World-Class Products
Advanced Engineering
Precision Manufacturing
Global Service and Support
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At Parlec, the phrase “measurably better” isn’t just a slogan. It’s our commitment to you. Our philosophy of providing “measurably better” products, support and service to our customers guarantees that you will be able to meet all of your quality, cost and delivery requirements.

Parlec Parsetter TMM® Systems can improve efficiency and help you successfully compete in the marketplace, both today and tomorrow. Excellence in design, engineering and manufacturing harnesses the best technologies to produce the most accurate and reliable tool measuring systems in the world.

As we pursue our commitment to the research of new technologies, Parlec will continue to set new standards in precision tool measuring systems while providing our customers with the highest level of support and service.

For additional information on any of Parlec’s machining solutions products, contact Parlec at 800-TOOL USA (800-866-5872), or visit our web site at www.parlec.com.
YOU’RE USING TOO MUCH TOOL FOR THE JOB IF YOU USE YOUR EXPENSIVE MACHINING CENTER FOR PRESETTING TOOLS

The financial argument for using Parlec presetters is compelling. They work quickly to produce tool measurements that are exceptionally accurate and consistent. In fact, they can make those measurements better than your expensive machining center because that’s what they were designed to do. Whether you are adjusting boring tools, setting chamfers, examining tools for wear or defects, or checking tool geometry, Parlec Parsetter TMM’s do it better and faster than your machine tools. And while your Parsetter TMM is doing its job, your machine tools are free to do what they do best… make chips.

So productivity is increased and profitability is enhanced. We’re so sure of that, every Parlec presetter comes with the Parlec Payback Guarantee. If your Parsetter TMM system doesn’t pay for itself in just one year, we’ll buy it back! All across the world Parlec presetters are earning their keep in machining operations just like yours. Talk to a Parlec representative or check out our new online cost payback calculator to see how fast your presetter investment will pay for itself.

EXCELLENCE IN MANUFACTURING AND TECHNOLOGY

The thermal mass of a Parlec Parsetter TMM® ensures the most stable and repeatable measuring platform for years to come. Rugged construction combines with superior design to provide trouble-free operation. Designed using Finite Element Analysis (FEA) and supported by rigorous testing and virtual simulations, our cast iron columns and bases are crafted to minimize thermal expansion and distortion – achieving 50 percent less deflection than other column designs. Using ‘SYMMETRY’ as a major design criterion, Parlec has eliminated twisting and distortion caused by temperature fluctuations and produced a mechanical structure that provides exceptionally predictable linear growth patterns. This solid design eliminates the need for frequent recalibration due to temperature and humidity changes during the work shift.
A GOOD FIT

Tool measuring and presetting machines (TMM®) are key resources in any comprehensive tool management system. From basic tool measurement and label printing to high-end networking and integration, Parlec Presetters “fit in”. Our Tool Data Management software is Windows-based and is easily interfaced to virtually all cell control, FMS, CAM, and machine tool controls.

TO DETERMINE YOUR PRESETTING NEEDS, SIMPLY ANSWER THE FOLLOWING FOUR QUESTIONS:

1. What is your largest tool assembly?
   A tool presetter must have a measuring envelope that accommodates the maximum length and diameter of your largest tool assemblies. Be sure to consider the capacity of your largest tool carousels and future machine tool purchases, and not only the tools you are currently running.

2. What style of tooling are you measuring?
   A match-ground presetter spindle assures accurate and repeatable tool measurements. Sleeved adapters provide a cost-effective method for accommodating many different tooling styles without adding excessive runout. For the most demanding accuracies a high-precision, quick change spindle offers dedicated tool cartridges that eliminate adapter stack-up and a retention knob clamping system that replicates the machine spindle.

3. What are your Machining tolerances?
The type of spindle, column design and bearing system all contribute to the repeatability and precision of the presetter system. So does the imaging system. Using an optical projector can result in inconsistent measurements from operator to operator as much as 25 microns. Video imaging can provide a live image of the tool edge and surface displayed on a computer screen. Advanced measuring, geometric and imaging functions are also available with this option. A well-designed video system should have a repeatability factor of +/- .002 mm or better.

4. What do you want to do with the Tool Data?
Will printing the data to tool labels or setup sheets suffice? Or do you require posting of data to your network or Intranet? How will the TMM interact with your existing DNC network or tool data management process? All Parsetter TMM PC-based controls offer generic post processing, label printing and tool tag ID compatibility right out of the box. The comprehensive tool database and unique tool catalogs make creating tool lists and tools, complete with drawings and digital photos, easier than ever. Seamless integration of tool data and tool crib data is also possible.
ParleVision®, Technology

The Ultimate Imaging System

SUB-MICRON PRECISION IMAGING SYSTEM

ParleVision, the most advanced and intuitive system package available, utilizes Texas Instruments™ micro processing technology, the latest sub-micron, high-resolution sensors, and a stable Linux operating system. ParleVision is completely modular and easily upgradeable.

Advanced Imaging System
Using a Micron Technology DigitalClarity™ megapixel sensor, the ParleVision system is an embedded computerized imaging control designed and manufactured exclusively by Parlec that significantly reduces the pixel size, allowing our programmers to create algorithms that resolve and measure at the sub-micron level with incredible image stability.

A Team of Programmers
A team of programmers, hardware and software specialists create powerful measuring and inspection capabilities and easy user interfaces. Because our programmers have complete command of the camera architecture, quick customization is possible to match our customers’ specific requirements.

Real-time Crosshairs
Real-time crosshairs automatically track the tool edge providing instant feedback of the measuring data.

On-Demand Geometry Displays
On-demand informational displays give the operator one-click access to insert geometry for better control over the tooling process.

High Resolution Surface Inspection
LED Array provides cool, even illumination to inspect all aspects of the cutting tool surface.

User-Accessible Camera Calibration
All cameras require regular calibration to correct for the effects of temperature and humidity on the imaging surface. Only Parlec makes these calibrations available, eliminating the need for costly service calls. The user-accessible camera calibration of the Parsetter TMM® is possible due to its resistance to thermal expansion and distortion — simplifying the calibration of the measuring envelope.

ParleVision PSC is Parlec’s Proprietary Precision Imaging and Measuring Engine. It is at the Heart of Every Parsetter TMM® System
The Parsetter TMM® System

Configure To Fit Your Application

SERIES 1500 PLATFORM
EXCEPTIONALLY ACCURATE

Tool diameters up to 420 mm
Tool lengths up to 600 mm

SERIES 2500 PLATFORM
ULTRA PRECISE

Tool diameters up to 950 mm
Tool lengths up to 1000 mm

PARLEVISION PSC
For applications that require precision measuring and tool inspection.

PARLEVISION PSC
For applications that require precision measuring and tool inspection.

PARLEVISION PGC PLUS
For applications that require comprehensive tool data management and communications.

PARLEVISION PGC PLUS
For applications that require comprehensive tool data management and communications.

PARLEVISION CNC
For applications that require full 3-axis automation of the measuring and inspection process.

MODULAR PLUG AND PLAY TECHNOLOGY
LET’S YOU ADD CAPABILITY AT ANY TIME!

www.parlec.com | 1-800-866-5872
The Series 1500 Parsetters® are the most rugged, dependable machines in their class. Perfectly suited for shop floor use, these machines can provide presetting, tool inspection and tool management along with exceptional repeatability under almost any condition.

Utilizing Symmetry in its design, the 1500 is manufactured from ductile cast iron and features an ergonomic, quick positioning system that combines rapid, smooth travel with minimal pressure applied to the column and bearing systems. Available in a variety of sizes and configurations to fit most shop tooling.

Series 1500 with ParleVision® PSC configuration provides complete measuring and inspection at an affordable price.

Exceptional Value and Accuracy
Series 1500 TMM®

Exceptional Value and Accuracy

Tool Data Management and Communications

Series 1500 with ParLeVision® PGC PLUS configuration adds comprehensive tool data management and communications.

