Wiedemann Division
Warner & Swasey/A Cross & Trecker Company

CENTRUM 1000/Q
CENTRUM 1000/Q

Setting New Standards for

Productivity
Versatility
Dependability
Profitability
The programmable controller uses encoder pulse feedback to accurately track the rotary position of the crankshaft, thus enabling precise on-off control of both clutch and brake. Table movement between nibbling strokes can also be precisely controlled for better accuracy.

The logic section of the control is sealed against harmful shop contaminants. A heat exchanger provides interior cooling.

English language error messages keep the operator informed of machine status.

Easy to operate CNC control. "User friendly" software eliminates costly delays due to operator error. Easy to understand instructions guide the operator through machine and control setup and operation.

The powerful DC servo drive motor rotates the massive bi-directional turret at 30 r.p.m. for rapid turret indexing.
Punches and dies are quickly changed through easy-access turrets. Massive turrets provide maximum bearing surface area.

Workholders are repositioned easily using quick release handles. Workholders pass between turrets to permit punching holes anywhere on the sheet.

Matched high precision linear motion guides and bearings provide maximum rigidity with high accuracy.

Hydraulically activated clutch/brake provides quiet power while virtually eliminating disc wear.

Compact design allows efficient operation and easy access for maintenance. The Centrum 1000/Q requires a minimum of floor space.

All critical components on the press are automatically lubricated.
INCREASE PRODUCTIVITY WITH THE RELIABLE WIEDEMANN TOOLING CONCEPT

The simplicity of Wiedemann tools combined with the 20 station turret will increase your productivity by minimizing tool changing time.

The large turret capacity enables standard punches and dies to remain in the turret for consecutive job runs. Special tooling, when required, is easily and quickly loaded. Punches and dies are keyed to assure proper alignment.

With low cost, high quality Wiedemann tools you will always be able to afford the proper tool for the job.

Positive alignment of punch and die holders is assured because Wiedemann line-bores the lower turret station using the upper turret as a guide.
The easy to learn Wiedepoint program minimizes piece part programming time. Complicated parts can be quickly programmed using simple geometric commands.

This illustration shows a plan view of the 20-station lower turret. It indicates the capacity of each station. This turret layout becomes a liaison between engineering, the press and the tools. It encourages standardization of hole size, part design and tool utilization.

The capacities are identified by letter which indicate the range of tools that can be accommodated.

<table>
<thead>
<tr>
<th>NUMBER OF STATIONS</th>
<th>STATION SYMBOL</th>
<th>STATION RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>A-B</td>
<td>Up to 1&quot; (25 mm) dia.</td>
</tr>
<tr>
<td>6</td>
<td>C-D</td>
<td>Over 1&quot; (25 mm) to 2&quot; (51 mm) dia.*</td>
</tr>
<tr>
<td>2</td>
<td>E-F</td>
<td>Over 2&quot; (50 mm) to 3&quot; (76 mm) dia.*</td>
</tr>
</tbody>
</table>

* With appropriate punch/die holders
CENTRUM 1000/Q
COMPUTERIZED
MANAGEMENT
SYSTEMS

- Reduce programming time
- Reduce programming errors
- Minimize costly machine downtime due to programming errors
- Maximize machine utilization with optimized part programs
- Eliminate need for tape storage

ABACUS X
Features:

- Easy to use "menu driven" command input
- Optimization, automatic or operator interventive, including projected machine cycle time
- High resolution CRT graphics
- Printer graphics
- Automatic multiple piece part generation including automatic "shake and break"
- Part and pattern rotation to any angle
- Part mirroring
- Automatic tool path compensation for punching and nibbling
- Automatic repositioning for oversize sheets
- Automatic or operator selective tool station assignment
- Continuous path profile definition
- Automatic "Y" axis mirroring for over-width blanks
- Tapes in short form geometric language when applicable
- Complete and powerful text editor
- Plotting option capabilities:
  - Workholder safety zones
  - Windowing
  - Graphing
  - Scaling
  - Multi-color (6 colors)
  - Turret station numbers
  - "X" and "Y" coordinates
  - Optional irregular tool shapes

ABACUS 2000
Features:

All of the above Abacus X features PLUS:

- Interactive color graphics
- Dual screen
- 10MB hard disk system
- 512K memory
- IBM/PC® compatible software

Abacus software © Machine Tool Programming
Punching Capacity:
3" Dia in .125" mild steel
(75mm Dia in 3t)

Press Drive Motor:
5 H.P.

Throat Depth:
41.3" (1050mm)

Table Travel:
X Axis - 40.5" (1030mm)
Y Axis - 40.5" (1030mm)

Table Sheet Capacity:
Before Re-Positioning
40" x 40" (1 M x 1 M)
40" x 80" (1 M x 2 M)
with repositioning

Maximum Sheet Weight:
110 lbs. (50kg.)

Ram Stroke:
1.2" (30mm)

Clearance - Stripper to Die:
.875 (22mm)

Turret Capacity:
20 Stations

Tooling Style:
Wiedemann style 112 or 114

Approximate Machine Weight:
13,400 lbs. (6100kg.)

