2012 Product Guide







YOUR IDENTIFICATION AND PROCESSING SOLUTIONS SOURCE



Telesis is the leader in Product Identification and Processing Technologies. Our wide range of permanent, programmable, LASER, PINSTAMP® and TELESCRIBE® Marking Systems are fast and durable. They are relied on in thousands of manufacturing environments every day, throughout the world. ALL Telesis systems — whether standard or custom engineered — are backed by a global network of knowledgeable Sales and Service Professionals.

TELESIS LASER MARKING SYSTEMS

TELESIS offers a full line of laser marking systems capable of satisfying even the most demanding laser marking applications. Manufacturers of a wide range of products, from medical devices and instruments to automotive components, delicate plastics, ceramics, glass and airframe components, can mark virtually any material with text, bar codes, 2-D codes, logos and graphics. At the cutting edge of laser marking technology, Telesis now offers optional "mark-on-the-fly" capable versions of all of our standard laser systems.

Our E—Series diode-pumped, air-cooled lasers can operate in the harshest environments while maintaining peak performance for many thousands of hours of maintenance free operation. In addition, they offer superior beam characteristics that make them uniquely capable among near IR lasers for many difficult applications, such as marking high resolution graphics, fine text or 2D codes as well as marking many heat sensitive materials and components. The versatile E-Series, a broad family including eight different systems, features the powerful infrared EV40, capable of high speed, high quality, deep engraving of virtually any non-organic material, including the EV4GDS green laser, the choice for many electronic components, medical applications, precious metals, as well as a wide variety of plastics.

We pioneered the use of Fiber Lasers with our F-Series Fiber Lasers, and continue to be the leader in Fiber Laser marking technology. These markers offer low maintenance marking of almost all metals at an affordable price. The F-Series includes two different models, with the FQ20 for applications in which faster process speeds are required.

The CO-Series of CO₂ lasers are ideal for making organic materials such as glass, plexiglass, plastics and acrylics, wood, fiberboard, leather, vinyl and rubber. With three power levels to choose from, the CO-series is led by the powerful 60W CO60 laser marking system.

Pattern design for any of our lasers is easy with the Telesis designed **MERLIN® II LS** Software. This extremely user-friendly software runs on the Windows® 2000, Windows® XP, Windows Vista®, and Windows® 7 platforms. Our **Automated Marking Interface (AMI)** version of **MERLIN® II LS** addresses the need for a safe, easy operator interface. It provides the operator the capability to barcode scan to load patterns, load a picture of the part and fixture, and insert the marking data in the proper field all without the need of a keyboard – virtually mistake free.

Telesis offers full turnkey single source custom integrated or standard laser systems backed by our first-inclass service team and worldwide support by a network of representatives and distributors.





PIN MARKING SYSTEMS

Fully programmable **PINSTAMP**® Single and Multiple-Pin Marking Systems are based on Telesis' original, patented "Floating Pin" design. A pneumatically driven and returned metal pin permanently indents the marking surface with either dot matrix or continuous line characters — even logos, graphics or 2-D* Codes. Since the marking pin "floats" on constant return air pressure, surface irregularities up to ¼" are easily accommodated. And, no stress concentrations occur. Since the force of the mark is controlled by air pressure, product marking can be "customized" to suit most any application. Telesis manufactures over 10 versatile **PINSTAMP**® Models. They are cost-effective in a wide range of standalone or on-line manufacturing situations.

TELESCRIBE® Marking Systems inscribe high quality, continuous line characters in

materials from plastics to hardened steel — in virtual silence. Other Pin Marking Systems include the **BENCHMARK® Series** of low cost markers for stand-alone, benchtop and hand-held applications, and **IDENTIPLATE®**, which provides efficient, automated tag marking for a variety of industrial or consumer products.

QUALITY - ISO9001

At Telesis, manufacturing management processes must comply with rigorous ISO Quality Standards. Product Testing in every phase of production ensures reliability throughout the life of your marking system.

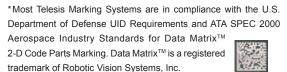


CUSTOM ENGINEERED SOLUTIONS

Telesis is the leader in custom engineered/factory integrated marking technology. Whether it's a fully automated on-line application or a stand-alone manual workstation, Telesis Applications Engineers will work with you to solve your parts handling and custom software needs.

They can integrate any of our standard marking products within your specific application. You can expect a responsive, cost-effective, quality design solution to meet your unique requirements.

To learn more – or discuss a Custom Engineered Marking System, call (800)654-5696 TODAY – or visit us at www.telesis.com.





All product descriptions subject to change without notice. Please refer to Product Specification Sheets or call the Applications Engineering Department at 800.654.5696 for current information.



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PINSTAMP® and TeleScribe® MARKING SYSTEMS

| TMC470 Marking System Controller | Page 23 |
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| The TMC470 is a truly state-of-the-art, compact, self-contained controller. Available with all Telesis PINSTAMP® and TeleScribe® marking heads. | |
| MERLIN® III Visual Design Software | Page 23 |
| Telesis' new WIN 32 Merlin® III Visual Design Software makes pattern design quick and intuitive. "WYSIWYG" (what you see is what you get) displays a to-scale image of the pattern as it's created. Just "click & drag" for immediate adjustments to field size, location or orientation. | |
| TMP6100/470 PINSTAMP® Marking System | Page 24 |
| The Single Pin TMP6100 is the most versatile PINSTAMP® Marking Head. It is easily integrated into either on or off-line applications. Since the marking pin can be positioned anywhere in the generous 6" x 12" (152 x 304mm) marking window, the TMP6100 can mark any character height or style, or number of lines desired. Its robotic design allows clear access to the marking window for loading and unloading of parts. | |
| TMP1700/470 PINSTAMP® Marking System | Page 25 |
| The TMP1700/470 is the lowest cost PINSTAMP® Marking System. The rugged Single Pin TMP1700 marking head features a compact, 1-1/2" x 2-1/2" (38.1 x 63.5mm) window, and marking speeds up to six characters per second. It's an excellent choice for many factory-automated or on-line processes. When combined with optional mounting post and base, the TMP1700 is cost-effective in off-line marking applications, too. | |
| TMP4210/470 PINSTAMP® Marking System | Page 26 |
| The TMP4210/470 is an extremely lightweight, hand-held, single pin marker satisfying a wide range of portable marking applications. Its robust rack-and-pinion design and compact envelope also make it the right choice for many high production, on-line applications. | |
| TMP3200/470 PINSTAMP® Marking System | Page 27 |
| The TMP3200/470 is a rugged, cost effective utility marker for on-line and off-line high speed marking applications. Its low-maintenance design features a $4^{''} \times 6^{''}$ (100 x 150mm) marking window for multi-line text, and marking speeds up to six characters per second. | |
| TMP4500/470E Marking System | Page 28 |
| The TMP4500/470E is a hand-held electric pin marker perfect for portable applications requiring deep marking. | |
| TMM5400/470 PINSTAMP® Marking System | Page 29 |
| With eight pins marking simultaneously, the TMM5400 is the fastest dot peen marker available. It can mark up to 16 characters per second in soft plastics or hardened steel. Choose from a variety of marking pins and cartridges to optimize window size and cycle time combinations. | |
| TMM4200/470 PINSTAMP® Marking System | Page 30 |
| The unique TMM4200 Multiple Pin Marking Head can mark up to eight characters per second at depths to .013" (.33mm). Weighing 4.5 pounds, its compact, hand-tool like design with pistol-grip handle makes the TMM4200 the ultimate hand held permanent marker. | |



| TMM4215/470 PINSTAMP® Marking System. Based on the TMM4200/470 design, the TMM4215/470 provides a marking window twice the size of the TMM4200/470. | Page 31 |
|--|---------------|
| TMM4250/470 PINSTAMP® Marking System The TMM4250/470 Multiple Pin Marking System can mark up to eight characters per second. A NEMA 12 (IP55) enclosure with industrial grade, protective rubber "boot" makes it highly resistant to both solid and liquid contaminants. The TMM4250 features an extremely compact envelope. It can be integrated easily within a wide range of manufacturing settings. | Page 32 |
| TMM5100/470 PINSTAMP® Marking System. With up to six pins marking simultaneously, the TMM5100/470 Multiple Pin Marking system can mark up to six characters per second. Its lightweight, compact design and minimal footprint make it ideal for either automated or hand-held operations. A variety of pin cartridges are available for optimal character size/depth, cycle times and marking window areas. | Page 33 |
| TMP7000/470 PINSTAMP® Marking System The TMP7000/470 is a powerful, heavy duty marking system for deep marking applications. This single pin marker is capable of marking characters up to .025" (.63mm) deep on mild steel. | Page 34 |
| TMM7200 PINSTAMP® Marking System. The TMM7200 is an extremely heavy duty marking system. It is the right choice for deep penetration marking of large characters. The flexible TMM7200 can be configured with up to 21 marking pins to print 21 characters in 1.5 seconds. | Page 35 |
| SC3500/470 and SC5000/470 TeleScribe® Marking Systems For virtually silent marking, the economically priced SC3500/470 features a 4" x 6"(100 x 150mm) marking window. The powerful, heavy duty SC5000/470, with a 2.5" x 7.5" (63.5 x 190.5mm) marking window is particularly well suited for VIN marking applications. | Pages 36-37 |
| BenchMark®460 Hand-Held Marking System The BenchMark®460 is a fully programmable, cost effective alternative to old-fashioned permanent marking techniques for parts too large or heavy to be carried to a marking station. | Page 38 |
| BenchMark®200 and 320 Benchtop Marking Systems These are extremely affordable benchtop markers equipped with an electromechanical marking pin. | Pages 39-40 |
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| PIN MARKING SYSTEM SELECTION GUIDE | Pages 45 – 47 |

TELES S MARK OF CONFIDENCE

SERVICE and SUPPORT

All of our systems — standard and custom — are designed and built to your specifications at our 46,000 square foot (4087 square meter) facility located in Circleville, Ohio. We maintain state-of-the-art manufacturing tools for all of the mechanical, electrical and software functions needed to support your marking system. Telesis also maintains Sales and Distribution Offices in The Netherlands, Germany, England, and China.



Customer Service

At Telesis, Customers come First. Our Order Entry



Specialists are fully trained to help with questions on pricing, product capabilities, accessories, spare parts and availability. They provide timely up-dates on the status of your order. Call us at (800)654-5696 for the answers!

Technical Service

We back our customers with support and service for every system we build world-wide. This includes onsite installation and start-up by our experienced Field Service Engineers. They'll even train your operating personnel — further assurance that your Telesis Marking System will perform dependably.

Have a technical question or concern?

Telesis Service Technicians are available 24 hours a day — every day — to help you. Often, they can troubleshoot and fix a problem over the phone, saving you time and money. Call our Technical Serice Department at (800)867-8670 or



e-mail a Telesis Service Technician at technical_services@telesistech.com.

Training



Telesis' commitment to customers is evident in our Training Facility. It features classroom-oriented and hands-on product training by experienced instructors. Our 3,000 square foot facility gives us the flexibility to easily accommodate up to 40 people in a classroom setting.

Smaller groups use product work-stations for a very effective, individual learning experience. On-site customized training for the customer can be also be developed as needed to meet the customers needs.

Our Warranty and Guarantee

Every Telesis Marking System carries a complete

Parts and Service Warranty.
During this time, we can
ship replacement parts, free
of charge, overnight in the
continental United States.
Plus, component exchange
programs for reconditioned



equipment can reduce downtime.

Extended Service warranties are available for all Telesis Marking Equipment. Contact your Telesis Representative or our Customer Service Department for details.

At Telesis, we're dedicated to support you for the life of your Marking System.
We're with you 100% of the way.



