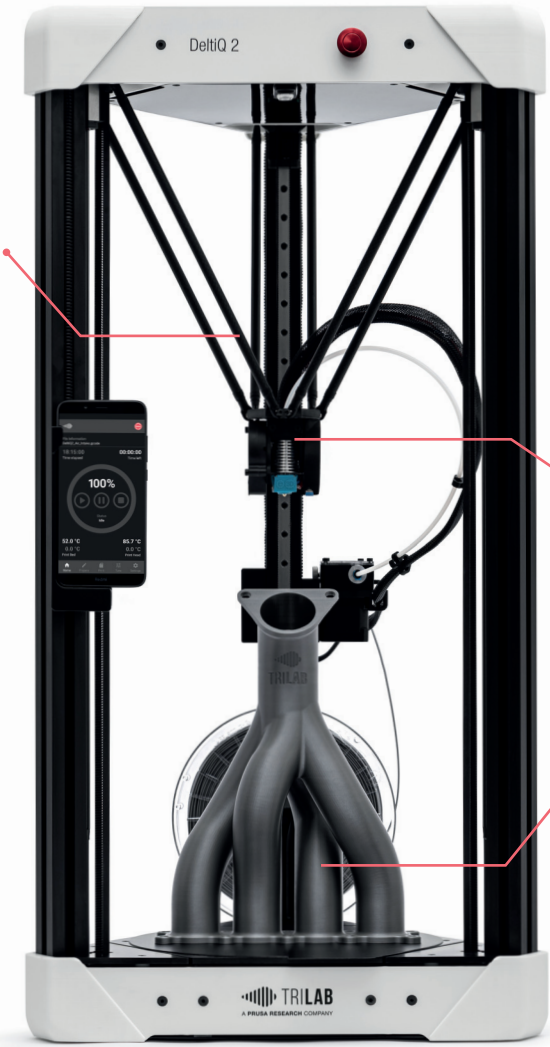
TRILAB DeltiQ 2

DESKTOP 3D PRINTER FOR PROFESSIONALS



Delta kinematics

Provides **fast and precise motion** of the printhead throughout the entire print volume. **Flawless surface quality** and **dimensional accuracy** are the key benefits of this motion concept.

Light printhead

A printhead **without a heavy extruder** motor minimizes the adverse inertia-induced effects on print quality. In practice, this results in a very fast 3D printer while maximizing the lifespan of the components.

Static model

The model is attached to a static print bed and does not move during printing. This is critical for obtaining the best quality print over the entirety of the model's height.

WHY A 3D PRINTER WITH DELTA KINEMATICS?

*DeltiQ 2 is designed in compliance with the **Industry 4.0** initiative*

APPLY OUR KNOW-HOW IN YOUR PROJECTS

1 DEVELOPMENT AND PROTOTYPING

From the conceptual idea to a built-in prototype within hours. We guarantee a perfect quality result and unexpected cost savings.

2 MANUFACTURING JIGS, FIXTURES AND TOOLING

High dimensional accuracy throughout the entire print volume is key for the fabrication of jigs, fixtures and calibration tools for both production as well as quality control.

3 MOLD PRODUCTION

A flawless surface quality enables a direct negative mold fabrication for composite applications or positive model production for precise metal casting.

4 ART AND DESIGN

Tall and complex pieces of art, as well as detailed design pieces can be printed using a single printer without postprocessing.

5 SCIENCE AND RESEARCH

3D printed tools, fixtures, adapters or even instruments make scientific research easier and accelerate your projects. We used our personal know-how from the lab during DeltiQ 2 development.

TRILAB
A PRUSA RESEARCH COMPANY

Czech producer of high quality **3D printers** and original solutions based on delta kinematics

SEE WHAT THE DeltiQ 2 OFFERS

1 Unexpected cost and time savings in production tooling fabrication

Fast design proposal, fabrication and most importantly, optimization and redesign of jigs, fixtures and calibration tools are easily available using the TRILAB DeltiQ 2. Printed in top quality and ready to use in production or QC processes.