Heat Shrink Integration

The 1500 platform is the perfect building block for an integrated shrink fit tooling system. Parlec is the world leader in researching and disseminating shrink fit technology.

Turning Applications

Turning applications are perfectly suited to the 1500 platform. Combining travel over spindle centerline and a configurable digital readout control, Parlec presetters are the most economical way to handle the setup of turning tools.

FEATURES

Measuring Range
- Diameter: 320 mm or 420 mm
- Length: 400 mm, 500 mm, 600 mm
- Extra 50 mm to the right of spindle for turning applications

Positioning
- Ergonomic quick positioning offers smooth travel and effortless motion

Linear Encoders
- Heidenhain precision linear encoders on both axis
- Encoder resolution .0005 mm, readout resolution .001 mm

Base
- Ductile cast iron with symmetry design to eliminate thermal distortion
- Leveling elements and vibration dampening machine mounts assure stability

Horizontal and Vertical Slides
- Precision ductile iron base and column with hardened and ground ways
- Precision pre-loaded linear bearings assure accuracy
- Bearings and ways protected from the environment by accordion bellows

Spindle
- ISO 50 or 40 taper for SK, CAT, BT, NMTB, and Big Plus tooling
- Sleeve adapters to fit most other tooling styles
- Custom spindles and fixturing available
- Power clamping HSK and CAPTO options

Dimensions and Weight
- Overall Width: 748 mm (30”)
- Depth: 527 mm (21”)
- Height: 890 mm (35”) w/ 400 mm Z-travel 1115 mm (44”) w/600 mm Z-travel
- Average Shipping Weight: 234 kg (515 lbs.)

Utilities
- Electric: 110V 60HZ to 220V 50HZ
- Air: Standard shop air 60-90 PSI (for vacuum clamping or axis brake options only)

Options
- Fine adjust/axis brake system
- Tool surface inspection
- Centering optics for turning applications
- Full feature spindles & tool length adjustment

www.parlec.com       |       1-800-866-5872       |
Parlec has combined the features and capabilities of its best-selling presetter with an incredibly simple user interface, durable steel cabinet base and a number of advanced features to create a complete tool measuring and inspection solution.

The Parsetter Series 1800 TMM® is a robust platform, powerful enough to run the most challenging applications with ease. It greatly reduces setup time, minimizes material waste, and dramatically improves the life and utilization of cutting tools.

Parlec—defining what a total presetting and tool measuring system should be—again!
**1800 TMM FEATURES**

- ParleVision PSC Measuring System with Sub-Micron Imaging System
- One-Button Operation with Easy-to-Use, Stable Linux Interface
- Match Ground, Precision Roller-Bearing Spindle with Vacuum Clamping, 360° Brake, and 90° Position Lock
- LED Ring Light for Exceptionally Clear Tool Surface Inspection
- Dual-Axis Fine Adjust System
- 17” (432 mm) TFT Touchscreen Interface with Rubber Sealed Keyboard and Mouse
- Label Printer with Multiple Label Formats
- Integrated, Heavy-Duty Steel Cabinet with Locking Door and Retractable Leveling Feet for Mobility and Vibration Damping
- Storage for up to 500 Tool Assemblies (nominal dimensions and min-max tolerances)
- Storage for up to 99 calibration or offset coordinates

**1800 TMM SYSTEM OPTIONS**

**PGC PLUS Tool Data Management and Communications**

For applications that require a high degree of measuring repeatability and advanced tool data management and communications, Parlec’s PGC PLUS software is a Windows-based enhancement to the ParleVision PSC Measuring System.

PGC Plus includes data processing to most machine tool controls, integration with Mazak®, Okuma®, Mori Seiki®, Makino®, Fastems®, TDM Systems®, Balluff®, and dozens of other manufacturing systems.

Using a MySQL® database, PGC PLUS also allows the creation of a comprehensive tool assembly and component records with linking capability to other reference files on your network—drawings, photos, work instructions, data files, etc.

Job scheduling provides convenience and process control to help organize data communications and tool data file downloading to machine tool control systems.

**Spindle Adapters for Any Tooling Style**

Parlec offers a wide variety of adapters to fit HSK®, CAPTO®, KM®, VDI®, and almost any other style of tooling.

Parlec’s Engineered Solutions Division, combined with a large in-house manufacturing capability, assures high-quality results and quick turnaround times.

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**FEATURES**

**Measuring Range**

- **Diameter:** 420 mm (additional 50 mm travel to the right of spindle for turning applications)
- **Length:** 400 mm, 500 mm, or 600 mm

**Resolution**

- Heidenhain precision linear encoders on both axis
- Encoder resolution .0005 mm, readout resolution .001 mm

**Linear Guides**

- Precision Linear Guide System

**Positioning**

- Ergonomic quick positioning offers smooth travel and effortless motion

**Base**

- Ductile cast iron with symmetry design to eliminate thermal distortion
- Retractable caster leveling feet with vibration dampening

**Spindle**

- ISO 50 or 40 taper for SK, CAT, BT, NMTB, and Big Plus tooling
- Sleeved adapters to fit most other tooling styles
- Custom spindles and fixturing available
- Power clamping HSK and CAPTO options

**Dimensions and Weight**

- **Overall Width:** 1,524 mm (60”)
- **Depth:** 527 mm (21”)
- **Height:** 890 mm (35”) with 400 mm Z-travel 1,115 mm (44”) with 600 mm Z-travel
- **Average Shipping Weight:** 295 kg (650 lbs.)

**Utilities**

- **Electric:** 110V 60HZ to 220V 50HZ
- **Air:** Standard shop air 60-90 PSI
The Series 2500 Parsetter® provides an exceptional mechanical structure with the most accurate, repeatable machine available anywhere. They are constructed for the most demanding automated or manual applications where micron repeatability is required.

Series 2500 Parsetter provides a highly flexible, precise cornerstone to your tool management capability. With a maximum measuring capability of 950 mm x 1000 mm, Series 2500 presetters combine symmetrical design methodology with stable and durable cast iron materials ensuring a thermally stable platform for the ultimate in precision measuring and inspection. Parlec presetters are renowned for their longevity and durability with thousands of customers attesting to their solid performance year after year.

Combined with the ParleVision® CNC control system, the Series 2500 is the most advanced and accurate tool measuring machine in the world, providing unparalleled value and incredibly fast return on investment.
Power Clamping Options

- The Series 2500 may be configured with Parlec’s high precision, quick change spindle system with retention knob clamping, full 3-axis CNC automation and many other device interfaces for full-featured measuring and inspection and sub-micron performance.

Automation Options

- The Series 2500 can be configured with various levels of automation — from auto-focusing/auto-indexing spindle options to full, multi-axis automation. Automating your Parsetter TMM system can provide up to three times the throughput in measuring and inspection cycles and help bring a high level of control and repeatability to the overall process.

Extensive testing by Parlec and our customers proves the ability of the 2500 platform to provide true micron repeatability.

Features

Measuring Range

- **Max. Tool Diameter:** 300 mm, 400 mm, 500 mm, 600 mm, 700 mm, 800 mm, 950 mm
- **Max. Tool Length:** 450 mm, 550 mm, 650 mm, 750 mm, 850 mm, 1000 mm
- Extra 50 mm travel to the right of the spindle for turning applications

Positioning

- “Hands-Off” column movement utilizing servo motors controlled by eight-position joystick
- Dual speed power operation and unlimited manual fine adjustment

Resolution

- Heidenhain precision linear encoders on both axis
- Resolution 0.001 mm

Base

- Ductile cast iron mounted in heavy steel fabricated base
- Leveling elements and vibration dampening machine mounts assure stability

Horizontal and Vertical Slides

- Precision ground ductile iron base and column with hardened and ground ways and symmetry design to eliminate thermal distortion
- Precision pre-loaded bearings assure accuracy
- Bearings and ways protected from the environment by accordion bellows

Spindle

- ISO 50 taper with vacuum clamping for SK, CAT, BT, NMBT and Big Plus tooling
- Uses sleeved adapters to fit most other tooling styles
- HP Quick Change spindle option uses dedicated tool cartridges (may be configured with mechanical retention knob universal clamping system)
- Easily handles tools up to 375 kg

Dimensions and Weight

- **Overall Width:** 1838 mm (72.4”)
- **Depth:** 701 mm (27.6”)
- **Height:** 450-650 mm Column = 1948 mm (76.7”) 750-1000 mm Column = 2342 mm (93.2”)
- **Average Shipping Weight:** 1000 kg (2200 lbs.)

