

MK69

INFORMATION FOR THE USER



STAGE
TOP VIEW

FEMALE - MALE
PROFILE



MK69 STAGE
dim.:1.00x2.00m
BOTTOM VIEW



STAGE FRAME



EVENTS CONSTRUCTIONS & PROTECTION
Research | Design | Implementation

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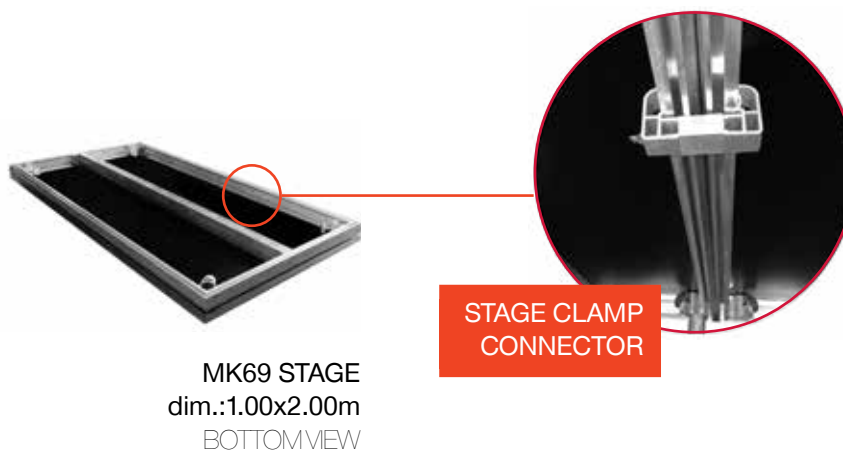
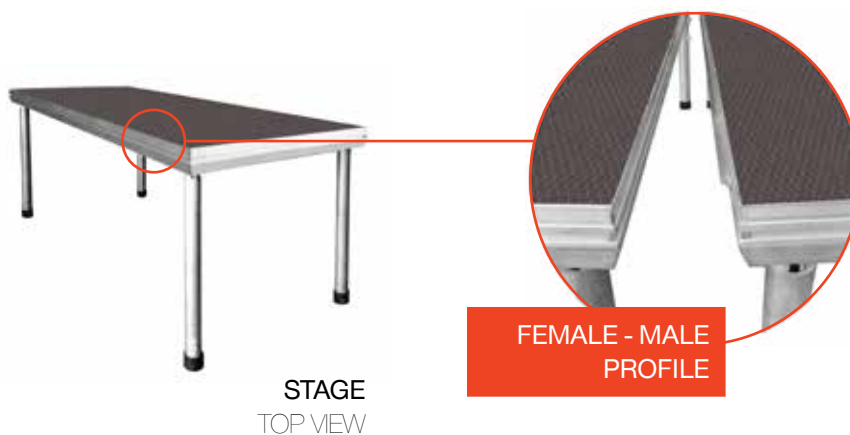
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Mikkou Stage Deck-Metric System **MK69** Male-Female & Female-Female

MK69 Stage Deck-Metric System is made of aluminium profiles (male-female, female-female), one aluminium spar along the center of the deck and four angular receptions for legs. Profiles are connected with aluminium corner connectors.

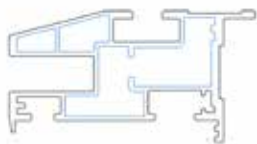
The topping is anti-slip HEXA plywood. Topping prevents it from moisture penetrating, has high resistance to abrasion, chemicals and fungus formation. It's connected to the frame with screws in order to be replaced if needed.

- Water-resistant
- Fire reaction class; B_{fl}s1.

