

**HISTORICAL HINGES**



**SINCE 1911**

**THE HISTORY OF TKZ** begins in 1911. Its genetic code is top-notch metalwork. Gradually, we have become a significant European company in the production of window and door hinges and have built an excellent global reputation in the field of replicas of historical hinges.

**1911**

Company founded, production of metal goods, 50 employees, manufacturing space of 1,000 m<sup>2</sup>.

**1955**

Commencement of production of construction and furniture fittings.

**1976**

New pressing plant, machining shop, and tooling room - expansion of production space to 4,000 m<sup>2</sup>.

**1981**

Fully automated welding machine line.

**1998**

Start of production of adjustable hinges TRIO and EXPERT, commissioning of own testing facility.

**2010**

Expansion of production space to a total area of 8,000 m<sup>2</sup>.

**2015**

Start of production of concealed hinge ESPRIT for groove-less doors.

**2017**

Expansion of warehouse space by 2,000 m<sup>2</sup>.

**2022**

Extension of production capacity for concealed hinges.

**2024**

New welding facility of 2,000 m<sup>2</sup>.

**PRESENT TKZ**'s scope of products and solutions encompasses a wide range of custom metal manufacturing in addition to hinges. This includes not only small items, but also metal conveyor belts spanning hundreds of meters, as well as complex conveyor systems and intricate metal structures.



We have focused on metalworking for more than a hundred years. Among our key production programs, the manufacture of window and door hinges in historical designs has long been one of the mainstays.

To preserve historical authenticity, full replicas of historical hinges are undoubtedly ideal. However, they do not always meet the technical requirements of the present day, which have significantly evolved over the centuries. For such cases, we can offer a combination of modern technical solutions while maintaining maximum respect for the original design.

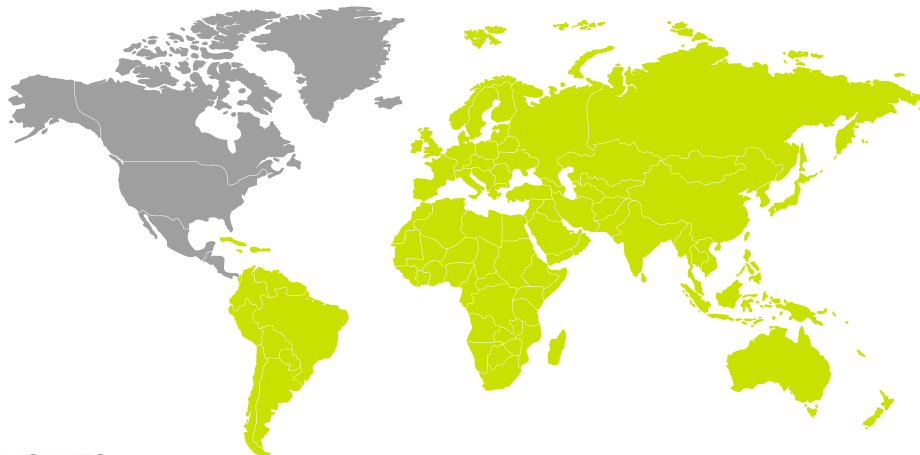
For clients who do not find what they need in our wide standard range of historical hinges, we are happy to create a custom series based on the original. Creating custom pieces according to the client's conceptual design is also not uncommon.

Do not hesitate to take advantage of our extensive standard production program and our experience in custom manufacturing.

**170 +**  
EMPLOYEES

**300 +**  
PRODUCTS  
IN THE PORTFOLIO

**150 +**  
MANUFACTURING MACHINES



**39 000 km +**  
OF PIANO HINGES



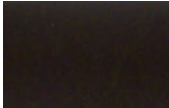





















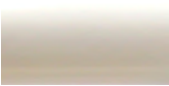



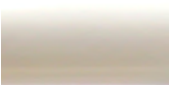



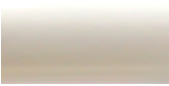

















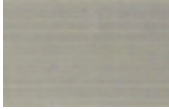

**1 500 +**  
LONG-TERM  
CUSTOMERS

**10 000 m<sup>2</sup> +**  
PRODUCTION AREA

# Content

<b>Window hinges</b>	<b>6</b>
<b>Door hinges</b>	<b>15</b>
<b>Caps</b>	<b>32</b>
<b>Demonstration of the Production of Historical Hinges</b>	<b>37</b>
<b>Accessories</b>	<b>41</b>
<b>Reference Projects</b>	<b>49</b>

# Surface finishes

		Without surface treatment			Sepia brown lacquer RAL 8014
		Bronze satin			Chocolate brown lacquer RAL 8017
		Chrome shiny			Colourless lacquer (shiny brass basis)
		Chrome satin			Brass satin
		Brushed			Nickel shiny
		Antic lacquer RAL 09/90200			Nickel satin
		Traffic white lacquer RAL 9016			Brass plated
		Pure white lacquer RAL 9010			Old cooper
		Signal white lacquer RAL 9003			Old brass
		Oyster white lacquer RAL 1013			Old brass wiped
		Signal black lacquer RAL 9004			Blue zinc
		Graphite black lacquer RAL 9011			Yellow zinc
		Jet black lacquer RAL 9005			Elox

The sample of surface treatments is for illustrative purposes only; the indicated color shades may slightly differ from reality.

# Historical hinges

## HISTORICAL DESIGN

Window and door hinges have been part of human society for hundreds and thousands of years. They are usually small architectural elements that generally do not receive significant attention. However, when preserving the complete integrity of a historical interior or exterior is important, it is almost impossible to overlook the issue of hinges.

Hinges are not just interesting design details; they also serve technical functions. Especially with heavy doors and windows, they must meet significant mechanical demands. The surface finish of the hinges is also essential, playing a role both visually and in the need to protect the hinges from corrosive environmental effects.

In the past, architects emphasized the visual similarity between the hinges of doors and windows and other interior elements, such as cabinet and chest fittings. Thus, in one space, we encounter hinges that differ in size, technical details, chosen material, or the weight they can bear. Despite these differences, they boast visual uniformity in shapes and surface finishes, which underscores the aesthetic intention of the interior designer.

## RESPECT FOR THE LEGACY OF ANCESTORS

The maturity of a nation can also be recognized by the care it devotes to the legacy of past generations. One of the significant elements of ancestral heritage is historical buildings.

We have great respect for all individuals and organizations that invest effort, energy, and resources into keeping historical buildings in good condition so that they can enhance the lives of future generations.

From a historical perspective, it is certainly most valuable when historical elements are professionally restored, preserving their full authenticity. However, where functionality is also important, restoration is not always a sufficient method.

We are proud that where restoring original elements is not possible, we help preserve the historical character of buildings through our products in historical designs.

## POSSIBLE SOLUTIONS

### Restored hinges

Restoring original hinges is the ideal solution for maintaining authenticity. This service is provided by professionals in the field of restoration. They first dismantle the original hinges and typically clean them of paint or corrosion. If the hinges are in a technical condition that allows for their reinstallation or if they are repairable, they can then be reinstalled. This is usually preceded by surface treatment.

### Standard replicas

Replicas of historical hinges are used wherever restoring original hinges is not possible for various reasons. The most commonly found models of historical hinges are part of TKZ's standard production program. They match the original hinges in shape and mounting details. We supply them both in characteristic surface finishes corresponding to „their time“ and in a wide range of color options. The hinges are usually installed by recessing. These hinges are authentic, which means they lack adjustment options and have load-bearing limits.

### Custom replicas

If none of TKZ's standard replicas are suitable, the original hinges are removed, cleaned of paint or corrosion, and full replica manufacturing drawings are created based on them. The material used for the replicas is the closest equivalent to the original material. The final product can be treated with galvanic surface treatment or painted.

### Standard hinges with historical design

There are situations where a standard replica cannot meet the demands of modern times. Often, it's a matter of load capacity, such as when windows are fitted with multi-layer glass, which is significantly heavier. The need for hinge adjustability or investors' desire to maintain the period style of a property while incorporating modern technology can also play a role. The solution is modern screw hinges with adjustable features, made in a historical design. This is not always the ideal solution from the perspective of 100% respect for the authenticity of the object. The alternative would be to use modern hinges.

### Custom hinges with historical design

There are situations where none of TKZ's standard hinges with historical design are suitable. In such cases, based on the client's specifications, manufacturing drawings are created, the appropriate material is chosen, and the hinges are made as unique pieces. The final products are treated with galvanic surface treatment or painted.

### Design caps









For situations where hinges are already installed, and the owner still wants to enhance the historical perception of the space, covers are available that can be applied to modern hinges to change the design. This solution is quick and economical, usually more cost-effective than using hinges in a historical design. The caps are made in a wide range of standard shapes and surface finishes, which can also be modified.

# WINDOW HINGES

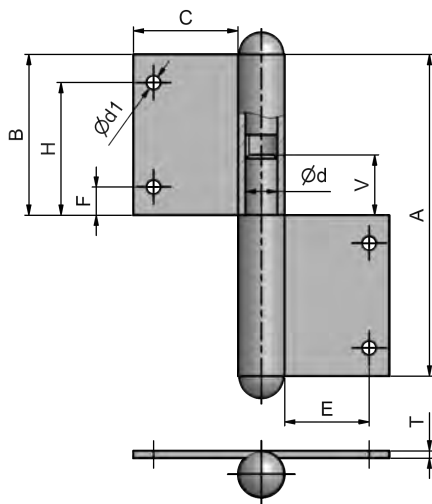


# Window hinges

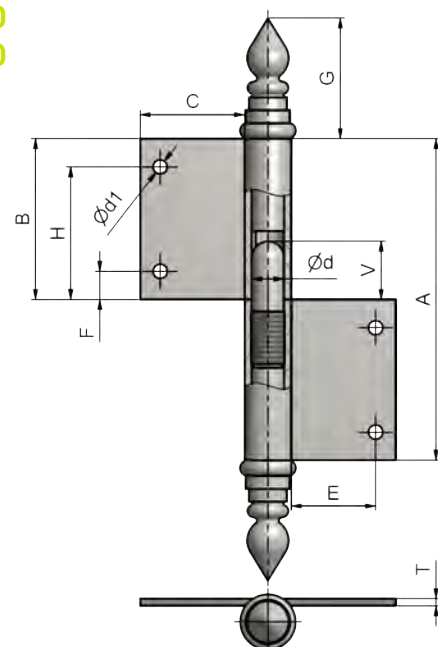
## HINGE 80, 100, 120

Product No. (R/L)	Name	SF	Load / 1 piece (RAL - RG 607/8)
9024/9025	Hinge 80 classic	 ZN BLUE	15 kg
9032/9033	Hinge 100 classic	 ZN BLUE	20 kg
9160/9161	Hinge 80 UR14	 LAK 9005 PMS	15 kg
9162/9163	Hinge 80 UR01	 LAK 9005 PMS	15 kg
9180/9181	Hinge 100 UR14	 LAK 9005 PMS	20 kg
9182/9183	Hinge 100 UR01	 LAK 9005 PMS ZN BLUE ZN YELL	20 kg
9192/9193	Hinge 100 UR01 Ø6		15 kg
9194/9195	Hinge 120 UR01		20 kg
9200/9201	Hinge 120 UR25		20 kg

