



Warsaw 30.04.2013

FAKRO Spółka z o.o.
ul. Węgierska 144 a
33-300 Nowy Sącz

6050/13/R05NPe

Fire resistance classification of hatch door with loft ladder LWF

1. Formal grounds

- 1.1. Order of FAKRO Spółka z o.o. from 04.02.2013 r.
- 1.2. Agreement No. 6050/13/R05NP.

2. Essential basis

- 2.1. EN 1634-1: 2000 Fire resistance tests for door and shutter assemblies – Part 1: Fire doors and shutters
- 2.2. EN 1363-1:1999 Fire resistance tests – Part 1: General requirements
- 2.3. PN-EN 13501-2+A1:2010: Klasyfikacja ogniowa wyrobów budowlanych i elementów budynków. Część 2: Klasyfikacja na podstawie badań odporności wyłączając instalację użytkową. (**Fire classification of construction products and building elements – Part 2: Classification using data from fire resistance tests, excluding ventilation services**).
- 2.4. Test report FR-088-06-AUNE of fire resistant shutter with retractable stairs. Fire Testing Laboratory Fires s.r.o. Batizovce 2006.
- 2.5. Technical documentation delivered by FAKRO Spółka z o.o.
- 2.6. Work No NP-00847/P/2010/BW/e. Fire resistance classification of hatch door with loft ladder LWF. ITB Warsaw 2010.

3. Technical description

The hatch door with loft ladder LWF is manufactured by Polish company Stolart Spółka z o.o. 34-642 Dobra 506; it occurs in trade offer of FAKRO Spółka z o.o. with the name: „Fire resistant loft ladder LWF”.

Technical description and construction details of hatch door with loft ladder LWF are given in Appendix (all pages stamped by seal of Fire Research Department Building Research Institute).

Construction of the hatch door is formed as a frame made of pine timber elements of square cross-section (figure No. 4). The hatch door is filled up with mineral wool PAROC FPS 14 or Rockwool Conlit 150 thickness of 30 mm. The facings are made of MDF FR1 „FIRAX” board thickness of 9 mm manufactured by Spanolux S.A. and HDF board thickness of 3 mm. Along the perimeter intumescent gasket KERAFIX FLEXTREM 100 cross section of 2x20 mm is installed.

Dimensions of hatch door with loft ladder LWF are given on figure no. 2, 3 and 4 in Appendix. The frames of hatch door with loft ladder LWF shall be installed in floors according to producer instruction. Hatch door with loft ladder LWF can be installed in floors of minimum REI 30 fire resistance class.

4. Fire resistance tests

In Fire Testing Laboratory Fires s.r.o. in Batizovce (Slovakia) fire resistance test of hatch door with loft ladder LWF was carried out according to EN 1634-1: 2000 [2.1] – test report No. FR-088-06-AUNE [2.4].

5. Fire resistance classification

Fire resistance class of hatch door with loft ladder LWF manufactured according to technical description given in clause 3 with fire exposure from below according to PN-EN 13501-2+A1:2010 [2.3] - **EI₂ 30 / EW 30**.

6. Validity date of the classification

The classification remains valid until 30 April 2016 provided that neither material nor constructional changes are made to the hatch door with loft ladder LWF.

In case of doubt Polish version is the only basis for interpretation.

Classification prepared by:


Bogdan Wróblewski, M.Sc. Civil Eng.

Approved by

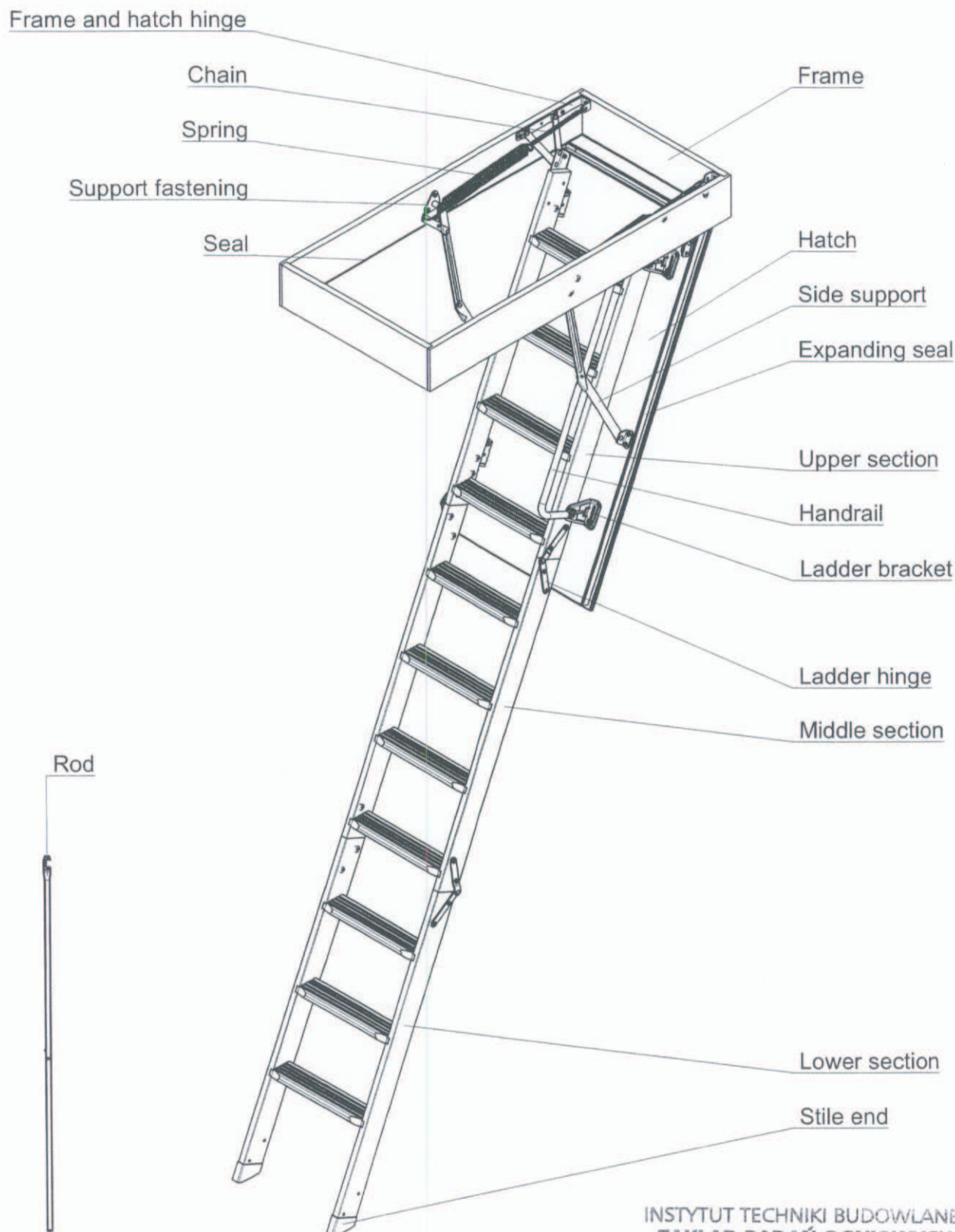
Marek Łukomski M.Sc. Civil Eng.


