

*The Experts
in Feeding
and Driving
Technology.*

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visumatic.com

BEAUTIFUL DESIGN

PERFECT ENGINEERING

BRILLIANT FUNCTIONALITY

EVERYTHING VISUMATIC DELIVERS.



AUTOMATED FASTENING SYSTEMS

Re-inventing
automated
assembly
fastening,
everyday.

**We're the experts in feeding
and driving technology**

Visumatic's passion for fastener feeding and driving has enabled us to become a respected leader in the automation industry. For 50 years, our commitment to make lasting relationships has allowed corporations with similar missions to become some of the most productive on the planet.

We accomplish our mission through diverse custom designed products and unmatched service support. From hand-held systems to robotic screwdriving cells, Visumatic has the level of automation to fit your company's current and future needs.

Visumatic systems automate:

- The Smallest to the Largest Screwdriving
- Nut Runners
- Pin Insertion
- Specialty Fasteners & Rivets
- Quick, Precise Robotic Assembly

Quite simply, Visumatic delivers.

In this manual, you will see our wide range of capabilities in every system we design. Keep in mind that any system can be customized or re-created for your business function. *Can we build one for you?*



Hand Held Systems

In-line or pistol gripped screwfeeders used by an operator to manually locate the driving position and install the fastener.



Fixed Systems & Robotics

Turnkey automated assembly machines delivered to the customer ready to 'Plug-n-Work" for automatic screwfeeding and driving.



Machine Builder Component Systems

Modular building blocks for customers who are developing an automatic assembly process. Driver spindles, feeders and hoppers with your choice of nosepiece, driver tool and controls.



Product Applications

Custom Engineering *The Possibilities Are Endless*

Your Visumatic System will be completely configured for your needs, with all these configuration options. If you need something completely custom — *we can build it. Every Application is Possible with Visumatic.*

[illegible]

Hand Held Systems

VLB-900 **Locking Bit** with Screwfeeder

Application: Engages screw in the nosepiece tooling tip so operators can align mating parts for vertical applications.

Visumatic invented the Locking Bit Handheld System, with over 20 years of research and development. It's the simplest, most reliable driving system on the market.

Our exclusive design:

- Keeps the bit and screw engaged in the nosepiece
- The operator can align the parts prior to fastening, using the screw to feel the joint
- Allows vertical, horizontal and inverted applications, with Inline or Pistol Grip assemblies

Using the VLB Locking Bit the operator can 'ice pick' the assembly ensuring proper alignment; maximum productivity. It's become the most preferred screwdriving system when compared side-by-side with other brands.

The Visumatic Advant-Edge

Visumatic systems are designed for your part, with the best choice of:

- **Drive Motor:** Pneumatic, AC or DC Electric Torque Control
- **Nosepiece:** Jaw, Finder-Jaw, Mini
- **Feeder Escapement:** Standard, Cam, or Finger, Orientor

Greater Control.
Greater Capability.
Built Better.