9024  
9032



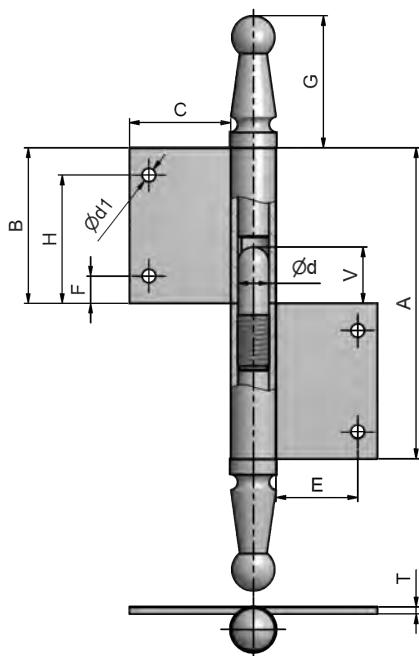
9160  
9180



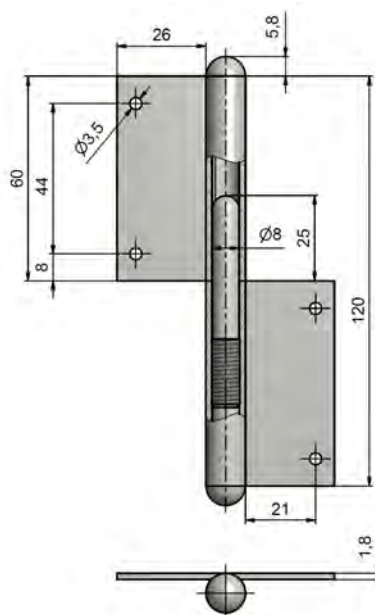
# Window hinges

Product No.	A (mm)	B (mm)	C (mm)	d (mm)	d1 (mm)	E (mm)	F (mm)	G (mm)	H (mm)	T (mm)	V (mm)
9024	80	40	26	8	3,5	21	7	-	33	1,8	15
9032	100	50	26	8	3,5	21	8	-	42	1,8	20
9160	80	40	26	8	3,5	21	7	30	33	1,8	15
9162	80	40	26	8	3,5	21	7	34	33	1,8	15
9180	100	50	26	8	3,5	21	8	30	42	1,8	25
9182	100	50	26	8	3,5	21	8	34	42	1,8	25
9192	100	50	30	6	3,5	18	8	28,3	42	1,8	20
9194	120	60	26	8	3,5	21	8	34	52	1,8	25

9162  
9182  
9192  
9194



9200

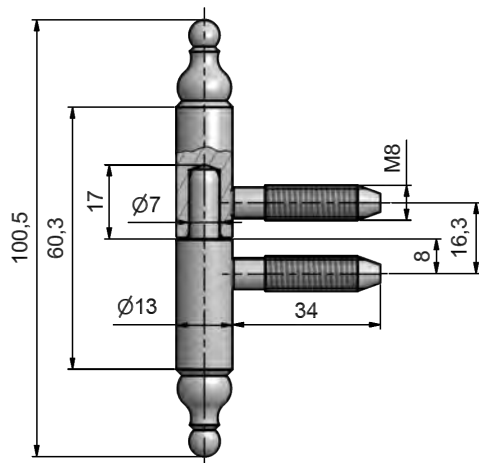


# Window hinges

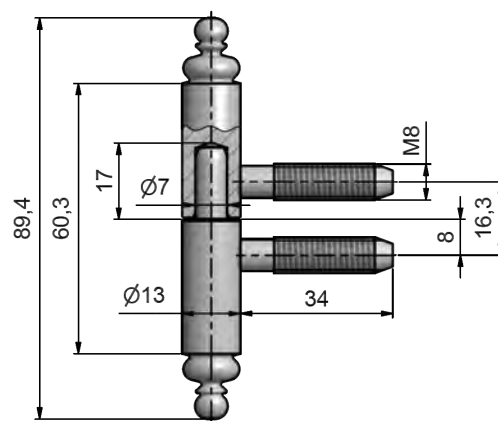
## HINGE 13x60

Product No.	Name	SF	Load / 1 piece (RAL - RG 607/8)
9655	Hinge 13x60 UR21	<input checked="" type="checkbox"/> LAK 9010 <input checked="" type="checkbox"/> LAK 9005 <input checked="" type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> PMS <input type="checkbox"/> SMO <input type="checkbox"/> ZN YELL	15 kg
9078	Hinge 13x60 UR21 stainless steel	<input checked="" type="checkbox"/> LAK 9010 <input type="checkbox"/> SMO	15 kg
9085	Hinge 13x60 UR27	<input checked="" type="checkbox"/> LAK ANT <input type="checkbox"/> PMS <input type="checkbox"/> SMO <input type="checkbox"/> ZN BLUE <input type="checkbox"/> ZN YELL	15 kg

9655  
9078



9085



## ACCESSORIES AND TEMPLATES

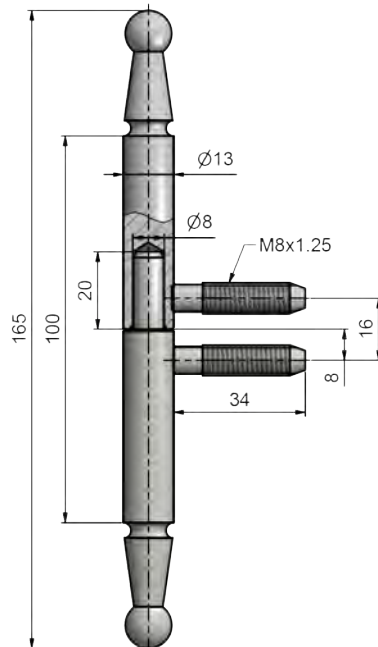
Drill template 6727

Assembly device 6764

# Window hinges

## HINGE 13x100

Product No.	Name	SF	Load / 1 piece (RAL - RG 607/8)
9080	Hinge 13x100 UR01	 <b>LAK 9010</b> <b>LAK 9005</b> <b>LAK 1013</b> <b>NI</b> <b>NI SAT</b> <b>PMS</b> <b>SMO</b> <b>ZN BLUE</b>	15 kg



## ACCESSORIES AND TEMPLATES

Drill template 6727

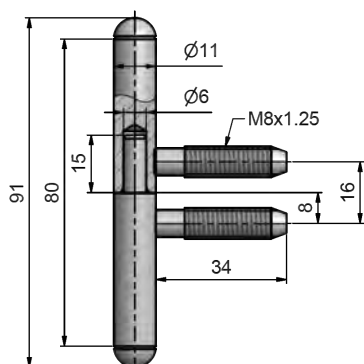
Assembly device 6764

# Window hinges

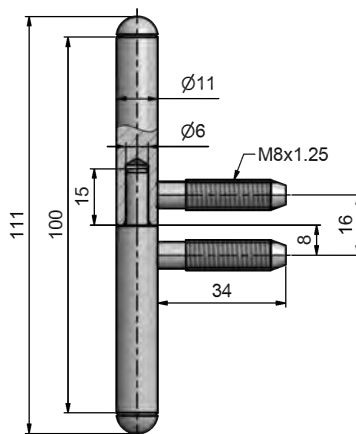
## HINGE 11x80, 11x100

Product No.	Name	SF	Load / 1 piece (RAL - RG 607/8)
9120	Hinge 11x80 UR25	☒	15 kg
9089	Hinge 11x100 UR25	☒	15 kg
9086	Hinge 11x100 UR01	☒ LAK 9010 PMS	15 kg

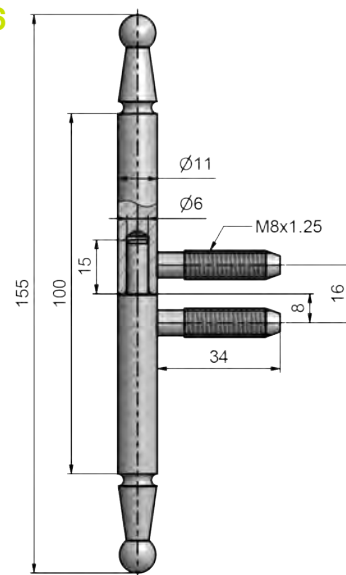
9120



9089



9086



## ACCESSORIES AND TEMPLATES

Drill template 6727

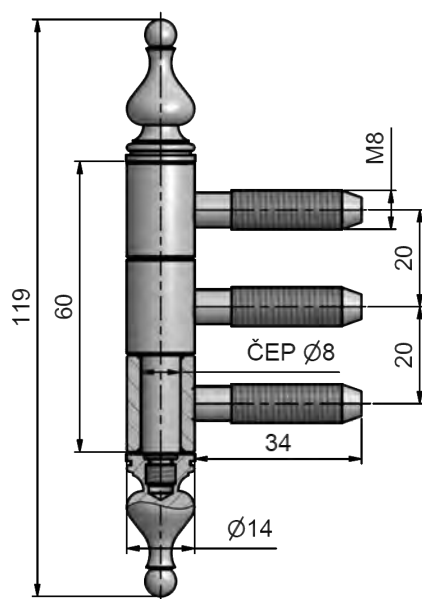
Assembly device 6777

# Window hinges

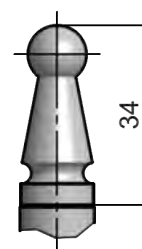
## HINGE 14x60

Product No.	Name	SF	Load / 1 piece (RAL - RG 607/8)
9757	Hinge of 3 parts 14x60 UR50 M8/34,5	LAK 9010 PMS SMO	15 kg
9756	Hinge of 3 parts 14x60 UR01 M8/34,5	LAK 9010 NI SAT PMS SMO	15 kg
9754	Hinge of 3 parts 14x60 UR25 M8/34,5	LAK 9010 NI SAT ZN BLUE	15 kg

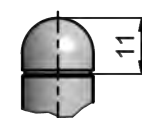
9757



9756



9754












## ACCESSORIES AND TEMPLATES

Drill template 6724

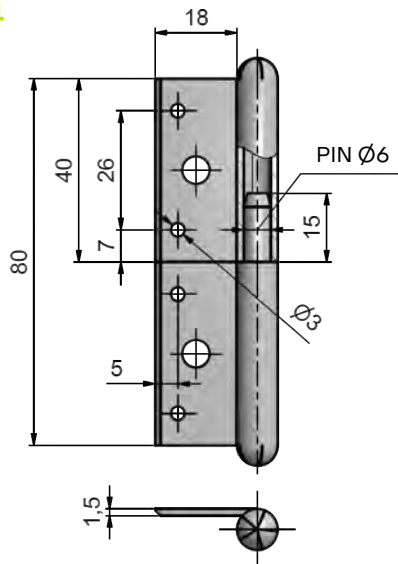
Assembly device 6765

# Window hinges

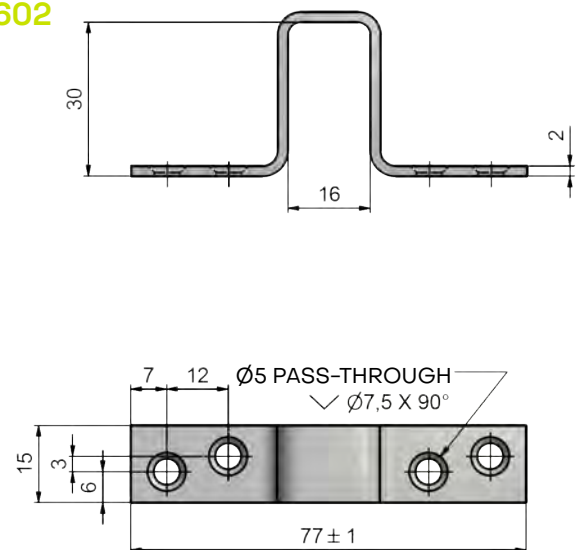
## HINGE 80/20, RIVET

Product No.	Name	SF	Load / 1 piece (RAL - RG 607/8)
9074	Hinge 80/20	 ZN BLUE	8 kg
6601	Rivet 20	PMS  ZN BLUE  ZN YELL	-
6600	Rivet 25	PMS  SMO  ZN BLUE  ZN YELL	-
6602	Rivet 30	PMS  SMO  ZN BLUE  ZN YELL	-

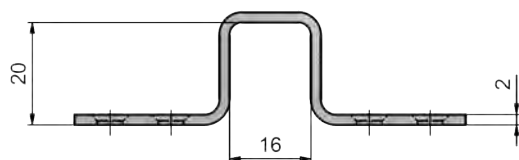
9074



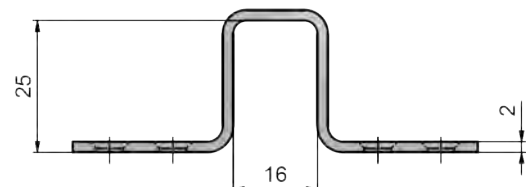
6602



6601



6600



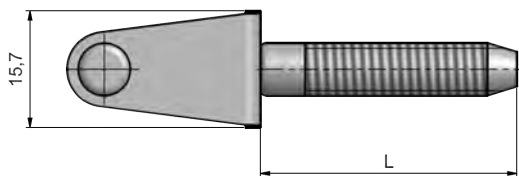
For screwing, we recommend using screws with a diameter of 3.5 mm and a minimum length of 25 mm.