Deputy Head of the Fire Research Department

Appendix:

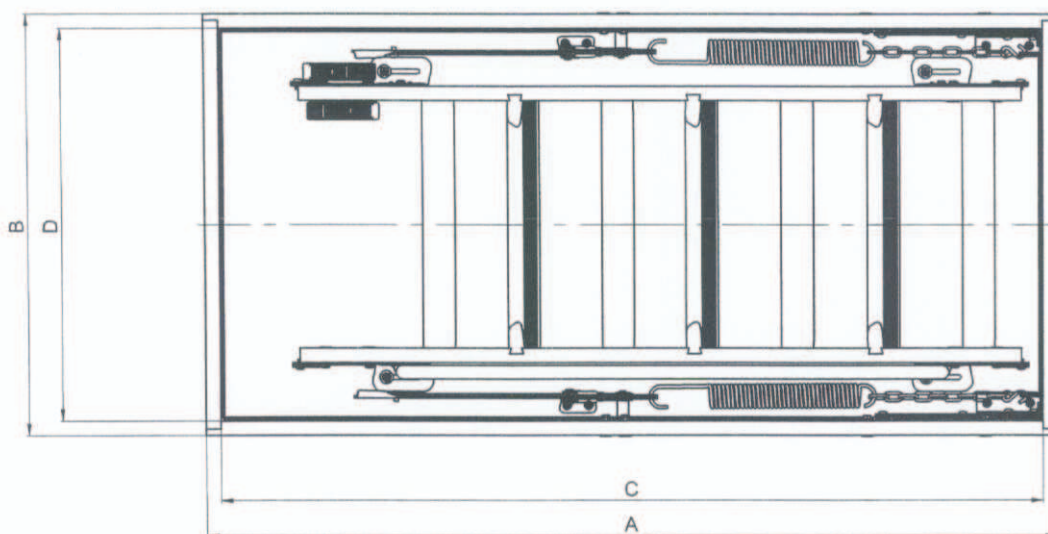
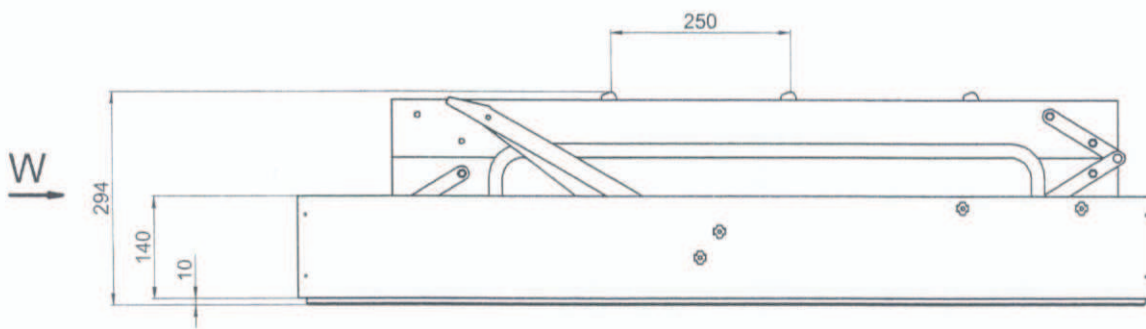
- documentation of hatch door

with loft ladder LWF (15 drawings)



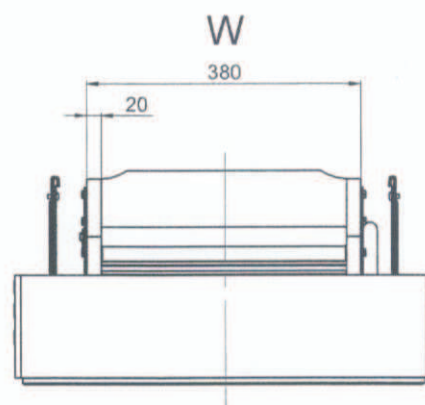
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 tel. 022/848-23-07, 843-14-71
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Fig. 1 – Structure of the inspection hatch with FAKRO LWF fire-resistant EI 30 section loft ladder



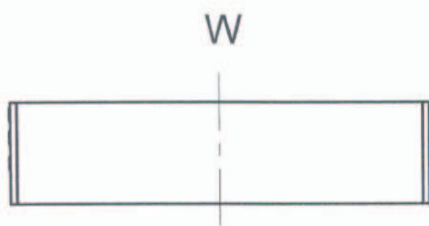
Dimensions marking	Dimensions mm				
	120x60 cm	120x70 cm	130x70 cm	130x86 cm	140x70 cm
A	1180	1180	1280	1280	1380
B	580	680	680	840	680
C*	1140	1140	1240	1240	1340
D*	540	640	640	800	640

* Internal dimensions of the frame



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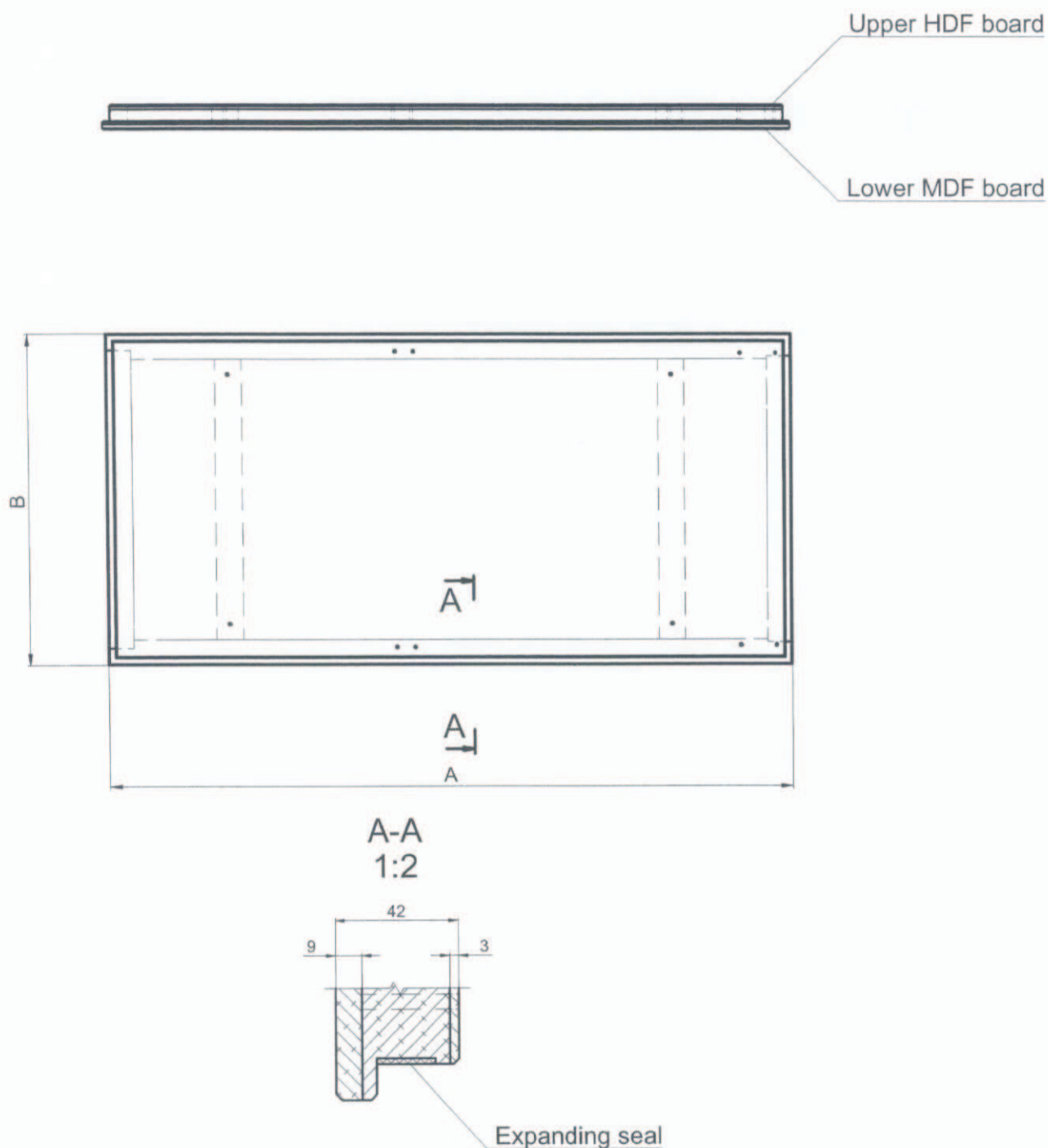
Fig. 2 – Characteristic dimensions of the inspection hatch with FAKRO LWF fire-resistant EI 30 section loft ladder