Utilities

- **Electric:** 110V 60HZ to 220V 50HZ
- **Air:** Standard shop air 60-90 PSI
Parlec’s ParleVision PSC system offers the latest video measuring technology at an economical price. The ParleVision camera system utilizes a high-resolution camera with a flat LCD video display. Real-time crosshairs automatically recognize and acquire the tool edge as soon as it is brought into the camera’s field of view. Features are activated by the click of one button. No software to learn. You’re up and running with a twenty minute training session!

**Imaging**
- High-resolution video camera utilizing smart camera technology with a 1/2” megapixel digital image sensor. The regulated LED lighting system in combination with the sensor produces the most accurate imaging solution available.
- High resolution imaging.
- Variable intensity LED Array for tool surface illumination provides live, high-resolution surface inspection of tool tip and cool, even lighting on a wide variety of surface finishes (option on series 1500 machines).

**Measuring**
- Powerful algorithms ensure exceptional measuring accuracy and repeatability (measuring anywhere on the screen any quadrant).
- Real-time crosshairs automatically track the tool cutting edge.

**Tool Data Management**
- Storage for up to 500 tool assemblies with nominal tool values, tolerances, and geometry.
- Storage for up to 99 zero points.
- Multi-language configurations supported.
- Communication port to support external data transfer, computer, cell controllers, or other devices interfaces.
- Multiple label formats included.

**FEATURES**
- One button activation of all measuring and inspection functions
- User friendly, icon-based display
- Flexible configuration allows tool measurement for turning centers and milling machines
- Readout resolution Z axis = .001 mm
- Readout resolution X axis = .001 mm
- Red light/green light tolerance indicators
- Serial port to support an optional label printer
- Radius/diameter mode select
- Inch/millimeter mode select
- Incremental/absolute mode select
- Easy machine calibration
- Flat LCD display, keyboard, mouse and mouse pad
- Touchscreen capable
- Available on both the 1500 TMM and 2500 TMM platforms
ParleVision® PSC

Measuring & Inspection System Features

High Point allows measuring and tracking of the highest points on the tool image.

Four different theoretical intersection point functions are included – X/Z, Z-only, X-only and center radius.

Merging the tool form builds a 2-D profile of the tool showing how it will cut through the work piece. Use to measure helical tools for true cutting results on radii, steps and multi-flute tools.

Simply define tool nominal dimension and minimum/maximum tolerances to activate the Tolerance Indicators on the PSC measuring screen.
Fixed and metered crosshairs are available for easy presetting of multi-spindle and transfer line tooling, as well as precise incremental measurements. (Recommended Option = 1500-505 Fine Adjust and Axis Brake)

Auto chamfer automatically finds the correct (Z) set height for any given diameter. Simply dial in the desired diameter. We do the rest.

Tool trace draws a template around any tool form allowing quick comparisons of inserts and quick setup of milling cutters and boring tools.

The tool runout is a real-time virtual indicator used to gage and correct tool runout.
ParleVision® PSC

Measuring & Inspection System Features

One button gets you instant on-demand geometry displays.

Surface inspection allows the operator to gage defects, damage, and wear before the tool can scrap a part.

The ParleVision PSC system provides storage for up to 500 tool assemblies. Tool names and descriptions are user-defined and nominal dimensions and minimum/maximum tolerances can be defined to aid the operator in qualifying the tool.

ParleVision PSC stores up to 99 calibration or offset points. These gage definitions are used to provide zero points for machine calibration and also offset coordinates to compensate for variances in machine tool operation. Axis manipulation also allows easy configuration of coordinates for both milling and turning applications.
Imaging
- High-resolution video camera utilizing smart camera technology with a 1/2" megapixel CMOS digital image sensor. The regulated LED lighting system in combination with the CMOS sensor produces the most accurate imaging solution available.
- Variable intensity LED Array for tool surface illumination provides live, high-resolution surface inspection of tool tip and cool, even lighting on a wide variety of surface finishes (option on series 1500 machines).

Measuring
- Powerful algorithms ensure exceptional measuring accuracy and repeatability (measuring anywhere on the screen and in any quadrant).
- Real-time crosshairs automatically track the tool cutting edge.

FEATURES
All of the features and functions of the ParleVision PSC system plus:
- Parlec’s PGC Plus Tool Data Management Communications Software installed on an Intel® Pentium® based computer
- Stable Windows XP operating system
- Ethernet card included
- Systems are ready to be networked into the shop environment
- RS-232, USB, and Parallel ports
- CD-ROM drive, 80 GB Hard Drive or better, 1 GB RAM or better
- Flat LCD display, keyboard/mouse, mouse pad included. Optional touch screen available
- Available on both the 1500 TMM and 2500 TMM platforms
FOR APPLICATIONS THAT REQUIRE A HIGH DEGREE OF PROCESS CONTROL AND ADVANCED TOOL DATA MANAGEMENT AND COMMUNICATIONS

Simple as a stand alone system. Powerful as a networked, multi-user solution. Add comprehensive tool management and communications capabilities to your manufacturing network with PGC Plus.

This easy-to-use, plug and play solution can run as a stand-alone application at the tool presetter or as a client-server network installation.

PGC PLUS
- MySQL® Database
- Client-server network application
- Creation and coordination of multiple data resources
- Support for RFID Tool Tag System
- Support for Barcode ID

DATA TRANSFER
- Tool Measurements
- Tool Life

TOOL CRIB
Unlimited number of tool records, reports & labels

PROGRAMMING & ENGINEERING
Comprehensive Tool Assembly and Cutting Tool Database, Job Scheduling & Costing

SHOP FLOOR
Easy linking of network files, drawings, pictures & paperless tool information

VMC
MACHINING CENTERS

HMC
MACHINING CENTERS

TURNING
MACHINING CENTERS
TOOL MEASURING, INSPECTION AND DATA MANAGEMENT MADE EASY!
FULL-FEATURED PRESETTER INTERFACE SIMPLIFIES THE OPERATOR’S JOB.

Offering all of the measuring and inspection functions found in the ParleVision PSC system. Many advanced features to measure special tooling, organize and schedule jobs and data post processing.

Intuitive Displays
1. Touch screen enabled, using large icons to execute most functions.
2. Red/green indicators instantly show if tool is within set tolerances.
3. Touch or click to change the digital read out display.
4. Focus (max diameter) of the tool edge is adjusted through an intuitive dial indicator display.

Layered Information Windows
5. View tool lists, tool components, digital image, CAD drawing, or work instructions (macro) without ever leaving the presetter screen (see next page).
ParleVision® PGC Plus
Tool Data Management & Communication System

POWERFUL TOOLS FOR ADVANCED MEASURING AND INSPECTION

1. IMAGE CAPTURE - Capture any image on the measuring screen and attach to setup sheets, work instructions, reports or e-mails. E-mail a tool image to Parlec and we can write a custom measuring routine quickly.

2. MILLING CUTTER ROUTINE - Measuring, inspecting, and setting shell mills, face mills, and the like are usually time consuming and difficult. This routine makes it easy. On ParleVision CNC systems, the routine may be executed automatically.