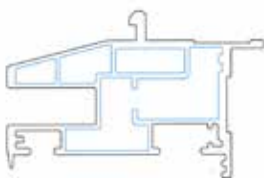


Frame	Male-Female, Aluminium (606355 T6)
Beam	Aluminium (606355 T6)
Topping	Antislip HEXA plywood, resistant, 12mm
Dimensions	1.00x2.00m
Weight (MK69/2000X100)	35.5kg
Profile's height	9.27cm
Fire reaction class	B _s 1

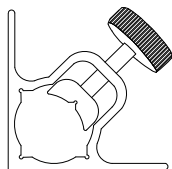
MK69/500x500	10kg
MK69/1000x500	14kg
MK69/1500x1000	20kg
MK69/2000x500	24kg
MK69/1000x1000	23kg
MK69/2000x100	35,5kg



FEMALE



MALE



LEG'S INSERT HOLDER

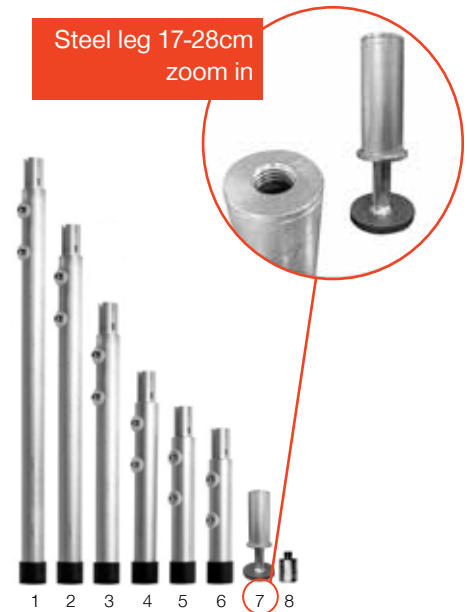


BEAM

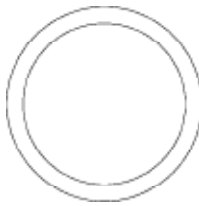
- Professional durable product
- Minimum oscillation prevents movement of the stage while walking on it
- Easy handling and installation
- Can be used indoors and outdoors
- Special orders of size and surfaces
- Designed for frequent use

ADJUSTABLE - EXTENDIBLE ALUMINIUM AND STEEL LEGS WITH ELASTIC BOTTOM

1. **MSL110195** | 110-195cm | 5kg
2. **MSL90158** | 90-158cm | 4kg
3. **MSL70113** | 70-113cm | 3kg
4. **MSL5070** | 50- 70cm | 2.2kg
5. **MSL4050** | 40- 50cm | 1.8kg
6. **MSL3340** | 33- 40cm | 1.5kg
7. **MSL1728** | Aluminium&Steel legs 17-28cm (el.galv) | 1.10kg
8. **MSAD2832** | Adaptor 5cm for MSL1728 (el.galv) | 0.75kg