Dimensions marking	Dimensions mm				
	120x60 cm	120x70 cm	130x70 cm	130x86 cm	140x70 cm
A	1180	1180	1280	1280	1380
B	580	680	680	840	680

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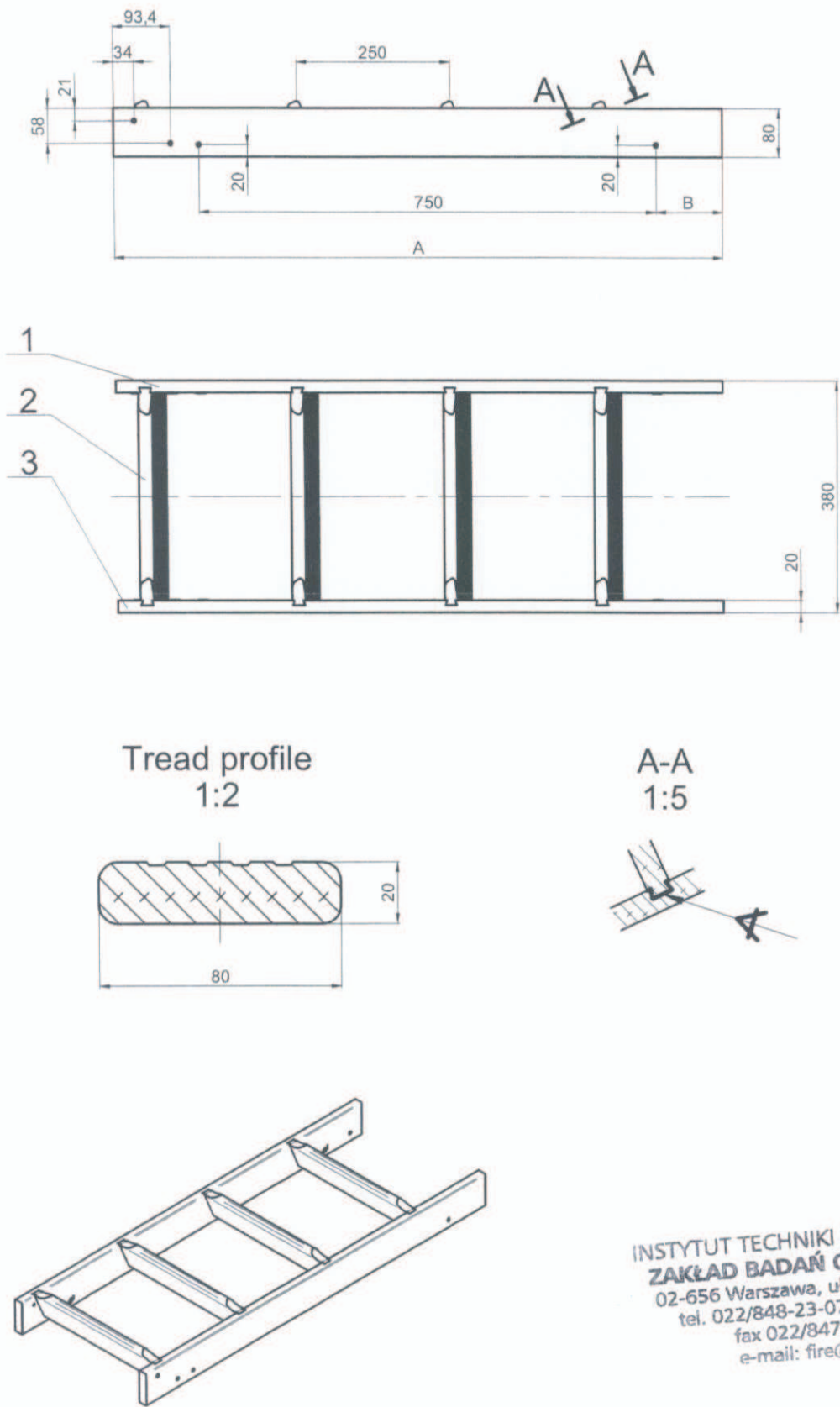
Fig. 3 – Frame



Dimensions marking	Dimensions mm				
	120x60 cm	120x70 cm	130x70 cm	130x86 cm	140x70 cm
A	1158	1158	1258	1258	1358
B	558	658	658	818	658

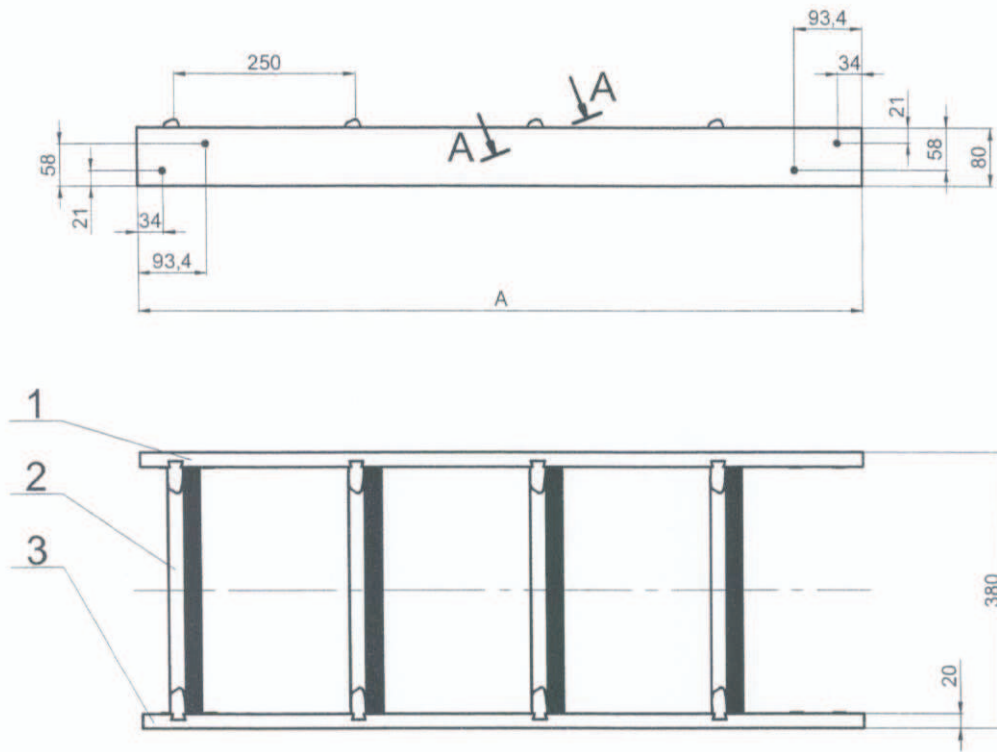
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Fig. 4 – Hatch