Locking Bit



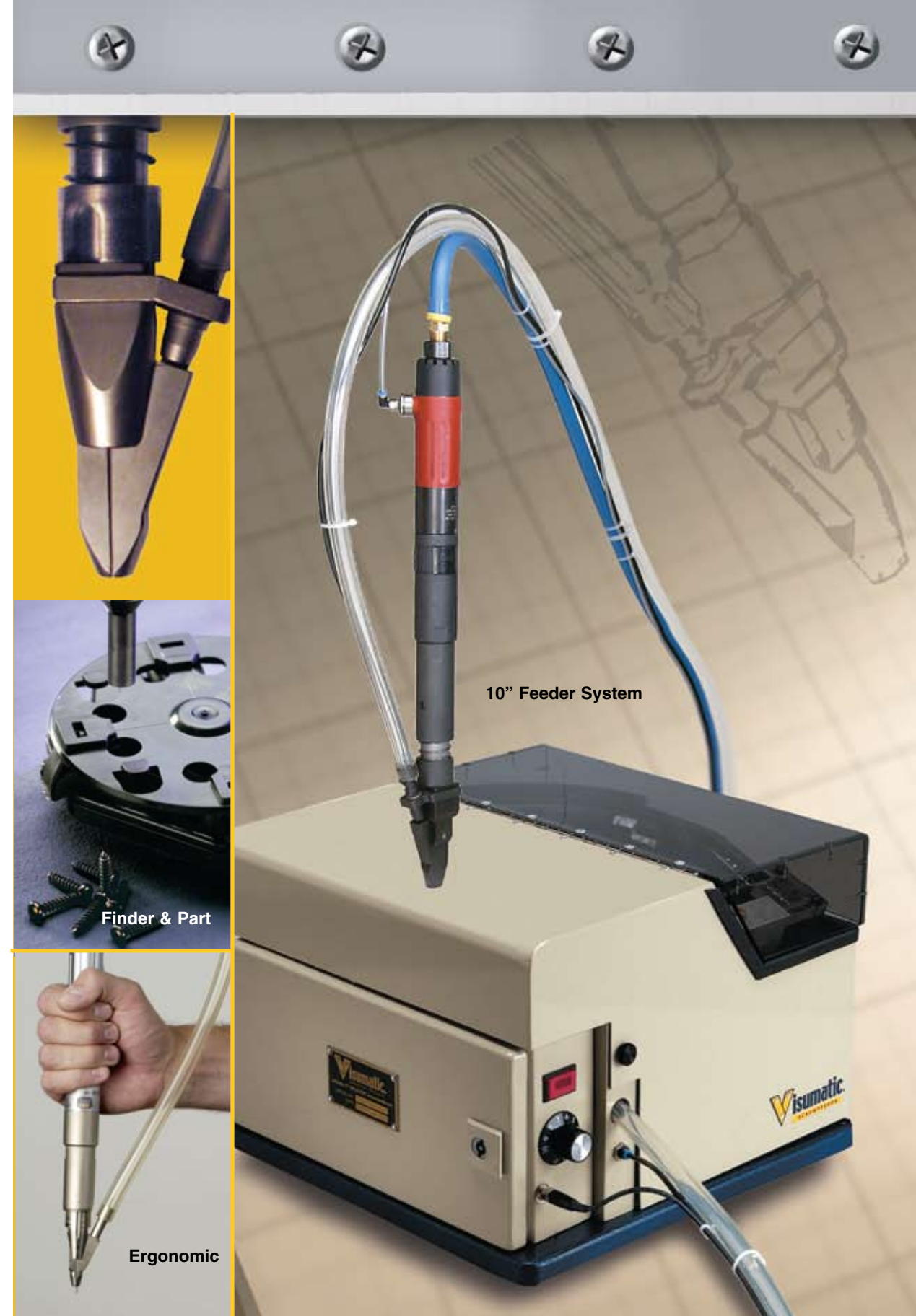
1. As the screw is blown from the automatic feed system, the Locking Bit assembly retracts the bit, allowing the screw into



2. Once the screw reaches the nosepiece, the Locking Bit assembly spring-returns to the fully-extended locked-in-place position, engaging the driver bit and



3. With the Locking Bit and screw engaged, the operator is able to positively locate the driving position, putting the screw into the hole before initiating the drive cycle.



Hand Held Systems

VLB-900PS **Locking Bit Pistol Grip** with Screwfeeder

Application: For horizontal applications; engaging the screw in the nosepiece so operators can align screw with the part.

The Locking Bit can be fitted with an ergonomically positioned Pistol Grip that makes difficult horizontal applications easy. Our custom, integral grip puts the center of gravity in the palm of your hand, balanced for efficiency. Just another example of the little things that make our equipment preferred. The VLB-900PS is used where hole alignment needs a push-to-start driver tool.

Ergonomically Balanced.
Greater Operator Acceptance.
Built Better.

VIN-700 **Pin Insertion System** with Screwfeeder

Application: Installing plastic pins, push pins, specialty fasteners or rivets.

Visumatic's Pin Insertion System uses the same principle as our Locking Bit. It engages the pin allowing the operator to feel its shank enter the hole prior to actuation for accuracy.

Visumatic Insertion Assemblies have nosepieces designed and built for placing:

- Single action fasteners like barbed plastic pins
- Dual action fasteners like plastic rivets and anchors
- Comes complete with a microprocessor controlled feeder
- One Moving Mechanism for Zero Adjustments

Visumatic Exclusive.
Operator Friendly.
Maximum Efficiency.