Quality control jig for motor thread analysis

Vibracoustic, Mělník, Czech Republic
Automotive parts producer

2 Mold-free production of flexible components

Fast and effective production of flexible components for prototyping, tooling preparation or even small volume production is easily feasible using the unique solution **TRILAB FlexPrint**.

Flexible connector cover for motor wiring

JetSurf, Střelice, Czech Republic
Producer of Surfboards

ADVANTAGES OF USING THE TRILAB DELTIQ 2 INSTEAD OF TRADITIONAL FABRICATIONS

- Over 90% cost savings
- Saving time (matter of weeks)
- Fast design iteration
- Easy customization for specific needs

3 Footwear design acceleration with unique direct production technology

The use of 3D printing for fast and effective designer footwear production but also real shoe components.

The combination of 3D foot scanning with the production of shoe last for the subsequent handmade fabrication, proved particularly interesting.

A 3D printed shoe last for manual footwear production

Tomas Bata University, Zlín, Czech Republic

REVOLUTIONARY PRINTER CONTROL

Control the printer according to your needs. In the palm of your hand using the DeltaControl wireless display, which can be safely stowed in the charging dock, using the WebControl interface on your PC/Mac or using the DeltaControl app in your smartphone. And all of this both locally or remotely.

Sophisticated, rigid frame construction

The newly redesigned corner components in combination with sturdy aluminum components ensure high frame rigidity and stability under all circumstances.

Uncompromised motion with component quality

The carbon fiber rods carrying the print head are very stiff and extremely light. Along with industrial linear guide rails, these ensure precise and repeatable print head positioning. This is, in turn, clearly reflected in the high quality print output.

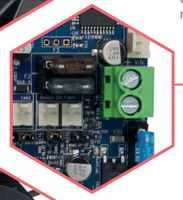
Unique extruder combo

Take advantage of two easily swappable extruders:

- **E3D Titan** provides a high torque and unbeatable print quality with PLA, PETG, ABS, ASA and other materials.
- **FlexPrint 2** — a sophisticated remote direct drive extruder, original TRILAB product, enables flawless processing of highly flexible and otherwise tough materials.

Smart and swappable printhead

The printhead combines efficient and focused cooling of the print, an autocalibration probe and the class-leading E3D V6 all-metal hotend. The entire printhead assembly is easily removable and swappable.

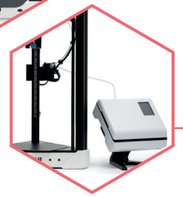


Intelligent components

The 32bit controller will process complex motion with ease, provides silent stepper drivers and enables online access to the WebControl printer interface. An integrated camera enables remote print process overview.

Swappable PrintPad sheets

Flexible PrintPads provide a fast and easy way to remove your product after the print is finished. It also provides the first step towards future additive production automation. A wide spectrum of PrintPad surfaces enables optimal adhesion for individual materials.



TRILAB QuadPrint multi-filament solution

In case your additive application requires multiple materials in a single process, you can deploy the TRILAB QuadPrint strategy to print up to four materials simultaneously.

GOLPRETECH CZECH REPUBLIC · LASVIT · JETSURF · MITSUBISHI ELECTRIC · Continental · Vibracoustic · mergon · PILANA · fillamentum addi(c)tive polymers · VIDA! sciencentrum · Alca PLAST · NIRVANA PARAMOTORS · SaarGummi Automotive · vetropack · Univerzita Tomáše Bati · evektor

6 REASONS TO GET THE TRILAB DELTIQ 2

TOP-NOTCH PRINTS 1

The model is static during printing, which results in perfect quality print over the entirety of the model's height.

WHAT A SURPRISE 2

Unconventional and unexpected model orientation can be safely printed for an even better surface quality.

