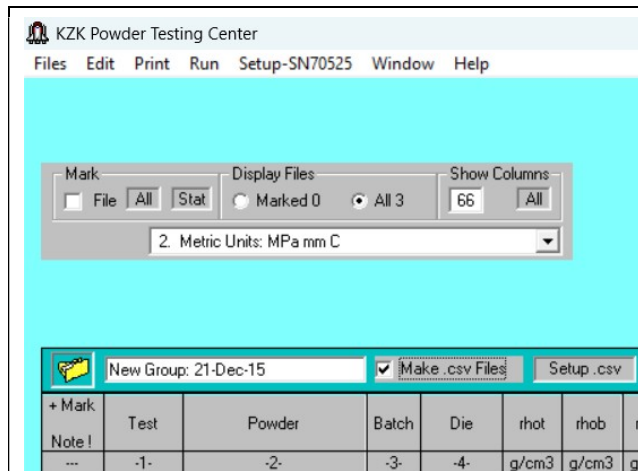


PTC04: Short Guide to Custom Settings

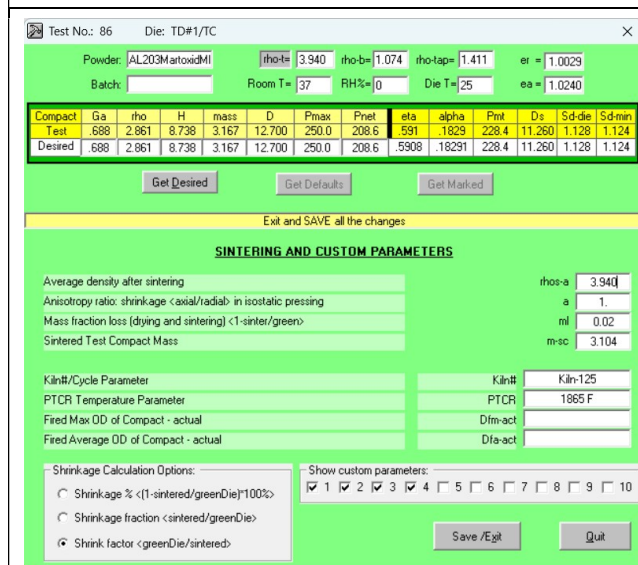


SG-1. Main Table Screen

All PTC test parameters are displayed in the Main Table. Each data line represents a separate Test Data File. In the first column, “+” indicates a marked file, “!” indicates a test note.

- Drop-down List => current/all Table Setups (SG-5 below)
- Show Columns: *All* => display all parameters in the table
- Show Columns: *##* => display first ## columns only
- Display Files: *All* => display all files in current directory
- Display Files: *Marked* => display only “marked” files
- Mark: *File* => “mark” current file, *Shift+M* shortcut
- Mark: *All* => “mark” all files in current directory
- Mark: *Stat* => calculate statistical data for marked files
- Mark: *csv Files* => see SG-9 for details
- Open File icon => change Test Data directory.

Note: Click on any column to see that parameter description.



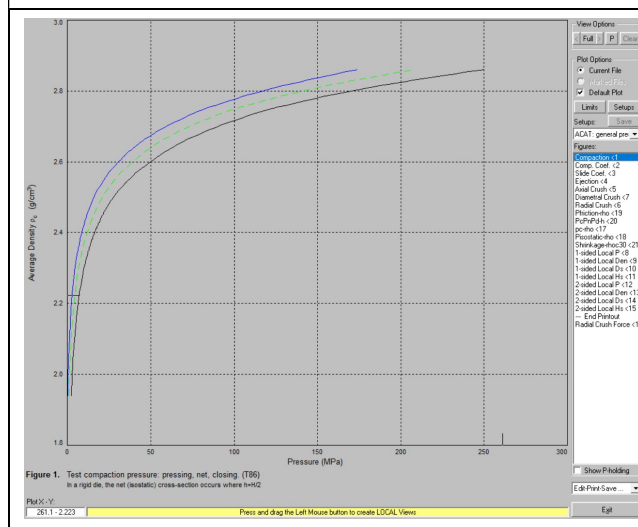
SG-2. Edit Test Data File

This option allows corrections of initial test data parameters and entering Sintered and Custom Data information.

