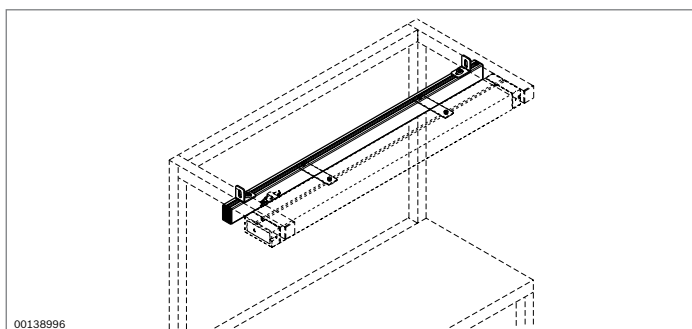
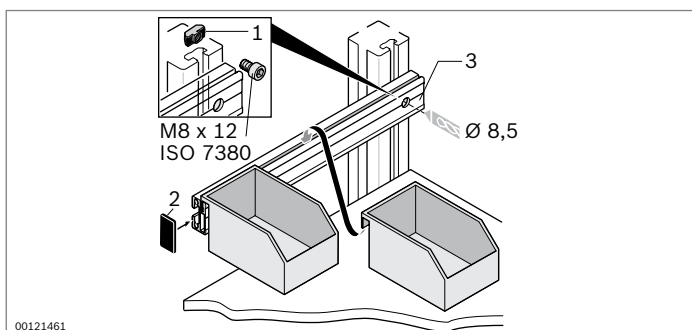


## Applications

### Suspension profile application

- ▶ To provide ready access to plastic grab containers and trays at the workstation or in the material shuttle
- ▶ Customized assembly from individual components (cf. “Components” chapter, see page 176)

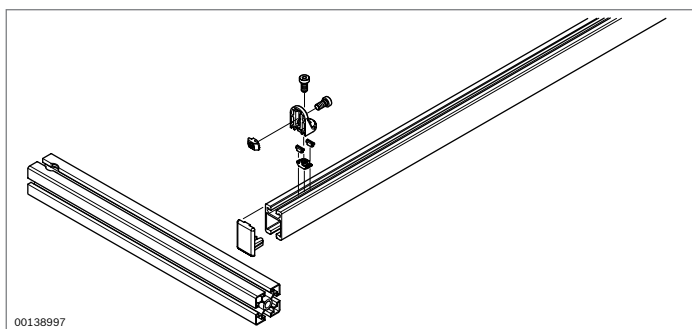
See technical data (page 196)

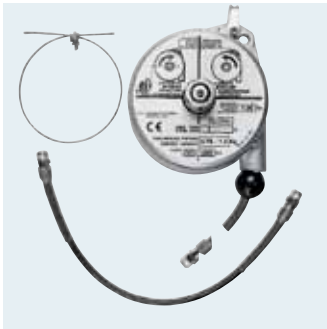


### Hanger application

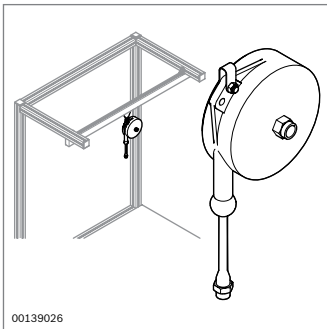
- ▶ For the ergonomic supply of tools in combination with trolley or slide hanger and spring pull
- ▶ For hanging system lamps at the workstation
- ▶ Customized assembly from individual components (cf. “Components” chapter, see page 176)

See technical data (page 197)

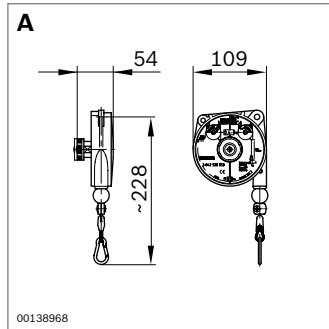




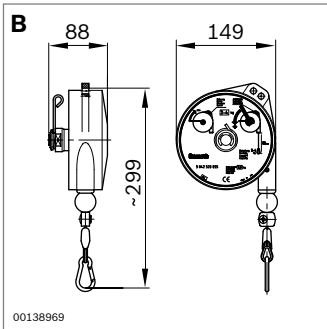
00120990



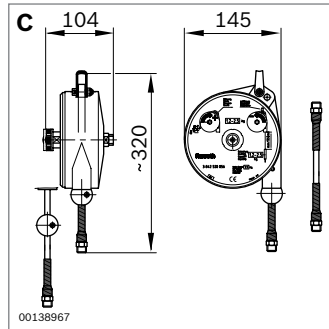
00139026



00138968



00138969



00138967

## Spring pull

### Spring pull (A, B)

- ▶ Ergonomic positioning of tools, e.g., screwdrivers, to reduce uneven and high strain on workers
- ▶ The bearing load and cable length are adjustable
- ▶ Assembly at workstation with hanger and trolley or slide hanger

