



WIAP®

MEMV®



Metall entspannen mit Vibration

Investigative report: MEMV

WM 870b Platten 2019

The aim of the test, Plates warp when Auslaser. wants to prevent the laser delay Vielrichtungsvibriieren with the new MEMV. It works better than expected.

Test 1 XY1, 05/03/2018 09:00 09:10:15

Part name: metal sheet
Component weight: 540 kg
Dimension: 15x3000x1500
Material: S420MC
Number / Component: 1
Zone excitation X: 83.6
Zone excitation y: 27.5
Zone excitation Z: 58.7
Stimulated: D1 / D2 / D3 8/8/8 '

. Stk 10mm plate 1 2000 x 3000 Material
Mass:
Problem: warps the laser machining of various components..
Vibration Relaxed: 3 x 8 minutes in the direction D1, D2, D3



Figure 2: Test XY1 attachment of the exciter. There was the noise level to over 90db. Thinner nuts would have fixed the problem.



Figure 3: This slide in the photo are crooked in untreated MEMV plates in mm enriches. All the plates, the plates being treated from the MEMV were cut were straight, no light gap visible to the ruler.

This Technical Manual WM 880 / drawings pursuant to Art. 2 lit. the Federal Law on Copyright (SR 231.1) are our intellectual property and may not be copied without our consent, copied, transmitted, nor used to perform d. (SR 231.1) of 09.10.1992

© Made in Switzerland ©

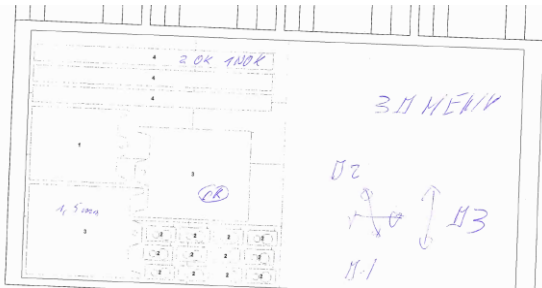


Figure 4: cutting passes a laser disk

Test XY 23, 6.3.19 11:15 to 13:15

Part name: metal sheet
Component weight: 2500 kg
Dimension: 10x2500x1250
Material: DD12

Number / components: 10
Zone 1 chuck 2

Zone displacement X 56.9 / 73.8 m/s²
Zone displacement Y: 184/185 m/s²
Zone displacement Z: 29 / 10.8 m/s²
Stimulated axis / min: D1 / D2 Platz 1 8/8 '
D3 2nd place 15'

New second test with the plates
. Plate 10 pcs 6 mm 2000 x 3000 Material
Mass:
MEMV stimulated with D1, D2, D3 and re-clamping. test dead center shift assay also rubber redistribution

Vibration Relaxed: min 3 x 8 minutes towards clamping point first
Vibration Relaxed: 2 x 8 min minutes towards clamping point second



Figure 33:



Figure 34:



Figure 35: Aufspannmethode MEMV

This Technical Manual WM 880 / drawings pursuant to Art. 2 lit. the Federal Law on Copyright (SR 231.1) are our intellectual property and may not be copied without our consent, copied, transmitted, nor used to perform d. (SR 231.1) of 09.10.1992

© Made in Switzerland ©



Figure 36: The dead center axis directions was in div determined and created a new definition.. Due to further investigations and studies the issue will not be discussed further.



Figure 37:

Result: XY 23, 80% of the plate, the parts were straight. 20% not ok
Action: are controlled by the software and the machine dead center shift has yet, then all zones are reached.