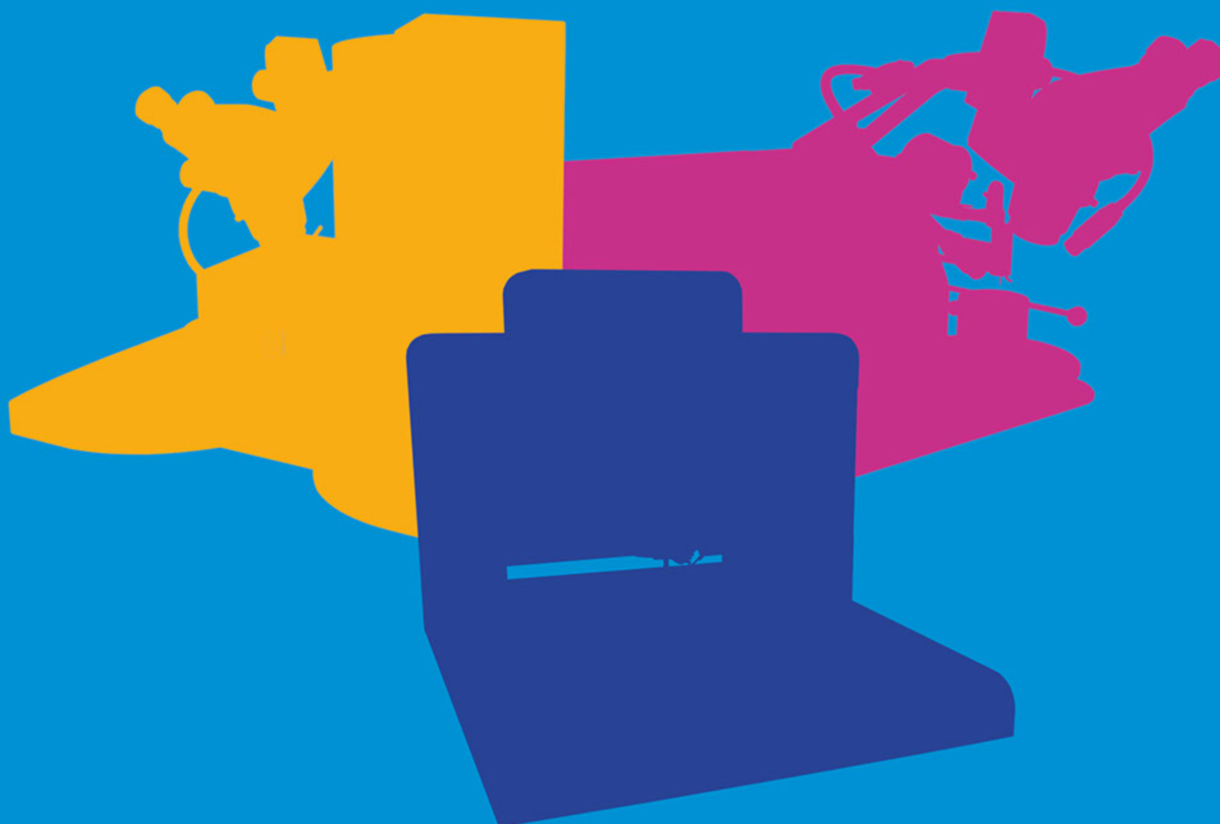
20 Years

Made in Germany

Installed in over 50 Countries

tpt



Wire Bonder & Die Bonder

HB05 HB10 HB16 HB100 HB30 HB70 HB75

HB05 Wedge & Ball Bonder

Manual Wire Bonder

Gold-, Aluminium-, Silver- & Copper Wire
Wire sizes 17µm to 75µm, Ribbon max. 20x250µm

Wedge-, Ball-, Bump- & Ribbon Bonding
Easy switching between bond modes

Compact Design & Intuitive Control
The practical design makes the bonder very easy to use

4" TFT Display & Multi Button
Fast and easy adjustment of all bond parameters

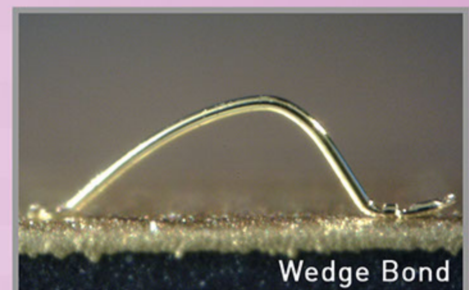
Storage for 20 Parameter Sets
Easy setting recall for working on different applications

