

# WSS - WEMO SAFETY SYSTEM

SAFETY GUARDING COMPONENTS



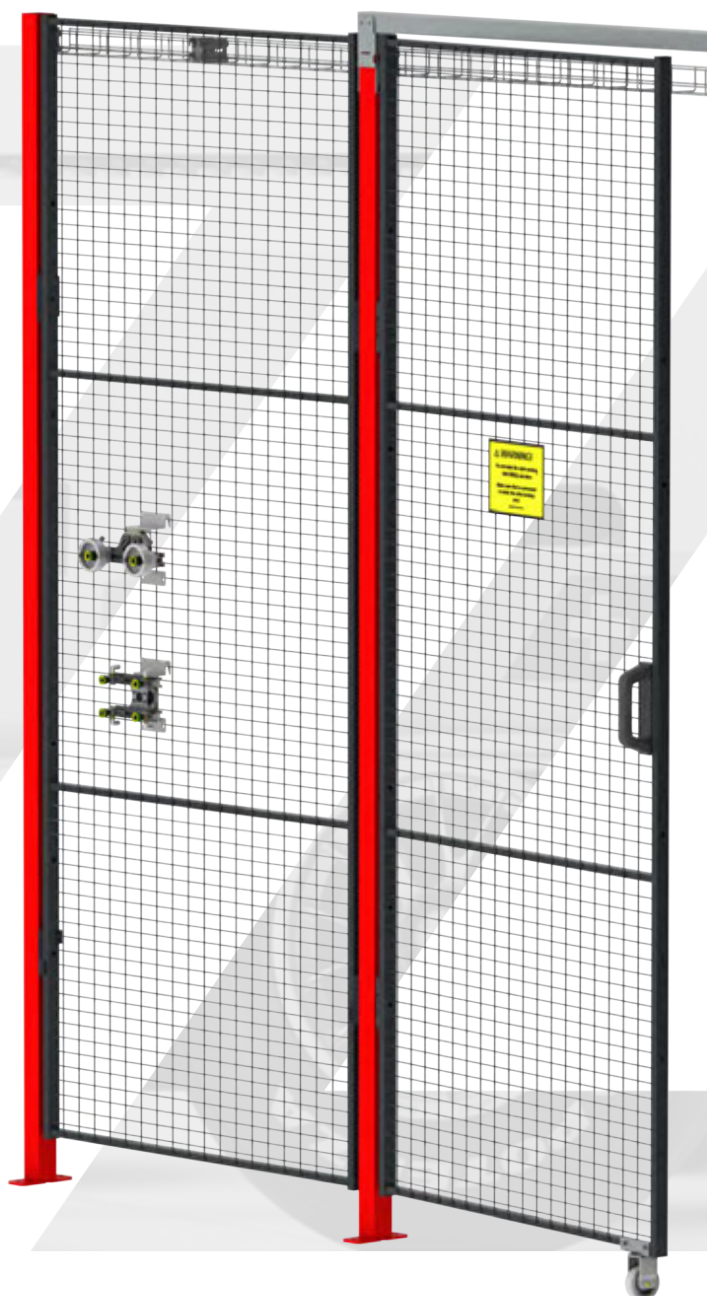
# SMART GUARDING

## AROUND YOUR AUTOMATION

Wemo safety guarding is a complete machine guarding system for fast and simple implementation to automation. It's also complies with the Machinery Directive's demands on permanent guards 2009.

Flexibility and user-friendliness are keywords that characterize all products from Wemo Automation AB. We've been manufacturing robots for over 30 years, and have a vast pool of experience in solutions that simplifies automation in the industry.

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The same basic principle applies to our peripheral components, which you can use to make your robot cell into a complete solution.

With its wide range of standard components and accessories, it's guaranteed to cover all possible machine guard needs.



# WSS - STATE OF ART DESIGN

Wemo safety guarding is a complete range of safety and organizing components for automation, WSS & QuickOn.



## ADDED VALUES

SAFE	- Our machine guards are designed to fulfil all the demands put on a functional safety guard.
FUNCTIONAL	- Our machine guards have many functional solutions around the automation that require this type of protection.
SIMPLE	- Our machine guards are built around a standard design with regard to panels, posts, accessories and colour. This makes it easier for you to complement existing guards if it's needed.
COMPLETE	-The guards are available in mesh panel sections or plastic sections. The wide selection of doors, and accessories offer a complete guarding solution.
COST-EFFECTIVE	- Smooth and easy handling, gives you a good overall economy when choosing WSS Safety guards.



## **QUICK RELEASE AND REPLACEMENT**

WSS Safety walls can only be removed with the special quick release tool. The solution offers quick release and replacement. As standard this is possible only from inside the hazard zone. This is also the setup recommendation.

Fixed guards can then only be removed under safe conditions. If specifically required for particular maintenance jobs, removal of panels is also possible from outside the guarded area.

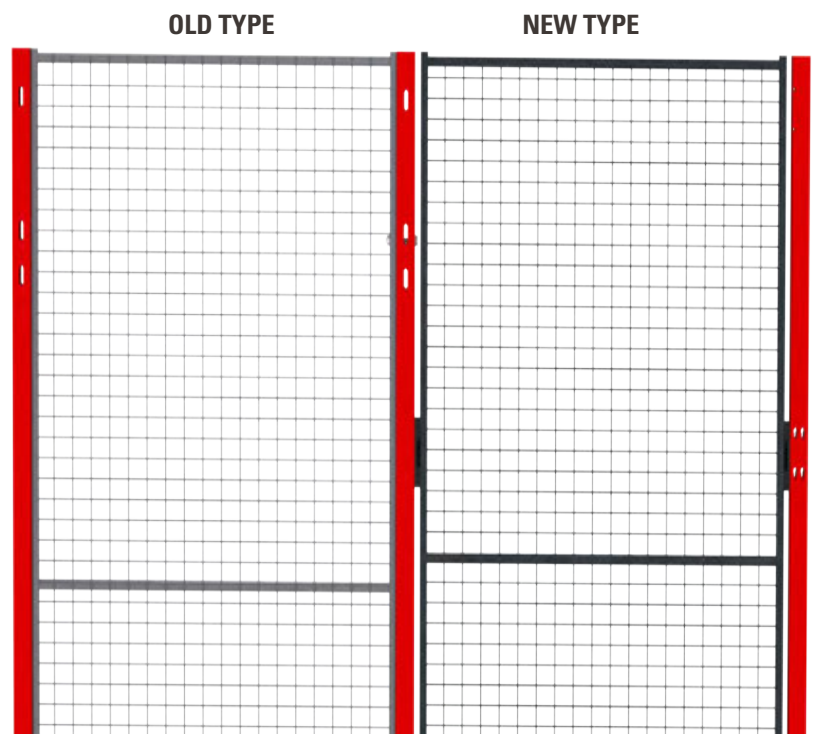
Doors and panels are designed to ensure you can switch whenever necessary. You can change hinge and lock handing with a simple operation.

Use the quick release tool, place it into the upper fitting, then push it to the side and finally the panel will come loose.



## **TO ADD NEW TO OLD SYSTEMS**

If there is a need to add the new system with quick release fitting to existing safety guarding, there is a special fitting to add to the post for easy integration of the two versions of safety walls.





## GUARDING PRINCIPLES



### CUSTOMIZED COLOURS

The Wemo safety guarding is as standard in red RAL 3001 for posts and dark grey RAL 7016 for wall elements. If there is request to get the safety guarding in customized colour this is now possible to get in all RAL colours for booth posts (P-RAL) and wall element (WEM-RAL & WEP-RAL).





Example of safety guarding with mesh wall elements,  
tunnel and swing door.  
WSS-WEM Mesh wall elements  
WSS-SWD Swing door  
WSS-TU Tunnel



Example of safety guarding with wall elements in plastic,  
tunnel and sliding door.  
WSS-WEP Wall elements in plastic  
WSS-SLD Sliding door  
WSS-TU Tunnel



Example of safety guarding with mesh wall elements,  
swing door and QuickOn.  
WSS-WEM Mesh wall elements  
WSS-SWD Swing door  
WSS-QuickOn



Example of safety guarding with wall elements in plastic  
and swing door.  
WSS-WEP Wall elements in plastic  
WSS-SWD Swing door

## TYPE OF GUARDING

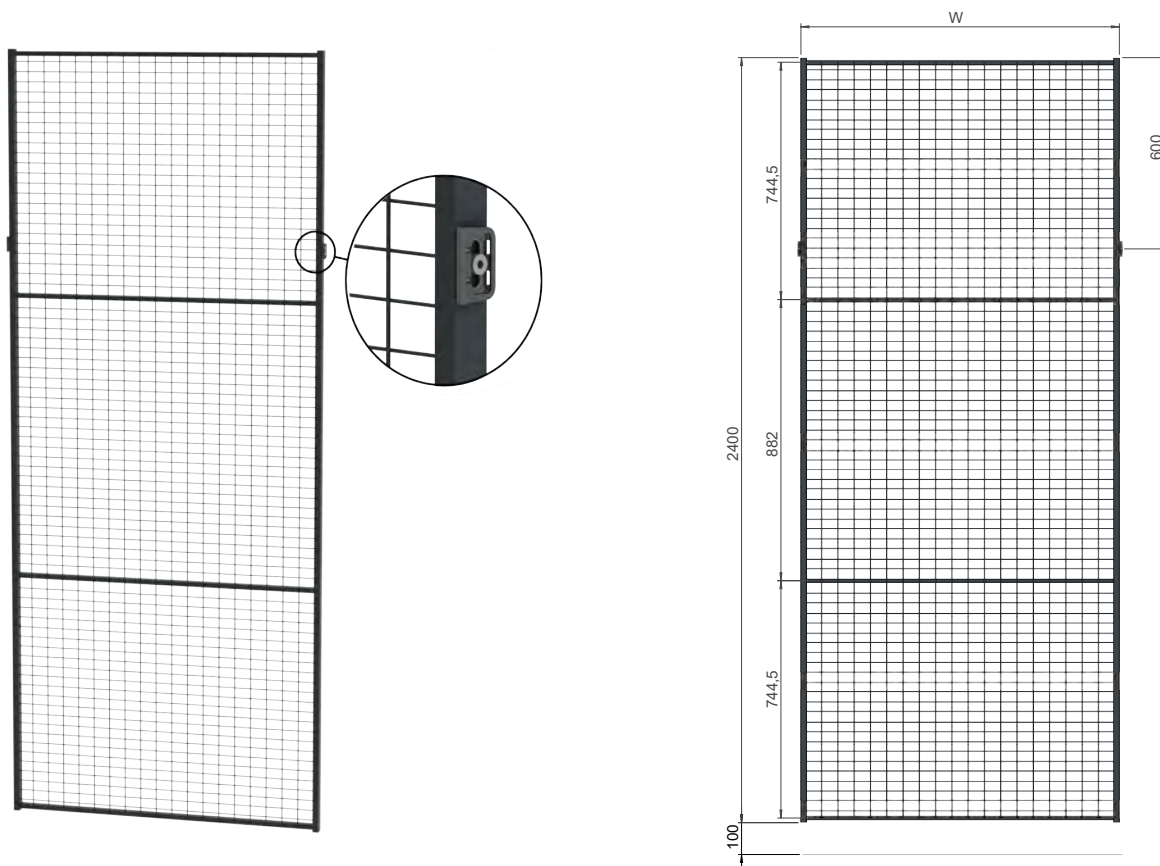
The WSS safety guarding can be added with different types of inspection doors.