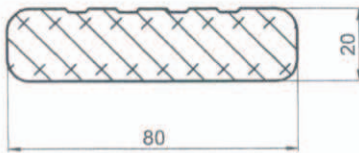


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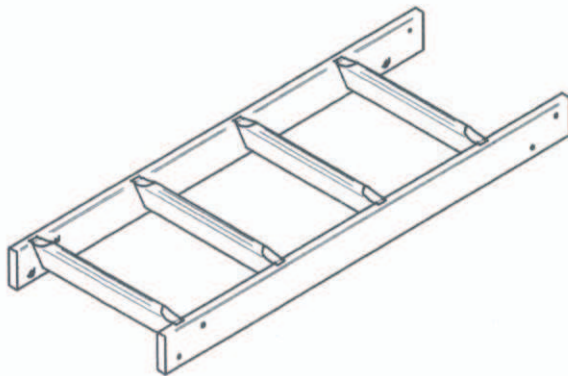
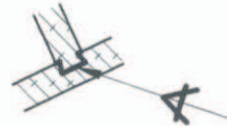
Fig. 5 – Upper section



Tread profile
1:2

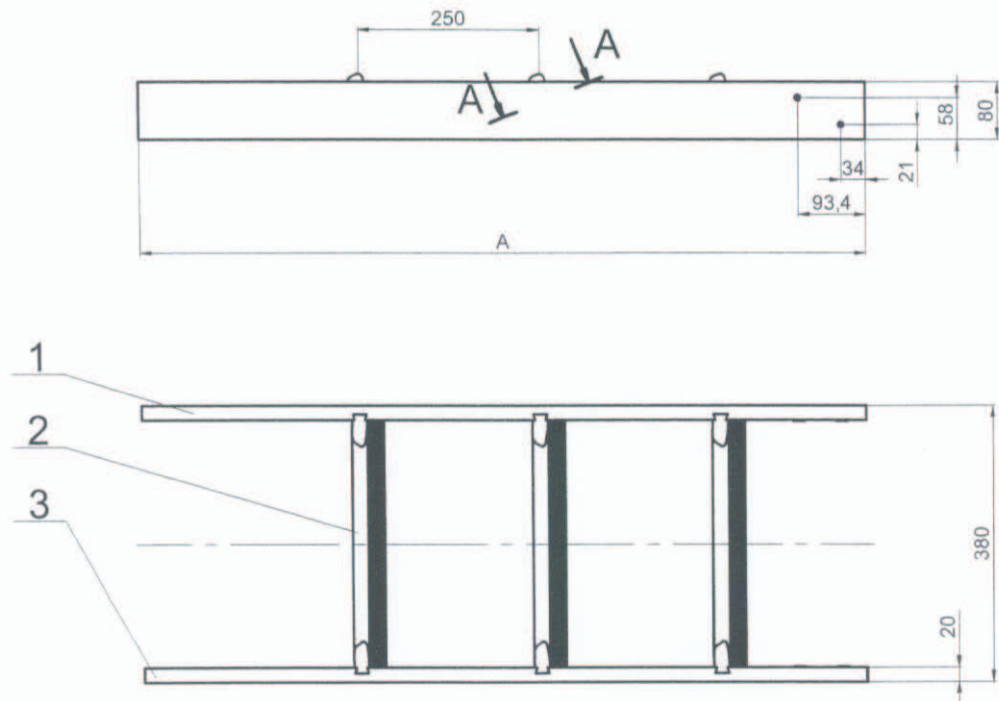


A-A
1:5

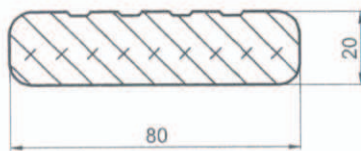


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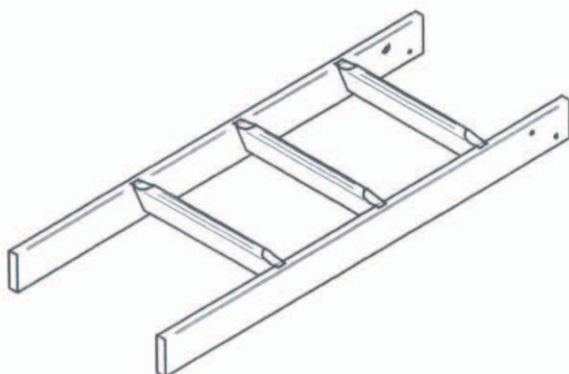
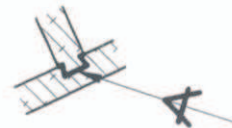
Fig. 6 – Middle section