E-SERIES - EV40 **Diode-Pumped Solid State Laser**

The EV40 is a high throughput laser marker featuring a Q-switched Nd:YV04 diode pumped, aircooled laser design with high speed digital galvo scanners. This laser provides high quality laser beam characteristics including a long focal tolerance combined with up to 2mJ/ pulse energies and high average powers at 1064nm, allowing these systems to achieve high-speed, rapid deep marking of metals or composite materials on flat and curved surfaces and offers the user best-inclass reliability with a low cost of ownership. In addition, the integrated proprietary Merlin®II LS graphical laser software and optimized electronics make these systems the best solution for many high speed marking on the fly (MOTF) applications. The robust mechanical and optical design

allows these lasers to operate without any chiller in an industrial environment where shock, vibration, and dust are a concern while maintaining stable output power. The small footprint allows for easy integration into manual offline and automated on-line configurations, making it ideal for a wide range of industrial marking applications.



LASER MARKER SPECIFICATIONS

| ComplianceWavelengthFiber-co | 1,064 nm |
|------------------------------|-----------------------------|
| | Q-switched Nd:YVO₄ laser |
| Laser Beam Mode | TEM ₀₀ |
| Positioning | Visible Red Diode Light |
| Optical Fiber Length1.75 m | eters (5.74 feet) standard |
| Cooling Air Coo | led, active thermo-electric |
| (n | o water cooling required) |
| Operating Temperature Range | |
| Humidity10% | |
| Mounting Weight | |
| Marking head dimensions | |
| 25.1 | (W) x 23.4(H) x 74.3cm(L) |
| | (9.9" x 9.2" x 29.2") |
| Controller dimensions | |
| 43.8(| W) x 21.1(H) x 44.3cm(L) |
| | (17.3" x 8.3" x 17.5") |
| Controller Weight | |
| Input Power | |
| System Power Consumption | < 900W |

*MOTF Version and embedded PC versions available at additional charge

Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements

STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|--------------|---------------------------------|
| 100mm | 65mm X 65mm (2.56" X 2.56") |
| 160mm | 110mm X 110mm (4.33" X 4.33") |
| 254mm | 175mm X 175mm (6.88" X 6.88") |
| 330mm | 230mm X 230mm (9.06" X 9.06") |
| 350mm | 250mm X 250mm (9.84" X 9.84") |
| 420mm | 290mm X 290mm (11.42" X 11.42") |

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|--|---|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista ^{™,} or Windows® 7 |
| with Desktop PC (Std), Optional Laptop | |
| Communication Interface | Serial, TCP/IP, I/O |



Engraved approximately 4mm deep in aluminum



E-SERIES - EV25DS Diode-Pumped Solid State Laser

At the heart of the EV25DS marking system is our air cooled, high power, industrial grade 25W, diode-pumped, solid-state vanadate laser. It is designed to operate in the harshest of environments while maintaining peak performance for many thousands of hours of maintenance-free operation. The EV25DS offers a broad range of laser performance that allows the user to tailor its operation for maxi-



mum results in the final mark. The EV25DS offers distinct advantages over fiber lasers and other solid state lasers due to its superior beam quality, resulting in smaller focused spot sizes and a longer working depth of field than other lasers can offer. The key features of the EV25 provide the strength to tackle metals such as stainless steel, cobalt, and titanium, as well as provide the high marking speeds required for marking-on-the-fly (MOTF). It also provides the fine detail to do trimming, edge heat treating, and even marking delicate materials like plastics, foils, and labels. It produces superb annealed marks that stand up to the harshest of tests, high resolution 2D codes,

and can even produce unique color marks on various metals.

LASER MARKER SPECIFICATIONS

| CDRH, CE |
|--------------------------------------|
| 1064 nm |
| Fiber-coupled diode end-pumped, |
| Q-switched Nd:YVO ₄ laser |
| TEM |
| 25 Watts |
| Visible Red Diode Light |
| 1.75 meters (5.74 feet) standard |
| 4.75 meters (15.58 feet)optional |
| 115/230 VAC 50/60 Hz |
| ionLess than 800 Watts |
| Air Cooled, active thermo-electric |
| (no water cooling required) |
| ange18° to 30°C (65° to 86°F) |
| 10% to 85% Non-condensing |
| Approx. 24 kg (53 lbs.) |
| |
| 70.6 (L) x 23.7 (W) x 22.5cm (H) |
| (27.8" x 9.3" x 8.8") |
| 42(W) x14(H) x 50cm(L) |
| (16.8"x 5.5"x 19.2") |
| |



Model E10 Series Controller

STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|--------------|---------------------------------|
| 100mm | 65mm X 65mm (2.56" X 2.56") |
| 160mm | 110mm X 110mm (4.33" X 4.33") |
| 254mm | 175mm X 175mm (6.88" X 6.88") |
| 330mm | 230mm X 230mm (9.06" X 9.06") |
| 350mm | 250mm X 250mm (9.84" X 9.84") |
| 420mm | 290mm X 290mm (11.42" X 11.42") |

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|-------------------------|--|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista [™] , or Windows® 7 |
| with D | Desktop PC (Std), Optional Laptop |
| Communication Interface | Serial TCD/ID I/O |



Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements



E-SERIES - EV10SDS, EV15DS Diode-Pumped Solid State Laser

The Telesis EV10SDS and EV15DS markers are based on advanced Q-Switched, fiber-coupled diode end-pumped Nd:YVO4 laser technology. The outstanding beam quality of these lasers

makes them superior to all other markers of equivalent

power for high resolution and high speed marking. Addition-

ally, the shorter pulse widths and high peak powers of this marker makes it the preferred choice for challenging marking applications on silicon or heat sensitive materials such as plastics or thin foils. The smaller spot size and extended depth of focus allows these lasers to mark much more highly irregular or curved surfaces than fiber lasers. They are air-cooled and an excellent choice for high speed Marking-On-the-Fly applications as well. With expected pump diode lifetimes of over 100,000 hours for the EV15DS and 200,000 hours for the EV10SDS, system down time is dramatically reduced. Diode replacement can be completed quickly and the fiber coupled diode design eliminates the need to re-align the laser marker. The marker's modular design, housing the diode in the laser controller, eliminates a large heat source from the laser insuring maximum stability as well as the need for water cooling.

LASER MARKER SPECIFICATIONS

| Compliance | CDRH, CE |
|---|--------------------------------------|
| Wavelength | |
| Laser TypeFiber-cou | pled diode end-pumped, |
| |)-switched Nd:YVO ₄ laser |
| Laser beam mode | |
| CW PowerEV10SDS | |
| Positioning | |
| Optical Fiber Length1.75 me | |
| | ters (15.58 feet) optional |
| CoolingAir-coole | |
| | water cooling required) |
| Operating Temperature Range | 18° to 30°C |
| | (65° to 86°F) |
| Humidity10% | to 85% Non-condensing |
| Mounting Weight | Approx. 20 kg (45 lbs.) |
| EV10SDS Marketing Head Dimension | |
| 79.5(L) |) x 16.6(W) x 17.6cm(H) |
| | (29.6" x 6.6" x 6.8") |
| EV15DS Marketing Head Dimensions | i |
| 68.0(L) | x 16.2 (W) x 19.1cm(H) |
| | (26.8" x 6.4" x 7.5") |
| Controller Dimensions | |
| 4: | 2(W) x 14(H) x 50 cm(L) |
| | (16.8" x 5.5" x 19.2") |
| Input Power | 115/230 VAC 50/60 Hz |
| Max. Power Consumption | Less than 500W |



Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements



STANDARD LENS CONFIGURATIONS

EV15DS

| FOCAL LENGTH | MARKING FIELD |
|--------------|---------------------------------|
| 100mm | 65mm X 65mm (2.56" X 2.56") |
| 160mm | 110mm X 110mm (4.33" X 4.33") |
| 254mm | 175mm X 175mm (6.88" X 6.88") |
| 330mm | 230mm X 230mm (9.06" X 9.06") |
| 350mm | 250mm X 250mm (9.84" X 9.84") |
| 420mm | 290mm X 290mm (11.42" X 11.42") |

SOFTWARE

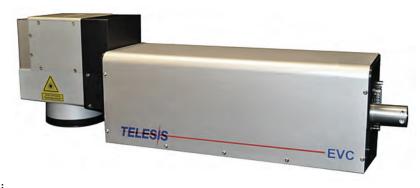
| Software | MERLIN® II LS (see page 18) |
|--|-------------------------------|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| with Desktop PC (Std), Optional Laptop | |
| Communication Interface | Serial TCP/IP I/O |





E-SERIES - EVC Diode-Pumped Solid State Laser

The Telesis EVC marker is an extremely cost effective DPSS laser based on a proven advanced Q-Switched, fiber-coupled diode end-pumped Nd:YVO₄ laser platform for applications requiring high beam quality and stability. Its exceptional power stability at all power levels makes the EVC an ideal choice for engraving, annealed marking, or high speed marking on delicate and heat sensi-



tive electronic components, thin foils and medical instruments. The EVC is completely air cooled with a very compact, easily integrated package requiring very little maintenance. With an expected lifetime for the pump diode of over **200,000 hours**, down time is dramatically reduced. Because of the modular fiber coupled design, diode replacement can be completed quickly with no need to realign the laser. The compact footprint of the system allows for the easy integration into both manual off-line and automated in-line applications with Marking-On-The-Fly (MOTF) support for high volume applications.*

LASER MARKER SPECIFICATIONS

| ComplianceWavelengthEibaer TypeFib | 1,064 nm |
|------------------------------------|----------------------------------|
| ,. | Q-switched Nd:YVO₄ laser |
| Laser Beam Mode | TEM ₀₀ |
| Average Power | 8W |
| Positioning | |
| Optical Fiber Length1. | |
| Cooling Air | r Cooled, active thermo-electric |
| | (no water cooling required) |
| Operating Temperature Range | |
| Humidity | 10% to 85% Non-condensing |
| Mounting Weight | |
| Marking Head Dimensions | |
| | 15.4(W) x 18.8 (H) x 61.1cm(L) |
| | (6.1" x 7.4" x 24.1") |
| Controller Dimensions | |
| | 41.9(W) x 14.0(H) x 49.5cm(L) |
| | (16.5" x 5.5" x 19.5") |
| Controller Weight | , |
| Input Power | |
| System Power Consumption | < 400W |

*MOTF Version available at additional charge



Model XP1 Series Controller

STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|-------------------|-------------------------------|
| 100mm | 65mm X 65mm (2.56" X 2.56") |
| 160mm | 110mm X 110mm (4.33" X 4.33") |
| Other lens config | gurations are available |

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|-------------------------|----------------------------------|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| with D | esktop PC (Std), Optional Laptop |
| Communication Interface | Serial TCP/IP I/O |

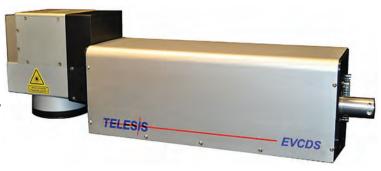


Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements



E-SERIES - EVCDS Diode-Pumped Solid State Laser

The Telesis EVCDS marker is an extremely cost effective DPSS laser based on a proven advanced Q-Switched, fiber-coupled diode end-pumped Nd:YVO4 laser platform for applications requiring high beam quality and stability. It features a dual sensor shutter safety system and its exceptional power stability at all power levels makes the EVCDS an ideal choice for engraving, annealed marking, or



high speed marking on delicate and heat sensitive electronic components, thin foils and medical instruments. The EVCDS is completely air cooled with a very compact, easily integrated package requiring very little maintenance. With an expected lifetime for the pump diode of over **200,000 hours**, down time is dramatically reduced. Because of the modular fiber coupled design, diode replacement can be completed quickly with no need to realign the laser. The compact footprint of the system allows for the easy integration into both manual off-line and automated in-line

applications with Marking-On-The-Fly (MOTF) support for high volume applications.*