LEG'S INNER TUBE
Ø48.5



LEG'S OUTER TUBE
Ø60 - 5mm



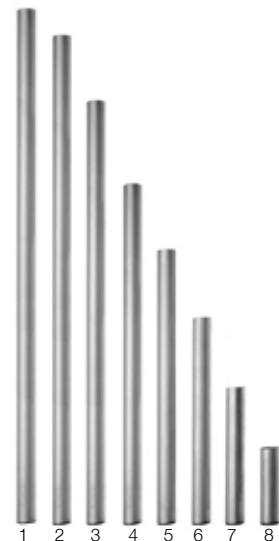
M123
ELASTIC BRUBBER
Ø60 FOR LEGS



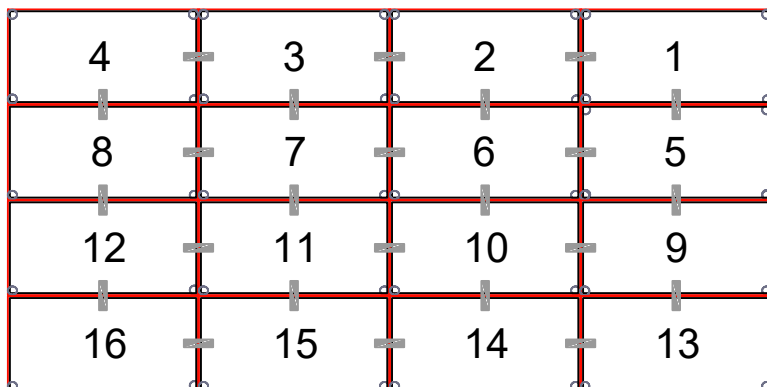
M124
SCREW SET
FOR LEGS

FIXED GALVANIZED STEEL & ALUMINIUM LEGS WITH PLASTIC BOTTOM

1. **MSLA140** | 140cm (galv. steel Ø48x1.35mm) | 3.02kg
2. **MSLA120** | 120cm (galv. steel Ø48x1.35mm) | 2.6kg
3. **MSLA110** | 110cm (galv. steel Ø48x1.35mm) | 2.4kg
4. **MSLA100** | 100cm (galv. steel Ø48x1.35mm) | 2.2kg
5. **MSLA80** | 80cm (galv. steel Ø48x1.35mm) | 1.7kg
6. **MSLA60** | 60cm (aluminium Ø48x3mm) | 0.5kg
7. **MSLA40** | 40cm (aluminium Ø48x3mm) | 0.3kg
8. **MSLA20** | 20cm (aluminium Ø48x3mm) | 0.2kg



With MK69, use of four legs per deck is not a necessity due to the bonding (male-female connection) between them. For stage height 0,80m max, from the second line and on you may use 2 legs per deck with the additional use of connection clamps.

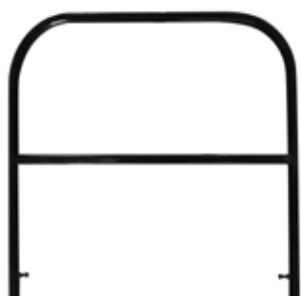


Note: Decks are certified per DIN15921, 4 legs per deck

MK69 Multi Directional 1.000x2.000



MK69 & MK89 ACCESSORIES



MRR/100100
RAILING RING WITH
2 SCREWS
1.00xH:1.00m Ø33
metallic | 4.4kg



MRR/200100
RAILING RING WITH 2 SCREWS 2.00xH:1.00m
Ø33metallic | 6.4kg



MCL-STAGES
CLAMP FOR 2 STAGES
aluminium | 0.35kg



MSTAGE-FEM
FEMALE FOOT Ø48
aluminium | 0.55kg



MGRF33
ADAPTER FOR RAILINGS
metallic | 0.5kg



MLEGS
CLAMP FOR 2LEGS
metallic | 0.95kg



MTAF
TAF RAILINGS' LINK
aluminium
0.01kg

STAIRWAYS FOR STAGES



MSTAIRS120

ADJUSTABLE ALUMINIUM STAIR
FOR MK69 AND MK89 SYSTEM

(adapters and handrails not included in the price)

MSTAIRS120 | 0.70xH:1.20m 5 stairs | 35.6kg

MSTAIRS140 | 0.70xH:1.40m 6 stairs | 42.9kg

MSTAIRS160 | 0.70xH:1.60m 7 stairs | 50.2kg

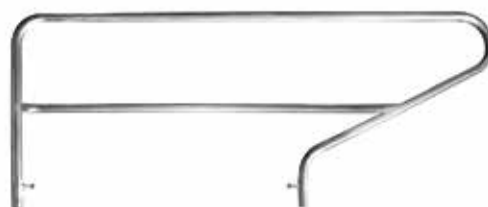


(adjustable aluminium stair for MK69
and MK89 with two handrails and
four adapters)



MGRFS33

ADAPTER
FOR HANDRAILS
0.50kg



MG120

HANDRAIL
metallic | 4.8kg



MK69/200x50
STAGE - STAIR
2.00x0.50m | 24kg



MK69/100x50
STAGE - STAIR
1.00x0.50m | 14kg

Instructions for use and maintenance

1. PLACEMENT

Stage deck MK69 can be placed indoors and outdoors, depending on the needs of the event.

2. USAGE

You may use the deck as a stage, a bench, a table, a base for chairs. Consult the manufacturer for other use.

3. BEFORE FIRST USE

Before first use, the equipment must be inspected by your technician/auditor.

4. ASSEMBLAGE OF THE STAGE

4.1 LABOR FORCE

Two workers are needed for the assemblage and disassembly of the stage.

4.2 PPS

Workers who assemble the stage, must use working gloves, working shoes and safety helmets.