Tread profile
1:2

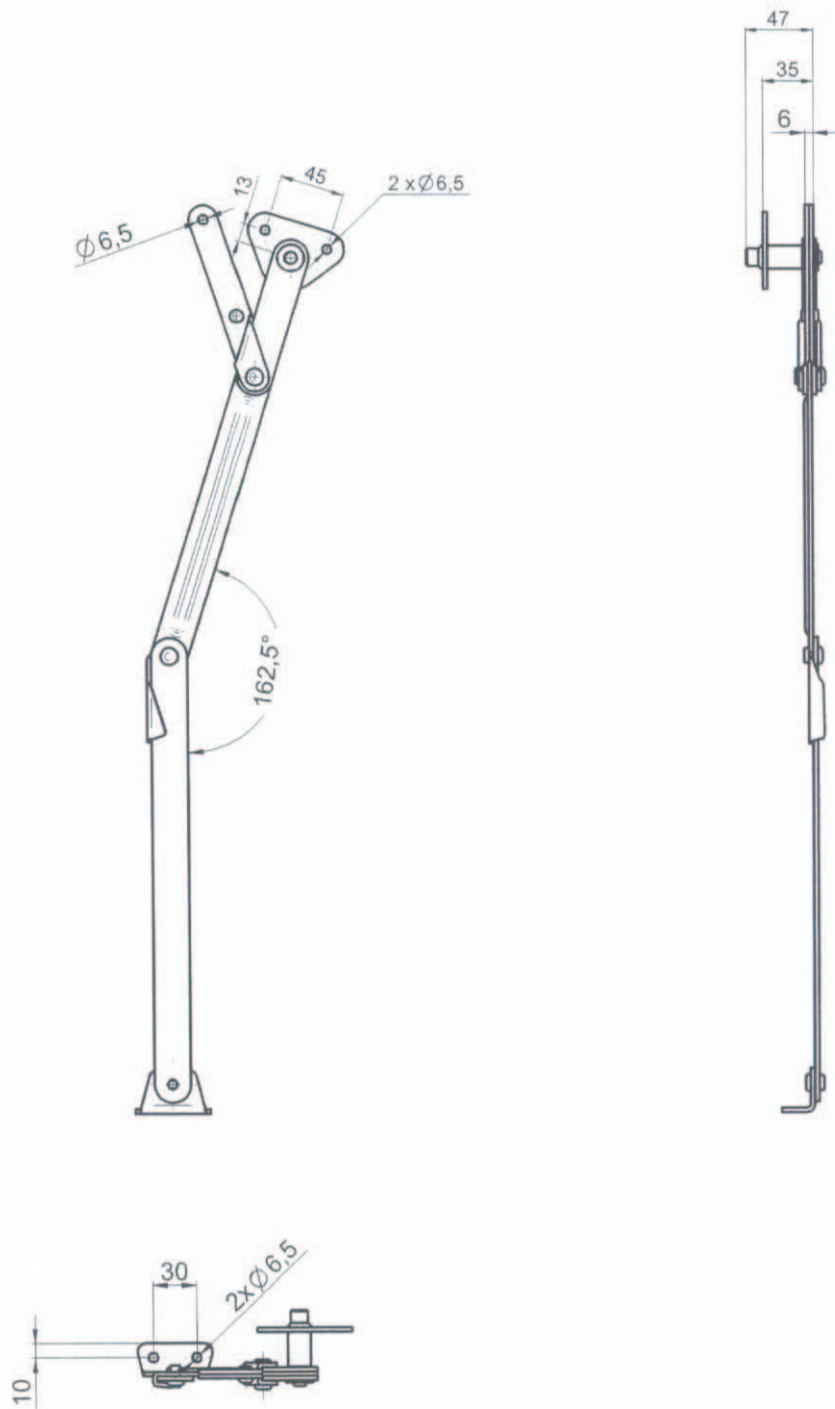


A-A
1:5



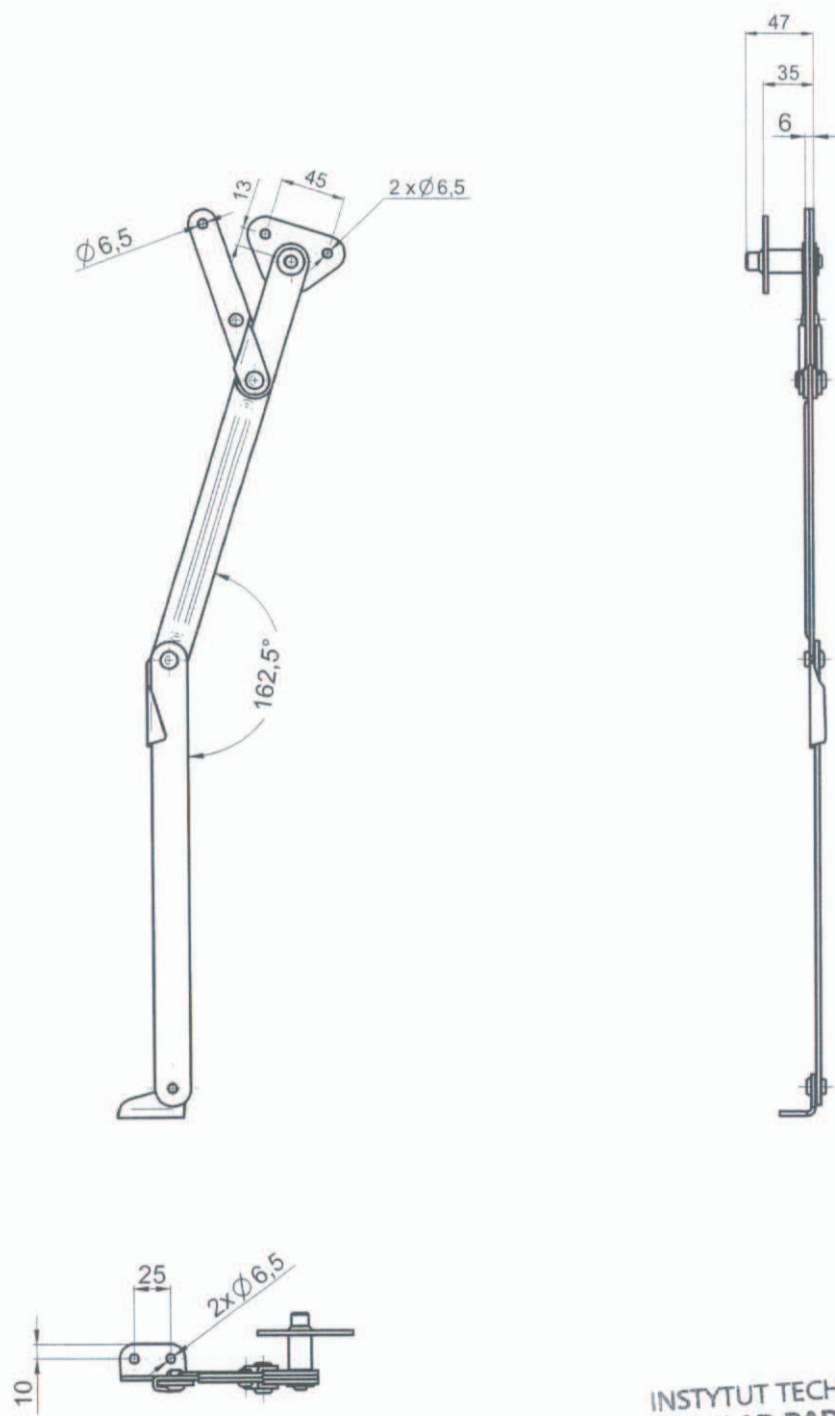
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Fig. 7 – Lower section



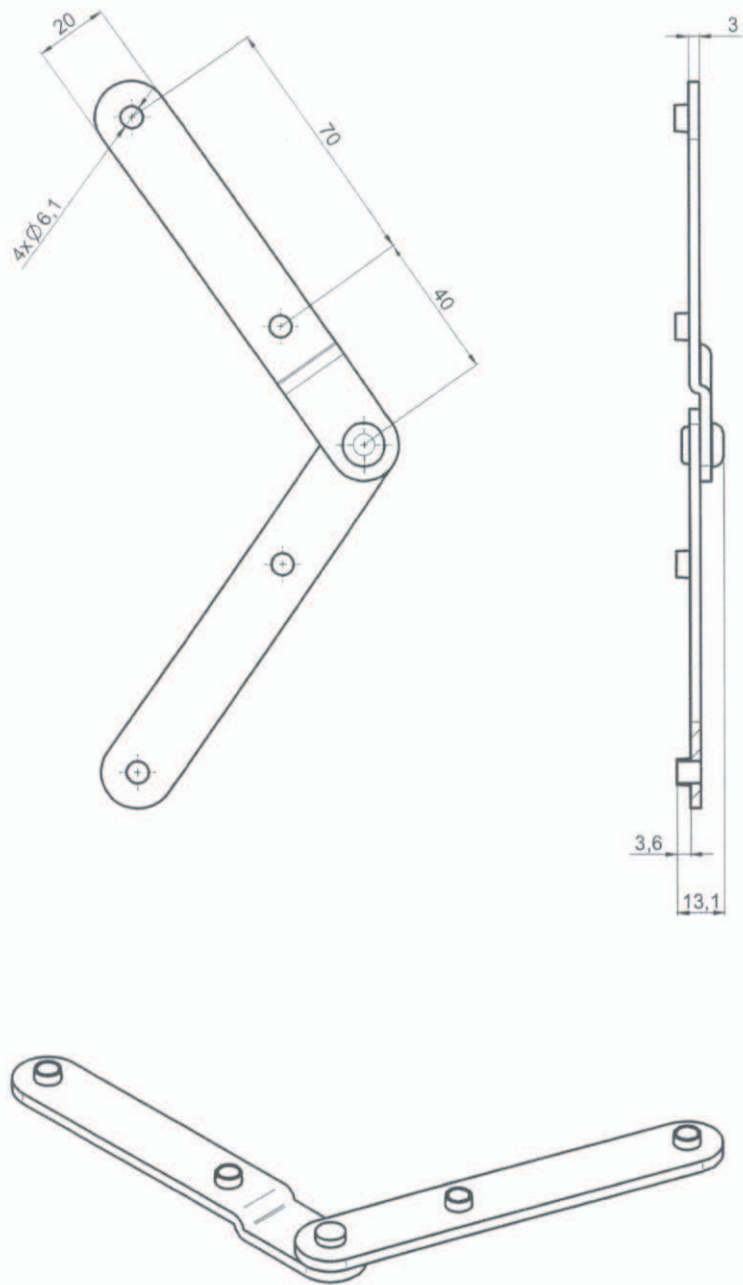
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Fig. 8 – Side support – version A