Its also possible to add different standard options,  
WSS cable tray for easy and clean installation,  
and WSS QuickOn organizing components for more  
efficient working around the cell.



# WSS-WEM 250-1500

## WALL ELEMENT MESH



All wall elements are built out of sturdy steel tubing frames with two dividers.

Wire mesh in dark grey RAL 7016.

Other colours of RAL on request. (Example: WSS-WEM 1000 RAL XXXX)

### Wall element, wire mesh:

Height: 2 400 mm

With post it achieves a total height of 2 500 mm

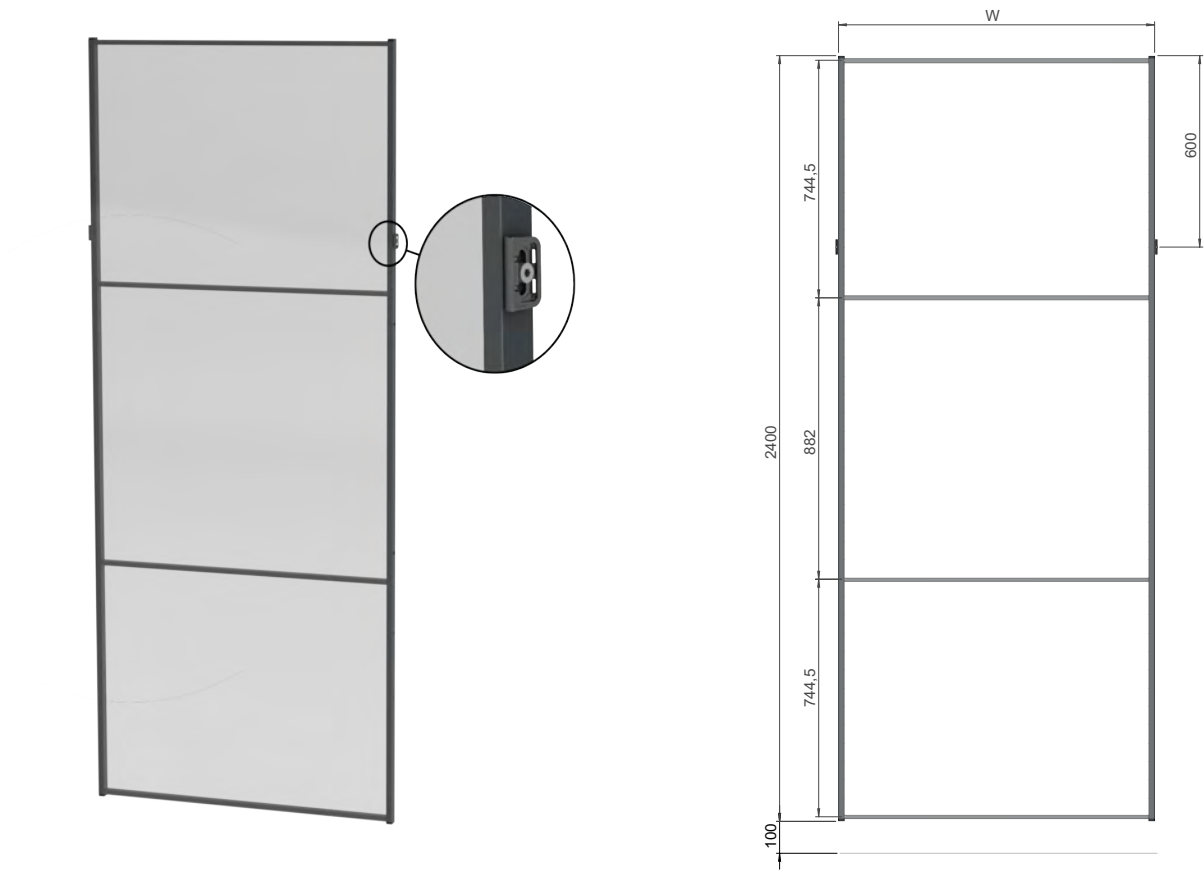
Mesh size: 51 x 31 mm

Wire mesh walls in dark grey RAL 7016

Article no	Type	Width(W) mm
06000345	WSS-WEM 250	250
06000346	WSS-WEM 400	400
06000347	WSS-WEM 500	500
06000348	WSS-WEM 700	700
06000349	WSS-WEM 800	800
06000350	WSS-WEM 1000	1000
06000351	WSS-WEM 1200	1200
06000352	WSS-WEM 1500	1500

# WSS-WEP 250-1500

WALL ELEMENT PLASTIC PETG



All wall elements are built out of sturdy steel tubing frames with two dividers.  
The wall elements are in transparent plastic.  
Material thickness 2 mm.  
Steel frame only in colour dark grey RAL 7016.

## Wall element, transparent plastic:

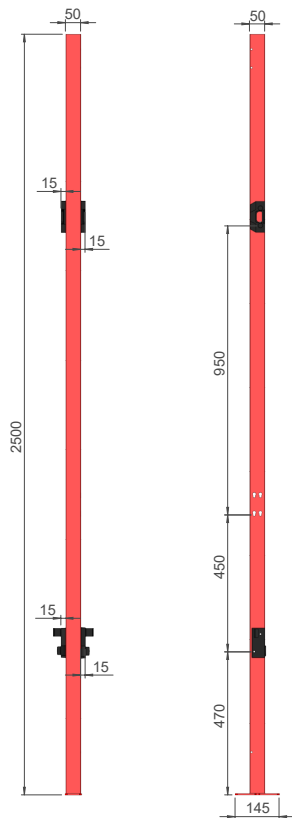
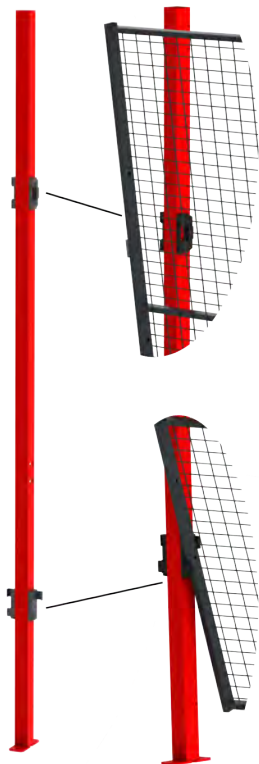
Height: 2 400 mm

With post it achieve a total height of 2 500 mm

Article no	Type	Width(W) mm
06000353	WSS-WEP 250	250
06000354	WSS-WEP 400	400
06000355	WSS-WEP 500	500
06000356	WSS-WEP 700	700
06000357	WSS-WEP 800	800
06000358	WSS-WEP 1000	1000
06000359	WSS-WEP 1200	1200
06000360	WSS-WEP 1500	1500

# WSS-P

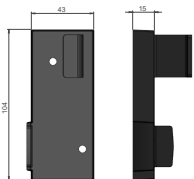
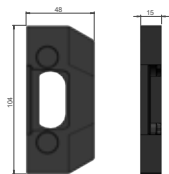
POST



Post for mounting of wall element.  
This provides a floor gap of 100 mm.

A complete set of fasteners for mounting  
post and elements are included.

Profile dimensions: 50 x 50 mm  
Height: 2500 mm  
Colour: red RAL 3001  
Other colours of RAL on request.



Article no	Type
06000336	WSS-P





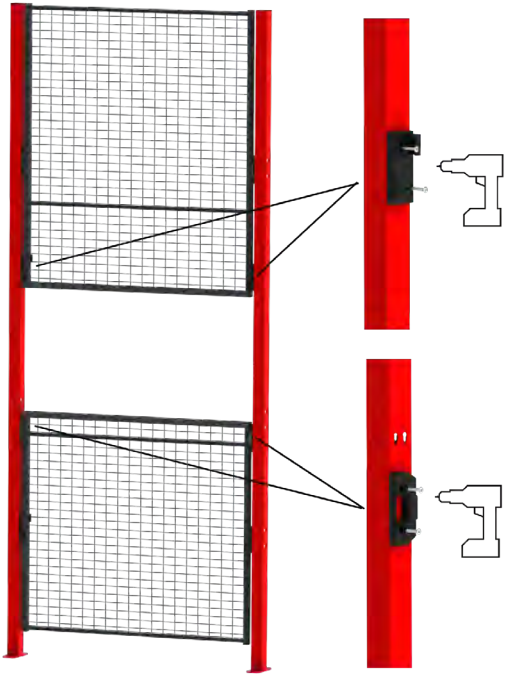
# WSS-Q0

QUICK ATTACHMENT OPTIONAL



The optional attachment WSS-Q0 is used when there is a need to add the new wall elements to an old existing WSS safety guarding. This product can also be needed if the wall element will be cut in height and need another position of fitting to the posts.

Article no	Type
06000343	WSS-Q0



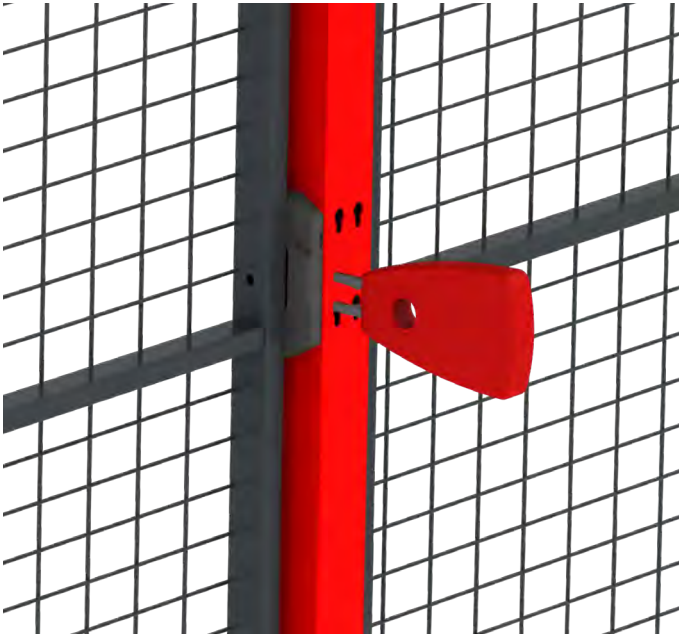
# WSS-QRT

QUICK RELEASE TOOL



WSS Quick release tool to disassemble wall elements from posts.

Article no	Type
06000344	WSS-Quick release tool



# WSS-PCP

PLUG COVER POST

Cover plugs to close open holes in posts.  
Easier to clean the guarding.

Colour: Black



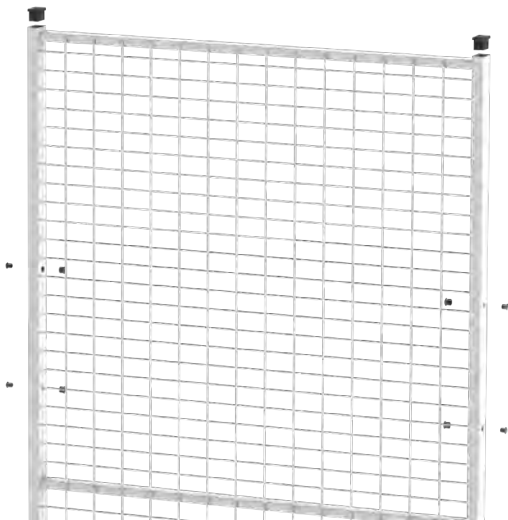
Article no	Type
06000406	WSS-PCP

# WSS-PCW

PLUG COVER WALL

Cover plugs to close open holes in wall elements.  
Easier to clean the guarding.