Our customer service sets us apart. Visumatic's experienced support staff is always available to walk you through any problem, or can be on site within 24 hours. We become part of your team.



VLB-900PS
Screw
Install
Pistol

VNR-800
Nut Driver
Pistol

VIN-700
Pin
Inserter

VLB-900PS
Locking Bit
Pistol Grip

10" Feeder System
with 1/2 cubic foot
Hopper

Up-close
Pin
Insertion

Hand Held Systems

VLB-900M **Mini Locking Bit** with Screwfeeder

Application: Installing very small screws down to #000.

Visumatic can accommodate even the smallest applications for any fine clearance manual automation project with the miniature design of the VLB-900M. The Mini nosepiece is available in endless configurations to fit applications like wristwatches, eyeglasses, computers, or printed circuit boards.

- Nosepieces control the screw, keep bit and screw engaged
- Nosepiece is scaled with the fastener, making miniature applications possible
- Advanced microprocessor controls
- No external springs or roll pins holding the nosepiece together
- Comes with the simplest, most reliable feed system on the market

Small Applications.
Fine Clearance. Long Lasting.

VPA Ergonomic **Power Assist Arm Systems** with Screwfeeder

Application: Takes screwdriver weight off operators to speed production. For small to extremely large applications.

We understand operator challenges and ergonomic demands. With the torque/balance **Power Assist Arm**, Visumatic accomplishes a tremendous ergonomic advantage, supporting the tool and eliminating torque reaction.

- Reduce elbow stress & carpal tunnel syndrome
- Operators hand is closer to the work plane
- Monitors and releases the drive-down force at pre-determined torque value
- Protect operators by applying the drive-down force during the assembly
- Arms available powered or non-powered

Visumatic Exclusive.
Operator Friendly. Maximum Efficiency.

*Protect your
operator by
reducing elbow
stress with
Visumatic's
improved
ergonomic
system
assemblies.*

*Because
after all,
your
employee
is your
best asset.*



Micro to Macro

**High
Torque
Bolt**

Hand Held Systems

VNR-800 Nut Driver with Screwfeeder

Application: Handheld large and small nut driving.

Forget about cross-threading problems with Visumatic's simple, reliable automatic nut driving system. Designed to virtually eliminate cross threads, our VNR-800 takes the worry out of nut fastening and increases productivity.

The Visumatic Advant-Edge

- The nosepiece permits access anywhere you can put a socket
- Our exclusive "X-Thread Eliminator's" self-aligning socket ensures the nut is flat with the socket before the driving process begins
- Assists in locating the stud
- The nut is extended so the operator can see it
- The stud finder is designed to mate with concave or convex stud tips
- Virtually no Z-axis motion
- No adjustment on the escapement
- Available as Handheld or Fixed System nut drivers
- Driver Tool: Pneumatic, AC or DC Electric Torque Control

Easy Access.
No Cross-Threading.
Easy to See.

*Customer
specific Technical
Manuals are
provided for every
Visumatic appli-
cation. They are
written with your
programming,
wiring,
schematics—
down to
replacement parts.
We can
be on the 'same
page' as you with
just a phone call.*

**A Visumatic
Exclusive**



Hand Held Systems

VZP-900 Zero Push with Screwfeeder

Application: Ergonomically improved, powered bit stroke, easy trigger-push screwdriving.

Let the machine go through the motions for the operator. Our top of the line Zero Push handheld automatic screwdriving system does the work when you have clearance issues. A manual, easy-touch trigger places the fastener for improved operator acceptance.

- Superior, comfortable handling for easy assembly
- Great for tough to handle applications
- For multiple drive locations, with unique or tight clearance
- Powered bit assists placement
- Operator engages the hole before the drive process with no flexing of the wrist, no forcing the nosepiece, and virtually no Z-axis motion

Ergonomically Balanced.
Greater Operator Acceptance.

VEB-900 Extension Bit with Screwfeeder

Application: Installs hard to reach and recessed, complex counterbores. Visumatic invented the VEB-900 Extension Bit nosepiece to automate assembly when the part has multiple drive locations, each with a unique and tight clearance.