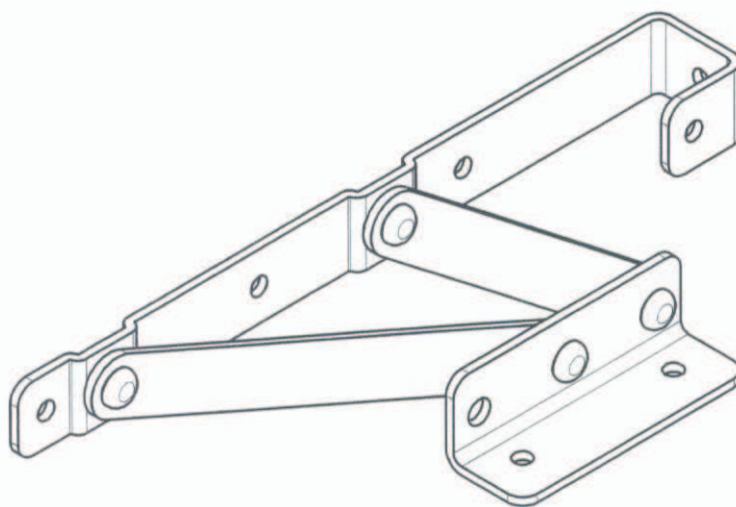
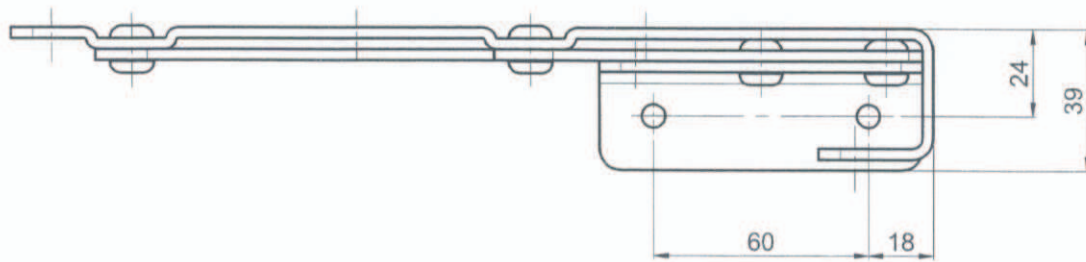
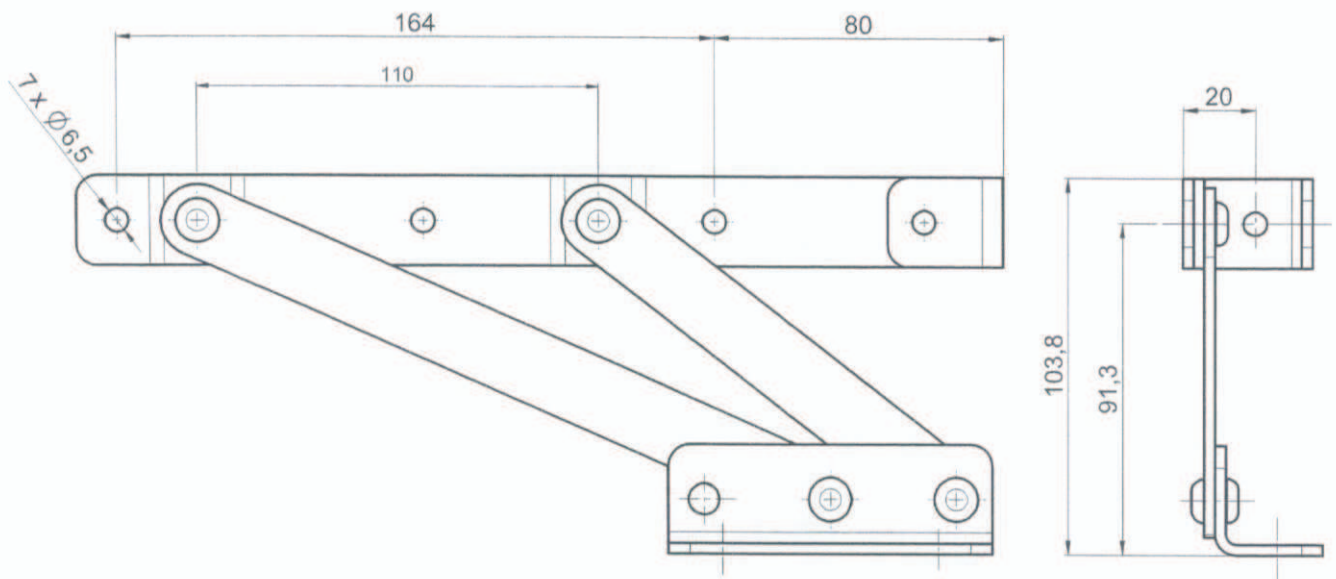
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Fig. 9 – Side support – version B



