

# ECO MODE

At RMS power saving mode - ECO - The field power consumption and the cooling power consumption are automatically adjusted to the maximum performance needed.

The energy saving option - ECO - is implemented in all RMS high performance vibration systems.

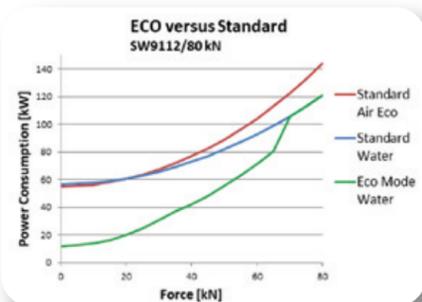
The - ECO - control is an integral part of the PLC with an attached control unit as well as several power switches for switching to calculated performance or further power optimization



## THE NEWEST 2020 TECHNOLOGIES AUTOMATIC SLEEP MODE WHEN IT IS NOT USED

ECO Field 1	SWxxxx-xxLS3 TGE13-xx	SCP-Number: 1 V3.001	15.01.2020
Sine/Random	Status: Is OFF	Login: Manager	
	Operation: Automatic mode		10:43:48
ECO	Teaching		
ECO Mode	at Current Limit	Test Parameter	Field Power
Off	100 %		→Field 1 : 25.5 kW
Auto	Test Mode		max Force : 120.0 kNp
Manual	Continues (Sine, Random)		Field 2 : 8.3 kW
Teaching	Shock		109.1 kNp
calculated:			Field 3 : 4.1 kW
Target Current [eff.] :	784 A		87.3 kNp
Target Current [peak] :	1080 A		
OUT	Message		Back

Auto-Eco and Teaching functions help to update your current power needs and optimize power consumption. This functionality is also available for updates.



A very precise and fast switching power amplifier provides high output power with maximum precision. The new RMS TGE13 series power amplifiers use this cutting-edge technology.

A power density gain of 30% is achieved, which means that you save the money for 1/3 of the power modules while having the same peak power. The SiC-semiconductors offer a precision that let's you choose in a range of tests from less than 0,1g to more than 100g with perfect signal replication.



## WARRANTY

This RMS electro dynamic Vibration System is warranted for a period of 24 Months after delivery to the original purchaser to be free from factory imperfections either in material or workmanship. This warranty does not cover failures due to misuse, abuse or neglect of normal maintenance.

If the installation and starting of the system is carried out by RMS service staff, we will bear all costs associated with the warranty service, including travel for service personnel and/or shipping charges to return the equipment for 90 days from date of shipment. From 90 days to one year the customer has to bear all travel- and transportation expenses. Extended warranties are offered on several of RMS products. The terms and conditions of those warranties are specified separately.