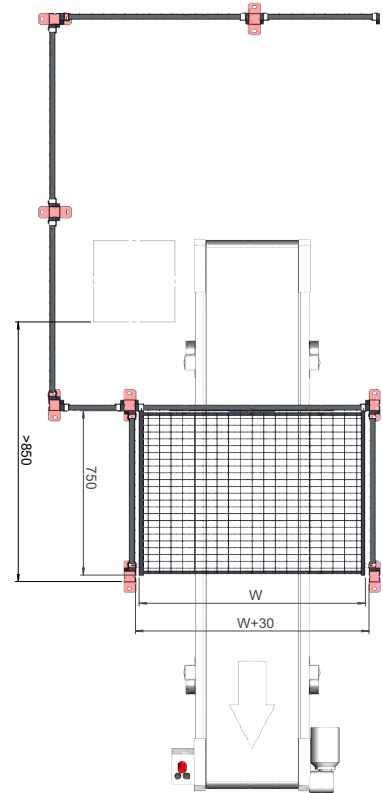
Colour: Black



Article no	Type
06000412	WSS-PCW

# WSS-TU 400-1500

TUNNEL



Tunnel for protection around opening in safety system. Minimizes the external dimensions of the robot cell, to prevent people's arms from entering the risk area.

Dimension: 750 x W mm

Colour: Dark grey RAL 7016.  
Other colours in RAL on request.

Article no	Type	Width(W) mm
06000377	WSS-TU 400	400
06000378	WSS-TU 500	500
06000379	WSS-TU 700	700
06000380	WSS-TU 800	800
06000381	WSS-TU 1000	1000
06000382	WSS-TU 1200	1200
06000383	WSS-TU 1500	1500



# WSS-SWD

## SWING DOOR



Door package for hinged door.  
The wall element is used as a hinged door.

Package includes two hinges, handle,  
magnetic door stop and frame tube.

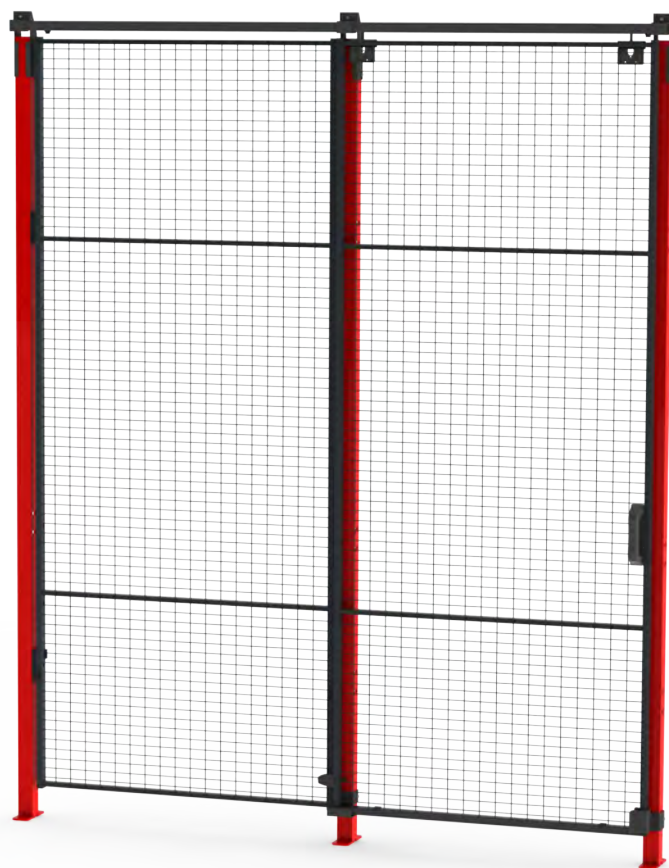
Wall elements and posts are not included.



Article no	Type
06000384	WSS-SWD

# WSS-SLD

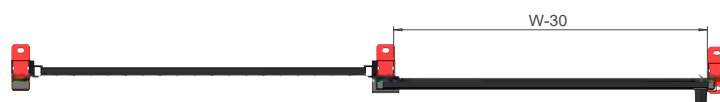
SLIDING DOOR



Door package for sliding door.  
The wall element is used as a sliding door.

Package includes upper profile bar with two carriages,  
lower guide frame with guide wheels, handle and magnetic door stop.

Wall elements and posts are not included.



Article no	Type
06000385	WSS-SLD

# WSS-LT

## ALARM LIGHT TOWER

Alarm tower for status indication.

Consists of three vertical lights resembling traffic lights, for indicating the robotic cell's operating status.

Includes mounting for attachment to post.

Red light = Robotic cell idle = stop

Yellow light = Alert signal,  
e.g. when filling/emptying is required

Green light = Robotic cell in operation

This provides a clear overview of production,  
even at a distance.

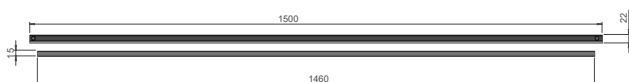
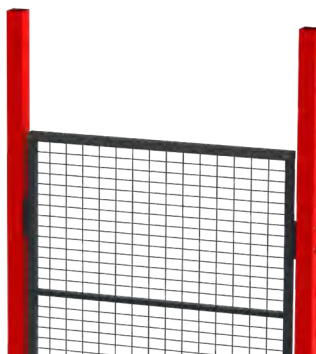
Article no	Type
06000389	WSS-LT





## WSS-CK

CUTTING KIT HORIZONTAL

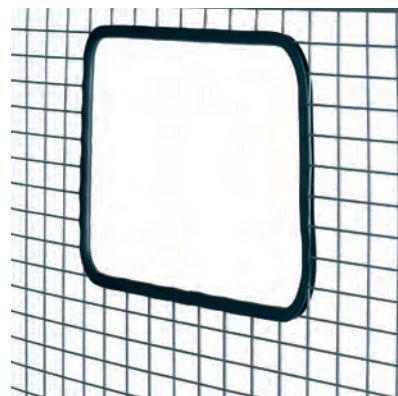


Cutting protection for cutting your mesh barrier to the exact size required. Fits all widths of wall elements.

Article no	Type
06000388	WSS-CK

## WSS-EP

EDGE PROFILE

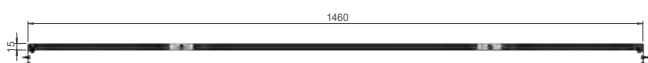


Protective soft profile for opening in wire mesh walls. Creates a soft, tidy edge around opening.

Article no	Type
06000010	WSS-EP

## WSS-RS

REINFORCEMENT STAY

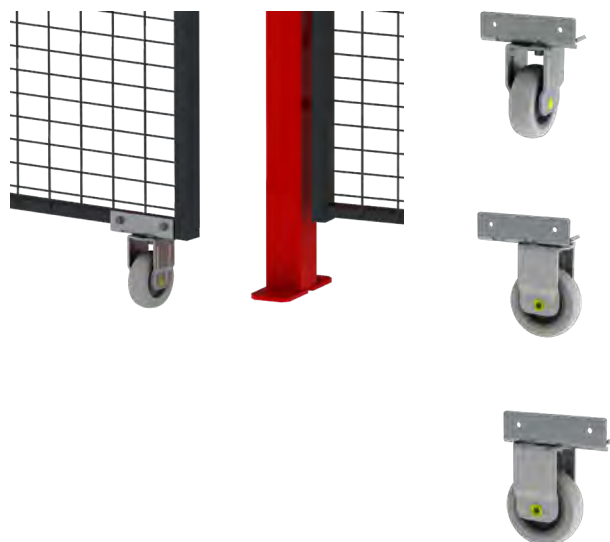


Fits all widths of wall elements.

Article no	Type
06000390	WSS-RS

## WSS-SW

SUPPORT WHEEL



Support wheel for larger door openings. Can be used on both door types.

Article no	Type
06000399	WSS-SW



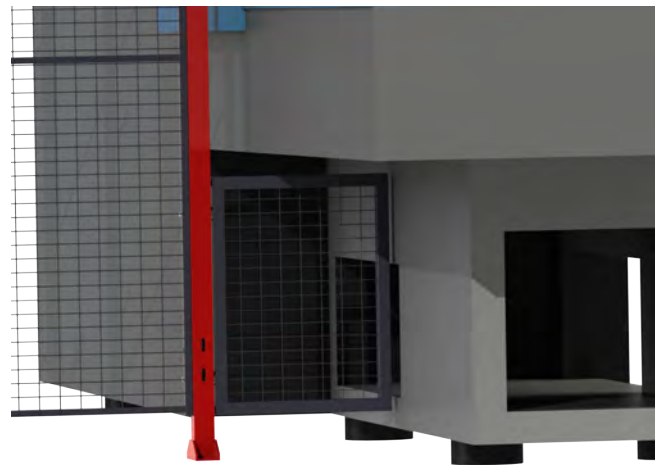
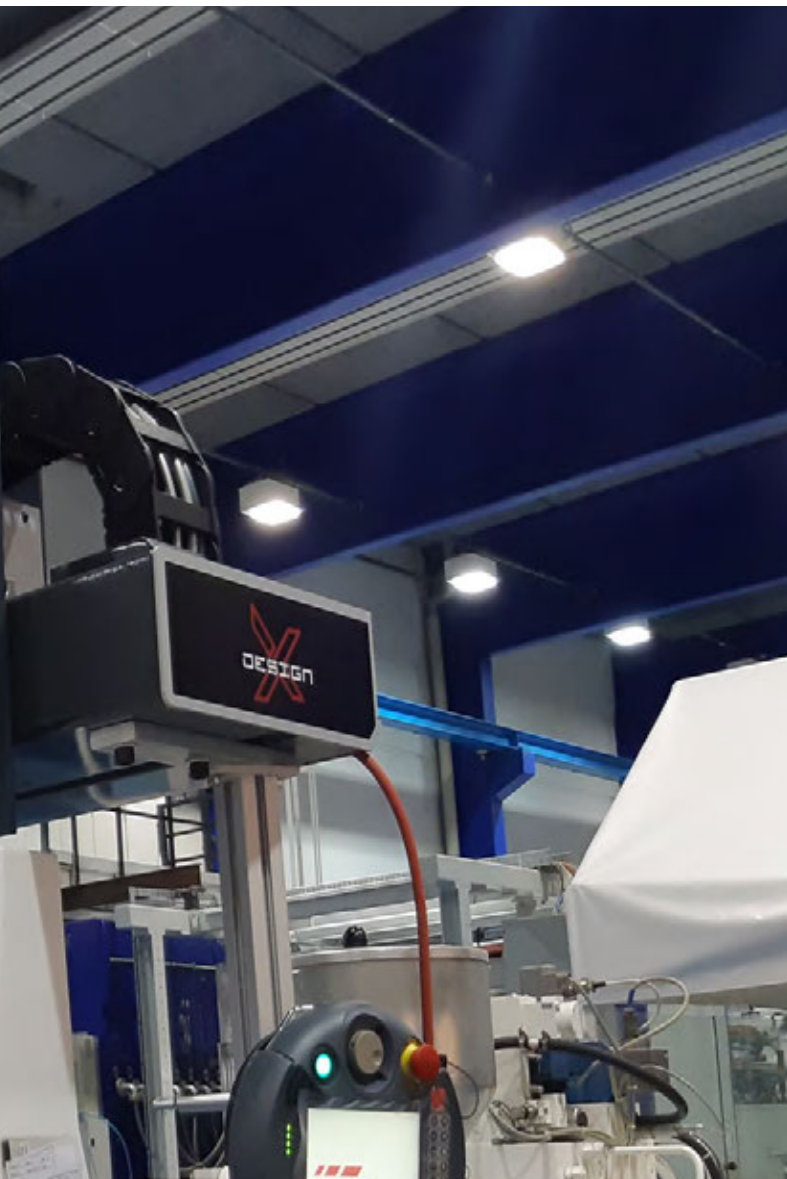
## PROFILE KIT