- Click *Edit TDF* on the Main Table Screen
- All correctable Test Data are listed at the top of the display
- If necessary, edit values for selected parameters
- *Show custom parameters* displays checked options
- Double-Click the Custom Symbol to edit it
- Custom Data are stored as character data (as typed in)
- Keep Custom Data entries as short as possible
- If needed, change the option for calculating shrinkage data
- Click *Save/Exit* to save the changes in a Test Data File.

Notes:

- *Mass Loss* and *Sintered Compact Mass* are coupled, specifying one determines the other
- The description and Symbol of a Custom Data can be edited by double-clicking the current Symbol. Any changes will be stored permanently in the current Text Table (SG-4).

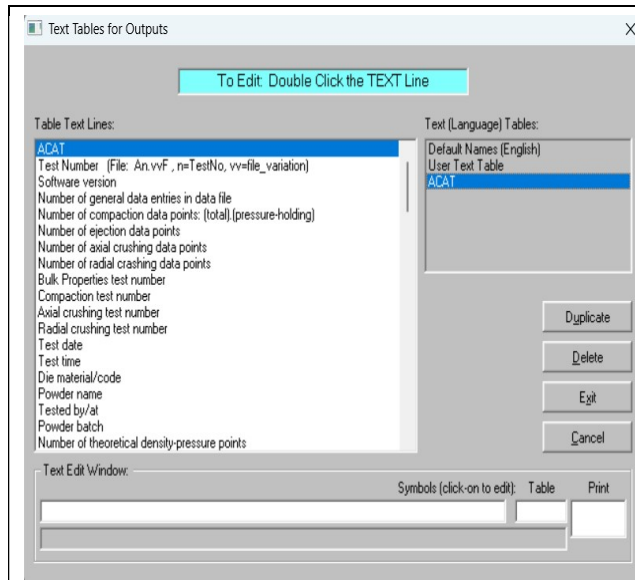


SG-3. View Plots Screen

All defined plots/figures are listed in order defined in SG-6. The drop-down list shows existing Setups.

- Plot values at the tip of a mouse pointer are shown at screen's bottom-left corner data display
- Enlarge any plot area by pressing left mouse button and dragging the mouse pointer around that area to make a box
- *Full* at top-left restores the original plot
- *P* displays the plot as printed out
- *Current File* displays plots for the current Test Data File
- *Marked Files* displays combined plots for marked data files
- *Default Plot* checked option displays that plot first
- *Show P Holding* displays pressure holding data if available.

Note: The order of plots may be changed by clicking and dragging a plot line up/down the list. After rearranging the plots, *Save* will save the changes in the current Setup.



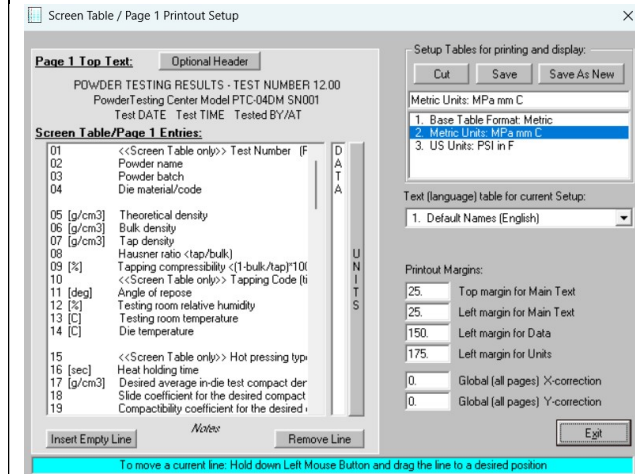
SG-4. Text Tables For Parameters Descriptions

Text Tables contain descriptions for all test data parameters used by the PTC program. They can be custom changed or translated into any foreign language. The default (first) Table cannot be modified. It is strongly recommended to create a Custom Table when changes are introduced.