3. ADJUSTABLE REAMER ROUTINE - Adjustable reamers are easily and quickly set using the handy reamer function.

4. THREAD MILL ROUTINE - Instant calculation and display of all parameters including pitch, diameter and geometries.

5. MACRO SCREEN

PICTURE FILE

CAD FILE

COMPONENTS SCREEN

www.parlec.com | 1-800-866-5872 |
COMPREHENSIVE TOOL DATA MANAGEMENT

Now you can have complete control to design and create detailed tool component records, tool assembly records and tool setup sheets. A powerful MySQL® database sorts through unlimited numbers of tool and component records at blazing speed.

COMPREHENSIVE TOOL RECORDS
The amount of tool data storage possible in the PGC Plus tool record is truly amazing. At the same time, there is the simplicity of just assigning a tool ID number and creating a tool record. With complete flexibility to utilize as much or as little tool data as desired, tool data management may be molded to fit your existing process.

MANAGE TOOLS AND COMPONENTS
Classify tools and components using a Windows-style directory structure. Choose to build a hierarchy up to four levels deep or simply drop them into an unclassified directory. Powerful search and custom filtering capability finds records instantly. You can also sort on any column of data simply by clicking on it. By including cost information for tool components, PGC Plus will automatically calculate total cost of a tool assembly or an entire tool list. Tool component information is also stored and organized for reference and as a resource for building up tool assemblies. Though not designed for full-featured inventory control capability, PGC Plus allows integration to most major tool inventory management applications.
TOOL GRAPHICS AND DRAWINGS
Digital photos and CAD files are easily attached to the tool record with the click of a button. If it is available on your network, hard drive or removable media it can be linked in a matter of seconds. Graphics and drawings are displayed on the information tabs of the PGC Plus measuring screen for quick operator reference.

PGC PLUS CUSTOM FIELD MANAGER
Most manufacturing facilities have multiple data systems — diversity in machine tool controls, flexible manufacturing and cell control systems, RF tool tag systems, etc. PGC Plus offers an outstanding way to create a unique “resource” for every tool data system in your company. Each resource has up to sixty user-defined fields of information, assuring that PGC Plus will be able to accommodate all of your tool data from many diverse systems.

CUTTING EDGE PARAMETERS
Unlimited cutting edges and inserts may be defined with tolerances for each. All data and parameters relating to how the tool will be measured and inspected are defined here, assuring that the operators follow a consistent process at the presetter.
FLEXIBLE JOB MANAGEMENT AND SCHEDULING
PGC Plus now offers the flexibility to manage tool lists, create and schedule data posting and machine setup, and the ability to generate and monitor tooling cost data and revision control.

MANAGE TOOL LISTS
The tool list manager makes it easy to collect and manage all the tool assemblies for a given part program. Lists may be sorted by any field simply by clicking on the label at the top of the field column. Tool data is automatically formatted for post processing simply by linking the list or job to the appropriate work center.

PGC PLUS JOB SCHEDULER
The PGC Plus job scheduler allows creation of multiple jobs from one tool list. Jobs may be scheduled and managed from any PGC terminal in the facility. Temporary jobs may be created from any tool list and scheduled to run on any work center. The job list feature provides enormous flexibility, allowing on-the-fly modification of tool list parameters to suit the specific job, while maintaining the data integrity of the master tool list.
PGC Plus offers a range of individual label formats as standard. In addition to PGC Plus' standard label templates, PGC label builder, included free with every PGC Plus installation, allows quick creation of customized labels. Labels can incorporate bar code, pictures, logos, and any PGC Plus data field.

PGC Plus offers individual tool reports as well as tool list reports in both summary and detailed modes. In addition to PGC Plus' standard reports, the optional PGC report builder allows quick creation of customized tool reports. Reports can incorporate bar code, pictures, logos, custom headers and footers, and any PGC Plus data field.

Detailed and informative smart tips, right-click power features, one-click sort/search/filter capabilities and detailed help screens combine to make this the easiest tool management system to learn and use.
POWERFUL DATA PROCESSING TO MACHINE TOOL CONTROLS
PGC Plus offers automatic data processing to all your CNC machine controls as a standard feature with every installation. Whether you use the pre-formatted templates included with PGC Plus, or you create your own using our unique post template builder utility, post processing your tool data will always be quick and easy.

ALL COMMUNICATIONS PARAMETERS AND DATA FORMATTING ARE USER-CONFIGURABLE
Machine controls vary in the formats of tool data they will accept. Even within the same control model, offset file formats and communication parameters may be specific to the application. Control definitions, data formatting, file name, posting location, and method of offset calculations are only a few of the PGC Plus parameters that can be modified. In addition, the user has complete control over number formatting and the use of multiple offset calculations for fixture and spindle offsets or non-standard programming practices.

ATTACH A MACHINE CONTROL, CLICK A BUTTON AND GO!
Once a machine control is defined (by using a template included with PGC Plus or by creating your own), a job may be posted by the simple click of a button. If the work center is attached to the tool or job list, that’s all there is to it. If the list has no work center attached, you may pick one from a defined list — giving you the most flexibility in transferring the tool data.
Parlec’s tool data management software was designed with integration in mind. Multiple system integration is no problem as well. Data paths may include network drives, serial and USB communications, or specialized interfaces. No matter which of your existing systems you wish to integrate, the presetter operator interface remains the same — simply choose the data source from the pull-down window.

**RF TOOL ID TAG SUPPORT**
Parlec has been instrumental in developing and standardizing RF tool ID tag technology for presetting applications by working with the leaders in the industry. Balluff, Euchner, Omron, and most other ID systems are supported by our standard software package. Multiple tag systems are supported through Parlec’s ability to easily configure the data on the RF tag to match existing specifications or to design custom applications for our customers.

**USER SECURITY AND NETWORK ADMINISTRATION TOOLS**
PGC Plus features a three-tiered user access system that ensures only authorized personnel have the ability to modify tool data and control system parameters. All activity at the presetter is recorded and filed in real-time for future reference. This provides a valuable resource for trouble shooting processes and monitoring of tool measuring and inspection results.
TOTAL AUTOMATION AND CONTROL!

FOR APPLICATIONS WHERE TOTAL AUTOMATION AND CONTROL OF THE MEASURING AND INSPECTION PROCESS IS DESIRED.

ParleVision® CNC offers total automation including auto positioning, auto focusing and auto indexing. These features, along with a library of automation routines, point-and-click creation of custom automation macros and incredible ease of use throughout the system, combine to create a system that can increase throughput of tools by up to 300 percent and ensure conformity and repeatability of the measuring and inspection process. ParleVision® CNC utilizes Parlec’s high-resolution PSC camera and Parlec’s PGC Plus tool data management and communications software running on an Intel® Pentium® touch-screen control. A second, large flat LCD display is dedicated to the tool image.
ParleVision® CNC

Full 3-Axis Automation

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INSTALLED A FULLY AUTOMATED MEASURING AND INSPECTION SYSTEM CAN INCREASE THROUGHPUT BY UP TO 300 PERCENT. PAYBACK ON THESE SYSTEMS IS ACHIEVED IN LESS THAN SIX MONTHS

Imaging
- High-resolution video camera utilizing smart camera technology with a 1/2" megapixel CMOS digital image sensor. The regulated LED lighting system in combination with the CMOS sensor produces the most accurate imaging solution available.
- High resolution imaging.
- Variable intensity LED array for tool surface illumination provides live, high-resolution surface inspection of tool tip and cool, even lighting on a wide variety of surface finishes.

Automation
- Macro Builder allows visual “drag-and-drop” creation of automated tool measuring sequences. In the ParleVision CNC measuring system, the macro is linked to an individual tool assembly for fully automated execution of simple and complex measuring operations.
- Auto calibration routine provides one-button system calibration and verification.