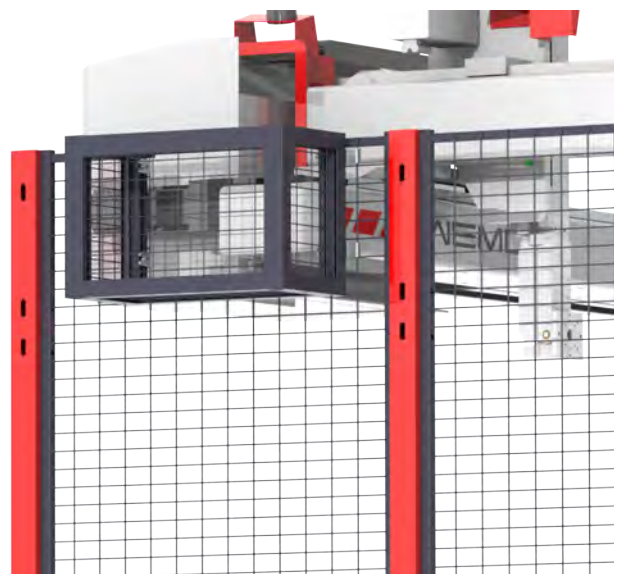
This profile kit is developed to be able to fulfill the safety distances according to EN ISO 13857 and it is a complement to the guarding.

This complements on the guarding is meant to be assembled on site. This solution will save the installation time.

This system is based on an aluminum profile with a track for mesh or transparent plastic sheet.



Customized wall element to cover gaps between safety guarding and machine frame.

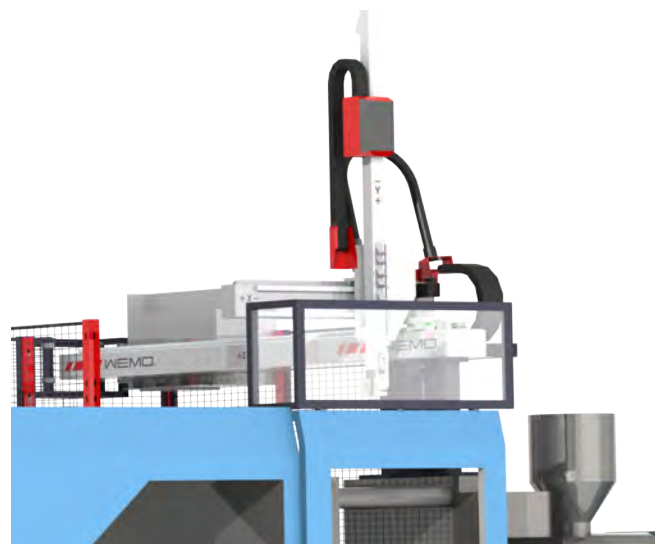


Special covers for outgoing elements.

## PROFILE KIT

The WSS profile kit can be used when the standardised wall elements don't fit or if it needs a special design of the protection.

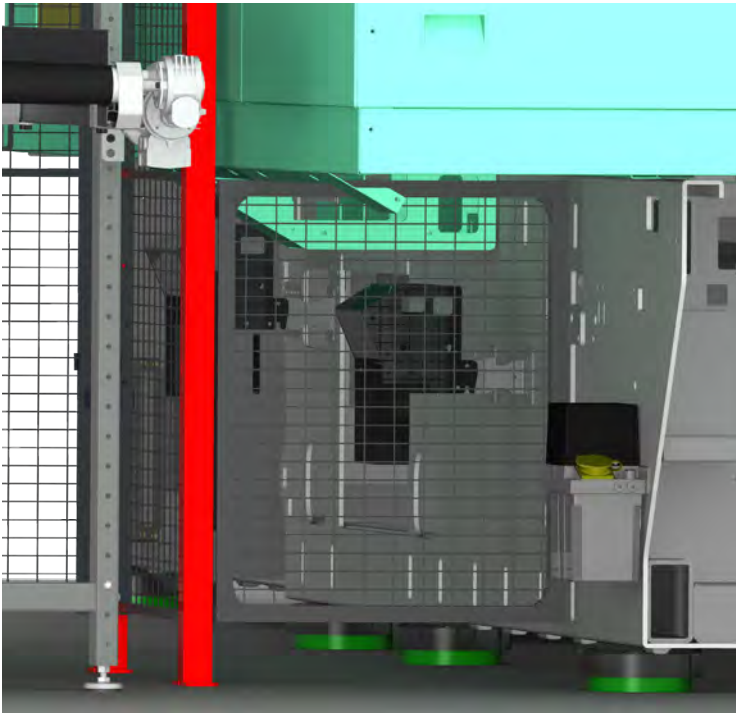
Gaps & openings, extension of the plane walls or additional protection on the moulding machine.



Additional safety elements for example machinedoors to reach the height of protective structure.



# EXAMPLE OF PROFILE KIT SOLUTIONS



Customized wall element for openings under machines.

Article no	Type	Quantity
06000246	WSS-SP3729	3
06000441	WSS-GPSV	4
06000287	WSS-KLN	3
06000415	WSS-FPS	2
06000248	WSS-TN	1



Additional guarding on top of the front operator door on machines.

Article no	Type	Quantity
06000246	WSS-SP3729	4
06000441	WSS-GPSV	4
06000424	WSS-FVN	1
06000426	WSS-FVGU	1
06000247	WSS-PS	1



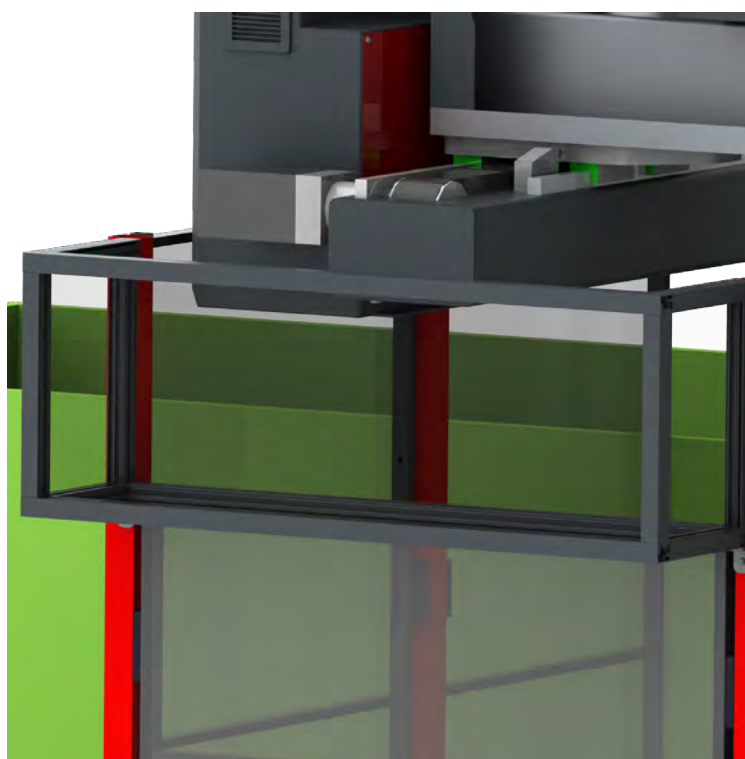
Extension of the guarding for longer parts of machines.

Article no	Type	Quantity
06000246	WSS-SP3729	5
06000441	WSS-GPSV	8
06000413	WSS-FVPL	2
06000287	WSS-KLN	8
06000417	WSS-FVGH	1
06000419	WSS-FVGV	1
06000248	WSS-TN	2

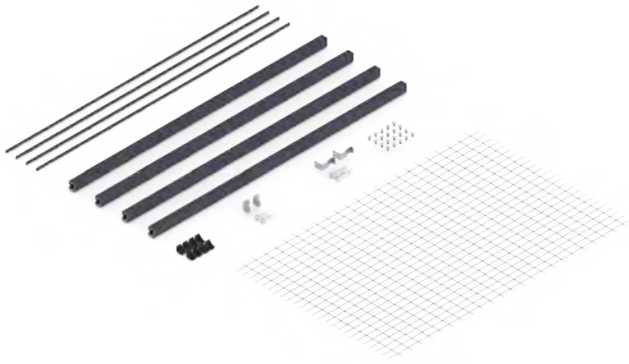


Angular protection on the machinedoors.

Article no	Type	Quantity
06000246	WSS-SP3729	6
06000441	WSGS-GPSV	16
06000424	WSS-FVP	4
06000247	WSS-PS	2



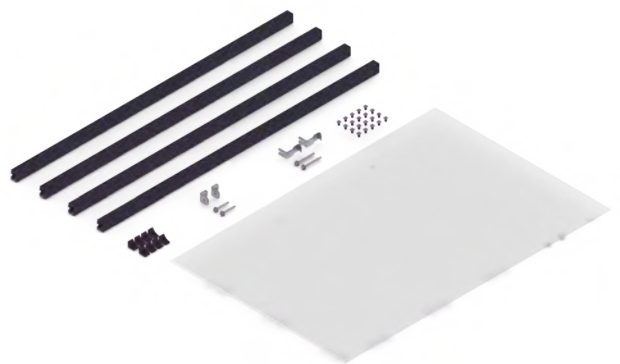
## WSS-PKN-1



Profilekit for making special protection with steel mesh in dark grey RAL7016. The kit includes profiles, fittings and mesh sheet.

Article no: 06000250	
Content	Quantity
WSS-SP3729	4
WSS-GPSV	8
WSS-FVP	2
WSS-FVN	2
WSS-TN	1
WSS-KLN	5
WSS-GPM	2

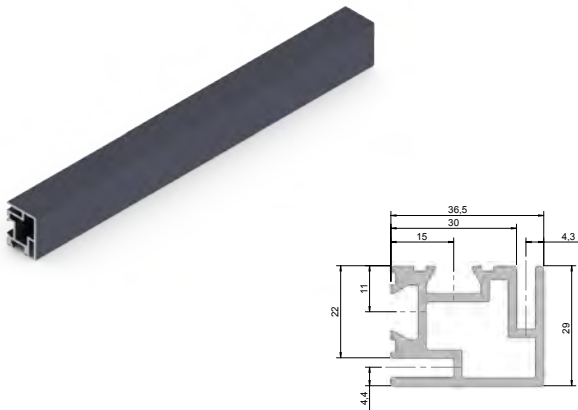
## WSS-PKP-1



Profilekit for making special protection with transparent plastic sheet. The kit includes profiles, fittings and plastic sheet.