- Click *Edit->Edit Text Tables* In the Main Screen
- If needed, click *Duplicate* to create a new Text Table
- Double-click the parameter you want to change
- Edit/change that entry in the Text Edit Window below
- Edit/change the corresponding Table Symbol
- Edit/change the corresponding Print Symbol
- Press *Enter* when done
- Select the desired Table and *Exit* to use it in the program.

Notes:

- All entries and symbols should be as short as possible
- Table Symbols are used in Main Table Display
- Print Symbols, for printing/viewing, can use Greek letters.

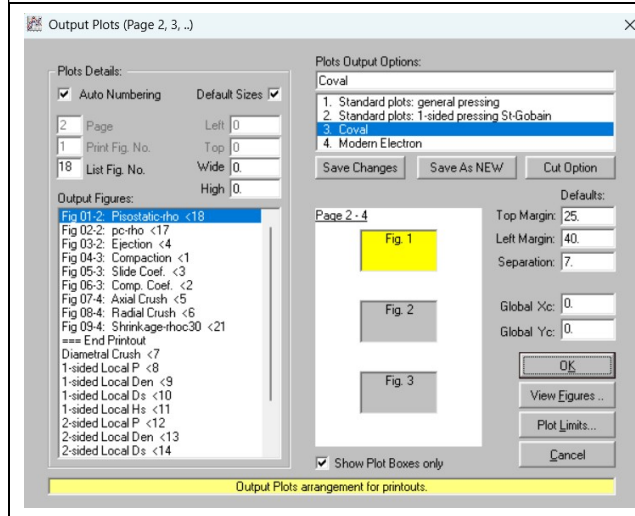


SG-5. Display/Printing Parameters Ordering Setup

It arranges the order of columns in the Main Table Display and on the first page of a standard printout.

- Click *Edit->Edit Screen Tables* in the Main Screen
- All available parameters and Setups are listed
- Option *Save* saves changes in current Setup
- Option *Save As New* creates a new Setup in the list
- Verify/Select the desired Text Table for current Setup
- Click and drag any line up/down to change position
- Click on a line and the *Units* to change that data's unit
- Make "Tested by/at" line the end for Screen Display
- The "End of Printout" line ends printing
- The "empty" lines are for printing only
- The "Screen Table Only" lines are not printed.

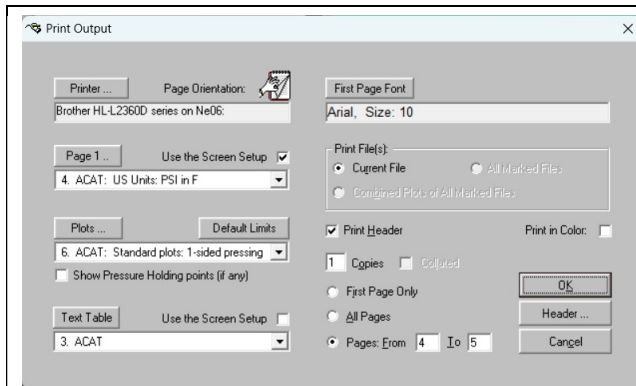
NOTE: To use a new Setup in the program, select it from the drop-off Setups list in the Main Table Display - see SG-1.



SG-6. Figures Arrangements for Viewing & Printing


It arranges the order of figures in the VIEW (SG-3 above) screen display and on pages of a standard printout. A scaled outline of figures is shown as they are printed on a page. The figures arrangements are stored as Plots Output Options.

- Click *Print->Plots Setup* in the Main Screen
- All available Figures and Plot Output Options are listed
- If needed, click *Save As New* to create a new Option
- If needed, click *Cut* to remove an existing Option
- If needed, edit the Option's name and *Save* it
- Each Figure above "End Printout" is shown as on printout
- Click and drag any Figure line up/down to change position
- Figure's number and printed page rearrange automatically
- The "End Printout" line ends figure printing
- Click *Save* to save the changes in the highlighted Option.