LASER MARKER SPECIFICATIONS

| Wavelength | CDRH, CE1,064 nm Fiber-coupled diode end-pumped, |
|-----------------------------|--|
| | Q-switched Nd:YVO ₄ laser |
| Laser Beam Mode | TEM ₀₀ |
| Average Power | 9W |
| Positioning | Visible Red Diode Light |
| | .1.75 meters (5.74 feet) standard |
| | Air Cooled, active thermo-electric |
| | (no water cooling required) |
| Operating Temperature Range | e16° to 40°C (61° to 104°F) |
| | 10% to 85% Non-condensing |
| | Approx. 14.5kg (32 lbs.) |
| | |
| | 15.4(W) x 18.8(H) x 61.1cm(L) |
| | (6.1" x 7.4" x 24.1") |
| Controller Dimensions | |
| | 42.5(W) x 14.0(H) x 48.8cm(L) |
| | (16.8" x 5.5" x 19.2") |
| Controller Weight | 15kg (33 lbs.) |
| | 95-250 VAC, 6A, 50/60 Hz |
| • | • • |



Model E10 Series Controller

STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|---|-------------------------------|
| 100mm | 65mm X 65mm (2.56" X 2.56") |
| 160mm | 110mm X 110mm (4.33" X 4.33") |
| 254mm | 175mm X 175mm (6.89" X 6.89") |
| Other lens configurations are available | |

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|-------------------------|--------------------------------------|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| wi | th Desktop PC (Std), Optional Laptop |
| Communication Interface | Serial, TCP/IP, I/O |



Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements

System Power Consumption.....< 400W



E-SERIES - EY6DS Diode-Pumped Solid State Laser

The Telesis EY6DS marker is based on an advanced Q-switched, fiber-coupled diode end-pumped Nd:YAG laser, which provides high pulse energies and exceptional beam quality for marking, scribing, trimming, and other material processing applications. The EY6DS is a completely air cooled, very compact, easily integrated package requiring very little maintenance. With an expected lifetime for the pump diode of over 20,000 hours, down time is dramati-



cally reduced. Because of the modular fiber coupled design, diode replacement can be completed quickly with no need to realign the laser. The EY6DS is an extremely reliable, low



cost alternative to other laser markers.

LASER MARKER SPECIFICATIONS

| CDRH, CE |
|---|
| 1,064 nm |
| Fiber-coupled diode end-pumped, |
| |
| Q-switched Nd:YAG Laser |
| TEM ₀₀ |
| 6W |
| Visible Red Diode Light |
| 1.75 meters (5.74 feet) standard |
| 4.75 meters (15.58 feet) optional |
| . Air Cooled, active thermo-electric |
| Less than 500W |
| . Air Cooled, active thermo-electric |
| (no water cooling required) |
| - · · · · · · · · · · · · · · · · · · · |
| e18° to 35°C |
| (65° to 95°F) |
| 10% to 85% Non-condensing |
| approx. 13.6Kg (30 lb.) |
| |
| 31.8(W) x 15.7(H) x 42.9cm(L) |
| (12.5" x 6.2" x 16.9") |
| (12.6 X 6.2 X 16.6) |
| |
| 43.0(W) x 14.0(H) x 64.0cm(L) |
| (19.5" x 8.0" x 25.2") |
| 115/230 VAC, 50/60 Hz |
| |

STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|---|-------------------------------|
| 100mm | 65mm X 65mm (2.56" X 2.56") |
| 160mm | 110mm X 110mm (4.33" X 4.33") |
| Other lens configurations are available | |

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|-------------------------|-----------------------------------|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| with | Desktop PC (Std), Optional Laptop |
| Communication Interface | Serial, I/O and Host Capable |





Max. Power Consumption...... Less than 500W







E-SERIES - EV4GDS Green Diode-Pumped Solid State Laser Laser

The EV4GDS marker is based on an advanced Q-switched, fiber-coupled, diode end-pumped and frequency doubled (green wavelength) Nd: YVO₄ laser. Its laser beam and Q-switched pulse characteristics are optimized for applications that require high beam quality and stability. The 532nm wavelength of the EV4G offers extra power and speed for precision marking, scribing, trimming and other material processing that is not well suited for near IR or CO₂ wavelength

lasers. The robust mechanical and optical design of the EV4GDS enables operation in industrial environments where shock, vibration and dust are a concern. The EV4GDS is a completely aircooled, very compact, easily integrated package requiring very little maintenance. With an expected lifetime for the pump diode of over 100,000 hours, downtime is dramatically reduced. Because of the modular fiber coupled design, diode replacement can be completed quickly with no need to re-align the laser.





Model E10 Series Controller

LASER MARKER SPECIFICATIONS

| Compliance | CDRH, CE |
|---------------------------------|--------------------------------------|
| Wavelength | 532 nanometers (nm) |
| Laser Type Fibe | |
| | |
| | Q-switched Nd:YVO ₄ laser |
| Average Power (at 20KHZ) | |
| Positioning | Visible Red Diode Light |
| Optical Fiber Length1.7 | 75 meters (5.74 feet) standard |
| 4.7 | 75 meters (15.58 feet) optional |
| Cooling Air | Cooled, active thermo-electric |
| | (no water cooling required) |
| Maximum Power Consumption | Less than 600 watts |
| Mounting Weight | approx. 25Kg (55 lbs.) |
| Operating Temperature Range | |
| Humidity | |
| Marking Head Dimensions | |
| | 68.6(L) x 24.5(W) x 19.1cm(H) |
| | (26.99" x 9.658" x 7.524") |
| Temperature Controller Dimensio | ons |
| | 21.3(W) x 9.6(H) x 21.2cm(D) |
| | (8.4" x 3.7" x 8.3") |
| Controller Dimensions | , |
| | 43(W) x 14(H) x 50cm(L) |
| | 10(VV) X 14(11) X 000111(L) |







STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|--------------|--------------------------------|
| 100mm | 55mm X 55mm (2.17" X 2.17") |
| 160mm | .110mm X 110mm (4.33" X 4.33") |
| 250mm | .170mm X 170mm (6.69" X 6.69") |

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|-------------------------|-----------------------------------|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| with D | Desktop PC (Std), Optional Laptop |
| Communication Interface | Serial, TCP/IP, I/O |



Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements

Input Power 115/230 VAC 50/60 Hz

(16.8" x 5.5" x 19.2")



F-SERIES FQ10, FQ20 and FQ20DH Fiber Lasers

Powered by 110/230VAC with no water-cooling requirements, these F-Series units are extremely dependable and offer a long service life.

"All of your employees seem to be willing and able to give that "little bit extra" to make everything go right. The laser marking equipment you have supplied to us thus far has been totally reliable and continues to perform flawlessly, helping Federal-Mogul Corporation reduce costs as it continues to improve product quality. I look forward to a continued relationship with the people I consider my "friends" at Telesis Technologies."

Best Regards,

Ed Reinemeyer Process Engineer, Federal-Mogul Corporation





| FQ10 Marking Head dimensions for 100mm lens | | | | |
|---|---|--|--|--|
| 51.0(L) x 12.7(W) x 14.0cm (H) |) | | | |
| (20.1" x 5.0" x 5.5") |) | | | |
| FQ10 Mounting Weight 6.82 kg (15 lbs.) |) | | | |
| | | | | |
| FQ20 Marking Head Dimensions for 100mm lens | | | | |
| 51.0(L) x 12.7(W) x 14.0cm(H) | • | | | |
| (20.1" x 5.0" x 5.5") |) | | | |
| FQ20 Mounting Weight 6.82 kg (15 lbs.) |) | | | |
| | | | | |
| Model 6 Controller Dimensions | | | | |
| 42.5(W) x 13.7(H) x 50.8cm(D) |) | | | |

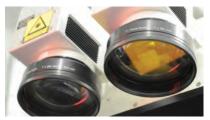
STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|--------------|---------------------------------|
| 100mm | 65mm X 65mm (2.56" X 2.56") |
| 160mm | 90mm X 90mm (3.54" X 3.54") |
| 163mm | 10mm X 110mm (4.33" X 4.33") |
| 254mm | 175mm X 175mm (6.89" X 6.89") |
| 330mm | 230mm X 230mm (9.06" X 9.06") |
| 350mm | 250mm X 250mm (9.84" X 9.84") |
| 420mm | 290mm X 290mm (11.42" X 11.42") |

The FQ20DH features an advanced, dualscan marking head that is based on our successful Pulsed-Fiber Laser platform. Capable of extremely high-speed, high quality, simultaneous, duplicate marking on two surfaces, it offers lower operation costs along with increased production and handling efficiencies. In addition to marking, the FQ20DH is an excellent choice for scribing, trimming and a variety of material processing applications.

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|-------------------------|-----------------------------------|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| with | Desktop PC (Std), Optional Laptop |
| Communication Interface | Serial TCP/IP I/O |



FQ20DH Dual Scan Heads



F-SERIES FQ10, FQ20 and FQ20DH Fiber Lasers

Innovative, compact and flexible F-SERIES Fiber Lasers are perfectly suited for marking applications that require 24/7 "set and forget", unattended operation.

Select the 10W FQ10 for low to medium speed applications and the 20W FQ20 when higher power/faster process speeds are required. Both lasers offer the additional long-term safeguard of built-in, polarization/optical isolators.





LASER MARKER SPECIFICATIONS

| Compliance | CDRH, CE, CSA |
|---------------------------|----------------------------------|
| Wavelength | 1070nm |
| Laser Type | Q-Switched Ytterbium Fiber Laser |
| Average Power FQ10 | 10 Watts |
| | 20 Watts |
| | >4KW |
| Peak Power FQ20 | >8KW |
| Beam Quality | $M^2 < 2$ |
| Fiber Length FQ10 | 5 Meters (16 ft) Std. |
| Fiber Length FQ20 | |
| Optical Isolator FQ10 | Standard |
| Optical Isolator FQ20 | Standard |
| Positioning | Visible Red Diode Light |
| Input Power (Selectable) | 115VAC/230VAC, 50/60Hz |
| Cooling | Air Cooled, Fan/Filter |
| | (no water cooling required) |
| Operating Temperature Ran | ge18° to 35°C |
| | (65°F to 90°F) Non Condensing |



Model 6 Controller



Customized Part Handling Options Available



Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements



CO-SERIES CO₂ Lasers

The Telesis CO-Series Laser Markers, available in two different power levels, the 10W Model CO10A, and the 60W Model CO60, are excellent choices for high duty cycle applications

on plastic, rubber, wood, paper, anodized metal and label marking applications. They are perfect for "Marking-on-the Fly" as well

as stationary marking. Their RF-excited CO2 tube

assures a long life cycle as well with virtually maintenance-free operation. Due to their compact size and modular construction, the CO-Series markers can go almost any place they are needed on the plant floor.



Model C10 Controller







LASER MARKER SPECIFICATIONS

| Compliance | CDRH, CE |
|---------------------------|-------------------------------|
| Wavelength | 10.6um |
| Laser Type | CO ₂ |
| Head Weight | 19.1 kg (42.0 lbs.)(10W) |
| | 30.0 kg (66 lbs.)(60W) |
| | 8.0 kg (18.0 lbs.) |
| CW Power CO10A | 10W |
| CW Power CO60 | 60W |
| CO10A | 85.7(L) x 16.5(W) x 22.1cm(H) |
| | (33.7" x 6.5" x 8.7") |
| CO60 | 97.1(L) x 21.0(W) x 22.1cm(H) |
| | (38.2" x 8.3" x 8.7") |
| Controller Dimensions | 42.5(W) x 14.0(H) x 50.4cm(D) |
| | (16.7" x 5.5" x 19.9") |
| | 100 - 240 VAC, 50 - 60Hz |
| Cooling | Air Cooled, Fan/Filter |
| | (no water cooling required) |
| Operating Temperature Ran | nge16 – 35°C |
| | (61-95°F) Non-Condensing |
| | |



| FOCAL LENGTH | MARKING FIELD |
|---------------|-------------------------------|
| 75mm | 50mm X 50mm (1.97" X 1.97") |
| 100mm | 70mm X 70mm (2.76" X 2.76") |
| 150mm | 100mm X 100mm (3.94" X 3.94") |
| 200mm | 140mm X 140mm (5.51" X 5.51") |
| Other lens of | configurations are available |

MARKING SPEED*

- Up to 152 m/minute (500 ft./minute) line speed for "Mark-on-the-fly" applications
- · 900 characters/second
- *Character marking speeds and production line speeds depend on material, character size and the desired marking quality.