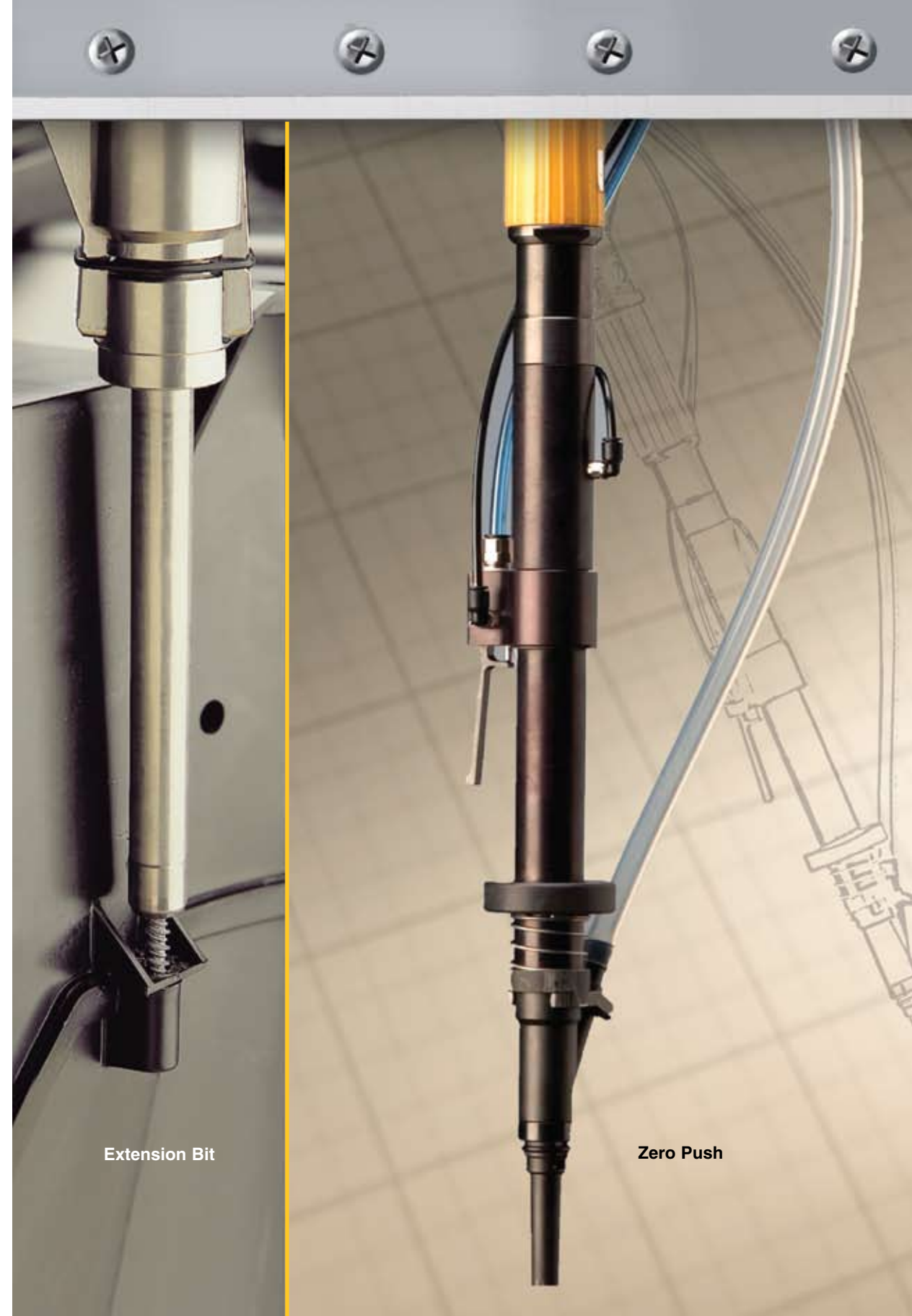
- Extends the fastener outside a set of jaws to driving position
- Operator uses fastener to engage the hole, initiates the drive process
- Essential for tight clearance applications
- No flexing of the wrist or jamming the nosepiece against the part.
- Used where access to the drive location is limited to the fastener and bit.