FEATURES

All of the features and functions of the ParleVision PGC Plus system AND:
- 3-axis CNC automatic positioning control
- Includes Parlec’s PGC Plus tool data management and communications software installed on an Intel® Pentium® based computer
- Windows XP operating system
- 10T/100T Ethernet card included. Systems are ready to be networked into the shop environment
- RS-232, USB, and Parallel ports
- CD-ROM drive, 80 GB hard drive or better, 1 GB RAM or better
- Flat LCD touch screen monitor, external keyboard, mouse and mouse pad included

www.parlec.com | 1-800-866-5872 | PARLEC
Macro Builder for Complete Control of Automation
In addition to Parlec’s library of standard automation routines, Macro Builder provides a quick and easy method for creating complex automation routines. Modify existing routines or create new ones with drag-and-drop convenience. All ParleVision commands and functions are available as building blocks for your macro. Once a macro is created it may be attached to any tool record. Large description fields for each action guarantee that a macro will not only drive the automation, but also provide operators with work instructions and information on the current process being performed. Macros may be launched automatically by simply loading a tool or tool list. External scanning and data handling devices may also be used to trigger macros. Automation routines may be monitored, manipulated and modified quickly and easily.

Using Macro Builder for Process Control
Even in a non-automated system, Macro Builder may be used to help standardize the measuring and inspection process by documenting and linking work instructions to specific tool records. Easily viewed from the tool measuring screen, Macro Builder routines can provide operators with work instructions and information on the current process being performed. Comment fields enhance the process by allowing detailed instructions and descriptions that support the large icons and function names.
The ParleVision system offers additional automation options to enhance tool-measuring operations and bring consistency and control to the overall process.

**Auto Focus / Auto Indexing**

The ParleVision system offers additional automation options to enhance tool-measuring operations and bring consistency and control to the overall process.

The Auto Focus cycle allows the operator to position a tool edge to highest diameter, allowing maximum focus and greater repeatability, with the push of a button.

The Auto Indexing capability is used in conjunction with the Milling Cutter Routine to automatically measure multi-insert, symmetrical cutters. This option greatly reduces the time and operator interaction involved in measuring and adjusting face-milling cutters.

The HP Quick Change Spindle system is available on all Series 2500 machines. Auto-focus, auto-indexing, and integration to full 3-axis systems are available as well.

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The HP Quick Change Spindle system is available on all Series 2500 machines. Auto-focus, auto-indexing, and integration to full 3-axis systems are available as well.
Parlec spindles are the heaviest, most rugged, most accurate spindles available on any tool measuring machine. Most common styles are available as standard. Parlec’s unique competency in designing and manufacturing the best in precision rotating toolholders, boring and tapping systems, and workholding products has also provided our TMM® customers access to designers and craftsmen who will custom craft fixtures and adapters, to fit your exact application.

All of Parlec’s rotating spindle products use ultra-precision bearings. The ID taper is match-ground as a complete assembly ensuring exceptional control of runout and concentricity. The sealed design eliminates any contamination from the shop environment and provides precision and reliability year after year.

<table>
<thead>
<tr>
<th>SPINDLE SYSTEM</th>
<th>Part Number</th>
<th>Style</th>
<th>Series</th>
<th>90° Lock</th>
<th>360° Lock</th>
<th>Clamping</th>
<th>Concentricity</th>
<th>Match Ground</th>
<th>Runout @ 400mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1500-H63TBS</td>
<td>HSK63 Taper (Style 63A, 63C, 63E, 80B, 80D, 80F) (Other HSK sizes available upon request)</td>
<td>1500</td>
<td>Yes</td>
<td>Mechanical</td>
<td>Internal Drawbar</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P1500-C5TBS</td>
<td>CAPTO C5 (Other Capto sizes available upon request)</td>
<td>1500</td>
<td>Yes</td>
<td>Mechanical</td>
<td>Internal Drawbar</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P1500-TBS</td>
<td>ISO 50 Taper (CAT, SK, BT, NMTB)</td>
<td>1500</td>
<td>Yes</td>
<td>Mechanical</td>
<td>Vacuum</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P1500B-TBS</td>
<td>ISO 50 Taper (CAT, SK, BT, NMTB)</td>
<td>1500</td>
<td>No</td>
<td>Mechanical</td>
<td>None</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P1500-40TBS</td>
<td>ISO 40 Taper (CAT, SK, BT, NMTB)</td>
<td>1500</td>
<td>Yes</td>
<td>Mechanical</td>
<td>Vacuum</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P1500B-40TBS</td>
<td>ISO 40 Taper (CAT, SK, BT, NMTB)</td>
<td>1500</td>
<td>No</td>
<td>Mechanical</td>
<td>None</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P40TBS-2500</td>
<td>ISO 40 Taper (CAT, SK, BT, NMTB)</td>
<td>2500</td>
<td>Yes</td>
<td>Electronic</td>
<td>Vacuum</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P50TBS-2500</td>
<td>ISO 50 Taper (CAT, SK, BT, NMTB)</td>
<td>2500</td>
<td>Yes</td>
<td>Electronic</td>
<td>Vacuum</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
<tr>
<td>P60TBS-2500</td>
<td>ISO 60 Taper (CAT, SK, BT, NMTB)</td>
<td>2500</td>
<td>Yes</td>
<td>Electronic</td>
<td>Vacuum</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Less than .007mm</td>
<td></td>
</tr>
</tbody>
</table>

OTHER SPINDLE STYLES AND DESIGNS AVAILABLE UPON REQUEST.
**POWER CLAMPING SPINDLES FOR THE SERIES 1500 TMM® MACHINE PLATFORM**

Parlec offers a range of power clamping options for the Series 1500 machine. These spindles improve measuring repeatability over non-clamped or vacuum-clamped configurations. For critical, high-performance applications, the Parsetter 1500 can be outfitted with an HSK or Capto internal clamping spindle, which draws down the tool and ensures optimal face contact with the toolholder and spindle face.

**HSK 63 Internal Power Clamping**

HSK spindles are assembled with a precision clamping unit manufactured by MAPAL and specified for optimum replication of the internal clamping function found in MAPAL's machine tool clamping systems.

**Capto C5 Internal Power Clamping**

Capto spindles utilize a Sandvik internal clamping system, co-designed by Parlec and Sandvik engineers, and manufactured by Sandvik exclusively for Parlec.
Optical Zero Gages
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high-wear resistance.
- Tapers ground to AT2 or better, per ISO 1947, for unmatched precision.
- All zero gages are calibrated in our gage lab and laser etched with actual dimensions.
- All zero gages are shipped with certification document.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Taper</th>
<th>Projection (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P40-20ZG3</td>
<td>ISO 40</td>
<td>76.20</td>
</tr>
<tr>
<td>P50-20ZG3</td>
<td>ISO 50</td>
<td>76.20</td>
</tr>
<tr>
<td>P60-20ZG6</td>
<td>ISO 60</td>
<td>152.40</td>
</tr>
</tbody>
</table>

Many other configurations available. Please call 1-800-866-5872 for more information.