SOFTWARE

| Software | MERLIN® II LS (see page 18) |
|-------------------------|-----------------------------------|
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| with [| Desktop PC (Std), Optional Laptop |
| Communication Interface | Serial TCP/IP I/O |



Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements



CO-SERIES CO₂ AP Lasers

The Telesis CO-Series AP Laser Markers, available in two different power levels, the 10W Model CP10AP and the 30W Model CO30AP are excellent choices for many plastic, fiberboard, anodized metal and label marking applications. They are perfect for "Marking-on-the Fly" as well as stationary marking. A 10" LCD touch screen controller is available for embedded applications. The

unique 4 position rotatable scan heads can be configured to easily integrate the laser into your application and the RF-excited CO₂ tube assures a long life cycle as well with virtually maintenance-free operation. Due to their compact size and modular construction, the CO-Series markers can go almost any place they are needed on the plant floor.



Model C10 Controller







STANDARD LENS CONFIGURATIONS

| FOCAL LENGTH | MARKING FIELD |
|---------------|-------------------------------|
| 75mm | 50mm X 50mm (1.97" X 1.97") |
| 100mm | 70mm X 70mm (2.76" X 2.76") |
| 150mm | 100mm X 100mm (3.94" X 3.94") |
| 200mm | 140mm X 140mm (5.51" X 5.51") |
| Other lens co | onfigurations are available |

LASER MARKER SPECIFICATIONS

| Wavelength | CDRH, CE |
|-----------------------------|--------------------------------|
| Laser Type | CO ₂ |
| Marking Head Weight | 15.0 kg (33.0 lbs.)(10W) |
| | 26.3 kg (58.0 lbs.)(30W) |
| Controller Weight | 8.1 kg (17.9 lbs.) |
| CW Power CO10AP | 10W |
| CW Power CO30AP | 30W |
| CO10AP | 90.5(L) x 12.7(W) x 20.6cm (H) |
| | (35.6" x 5.0" x 8.1") |
| CO30AP | 86.7(L) x 21.1(W) x 22.7cm(H) |
| | (34.1" x 8.3" x 8.6") |
| Controller Dimensions | 42.5(W) x 14.0 (H) x 50.4cm(D) |
| | (16.7" x 5.5" x 19.9") |
| Input Power | 100 - 240 VAC, 50 - 60Hz |
| Cooling | Air Cooled, Fan/Filter |
| | (no water cooling required) |
| Operating Temperature Range | e ¹ 10 – 40°C |
| | (50-104°F) |

MARKING SPEED²

- Up to 152 m/minute (500 ft./minute) line speed for "Mark-on-the-fly" applications
- · 900 characters/second

SOFTWARE

| Software | MERLIN [®] II LS (see page 18) |
|-------------------------|---|
| | Optional AMI Operator Interface |
| Operating System | Windows® 2000, Windows XP, |
| | Windows Vista™, or Windows® 7 |
| with D | Pesktop PC (Std), Optional Laptop |
| Communication Interface | Serial, TCP/IP, I/O |

¹ Extended operational ranges for less than 100% duty cycle. The optimized cooling design provides the best performance at high temperatures available in the market for CO₂ markers.

² Character marking speeds and production line speeds depend on material, character size and the desired marking quality.



Merlin II LS LASER SOFTWARE

The powerful **Merlin® II LS** Visual Design Software package is capable of driving any of the core Telesis Laser Products. Each system is shipped with a fully functioning version of the Software (on CD), that allows for off-line program development.







TELESIS LASER SOFTWARE FEATURES:

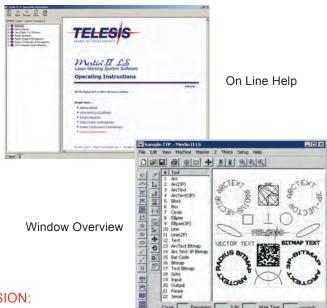
- Specially Designed by TELESIS for 32 bit Windows[®] operating systems, compatable with Windows 2000, Windows XP, Windows VistaTM, or Windows[®] 7.
- Import a wide range of Graphic Formats including DXF from AutoCAD™, Adobe Illustrator, WINDOWS® Bitmaps, True Type Fonts as Vector or Raster Files.
- Supports 4 Axis Movement (XYZ & Rotary)
- · Highlight, click and mark!

COMPUTER REQUIREMENTS:

- Pentium[®] III 128 Mb RAM (minimum)
- · Multi-gigabyte Hard Disk Drive
- · Video, Sound Card
- · CD-ROM and available USB port
- SVGA Monitor, Mouse and Keyboard

OPTIONAL AUTOMATED MARKING INTERFACE (AMI) VERSION:

Our AMI version of Merlin II LS addresses the need for a safe, easy operator interface that allows barcode scanning to load patterns, load a picture of the part and fixture, and insert the marking data in the proper field all without the need of a keyboard - virtually mistake free.





LASER MARKING SYSTEM **SELECTION GUIDE**

| | EV40 | EV25DS | EV15DS EV10SDS | EVC/EVCDS |
|---|--|--|--|--|
| LASER SYSTEMS/ APPLICATIONS | 1064nm wavelength, air-cooled, single phase, diode end-pumped, Q-switched, High pulse energy Nd:YVO ₄ laser marker | 1064nm wavelength, air-cooled, single phase, diode end-pumped, Q-switched,25 Watt Nd:YVO ₄ laser marker | 1064nm wavelength, air-cooled, single phase, diode end-pumped, Q-switched, 10 and 15 Watt Nd:YVO ₄ laser marker | 1064nm wavelength, air-cooled, single phase, diode end-pumped, Q-switched, 8 and 9 Watt compact high reliability Nd:YVO ₄ laser marker |
| Marking metals | Best choice for high speed surface and deep marking of almost every type of metal. | Excellent choice for high speed surface and deep marking of almost every type of metal. | Good choice for high speed surface and deep marking of almost every type of metal. | Excellent choice for surface marking of almost every type of metal with very small heat effected zone. |
| Marking plastics and label materials (3M, Tesa, etc.) | Best choice for high speed marking of plastics and label materials. | Excellent choice for high speed marking of plastics and label materials. | Excellent choice for high speed marking of plastics and label materials. | Good choice for marking plastics and label materials. |
| Marking silicon | Best choice for deep marking of silicon. | Excellent choice for deep marking of silicon. | Excellent choice for surface marking of silicon. | Can do surface marking of silicon. |
| Marking organic materials | Cannot mark wood. Can mark some other organic materials | Cannot mark wood. Can mark some other organic materials. | Cannot mark wood. Can mark some other organic materials. | Cannot mark wood. Can mark some other organic materials. |
| Chemical marking | Good choice for marking metals, glass and other materials using chemical marking. | Good choice for marking metals, glass and other materials using chemical marking. | Good choice for marking metals, glass and other materials using chemical marking. | Can mark metals, glass and other materials using chemical marking. |
| Marking high quality graphics | Best choice for high speed marking high resolution graphics due to small spot size. | Excellent choice for marking high resolution graphics due to small spot size. | Excellent choice for marking high resolution graphics due to small spot size. | Excellent choice for marking high resolution graphics due to small spot size. |
| Workstation | Optional | Optional | Optional | Optional |





LASER MARKING SYSTEM **SELECTION GUIDE**

| | FQ10 | FQ20 | FQ20DH | EY6DS |
|---|---|---|--|---|
| LASER SYSTEMS/ APPLICATIONS | 1070nm wavelength, air-cooled, single phase, Q-switched, 10 Watt Yb fiber laser marker | 1070nm wavelength, air-cooled, single phase, Q-switched, 20 Watt Yb fiber laser marker (Will provide shorter cycle times than FQ10.) | 1070nm wavelength, air-cooled, single phase, Q-switched, dual scan head, 10 Watt per scanhead, Yb fiber laser marker | 1064nm wavelength, air-cooled, single phase, diode end-pumped, Q-switched, 6 Watt Nd:YAG laser marker |
| Marking metals | Good choice for surface and deep marking of some metals. (Sensitive to back reflection. Not recom- mended for copper, brass or any other highly reflective or polished metals.) | | Good choice for surface and deep marking of some metals. (Sensitive to back reflection. Not recom- mended for copper, brass or any other highly reflective or polished metals. | Good choice for surface and deep marking all metals. |
| Marking plastics and label materials (3M, Tesa, etc.) | Good choice for marking many plastics and label materials. (Some surface melting can occur due to long pulse width.) | Good choice for marking many plastics and label materials. (Some surface melting can occur due to long pulse width.) | Good choice for marking many plastics and label materials. (Some surface melting can occur due to long pulse width.) | Good choice for marking plastics and label materials. |
| Marking silicon | Capable of deep marking of silicon. | Capable of deep marking of silicon. | Capable of deep marking of silicon. | Capable of deep marking of silicon. |
| Marking organic materials | Cannot mark wood. Can mark some other organic materials. | Cannot mark wood. Can mark some other organic materials. | Cannot mark wood. Can mark some other organic materials. | Cannot mark wood. Can mark some other organic materials. |
| Chemical marking | Can mark metals, glass and other materials using chemical marking. | Can mark metals, glass and other materials using chemical marking. | Can mark metals, glass and other materials using chemical marking. | Can mark metals, glass and other materials using chemical marking. |
| Marking high quality graphics | Can mark high quality graphics on some metals. | Can mark high quality graphics on some metals. | Can mark high quality graphics on some metals. | Excellent choice for marking high resolution graphics due to small spot size. |
| Workstation | Optional | Optional | Optional | Optional |





| | EV4GDS | CO10A/CO10AP | CO30AP | CO60 |
|---|---|---|---|---|
| LASER SYSTEMS/ APPLICATIONS | 532nm wavelength; air-cooled; single phase; diode end-pumped, Q-switched, 4 Watt green laser marker | 10,600nm wavelength, air- cooled, single phase, RF excited, 10W CO ₂ laser marker | 10,600nm wavelength, air-cooled, single phase, RF excited, 30W CO ₂ laser marker (provides shorter cycle times than CO10) | 10,600nm wavelength, air-cooled, single phase, RF excited, 60W CO ₂ laser marker (provides shorter cycle times than CO30) |
| Marking metals | Excellent choice for high speed surface marking allmetals with very small heat effected zone produced. | Can mark some anodized metal surfaces. | Can mark anodized metal surfaces. With short focal length lenses, can mark some non-plated metal surfaces. | Can mark anodized metal surfaces. With short focal length lenses, can mark some non-plated metal surfaces. |
| Marking plastics and label materials (3M, Tesa, etc.) | Excellent choice for marking plastics. Marks large variety of plastics. | Excellent choice for high speed marking of plastics and some label materials. | Excellent choice for high speed marking of plastics and some label materials. | Excellent choice for high speed marking plastics and some label materials. |
| Marking silicon | Excellent choice for surface marking of silicon. | Not recommended | Not recommended | Not recommended |
| Marking organic materials | Cannot mark wood. Can mark some other organic materials. | Excellent choice for marking wood and other organic materials. | Excellent choice for marking wood and other organic materials. | Excellent choice for marking wood and other organic materials. |
| Chemical marking | Not recommended | Good choice for marking metals, glass and other materials using chemical marking | Excellent choice for marking metals, glass and other materials using chemical marking. | Excellent choice for marking metals, glass and other materials using chemical marking. |
| Marking high quality graphics | Excellent choice for marking high resolution graphics due to small spot size. Highest resolution capability. | Can mark high quality graphics on plastics and on some anodized metal surfaces. | Can mark high quality graphics on plastics and on some anodized metal surfaces. | Can mark high quality graphics on plastics and on some anodized metal surfaces. |
| Workstation | Optional | Optional | Optional | Optional |



For all applications, it is highly recommended that samples be sent to Telesis for qualification and testing purposes.



