



GRADUATE-POST GRADUATE-RESEARCH SCHOLAR

4 BAR WEAVING MACHINE

APM WINMACHINE-APM STUDIO-APM STRUCTURE 3D

STRUCTURAL

STRESS ANALYSIS

DISPLACEMENT

FACTOR OF SAFETY

MODAL ANALYSIS

Mesling Results

Finite elements number: 48941
 Nodes number: 14962
 FE Type: 4-noded Tetrahedron
 Meshing parameters: Step = 8, Rr = 1, Rr = 1.5

View Depth: [Slider]
 Set the Cut Plane

KOM-APM STUDIO 8

Pressure

Assign to: Face
 Face1

Pressure: 500
 N/mm² / N

OK / Cancel

KOM-APM STUDIO 9

DXF-STEP EXPORT TO MBD UM

DXF-STEP EXPORT TO STATIC-STRUCTURAL-DYNAMIC APM

Variable Load

Selection: Select Face (Face1)
 Base Plane: Select Plane (Plane selected)

Above, Right to the Base Plane
 Linear Law | Radial Law | Random Law
 Load Distribution Law: $F = A \cdot X + b$
 Factor $a = 1$ N/mm
 Load Gradient Angle $\alpha = 45$ deg
 Start Value of Load $b = 500$ N
 Current Law of Load: $F_{min} = 500$ N, $F_{max} = 500$ N
 Step = 0 mm, Step = 0 mm

Below, Left to the Base Plane
 Linear Law | Radial Law | Random Law
 Load Distribution Law: $F = A \cdot X + b$
 Factor $a = 1$ N/mm
 Load Gradient Angle $\alpha = 45$ deg
 Start Value of Load $b = 0$ N
 Current Law of Load: $F_{min} = 0$ N, $F_{max} = 0$ N
 Step = 0 mm, Step = 0 mm

OK / Cancel

KOM-APM STUDIO 11

Calculation

Load Case: Load Case 0

Calculation Types:
 Linear Static Analysis
 Nonlinear Static Analysis
 Buckling Analysis
 P-Delta Analysis
 Modal Analysis
 Modal Analysis with Prestress Effects
 Forced Oscillations
 Electrostatic Analysis
 Magnetostatic Analysis

OK / Cancel / Help

KOM-APM STUDIO 12

Prepare contact zones

Contact zone 11 from 11

KOM-APM STUDIO 13

Calculation in progress

Modal analysis
 Elements - 50306(14974),
 DOFs - 44922(1616)

Memory allocation
 Forming stiffness matrix: 44%

Cancel

KOM-APM STUDIO 14

Calculation in progress

Buckling analysis
 Elements - 50306(14974),
 DOFs - 44922(1616)

Iteration 5
 Forming stiffness matrix: 72%

Cancel

KOM-APM STUDIO 15