Deep & Wide Bond Access
Ample work space due to special bond head design

Electronic Wire Clamp - Up & Down Movement
Precise tail length control

Designed for Extension Kits
Pick & Place, Pull Tester, Video Targeting, Copper Ball Bonding

Bond Head



Wedge Bond

HB10 Wedge & Ball Bonder

Motorized Z-Axis

Wedge-, Ball-, Bump- & Ribbon Bonding
Easy switching between bond modes

Gold-, Aluminium-, Silver- & Copper Wire
Wire size 17µm to 75µm, Ribbon max. 20x250µm

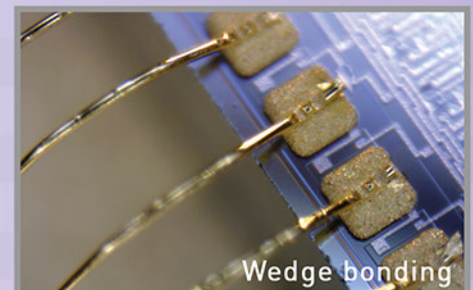
Easy Control With 6,5" Touch Panel
Access & storage of all parameters, 100 set capacity

Automatic Bond Height Adjustment
Z-axis sensor identifies touch-down & sets height parameters

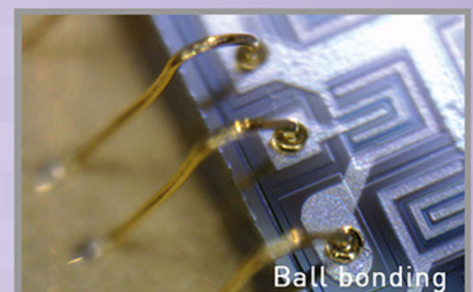
Deep & Wide Bond Access
Ample work space due to special bond head design

Electronic Wire Clamp - Up & Down Movement
Precise tail length control

Designed for Extension Kits
Pick & Place, Pull Tester, Video Targeting, Copper Ball Bonding



Wedge bonding



Ball bonding

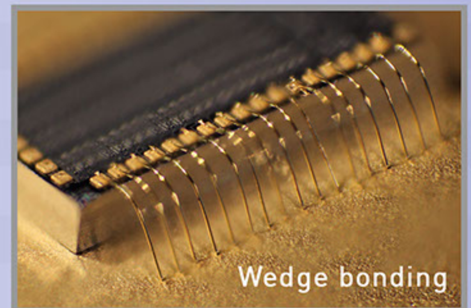
HB16 Wedge & Ball Bonder

Motorized Z- & Y-Axes

Repeatable Loop Profiles
Two Motorized axes allows precise loop repetition

Simple Loop Programming
Up to 10 steps for individual loop profiles

Wedge-, Ball-, Bump- & Ribbon Bonding
Easy switching between bond modes


Wedge bonding

Gold-, Aluminium-, Silver- & Copper Wire
Wire sizes 17µm to 75µm, Ribbon max. 20x250µm

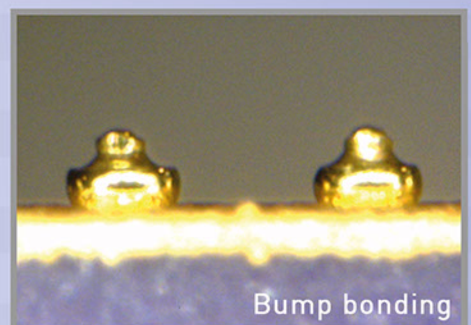
Easy Control With 6,5˝ Touch Panel
Access & storage of all parameters, 100 set capacity

Pick & Place Option

Automatic Bond Height Adjustment
Z-axis sensor identifies touch-down & sets height parameters

Deep & Wide Bond Access
Ample work space due to special bond head design

Electronic Wire Clamp - Up & Down Movement
Precise tail length control


Bump bonding

Designed for Extension Kits
Pick & Place, Pull Tester, Video Targeting, Copper Ball Bonding

HB100 Automatic Wedge & Ball Bonder

Motorized Z- X- Y- Axes & Bond Head Rotation

Automatic Wire Bonder
Program a complete chip for automatic bonding

Repeatable Loop Profiles
Motorized axes allow precise loop repetition

Simple Loop Programming
Up to 10 steps for individual loop profiles

Wedge-, Ball-, Bump- & Ribbon Bonding
Easy switching between bond modes

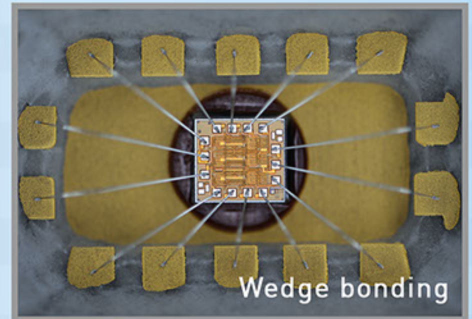
Gold-, Aluminium-, Silver- & Copper Wire
Wire size 17µm to 75µm, Ribbon max. 20x250µm