LASER MARKER ENCLOSURES, ACCESSORIES AND SYSTEM INTEGRATION

Telesis offers a wide variety of standard Class 1 and Class 4 laser marker enclosure styles and sizes. When the situation demands it, our experienced custom engineering staff can design one to fit the specific needs of your application.











provide a complete solution to your laser marking requirements with parts handling accessories such as X/Y tables, rotary fixtures, rotary tables and manual and automated Z-axes.



TMC470 MARKING SYSTEM CONTROLLER

FEATURES

- · Fully self-contained no PC required
- Easy-to-use menu design for pattern design and access
- Ethernet port for TCP/IP communications
- · Durable membrane keyboard
- · Pattern backup via USB port
- · Stores up to 200 marking patterns locally
- One RS232/485 and one RS232 serial port and discrete I/O capabilities with spare I/O available for customer-specific needs
- Optional internal board to control third and fourth axis (Z and rotary) – no separate driver required
- Optional panel-mount kit for panel mounting in NEMA/IP rated enclosures
- Conforms to all European Community (CE) norms



 Operates on 100 – 130 VAC or 200 – 250 VAC, 50 – 60 Hz power



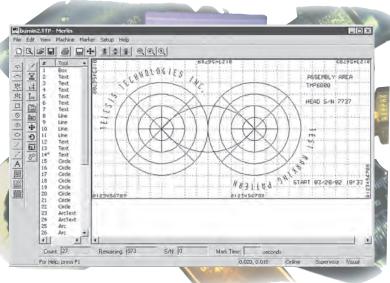
Merlin® III

VISUAL DESIGN SOFTWARE

Offered as an optional accessory to a number of TMC470- based Pinstamp® Marking Systems, Telesis' powerful WIN 32 Merlin®III Visual Design Software with its state-of-the art graphical user ininterface, makes marking pattern design quick and easy.

"WYSIWYG" (what you see is what you get) interface provides a

to-scale image of the pattern as it's created. Just "click & drag" for immediate adjustment to field size, location or orientation. Pattern Wizard Mode makes simple pattern design a snap even for the computer novice.



Marking "tools" available include text (at any angle), arc text, rectangles, circles, ellipses and lines. Multiple fields can be grouped and saved as a block to form a logo, or import logos via DXF CAD files. Non-printable

fields clearly show

the graphical representation of the part being marked. Use the convenient, "GO TO" command to avoid obstacles within the marking window.



TMP6100/470 PINSTAMP® SINGLE PIN MARKING SYSTEM

The TMP6100 is the most versatile **PINSTAMP®** Marking Head. It is easily integrated into either on or off-line applications. Since the marking pin can be positioned anywhere in the generous 6" x 12" (152mm x 304mm) marking window, the TMP6100 can mark any character height, style or number of lines desired. Its robotic design allows clear access to the marking window for loading and unloading of parts.



OPTIONS AND ACCESSORIES

- Rotary fixtures for marking circumferences of cylindrical parts
- Marking head mounting posts, including programmable Z-axis version
- Logo/Font design Software Package for design of custom fonts or simple logos
- Powerful Windows-based Merlin® III software (see page 23)
- Electric Pin Version Available

"The Telesis Model 6100/470 is a top quality product. They run 6 days a week, 10 hours a day, all day long, and they are 'bullet-proof'. I'd recommend the Telesis dot peen (Pinstamp) to anybody who needs that type of product marker. It is one of the best machines that we have."

Bud Nelson, Secondary Manager, Acutec Precision Machining

FEATURES

- Large 6" x 12" (152mm x 304mm) marking window
- Unique rigid positioning drive features robotic technology
- Marks a wide range of materials from soft plastics to hardened steel — up to Rc60
- Dot density up to 200 dots per inch (79 dots per centimeter)
- Choice of Interchangable Marking Pin Types for depths from 0.001" – 0.018" (0.02mm – 0.45mm)
- Pin travel accommodates surface irregularities to 0.25" (6mm)
- Compact, self-contained TMC470 Controller with integral display and keyboard – no PC required (see page 23)
- RS232 or TCPIP Host interface to download text to individual fields or call up entire patterns
- Automatically generates serial numbers, time, date and shift codes
- Easily interfaced to PLCs (Programmable Logic Controllers)
- · Pattern backup via USB port
- · Stores up to 200 marking patterns (files)







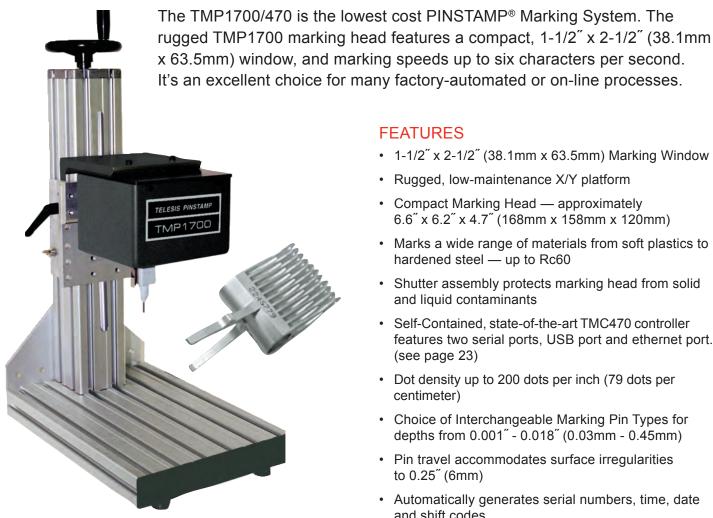




The TMP6100/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.



TMP1700/470 PINSTAMP® SINGLE PIN MARKING SYSTEM



OPTIONS AND ACCESSORIES

- Rotary fixtures for marking circumferences of cylindrical parts
- · Marking head mounting post, including programmable Z-axis version
- · Panel-mount and IP/NEMA Rated Controllers
- · Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- · Powerful Windows based Merlin® III Sofware (see page 23)
- Electric Pin Version Available

FEATURES

- 1-1/2" x 2-1/2" (38.1mm x 63.5mm) Marking Window
- Rugged, low-maintenance X/Y platform
- Compact Marking Head approximately 6.6" x 6.2" x 4.7" (168mm x 158mm x 120mm)
- · Marks a wide range of materials from soft plastics to hardened steel — up to Rc60
- Shutter assembly protects marking head from solid and liquid contaminants
- Self-Contained, state-of-the-art TMC470 controller features two serial ports, USB port and ethernet port. (see page 23)
- Dot density up to 200 dots per inch (79 dots per centimeter)
- · Choice of Interchangeable Marking Pin Types for depths from 0.001" - 0.018" (0.03mm - 0.45mm)
- Pin travel accommodates surface irregularities to 0.25" (6mm)
- · Automatically generates serial numbers, time, date and shift codes
- · Stores up to 200 marking patterns
- · Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers







TMP4210/470 PINSTAMP® SINGLE PIN MARKING SYSTEM

The TMP4210/470 is an extremely lightweight, hand-held, single pin marker satisfying a wide range of portable marking applications. Its robust rack-and-pinion design and compact envelope also make it the right choice for many high production, on-line applications.



OPTIONAL ACCESSORIES

- Panel-mount and IP/NEMA rated controller options
- · Debris Shield Kit protects from solid contaminants
- · Cable Balancer Attachment Bracket
- Marking Head Standoff V-Block kit for Marking the Circumference of Cylindrical Parts
- Quick Disconnect Tool Post
- Bar Code Scanner for automatic data entry
- Logo-Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern (marking file) Back-up Utility available FREE from www.telesis.com

FEATURES

- · Simple, Easy to Use Single Pin Design
- Compact and Ergonomic; Weighs about 2.0kg (4.4 pounds)
- · Available with 25S or 150SA Marking Pin
- 2" x 0.5" (50mm x 13mm) Marking Window
- · Economically Priced
- Marks 1/8" (3mm) tall characters at up to 3.5 characters per second
- Utilizes Same Rugged Rack-and-Pinion X/Y Platform as Field-Proven TMM4200
- Detachable Electronics Cable for Improved Serviceability
- Self-Contained. state-of-the-art TMC470 controller features two serial ports, USB and Ethernet ports (see page 23)

 Also Available Without Handle and Stand-Off for Fixtured Applications







The TMP4210/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.



TMP3200/470 PINSTAMP® SINGLE PIN MARKING SYSTEM

The TMP3200/470 Single Pin Marking System features a large 4" x 6" (100mm x 150mm) marking window, and marking speeds up to six characters per second. Well suited for both bench top and factory-automated applications, its simple, yet robust belt-driven dual rail, X/Y platform yields high quality characters and low maintenance operation.





OPTIONAL ACCESSORIES

- Rotary fixtures for marking circumferences of cylindrical parts
- Marking head mounting post including programmable Z-axis version
- · Panel-mount and IP/NEMA-Rated Controllers
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- Powerful Windows based Merlin[®] III software available (see page 23)





FEATURES

- 4" x 6" (100mm x 150mm) Marking Window
- Belt-driven, dual rail X/Y mechanism with superior wear characteristics
- Patented floating pin technology accommodates surface irregularities of up to 0.25" (6mm)
- Marks a wide range of materials from soft plastics to hardened steel — up to Rc60
- Choice of pin sizes for marking depths from 0.001" - 0.018" (0.03mm - 0.45mm)
- Self-contained, state-of-the-art TMC470 controller features two serial ports, USB port and Ethernet port (see page 23)
- Automatically generates serial numbers, date, time and shift codes
- · Stores up to 200 marking patterns
- Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers
- Dot density up to 200 dots per inch (79 dots per centimeter)



A protective shutter assembly shields the TMP3200 marking head from liquid and solid contaminants.





TMP4500E/470 PINSTAMP® SINGLE PIN MARKING SYSTEM

Mark up to .018 inches (0.46mm) deep in mild steel with the extremely robust yet highly portable PINSTAMP® Model TMP4500/470E hand held marking system. With an electromechanical pin that eliminates the need for any air supply, the TMP4500/470E is the perfect choice for applications requiring both portability and deep penetration marking.



OPTIONAL ACCESSORIES

- Bar code scanner for automatic data entry
- Quick disconnect toolposts for use in benchtop applications
- Cable balancer attachment kit
- · V-block kit for marking cylinderical parts
- Logo-Font Design software package for the design of custom fonts and logos
- · Battery operated carrying case mounted version

FEATURES

- · Ergonomic dual handle design
- Large 1" x 4" (25mm x 100mm) marking window
- Extremely robust design featuring rugged X-Y platform and all metal enclosure
- Powerful pin drive design for marking depths of up to 0.018" (0.46mm) in mild steel
- Weighs less than 6.6 pounds (3.0 kg) less electronic cables
- · Marks at speeds up to 3 characters per second
- Self-contained, state-of-the-art TMC470 controller with USB, Ethernet, and 2 serial ports (see page 23)
- Automatically generates serial numbers, date, time and shift codes
- · Stores up to 200 marking patterns





Compact Self-Contained TMC470 Controller — no PC required.