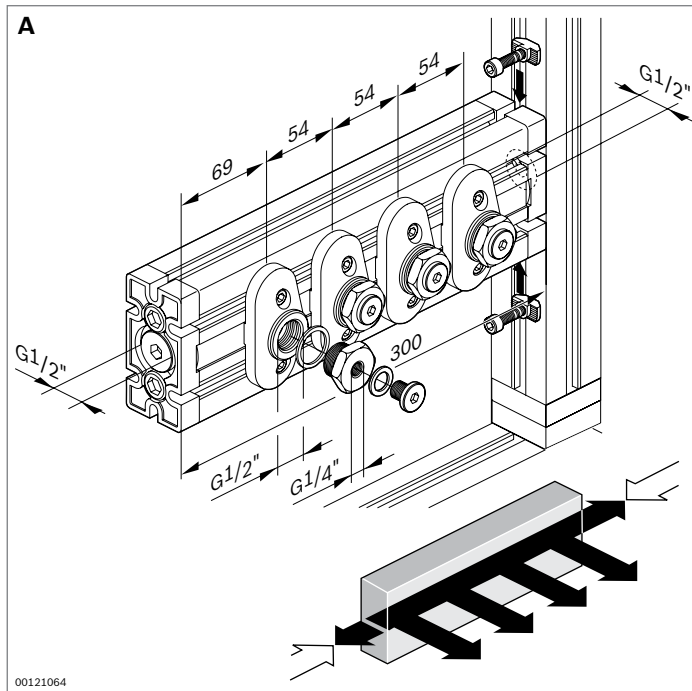
Scope of delivery: includes safety wire

### Spring pull with retractable cable (C)

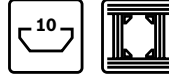
- ▶ Ergonomic positioning of air-powered tools, e.g., pneumatic screwdrivers, to reduce uneven and high strain on workers
- ▶ Compressed air supplied via air bar
- ▶ Compressed air connection for feed line and tool connection: G1/4"
- ▶ The bearing load and cable length are adjustable
- ▶ Assembly at workstation with hanger and trolley or slide hanger

Scope of delivery: includes safety wire, connection tubing G1/4"

	Bearing load (kg)	System weight (kg)	Retractable cable (mm)	No.
A Spring pull	0.4 ... 1.0	0.6	1600	<b>3 842 520 053</b>
	1.0 ... 2.0	0.6	1600	<b>3 842 520 054</b>
B Spring pull	2.0 ... 4.0	2.0	2000	<b>3 842 520 055</b>
C Spring pull with retractable cable	1.2 ... 2.5	1.4	1350	<b>3 842 520 056</b>



### Air bar (A)

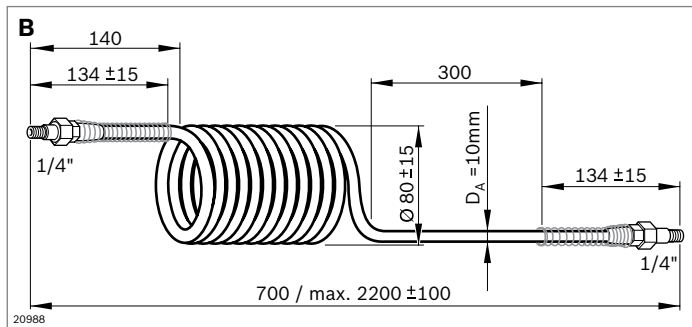


- ▶ Distributor and connection point at workstation for compressed air for up to 4 tools
- ▶ Max. 8 bar
- ▶ Compressed air connection for feed line: G1/2"
- ▶ Compressed air connection for discharge: G1/2" or G1/4" (reducing adapters)

Material of seals: NBR

Scope of delivery: includes fastening material for 10 mm slot

	No.
<b>A</b> Air bar	<b>3 842 352 088</b>



### Spiral hose (B)

- ▶ For connecting tools to the air bar
- ▶ Hose connection with kink protection, rotatable with sealing ring; 1/4" external thread
- ▶ Max. extension length 2200 mm
- ▶ Operating pressure:  $P_{max} = 8 \text{ bar}$  at 20 °C
- ▶ Requires de-oiled air

Hose material: PU; blue

Connection material: steel

	No.
<b>B</b> Spiral hose	<b>3 842 544 790</b>



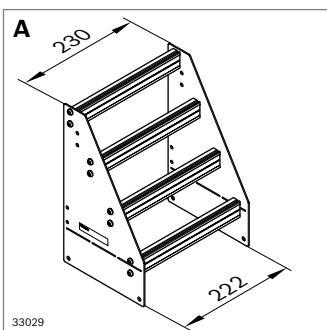
34138

**Tool shelf  
Tool holder**

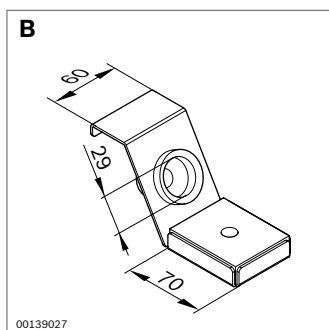


- ▶ Tool shelf available with a fixed width of 230 mm
- ▶ For ergonomic and handy positioning of tools at the workstation
- ▶ Tool holders are hung in the tool shelf.
- ▶ Customized assembly of individual components: see “Components” section (page 176)