Article no: 06000249	
Content	Quantity
WSS-SP3729	4
WSS-GPSV	8
WSS-FVP	2
WSS-FVN	2
WSS-PS	1
WSS-GPM	2

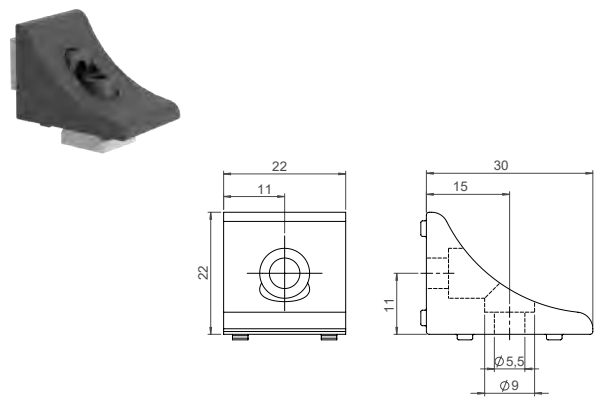
## WSS-SP3729



Aluminium profile for special protection.  
Length: 1165 mm

Article no	Type
06000246	WSS-SP3729

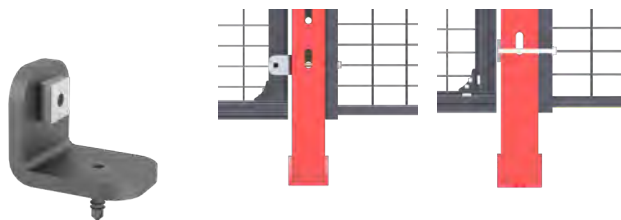
## WSS-GPSV



Angular support bracket for connecting profiles.

Article no	Type
06000441	WSS-GPSV

## WSS-FVP



Angular bracket for attachment on plane surface like post or frames etc.

Article no	Type
06000440	WSS-FVP

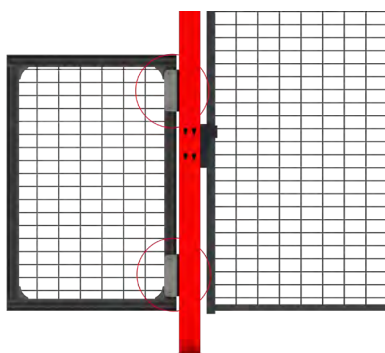
## WSS-FVPL



Angular bracket for attachment of longer profile frame. Can be used to assemble the frame on to the moulding machine. Includes 1 bracket and fasteners kit.

Article no	Type
06000413	WSS-FVPL

## WSS-FPS



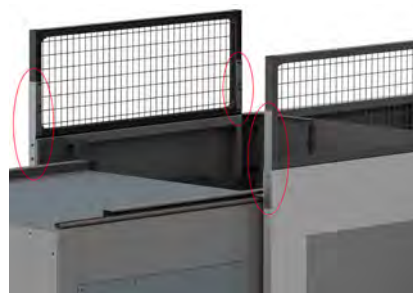
Angular bracket for attachment on plane surface like posts. Includes 1 bracket and fasteners kit.

Article no	Type
06000415	WSS-FPS

## WSS-FVGV



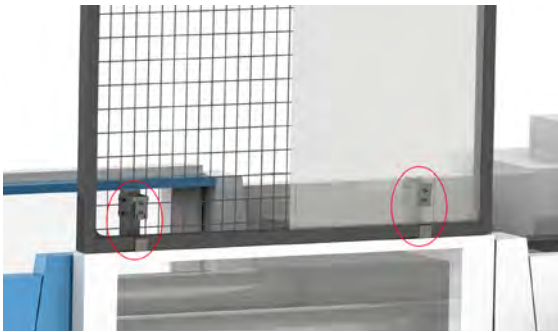
## WSS-FVGH



Right and left side bracket that can be used on the edge of a moulding machine door. Includes 1 bracket and fasteners kit.

Article no	Type
06000417	WSS-FVGH
06000419	WSS-FVGV

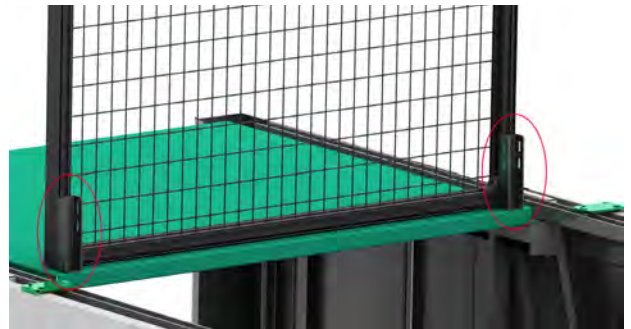
## WSS-FVGU



Multipurpose bracket that can be used as an attachment on the mesh and plastic sheet. Useful when frame is bigger than the door on moulding machine. Includes 1 bracket and fasteners kit.

Article no	Type
06000426	WSS-FVGU

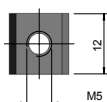
## WSS-FVH



Bracket for attachment on the vertical profile of a frame. Includes 1 bracket and fasteners kit.

Article no	Type
06000424	WSS-FVH

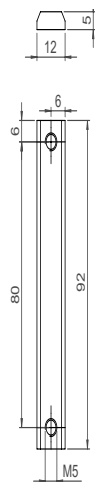
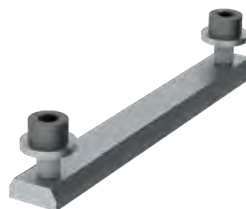
## WSS-GPM



Slotted nut with screw and washer M5x10.

Article no	Type
022036	WGS-GPM-M5x10

## WSS-GPLM

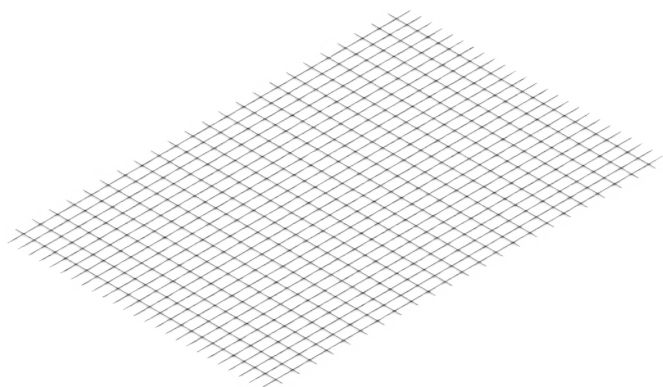


Long slotted nut with 2 x screw and washer M5x10.

Article no	Type
06000446	WSS-GPLM M5x10(L=80)



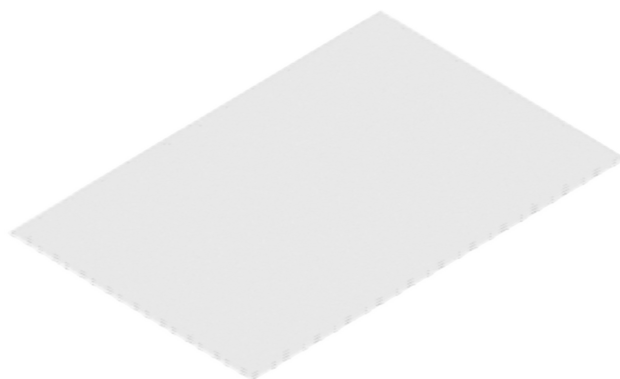
## WSS-TN



Mesh wall sheet in darkgrey RAL 7016.  
Dimension/Sheet: 1190x790 mm.  
Wire dimension: Ø2 mm.

Article no	Type
06000248	WSS-TN

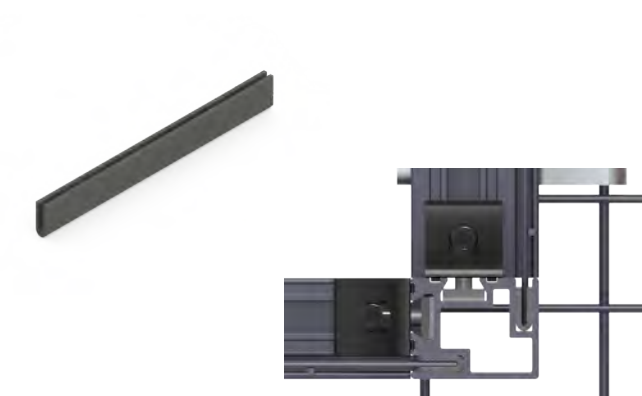
## WSS-PS



Transparent plastic sheet.  
Dimensions/Sheet: 1190x790 mm.  
Thickness : 4 mm.

Article no	Type
06000247	WSS-PS

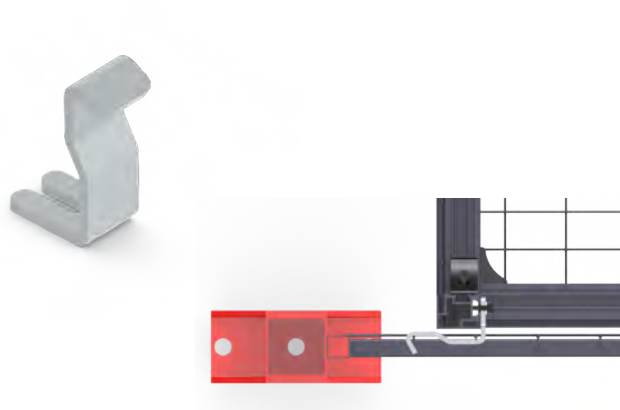
## WSS-KLN



Rubberstrip for fixation of mesh wall in profile track.  
Can be ordered in length/meter.

Article no	Type
06000287	WSS-KLN

## WSS-FVN



Bracket for attachment on mesh wall.

Article no	Type
06000276	WSS-FVN



## EXAMPLE OF PRINCIPLE DESIGN

The fittings can be used for several type of installation direct on the WSS safety wall elements or on machine frames.



We offer a wide standard product programme that meets the requirements for several types of cable installations around the automation.