Easy Control With 21" Touch Panel
Access & storage of all parameters

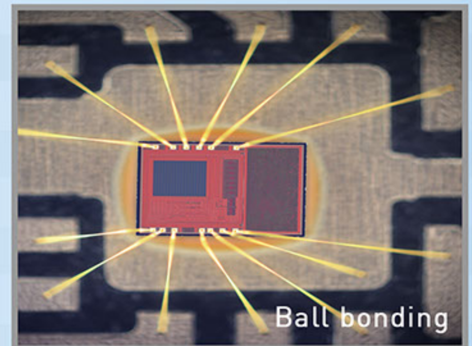
Automatic Bond Height Adjustment
Z-axis sensor identifies touch down & sets height parameters

Deep & Wide Bond Access
Ample work space due to special bond head design

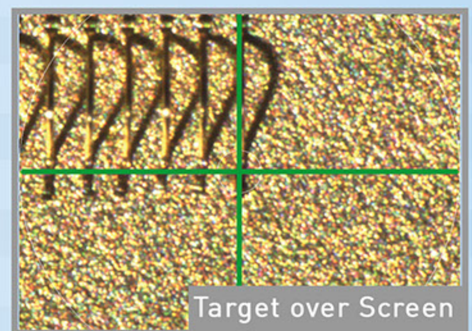
Electronic Wire Clamp - Up & Down Movement
Precise tail length control



Wedge bonding



Ball bonding



Target over Screen

HB30 Heavy Wire Bonder

Motorized Z- & Y- Axes

Aluminum & Copper Wedge Bonding
Wire sizes 100µm to 500µm, Ribbon width up to 300x2000µm

Easy Control With 6,5" Touch Panel
Access & storage of all parameters,100 set capacity

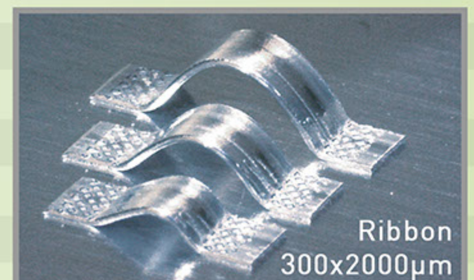
High Precision Cutting Sequence
Specific wire cutting parameters prevent substrate injury

Automatic Bond Height Adjustment
Z-axis sensor identifies touch-down & sets height parameters

Repeatable Loop Profiles
Motorized axes allows precise loop repetition

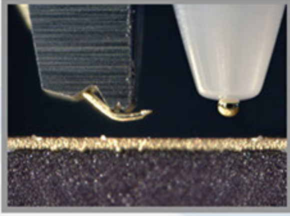
Deep & Wide Bond Access
Ample work space due to elevated bond head

Vacuum Stage Fixation
Optional function for high power applications



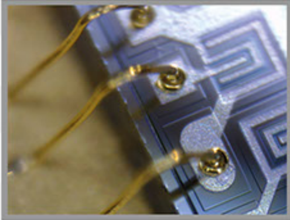
Kits & Accessories

Bond Starter Kit



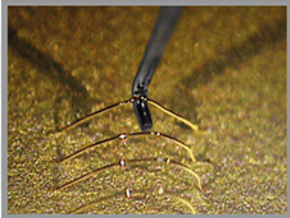
All the wires & tools that you require for your first steps in bonding.
Kit equipped with 25µ gold wire, 33µ alu wire, bonding tools, unplugging tools, tweezers and bonding samples.

Video Kit



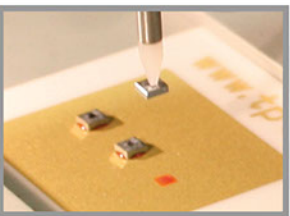
Live-picture on TFT screen with targeting spot.
Great support to show bonding applications and to perform picture documentation.
Kit with camera, 15"-TFT and targeting device.

Pull Tester Kit

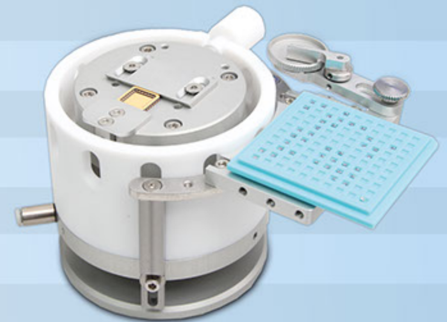


Analyse your bonding quality with the mechanical pull tester.
Great for a rough indication of your bonding strength.
Kit with pull tester and bond head fixation.
Manual-Z option required.