Visumatic VZP and Extension Bit will be designed for your part, with the right choice of:

- Pneumatic, AC or DC Electric Torque Control Driver Tool
- Nosepiece: Jaw, Finder-Jaw, Mini, or Nut-Jaw
- Feeder Escapement: Standard, Nut, Cam, Finger, or Orientor

Visumatic Exclusive.
Operator Friendly. Maximum Efficiency.

*Our parts are
built better
and tested exten-
sively,
leading to
applications with
longer
life cycles, extreme
durability and
pinpoint
accuracy.*



Extension Bit

Zero Push

Hand Held Systems

VSC-900 **Standard Collapse** with Screwfeeder

Application: Our most affordable screwdriving system, for entry into automated assembly with a short lead time.

When your business is ready to step into advanced assembly, Visumatic's VSC-900 is an affordable way to begin your automation process with this simple handheld screwfeeding and driving system.

- Perfect for small assembly lines, small budgets
- Includes Visumatic screwfeeder
- Available with your choice of nosepiece and driver

**Affordable. Improves Productivity.
Simple to Maintain.**

DC **Torque Control** Electric Driver

Application: Delivers Torque and Angle Control.

Visumatic offered the industry's first push-to-start handheld automatic screwfeeder with a DC electric driver. The torque and angle control and monitoring features of a DC tool system are important for:

- Quality control data collection and reporting
- Assembly processes with liability exposure
- A narrow torque range requiring a high degree of accuracy
- Applications with a very high target torque

The Visumatic Advant-Edge

- Visumatic's design places the operator's hand at the end of the nosepiece on an ergonomic grip, for greater accuracy, efficiency and control
- Doesn't require the operator to actuate a lever to start the tool
- Quality and ergonomic benefits are also provided when using standard AC electric tools and other DC electric tools which do not have torque and angle control features
- Any commonly available brand of electric tool system can be used with the Visumatic Screwfeeder, which simplifies maintenance and reduces overhead

**Visumatic Exclusive.
Operator Friendly. Maximum Efficiency.**

*When your
critical joint calls
for
precision,
Visumatic answers
with an arsenal of
SPC functionality.
We seamlessly
integrate your
brand of tool
for optimized
ergonomy and
error proofing
traceability.*



Standard Collapse
VSC-900M

DC
Torque
Control
with Nickel
Plated
Nosepiece

Basic To Advanced

VIPER 4-Axis Robot System

Application: Top of the line system for lightning-fast, error-free Robotic automatic screwfeeding and driving.

The fastest screw installer available, the state of the art VIPer 4-Axis Robotic System is a truly programmable feeding and driving system. It is extremely flexible, and can be completely reconfigured for your future production needs. The VIPer is available in two standard configurations:

- A turnkey, stand alone assembly station, or
- A modular assembly station for integration

The Visumatic Advant-Edge

- 4-axis Scara robot
- Delivers 8 screws in 6 seconds!
- 5 fully transducerized, closed loop, NST traceable axis
- 7,000+ cubic inch working envelope
- Visumatic nosepiece assembly and feed system
- DC torque/angle control and monitoring tools
- Largest fastener capability worldwide
- Modular and pre-programmed controls, including Vision Guidance
- Customizable operator interface, including Touch Screen

Flexible.

Lightning Fast.

Efficient.

Viper Delivers the Future of Screwfeeding

*We believe that
cheaper automation
equipment isn't a
bargain when you
experience down
time and your line
and employees
aren't producing. A
cheaper
application can cost
you more money
in the
long run.*



Stand Alone Assembly Machine

Application: Turnkey assembly system drives multiple and different fasteners, with variable target torque and drive planes. Handles very small to extra-large fasteners.

The cost of manufacturing can be driven down using Visumatic's automated assembly machines to feed and drive the fasteners. This highly versatile assembly solution's bullet-proof design is straightforward in function and performance. We make deciding to automate easy.