4.3 TOOLS

- hex key 8mm
- spirit level
- wrench 19mm
- pliers



4.4 “MANUAL HANDLING OF LOADS”

Before you start the assemblage of the deck, please consult your safety engineer regarding “manual handling of load”. In case you don’t have one, consult the “European agency for safety and health at work” (<https://osha.europa.eu>).

4.5 STANDARD LEGS

STEP 1

ASSEMBLAGE OF DECKS WITH LEGS

Lift the deck with your hands. Put it on the floor, with the plywood side against it. Insert the standard legs in the 4 angular receptions, with their top touching the plywood. Screw the wide headed screws of the angular receptions with your hand, until the deck and legs become one and are unable to separate.



Angular reception for leg
with wide headed screw

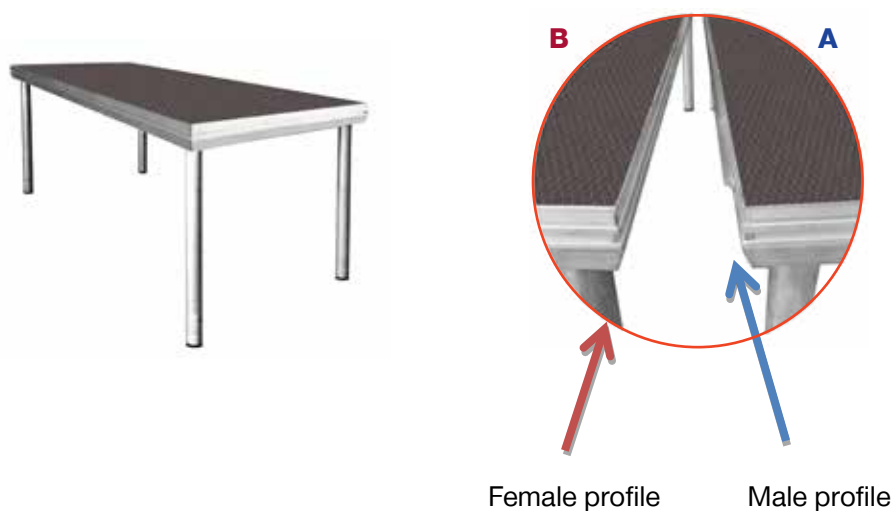


Standard leg

STEP 2

ASSEMBLAGE OF DECKS BETWEEN THEM

Place the deck standing on its legs. Insert the male profile of the A deck inside the female profile of the B deck. Repeat with the rest of the decks needed to form a stage in the dimensions you need.



STEP 3

CLAMPS

Put one clamp on the bottom side of the connected male/female profiles of two decks and in the middle of their total length, in a way that it “hugs” them. Screw the butterfly nut with your hand. Perform likewise on all the male/female profile combinations.



Note: Do not use a tool to tighten the butterfly nut e.g. pliers

STEP 4

INSPECTION OF THE WHOLE CONSTRUCTION

After the completion of assemblage of the stage, an inspection must be conducted by the appointed technician/auditor, to evaluate and confirm the correct assemblage and the “proper for use” of the whole construction.

Note 1: Be extra careful · mistaken assemblage may lead in collaption of the stage

Note 2: Maximum height difference of the platforms: (without load) 2mm

4.6 TELESCOPIC LEGS

STEP 1

ASSEMBLAGE OF DECK WITH LEGS

Lift the deck with your hands. Put it on the floor, with the plywood side against it. Insert the telescopic legs in the 4 angular receptions, with their screws facing the center of the deck and their top touching the plywood. Screw the wide headed screws of the angular receptions with your hand, until the deck and legs become one and are unable to separate.



Angular reception for leg
with wide headed screw



Telescopic leg

STEP 2

STABILIZATION AND ALIGNMENT OF DECK

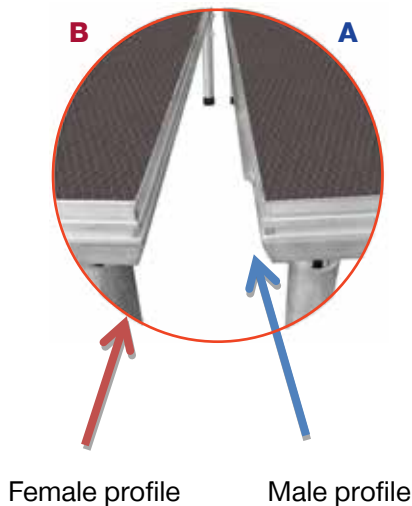
Place the deck standing on its legs.