Test Bars
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high-wear resistance.
- Tapers ground to AT2 or better, per ISO 1947, for unmatched precision.
- All test bars are calibrated in our gage lab and laser etched with actual height from taper gage line.
- All test bars are shipped with certification document.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Taper</th>
<th>Projection (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P40-20TB12</td>
<td>ISO 40</td>
<td>304.80</td>
</tr>
<tr>
<td>P40-20TB18</td>
<td>ISO 40</td>
<td>457.20</td>
</tr>
<tr>
<td>P50-20TB12</td>
<td>ISO 50</td>
<td>304.80</td>
</tr>
<tr>
<td>P50-20TB18</td>
<td>ISO 50</td>
<td>457.20</td>
</tr>
<tr>
<td>P50-20TB6</td>
<td>ISO 50</td>
<td>152.40</td>
</tr>
<tr>
<td>P60-20TB18</td>
<td>ISO 60</td>
<td>457.20</td>
</tr>
</tbody>
</table>
Adapters & Accessories
For P1500 & P50 Spindle Systems

TAPERED REDUCING ADAPTERS
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high-wear resistance.
- Tapers ground to AT2 or better, per ISO 1947, for unmatched precision.
- All adapters are calibrated in our gage lab and laser etched with actual height from taper gage line.
- All adapters are shipped with certification document.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>O.D. Taper</th>
<th>I.D. Taper</th>
<th>O.D. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P50-30</td>
<td>ISO 50</td>
<td>ISO 30</td>
<td>101.60</td>
</tr>
<tr>
<td>P50-35</td>
<td>ISO 50</td>
<td>ISO 35</td>
<td>101.60</td>
</tr>
<tr>
<td>P50-40</td>
<td>ISO 50</td>
<td>ISO 40</td>
<td>101.60</td>
</tr>
<tr>
<td>P50-45</td>
<td>ISO 50</td>
<td>ISO 45</td>
<td>127.00</td>
</tr>
<tr>
<td>P60-40</td>
<td>ISO 60</td>
<td>ISO 40</td>
<td>139.70</td>
</tr>
<tr>
<td>P60-45</td>
<td>ISO 60</td>
<td>ISO 45</td>
<td>139.70</td>
</tr>
<tr>
<td>P60-50</td>
<td>ISO 60</td>
<td>ISO 50</td>
<td>139.70</td>
</tr>
</tbody>
</table>

HSK ADAPTERS
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high-wear resistance.
- Tapers ground to AT2 or better, per ISO 1947, for unmatched precision.
- All adapters are calibrated in our gage lab and laser etched with actual height from taper gage line.
- All adapters are shipped with certification document.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>&quot;Z&quot; Height (mm)</th>
<th>HSK Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>P50-HSK32</td>
<td>50.00</td>
<td>HSK 32-A/C/E/40B/40D</td>
</tr>
<tr>
<td>P50-HSK40</td>
<td>57.00</td>
<td>HSK 40-A/C/E/50B/50D/50F</td>
</tr>
<tr>
<td>P50-HSK50</td>
<td>68.00</td>
<td>HSK 50-A/C/E/63B/63D/63F</td>
</tr>
<tr>
<td>P50-HSK63</td>
<td>80.00</td>
<td>HSK 63-A/C/E/80B/80D/80F</td>
</tr>
<tr>
<td>P50-HSK80</td>
<td>100.00</td>
<td>HSK 80-A/C/100B/100D</td>
</tr>
<tr>
<td>P50-HSK100</td>
<td>118.00</td>
<td>HSK 100-A/C/125B/125D</td>
</tr>
</tbody>
</table>
Adapters & Accessories

For P1500 & P50 Spindle Systems

**VDI ADAPTERS**
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high-wear resistance.
- Tapers ground to AT2 or better, per ISO 1947, for unmatched precision.
- All adapters are calibrated in our gage lab and laser etched with actual height from taper gage line.
- All adapters are shipped with certification document.

**VDI ADAPTERS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Size</th>
<th>O.D. (mm)</th>
<th>&quot;Z&quot; Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P50-20VDI</td>
<td>20 VDI</td>
<td>114.3</td>
<td>54.60</td>
</tr>
<tr>
<td>P50-25VDI</td>
<td>25 VDI</td>
<td>114.3</td>
<td>54.60</td>
</tr>
<tr>
<td>P50-30VDI</td>
<td>30 VDI</td>
<td>114.3</td>
<td>54.60</td>
</tr>
<tr>
<td>P50-40VDI</td>
<td>40 VDI</td>
<td>114.3</td>
<td>54.60</td>
</tr>
<tr>
<td>P50-50VDI</td>
<td>50 VDI</td>
<td>120.6</td>
<td>101.60</td>
</tr>
<tr>
<td>P50-60VDI</td>
<td>60 VDI</td>
<td>127.0</td>
<td>101.60</td>
</tr>
</tbody>
</table>

**CAPTO ADAPTERS**
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high-wear resistance.
- Tapers ground to AT2 or better, per ISO 1947, for unmatched precision.
- All adapters are calibrated in our gage lab and laser etched with actual dimensions.
- All adapters are shipped with certification document.

**CAPTO ADAPTERS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Size</th>
<th>&quot;Z&quot; Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P50-CAPTO-C3</td>
<td>CAPTO C3</td>
<td>75.4</td>
</tr>
<tr>
<td>P50-CAPTO-C4</td>
<td>CAPTO C4</td>
<td>85.4</td>
</tr>
<tr>
<td>P50-CAPTO-C5</td>
<td>CAPTO C5</td>
<td>96.4</td>
</tr>
<tr>
<td>P50-CAPTO-C6</td>
<td>CAPTO C6</td>
<td>119.4</td>
</tr>
<tr>
<td>P50-CAPTO-C8</td>
<td>CAPTO C8</td>
<td>140.4</td>
</tr>
</tbody>
</table>
For applications that require the utmost precision, Parlec’s HP Quick Change Spindle System is the answer. Using dedicated cartridges for each tooling style, the HP spindle eliminates adapter stack-up and maintains the micron accuracy of the Series 2500 system — large diameter tooling, tapered tooling, and any tooling that must be set with micron precision can all benefit from the HP spindle system with universal mechanical power clamping options.

On the ParleVision® CNC system, 3-axis automation, spindle focusing and auto-indexing are enabled. In addition, Parlec’s in-house engineering and design capability delivers custom tooling solutions fast for both milling and turning applications.

The design of Parlec’s HP Quick Change Spindle System maintains ‘match-ground’ precision, sealed bearing system, and elimination of adapter stack-up found in designs that utilize sleeved adapters.
HP Quick Change Spindle System

Parlec’s High Precision Quick Change Spindle System is available on Series 2500 TMM machines. The system may be configured for manual operation and semi-automatic rotation using Parlec’s PGC Plus software.

Auto-Focus/Auto-Indexing operations for multi-insert face and milling cutter tools allow for enhanced process control and repeatability.

FEATURES

- Available for Series 2500 TMM’s only.
- Utilizes heavy-duty Timken® taper roller bearings in a case hardened steel spindle body. Bearing system is totally sealed from the shop environment.
- The rugged steel body accepts individual cartridges to adapt to a wide variety of tooling styles.
- Parlec’s unique Quick Change Spindle System allows easy switching of cartridges in seconds.
- Cartridge changeover repeatability is .001mm.
- Match-ground process ensures precision.
- Large hand wheel allows easy rotation of tooling.
- Key lock is provided for lathe tool use.
- Pneumatic-mechanical 360° spindle brake.
- Pneumatic-mechanical 90° indexable lock for boring & turning applications.
- Vacuum clamping of toolholder in spindle cartridge is standard.
- Universal power mechanical clamping option is available.
- Auto-focus, auto-indexing option available for use with non-CNC presetter systems.

Available only on the 2500 TMM machine platform.

HP SPINDLE SYSTEM

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Style</th>
<th>Series</th>
<th>90° Lock</th>
<th>360° Lock</th>
<th>Clamping</th>
<th>Concentricity</th>
<th>Match Ground</th>
<th>Cartridge Changeover</th>
<th>Auto-Focus/Auto-Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPTBS-2500</td>
<td>Quick-Change Cartridge 2500</td>
<td>Yes</td>
<td>Electronic</td>
<td>Vacuum or Drawbar</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Micron</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>HPTBSC-2500</td>
<td>Quick-Change Cartridge 2500</td>
<td>No</td>
<td>Electronic</td>
<td>Vacuum or Drawbar</td>
<td>&lt;.0005mm</td>
<td>Yes</td>
<td>Micron</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Convenient panel controls provide easy access to spindle functions including retention knob clamping, 90 degree and 360 degree spindle locking.
High Precision Quick Change Spindle System

**Tool Cartridges & Accessories**

**TAPERED TOOL CARTRIDGES FOR HPQC SPINDLE**
- For most SK, CAT and BT style tooling.
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high wear resistance.
- Tapers ground to AT2 or better, per ISO 1947, for unmatched precision.
- Integral gage sight in the cartridge eliminates the need for a separate zero gage for TMM® mastering.
- All tool cartridges are calibrated in our gage lab and shipped with certification documentation to ensure overall TMM measuring accuracy.