Material **B**: VA



33029



00139027

	ESD	No.
<b>A</b> Tool shelf		<b>3 842 554 909</b>
<b>B</b> Tool holder for soldering irons		<b>3 842 514 524</b>



22378

## Tool holders Container mount

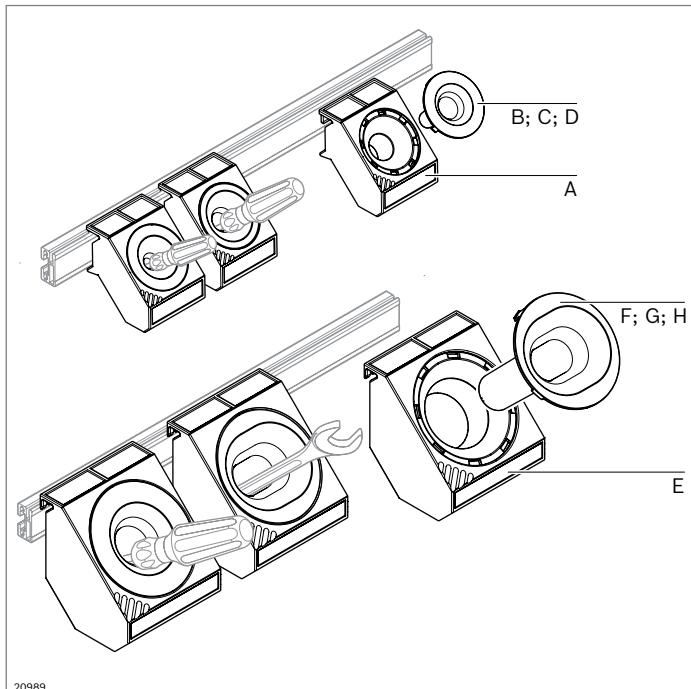


### Tool holders

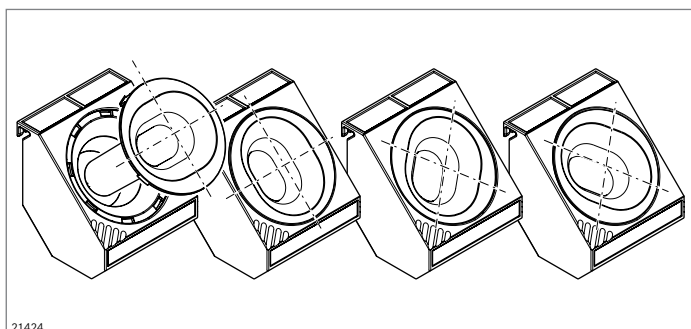
- ▶ For ergonomic and handy positioning of tools at the workstation
- ▶ Time savings of 10% to 20% based on MTM, achievable with
  - Defined place for fast retrieval
  - 45° docking aids in bucket-tray for easy, ergonomic depositing and removal of tools
  - 45° tilt of tool holder for easy picking
- ▶ Round and oval bucket-trays, open or closed base, for insertion in matching tool holders
- ▶ Four different positions possible for oval bucket-trays in tool holders for ergonomic picking and placing
- ▶ Tool holder to hang in a suspension profile or container mount
- ▶ Tool holder with space for adhesive label

Material: PA 6; black

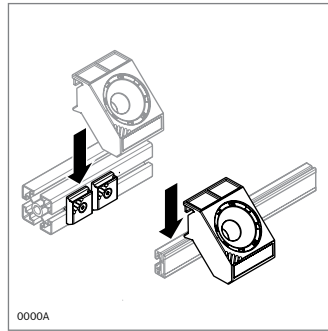
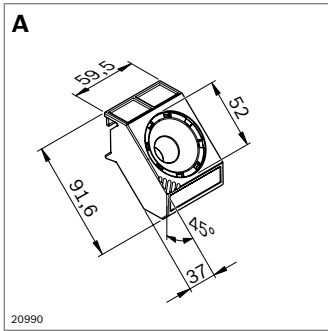
- ▶ Self-assembly elements for custom configurations of tool holder shelves: see “Components” section (page 176)



20989

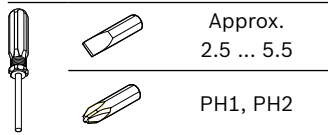
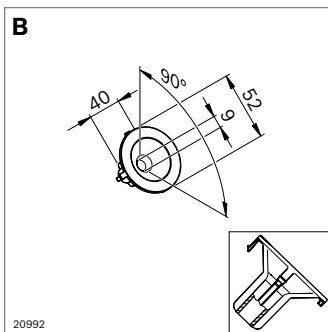


21424

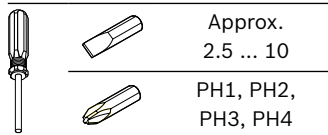
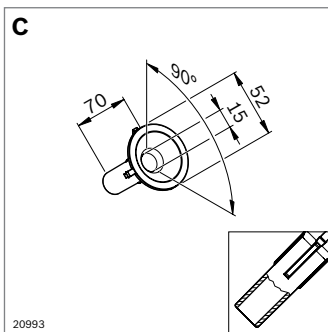