Place on top of the deck-parallel and next to its profile-a spirit level. Loosen the legs' screws with an 8mm hex key and pull the legs to unfold in order to find the height you wish, always checking on the spirit level. When you reach the height you want tighten the legs' screws to stabilize. Repeat the procedure in every side of the deck to complete the alignment.

STEP 3 ASSEMBLAGE OF DECKS BETWEEN THEM

Insert the male profile of the A deck inside the female profile of the B deck. After you connect them, align the new deck. Repeat with the rest of the decks needed to form a stage in the dimensions you need.



STEP 4 CLAMPS

Put one clamp on the bottom side of the connected male/female profiles of two decks and in the middle of their total length, in a way that it “hugs” them. Screw the butterfly nut with your hand. Perform likewise on all the male/female profile combinations.



Note: Do not use a tool to tighten the butterfly nut e.g. pliers

STEP 5 INSPECTION OF THE WHOLE CONSTRUCTION

After the completion of assemblage of the stage, an inspection must be conducted by the appointed technician/auditor, to evaluate and confirm the correct assemblage and the “proper for use” of the whole construction.

Note 1: Be extra careful · mistaken assemblage may lead in collaption of the stage

Note 2: Maximum height difference of the platforms: (without load) 2mm

4.7 MULTI DIRECTIONAL SYSTEM

STEP 1 BASEPLATES

Place four baseplates on the floor



STEP 2 COLUMNS

“Wear” on each of them a column.



STEP 3 HORIZONTAL ROUND BEAMS

Use four horizontal round beams to connect the bottom rosettes of the columns-shaping the bottom part of the construction a square. Secure the connection by locking the wedges of each horizontal round beam on the circular hole of the rosettes.



STEP 4

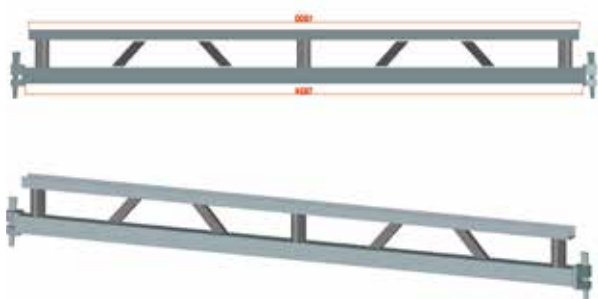
HEIGHT AND ALIGNMENT

Place a spirit level on an horizontal round beam. Turn the baseplates-in the end of the horizontal round beam-“handles” until you reach the height of your preference. Check the spirit level to make sure the side is aligned. Proceed similar with the other sides of your construction.

STEP 5

EVENT TRANSOM

Use four event transoms to connect the upper rosettes of the columns-shaping the upper part of the construction a square. Secure the connection by locking the wedges of each event transom on the circular hole of the rosettes.



STEP 6

DIAGONAL ROUND BEAMS

Use four diagonal round beams for additional connection of the columns. Connect each column's upper rosette with the bottom rosette of the same side's (of the square) column. Secure by locking the wedges of each diagonal round beam on the trapezoid holes of the rosettes.



STEP 7 DECKS

Place 2 decks on the top of your construction

STEP 8 INSPECTION OF THE WHOLE CONSTRUCTION

After the completion of assemblage of the stage, an inspection must be conducted by the appointed technician/auditor, to evaluate and confirm the correct assemblage and the “proper for use” of the whole construction.

Note 1: For a construction other than 2m x 2m x 2m, contact a civil engineer to issue a structural design to direct you with the construction

Note 2: Be extra careful . mistaken assemblage may lead in collaption of the stage

Note 3: Maximum height difference of the platforms: (without load) 2mm

5. DISASSEMBLY OF THE STAGE

Disassemble vice versa, from last step to first step

6. INSPECTION OF THE EQUIPMENT

6.1 An inspection for spoilage f.e. broken or deformed parts missing screws or nuts etc., must be conducted before and after every use of the equipment by the appointed technician/auditor. In case of severe spoilage, the equipment must be disposed and replaced.