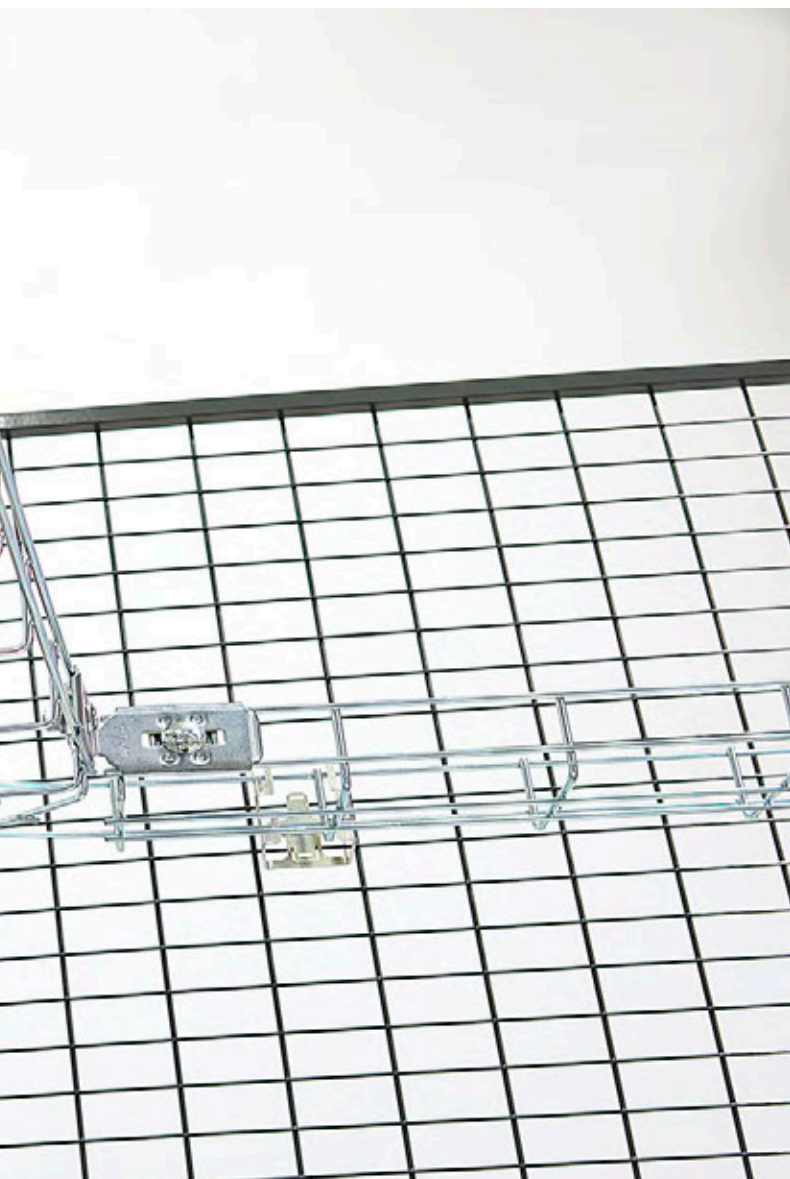


All our standard products are available

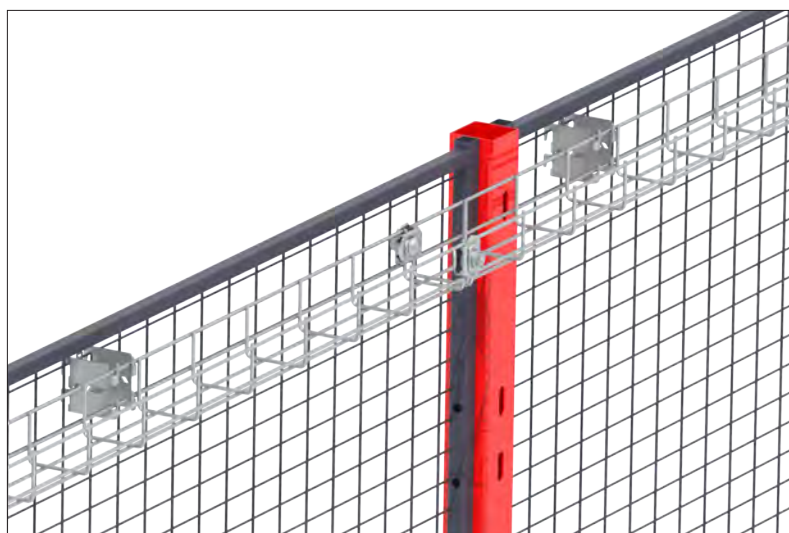
# WSS CABLE TRAY

**Fast and easy way to integrate cable installation to the safety guarding.**

Wemo cable tray is a flexible cable management system based on wire trays, fittings, mountings and accessories.



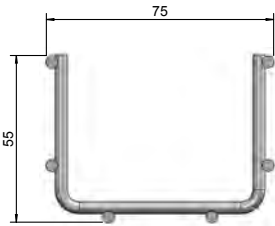
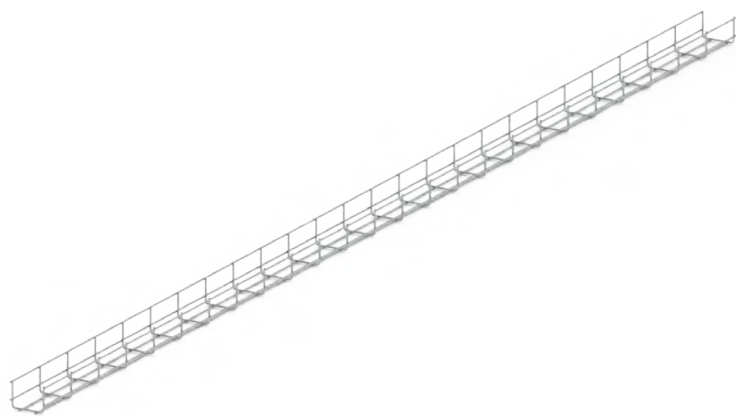
Available from stock, which enables quick deliveries.



The system is based on two sizes of trays. Width: 75 mm or 120 mm.



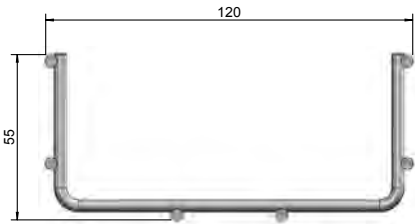
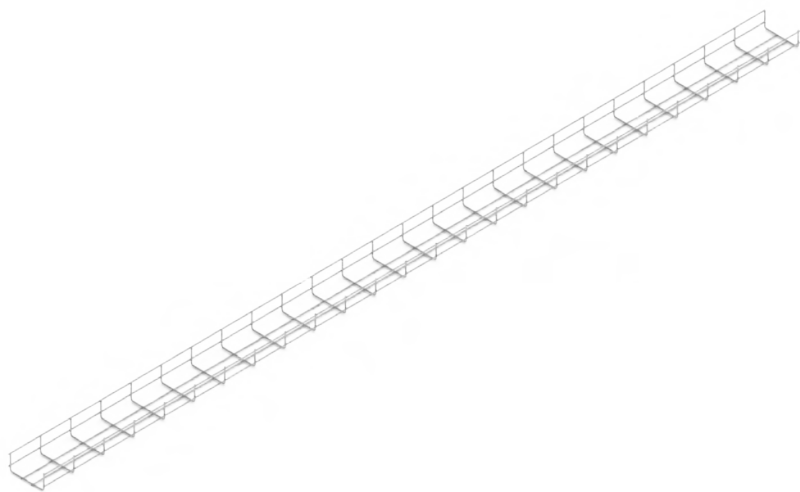
# WSS-CT75-55



Cable tray for smaller amount of cables  
with dimension of 75 mm width and 55 mm height.  
The trays are available in a length of 2 500 mm.

Article no	Type
06000254	WSS-CT75-55

# WSS-CT120-55



Cable tray for larger amount of cables  
with dimension of 120 mm width and 55 mm height.  
The trays are available in a length of 2 500 mm.

Article no	Type
06000255	WSS-CT120-55



## WSS-CT-FB-MINI



Bracket for connection of trays. Size mini.

Article no	Type
06000256	WSS-CT-FB-Mini

## WSS-CT-FB-MIDI



Bracket for connection of trays. Size midi.

Article no	Type
06000258	WSS-CT-FB-Midi

## WSS-CT-FAB-1



Bracket for angular connection of trays.

Article no	Type
06000257	WSS-CT-FAB-1

## WSS-CT-BN-M8X25



Flange bolt M8x25 and flange nut M8. 10 pcs/set.

Article no	Type
06000259	WSS-CT-BN-M8x25

## WSS-CT-MBM-2



Mounting bracket on WSS wall element in mesh.

Article no	Type
06000397	WSS-CT-MBM-2

## WSS-CT-MBW-1



Mounting bracket on frames or walls.

Article no	Type
06000251	WSS-CT-MBW-1



## WSS QUICK ON

- SIMPLE
  - READYMADE SOLUTIONS THAT CAN BE INSTALLED WITHOUT SPECIAL TOOLS
- FLEXIBLE
  - EASILY ADAPTED AND EXTENDED TO SUIT NEEDS
- COST-EFFECTIVE
  - LOW INVESTMENT COST FOR MORE EFFICIENT PRODUCTION



## Organization

The various components of the system are easily mounted on safety enclosures using wire mesh modules.



## Organizing tools

Toolboards and holders for brooms, shovels etc. Provide handy storage for everything you need to keep the area around production cells clean and tidy.



## Organizing End-Of-Arm-Tooling (EOAT)

Keep the EOAT's you are using with the robot close to hand using WGS Quick-lock mounting brackets.



## Information and documentation

The straightforward transfer of important information such as instructions, documentation and monitoring improves production efficiency and safeguards processes.

# WSS-QUICK ON

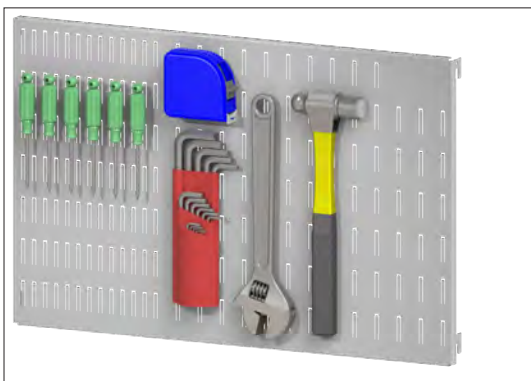
## KEEPING THINGS ORGANIZED

We offer a complete range of products for keeping things organized around robot cells and other automation equipment that is enclosed by a safety system.

Having everything in the right place at the right time eliminates the need to hunt around for the items you need for tasks such as cleaning, passing on information, documenting or setting up automation equipment. This often saves unnecessary delays and downtime in production cells.



## WSS-VT



Toolboard for organising the needed tools just by the automation cell.

Dimension: Width 598 mm, height 382 mm.

(Tools are not included)

Article no	Type
06000163	WSS-VT

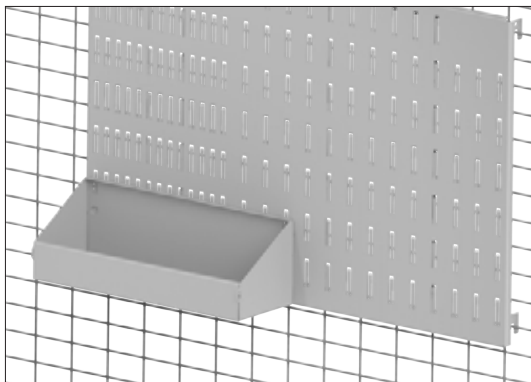
## WSS-SPH



Spray can holder for attachment on tool board.  
(WSS-VT)

Article no	Type
06000164	WSS-SPH

## WSS-UL



Universal storage box for attachment on tool board. (WSS-VT)

Article no	Type
06000165	WSS-UL

## WSS-UH

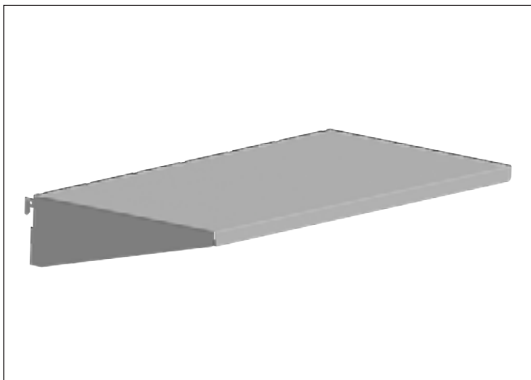


Adapterplate to attachment holder for handheld controllers.

Article no	Type
06000183	WSS-UH



## WSS-HY



Shelf for attachment on mesh walls for example terminal or writing desk.