Print Output

Printer: Brother HL-L2360D series on Ne06

Page Orientation: 

First Page Font: Arial, Size: 10

Page 1: 4. ACAT: US Units: PSI in F

Use the Screen Setup: ☒

Print File(s): ☒ Current File ☐ All Marked Files ☐ Combined Plots of All Marked Files

☒ Print Header ☐ Print in Color

1 Copies ☐ Collated

☐ First Page Only ☐ All Pages

Pages: From 4 To 5

OK Cancel

Plots: 6. ACAT: Standard plots: 1-sided pressing

Show Pressure Holding points (if any): ☐

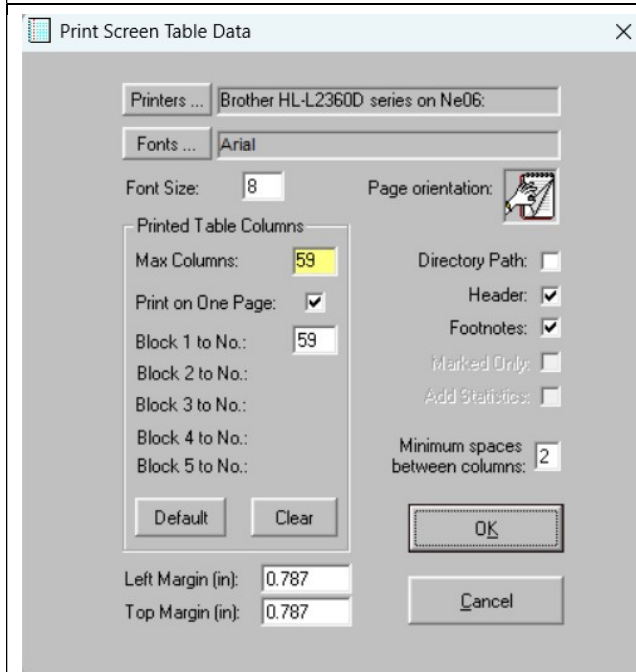
Text Table: 3. ACAT

Use the Screen Setup: ☐

SG-7. Print Output Settings

- Click *Print* -> *Print Output* or *Ctrl+P* in the Main Screen
- Verify/select printer and first page printing font
- Verify *Page1 Option* or use Main Screen default setup
- Verify *Plots Setup* selection
- Verify *Text Table* selection or use Main Screen setup
- If available, *marked files* can be printed together
- If available, *combined plots* can be printed out
- A Header file can be created/copied and printed out
- Select "Print in Color" if available.

Note: Different *Text Tables* can use foreign languages.




Print Screen Table Data

Printers: Brother HL-L2360D series on Ne06

Fonts: Arial

Font Size: 8

Page orientation: 

Printed Table Columns

Max Columns: 59

Print on One Page: ☒

Block 1 to No.: 59

Block 2 to No.:

Block 3 to No.:

Block 4 to No.:

Block 5 to No.:

Default Clear

Directory Path: ☐

Header: ☒

Footnotes: ☒

Marked Only: ☐

Add Statistics: ☐

Minimum spaces between columns: 2

Left Margin (in): 0.787

Top Margin (in): 0.787

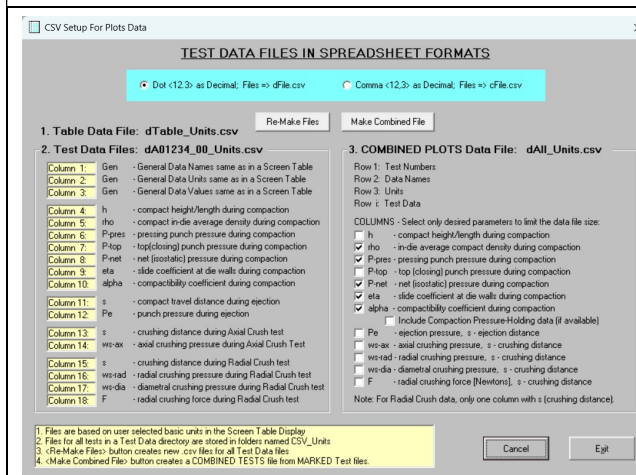
OK Cancel

SG-8. Print Screen Table Settings

This option prints out the table data based on the current Main Table Display arrangement. Any number of columns, up to the total in the current display, may be printed out.