Approximate Machine Dimensions:
Floor Space - 117" x 138"
(3,000mm x 3,500mm)
Press Height - 77" (1950mm)
Table Height - 38" (965mm)

Electrical Power Requirements:
15 KVA (Peak)
-20 Amps at 460 volts, 3 phase -

Air Supply Requirements
3.5 CFM at 70 PSI
(0.1 cu meters at 5 bars)

Air Supply Required for Index
Pin Cylinders, Workholders and
Automatic Lubrication Only,
Clutch/Brake are Hydraulically
Activated.

Maximum Table Traverse Speeds:
X Axis - 2000"/min (50m/min)
Y Axis - 2000"/min (50m/min)

Hit Rates:
Continuous nibbling modes
.2" (5mm) moves 350 SPM

Intermittent Mode:
Axis Move: Hits/Min.
1" (25mm) 200
2" (50mm) 170
3" (75mm) 155
6" (150mm) 130
10" (250mm) 100

Traverse Speed Override:
Provided at the controls: 100%/50%

Punching Accuracy:
± .005" (0.125mm)

Turret Rotation:
Bi-Directional DC Servo Drive 30 R.P.M.
THE CENTRUM 1000/Q
PRODUCTIVITY CENTER WILL
ADD A NEW DIMENSION TO YOUR
FABRICATING PRODUCTIVITY
AND EFFICIENCY

A Centrum 1000/Q Productivity Center can be expanded and 
retrofitted to meet your present and future requirements.

Un-manned operation is now an Affordable reality
For Less than the cost of many “Stand-Alone” turret punch presses
having similar capabilities to the Centrum 1000/Q you can now own
An Automated Punching Cell.

- Process up to 5 different parts -
  Automatically
- Automation - Simplicity - Dependability - It All Adds Up to Maximum
  Productivity and Profitability

Like the Centrum 1000/Q the automated cell is simple, dependable
easy to program and operate:
- Select up to five piece part programs from CNC memory.
- Key in material thickness of each part.
- Key in number of piece parts to be produced
- Place material on load tables
- Push cycle start button

Wiedemann is a single source supplier for all your automation needs
from basic loaders/unloaders to unmanned flexible fabricating systems
that include, for example, right angle shearing, forming and welding as well
as sorting, automated warehousing and computer/software systems.

Specifications are subject to change without notice.
For clarity, guards and some safety features may have
been removed from some equipment depicted in this publication.
Then watch the Centrum 1000/Q productivity center produce parts for you - un-manned.

* All this and it's Retrofitable. You can actually "grow into" automation. Take delivery of a basic Centrum 1000/Q now and we can retrofit the automated cell when your requirements justify the increased productivity.

### Centrum-1000/Q Productivity Cell Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Sheet Size:</td>
<td>40&quot; x 80&quot; x .125&quot; (1000mm x 2000mm x 3mm)</td>
</tr>
<tr>
<td>Minimum Sheet Size:</td>
<td>12&quot; x 31.5&quot; x 22 ga. (300mm x 800mm x 0.8mm)</td>
</tr>
<tr>
<td>Maximum Sheet Weight:</td>
<td>110 Lbs. (50 kg.)</td>
</tr>
<tr>
<td>Maximum Weight/Table:</td>
<td>4400 Lbs. (2000 kgs.)</td>
</tr>
<tr>
<td>Max. Stack Height (Incl. Pallet):</td>
<td>7875&quot; (200mm)</td>
</tr>
<tr>
<td>Load/Unload Traverse Speed:</td>
<td>1575&quot;/Min (40M/Min)</td>
</tr>
<tr>
<td>Load/Unload Cycle Time:</td>
<td>22 Seconds</td>
</tr>
<tr>
<td>Maximum Number of Different Parts:</td>
<td>5</td>
</tr>
<tr>
<td>Number of Load Stations:</td>
<td>2</td>
</tr>
<tr>
<td>Number of Unload Stations:</td>
<td>2</td>
</tr>
<tr>
<td>Part Selection:</td>
<td>Sequential in Order of Program Input</td>
</tr>
<tr>
<td>Sheet Separation:</td>
<td>Magnetic Fanning</td>
</tr>
<tr>
<td>Double Sheet Detection:</td>
<td>Programmable by Material Thickness</td>
</tr>
<tr>
<td>Electrical Power Supply:</td>
<td>10 KVA</td>
</tr>
<tr>
<td>Air Supply:</td>
<td>35 cu. ft. 80 PSI. (.1 cu. Metres 5.7 Bar)</td>
</tr>
</tbody>
</table>
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† ABACUS 2000 software © Machine Tool Programming

The Cross & Trecker Companies

The Cross Company
Flexible and high-volume transfer lines/systems and special machines.

Kearney & Trecker Corporation
Machining and milling centers, controls, flexible manufacturing cells and systems, and machine renewal.

Roberts Corporation
Automated material-handling systems and foundry systems.

W & S Turning Division
Cylindrical-parts manufacturing equipment for modules, cells, and systems.

W & S Grinding Division
Cylindrical, centerless, and disc grinding systems.

Sheffield Measurement Division
Dimensional measurement products from gages to coordinate measuring machines.

Wiedemann Division
Automated sheet metal fabricating systems: punching, plasma arc and laser contouring, shearing and forming.

Machine Remanufacturing Corporation
Supplier of previously owned CNC metalworking equipment.

Cross & Trecker Credit Corporation
Financing for equipment purchased from the Cross & Trecker companies.

AFFILIATE:

Murata Warner Swasey
Builder of W & S-designed turning machines, CNC punch presses and shears