Article no	Type
06000166	WSS-HY

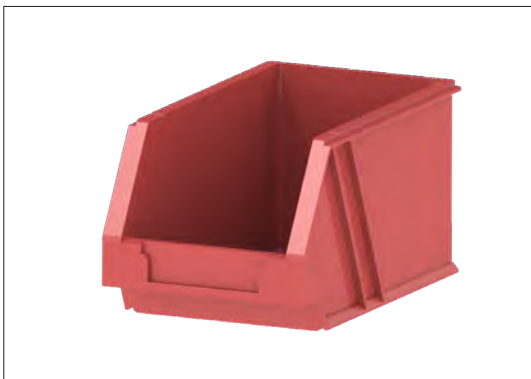
## WSS-HPL



Picking crate holder to attachment under shelf.  
(WSS-HY)  
Possible to mount 3 crateholders under each shelf.  
(Picking crate is not included)

Article no	Type
06000168	WSS-HPL

## WSS-PL



Picking crate in plastic for storage of parts and fittings.

Article no	Type
06000167	WSS-PL

## WSS-MUH



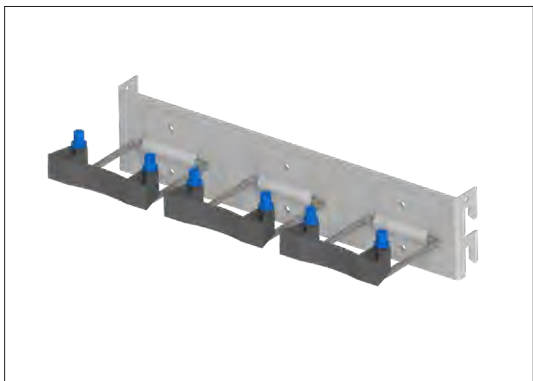
Mug holder for can or coffemug attachment on meshwalls.  
(Mug is not included)

Article no	Type
06000170	WSS-MUH

## WSS-MU

Article no	Type
06000169	WSS-MU

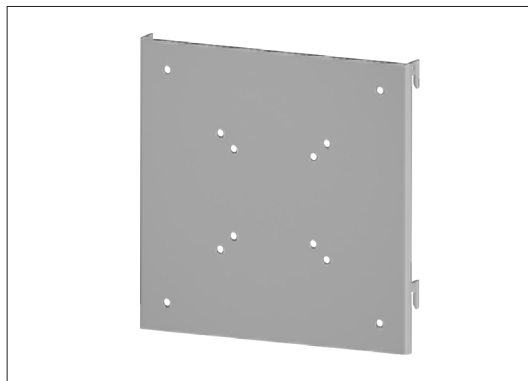
## WSS-RH



Toolholder for cleaning tools like brooms and shovels.

Article no	Type
06000171	WSS-RH

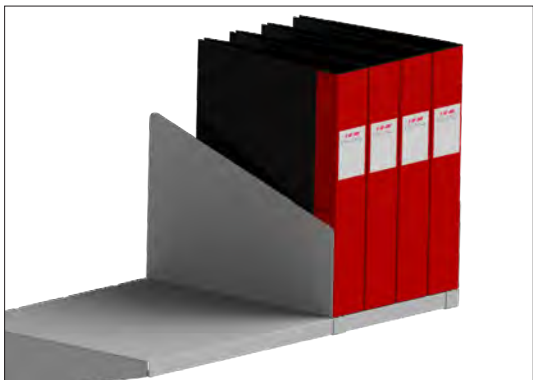
## WSS-SH



Display holder with vesa hole pattern for mounting screen display and monitors.

Article no	Type
06000172	WSS-SH

## WSS-PSV, PSH



File support for organizing on shelves.  
WSS-PSV -for left side of files  
WSS-PSH- for righth side of files  
(Shelf is not included WSS-HY)

Article no	Type
06000173	WSS-PSV
06000174	WSS-PSH

## WSS-PH



File holder attachment on mesh walls.

Article no	Type
06000178	WSS-PH

# WSS-HQL



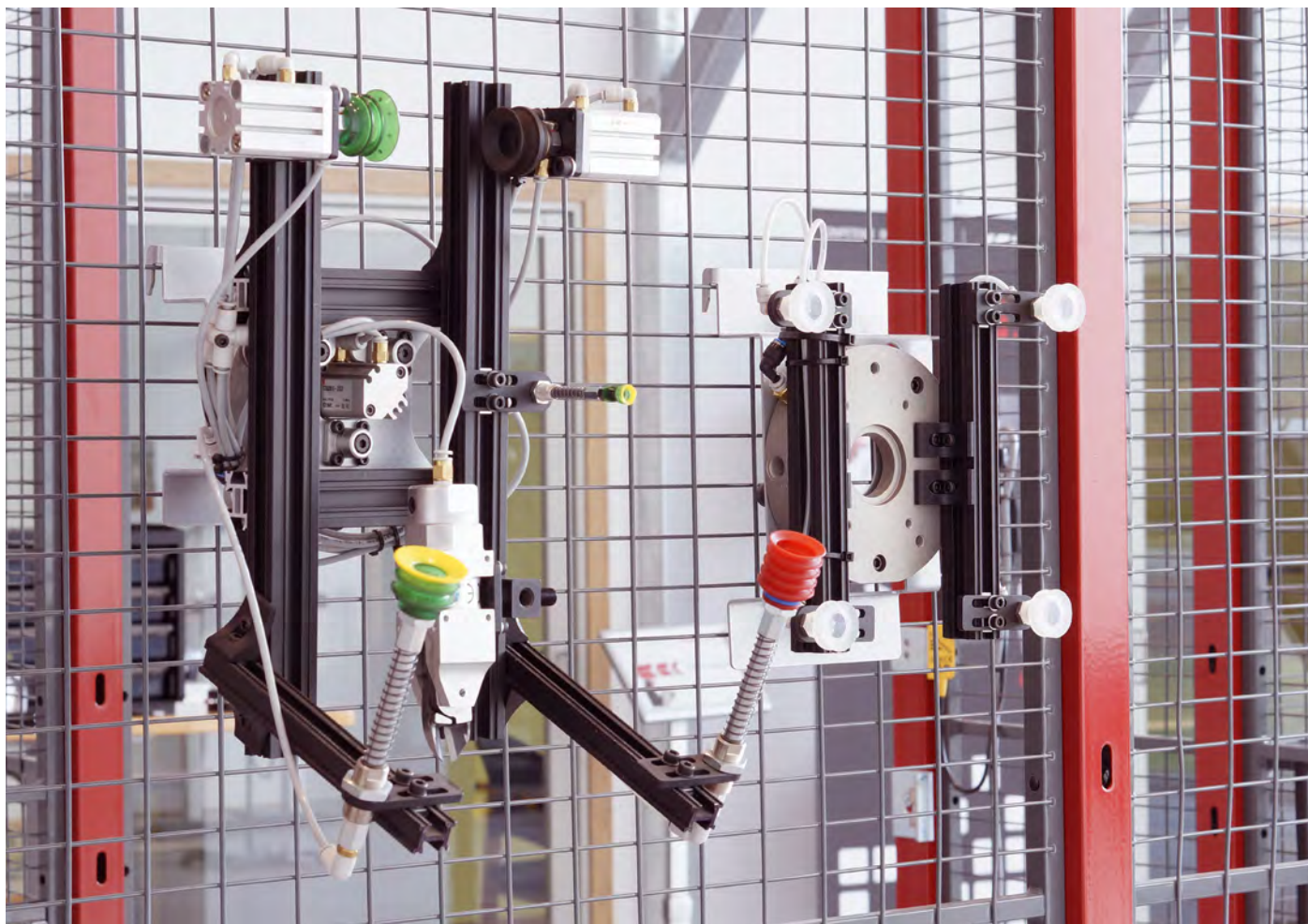
Holder for WGS QuickLock gripper parts for organising of End-Of-Arm-Tooling.

WSS-HQL Mini (for WGS-QLGD1 mini)

WSS-HQLMidi (for WGS-QLGD1 midi)

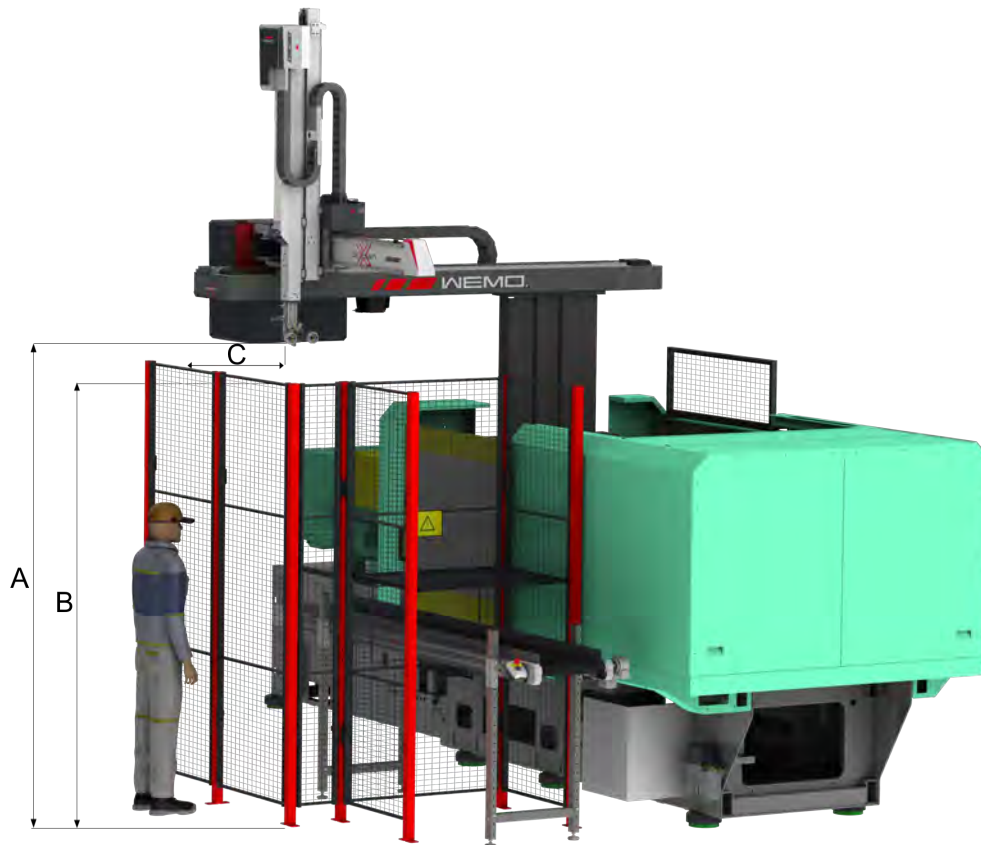
WSS-HQL Maxi (for WGS-QLGD1 maxi)

Article no	Type
06000263	WSS-HQL Mini
06000179	WSS-HQL Midi
06000180	WSS-HQL Maxi