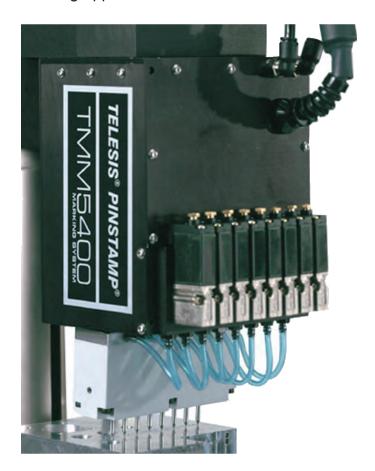


The TMP4500/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.



TMM5400/470 PINSTAMP® MULTIPLE PIN MARKING SYSTEM

Equipped with eight marking pins, the TMM5400/470 is the fastest dot peen marker available. Its speed and its compact envelope make it the perfect solution for many on-line, high-speed marking applications.



OPTIONAL ACCESSORIES

- Panel-mount and IP/NEMA-Rated controller options
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com



- · Marks up to 16 Characters per Second
- Marking windows as large as 0.5" x 3.78" (13mm x 96mm)
- Two marking pin cartridge configurations available to optimize marking window size/cycle time combinations
- Extremely compact marking head for easy integration into factory-automated applications
- Marks a wide range of materials from soft plastics to hardened steel — up to Rc60
- Telesis' patented "Floating Pin" technology accommodates surface irregularities up to 0.25" (6mm)
- Self-contained, state-of-the-art TMC470 controller features two serial ports, USB and Ethernet ports (see page 23)
- Automatically generates serial numbers, date, time and shift codes
- Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers
- Stores up to 200 marking patterns





Compact Self-Contained TMC470 Controller — no PC required.



The TMM5400/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.



TMM4200/470 PINSTAMP® MULTIPLE PIN MARKING SYSTEM

The unique TMM4200 Multiple Pin Marking Head can be equipped with up to four marking pins for very high speed marking, yet weighs only 4.5 pounds (2.0kg). Its light weight, compact ergonomic design, plus optional pistol-grip handle make the TMM4200 the ultimate hand-held permanent marker.



OPTIONAL ACCESSORIES

- Panel-mount and IP/NEMA-Rated controller options
- Quick Disconnect Tool Post
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com

FEATURES

- · Compact, Ergonomic Design
- Weighs 4.5 pounds (2.0kg)
- Available with four 25S or two 150SA Marking Pins
- Marks up to eight 0.125" (3mm) high Characters per Second
- Marking Windows up to 0.5" x 2" (13mm x 50mm)
- Depths up to 0.013" (0.33mm) in Mild Steel
- Rugged Rack-and-Pinion X/Y Platform for low maintenance operation
- Simple Shutter Plate Protects Head from Solid and Liquid Contaminants
- Detachable Electronics Cable for Improved Serviceability
- Self-contained, state-of-the-art TMC470 control ler features two serial ports, USB and Ethernet ports (see page 23)
- Also Available Without Handle and Stand-Off for Fixtured Applications
- Automatically generates serial numbers, date, time and shift codes
- Stores up to 200 Marking Patterns
- Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers

Compact Self-Contained TMC470 Controller — no PC required.





The TMM4200/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.



TMM4215/470 PinStamp® Systems PINSTAMP® DUAL PIN MARKING SYSTEM

The innovative dual-pin TMM4215 provides a 4" x 0.5" (100mm x 13mm) marking window, twice as large as that of the TMM4200. This lightweight, compact marker is available in both fixtured and hand-held configurations.



Shown with optional debris shield





OPTIONAL ACCESSORIES

- Panel-mount and IP/NEMA rated controller options
- · Cable balancer attachment kit
- Marking head standoff V-Block Kit for marking on the circumference of cylindrical parts
- · Quick-disconnect tool post
- · Bar code scanner for automatic data entry
- Logo-Font Design Software package for design of custom fonts or logos
- PC-based upgrade utility available FREE from www. telesis.com for easy software upgrade
- PC-based Pattern (marking file) Back-up utility available FREE from www.telesis.com

FEATURES

- · Compact, ergonomic design
- Weighs 4.5 pounds (2.0kg)
- Marks up to four 0.125" (3mm) high characters per second
- Available with the high-speed 25S marking pin or the deep marking 150SA pin
- Marking depths up to 0.013" (0.33mm) in Mild Steel
- Rugged Rack and Pinion X/Y Platform for low maintenance operation
- Also avilable without handle and standoff for for fixtured applications
- Detachable Electronics cable for improved serviceability
- Self-contained, state-of-the-art TMC470 control ler features two serial ports, USB and Ethernet ports (see page 23)
- Automatically generates serial number, time, date and shift codes
- Stores up to 200 marking patterns
- Easily interfaced to PLC's (Programmable Logic Controllers) and host computers







The TMM4215/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.



TMM4250/470 PINSTAMP® MULTIPLE PIN MARKING SYSTEM

The TMM4250/470 Multiple Pin Marking System can mark up to eight characters per second. It is ideal for many on-line applications with severe spatial constraints — or in wet or dirty environments. The TMM4250 Marking Head features an extremely compact envelope and provides marking windows up to 0.5" x 2" (13mm x 50mm). It can be easily integrated within a wide range of manufacturing settings. A NEMA 12 (IP55) enclosure with industrial grade, protective rubber "boot" makes it highly resistant to both solid and liquid contaminants, including machine tool coolants.



OPTIONAL ACCESSORIES

- Panel-mount and IP/NEMA-Rated Controllers
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com



The TMM4250/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.

- NEMA 12-Rated (IP55) with Rubber Boot for Protection Against Solid and Liquid Contaminants
- Extremely Compact for Ease of Integration
- Available with four 25S or two 150SA Marking Pins
- Marks up to eight 0.125" (3mm) high Characters per Second
- Self-contained, state-of-the-art TMC470 controller features two serial ports, USB and Ethernet ports (see page 23)
- Stores up to 200 marking patterns
- Marking Windows up to 0.5" x 2" (13mm x 50mm)
- Depths up to 0.013" (0.33mm) in Mild Steel
- Rugged Rack-and-Pinion X/Y Platform for low maintenance operation
- Detachable Electronics Cable for Improved Serviceability
- RS232 or TCPIP Host interface to download text to individual fields or call up entire patterns
- Automatically generates serial numbers, date, time and shift codes
- Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers

Compact Self-Contained TMC470 Controller — no PC required.





TMM5100/470 PINSTAMP® MULTIPLE PIN MARKING SYSTEM

Mark up to six characters/second with the TMM5100/470 Multiple Pin Marking System. Its lightweight, compact design and minimal footprint are ideal for hand-held, stand-alone or completely integrated, factory automated operations. A variety of pin sizes/configurations are available to mark character heights from .04" - .63" (1mm - 16mm) on a wide range of materials.



OPTIONAL ACCESSORIES

- Panel-mount and IP/NEMA-Rated controller options
- Marking head support tooling and balancers
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com



Compact Self-Contained TMC470 Controller — no PC required.

FEATURES

- High speed up to six pins marking simultaneously
- Marking windows up to 0.625" x 4.5" (16mm x 114mm)
- Marks a wide range of materials from soft plastics to hardened steel — up to Rc60
- Available with a variety of marking pin cartridge configurations for optimal combination of character size, marking depth, marking window size and cycle time
- · Compact, rugged X/Y positioning mechanism
- The right choice for many VIN (Vehicle Identification Number) Marking Applications
- Self-contained, state-of-the-art TMC470 controller features two serial ports, USB and Ethernet ports (see page 23)
- Automatically generates serial numbers, time, date and shift codes
- Stores up to 200 marking patterns
- Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers
- Pin travel accommodates surface irregularities to 0.25"(6mm)







TMP7000/470 PINSTAMP® SINGLE PIN MARKING SYSTEM

The TMP7000/470 is a robust single pin marker targeted at applications requiring extremely deep penetration marking. Its 4" x 6" (100mm x 150mm) marking window is ample for a wide range of applications and its TMC470 controller allows it to be easily integrated into most automated applications.



OPTIONAL ACCESSORIES

- Panel-mount and IP/NEMA-Rated controller options
- · Marking head support tooling and balancers
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com



"We recommend Telesis hardware to our clients because we believe it is the best marking equipment available. The success of our software business depends on high quality 2D Data Matrix $^{\text{TM}}$ dot peen marks and Telesis consistently delivers quality marks – every day – every time!"

Chuck Stewart, Stewart Technologies Inc.

FEATURES

- Great for marking large characters and/or rough surfaces
- Large 4" x 6" (100mm x 150mm) marking window
- Marks up to 0.025" (0.63mm) deep in mild steel
- Self-contained, state-of-the-art TMC470 controller features two serial ports, USB and Ethernet ports (see page 23)
- Automatically generates serial numbers, date, time and shift codes
- Marks a wide range of materials from soft plastics up to hardened steel
- Stores up to 200 marking patterns



Compact Self-Contained TMC470 Controller — no PC required.

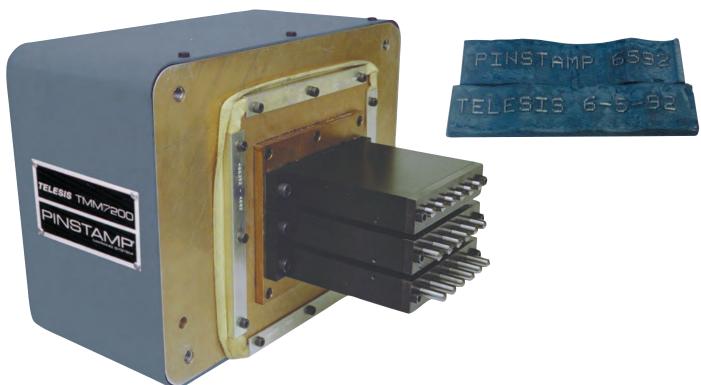


The TMP7000/470 contains Data Matrix® 2-D code marking capability, meeting all US Department of Defense UID requirements and other industry standards.



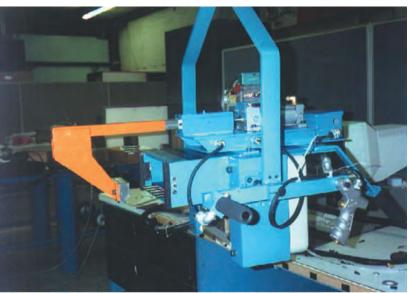
TMM7200 PINSTAMP® MULTIPLE PIN MARKING SYSTEM

The TMM7200 is an extremely heavy duty multiple pin marking system configured on a "per project" basis to provide optimum solutions for individual applications. The TMM7200 is the right choice for the deep penetration marking required for large character sizes, or when marking especially rough surfaces. The flexible TMM7200 can be equipped with up to 21 marking pins, allowing it to print 21 characters in 1.5 seconds. In addition, marking pins can be located on varying horizontal and vertical center distances from 0.25" (6mm) to 1.75" (44.5mm) to provide a wide range of very large marking windows.





Compact Self-Contained TMC470 Controller — no PC required.



The TMM7200 is easily adapted to custom designs and fixturing options.

Virtually silent, the economical SC3500/470 inscribes high quality, continuous line characters in most metals and plastics. It is well suited for a wide range of automated on-line and stand-alone bench top applications.



OPTIONAL ACCESSORIES

- · Marking head mounting post with base
- Panel-mount and IP/NEMA-Rated Controllers (see page 25)
- · Marking head support tooling and balancers
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com



Compact Self-Contained TMC470 Controller — no PC required.

FEATURES

- · Extremely low noise marking
- Durable, heavy duty marking head provides large 4" x 6" (100mm x 150mm) marking window
- Economically priced Scribe Marker, well suited for a wide range of automated on-line and stand-alone Bench Top applications
- Self contained, state-of-the-art TMC470 controller features two serial ports, USB and Ethernet ports (see page 23)
- Automatically generates serial numbers, date, time and shift codes
- Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers
- Marks a wide range of materials from soft plastics up to hardened steel
- Stores up to 200 marking patterns





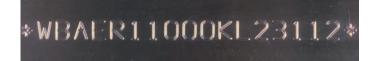


The powerful, extremely heavy-duty SC5000/470 is the right choice when deep, low noise marking is required. It is especially well-suited for VIN (Vehicle Identification Number) marking applications.