**D52 tool holder for D52-9 and D52-15 bucket trays**

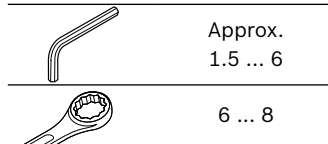
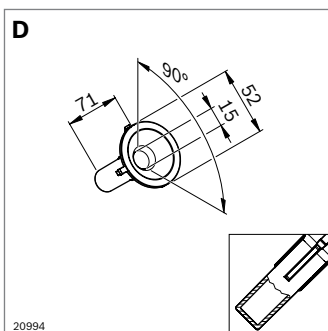
	ESD	No.
A D52 tool holder		3 842 544 832



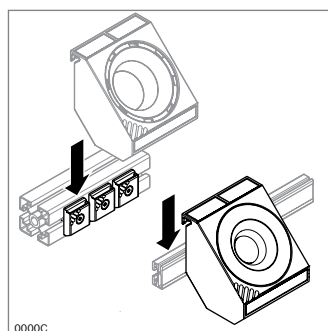
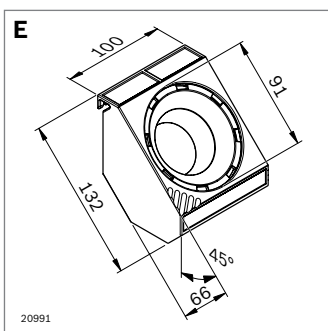
	ESD	No.
B D52-9 bucket tray (without base)		3 842 544 834



	ESD	No.
C D52-15 bucket tray (without base)		3 842 544 835



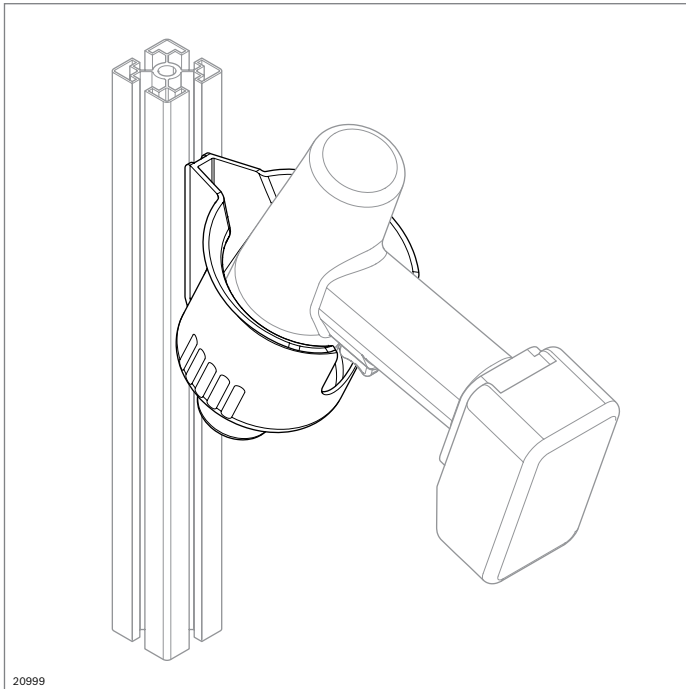
	ESD	No.
D D52-15 bucket tray (with base)		3 842 544 836



**D91 tool holder for D91-32, D91 Oval53 L100 and D91 Oval53 L136 bucket trays**

	ESD	No.
E D91 tool holder		3 842 544 833

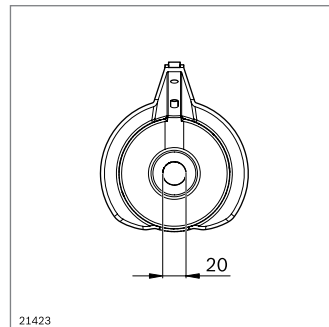
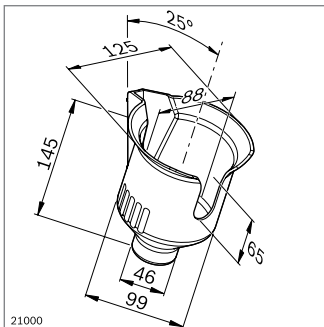




## D95 tool holder



- ▶ Quiver-type tool holder for nut runners up to 2 kg (the use of a spring pull is recommended for heavier nut runners, see page 31)
- ▶ Time savings of 10% to 20% based on MTM, achievable with
  - Defined place for fast picking
  - 45° docking aids for easy, ergonomic depositing and removal
- ▶ Tool holder open at bottom. This makes it possible to hold nut runners with long tool inserts. Dirt does not collect in the quiver
- ▶ Notched housing for clearly defined stowage
- ▶ Centering lugs for easy fastening in vertical 10 mm slot