System components include :

- VPD Power Driver
- Automatic screw feeding system
- Controls package
- Basic fixturing on a tooling plate
- Standard Duty, Light Duty, or Heavy Duty Power Drivers

The Visumatic Advant-Edge

- "Plug-n-Work" machine is ready to go
- Measurable axis for discrete and/or analog control
- Optimized cycle for high speed and high accuracy
- Flexible for complete control over the assembly process
- Designed to accommodate your parts
- Made to your machine specifications
- Detailed maintenance procedures and documentation
- On-site training on the entire system
- Enhances operator safety

Visumatic systems are designed for your part, with your choice of:

- **Driver Tool:** Pneumatic, AC or DC Electric Torque Control
- **Nosepiece:** Jaw, Finder-Jaw, Mini, or Nut-Jaw
- **Feeder Escapement:** Standard, Nut, Siamese, Cam, Finger, or Orientor

**One Movement. Zero Adjustments.
Maximum Flexibility.**

*Visumatic
Delivers.
Our flexible design
approach
generates higher
quality production
efficiency with a
lower cost of
ownership.
Our breadth of
expertise means you
can rely on us to
solve your
fastening
automation needs
today and forever.*



Multi-Spindle Rotary Index System

Application: Simultaneously drives multiple locations, fasteners, and target torque. Components loaded by operator placement or conveyor lift and locate.

Staying competitive in your industry means producing a higher quality product at a lower cost. Visumatic delivers complete turn-key systems right to your door. This four-station indexer with two double spindle Power Drivers comes ready to produce. We ship it. You plug it in.

The Visumatic Advant-Edge

- Multi-station rotary indexer with any number of spindles
- Tilt-away nosepieces - Fast, easy bit replacement
- Siamese escapements feed separate spindles
- Sensorized 'Smart Fixturing' and complete controls package
- Visumatic nosepiece assembly and feed system
- Customizable control and administration systems
- Wide range of configurations
- Optional bulk supply hopper

Visumatic systems are designed for your part, with the best choice of:

- **Driver Tool:** Pneumatic, AC or DC Electric Torque Control
- **Nosepiece:** Jaw, Finder-Jaw, Mini, or Nut-Jaw
- **Feeder Escapement:** Standard, Nut, Siamese, Cam, Finger, or Orientor

High Quality.
Turn-key.
To Specifications.

Over 80% of Visumatic's annual business comes from repeat customers. We're the screwfeeder you keep and the company you keep.



Two Spindles

Siamese Escapement

Vision Guided **X-Y Robot**

Application: Automatically identifies, locates, registers and drives in multiple locations and variable part orientations.

Vision Guided Robotic Screwdriving systems represent the best of automated assembly technology, and because it is soft automation, they can be programmed to meet virtually any customer need.

This is the very highest assurance for a quality, no-mar process.

Vision guided robots are critical when:

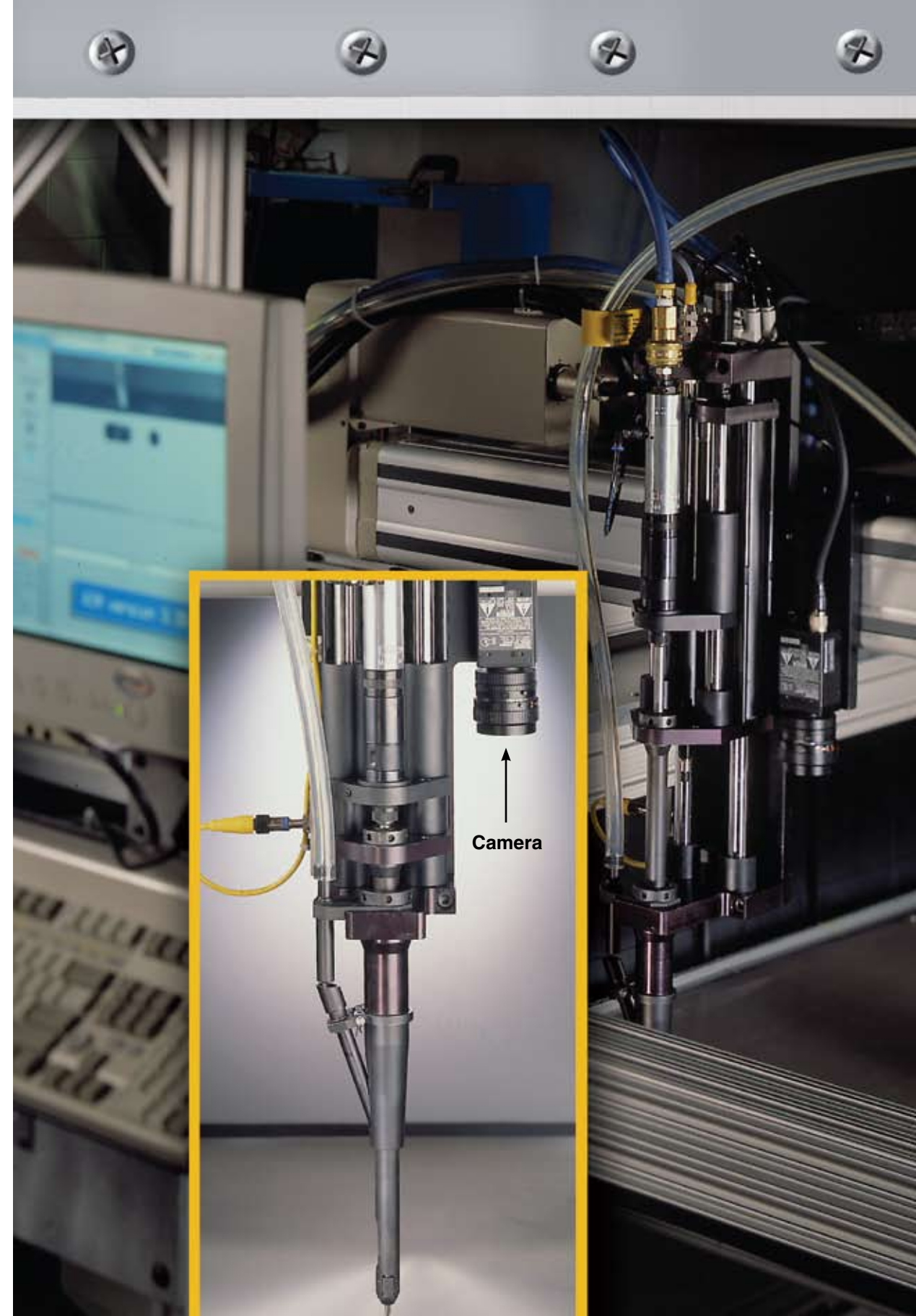
- Operators cannot touch or move the part during assembly
- When parts are fed loose on a conveyor
- Parts need to be driven in difficult, recessed or high tolerance locations
- Parts are feed loose on a conveyor
- Part type must be detected for proper drive locations
- Part inspection is needed

The Visumatic Advant-Edge

- This system features a 5000 square inch work envelope
- PC controlled
- High resolution camera
- VPD Power Driver with Feeding System

**Extended Bit.
Vision Guided.
Automatic Fastening.**

*Visumatic crafts
single unit and
full systems to fit
your application,
not be other
way around.
Everything is
custom
engineered for
your line.*



Multi-Spindle Conveyor Station

Application: Automatic, rapid, simultaneous multi-screw install in conveyor-fed parts.

When you need a conveyor system to feed high volume parts for fast assembly, Visumatic can design the right configuration for error proof increased productivity. Our Conveyor Stations drive multiple screws, in multiple locations, simultaneously, automatically recognizing the part and initiate the drive process.

Visumatic systems are designed for your part, with the right choice of:

- **Driver Motor:** Pneumatic, AC or DC Electric Torque Control
- **Nosepiece Tooling:** Jaw, Finder-Jaw, Mini, or Nut-Jaw
- **Feeder Escapement:** Standard, Nut, Siamese, Cam, Finger, or Orientor

**High Quality.
Turn-key.
To Specifications.**

*Downtime is
incredibly
expensive in labor,
parts, maintenance,
reduced productivity,
and stress.
Cost of
ownership is lower
with Visumatic
systems because
you avoid
downtime.*



Machine Builder Component Systems

VPD **Power Driver** with Screwfeeder

Application: Our #1 selling screwdriving system to drive fasteners over a wide torque range, in one or multiple locations.

“Plug-n-Work” immediate functionality for independent driving of screws, nuts, rivets and pushpins. Handles very small to extra large screws.