# SAFETY REGULATIONS

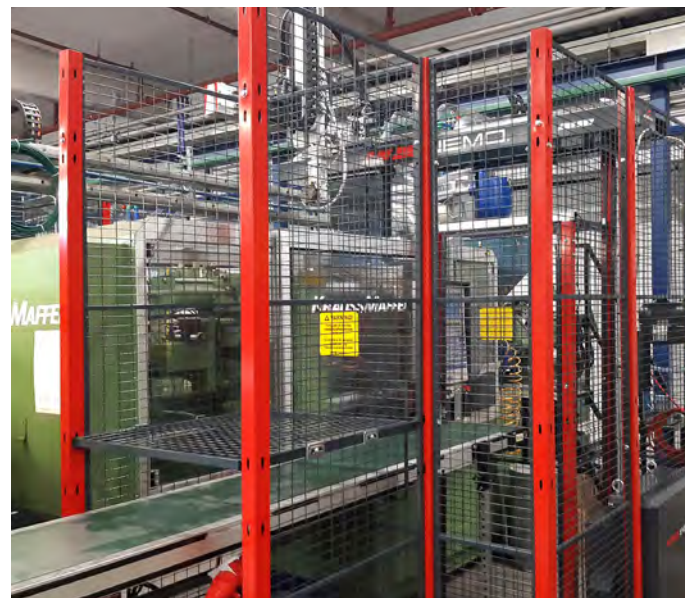
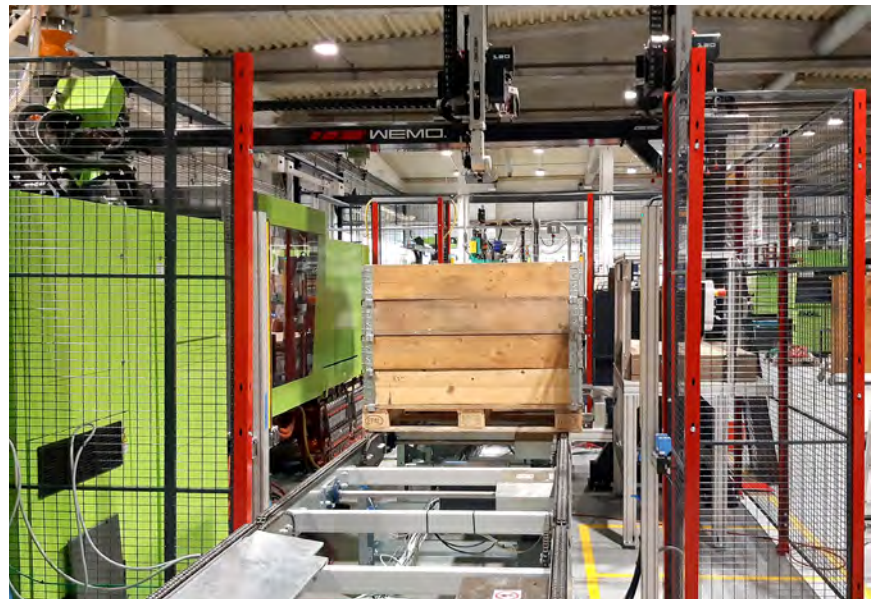
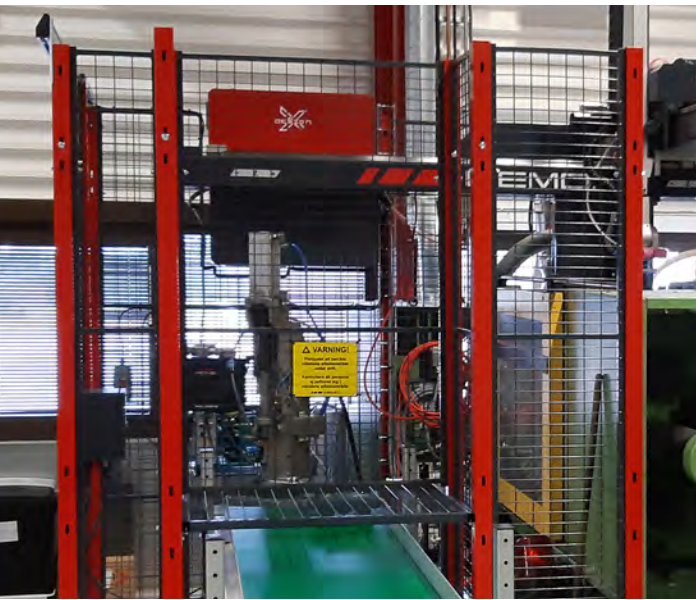
WSS- Wemo safety guarding complies with the Machinery directive's demands on permanent guards from 29 of December, 2009 EN 2006/42/EC.



ISO 13857:2019 Table 2	Height of protective structure (Safety cage)									
	B									
	1000	1200	1400	1600	1800	2000	2200	2400	2500	2700
Height of hazard zone, moving part of robot	Horizontal safety distance from hazard zone, moving part of robot									
A	C									
2700	0	0	0	0	0	0	0	0	0	0
2600	900	800	700	600	600	500	400	300	100*	0
2400	1100	1000	900	800	700	600	400	300	100*	0
2200	1300	1200	1000	900	800	600	400	300	0	0
2000	1400	1300	1100	900	800	600	400	0	0	0
1800	1500	1400	1100	900	800	600	0	0	0	0
1600	1500	1400	1100	900	800	500	0	0	0	0
1400	1500	1400	1100	900	800	0	0	0	0	0
1200	1500	1400	1100	900	700	0	0	0	0	0
1000	1500	1400	1000	800	0	0	0	0	0	0
800	1500	1300	900	600	0	0	0	0	0	0
600	1400	1300	800	0	0	0	0	0	0	0
400	1400	1200	400	0	0	0	0	0	0	0
200	1200	900	0	0	0	0	0	0	0	0
Protective structures lower than 1400 mm should not be used without additional safety measures.										
2500 = Height of WEMO Safety System										
*WSS-WEP=100mm, WSS-WEM=200mm										



# WSS GUARDING SOLUTIONS



# WEMO THE GROUP

## **PASSION FOR AUTOMATION**

The company Wemo has always been based on the initiatives of incredibly innovative people - people who love what they are doing and with high ambitions. Our specialists in robot manufacturing ensure the highest quality and long product lifespan.

Our professional support team analyses our customers' situations so that they can provide training and a maintenance procedure for trouble-free operation. Wemo has an active, well-educated network for support in more than 40 countries around the world

## **STAFFED BY ENGINEERS**

## STRONG TOGETHER

### **HAHN GROUP**

Wemo Group belongs since 2015 in the business unit Material handling in the HAHN Group, a German based automation specialist. Together with Waldorf and GeKu this business unit can offer the whole range from standard portfolio of robots to high end complex automation lines. Total turnover for 2019 in Hahn Group will be estimated to 240 million Euro and are 1400 employees with factories in 14 countries around the world. [www.hahn.group](http://www.hahn.group)

### **ADVANCED AUTOMATION**

### **HERITAGE**

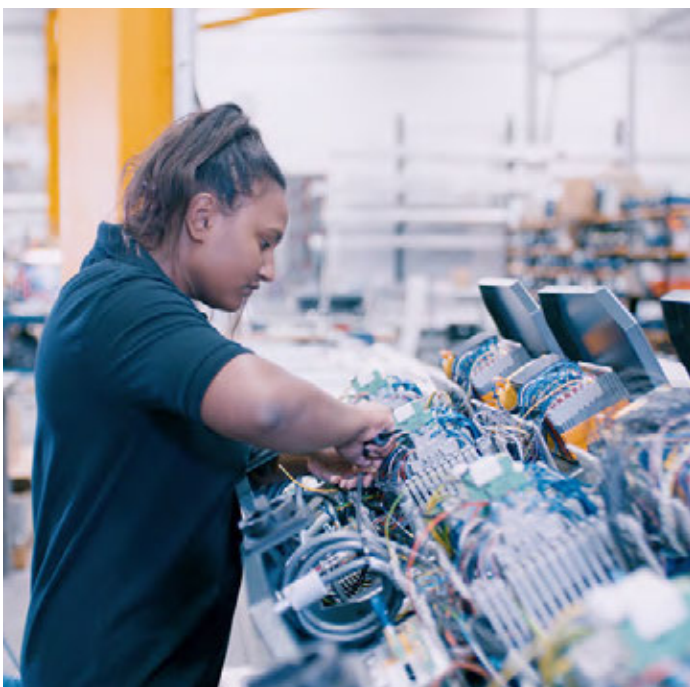
The existence of Wemo Automation is and has always been based on the initiatives of incredibly innovative people, with a natural connection to life. Our inspiration comes from the silence and clarity of nature which is fundamental to our way of life and work. Using the philosophy of nature inspires us to find the easiest and most simple way to use state of art technologies.

### **IDEALS & INSPIRATION**

THIS IS WHAT WE CALL "NORDIC INSPIRATION "



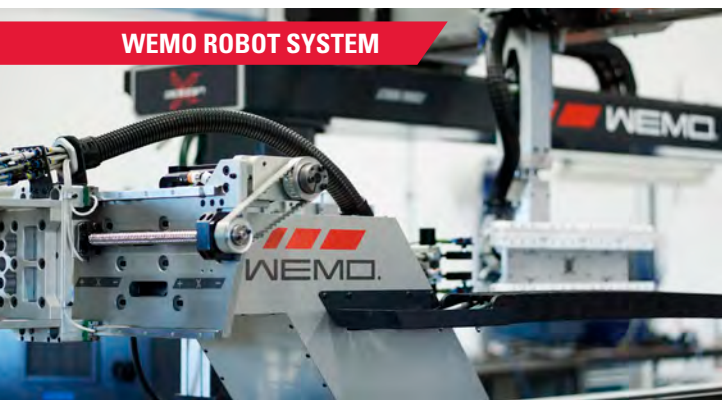




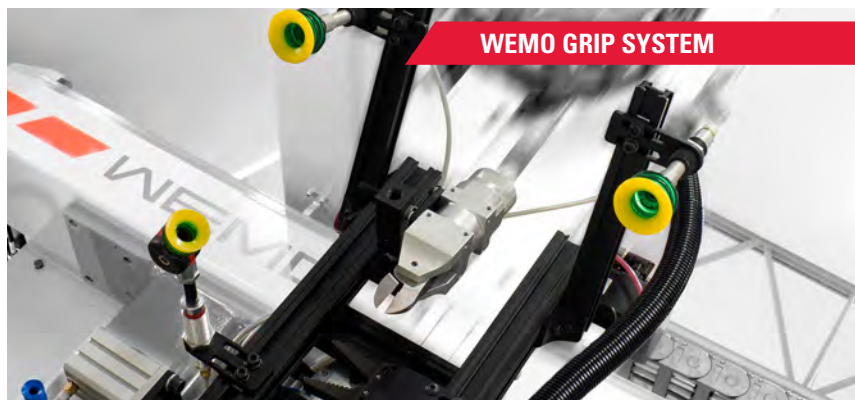


# WEMO PRODUCTS

WEMO ROBOT SYSTEM



WEMO GRIP SYSTEM



WEMO CONVEYOR SYSTEM



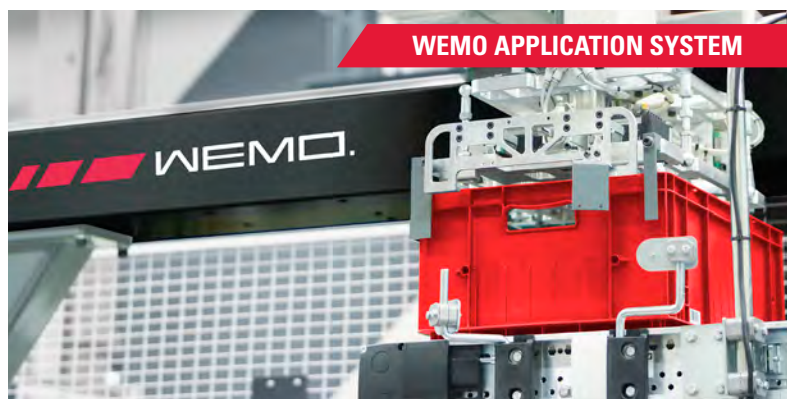
WEMO SAFETY SYSTEM



WEMO SMARTDRIVE SYSTEM



WEMO APPLICATION SYSTEM



PASSION FOR AUTOMATION



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part of the **HAHN**GROUP