Material: PA 6; black

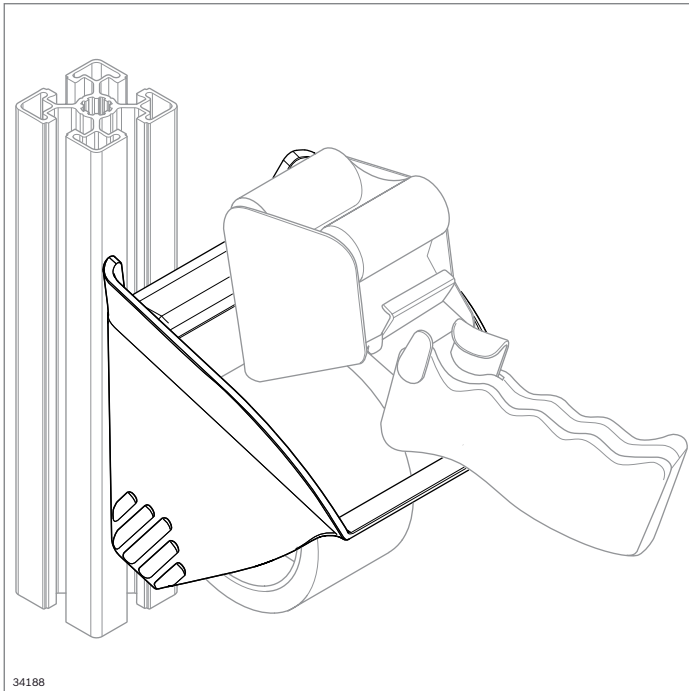
Scope of delivery: includes fastening material for fastening in 10 mm slots

### ESD No.

D95 tool holder

 **3 842 544 772**





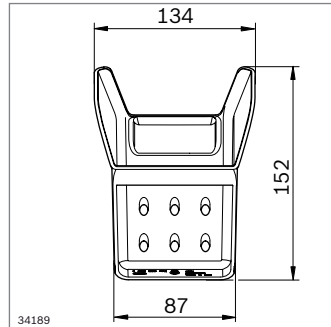
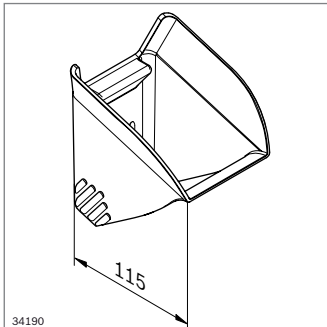
### 50 mm tape tool holder



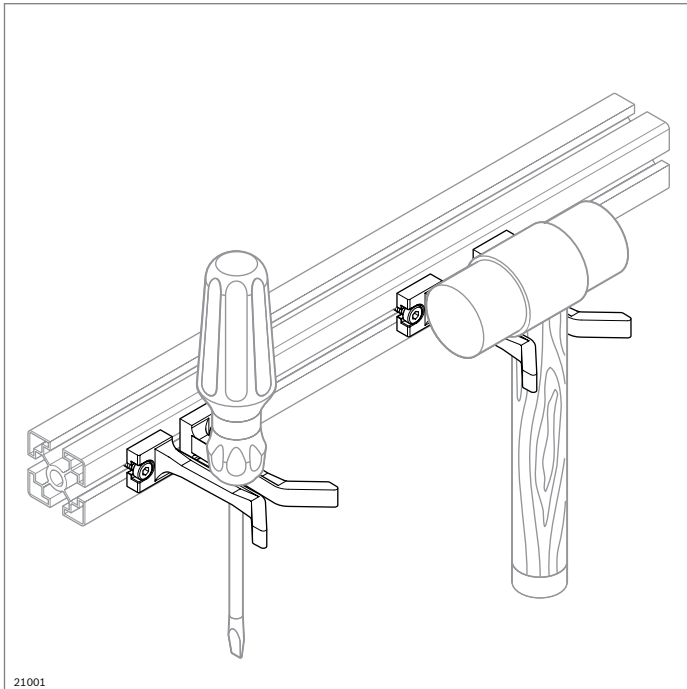
- ▶ Tool holder for tape dispenser with a width of 50 mm
- ▶ Time savings of 10% to 20% based on MTM, achievable with
  - Defined place for faster reaching and picking
  - Docking aids for easy, ergonomic depositing
- ▶ Supports 5S principles for order and cleanliness at the workstation via defined, fixed place

Material: PA 6; black

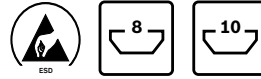
Scope of delivery: includes fastening material for fastening in 8 mm or 10 mm slots