# Window hinges

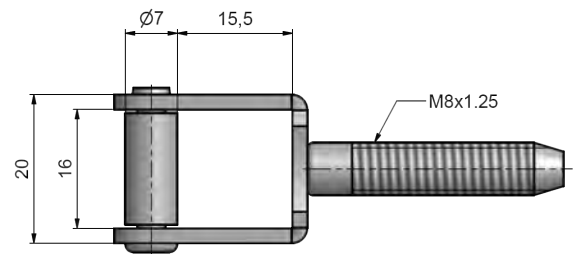
## SCREW-IN RIVET

Product No.	Name	SF
6603	Screw-in rivet M8x50	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> PMS <input type="checkbox"/> SM <input type="checkbox"/> SMO <input type="checkbox"/> ZN BLUE <input type="checkbox"/> ZN YELL
6599	Screw-in rivet M8x34,5	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> PMS <input type="checkbox"/> SM <input type="checkbox"/> SMO <input type="checkbox"/> ZN BLUE <input type="checkbox"/> ZN YELL
6598	Screw-in rivet 20x20x15 M8x50	<input type="checkbox"/> ZN BLUE <input type="checkbox"/> ZN YELL
6597	Screw-in rivet 20x20x15 M8x34,5	<input type="checkbox"/> ZN BLUE <input type="checkbox"/> ZN YELL

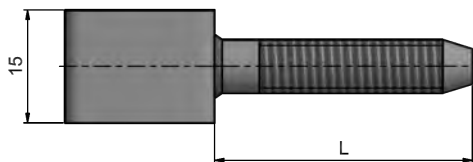
6603



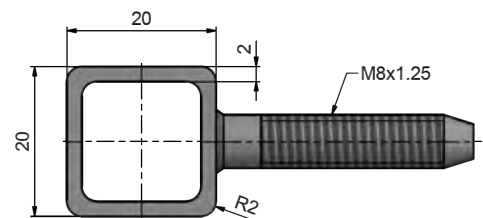
6599



6598



6597



Product No.	L
6603	50 mm
6599	34,5 mm

Product No.	L
6598	50 mm
6597	34,5 mm

## ACCESSORIES AND TEMPLATES

Drill template 6762



# DOOR HINGES

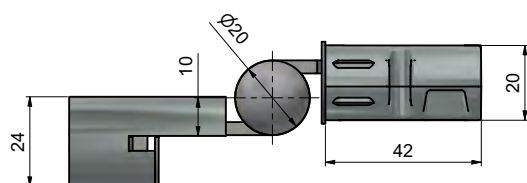
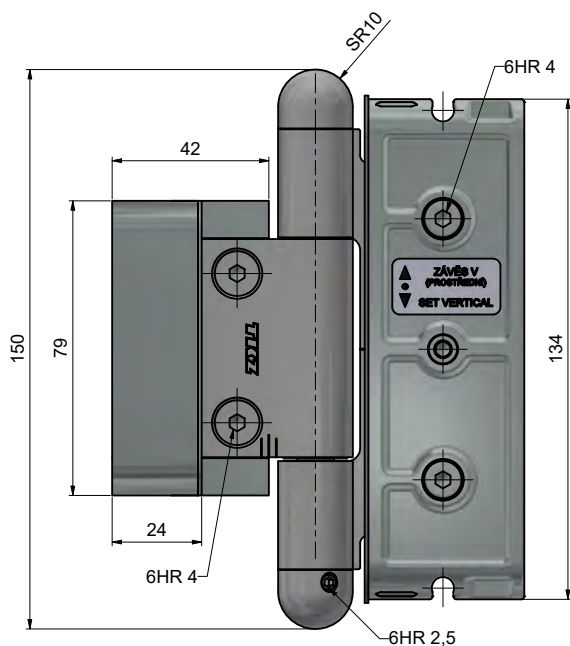
# Door hinges

## HINGE 3D

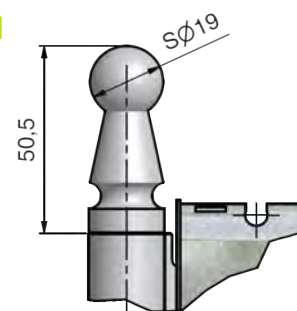
Product No.	Name	SF	Load / 1 piece (ČSN EN 1935)
5572	Hinge 3D - 20/18 S3 UR25	BR SAT CR CR SAT LAK 9010 LAK 9005 PMS SMO ST	170 kg
55738K90	Hinge 3D - 20/18 S3 UR01	SMO ST	170 kg
55736J40	Hinge 3D - 20/18 S3 UR01	LAK 9005	170 kg
55732890	Hinge 3D - 20/18 S3 UR01	PMS	170 kg
55746J40	Hinge 3D - 20/18 S3 UR14	LAK 9005	170 kg
55758K90	Hinge 3D - 20/18 S3 UR24	SMO ST	170 kg

Especially suitable for EURO doors (for mortising with a milling tool). In a safety version to prevent lifting off. Long service life (1 million cycles).

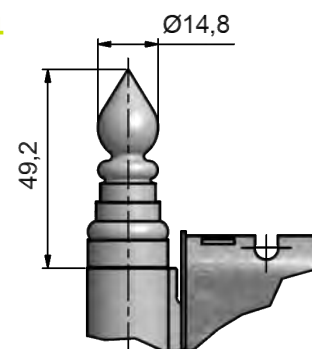
5572



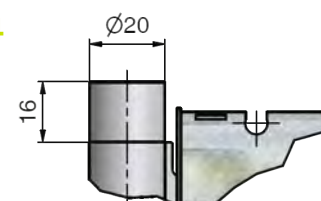
UR01



UR14



UR24



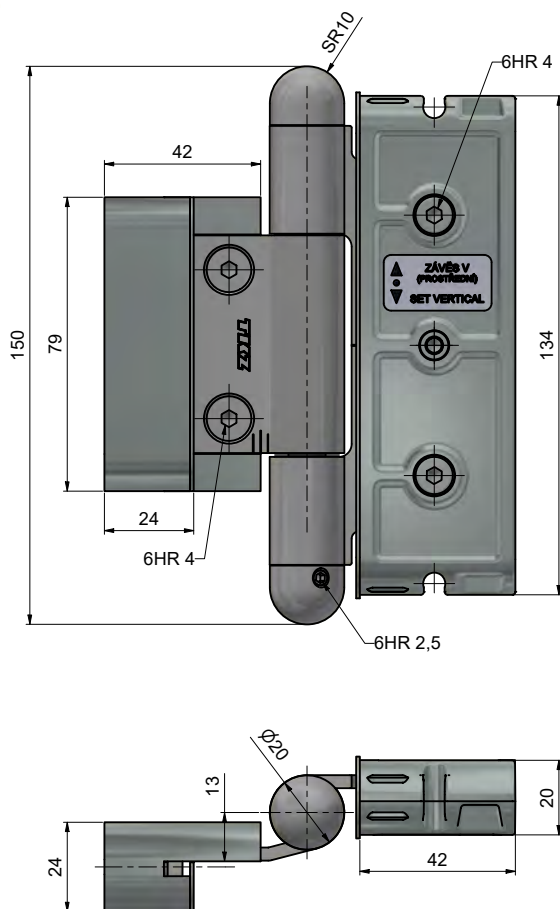
# Door hinges

## HINGE 3D CRANKED

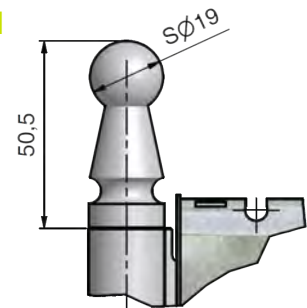
Product No.	Name	SF	Load / 1 piece (ČSN EN 1935)
5582	Hinge 3D - 20/18 cranked S3 UR25	BR SAT CR CR SAT LAK 9010 LAK 9005 PMS SMO ST	170 kg
55858K90	Hinge 3D - 20/18 cranked S3 UR01	SMO ST	170 kg
55856J40	Hinge 3D - 20/18 cranked S3 UR01	LAK 9005	170 kg
55852890	Hinge 3D - 20/18 cranked S3 UR01	PMS	170 kg
55868K90	Hinge 3D - 20/18 cranked S3 UR14	SMO ST	170 kg

Especially suitable for EURO doors (for mortising with a milling tool). In a safety version to prevent lifting off. Long service life (1 million cycles).

