spray Gun Standard Unit





PPRU

Proportional Pressure Regulation Unit (PPRU)
Open-Looped PPRU Unit for
1. Shaping pattern control
2. Atomizing pattern control
3. Fluid pattern control



Fluid Regulator (PCV)

Pressure Control Valve(PCV)
PCV is specifically designed for precise and consistent fluid regulation for precise and fast color change



Color Chargers (CCV)

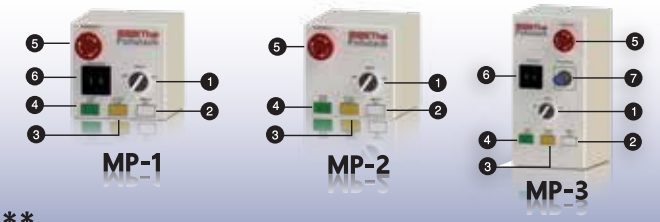
This unit can be handled paint material from 2 color to 8 color

Table 1

Air Spay Gun Standard Unit(ABB)	Brush Control	PCV	CCV	MP-1
Type AA	-	-	-	●
Type AB	●	●	-	●
Type AC	●	●	●	●

Mini Pendent

Simple operation pendent for controlling turntable, painting robot and spray gun on-off.



**
1 On - Off Spray gun
2 Servo on for robot
3 Single cycle start
4 Start - stop
5 Emergency
6 Select job for painting
7 Select material for painting

Table 2

Turn Table Specifications			
ITEM	Turn Table Type		
	TA	TB-2	TB-4
Control Axes	3	3	5
Arm Length (m.)	1.1-2.0	2.4-3.6	2.4-3.6
Motion Range (Arm)	±180°	±180°	±270°
Motion Range (Table)	Continuous rotation		
Maximum Speed (Arm)	90°/3s	90°/4s	90°/4s
Maximum Speed (Table)	90°/1.5s	90°/1.5s	90°/1.5s
Maximum table load (kg.)	20	40	40

Turn Table

PROFINET INDUSTRIAL ETHERNET · Ex · CLASSIFIED UL · CE



Table | TA

Advantage
Small installation space
Fast loading and unloading object short installation time
Rotary and spindle spray capable.

Table | TB-2

Advantage
Suitable for large automotive part, such as bumper Fast loading and unloading object Space saving installation becuase robot on center turn table.

Table | TB-4

Advantage
The same benefit of TB-2, but add additional 2 arms to allow time for paint setting between layers.

Multi fixture | TX



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