	ESD	No.
50 mm tape tool holder		3 842 555 673



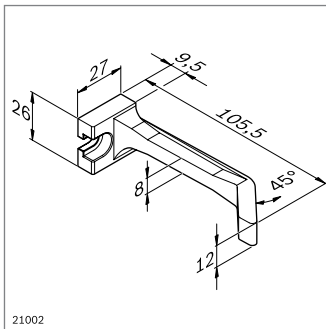
### L105 tool holder





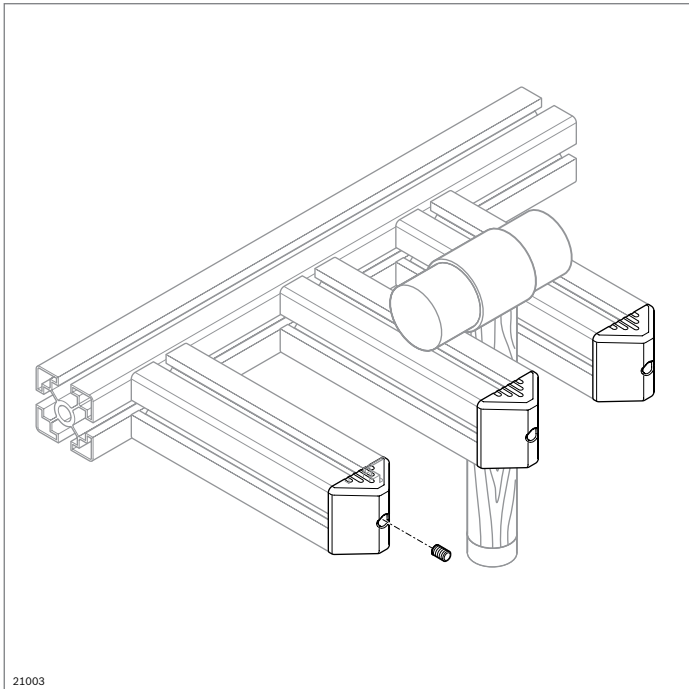
- ▶ For ergonomic and handy positioning of tools at the workstation
- ▶ Universal use possible, e.g., for screwdrivers, pliers, or hammers
- ▶ Mounting in 8 mm and 10 mm slots
- ▶ Time savings of 10% to 20% based on MTM, achievable with
  - Defined place for fast retrieval
  - 45° docking aids and tactile feedback for easy depositing

Material: PA 6; black

Scope of delivery: includes fastening material for fastening in 8 mm or 10 mm slots



	 <b>ESD No.</b>
L105 tool holder	10  <b>3 842 544 768</b>



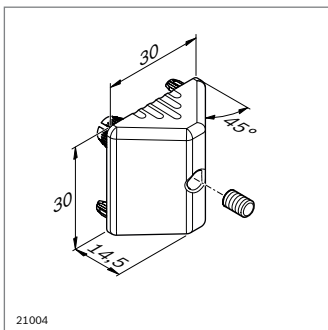
### 30x30 guide plate

- ▶ 30x30 guide plate as cap for 30x30 profile
- ▶ For the construction of supply racks (minomi racks) for the simple suspension of tools and parts between 30x30 profiles
- ▶ Yellow coloring for faster recognition by workers
- ▶ Time savings of 10% to 20% based on MTM, achievable with
  - Defined place for fast retrieval
  - 45° docking aids for easy depositing


Material: PA 6; yellow (RAL 1003)

Scope of delivery: includes headless setscrew for added stability

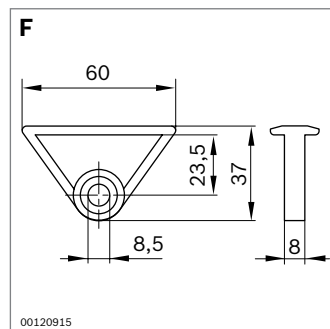
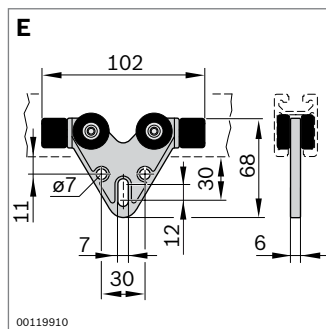
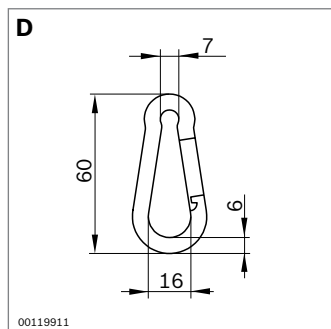
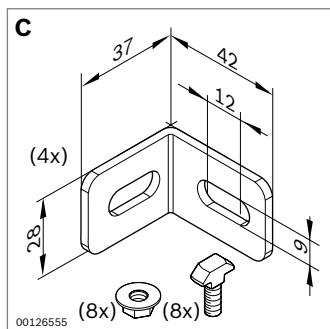
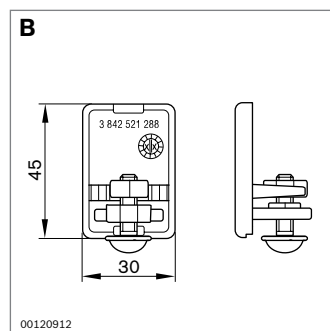
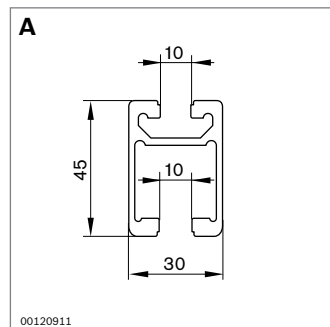
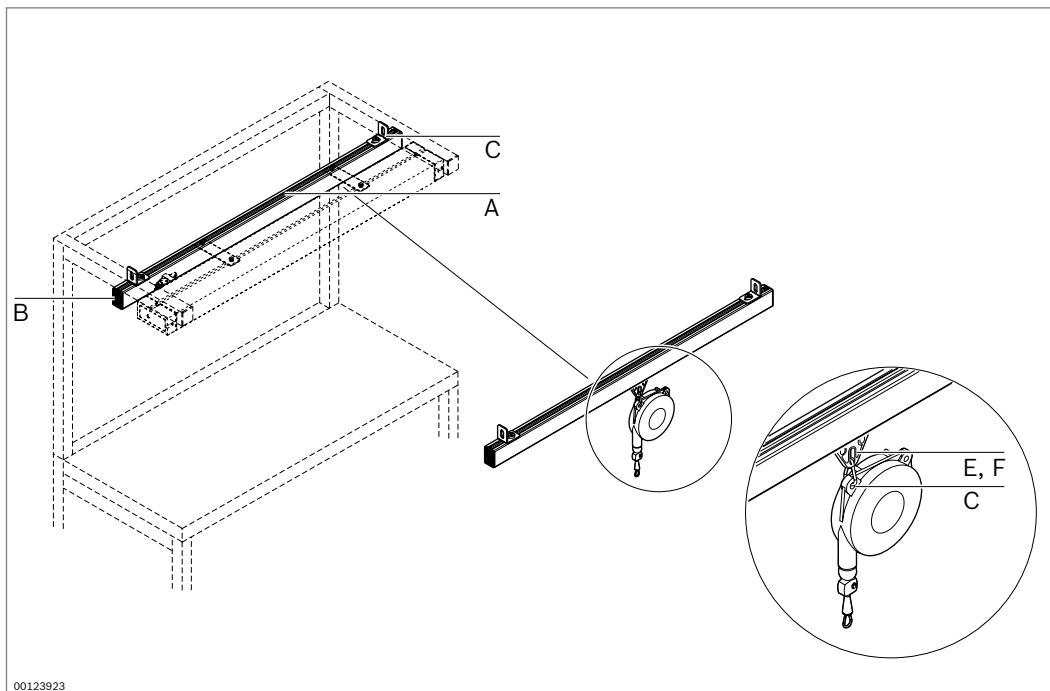
21003