6.2 During the inspection, the technician/auditor should wear working gloves, working shoes and safety helmet, and must be extra careful of the following among others:

Abrasion due to broken pieces of the equipment.

Falling of object due to a damaged connection or other damaged piece of the equipment or a mistaken assemblage.

7. TRAINING OF THE APPOINTED TECHNICIAN/AUDITOR

There is no need for special training of the appointed technician/auditor, after the reading and understanding of the information for the user manual.

8. EARTHING

On a T-screw, adjust an electrical connector with a cable. Put the T-screw inside the female profile of the stage.



9. LOAD CAPACITY PER HEIGHT

Stage Height with MSL Legs	Load capacity
18-28cm	7,5KN/m ²
28-33cm	7,5KN/m ²
33-40cm	7,5KN/m ²
40-50cm	7,5KN/m ²
50-70cm	7,5KN/m ²
70-113cm	5KN/m ²

Stage Height with MSLA Legs	Load capacity
20cm	7,5KN/m ²
40cm	7,5KN/m ²
60cm	7,5KN/m ²
80cm	7,5KN/m ²
100cm	7,5KN/m ²
110cm	7,5KN/m ²
120cm	5KN/m ²

Stage Height with ML Legs	Load capacity
2m	7,5KN/m ²

Maximum point load 1,5KN/50x50mm
As per DIN 15921: 2015-09

10. DYNAMIC LOAD

Get consult from a civil engineer regarding dynamic load
f.e.

Permitted usage: people walking, animals moving, wheel chairs rolling

Not permitted usage: moving cars

11. BASE OF INSTALLATION

Loading capacity of the base installation (f.e. floor) must be equivalent to the nominal load of the stage

12. TRANSPORTATION AND STORAGE

Assemble a deck with <20cm height legs and put on top of it the rest of the decks till they reach a height you consider to be safe.

Secure with a strap.

You may transfer the column, under your own responsibility, with a pallet truck or a forklift truck.

Store indoors. Minimum temperature -20 °C/Maximum temperature +50 °C .

13. MAINTENANCE

For the maintenance of the decks the use of some lubricant substance on the bolts and nuts is necessary, once per year.

14. CLEANING AND GENERAL CARE

Wash with water and hand dishwashing detergent using a brush.

15. DECOMMISSIONING

In case of spoilage/deformation the particular element must be disposed and replaced.

16. DISPOSAL

Of plywood parts:

Option 1: Reuse

Option 2: Contact your local special waste collector

Of metal parts:

Contact a scrap yard to recycle them

Of PTFE parts:

Contact a PTFE recycle company

17. SPARE-PARTS

To order spare parts contact the manufacturer.

18. REPAIRS

For any kind of repair, contact the manufacturer.

19. SUPPORT

Number of telephone and technical support:

Metron +30-210-4251093

info@metrongroup.gr

20. ABOUT THIS MANUAL

Store this manual and keep it in a good condition.

CONTACT A CIVIL ENGINEER TO PROVIDE YOU A STRUCTURAL DESIGN FOR EACH DIFFERENT CONSTRUCTION YOU BUILD.

LOUKAS HATZIS SMLLC"METRON" CAN NOT BE HEALD LIABLE FOR DAMAGE CAUSED BY INCORRECT ASSEMBLAGE OR USE OR BY NON-COMPLIANCE WITH THESE MANUAL'S INSTRUCTIONS

CERTIFICATE



**Management System as per
EN ISO 9001 : 2008**

In accordance with TÜV AUSTRIA HELLAS procedures, it is hereby certified that

LOYKAS HATZIS LTD
15, Hatzianesti str.
GR-182 33 Ag. Ioanis Rentis, Greece

Applies a Quality Management System in line with the above Standard for the following Scope

