


Mass Tuner 1.3 is FREE tool for Femap!

Mass Tuner tool helps to update model mass quickly by changing material mass or density. Moreover it displays current overall mass taking into account mass elements.

Material	Current Mass	Current Density	New Mass	New Density	Delta Mass
1. Steel_(Counterweight)	67175.88	3577.26			
2. Steel_(Arm)	58836.69	14064.12			
3. Steel_(Toren)	33859.77	10900			
4. Steel_(Portaal)	41497.11	7850			
5. Steel_(Koning)	32062.2	16120			
6. Kraanudek	1.93	1			

Extra Mass from mass elements: 54000 Overall Current Mass: 233433.57
Overall Delta Mass (New - Old): 0 Overall New Mass: 233433.57

SDC  Apply

Main idea is that engineer sets material mass and the tool calculates required density immediately. The calculations are quite simple but it helps when they are done automatically. Additional information (material delta mass, overall new mass and overall delta mass) shows clear picture of mass changes.

It is also possible to do reverse calculation: define density and get new mass.

Distribute Uniformly function allows to add additional mass to the model by distributing it uniformly. E.g. 6000 kg is distributed for 6 materials by 1000 kg:

Mass Tuner 1.3

Current Model: C:\Users\PC\Desktop\crane.modfem

Digits after dot [0..15]: 2

Add to Current Total Mass: 6000 Distribute Uniformly

Material	Current Mass	Current Density	New Mass	New Density	Delta Mass
1..Steel_(Counterweight)	67175.88	3577.26	68175.88	3630.51	1000
2..Steel_(Arm)	58836.69	14064.12	59836.69	14303.16	1000
3..Steel_(Toren)	33859.77	10900	34859.77	11221.92	1000
4..Steel_(Portaal)	41497.11	7850	42497.11	8039.17	1000
5..Steel_(Koning)	32062.2	16120	33062.2	16622.77	1000
6..Kraanudek	1.93	1	1001.92	520.48	1000

6 x 1000 = 6000

Extra Mass from mass elements: 54000 Overall Current Mass: 287433.57

Overall Delta Mass (New - Old): 6000 Overall New Mass: 293433.57

SDC Apply

Tool supports import from Clipboard (Excel). Copy one column with Mass or Density data select one cell (where you would like to start) and press or Ctrl+V:

	A
1	75000
2	63000
3	35530
4	47420
5	34622
6	1005

	New Mass	New Density	Delta Mass
1	75000	3993.91	7824.12
2	63000	15059.3	4163.31
3	35530	11437.67	1670.23
4	47420	8970.43	5922.89
5	34622	17407	2559.8
6	1005	522.08	1003.08

Warning: Changes are not applied to Femap Model until Apply button is pressed.

Note: Tool connects to active model in Femap when starts. It does not refresh (reread) material data from Femap automatically (to avoid losing entered user data). In case

material was edited in Femap press . Use this button also in case if model in Femap is changed and tool should work with current active model.

If you have any questions/comments/improvements tools please contact us:

support@sdcverifier.com.