- Click *Print* -> *Print Table* or *Ctrl+T* in the Main Screen
- Verify/select printer, printing font, page orientation
- Select *Print on One Page* if printing few Test Data Files
- *Directory Path* will print it at the top of the printout
- *Header* is the same as in the Print Output above
- *Footnotes* will print out parameters descriptions
- *Marked Only* will print only the marked files if available

Note: The printout will look exactly as the Table Screen Display. If *Print on One Page* is selected, the columns are printed to the right page margin and wrapping up below on the same page. Otherwise, the printing will continue on a new page. In both cases, the first column on a page will always be the test number for clear data identification.



CSV Setup For Plots Data

TEST DATA FILES IN SPREADSHEET FORMATS

☒ Dot (<12.3> as Decimal; Files >> dFile.csv ☐ Comma (<12.3> as Decimal; Files >> cFile.csv

Re-Make Files Make Combined File

1. Table Data File: dTable_Units.csv

2. Test Data Files: dA01234_00_Units.csv

Column 1: Gen - General Data Names same as in a Screen Table

Column 2: Gen - General Data Units same as in a Screen Table

Column 3: Gen - General Data Values same as in a Screen Table

Column 4: h - compact height/length during compaction

Column 5: rho - compact in-de average density during compaction

Column 6: Ppress - pressing punch pressure during compaction

Column 7: Ptop - top(closing) punch pressure during compaction

Column 8: Pnet - net (isostatic) pressure during compaction

Column 9: eta - slide coefficient at die walls during compaction

Column 10: alpha - compaction coefficient during compaction

Column 11: s - compact travel distance during ejection

Column 12: Pe - punch pressure during ejection

Column 13: s - crushing distance during Axial Crush test

Column 14: w-ax - axial crushing pressure during Axial Crush test

Column 15: s - crushing distance during Radial Crush test

Column 16: w-rad - radial crushing pressure during Radial Crush test

Column 17: w-da - diametral crushing pressure during Radial Crush test

Column 18: F - radial crushing force during Radial Crush test

3. COMBINED PLOTS Data File: dAll_Units.csv

Row 1: Test Numbers

Row 2: Data Names

Row 3: Units

Row 4: Test Data

COLUMNS - Select only desired parameters to limit the data file size

☐ h - compact height/length during compaction

☐ rho - in-de average compact density during compaction

☐ Ppress - pressing punch pressure during compaction

☐ Ptop - top (closing) punch pressure during compaction

☐ Pnet - net (isostatic) pressure during compaction

☐ eta - slide coefficient at die walls during compaction

☐ alpha - compaction coefficient during compaction

☐ Pe - ejection pressure, s - ejection distance

☐ w-ax - axial crushing pressure, s - crushing distance

☐ w-rad - radial crushing pressure, s - crushing distance

☐ w-da - diametral crushing pressure, s - crushing distance

☐ F - radial crushing force (Newtons), s - crushing distance

Note: For Radial Crush data, only one column with s (crushing distance)

1. Files are based on user selected basic units in the Screen Table Display

2. Files for all tests in a Test Data directory are stored in folders named CSV_Units

3. <Re-Make Files> button creates new csv files for all Test Data files

4. <Make Combined File> button creates a COMBINED TESTS file from MARKED Test files

Cancel Edit

SG-9. CSV Output For Spreadsheets

When *Make csv File* (SG-1) is checked, the PTC program, based on the current Main Table setup, generates a csv file for every Test Data File in the current directory and a Table File similar to the Main Table. It updates that with new tests.

- *Dot* Option stores all numbers in "1.0" format (USA)
- *Comma* Option stores all numbers in "1,0" format (World)
- *Re-Make Files* will re-generate csv files for all test files
- *Make Combined File* will generate a csv combined file for "marked" files based on Columns check marks.

Note: The csv files represent the settings in the Main Table Display. Any changes in those settings will generate a separate csv directory with csv files reflecting those changes.