



WIAP®

MEMV®



Metal relax with vibration

MEMV_rubber pads_WM945

hpw_2019_ Update, April 2019

WM 945 0 Content:

WM945_1 Foreword

WM945_2 Rubber Information

WM945_3 Sheets MEMV vibrate

WM945_4 Impeller vibrate MEMV

WM945_5 110 tons component MEMV vibrate

WM945_6 60 tons component MEMV vibrate

WM945_7

WM945_8 Conclusion

WM 945 1 Introduction

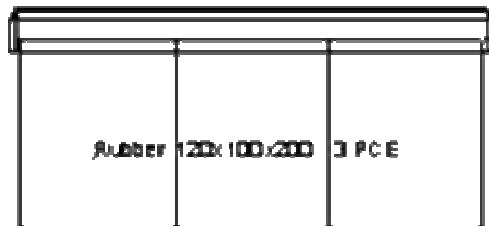
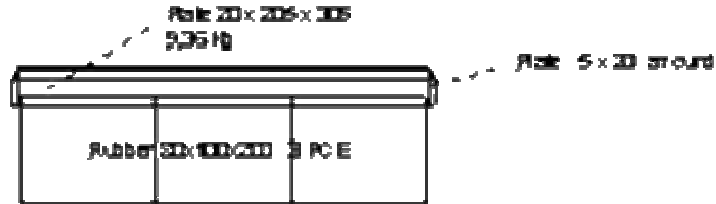
Metal stress relief system WIAP MEMV hides some vibration with that reliable metal relax with vibration makes securely. Among other things, it is very

important that the rubber pinch and position of rubber are observed. In earlier operating manual of WIAP was always of the opinion that it was better with only 3 pads. But with new measurements was seen that it is better if four documents not charged a flap of the components or an excessive point loading. Also could make many measurements with the dipstick since the WIAP in 2014. It was also measured that in the vicinity of the rubber when the wreden highly charged, less excitation into the component is further away from the rubber pad position than in zone. For the reason, the report specifically only the rubber is an important knowledge.

WM 945 2 Rubber Information

MEMV-G-1	Rubber Size 1		Rubber with internal grip hole 50 Shore 80x100x200 Kg
MEMV-G-2	Rubber Size 2		Rubber with internal grip hole 50 Shore 120x100x200 Kg
MEMV-G-3	Rubber Size 3		Rubber with internal grip hole 50 Shore 150x200x200 Kg

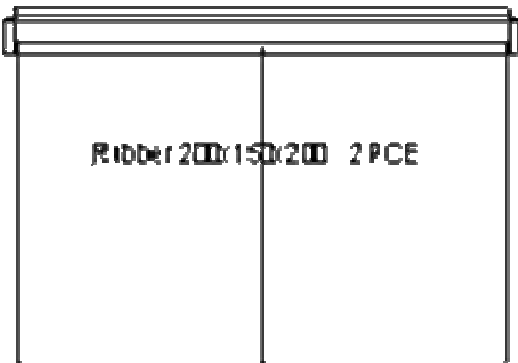
Metal expansion plant WIAP MEMV® Rubber documentation system



This Technical Manual WM 852 / 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

Single rubber system

Rubber size	Bruise	Bruise	Bruise	Bruise	Bruise
H x B x L	60%	40%	25%	10%	5%
	<i>H x 0.4</i>	<i>H x 0.6</i>	<i>H x 0.75</i>	<i>H x 0.9</i>	<i>H x 0.95</i>
80x100x200	43200N	28800N	18000N	7200N	3600N
120x100x200	43200N	28800N	18000N	7200N	3600N
200x150x200	64800N	43200N	43200N	10800N	5400N

Large heavy load system, single rubber system 3 x 1 pcs. Small or 2 x 1 pcs. big

Rubber size	Bruise	Bruise	Bruise	Bruise	Bruise
H x B x L	60%	40%	25%	10%	5%
80x300x200 3 pcs.	129600 N	86400 N	54000 N	21600 N	10800 N
120x300x200 3 pcs.	129600 N	86400 N	54000 N	21600 N	10800 N
200x300x200 2 pcs.	129600 N	86400 N	54000 N	21600 N	10800 N