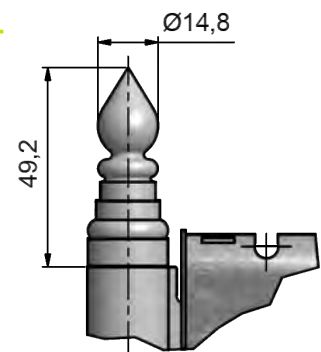
5582



UR01



















UR14

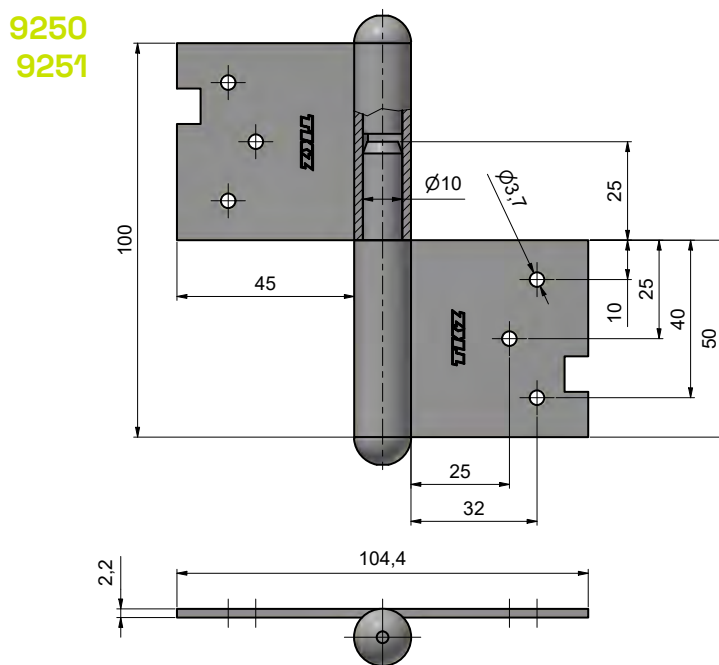


# Door hinges

## HINGE 100, 120

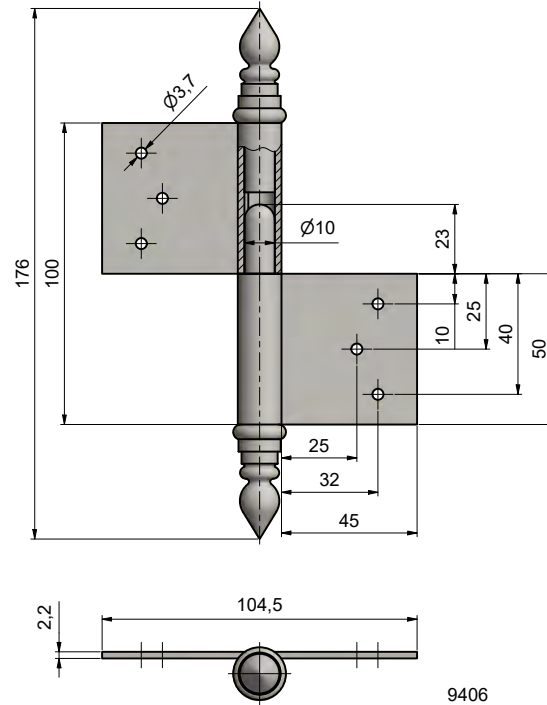
Product No. (R/L)	Name	SF	Load / 1 piece (ČSN EN 1935)
9250/9251	Hinge 100	   	25 kg
9406/9407	Hinge 100 UR14	   	25 kg
9426/9427	Hinge 120 UR14	   	25 kg
9428/9429	Hinge 120 UR01	   	25 kg

Especially suitable for EURO doors (for mortising with a milling tool). In a safety version to prevent lifting off. Long service life (1 million cycles).



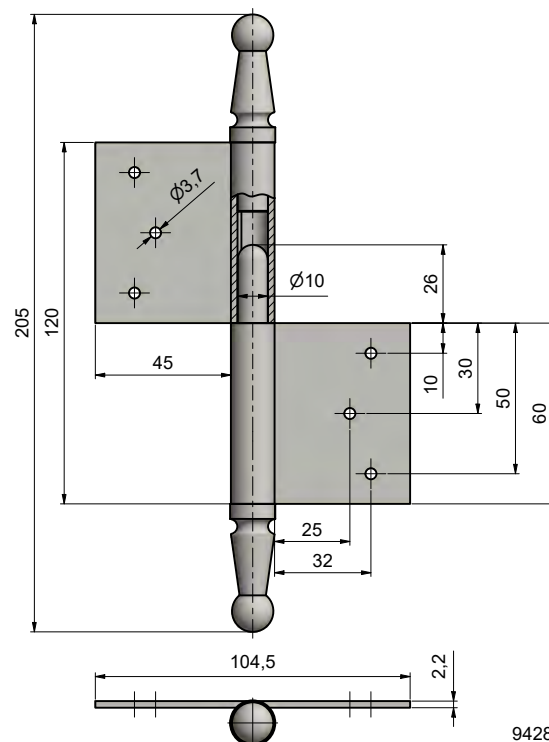
# Door hinges

9406  
9407  
9526  
9527



9406

9428  
9429

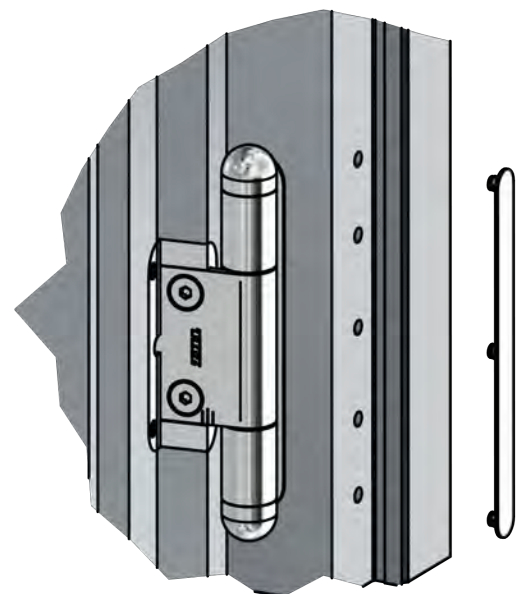
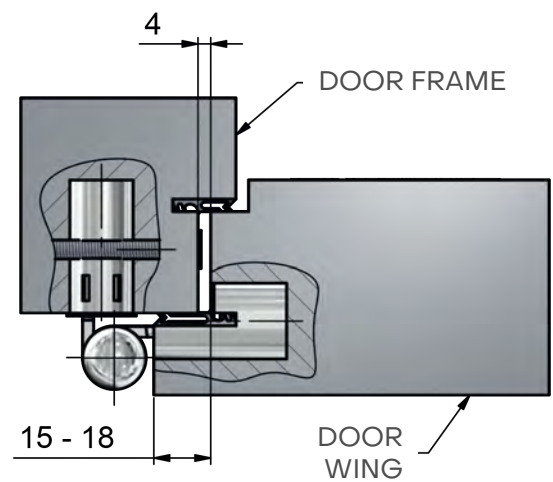
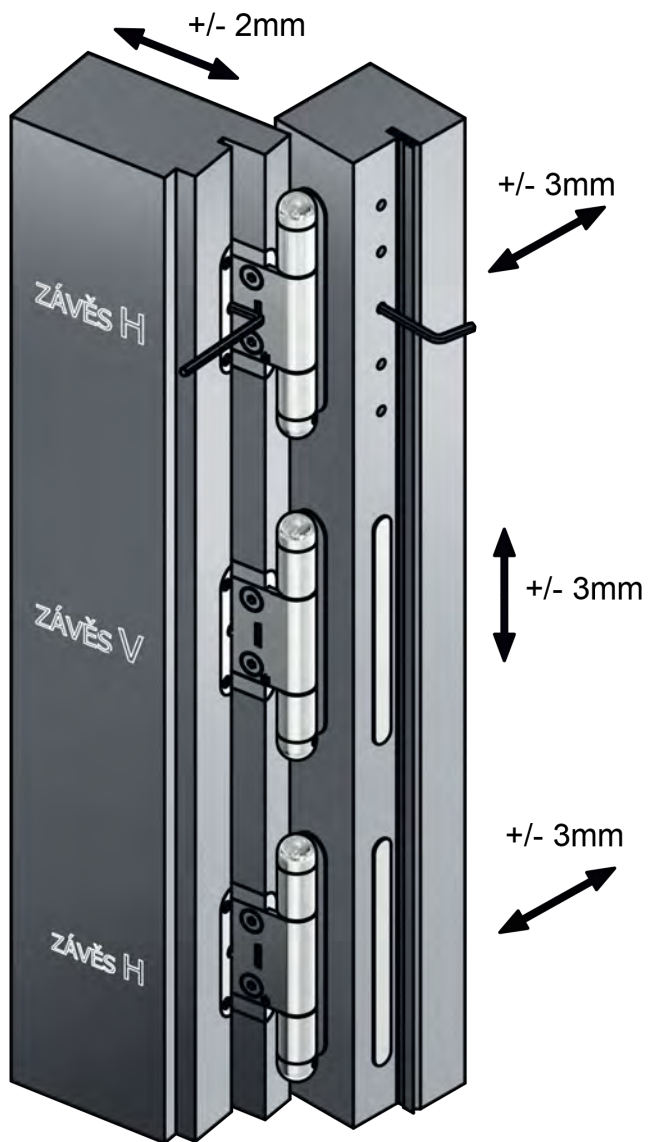


9428

# Door hinges

## HINGE 3D, UR01, 14, 24, 25

For larger and heavier doors, we recommend adding a 4th hinge „V“, which is supplied separately.



## ACCESSORIES AND TEMPLATES

Milling template 6759

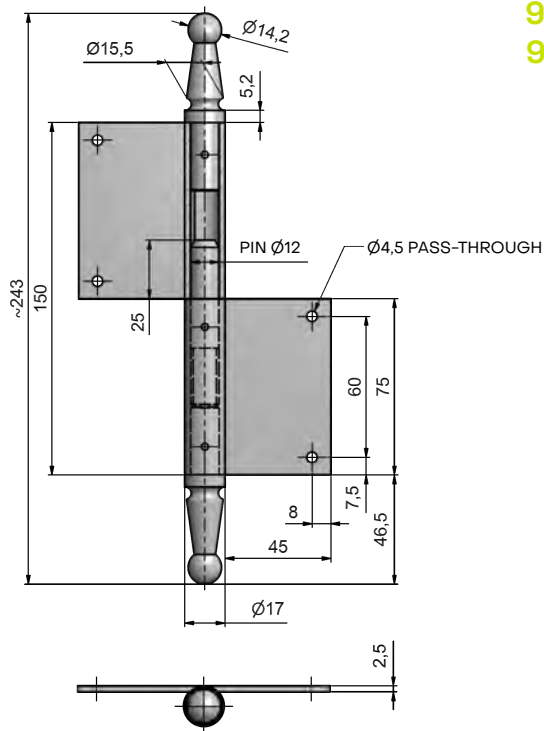
Covering plate ABS (RAL 8016, 8024, 9003)

# Door hinges

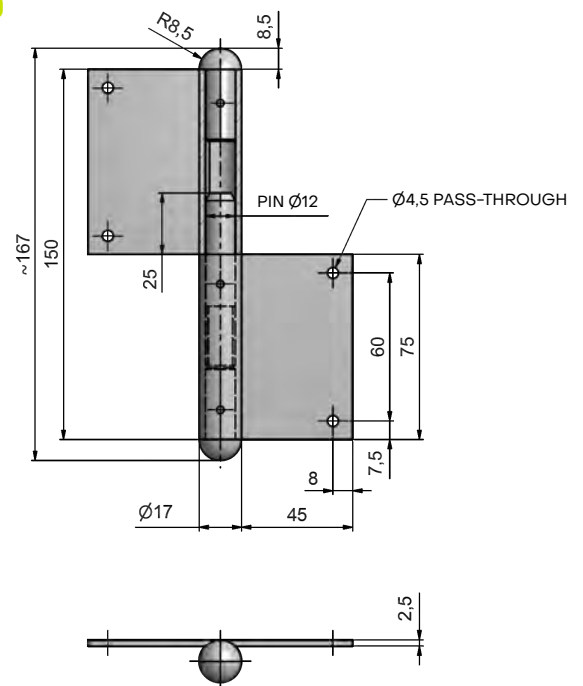
## HINGE 150 UR

Product No. (R/L)	Name	SF	Load / 1 piece
91220000/91230000	Hinge 150 UR01	☒	30 kg
91240000/91250000	Hinge 150 UR25	☒	30 kg

91220000  
91230000



91240000  
91250000



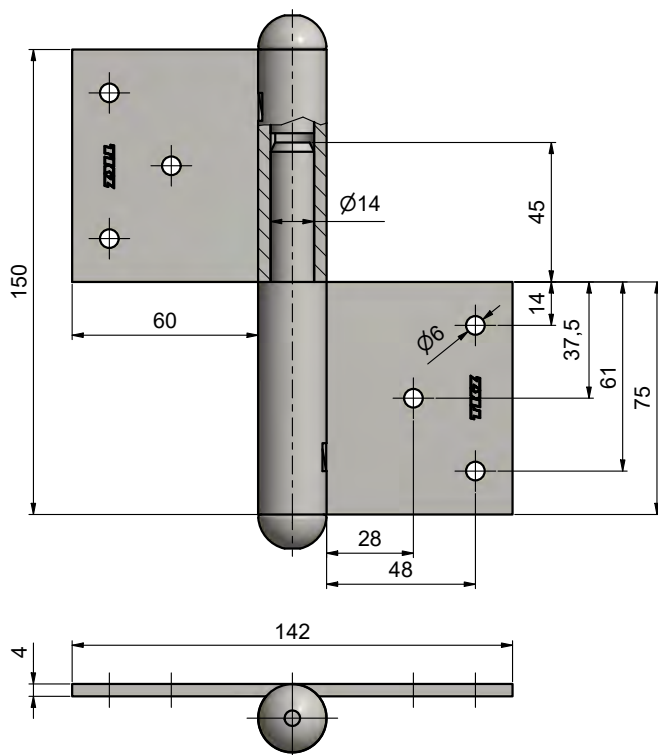
Other decorative endings by demand.