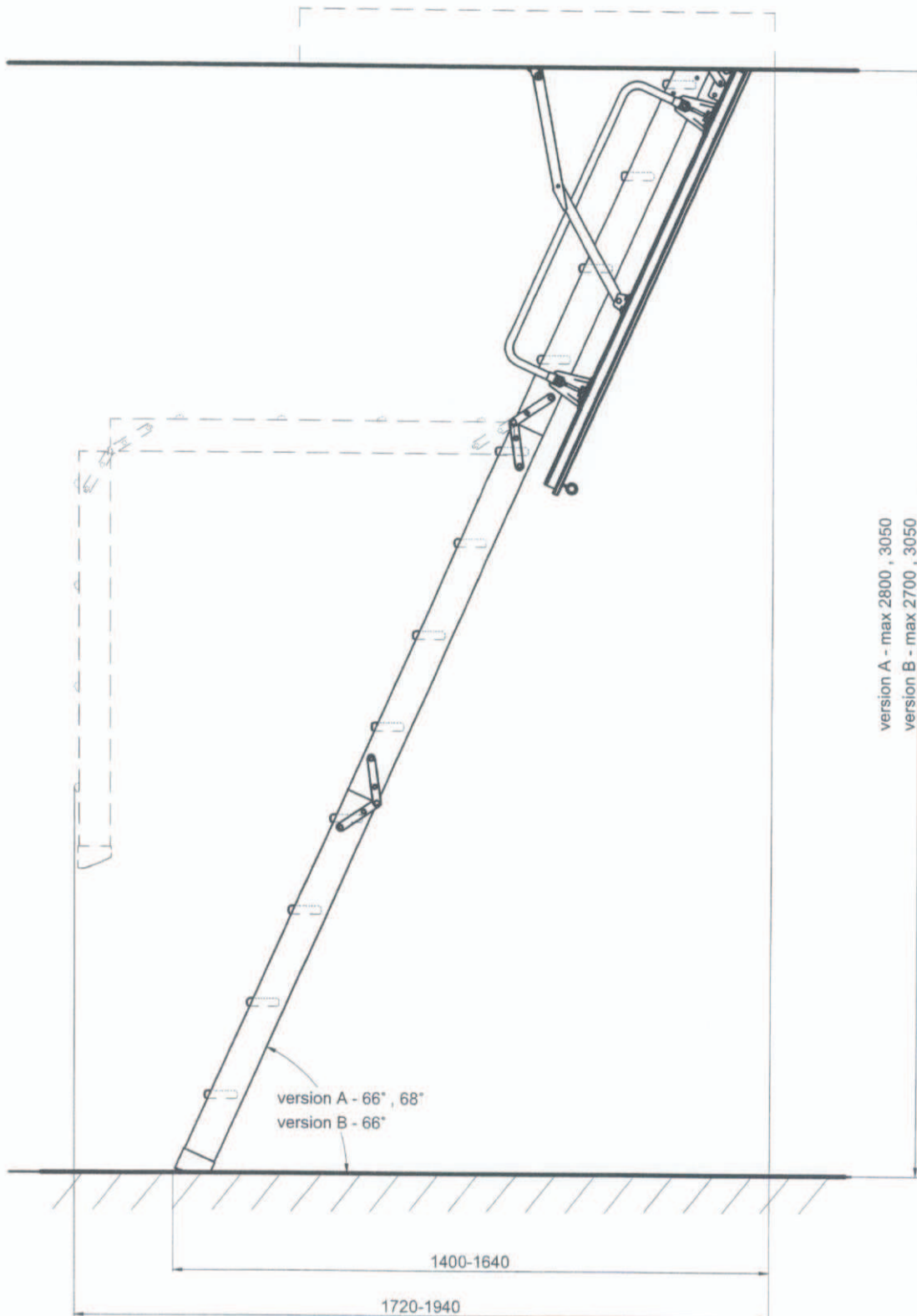
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Fig. 10 – Ladder hinge



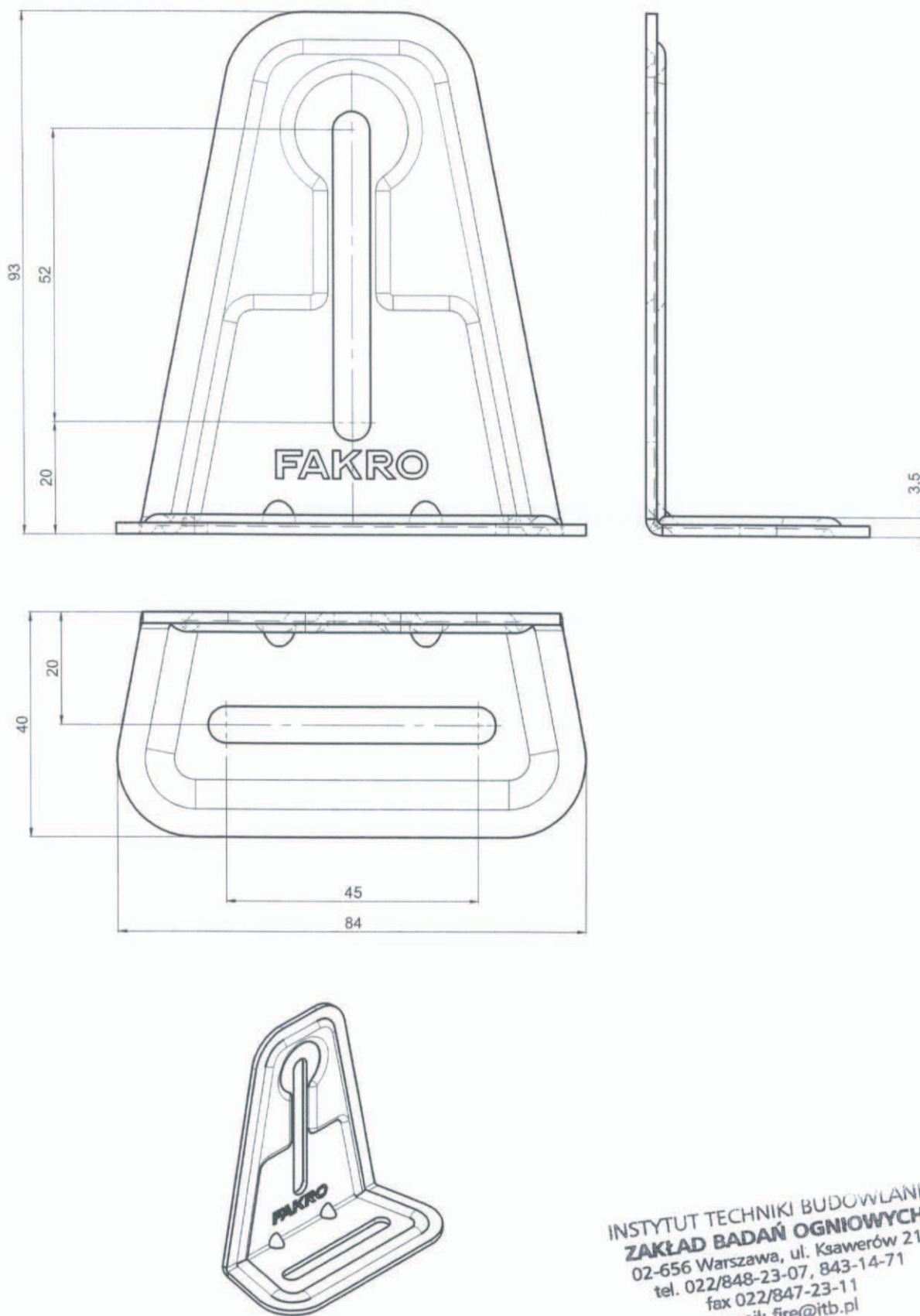
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Fig. 11 – Frame and hatch hinge



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Fig. 12 – Space occupied by the inspection hatch with FAKRO LWF fire-resistant EI 30 section loft ladder



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Fig. 13 Ladder bracket used in version A of the loft ladder

