AIRSKIN® at MAGNA production plant
ABB robot and custom gripper with AIRSKIN® modules

FENCELESS ROBOTICS WITH AIRSKIN®

AIRSKIN® turns any industrial robot into a fenceless robot, combining the advantages of an industrial robot and its eco-system with the advantages of fenceless collaborative applications.

AIRSKIN® add-on safety skin is safety certified by TÜV Austria and TÜV Rheinland, ISO 13849 Cat. 3 / PLe, CSA/UL

Build truly collaborative applications with any **industrial robot.** Increase speed and protect tools with collaborative robots.

AIRSKIN® is a soft and pressure-sensitive safety skin for industrial robotics. It directly covers the entire robot as well as the tool, and safely stops the machine in case of a collision. AIRSKIN® allows you to rethink robot safety in new and unconventional ways beyond limiting power and reach or restricting access.

REMOVE THE FENCE
SAVE FLOOR SPACE

HIGHEST SAFETY
LEVEL PLe

FAST INSTALLATION
AND MAINTENANCE

AVAILABLE FOR
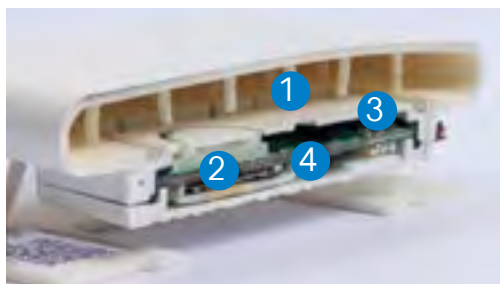VARIOUS EOAT

INCREASE SPEED FOR
SHORTER CYCLE TIMES

FAST AND EASY
RISK ANALYSIS

HOW DOES IT WORK?

Soft, airtight sensor pads continuously monitor and reliably detect internal pressure changes due to deformations of the hull.

Any collision immediately triggers a safe stop signal to the controller and initiates the robot's braking sequence. Remaining mechanical forces due to the stopping distance of the robot are absorbed by the soft padding.

COMPONENTS

1 - airtight hull
2 - pump
3 - sensors
4 - electronics

AIRSKIN on KUKA for
quality inspection

AIRSKIN® for

KUKA

MITSUBISHI ELECTRIC

ABB

DENSO

STÄUBLI

UNIVERSAL ROBOTS

SCHMALZ

ROBOTIQ

OnRobot

EPSON

AIRSKIN

TÜV AUSTRIA

KUKA

KR10 Agilus R900-2
KR10 Agilus R1100-2
KR10 Agilus R1100 sixx
KR22/16 Cybertech R1610-2
KR20 Cybertech R1810-2
KR16 Cybertech R2010-2
KR120/210/300 Quantec R2700-2
KR120/150/210 Quantec R3100-2
Fenceless robots incl. AIRSKIN
Fenceless KR10 Agilus R900-2
Fenceless KR10 Agilus R1100-2
Add-on's for fenceless robots
Electric Gripper - Zimmer/Schmalz
Pneumatic Gripper - SMC
ProfiSafe - SafeOperation

MITSUBISHI ELECTRIC

RV4FRL
RV7FRLL
RV13FRL
Fenceless robots incl. AIRSKIN
Fenceless RV4FRL - incl. robot
Fenceless RV7FRLL - incl. robot
Add-on's for fenceless robots
Electric Gripper - Zimmer/Schmalz
Pneumatic Gripper - SMC

ABB

IRB 1200-7/0.7
IRB 1200-5/0.9
IRB 6620 A4-6
IRB 6620

DENSO

VS087
VS068
VM60B1

UNIVERSAL ROBOTS

UR5 / UR5e (Full, Ellbow to Wrist)
UR10 / UR10e (Full, Ellbow to Wrist)
UR16e (Full, Ellbow to Wrist)
SafetyFlange for UR
UR Enable switch

OTHER

Protective Sleeves
Extended Service Contract

AIRSKIN®

AIRSKIN® SafetyFlange
AIRSKIN® Module 100x200, T40/T60
AIRSKIN® Module 200x200, T40/T60
AIRSKIN® Module 300x200, T40/T60
AIRSKIN® Module 400x200, T40/T60
AIRSKIN® Connection unit

EOAT

Schmalz CobotPump ECBPi+VEE 2x2
Schmalz CobotPump ECBPi+VEE 2x3
OnRobot VG10, RG2, RG6
Robotiq 2F85
Weiss GripKit E2
Weber Screwdriving System SEV-C
Cognex Insight 7600, Dataman

AIRSKIN® MODULES

The AIRSKIN® Modules are a cost–effective pressure sensitive system to quickly and easily add safety to robots, custom end effectors, mobile robots, moving machinery and other automation equipment.

The easy to install AIRSKIN® Modules come in 4 different sizes ranging from 100x200, 200x200, 300x200 to 400x200mm including a mounting fixture. The connection to the safety inputs of the safety controller is as easy as ever.

- Direct connection to PLC, no software or configuration needed
- Multiple pads in series
- Simple and easy to install, due to magnetic fasteners
- 9ms reaction time

Applications

- Robots and End of Arm Tooling
- Suction grippers for palletizing · 3D-Cameras
- Large grippers
- Workpiece enclosures
- AGVs, mobile robots and service robots
- Special purpose machinery

Your AIRSKIN® partner

CROSS Company
300 South Firestone Street Suite 200 C, Gastonia, NC 28052
www.crossco.com   800-866-4568

AIRSKIN® SAFETYFLANGE

AIRSKIN® Safetyflange is a compliant robotic collision sensor with PLe/Cat3 ISO 13849 safety certification.

The Safetyflange detects tool and workpiece collisions in multiple directions and sends a safe stop signal to the robot controller. The break-away movement in angular, axial and torsional directions absorbs energy and reduces pressure and force during collisions in collaborative applications.

- Automatically resets itself after a collision
- High repeatability
- SafetyFlange prevents damage to expensive robotic end-effectors
- Adapts to your application by changing internal springs

Applications

- Palletizing
- Visual inspection
- Pick and place
- Gluing

AIRSKIN