# Door hinges

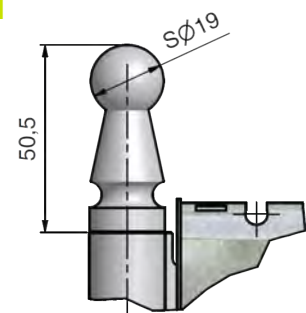
## GATE HINGE 150

Product No. (R/L)	Name	SF	Load / 1 piece
9280/9281	Gate hinge 150	☒	40 kg
9494/9495	Gate hinge 150 UR01	☒	40 kg
9496/9497	Gate hinge 150 UR14	☒ LAK 9005 PMS	40 kg

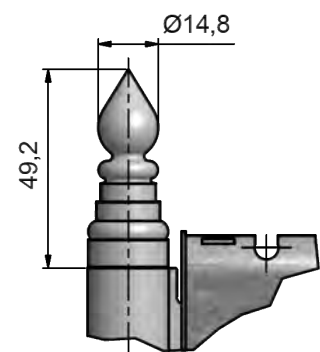
9280  
9281



UR01



UR14



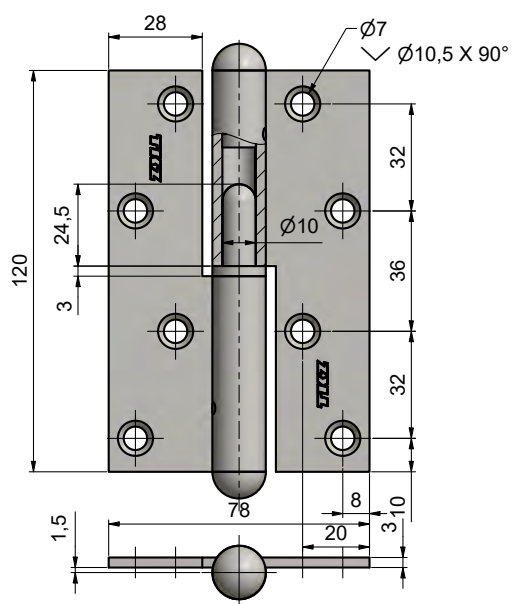


# Door hinges

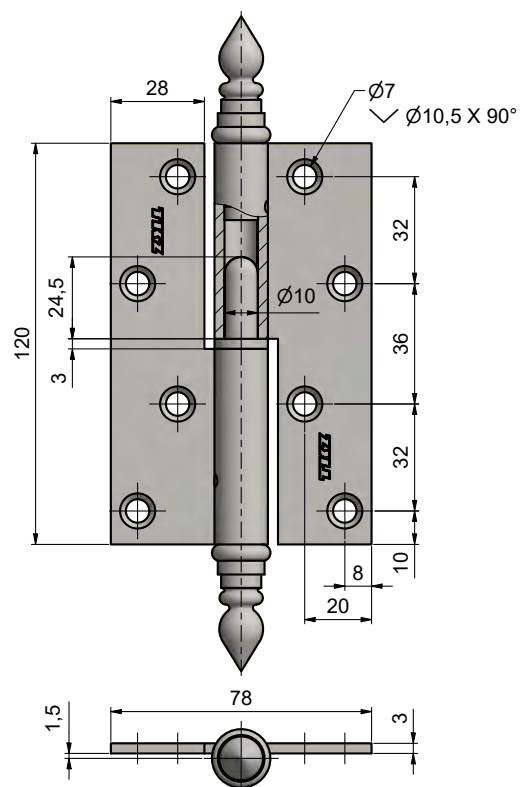
## HINGE 120 STRAIGHT

Product No. (R/L)	Name	SF	Load / 1 piece (ČSN EN 1935)
9300/9301	Hinge 120 straight	<input checked="" type="checkbox"/> LAK 9005 <input type="checkbox"/> NI <input type="checkbox"/> PMS	30 kg
9456/9457	Hinge 120 UR14 straight	<input checked="" type="checkbox"/> LAK 9005 <input type="checkbox"/> PMS	30 kg

9300  
9301



9456  
9457



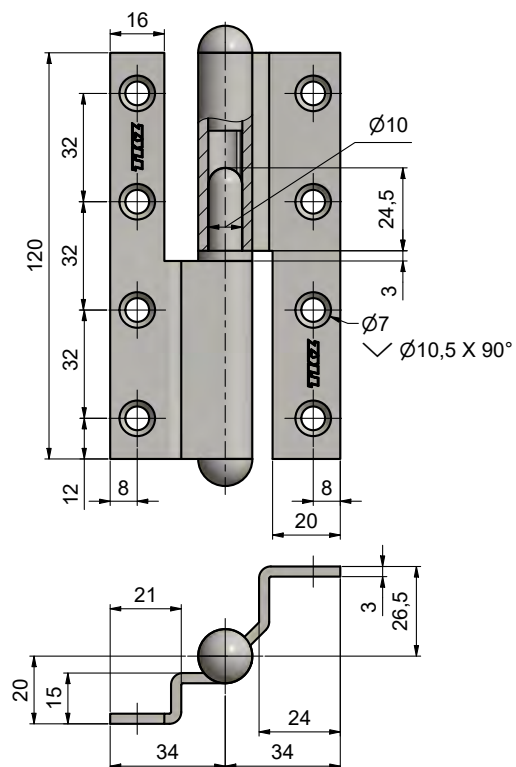
For screwing, we recommend using screws with a diameter of 5 mm and a minimum length of 50 mm.

# Door hinges

## HINGE 120 CRANKED

Product No. (R/L)	Name	SF	Load / 1 piece (ČSN EN 1935)
9310/9311	Hinge 120 cranked	<input checked="" type="checkbox"/> LAK 9005 <input checked="" type="checkbox"/> NI <input checked="" type="checkbox"/> PMS	30 kg
9476/9477	Hinge 120 UR14 cranked	<input checked="" type="checkbox"/> LAK 9005 <input checked="" type="checkbox"/> PMS	30 kg
9478/9479	Hinge 120 UR01 cranked	<input checked="" type="checkbox"/>	30 kg

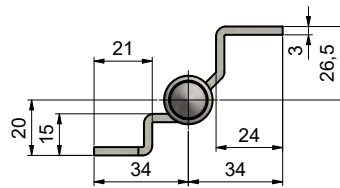
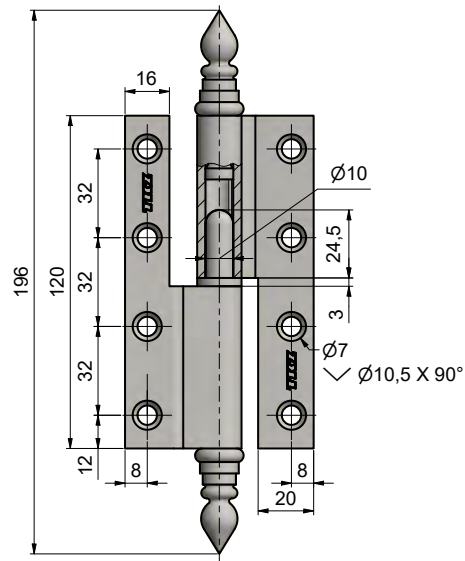
9310  
9311



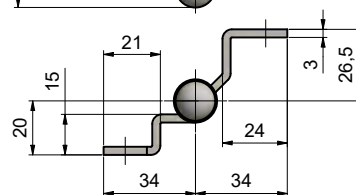
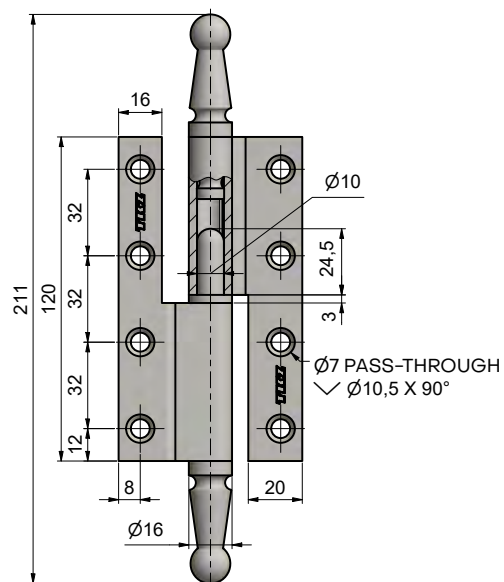
For screwing, we recommend using screws with a diameter of 5 mm and a minimum length of 50 mm.

# Door hinges

9476  
9477



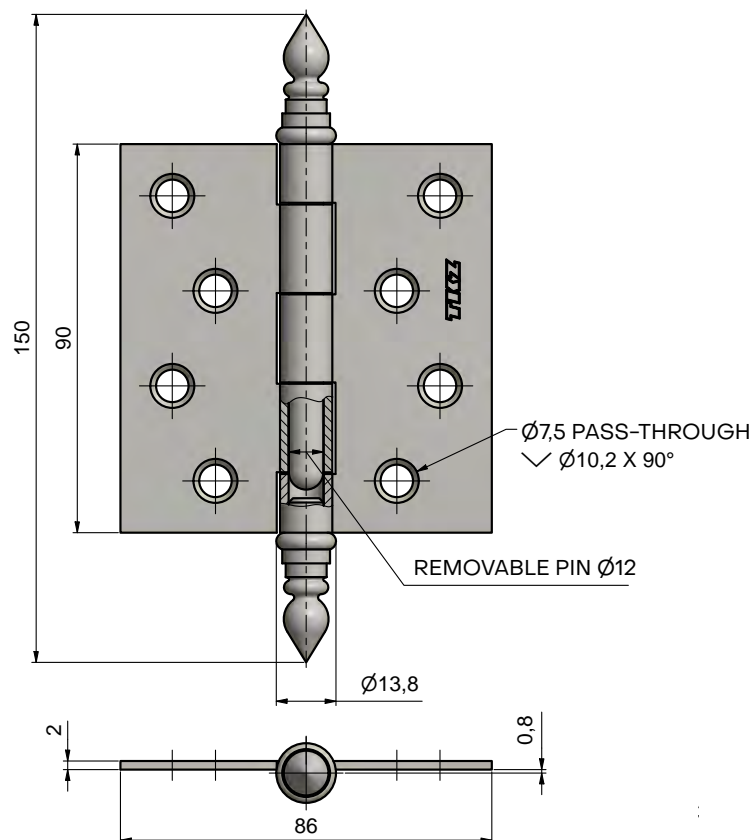
9478  
9479



# Door hinges

## HINGE 219

Product No.	Name	SF	Load / 1 piece (ČSN EN 1935)
9443	Hinge 219 UR14	 LAK 9005 PMS ZN YELL	25 kg