- Convenient mount & control - saves time, money and maintenance
- Your parts dictate our design
- Bolt hole pattern, counterbores, flats or bosses
- Nosepieces designed to fit your part
- Pneumatic, AC or DC electric torque control drivers
- With a 9-pin connector
- Z-axis bearing surface
- Each axis is measurable
- Advances tooling towards & away from target parts
- Nosepiece moves independently of the bit stroke
- Rugged internal cylinders - market's longest, most accurate duty cycle

**One Mechanism. One Movement.
No Adjustments.**

VPM **Power Modules** with Screwfeeder

Application: For incorporation into Robotic or Linear presentation system to bit-stroke screws into part.

Used when you need the screw bit-stroked into the part without moving the nosepiece, dependent on the machine for motion. Present the part to the nosepiece, or mount the head on your positioner. Delivered complete with:

- Custom feed system and bit stroking spindle system
- “Plug-n-Work” manifold and I/O port
- One moving mechanism maintains alignment
- Automatic screwfeeder with integral electrical controls
- Measurable internal or external bit stroke cylinders
- Designed for your applications and specs
- Used when driving screws at multiple Z-heights

**Visumatic Exclusive. Operator Friendly.
Maximum Efficiency.**

*It's true.
If you buy it
cheap, you buy it
twice.
This is **never**
true with
Visumatic and
we are
consistently called
upon to replace
other's substan-
dard applications.
Visumatic is the
answer.*



Dual VPM 3X.2

VPD Power Driver



VPM-3 with Finder Nose Piece

VPM-3 applied

Dependent Drivers

X-Y Robot Screw Driving Station with Screwfeeder

Application: "Plug-n-Work" Robotic X-Y Positioning System for multiple-screw placement with independent drivers.

Visumatic develops complete, "Plug-n-Work" systems for machine builders, like these X-Y robots with two Visumatic VPM-X.2 Power Modules. We design single stations designed to interface with your integrated assembly line.

The Visumatic Advant-Edge

- Robots for X-Y positioning
- Visumatic internal cylinders
- Extreme repeatability and accuracy
- High bearing surface area
- Visumatic S-95 Siamese escapements
- Deliver two screws with one movement
- Zero adjustments, no diverters
- Easier for you
- Dual control & verification system
- DC Torque / Angle Controls & monitoring tools
- Complete PLC controls and sensor package

Uniform Look.
Long Duty Cycles.
Less Maintenance

*Our screwfeeder
component
systems are
extensively tested for
longer life cycles.
Quality is guaran-
teed into each heavy
duty piece through
our rigorous
QC process.*



Siamese Escapement

Feeder Systems

Application: Visumatic's ability to accommodate every fastening automation challenge begins with the ability to feed not only standard fasteners but also extremely difficult ones.

The range of feeder designs available guarantees Visumatic can accommodate your part and any fastener you will need to install in the future.

- Simple - with one moving part
- Escapements are designed for your requirements in these configurations:

- M75 Standard Escapement
- C95 Cam Escapement
- S99 Siamese Escapement
- F85 Finger Escapement
- N90 Nut Escapement
- O70 Orientor

Features:

- Bowl control for low power consumption
- High flow valves
- Microcontroller board-level electrical controls
- Integrator control option
- Bowl alarm warning relay
- Pressure and proximity feed qualification
- Automatic or remote feed

All our escapements deliver the highest possible value - with ZERO adjustments necessary, no external springs to fatigue and the fewest moving parts in the industry.

Built Better.

Simple.

Single Movement.

*Close Enough
Isn't Good
Enough.*

*We believe that
cheaper automation
equipment isn't a
bargain when you
experience down
time and your line
and employees
aren't producing. A
cheaper
application can cost
you more money
in the
long run.*





856 PORTER PLACE • LEXINGTON, KY 40508 • 859.255.7907

24 Hour On-Site Service Area

Based in Lexington, Kentucky, the Visumatic technical support team is available to you within 24 hours in our immediate customer service radius. And we can be on-site, upon request, anywhere within 48 hours. And, of course, we're always available by phone.

It's all about keeping your line up and running. That's why we offer the 24-hour on-site guarantee. No job is too small or too large for Visumatic's team of expert assembly engineers. Improving efficiency is what we do.



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