21004

		No.
30x30 guide plate	10	<b>3 842 544 770</b>

### Hanger assembly elements



	L (mm)			No.
<b>A</b> 30x45C profile rail; material: aluminum; anodized	50 ... 5600	1		<b>3 842 992 946/L</b>
	5600	20		<b>3 842 523 598</b>
<b>B</b> 30x45C end piece; material: PA; black 30x45C end piece; material: PA; signal gray			20	<b>3 842 554 711</b>
			20	<b>3 842 554 710</b>
<b>C</b> M8 bracket set, incl. fastening material for 10 mm slot; material: steel; galvanized			Set	<b>3 842 537 861</b>
<b>D</b> Spring hook; material: steel; galvanized				<b>0 842 901 309</b>
<b>E</b> Trolley for 30x45C profile rail				<b>3 842 521 510</b>
<b>F</b> Slide hanger for profiles with 10 mm slot; material: POM				<b>3 842 218 953</b>

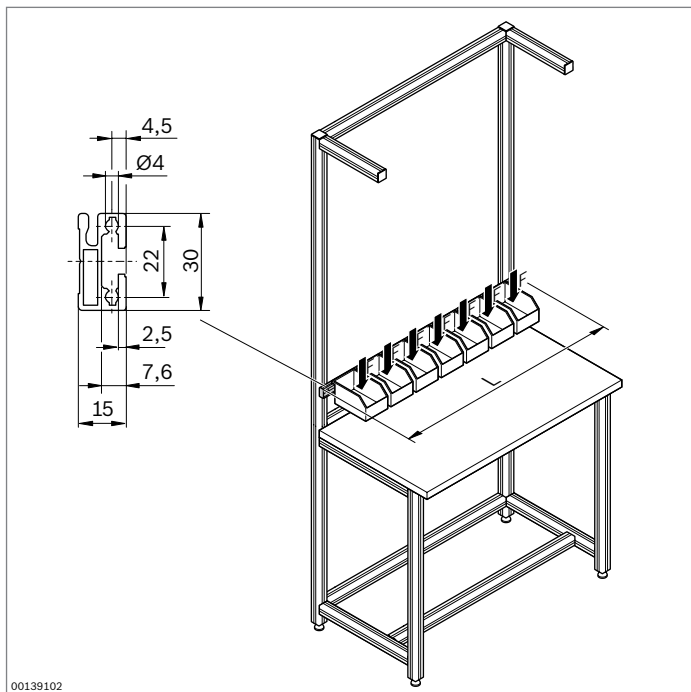
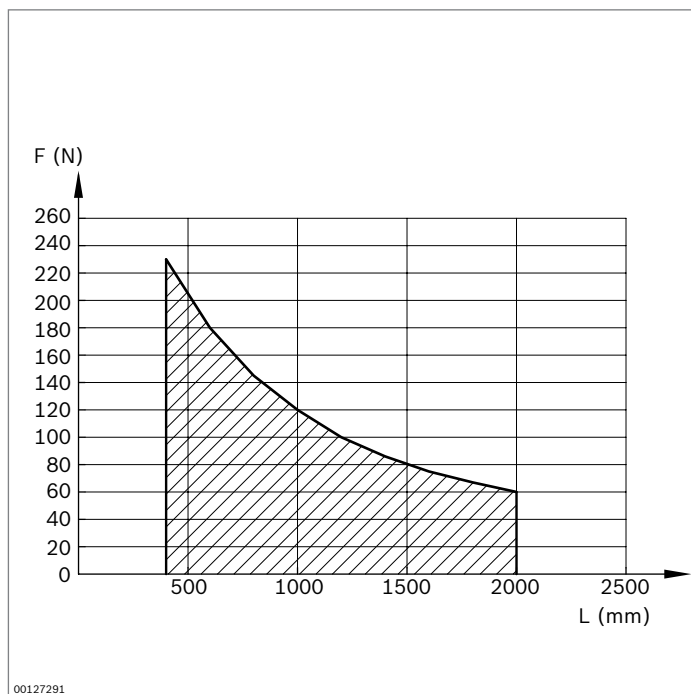
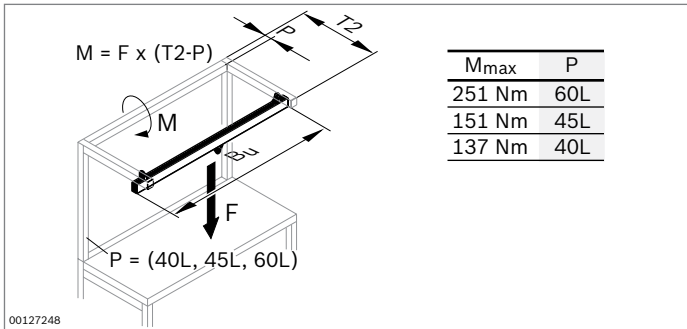
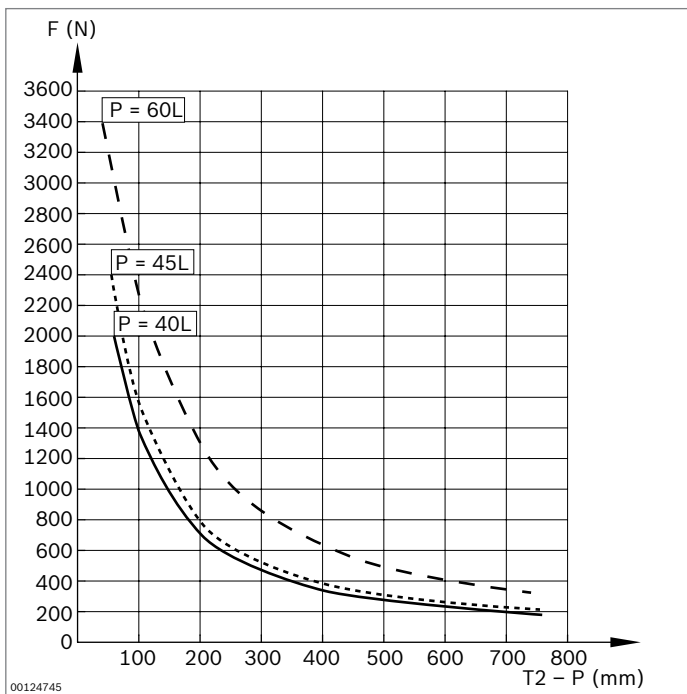
