

STATE-OF-THE-ART PRODUCTS FOR ALL-ROUND SOLUTIONS

F&K Delvotec offers more than bonders. We provide products and services for perfectly matched, comprehensive and highly efficient bonding processes. From pilot to full-volume production, with convenient retooling options. F&K Delvotec adapts the machines seamlessly to your processes and smoothes the way to customized handling.

The name F&K Delvotec stands for high-value products, because every development is based on in-depth scientific know-how: with a homogeneous technical platform providing one-stop shopping for individually tailored quality solutions for all applications.

G5 Family

- G5 Single Head
- G5-2 Double Head
- G5 XL

Consultancy, process development and optimized solutions

At F&K Delvotec a highly specialized consultancy, development and applications team ensures optimum support for you, with hardware and software from our own development department – with particular emphasis on thorough consulting with know-how transfer right from the start.

Compatible with the future in all aspects

The F&K Delvotec innovation leadership ensures better bond quality and all-round perfect products for customers. You benefit from production security resulting from high availability and long productive life at a low investment level. With excellent cost of ownership and high future compatibility, in particular with product change benefiting from easy machine retooling.

Staying Ahead in Bonding Technology

G5 XL – Extremely Large Area Wire Bonder

- The world's largest working area
- Designed for very large applications, like solar panels and e-mobility batteries
- Quality proven components from G5 family
- Exchangeable bondheads



It has always been a central pillar of our philosophy to provide the right bonding equipment for evolving technologies. Our newest development is a case in point: we see two new areas developing at a breathtaking rate, solar cells and battery systems for e-vehicles. Both are different from our accustomed industries in semiconductors and electronics in that the parts to be bonded are huge, especially when compared to the constantly shrinking dimensions in the semiconductor world. At the same time, though, these new areas benefit from the superior connection quality and reliability of wirebonding. So it was only a logical extension of our technology portfolio to take the proven components of our highly successful G5 and G5-2 series and leverage them into the new G5 XL platform. With a working area of around 1 square meter, this bonder covers a bond area more than 22 times larger than our other equipment - with the same reliability and quality our customers rate so highly year after year. All of it just goes to prove that we will help our customers stay ahead.

F. Farassat
Dr. Farhad Farassat



Rated best wire bonder supplier three years in a row.

WORLD'S LARGEST WORKING AREA

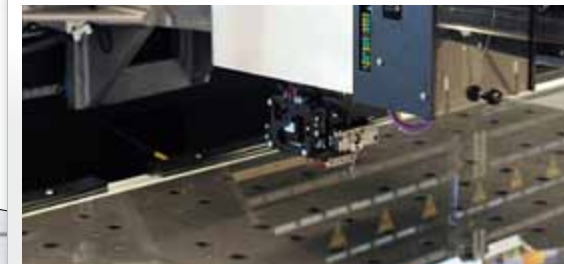
SOFTWARE/GRAPHICAL INTERFACE

- Multi window interface
- Easy access and programming of wires and loops
- Group definition and repeat capabilities
- Freely programmable loop shapes
- Different user access levels
- Bond head library for quick change
- Customized software solutions



FULLY AUTOMATIC INDEXING SYSTEMS

- Standard or customized indexer systems
- Fully automatic transport
- Including stopper system and anti-crash sensors
- Customized clamping units (vacuum and/or mechanical)
- SMEMA-Standard



QUALITY ASSURANCE

- Bond Process Control (patented)
- Impedance Check
- In-Head non destructive Pulltester



HEAVY WIRE BOND HEAD (66000)

- 100 µm to 600 µm wire diameter
- Bond force programmable from 50 to 2000 cN
- 90° wire feed angle
- Snap-on wire guide (patented)
- 3" and 4" wire spool
- Quick-exchange cutter blades



HEAVY RIBBON BOND HEAD (66000HR)

- Ribbon up to 2000 x 300 µm
- Bond force programmable
- Up to 4000 cN (optionally higher)
- 90° wire feed angle
- Quick snap-on wire guide
- 3" and 4" wire spool



Machine	Dimensions (HxWxD)	Weight
G5 XL	1850 mm x 1710 mm x 1850 mm	1400 kg

UNIQUELY SUITED FOR

- ➔ E-motive batteries
- ➔ Solar panels
- ➔ Large-area tv panels



MACHINE SPECIFICATION

Bond Area

- 1130 mm (X) x 700 mm (Y) | 44" x 27"
- Z-Axis: = 40 mm, optional 60 mm
- P-range: = +/- 200°

Work Height

- Adjustable (850 mm – 1050 mm), meets SMEMA requirements (940 mm – 965 mm)

Safety Standard

- CE Certification

Monitor

- Flat Panel Color 19 inch

Microscope

- Stereo zoom with adjustable work distance
- Adjustable light intensity

Electrical Supply

- 200 – 240V -5% to +10%, optional 100 – 120 V -5% to +10%
- Single Phase 50-60 Hz

Power Consumption

- Minimum 0.6 kVA
- Maximum 3.2 kVA

Compressed Air

- 5 – 8 bar

Vacuum

- Minimum < - 0.8 bar

Positioning Accuracy

- Repeated positioning +/- 5 µm @ 3 sigma

Digital Ultrasonic generator

- 30 kHz – 250 kHz

Transducers

- 40 kHz – 145 kHz

Wire Spool

- Fully automatic

Control

- Compact PCI, Unix-based real time multi-tasking operating system

Pattern recognition

- Travelling CCD camera
- Cognex® 8000 (PatMax, Pat Quick)
- Resolution better than 0.1 Pixel

Lighting

- Program controlled type & intensity
- Direct red LED
- Other colors optional

Traceability

- Range of standard options for export of quality control data

Network Capability

- TCP/IP network standard built in, allowing remote access for diagnosing service and software maintenance

ABOUT F & K DELVOTEC

F & K Delvotec is one of the worldwide leaders in the field of Innovative Wire Bonding Technology. Established in 1978 with headquarters in Ottobrunn near Munich, F & K Delvotec is the only supplier able to support customers throughout the complete range of bonding technologies. With the G5 (5th generation) wire bonders F & K Delvotec supplies advanced technologies for the latest bond processes providing customers with a competitive edge and new potential for success.

Whatever bonding is required F & K Delvotec offers a suitable tailored solution – from bond process development through to complete automation and continuous Quality Assurance.

Our broad portfolio of high-tech products, specialised bonding applications and support services ensures satisfaction of customer's production requirements from a single source. A worldwide customer base is supported around the clock from our headquarters in Germany and our subsidiaries in Singapore and California, as well as our distributors in each country.

Over 30 patents in the field of bonding technology testify to our continuing emphasis on innovative technology. F & K Delvotec's Digital Ultrasonic System, Transducer Test System, Bond Process Control, Inhead Pulltester and Online Pulltester are among the advanced components and features earning high praise and positive acceptance in the market.



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