This Technical Manual WM 852 / 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

Best oscillation damping results when squeezing between 5 to 10%

Load as an end stop (impact load) - the time (max.): $F_{\max} = H \times 0.50$

Load as an end stop (shock) - rare (max.): $F_{\max} = 0.60 \times H$

Continuous load - static (max.): $F_{\max} = 0.15 \times H$

Vibration damping: $F_{\max} = H \times 0.05$ to $0.10 \times H$

Data collection rubber Information

Have 5% or 60% contusion whether this has an influence the measurement G

WM vibrate 945_3 sheets MEMV, single and multiple



Figure 1: Together taut sheet metal plates 20 pcs.



Figure 2: Vibrating plates. Enough rubber pads 100x200x120 10 pcs.

WM 945_4 impeller MEMV vibrate to 3200 mm diameter



Figure 3: WIAP® MEMV® relax duplex impeller. Jim Peter Widmer fully automatic with the WIAP MEMV E control unit and printer logs measurement before and after.



Figure 4: WIAP® MEMV® 6 star-pad- device 1300 mm diameter is set in the positions of the support. It is thus prevented that the rubber pads can migrate away at resonance movements. If need be, that the operators prevent tipping when entering the impeller. The outer diameter of the impeller was 1500 mm; the rubber has set in radius 650 mm.

This Technical Manual WM 852 / 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



Figure 5: The impeller when placed on the backed rubber pads.

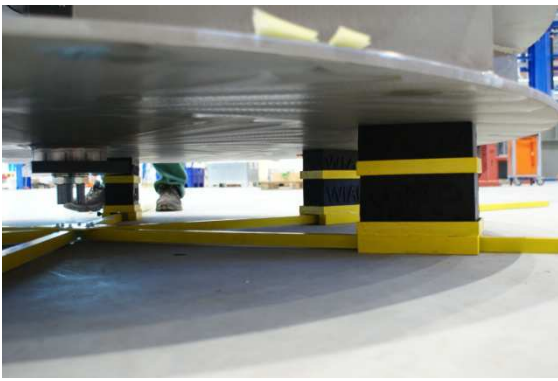


Figure 6: The support of secured documents.



Figure 7: This is slipping when a natural resonance is run over and possibly using too long, chattering secured.

WM 110 tons 945_5 component vibrating MEMV



Figure 8: Jim Widmer at securing the lifting ropes.



Figure 9: rubber pads for 110 tonnes: (See more Detailinformationen from the report WM877 60 tons).



Figure 10: Rubber pads 300 x 600 mm



Figure 12: The rubber pinch was great.

WM 945 _6 60 tons component MEMV vibrate



Figure 11: Sven Widmer in preparing the 60 tons of the component.



Figure 13: Here, the 60% of the rubber pinch has been reached, more should be avoided.



This Technical Manual WM 852 / 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

Figure 14: Here, the uneven surface has an excessive load to the rubber. Since the component was here, slim base plates should here avoid damaging the gums a top plate.

WM 945_7

WM 945_8 Conclusion Rubber Information

That the rubber material for the WIAP MEMV vibration are very important, has been shown in recent years in part test. A component comes evenly in excitation when sufficient documents under the component are. When the single point load is not too great, a better distribution of longitudinal, transverse and shear waves can occur. A damping rubber pad individual attenuation should be minimized, and if the 15% load-bearing capacity is not exceeded, it is a good solution. For that reason it is better to plan more than less documentation for a component. Not save the procurement of rubber is important. The correct choice of rubber is observed. Enough rubber documents. Select the right hardness. Basement buildings should be treated with caution, i.e. always see with the measurement being, if vibrations are transmitted in sub zones. If so, increase the amount of rubber 80/120 to 200 mm.

Protect rubber from light that it will not be hard. if it is hard to replace rubber. Not save, otherwise the resultative are insufficient when MEMV process.

Dulliken / Safenwil 09/04/2019

Thank you Gruss WIAP sw, jw, iw hpw