**WITH UNIVERSAL CLAMPING**
- Tapered tools are clamped by means of pneumatic-mechanical pull-down of the retention knob.
- No change-out of clamping elements necessary.
- Mechanical clamping improves tool run out and repeatability.
- Compatible with all retention knob sizes offered in the Parlec tooling catalog.

### TAPERED TOOL CARTRIDGES FOR HPQC SPINDLE

<table>
<thead>
<tr>
<th>Part Number</th>
<th>I.D. Taper</th>
<th>D.D. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP30-QCTP</td>
<td>ISO 30</td>
<td>111.76</td>
</tr>
<tr>
<td>HP30-QCTPU (Universal Clamping)</td>
<td>ISO 30</td>
<td>111.76</td>
</tr>
<tr>
<td>HP40-QCTP</td>
<td>ISO 40</td>
<td>111.76</td>
</tr>
<tr>
<td>HP40-QCTPU (Universal Clamping)</td>
<td>ISO 40</td>
<td>111.76</td>
</tr>
<tr>
<td>HP50-QCTP</td>
<td>ISO 50</td>
<td>111.76</td>
</tr>
<tr>
<td>HP50-QCTPU (Universal Clamping)</td>
<td>ISO 50</td>
<td>111.76</td>
</tr>
<tr>
<td>HP60-QCTP</td>
<td>ISO 60</td>
<td>158.75</td>
</tr>
</tbody>
</table>

### CAPTO TOOL CARTRIDGES FOR HPQC SPINDLE
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high wear resistance.
- Integral gage sight in the cartridge eliminates the need for a separate zero gage for TMM mastering.
- All tool cartridges are calibrated in our gage lab and shipped with certification documentation to ensure overall TMM measuring accuracy.

### HSK TOOL CARTRIDGES FOR HPQC SPINDLE
- Part Number | CAPTO Size | 2" Height (mm) |
- HP3-QCTP    | C3         | 70.10        |
- HP4-QCTP    | C4         | 80.30        |
- HP5-QCTP    | C5         | 90.20        |
- HP6-QCTP    | C6         | 127.00       |
- HP8-QCTP    | C8         | 144.00       |
### HSK Tool Cartridges for HPQC Spindle
- For all series HSK style tooling.
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high wear resistance.
- Manufactured per DIN 69063.
- HSK tools are clamped by means of electro-mechanical pull down.
- Integral gage sight in the cartridge eliminates the need for a separate zero gage for TMM mastering.
- All Tool Cartridges are calibrated in our gage lab and shipped with certification documentation to ensure overall TMM measuring accuracy.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>HSK Size</th>
<th>&quot;Z&quot; Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPH32-QCTP</td>
<td>32A/40B</td>
<td>4.32</td>
</tr>
<tr>
<td>HPH40-QCTP</td>
<td>40A/50B</td>
<td>4.32</td>
</tr>
<tr>
<td>HPH50-QCTP</td>
<td>50A/63B</td>
<td>4.32</td>
</tr>
<tr>
<td>HPH63-QCTP</td>
<td>63A/80B</td>
<td>4.32</td>
</tr>
<tr>
<td>HPH80-QCTP</td>
<td>80A/100B</td>
<td>32.00</td>
</tr>
<tr>
<td>HPH100-QCTP</td>
<td>100A/125B</td>
<td>32.00</td>
</tr>
</tbody>
</table>

### VDI Tool Cartridges for HPQC Spindle
- Precision machined from high-grade alloy steel.
- Through hardened to RC 60-63 for high wear resistance.
- Integral gage sight in the cartridge eliminates the need for a separate zero gage for TMM mastering.
- All tool cartridges are calibrated in our gage lab and shipped with certification documentation to ensure overall TMM measuring accuracy.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Size</th>
<th>&quot;Z&quot; Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPVDI20-QCTP</td>
<td>VDI20</td>
<td>54.61</td>
</tr>
<tr>
<td>HPVDI30-QCTP</td>
<td>VDI30</td>
<td>54.61</td>
</tr>
<tr>
<td>HPVDI40-QCTP</td>
<td>VDI40</td>
<td>54.61</td>
</tr>
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SPECIAL APPLICATIONS AND ENGINEERING

These pages represent only a small sampling of the adapter and gaging products available. Parlec has over a half century of manufacturing and engineering experience. Our Engineered Products Division (EPD) has been created to provide customers with personalized design services, short development cycles, and quick turnaround of finished products. No matter what the application, Parlec’s EPD manufacturing professionals are capable of producing a wide range of special adapter configurations, static and modular tooling fixtures, and precision gages to support almost any tooling style.

Special Applications include, but are not limited to:
- Tooling fixtures for Swiss turning machines.
- Automotive and transfer line tooling.
- KM quick change tooling.
- Bilz-style, quick change tapping.
- Simultaneous fit tooling including Big Daishowa, Nikken, and Special Form HSK.
- Large tooling projects including ISO 60 taper, HSK 125-160, and special applications for large milling and boring platforms.
- Special inspection fixtures for holding cylindrical cutting tools.
- Holding devices for wood industry cutters and blades.

Take an opportunity to phone, e-mail, or visit with any one of the dozens of Parlec application specialists around the world to discuss your special projects. You will find that Parlec’s trademark of “Measurably Better” also refers to the outstanding level of technical and applications support that our people bring to all customers, large and small.
Manual tool length adjustment available on Series 1500 and manual or automatic available on Series 2500.

**TOOL LENGTH ADJUSTER FEATURES**

- Integrated lifting bar assembly allows height adjustment of the cutting tool in the presetter spindle
- Ergonomic thumbwheel on presetter panel provides easy adjustment of tool height up or down in .002 mm increments
- Live crosshairs track tool edge and provide readout of actual tool length as tool is adjusted
- Toolholders must have backup screw with through-hole for lifting rod

**TOOL HEIGHT ADJUSTER FEATURES**

- Adjust tools with back up screws or through holes
- Simple one hand adjustment
- Adjust tool heights with in .001 mm
- For use with all types of collet chucks and end mill holders
- Universal receiver attachment for adjusting backup screws as well as several different hex drivers
- Height adjustment attachment for adjusting tools that do not have backup screws

Available on both 1500 TMM and 2500 TMM machine platforms.
The Parlec Parsetter TMM system designed to work with Schunk Tribos Polygonal Clamping Technology

Integration Made Easy
Parlec has now made it possible to integrate the TRIBOS clamping system into our optical tool presetting, measuring and inspection systems – creating an innovative product to satisfy technology and economic requirements.

- Reliable tool change in multi-spindle machines.
- Precise length presetting.
- Easy operation using an automatic clamping device.

The TRIBOS clamping device is mounted on the Parsetter TMM 2500 on an arm and can be moved into the working area of the machine. Clamp presetting is easy using a control panel that features an automatic clamping device. The clamping pressure is built up using a hydraulic unit integrated into the device. The TRIBOS tool holder deforms in a radial direction only. This ensures that the tool setting achieved by the mechanism in the presetting device does not move at all in an axial direction during the clamping process.

With the addition of the Parlec Tool Length Adjustment (TLA) Package for the Parsetter 2500, it’s simple to adjust tool height.