COMPLETE SOLUTION 3

A tuned printer for professionals, a complete made-to-order package — starting from a demo print, a suitable configuration proposal, delivery with installation to service and application support.

UNIVERSAL 4

You will be blown away by the range of materials that can be processed by this printer - from common filaments, to modern and advanced materials such as composites or flexibles.

SMART 5

Control the printer according to your needs - with your hand, using the DeltaControl wireless display, using our app in your smartphone or remotely using the WebControl interface.

BEAUTIFUL 6

As a unique industry standout, you'll have trouble keeping your eyes off of it thanks to the grace of the delta movements.

Printer Specification

Additive technology	Fused Deposition Modelling (FDM)
Print Volume	DeltiQ 2 Ø 250mm (X, Y)×300mm (Z) DeltiQ 2 Plus Ø 250mm (X, Y)×500mm (Z)
Printhead	Light printhead; E3D V6 all-metal hotend; Easily swappable as a complete assembly
Extruder	E3D Titan geared extruder, bowden setup Optional FlexPrint 2 extension - Remote direct drive extruder for demanding and flex filaments
Print Platform	Massive, 5 mm thick aluminium heated print base Changeable magnetic PrintPad sheet with smooth PEI surface and/or powdered PEI surface. PrintPad sheets with alternative surfaces will be available.
Control interface	Wireless 6.5 „DeltaControl" in-hand display or a charging station located directly on the frame
Connectivity	LAN or WIFI with local or remote access 3x USB: WiFi/LAN module/USB drive/Webcam/QuadPrint
Print Monitoring	Multicolor LED indicator for visual print status overview Built-in camera with print illumination
Supported input formats	STL/gcode; Primarily supported PrusaSlicer, Kisslicer; alternatively gcode from Cura, Simplify3D
Dimensions and weight/printer	DeltiQ 2 41×50×81 cm/10 kg DeltiQ 2 Plus 41×50×98 cm/12 kg
Dimensions and weight/package	DeltiQ 2 49×53×105 cm/18 kg DeltiQ 2 Plus 49×53×105 cm/20 kg
Power	Input 100-240 V, Output 24 V, 250 W

Print Output

X/Y resolution	According to the used nozzle in the range of 0.25-1.2 mm, standard 0.4mm
Z resolution	A layer height of down to 50 microns, maximum layer height depends on the used nozzle
Maximum nozzle temperature	Standard up to 300 °C, with upgraded temperature sensor up to 350 °C
Maximum print bed temperature	105 °C

Materials

Filament diameter	1.75mm
Compatible materials	Standard: PLA, PETG/CPE, ABS/ASA, PETG-CF, PC, PP, PVA, BVOH, PACF, PAGF FlexPrint: nylon/PA, flexible materials (TPE, TPU)
Multifilament printing	TRILAB QuadPrint Solution: multifilament solution for up to 4 filament colors or various material filaments, or combination with soluble/breakaway support materials
Purchase of materials	Print materials and accessories can be purchased at store.trilab.cz

"Our dream was to develop and produce a top-quality product that we can be proud of. This is becoming a reality thanks to the DeltiQ 3D printer!

We are glad that our printers are used daily by hundreds of users not only in the Czech Republic, but also in Germany, Spain, Israel, Japan, Poland and Slovakia. With each and every new client, we get valuable feedback and a new source of inspiration for future development. One year after introducing the DeltiQ, we were able to raise the bar once again and are now presenting the DeltiQ 2.

We are confident that the improvements and radical innovations included will make the printer highly appealing to new or established clients. The complete redesign of the printer, along with new features such as the DeltaControl wireless UI concept, FlexPrint for robust elastomer processing or QuadPrint for multi-filament printing will make this instrument interesting for a wide range of industry professionals.

Also, thank you for taking the time to examine our project. We strongly believe that you will also become a satisfied user of the DeltiQ 2."

Vojtěch Tambor and Michal Boháč, **TRILAB**

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A PRUSA RESEARCH COMPANY

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