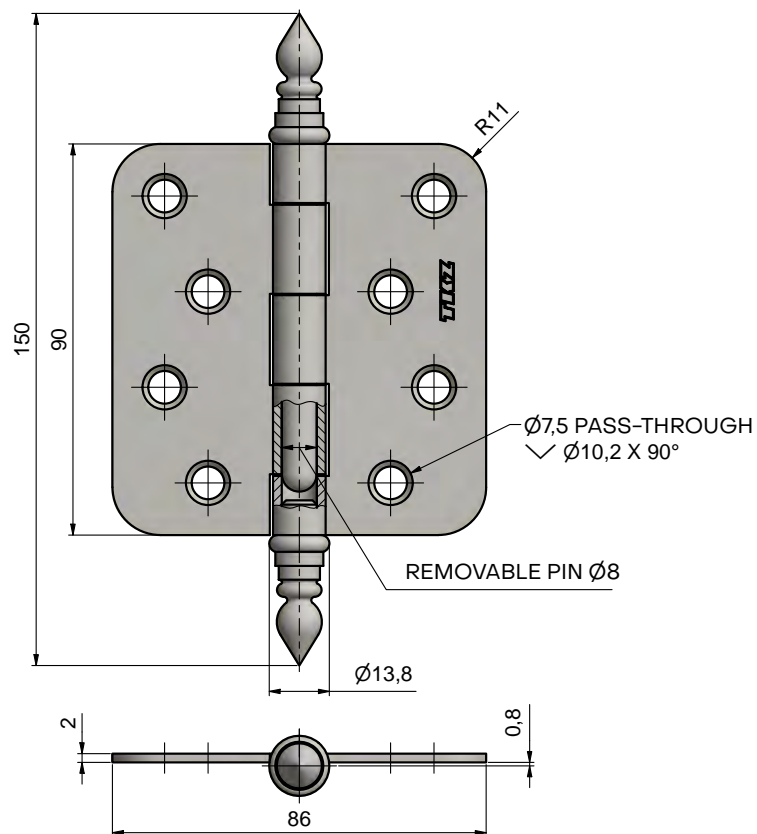


For screwing, we recommend using screws with a diameter of 4.5 mm and a minimum length of 40 mm.

# Door hinges

## HINGE 220

Product No.	Name	SF	Load / 1 piece (ČSN EN 1935)
9450	Hinge 220 UR14	 	25 kg

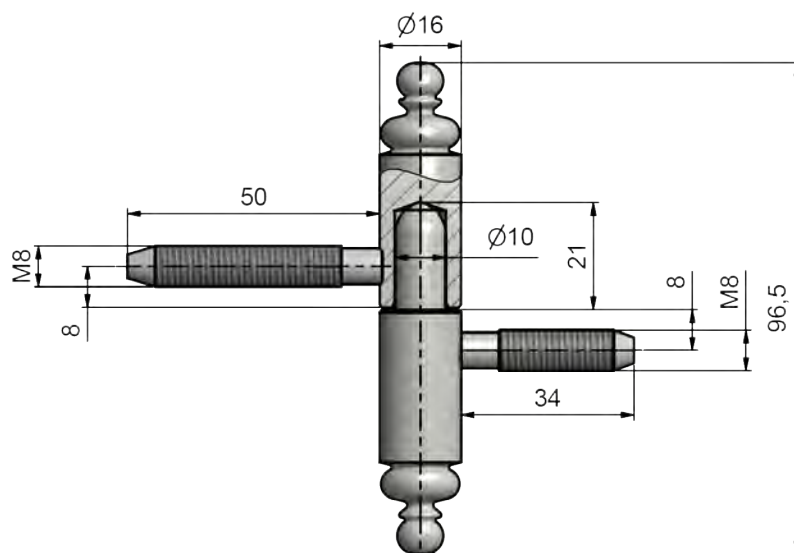


For screwing, we recommend using screws with a diameter of 4.5 mm and a minimum length of 40 mm.

# Door hinges

## HINGE 60

Product No.	Name	SF	Load / 1 piece (ČSN EN 1935)
9667	Hinge 60 UR27	LAK ANT	20 kg
		NI	
		NI SAT	
		PMS	
		SM	
		SMO	
		ZN YELL	



## ACCESSORIES AND TEMPLATES

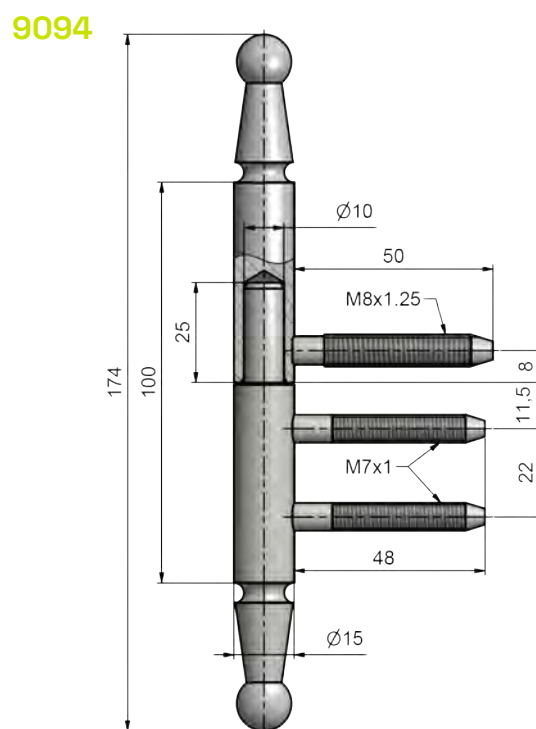
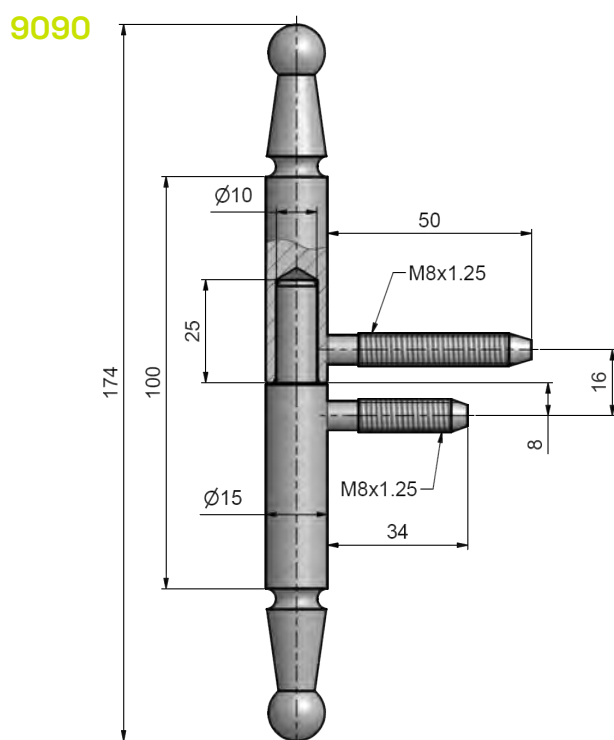
Drill template 6727

Assembly device 6767

# Door hinges

## HINGE 15x100

Product No.	Name	SF	Load / 1 piece (ČSN EN 1935)
9090	Hinge 15x100 UR01	<input checked="" type="checkbox"/> LAK 9010 <input checked="" type="checkbox"/> LAK 900S <input type="checkbox"/> PMS <input type="checkbox"/> SMO <input type="checkbox"/> ZN BLUE	20 kg
9094	Hinge 15x100 UR01 22/M7	<input checked="" type="checkbox"/> SMO	20 kg
9091	Hinge 15x100 UR25	<input checked="" type="checkbox"/> LAK 1013 <input type="checkbox"/> PMS <input type="checkbox"/> SMO <input type="checkbox"/> ZN BLUE	20 kg
9092	Hinge 15x100 UR25 stainless steel	<input checked="" type="checkbox"/>	20 kg
9095	Hinge 15x100 UR25 22/M7	<input checked="" type="checkbox"/>	20 kg



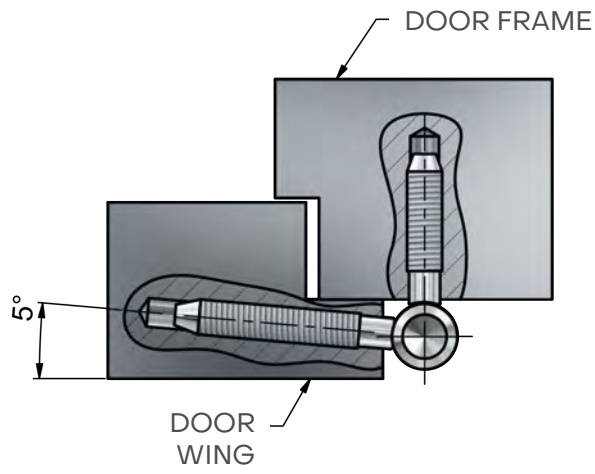
## ACCESSORIES AND TEMPLATES

Assembly device 6727

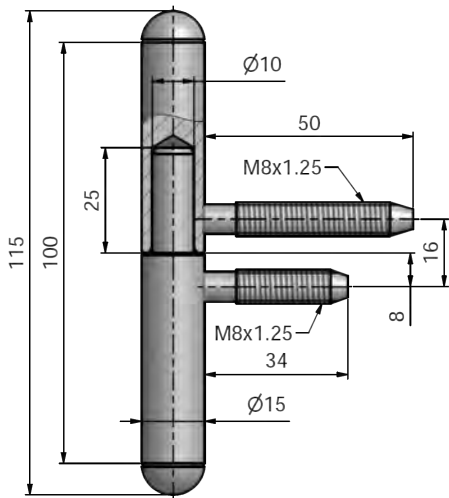
Drill template 6766

Hinge liner 22/7 DZ for 9094, 9095

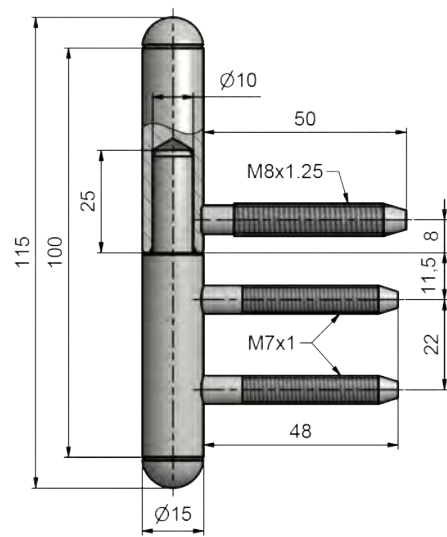
# Door hinges



9091  
9092



9095



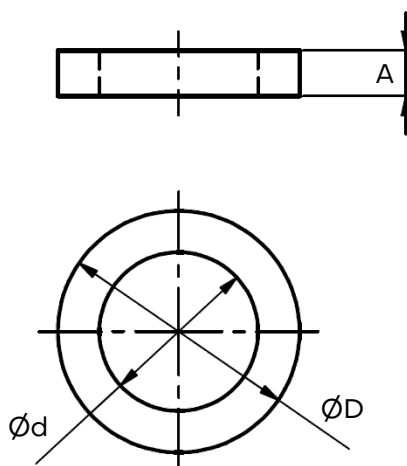


# Door hinges

## METAL PAD

Product No.	Name	SF
9387	Metal pad 1x15	NI NI SAT ZN BLUE ZN YELL
9396	Metal pad 2x15	NI NI SAT ZN BLUE ZN YELL
9393	Metal pad 3x15	NI NI SAT ZN BLUE ZN YELL
9392	Metal pad 1x16	NI NI SAT ZN BLUE ZN YELL
9391	Metal pad 2x16	NI NI SAT ZN BLUE ZN YELL
9390	Metal pad 3x16	NI NI SAT PMS ZN BLUE ZN YELL