FEATURES

- · Extremely low noise marking
- · Powerful, rugged marking head drive mechanism for deep scribe marking
- 2.5" x 7.5" (63.5mm x 190.5mm) marking window
- · Especially well suited for VIN (Vehicle Identification Number) applications
- · Self Contained, state-of-the-art TMC470 controller features two serial ports, USB and Ethernet ports (see page 23)
- · Automatically generates serial numbers, date, time and shift codes
- Easily interfaced to PLCs (Programmable Logic Controllers) and Host Computers
- Marks a wide range of materials from soft plastics up to hardened steel
- · Stores up to 200 marking patterns

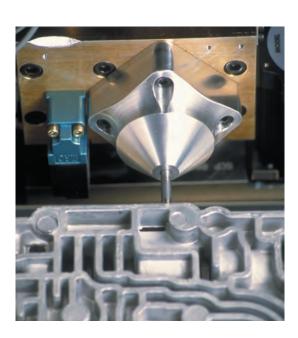


OPTIONAL ACCESSORIES

- Marking head support tooling and balancers
- Panel-mount and IP/NEMA-Rated controller options
- · Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com
- Optional SS5500/470 Servo Motor Driven Versions Available For High Speed Applications



Compact Self-Contained TMC470 Controller — no PC required.





Bench Mark 460 ID-HELD MARKING SYSTEM

The **BenchMark**[®] 460 is a fully programmable, cost effective alternative to old-fashioned permanent marking techniques for parts too large or heavy to be carried to a marking station. Its hand-held marking head is lightweight and ergonomically designed, while providing a generous 1" x 4" (25mm x 100mm) marking window. An electromechanical marking pin eliminates the need for any air supply, making the **BenchMark®** 460 truly portable.



OPTIONAL ACCESSORIES

- Bar Code Scanner for automatic data entry
- Logo-Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern (marking file) Back-up Utility available FREE from www.telesis.com
- Benchmark® 460+ version with enhanced communications capabilities

Fully programable **Battery Operated** BenchMark® 460 with charger fully packaged in a rugged, convenient carrying case



FEATURES

- Compact, ergonomic marking head weighs only 1.7 kg (3.75 pounds)
- Generous 1" x 4" (25mm x 100mm) marking window
- High quality, permanent, programmable marking on a wide range of materials — from soft plastics to hard metals up to Rc60
- No consumables
- Electromechanical marking pin eliminates the need for air supply
- Marks up to 5 characters per second
- Automatically generates serial numbers, as well as date, time and shift codes



required



Features DATA MATRIX™ 2-D Code Marking Capability Meets all Department of Defense UID Requirements



Bench Mark 320 BENCHTOP MARKING SYSTEM

The **BenchMark**® 320 is an extremely versatile yet economically priced benchtop marking system. It offers a generous 4" x 6" (100mm x 150mm) marking window large enough to satisfy almost any application. And its unique marking arm design is extremely convenient for parts loading and unloading as well as marking pattern design. The system is self-contained with compact controller and rugged extruded aluminum mounting post and

Benan Mark 320

Marking System

Particular of the control of the c

"I want to thank Telesis for manufacturing a product that performs as well in real life as it states in your literature. Our new BenchMark® 320 Marking System from Telesis has performed above our expectations since putting it into service. The BenchMark® 320 greatly simplified our identification tag printing process and provided Krispy Kreme with "just in time" tag production capabilities. If you are looking for high quality, flexibility and reliability in permanent marking equipment, Telesis has the solution."

Jeff Renz, Krispy Kreme

FEATURES

- High quality, permanent, programmable marking on a wide range of materials — from soft plastics to hard metals up to Rc60
- Large 4" x 6" (100mm x 150mm) marking window
- Marking arm allows clear access for loading and unloading of parts
- Electromechanical marking pin eliminates the need for air supply
- Marks up to 5 characters per second
- Automatically generates serial numbers, as well as date, time and shift codes
- Compact, convenient controller with membrane keyboard and LCD display — no PC required

OPTIONAL ACCESSORIES

- Rotary fixture for marking circumferences of cylindrical parts
- Bar Code Scanner for automatic data entry
- · Start-Print footswitch and pushbutton station
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com
- Benchmark® 320+ version with enhanced communications capibilities







Bench Mark® 200 BENCHTOP MARKING SYSTEM

The **BenchMark®** 200 is an extremelly economical, fully programmable alternative to old-fashioned permanent marking techniques. This complete system, with self-contained controller and extruded aluminum marking head mounting post and base, is the right choice for many stand-alone bench top marking applications. An electromechanical marking pin eliminates the need for any air supply, making it easy to move the **BenchMark®** 200 from one work area to another.



OPTIONAL ACCESSORIES

- Rotary fixture for marking circumferences of cylindrical parts
- Bar Code Scanner for automatic data entry
- Start-Print footswitch and pushbutton station
- Logo/Font design software package for design of custom fonts or logos
- PC-Based Upgrade Utility available FREE from www.telesis.com for easy software upgrade
- PC-Based Pattern Back-up Utility available FREE from www.telesis.com
- Benchmark® 200+ version with enhanced communications capibilities



FEATURES

- · Extremely affordable
- High quality, permanent, programmable marking on a wide range of materials — from soft plastics to hard metals up to Rc60
- Ample 4" x 4" (100mm x 100mm) marking window
- Electromechanical marking pin eliminates the need for air supply
- · Marks up to 5 characters per second
- Automatically generates serial numbers, as well as date, time and shift codes
- Compact, convenient controller with membrane keyboard and LCD display — no PC required







2-D and UID CODE MARKING AND VERIFICATION

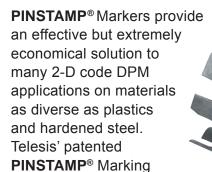
Manufacturers are increasingly turning to the use of 2-D code direct part marking (DPM) and reading technologies. DPM reduces costs, improves quality, and satisfies a number of industry-specific and government mandates, including U.S. Department of Defense UID (Universal Identification) requirements. Successful implementation requires the integration of robust, industrial marking systems with 2-D code verifiers located at the marking station. Together, they insure the ability to easily read and track the 2-D code.

Telesis' extensive experience in the automotive, aerospace and firearms industries makes us uniquely qualified to provide, completely integrated, "mark-read" solutions. We offer the following products and services to satisfy a wide range of 2-D code applications:



· Telesis Laser Marking Systems

 Expert integration of these Telesis products, as well as the integration of 2-D code verifiers marketed by a number of suppliers



Technology provides highly accurate dot placement at specific

X/Y locations. This process makes PINSTAMP® Markers far superior to conventional "oscillating stylus" dot peen markers, especially in 2-D code applications, where accurately marked codes are the key to readability.

Telesis' Laser Marking Systems are truly "state-of-the-art", producing almost perfectly formed 2-D codes nearly instantly on a wide range of materials, including virtually all plastics and metals. These qualities make lasers the perfect choice for applications requiring extremely high throughput or very small 2-D codes.



COMPLIANCE

All Telesis Laser Marking Systems and all PIN-STAMP® Markers except for the TMM5100/420 and TMM7200 comply with all major 2-D code DPM standards, including:

- SAE AS9132

 (as adopted by the
 International Aerospace
 Quality Group)
- AIAG B-4
- AIAG B-17

- NASA-STD-6002
- NASA-STD-HDBK-6003
- Department of Defense Guide to Uniquely Identifying Items (UID)
- MIL-STD-130N



PIN MARKER PRODUCT ACCESSORIES AND SYSTEM INTEGRATION

Choose from a variety of accessories to enhance your Telesis Pin Marking System. All are tested for compatibility and carry a one-year limited warranty. Ask your Telesis Sales Representative about the options best suited for your application.

Rotary Fixtures
For easy circumferential marking



Marking Head Gimbals, Stand-offs and Cable Balancers
For flexible, virtually weightless,

Bar Code Scanners and Wands Eliminate manual data entry

Manual Push Button Stations and Foot Switches For manual control of on-line automated marking stations and

hand-held marking



A variety of Industrial
Controller Enclosures
are Available
Protect control
components from
harsh environments.
Several wall and
floor-mount styles/
colors available



remote start control

Four Wheeled Carts
For portable applications







In addition, Telesis offers expert integration of our entire range of pin marking systems, including software, hardware and control system design services. Whether it's a stand-alone manual marking station or a fully automated on-line factory-integrated application, Telesis can provide a complete solution to your marking system requirements.









PNEUMATIC IMPACT PIN SELECTION GUIDE

| PIN STYLE | CONE ANGLES | MATERIALS* | LENGTH | MAJOR DIAMETER | MINOR DIAMETER |
|------------|----------------------------|-----------------------------------|------------------------------|-----------------|----------------------------|
| 10MP | 30° 45° | Carbide | 0.62″ 16mm | 0.09″ 2.3mm | 0.04″ 1.0mm |
| 25S | 22° 30° 45° 60° | Carbide, Powdered Metal | 1.8″ 45mm | 0.19″ 4.8mm | 0.09" 2.4mm |
| 25L | 22.5° 30° 45° 60° | Carbide, Powdered Metal | 2.2″ 55mm | 0.19″ 4.7mm | 0.09 ["] 2.4mm |
| 25XL | 22.5° 30° 45° 60° | Carbide, Powdered Metal | 2.5" 64mm | 0.19″ 4.7mm | 0.09 ["] 2.4mm |
| 25XLE | 30° 45° | Carbide | 1.8″ 46mm | 0.16″ 4.0mm | 0.09" 2.4mm |
| 101 | 30° 45° 60° | Carbide, Powdered Metal | 3.9″ 99mm | 0.31″ 7.9mm | 0.15 ["] 3.9mm |
| 150S | 30° 45° 60° | Powdered Metal, Carbide-Tipped | 2.75″ 70mm | 0.62″ 15.7mm | 0.37" 9.5mm |
| 150SA | 30° 45° | Carbide-Tipped | 2.75″ 70mm | 0.62″ 15.7mm | 0.37" 9.5mm |
| 150 150 | 30° 45° | Powdered Metal | 5.25 ["] 133.4mm | 0.62″ 15.7mm | 0.37″ 9.5mm |

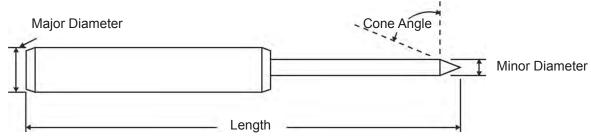


^{*}Carbide = Tungsten Carbide Hardness approximately 92 Rockwell A, Powdered Metal Hardness 63 – 65 Rockwell C.
**Varies with material hardness, cone angle and marking head utilized.