**15x30 suspension profile****3 842 993 411/L** (see page 184, 185, 187, 212)**3 842 537 679** (see page 184, 185, 187, 212)**3 842 993 063/L** (see page 184, 185, 187, 212)**3 842 554 157** (see page 184, 185, 187, 212)

Diagram 1: Permissible load for the suspension profile



**Workstation hanger**

Without accessory upright, with accessory upright, with reinforced strut extension (see page 183)



**Example for determining F<sub>max</sub>**

Determination of load for the strut extension:

P = 45 mm  
 T2 = 400 mm  
 Diag. 2 → F = 380 N

Determination of load for hanger:

B<sub>U</sub> = 1000 mm  
 Diag. 3 → F = 580 N

The maximum permissible load F<sub>max</sub> is the lower of the two load values. F<sub>max</sub> = 380 N

Diagram 2: Permissible load for the strut extension

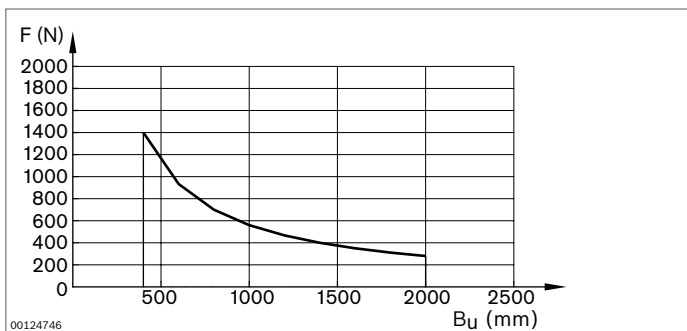


Diagram 3: Permissible load for the hanger