Product No.	Dimensions (mm)		
	D	d	A
9387	15	10,5	1
9396	15	10,5	2
9393	15	10,5	3
9392	16	10,5	1
9391	16	10,5	2
9390	16	10,5	3



## ACCESSORIES AND TEMPLATES

Hinges diameter 15 mm, pin diameter 10 mm

Hinges diameter 16 mm, pin diameter 10 mm

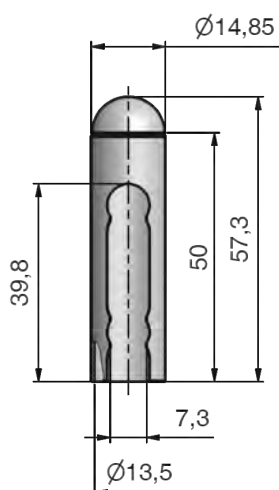
**CAPS**

# Caps

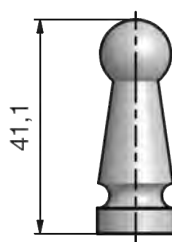
## CAPS Ø13,5

Product No.	Name	SF iron	SF brass
9509 (9563)	UR01 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI SAT <input type="checkbox"/> SMO	<input type="checkbox"/> LAK o
9514 (9503)	UR14 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI SAT <input type="checkbox"/> SM <input type="checkbox"/> SMO	<input type="checkbox"/> LAK o
3500 (3501)	UR21 iron (brass)	<input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> SMO	<input type="checkbox"/> LAK o
9508 (9559)	UR25 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI SAT <input type="checkbox"/> SM <input type="checkbox"/> SMO	<input type="checkbox"/> LAK o
9519 (9504)	UR50 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> SM <input type="checkbox"/> SMO	<input type="checkbox"/> LAK o

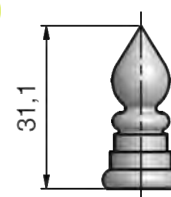
Usage for: EXPERT 13.5 window hinges



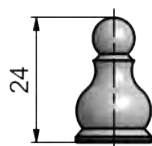
9509  
(9563)



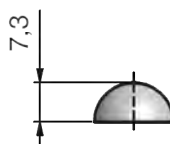
9514  
(9503)



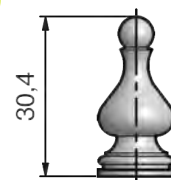
3500  
(3501)



9508  
(9559)



9519  
(9504)



The caps are simply fitted onto the upper and lower part of the hinge (1 hinge = 2 caps).

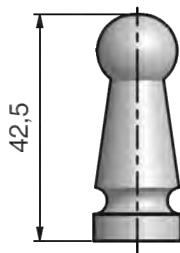
# Caps

## CAPS Ø15

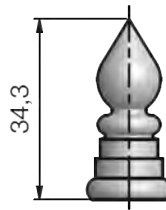
Product No.	Name	SF iron	SF brass
9574 (9561)	UR01 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0
9545 (9544)	UR14 iron (brass)	<input type="checkbox"/> LAK ANT <input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0
3513 (3514)	UR21 iron (brass)	<input type="checkbox"/>	<input type="checkbox"/> LAK 0
9543 (9542)	UR25 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0
9527 (9588)	UR50 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0

Usage for: TRIO 15 and EXPERT 15 window and door hinges

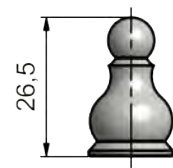
9574  
(9544)



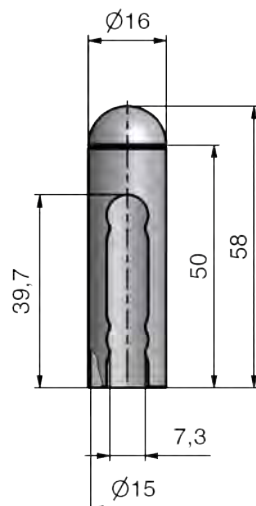
9545  
(9544)



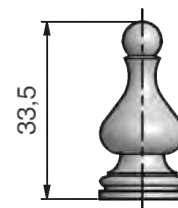
3513  
(3514)



9543  
(9542)



9527  
(9588)



The caps are simply fitted onto the upper and lower part of the hinge (1 hinge = 2 caps).

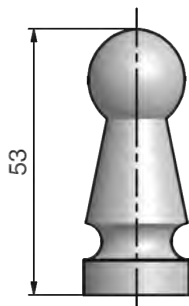
# Caps

## CAPS Ø20

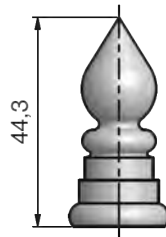
Product No.	Name	SF iron	SF brass
9555 (9576)	UR01 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0
9585 (9582)	UR14 iron (brass)	<input type="checkbox"/> LAK ANT <input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0
3508 (3518)	UR21 iron (brass)	<input type="checkbox"/>	<input type="checkbox"/> LAK 0
9584 (9581)	UR25 iron (brass)	<input type="checkbox"/> LAK 9010 <input type="checkbox"/> LAK 9005 <input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI <input type="checkbox"/> NI SAT <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0
9522 (9586)	UR50 iron (brass)	<input type="checkbox"/> LAK 1013 <input type="checkbox"/> NI SAT <input type="checkbox"/> SMO	<input type="checkbox"/> LAK 0

Usage for: TRIO 20 and EXPERT 20 door hinges

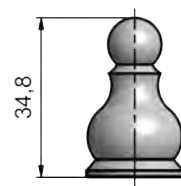
9555  
(9576)



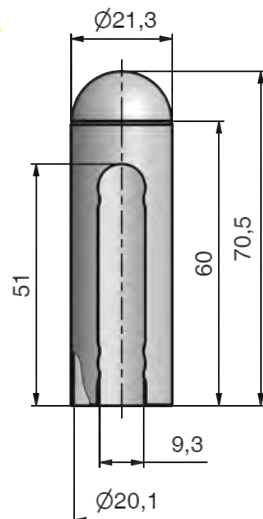
9585  
(9582)



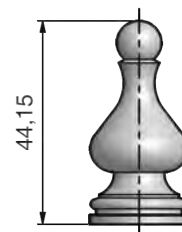
3508  
(3518)



9584  
(9581)



9522  
(9586)



The caps are simply fitted onto the upper and lower part of the hinge (1 hinge = 2 caps).

# Finishes of Caps



Number	Name	Number	Name
1	Antique powder coat	12	Zinc blue
2	Nickel satin	13	Powder coat black
3	Old cooper	14	Brushed nickel
4	Chrome satin	15	Powder coat brown
5	Chrome gloss	16	Old brass
6	Grease	17	Brass polished lacquered
7	Old zinc	18	Powder coated white
8	Lacquer bronze satin	19	Brass satin
9	Yellow zinc	20	Brass natural brushed
10	Lacquer blacksmith matt	21	Nickel gloss
11	Powder varnish pearl white	22	Raw metal polished lacquered

# **DEMONSTRATION OF THE PRODUCTION OF HISTORICAL HINGES**

# Demonstration of the Production of Historical Hinges

## REPLICA MANUFACTURING

1. Original hinges after removal from windows



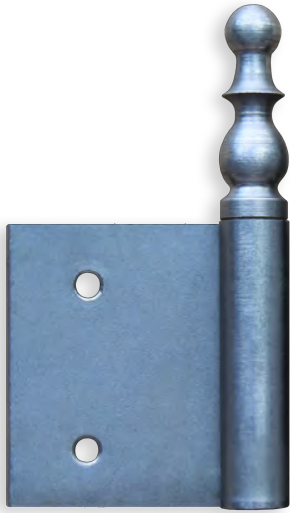
2. Original hinges cleaned





# Demonstration of the Production of Historical Hinges

3. Finished product in raw state



4. Finished product with surface treatment

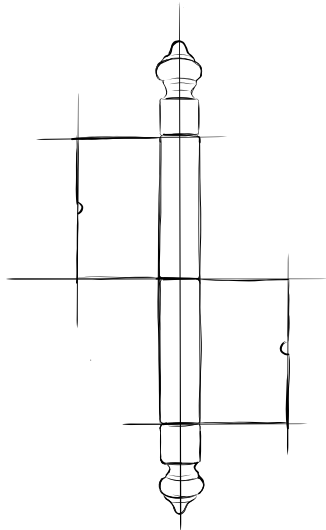


# Demonstration of the Production of Historical Hinges

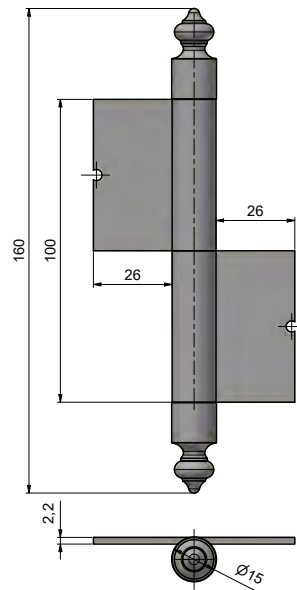
## CUSTOM MANUFACTURING

Based on the concept, manufacturing documentation is created.

### Conceptual design



### Manufacturing documentation



### Finished product in raw state



### Finished product with surface treatment



# ACCESSORIES

# Accessories

## PROMO SETS

Product No.	Name	Dimensions
rz020	Promo set of caps finishes	33 x 23 x 8,5 cm








Product No.	Name	Dimensions
rz012	Promo set of replicas	83 x 33 x 11,5 cm









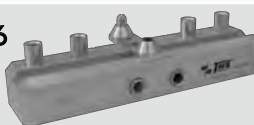






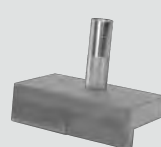










# Accessories

## TEMPLATES

Product No.	Template	SF	Used for mounting	
6720 	Drill template TRIO 15 DZ	ELOX	5888/5889	Window hinge EXPERT 13,5 VS P/L
			5890/5891	Window hinge EXPERT 13,5 P/L
			5412	Window hinge EXPERT 13,5 DZ SD
			9636, 5505, 9686	Door hinge TRIO 15 DZ nerez, BZ
			9624, 5587, 5512	Window hinge TRIO 14, TRIO 15
			5449, 5457, 5447	Door hinge TRIO PYRO
			9676, 9678	Door hinge EXPERT 15, EXPERT 15 BZ
6721 	Drill template TRIO 20 DZ	ELOX	9637, 9683	Door hinge TRIO 20 DZ, TRIO 20 BZ
			6932, 5904	Door hinge TRIO 20 DZ SD, TRIO 20 DZ BZ SD
			9661	Door hinge TRIO 20 DZ H I PH
			9677, 9671	Door hinge EXPERT 20, EXPERT 20 BZ
6728 	Drill template for door hinge 60 with rivet	ELOX	9602	Window hinge 40 M8 with rivet
			9604	Window hinge 60 M8 with rivet
			9605	Door hinge 60 M8 with rivet
6727 	Drill template for door hinge 60/10	ELOX	9615, 9696	Window hinge 30 UR 27
			9687, 9685	Door hinge 80/10 SD + VD
			9081, 9084, 9087	Window hinge 13x100
			9617	Window hinge 40 M8
			9079	Window hinge 13x60
6724 	Drill template for window hinge of three parts	ELOX	9633	Hinge fo three parts 14x60 M8/34,5
			9634	Hinge of three parts 14x60 M8/50