**INSTALLATION OF FOLDING STAGES AND SCAFFOLDINGS. TRADING AND
RENTAL OF FOLDING STAGES AND SCAFFOLDING PRODUCTS.**

Certificate Registration No.: **010140442**

Valid until: 2017-07-14

Certification Body
at TÜV AUSTRIA HELLAS

Athens, 2014-07-15

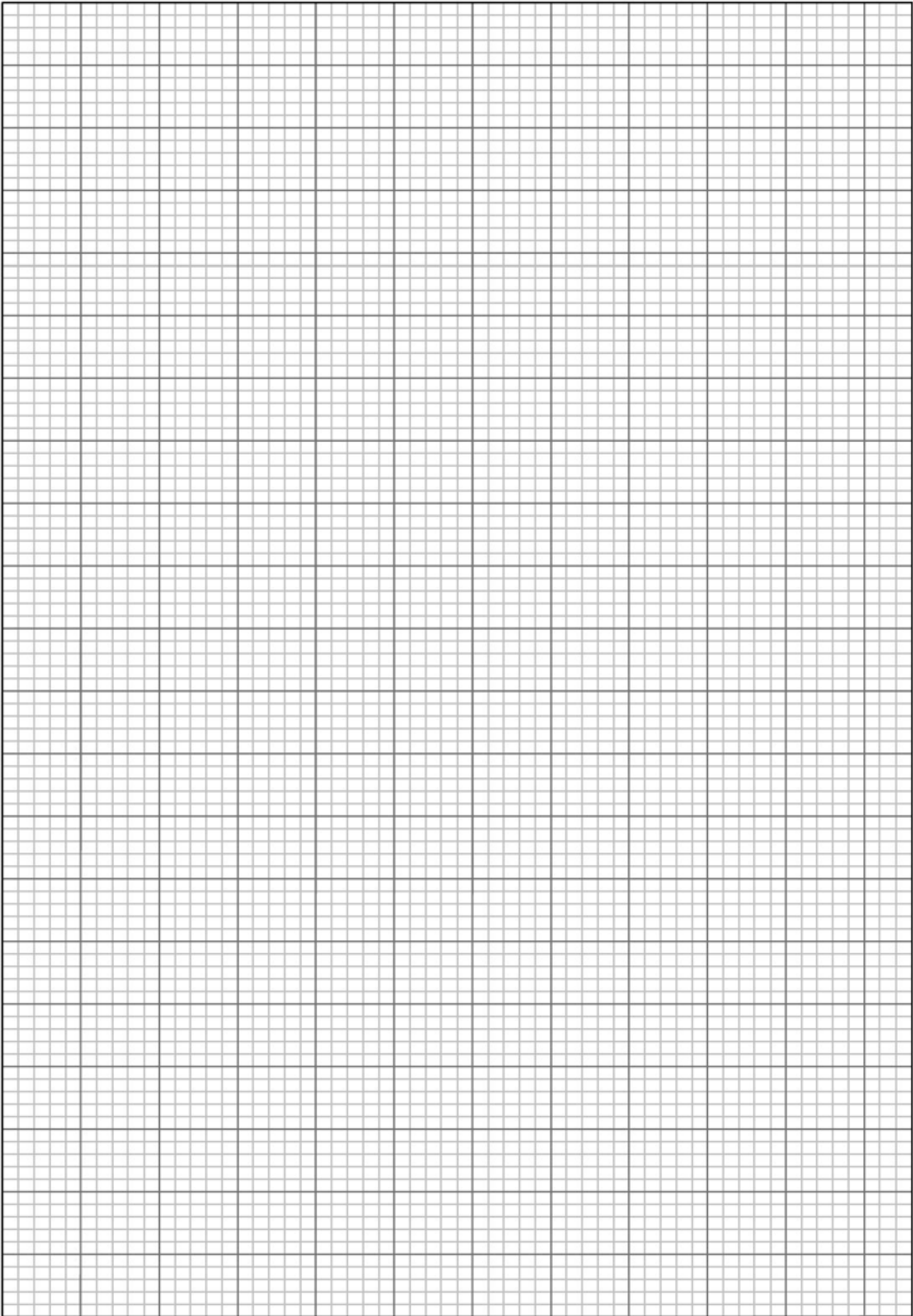
This certification was conducted in accordance with TÜV AUSTRIA HELLAS auditing and certification procedures and is subject to regular surveillance audits.

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CaPRK416_A3e








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