Pick & Place Kit



Perform simple Pick & Place and epoxy stamping with your bonder.
Great for a quick prototype assembly.
Kit with vacuum pump, die carrier, epoxy pot and tools.



Accessories

Manual-Z

Spotlight Targeting

Copper Ball Bonding Kit

Wire Spool Holder

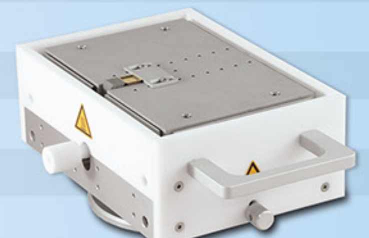
Heater Stages

Ø 60mm

Ø 90mm

rotatable Ø 90mm

100mm x 100mm



100mm x 150mm

HB70 Die Bonder

Motorized Z-Axis

Pick & Place with integrated vacuum pump
Pick up microchip from die-carrier and place it to your substrate

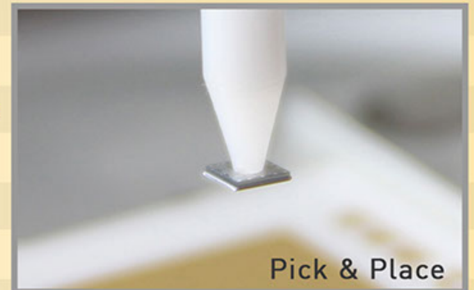
Epoxy Dispensing or Stamping
Fast and precise epoxy application with dual tool head

Visual Inspection with full HD Camera
Picture your microassembly with optical zoom and LED light

Camera Rotation
Adjustable viewing angle for an in-depth verification

X-Y Micrometer Screws & Joystick
Exact positioning of die, stamp or dispenser

Angle Alignment
Microchip angle alignment due to the rotable base plate



Pick & Place

Dispensing

Stamping

HB75 Die Bonder

Motorized Z-Axis

Rotatable Head
Quick exchange between different tools and epoxy

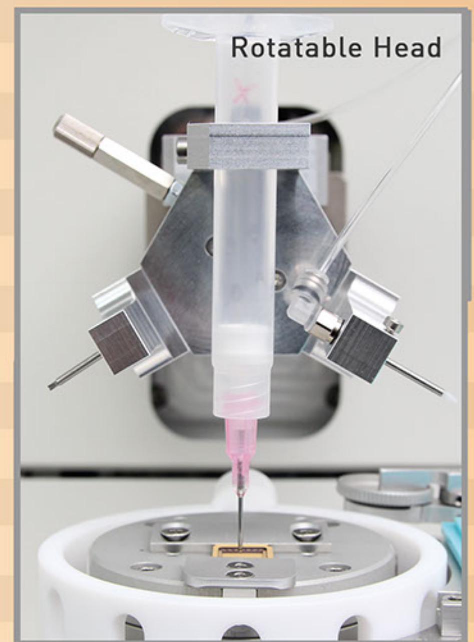
Easy Control With 6,5" Touch Panel
Access & storage of all parameters, 100 set capacity

Automatic Bond Height Adjustment
Z-axis sensor identifies touch down & sets height parameters

Pick & Place with integrated vacuum pump
Pick up microchip from die-carrier and place it to your substrate

Epoxy Dispensing or Stamping
Fast and precise epoxy application

Angle Alignment
Microchip angle alignment due to the rotable base plate



Wire Bonder	HB05	HB10	HB16	HB100
Bonding Method	Wedge & Ball	Wedge & Ball	Wedge & Ball	Wedge & Ball
Wire Size	17-75µm	17-75µm	17-75µm	17-75µm
Ribbon max.	25x250µm	25x250µm	25x250µm	25x250µm
Type	Manual	Semi-Automatic	Semi-Automatic	Automatic
Motorized Axis	-	Z-Axis	Z- & Y-Axes	X- Y- Z- & R - Axes
Auto Height Setup	-	Yes	Yes	Yes
Loop Height Control	-	Yes	Yes	Yes
Loop Length Control	-	-	Yes	Yes
Pattern Function	-	-	-	Yes
Control Panel	4" TFT	6,5" Touch Screen	6,5" Touch Screen	21" Touch Screen
X-Y Manipulator Ratio	6:1	6:1	6:1	Joystick
Program Storage	20	100	100	100
Ultrasonic Power	10 Watt	10 Watt	10 Watt	10 Watt
max. Bond Force	200 cN	150 cN	150 cN	150 cN
Bond Time	0-1 sec.	0-10 sec.	0-10 sec.	0-10 sec.
Ultrasonic System	63,3 kHz	63,3 kHz	63,3 kHz	63,3 kHz
Various Frq. available	-	Yes	Yes	Yes
Wire Clamp	motorized	motorized	motorized	motorized
Wire Termination	clamp	clamp	clamp / table tear	clamp / table tear
Dimensions (LxWxH)	550x450x250mm	680x640x500mm	680x640x500mm	620x750x680mm
Weight	29kg	42kg	42kg	72kg
Electrical Requirements	100-240 V / 6A max.	100-240V / 6A max	100-240V / 6A max.	100-240V / 6A max.
Industry Standard	CE	CE	CE	CE
Pick & Place Option	Yes	Yes	Yes	-
Video Target Option	Yes	Yes	Yes	-
Pull Tester Option	Yes	Yes	Yes	-
Copper Bonding Option	-	Yes	Yes	-
Extended Force Option	-	Yes	Yes	Yes