# Accessories

## TEMPLATES

Product No.	Template	SF	Used for mounting	
Upon request 	Drill template 80/10 22/M7 SD + VD 6744		9732	Door hinge 80/10 SD 22/M7 PH
			9733	Door hinge 80/10 SD 22/M7 D PH
			9692	Door hinge 80/10 M8 22/M7
6761 	Drill template TRIO 15 BP		9656/9657	Door hinge TRIO 15 BP PH P/L
6735 	Drill template TRIO 20 BP		9658, 9659	Door hinge TRIO 20 BP PH P/L
6746 	Drill template TRIO 15 PP		5500	Door hinge TRIO 15 PP
6751 	Steel ruler		For the templates connection 	
6759 	Milling template 3D		All types of 3D hinges	
6762 	Drill template window rivet		6603	Window rivet to screw in M8x50
			6599	Window rivet to screw in M8x34,5
6777 	Assembly device 11		Hinges with diameter 11	
6764 	Assembly device 13		Hinges with diameter 13	
6765 	Assembly device 14		Hinges with diameter 14	
6766 	Assembly device 15		Hinges with diameter 15	
6767 	Assembly device 16		Hinges with diameter 16	

# Accessories

## Hinges Suitable for Fire Doors

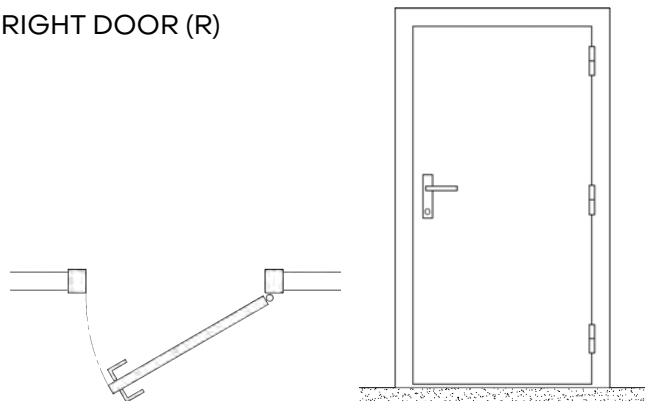
9636	Hinge TRIO 15 DZ	6955	Hinge TRIO 15 SD M8x80
5504	Hinge TRIO 15 M8 PH stainless steel	5429	Hinge TRIO 15 PP DZ SD
5505	Hinge TRIO 15 DZ PH stainless steel	6956	Hinge TRIO 15 PYRO PH VD
5500	Hinge TRIO 15 PP	5428	Hinge TRIO 15 OZ PH M8x80 VD-32
5502	Hinge TRIO PP 22/M7	5509	Hinge TRIO 15 OZ PH M8x80 VD stainless steel
5515	Hinge TRIO 15 MAX BZ TR	5401	Hinge TRIO 15 PP PH VD
5516	Hinge TRIO 15 MAX BZ M8x22	9637	Hinge TRIO 20 DZ PH
5517	Hinge TRIO 15 MAX BZ TR M8x22	9683	Hinge TRIO 20 DZ PH BZ
9663	Hinge TRIO 15 M8 PH	9661	Hinge TRIO 20 M10 PH
5449	Hinge TRIO 15 PYRO 3 EI 60 DZ PH	5520	Hinge TRIO 20 MAX BZ TR
5457	Hinge TRIO 15 PYRO 3 EI 30 DZ PH	5521	Hinge TRIO 20 MAX BZ M10x29
5447	Hinge TRIO 15 PYRO 3 TR MDF EI 60 DZ PH	5522	Hinge TRIO 20 MAX BZ TR M10x29
9631	Hinge TRIO 15 PYRO M8 PH	6934	Hinge TRIO 20 H PH VD
9632	Hinge TRIO 15 PYRO 2 M8 PH		

Designed for various types of fire doors. Fire-rated hinges must be tested as a complete set.

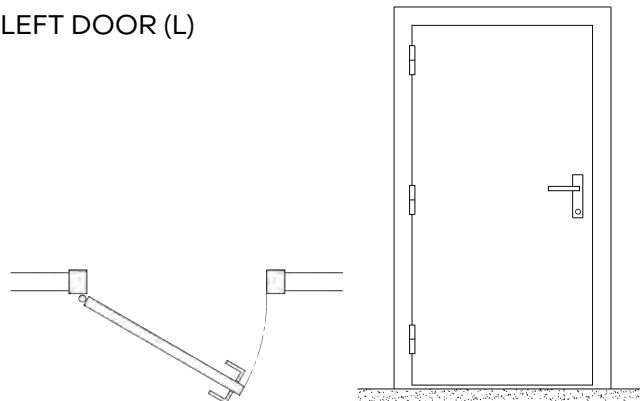
# Accessories

## DOOR TYPE

RIGHT DOOR (R)



LEFT DOOR (L)



## LOAD

### RAL - RG 607/8

Test regulation used for window hinges and hinges not intended for access or escape routes.

#### EXAMPLE

Window hinge 60 – Load capacity of 1 hinge: 8 kg. Calculation of load capacity for 2 hinges –  $8 \times 2 = 16$  kg.  
Calculation of load capacity for 3 hinges – load capacity for 2 hinges  $\times 1.3 = 16$  kg  $\times 1.3 = 20.8$  kg.

### ČSN EN 1935:2002

This harmonized European standard specifies the requirements for window and door hinges for use on access and escape routes. The allowable load for one hinge is specified for doors with dimensions of 2,000 x 1,000 mm. The maximum allowable load for two hinges is double the maximum capacity of one hinge. Adding a third hinge increases the allowable load by approximately 30 %.

#### EXAMPLE

TRIO 20 – Load capacity of one hinge: 40 kg. Calculation of load capacity for 3 hinges –  $40 \times 3 = 120$  kg.  
For doors wider than 1,000 mm, the allowable load is reduced – for example, for doors with a width of 1,250 mm, the allowable load must be reduced by 40 %.



# Accessories

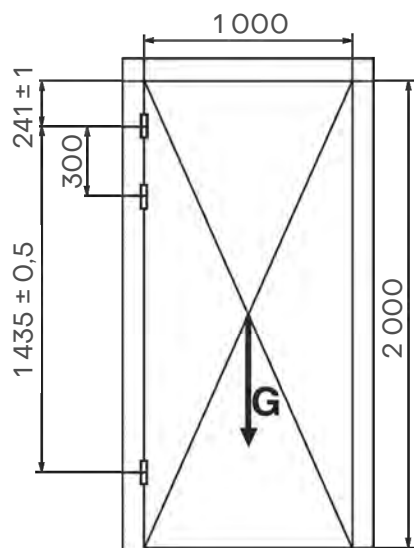
## MORTISING

	Assembly by drill template	Redrill in hard wood without drill template
Hinges with thread M8	drill $\varnothing$ 6,5 mm	no redrill
Hinge EXPERT 13,5; 14; 15	drill $\varnothing$ 6,7 mm	drill $\varnothing$ 7 mm
Door hinge TRIO 14; 15	drill $\varnothing$ 6,7 mm	drill $\varnothing$ 7 mm
Door hinge TRIO 20; EXPERT 20	drill $\varnothing$ 8,7 mm	no redrill
Door hinge TRIO 15 PP	drill $\varnothing$ 7,6 mm	drill $\varnothing$ 8 mm

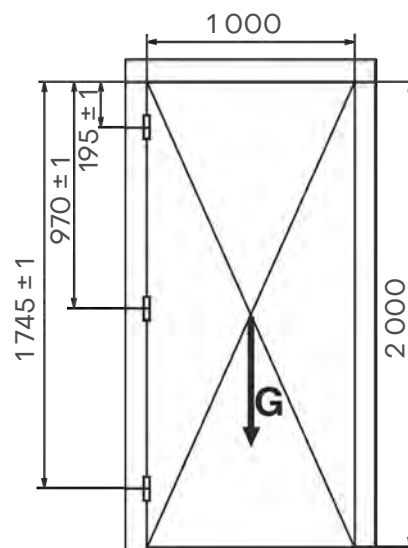
Recommended use of drills for mortising different types of screw-in hinges.

## HINGE ASSEMBLY

According to the standard:  
DIN 18 101



ČSN 74 6401



## CORROSION RESISTANCE

	Surface finish	Operating Conditions
<b>Degree 0</b> Undefined resistance		Where corrosion resistance is not relevant.
<b>Degree 1</b> Low resistance	zinc, lacquer, synthetic materials	Operating in warm and dry indoor environments.
<b>Degree 2</b> Moderate resistance	chrome, satin chrome, nickel, satin nickel, antique copper, antique brass, brass-plated	Operating in indoor environments where condensation may occur.
<b>Degree 3</b> High resistance	komaxit	Operating in outdoor environments where humidity from rain or dew is common.
<b>Degree 4</b> Very high resistance	stainless steel	Operating in outdoor environments under very harsh conditions.
<b>Degree 5</b> Extraordinarily high resistance	stainless steel	Operating in outdoor environments under extremely harsh conditions, where long-term protection of the product is required.

## HINGES FOR DOORS WITH DOOR CLOSERS

Door closers increase the load on door hinges and their wear rate.

For door closers without an end stop, the effective weight of the door should be considered 20 % higher than the actual weight. The effective weight is the starting point when determining the hinge type. For example, a door leaf weighing 60 kg – consider an effective weight of 72 kg when selecting the hinges.

For door closers with an end stop, this effect is much higher, and the effective door weight is calculated to be 75% higher.

For example, a door leaf weighing 60 kg – consider an effective weight of 105 kg when selecting the hinges.

Wooden doors equipped with door closers should generally have four or more hinges (according to EN 1935). The fourth hinge must be mounted approximately 200 mm below the top hinge. Hinges of classes 12, 13, and 14 must be used with door closers – the eighth digit in the numerical coding system of the certificate.

12 – Door hinges TRIO 15, EXPERT 15

13 – Door hinges TRIO 20, EXPERT 20, 3D

# REFERENCE PROJECTS

# Reference Projects

NATIONAL THEATRE



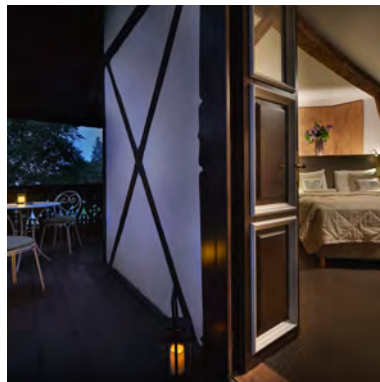
CZECH NATIONAL BANK



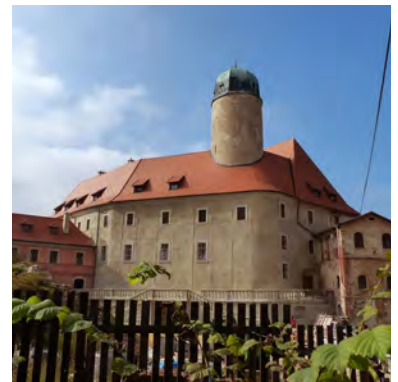
RUDOLFINUM



PRINCE ALEXANDER'S COTTAGE, LOUČEŇ



LIBÁ CASTLE AND CHATEAU



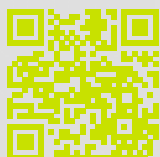
# Other products and services offered by TKZ

## WINDOW AND DOOR HINGES



## CONTINUOUS HINGES





TKZ Polná, spol. s r. o.  
Zahradní 572, 588 13 Polná, CZ  
+420 567 155 211  
[www.tkz.cz](http://www.tkz.cz)

Published 9/2024  
All rights reserved