Parlec Parsetter TMM systems are the most advanced and precise presetting systems available. Featuring state-of-the-art tool measuring, inspection and data management solutions, our presetters increase efficiency, reduce down time and are supported by extensive applications, technical support, and a global service network.
Introducing ShrinkSet TMM
Tool Presetting, Measuring
and Qualifying with
Integrated Induction Heat
Shrink Technology

For applications that require utilizing all the advantages of induction heat technology, Parlec has developed one integrated system for quick setup and breakdown of shrink set tooling. The new ShrinkSet TMM is accurate and fast. It is the only integrated presetter/heat shrink machine that enables tools to be set, qualified, and run in under two minutes!
ShrinkSet TMM® System

Thermal Induction Technology

Cool-to-the-Core™ Technology

THREE-STEP PROCESS

1. Assemble and Cool the Tool

2. Certify the Tool Assembly

3. Post the Tool Data
**ShrinkSet TMM® System**

**ParleVision PSC Measuring System**
- High-resolution CMOS imaging and inspection
- Powerful performance for precise measurements
- Fully functional preset and tool measuring operations
- Shrink factor compensation

**PGC Plus Tool Data Management and Communications**
- Paperless tool data management
- Job scheduling
- Data processing to most machine tool controls and tool management systems
- MySQL database engine
- Fully networkable in a client-server environment

**Simple, One-screen Interface**
- Large LCD touchscreen operation
- Standard heat shrink cycles for one-button execution
- Manual override setting of parameters is allowed
- Custom tool cycle creation
- Shrink factor compensation

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**POWERFUL, HIGH-EFFICIENCY INDUCTION SYSTEM**
- Safe and efficient operation
- Automatic coil position
- 10 KW frequency generator for carbide and high speed steel
- Effective on tool diameters from 4 mm to 32 mm
- Optional quick-change induction head for large tool diameters from 32 mm to 50 mm

**PARLEC COOL-TO-THE-CORE™ TECHNOLOGY**
- Precision spindle slide immersion system
- No handling hot tools!
- Complete cooling and drying of the tool “Cool-to-the-Core” in under two minutes
- Tool is ready to use immediately after induction/preset cycles

**COMPLETE SYSTEM FEATURES**
- Water bath for cooling of cutting tools
- Tool tray
- Label printer with configurable formats
**SPECIFICATIONS**

**PRESETTER Measuring Range**
- **Max Tool Diameter:** 420 mm
- **Max Tool Length:** 600 mm
  (additional 25 mm travel to the right of spindle for turning applications)

**PRESETTER Resolution**
- .0005 mm Heidenhain Encoders
- .001 mm Readout Resolution

**Linear Guides**
- Precision Linear Guide System

**PRESETTER Positioning**
- Ergonomic quick positioning offers smooth travel and effortless motion

**Machine Construction**
- Ductile cast iron with symmetry design to eliminate thermal distortion

**Spindle**
- ISO 50 taper for SK, CAT, BT, NMTB, and Big-Plus tooling system

**Heat Shrink Cutting Tooling Range**
- **Standard Coil:** 6 mm to 32 mm diameter
- **Optional Large Coil:** 32 mm to 50 mm diameter

**Shrink Cycle Positioning**
- Automatic pneumatic slide engages/disengages induction head
- Precision spindle slide system automatically transports tool assembly into Cooling Zone

**Dimensions and Weight**
- **Overall Width:** 1552 mm (61.1")
- **Depth:** 825 mm (32.5")
- **Height:** 1947 mm (76")
- **Average Shipping Weight:** 340 kg (750 lbs.)

**Utilities**
- **Preseter:** 110V 60HZ to 220V 50HZ
- **Induction System:** 400–480V three phase 16 Amps
- **Air:** Standard shop air 90-110 PSI

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**OPTIONS AND ACCESSORIES**

- **Heat Shrink Setting Adapters**
- **Large Diameter Induction Head**
- **Tooling Adapters**
Parlec offers a wide range of accessories for the Parsetter TMM line. Full support of our PC-based systems include optional UPS and data backup systems. Because we use standard Intel® Pentium® powered computers, PC device options are almost endless. Here is a sampling of the more popular options and accessories. And remember, if you don’t see it — ask. Parlec is always delighted to work with our customers to configure specific customized systems.

**ACCESSORY TRAY FOR SERIES 2500**

Designed to hold up to four HP spindle cartridges or P50-style adapters, the tray slides into the cabinet for convenient storage and protection on your Series 2500 system.

**TIGHTENING FIXTURES**

Don’t tighten that collet chuck in the presetter spindle. These fixtures are made to bolt on to the Series 2500 base or any Series 1500 modular workbench. Securely holds tapered and HSK tools.

**SPINDLE CLEANER FOR #40 AND #50 TAPER SPINDLES**

Handy accessory for cleaning inside taper of spindle. Heavy composite design insures debris is cleared from spindle ID.

**TOUCH SCREEN AND LARGE VIEW MONITOR OPTIONS**

Facilitate the presetter operator’s job and eliminate the mouse and keyboard by adding a touchscreen to any PC-based Parsetter TMM system. Please note that touch screens are standard on all CNC automated systems.
**High Resolution LED Array**

The red LED ring light configuration provides exceptional contrast and even lighting and adjustable illumination for superb images on a variety of surface finishes (used for tool surface inspection).

**Label/Report Printers**

Add a label or report printer locally at the presetter or use any accessible network printer. Labels eliminate errors associated with handwritten data and come in selected coated and non-coated styles.

**Series 1500 Protective Cover**

Protect your investment from dust and debris with this heavy poly cover. Only for Series 1500 machines.
Using the information in this brochure, please fill out your requirements for each of the functional areas described below. Contact your Parlec sales representative for assistance in determining your needs. Feel free to attach additional information or prints. Parlec will be happy to quote any system, including customized systems, to fit your special applications.

### CONTACT INFORMATION

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### REQUEST DETAILS

#### TOOLING SIZE
- Maximum Diameter
- Maximum Length

#### APPLICATION (CHECK ALL THAT APPLY)
- Milling Tools
- Turning Tools
- Shrink Tools
- Grinding Operations

#### TOOLING STYLES
- CAT (specify)
- VDI (specify)
- CAPTO (specify)
- HSK (specify)
- KM (specify)
- Other (specify)
- Retention Knob Clamping/Power Clamping

#### MACHINING TOLERANCES
- +/- .001” or greater
- +/- .0005”

#### TOOL MANAGEMENT
- Label Printing
- Tool Reports
- Network Application
- Chip Read/Write Application
- DNC System Interfacing
- Bar Code System
- Tool Crib Management

#### ADDITIONAL NOTES:

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### CONTROL SYSTEMS

- ParleVision® PSC
- ParleVision® CNC
- ParleVision® PGC Plus

#### OPTIONS

- Report Printing
- Accessory Tray
- Bar Code/Label Printer
- Yearly Maintenance
- On-site Training
- Other
- Profile Analysis/Advanced Tool Inspection
- Centering Optics
- System Enclosure
- Auto Focus
- Backup Screw/Tool Length Adjustment

#### ALIGNMENT BARS/GAGES/ADAPTORS

- 50 Taper Zero Gage
- 45 Taper Zero Gage
- 40 Taper Zero Gage
- 30 Taper Zero Gage
- P50-VDI
- Specify Size
- P50-KM
- Specify Size
- Test Bar-Style and Size
- P50-45 Tapered Reducer
- P50-40 Tapered Reducer
- P50-35 Tapered Reducer
- P50-30 Tapered Reducer
- P50-CAPTO
- Specify Size
- P50-HSK
- Specify Size
- Special
Meeting and exceeding the challenging requirements for a wide range of industries and applications, Parlec sets the standards by which others are measured— for customer service, quality and delivery. Just what you’d expect from the world leader in tooling, workholding and presetting solutions.
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<tr>
<td>Americas</td>
<td>101 Perinton Parkway, Fairport, NY 14450</td>
<td>585-425-4400</td>
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<td></td>
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<tr>
<td>United States</td>
<td>Tel: 800-866-5872</td>
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<tr>
<td>Europe</td>
<td>Parlec Limited, 25 Puffinview Road, Avonmouth, Bristol BS11 9LD</td>
<td>0117 967 4881</td>
<td>0117 960 3800</td>
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<tr>
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