PNEUMATIC IMPACT PIN SELECTION GUIDE

| MARKERS | APPLICATIONS | NOMINAL STROKE LENGTH | TYPICAL MAX DEPTH OF MARK** |
|---|--|-----------------------------|----------------------------------|
| TMP1700, TMM4200, TMM5400 | Great for high resolution graphics and 2-D codes with multi-pixel cells. Pneumatically driven. Light marking in plastic or soft metals. Extremely fast marking, especially in multi-pin markers. | 0.14″ 3.5mm | 0.001 – 0.003" 0.02mm |
| TMP4210, TMM5400, TMP3200, TMM4200, TMM4215, TMM4250 | Very fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Pneumatically driven. | 0.38 ["] 9.6mm | 0.0025 – 0.011" 0.06 – 0.28mm |
| TMP6100, TMM5100, TMP1700, TMP3200, TMM7200 | Fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Pneumatically driven. | 0.50″ 12.7mm | 0.0025 – 0.016" 0.06 – 0.40mm |
| TMP6100, TMM5100, TMM7200, TMP1700, TMP3200, DPP2000 | Similar to 25L. Extra length for recessed or hard to reach marking surfaces. Pneumatically driven. | 0.50″ 12.7mm | 0.0025 – 0.016" 0.06 – 0.40mm |
| TMP1700, TMP3200, TMP6100, Benchmark® 200, Benchmark®320 Benchmark® 460 | Fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Electrically driven. | 0.15" 3.8mm | 0.0025 – 0.011" 0.06 – 0.28mm |
| TMM5100, TMM7200 | For deep marks, large dots and characters, and/or rough surfaces. Pneumatically driven. | 0.75″ 19mm | 0.006 – 0.022" 0.15 – 0.56mm |
| TMP6100, TMM5100, TMM7200, TMP1700 | Similar to 101. High speed marking. Pneumatically driven. | 0.25 ["] 6.35mm | 0.006 – 0.022" 0.15 – 0.56mm |
| TMP6100, TMP3200, TMM4200, TMM4215, TMP4210, TMM4250, TMM7200, TMP1700 | Similar to 150S. | 0.75″ 19mm | 0.006 – 0.022" 0.15 – 0.56mm |
| TMM7200, TMP7000 | Very heavy duty, deep penetration, large character marking; and/or very rough surfaces such as castings and mill surfaces. Pneumatically driven. | 1.00" 25.4mm | 0.020 – 0.030" 0.51 – 0.76mm |





Pin Marking System Selection Guide

| FEATURES | TMP6100 | TMM5100 | TMP3200 | TMP7000 | TMM7200 |
|--|---|---|---|---|---|
| | Versatile Tabletop Marker for Batch Processes/Job Lots or On-Line Processes | Rapid, On-Line, Hand-Held, or Automated Marking, VIN Numbers | Cost-Effective On-Line High Speed Marking | Heavy-Duty, Large Character, Deep Penetration Marking | Heavy-Duty, Large Character, Deep Penetration Marking |
| Controller | TMC470 | TMC470 | TMC470 | TMC470 | TMC470 |
| Hand-Held Applications | No | No | Consult Factory | Consult Factory | No |
| Mark Depth (Based on Rb53 Material Hardness) | 0.001-0.013 in. (0.03-0.33 mm) | 0.001-0.013 in. (0.03-0.33 mm) | 0.001-0.013 in. (0.03-0.33 mm) | 0.001-0.022 in. (0.03-0.56 mm) | 0.001-0.022 in. (0.03-0.56 mm) |
| Noise Level | Moderate | Moderate | Moderate | Moderate | Moderate |
| Computer Host Interface | Yes | Yes | Yes | Yes | Yes |
| Computer Required | No | No | No | No | No |
| Marking Speed - MAX | Up to 3 Char./Sec. | Up to 6 Char./Sec. | Up to 6 Char./Sec. | Up to 2 Char/Sec. | Up to 21 Char / 1.5 sec. |
| Maximum Marking Window Size | 6.0 x 12.0 in. (152.0 x 304.0mm) | 0.625 x 4.5 in. (16.0 x 114.0mm) | 4.0 x 6.0 in. (100.0 x 150.0mm) | 4.0 x 6.0 in. (100.0 x 150.0mm) | 64.0 sq. in. (413.0 sq. mm) |
| Maximum Character Height | 6.0 in. (152.0 mm) | 0.63 in. (16.0 mm) | 4.0 in. (100.0 mm) | 4.0 in. (100.0mm) | 1.75 in. (44.5mm) |
| Programmable "Z" Axis | Optional | No | Optional | Consult Factory | No |
| Maximum No. of Pins | 1 | 6 | 1 | 1 | 21 |
| Multiple Line Marking | Yes | Yes | Yes | Yes | Yes |
| Arc Text | Yes | Yes | Yes | Yes | No |
| Continuous Characters | Yes | Yes | Yes | Yes | Yes |
| Logos | Optional Software | Optional Software | Optional Software | Optional Software | Optional Software |
| 2-D Codes | Yes | No | Yes | Yes | Yes |
| Serialization | Yes | Yes | Yes | Yes | Yes |
| Date Codes | Yes | Yes | Yes | Yes | Yes |
| Surface Irregularities | Up to 0.25 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) |
| Number of Std. Fonts | 3 | 2 | 3 | 3 | 3 |
| User Defined Custom Fonts | Optional Software | Optional Software | Optional Software | Optional Software | Optional Software |
| Circumferal Marking | Optional | No | Optional | No | No |
| Resolution | Up to 200 dpi (79 d/cm) | Up to 200 dpi (79 d/cm) | Up to 200 dpi (79 d/cm) | Up to 200 dpi (79 d/cm) | Up to 200 dpi (79 d/cm) |
| Power | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC |
| Air Supply | 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSG (4.1-6.9 Bars) |
| | | | | | |



| FEATURES | SC3500 | SC5000 | BenchMark®200 | BenchMark®320 | BenchMark®460 |
|--|---|---|---|---|---|
| | Nearly Silent Moderate Penetration Scribe Marking | Nearly Silent Deep Penetration Scribe Marking | Stand-Alone Benchtop Applications | Stand-Alone Benchtop Applications | Stand-Alone Handheld Applications |
| Controller | TMC470 | TMC470 | BM 470 | BM470 | BM 470 |
| Hand-Held Applications | Consult Factory | Consult Factory | No | No | Yes |
| Mark Depth (Based on Rb53 Material Hardness) | Varies | Varies | 0.001-0.010 in. (.0325mm) | 0.001-0.010 in. (.0325mm) | 0.001-0.010 in. (.0325mm) |
| Noise Level | Very Low | Very Low | Moderate | Moderate | Moderate |
| Computer Host Interface | Yes | Yes | No | No | No |
| Computer Required | No | No | No | No | No |
| Marking Speed - MAX | Up to 2 Char/Sec. | Up to 2 Char/Sec. | Up to 5Char/Sec. | Up to 5 Char./Sec. | Up to 5 Char./Sec. |
| Maximum Marking Window Size | 4.0 x 6.0 in. (100.0 x 150.0 mm) | 2.5 x7.5 in. (63.5 x 190.5mm) | 4.0 x 4.0 in (100.0 x 100.0 mm) | 4.0 x 6.0 in. (100.0 x 150.0 mm) | 1.0 x 4.0 in. (25.0 x 100.0 mm) |
| Maximum Character Height | 4.0 in. (100.0 mm) | 2.5 in. (63.5 mm) | 4.0 in. (100.0 mm) | 4.0 in. (100.0 mm) | 1.00 in. (25.0 mm) |
| Programmable "Z" Axis | No | No | No | No | No |
| Maximum No. of Pins | 1 | 1 | 1 | 1 | 1 |
| Multiple Line Marking | Yes | Yes | Yes | Yes | Yes |
| Arc Text | Yes | Yes | Yes | Yes | Yes |
| Continuous Characters | Yes | Yes | Yes | Yes | Yes |
| Logos | Optional Software | Optional Software | Optional Software | Optional Software | Optional Software |
| 2-D Codes | Yes | Yes | Yes | Yes | Yes |
| Serialization | Yes | Yes | Yes | Yes | Yes |
| Date Codes | Yes | Yes | Yes | Yes | Yes |
| Surface Irregularities | Up to 0.3 in. (7.0 mm) | Up to 0.5 in. (12.5 mm) | Up to 0.10 in.(2.5mm) | Up to 0.10 in.(2.5mm) | Up to 0.10 in.(2.5mm) |
| Number of Std. Fonts | 2 | 2 | 3 | 3 | 3 |
| User Defined Custom Fonts | Optional Software | Optional Software | Optional Software | Optional Software | Optional Software |
| Circumferental Marking | No | No | Optional | Optional | No |
| Resolution | Continuous | Continuous | Up to 80 dpi (31 d/cm) | Up to 80 dpi (31 d/cm) | Up to 80 dpi (31 d/cm) |
| Power | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC |
| Air Supply | 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSIG (4.1-6.9 Bars) | None | None | None |



Pin Marking System Selection Guide

| TMM4200/4215 | TMP4210 | TMP4500E | TMM4250 | TMP1700 | TMM5400 |
|---|---|---------------------------------------|--|---|---|
| High Speed Lightwight Hand-Held Marking or Fixtured Applications with with Severe Spacial Constraints | Hand Held Marking or Fixtured Applications with Severe Spacial Constraints | Portable Hand-Held Deep Marking | Fixtured Applications in Wet or Dry Environments | Extremely Cost Effective On-Line High Speed Marking | 8-Pin Marking Head for Extremely High Speed On-Line Applications |
| TMC470 | TMC470 | TMC470 | TMC470 | TMC470 | TMC470 |
| No | Yes | Yes | No | Yes | Consult Factory |
| 0.001-0.013 in. (0.03-0.33mm) | 0.001-0.013 in. (0.03-0.33 mm) | 0.001-0.018 in. (0.03-0.46 mm) | 0.001-0.013 in. (0.03-0.33 mm) | 0.001-0.013 in. (0.03-0.33 mm) | 0.001-0.010 in. (0.03-0.25 mm) |
| Moderate | Moderate | Moderate | Moderate | Moderate | Moderate |
| Yes | Yes | Yes | Yes | Yes | Yes |
| No | No | No | No | No | No |
| 4200 - Up to 8 Char./Sec. 4215 - Up to 4 Char./Sec. | Up to 8 Char./Sec. | Up to 4 Char./Sec. | Up to 8 Char./Sec. | Up to 6 Char/Sec. | Up to 32 Char./ 1.5 sec. |
| 0.5 x 4.0 in. (13.0 x 100.0 mm) | 0.5 x 2.0 in. (12.7 x 50.8mm) | 1.0 x 4.0 in. (25.4 x 101.6 mm) | 0.5 x 2.0 in. (12.5 x 50.8 mm) | 1.5 x 2.5 in. (38.1 x 63.5 mm) | 0.5 x 3.78 in. (12.7 x 96.0 mm) |
| 0.5 in (12.7 mm) | 0.5 in. (12.7 mm) | 1.0 in. (25.4 mm) | 0.5 in. (12.7 mm) | 1.5 in. (38.1 mm) | 0.5 in. (12.7 mm) |
| No | No | No | No | Optional | No |
| 4200 - 4 pins 4215 - 2 pins | 1 | 1 | 4 | 1 | 8 |
| Yes | Yes | Yes | Yes | Yes | Yes |
| No | No | Yes | No | Yes | No |
| Yes | Yes | Yes | Yes | Yes | Yes |
| Optional Software | Optional Software | Optional Software | Optional Software | Optional Software | Optional Software |
| Yes | Yes | Yes | Yes | Yes | Yes |
| Yes | Yes | Yes | Yes | Yes | Yes |
| Yes | Yes | Yes | Yes | Yes | Yes |
| Up to 0.25 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) | Up to 0.1 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) | Up to 0.25 in. (6.0 mm) |
| 3 | 3 | 3 | 3 | 3 | 3 |
| Optional Software | Optional Software | Optional Software | Optional Software | Optional Software | Optional Software |
| No | No | No | No | Optional | No |
| Up to 200 dpi (79 d/cm) | Up to 200 dpi (79 d/cm) | Up to 80 dpi (31 d/cm) | Up to 200 dpi (79 d/cm) | Up to 200 dpi (79 d/cm) | Up to 200 dpi (79 d/cm) |
| 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC | 115 or 220 VAC |
| 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSIG (4.1-6.9 Bars) | None | 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSIG (4.1-6.9 Bars) | 60-100 PSIG (4.1-6.9 Bars) |
| | | | | | |



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For more information on the entire line of flexible and programmable permanent marking systems please call 1-800-654-5696 or visit www.telesis.com



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