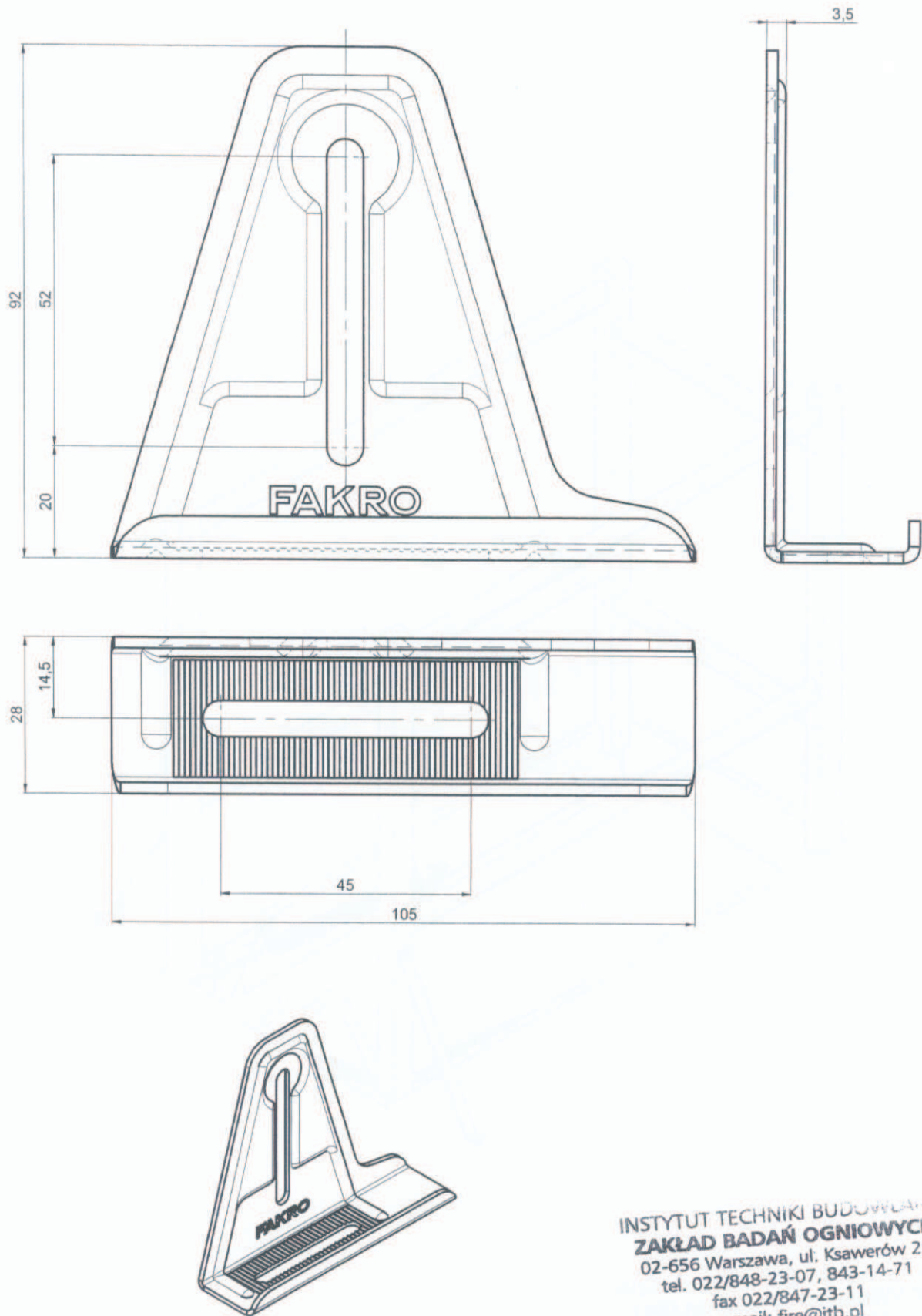
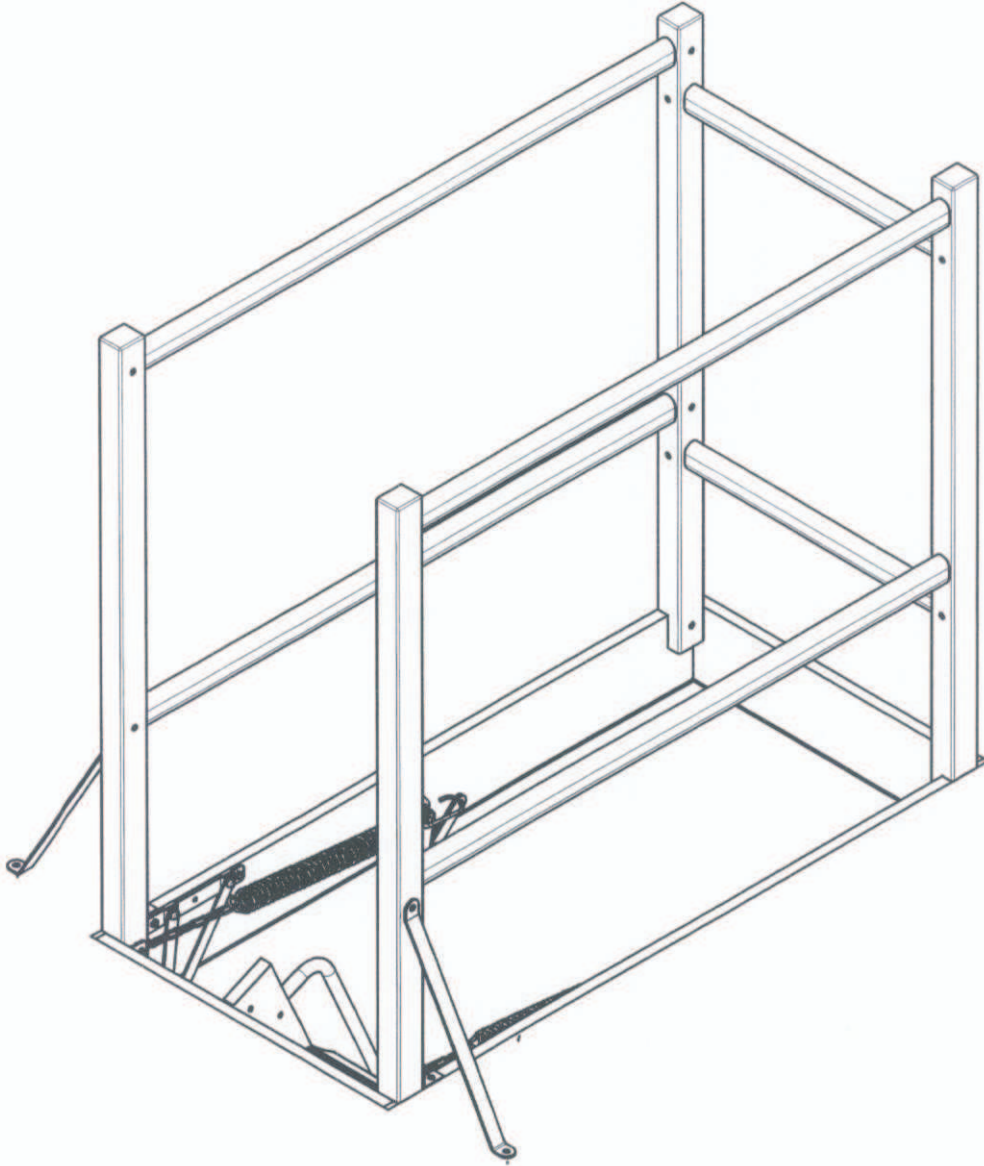


Fig. 14 – Left ladder bracket used in version B of the loft ladder

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Fig. 15 – Protective barrier