HB30
Wedge
100-500µm
300x2000µm
Semi-Automatic
Z- & Y-Axes
Yes
Yes
Yes
-
6,5" Touch Screen
4:1
100
50 Watt
1800 cN
0-10 sec.
60 kHz
-
-
wire cutting
680x640x570mm
50kg
100-240V / 6A max.
CE
Yes
Yes
-
-
-

Die Bonder	HB70	HB75
Die Size max.	10x10mm	10x10mm
Placement View	Screen	Microscope
Type	Semi-Automatic	Semi-Automatic
Motorized Axis	Z-Axis	Z-Axis
Control Panel	Buttons	6,5" Touch Screen
Bond Force Control	Manual	Programmable
max. Bond Force	100 cN	150 cN
Vacuum Bump	Build in	Build in
X-Y Manipulator Ratio	5:1	6:1
Fine Adjustment Screws	Yes	-
Adjustable View Angle	Yes	-
Rotatable Table	Yes	Yes
Epoxy Dispensing Option	Yes	Yes
Heater Stage Control	Option	Yes
Bond Time Control	-	Yes
Auto Height Setup	-	Yes
Program Storage	-	Yes
Rotatable Head	-	Yes
Video Target Option	-	Yes
Extended Force Option	-	Yes
Dimensions (LxWxH)	470x380x430mm	680x640x500mm
Weight	22kg	42kg
Electrical Requirements	100-240V / 6A max	100-240V / 6A max
Industry Standard	CE	CE

Specifications are subject to change without prior notice

Wire & Die Bonder "Made in Germany"

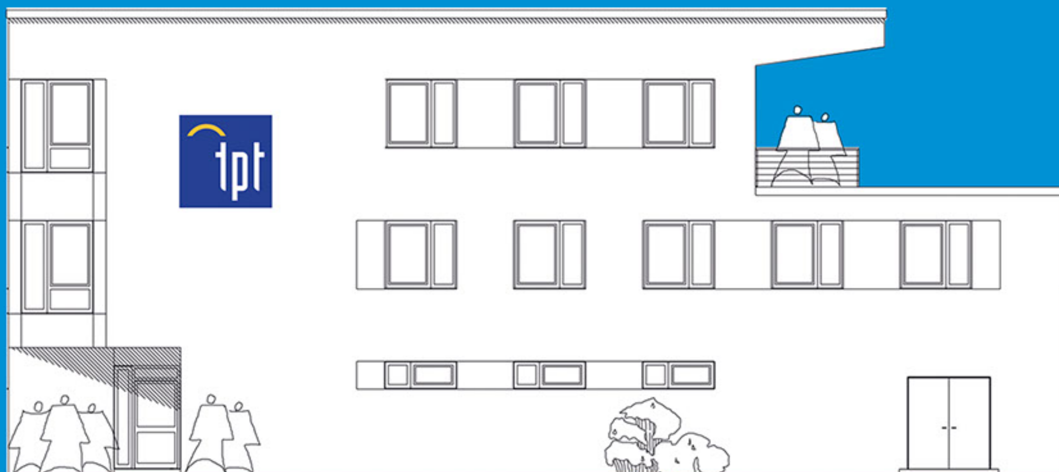
Relying on over **20 years of** wire bonding know-how,

TPT designs and manufactures a complete range of manual and automatic wire bonding machines.

TPT is a privately owned company, with the goal to provide the **highest quality** wire bonding equipment.

Based in Munich, TPT draws strength from Germany's high technology region.

TPT bonders are used in many leading **Universities, Institutes and Semiconductor, Aerospace and Medical** device companies throughout the **world**.



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