



## MT-COMP

### COMPONENTS MECHANICAL CALCULATION

The program MT-COMP allows mechanical design and check of single components of pressure vessels and shell & tube heat exchangers.

SUPPORTED CODES	
ASME VIII division 1	(U.S.A.)
AD-MERKBLATT	(Germany) - Harmonized with PED directive
ISPESL-VSR	(Italy) - Harmonized with PED directive
EN13445	(European Code)
PD5500 (App.G)	(U.K.) (brackets and local loads)

COMPONENTS ALLOWED
<ul style="list-style-type: none"> <li>• Formed heads (elliptical, spherical, torospherical)</li> <li>• Cylindrical Shells</li> <li>• Conical Sections</li> <li>• Welded Dished Heads</li> <li>• Flanged Dished Heads</li> <li>• Nozzles (Radial, Not Radial, Inclined, check of welding)</li> <li>• Girth Flanges</li> <li>• Tubesheets</li> <li>• Bellows Expansion Joints</li> <li>• Floating Heads</li> <li>• Saddles</li> <li>• Brackets</li> </ul>

- Legs
- Skirt
- Tubes of the Bundle
- Local Loads (PD5500, WRC107, WRC297,H.E.I.)

### ANALYSIS CAPABILITIES

For each component the following calculations are done (if applicable):

- Check of stresses caused by internal pressure
- Stability check for loads caused by external pressure
- Maximum Allowed Working Pressure Calculation
- Combined calculation of tubeshet/expansion joint on fixed tubesheets
- Stability Check for saddles, brackets, Legs, Skirt
- Weight and volume calculation
- Geometric dimensioning

### UNITS OF MEASURE

The software allows the following system units (user's customizable):

- Metric
- English
- S.I.
- User

### DATA BANKS

	The software package is based on large, user modifiable/upgradable data banks wich include:
Materials	stores properties of over 350 ASME/UNI/EUROMARK materials
Nozzles and Flanges data	(ASA, UNI - User customizable)

bank from 10 mm (3/8") to 1500 mm (60")	
Gaskets data bank	(ASA, UNI, AD-MERKBLATT - User customizable)
ASME Charts for External Pressure	
Standard Supports data bank	(Saddles, Brackets, Legs, Skirt)
Stiffening Rings data bank	(AISC, EURO - User customizable)
Bolts data bank	(ANSI B18.22, UNI/ISO, DIN 2510 - User customizable)

<b>OUTPUTS</b>	
	The results of the calculations are made available as ASCII Report and Audit Report
<b>ASCII Report</b>	Includes in tabular form all the relevant Input/Output data for a quick verification by the user. The Report is shown on the screen, can be printed, and is saved automatically by the program as <i>jobname.PRN</i> file.
<b>Audit Reports</b>	For each component an Audit Report is available showing step by step data and formulas used in the calculations as well as the checks performed for Code compliance. Audit Reports can be produced in English or Italian language, selecting Metric or English systems of measurement units. The Audit Report can be shown on screen, printed or saved on a file.

<b>MINIMUM ALLOWED CONFIGURATION</b>	
Operating System	WINDOWS 9X/NT/2000/ME/XP
Processor	Intel Pentium
Hard disk	20 MB
Printer	Graphical - Anyone allowed by the Operating System