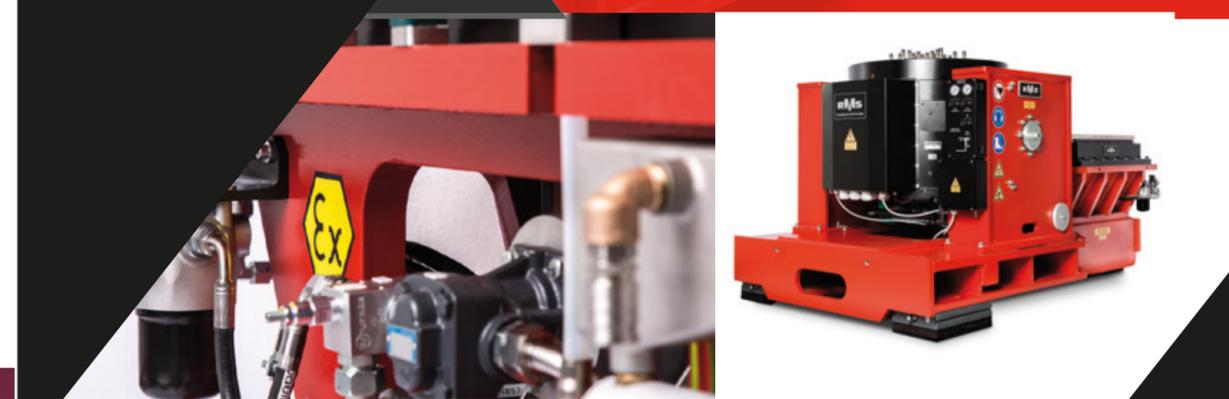
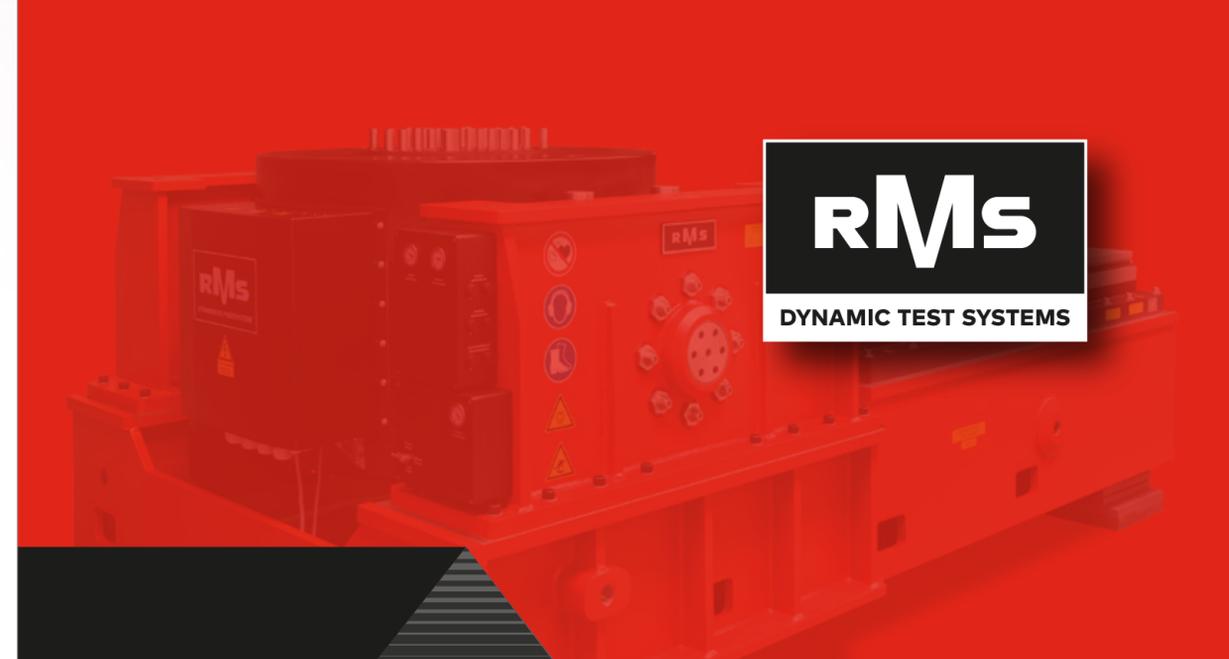
## SERVICE

The servicing of RMS electro dynamic vibration systems will be carried out by our service team from our facility in Hamburg Reinbek, in northern Germany. Service contracts can be concluded.

If a defect should arise, you can rely on our fast and efficient repair-service! However, this should not be necessary since our machines usually run smoothly and require little maintenance.



WE LOOK FORWARD TO YOUR CALL OR VISIT TO OUR WEBSITE.  
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Phone +49(0)40 727 60 30 - Email : sales@rms-testsystems.de - Web : rms-testsystems.de



## HIGH PERFORMANCE VIBRATION SYSTEMS

# SHAKERS LINE

## SPECIFICATIONS



Vibration System	SW1512 - 2,9	SW3710 - 7,5	SW8300-24	SW8100	SW8500	SW9100 (option 80kN Atex)	SW9500	SW9600
Sine Force [kN] peak	2,9	7,5	24	20 / 28	38 / 45	60 / 80	100 / 120	150
Random Force [kN] rms (acc. ISO5344)	2,2	6,7	24	20 / 28	38 / 45	60 / 80	100 / 120	150
Shock Force [kN] peak (half sine)	5	15	48	40 / 45	105	120 / 160	200 / 240	380
Usable Frequency Range [Hz] *1	3 - 5000	2 - 3000	5 - 2500	5 - 2500	5 - 2500	5 - 2500	5 - 2300	5 - 2300
Armature Resonance [Hz] *1	4200	2700	2250	2350	2300	2300	2150	2000
Acceleration [m²/s] peak (shock/sine) *1	1200 / 967	1200 / 833	1200 / 1000	1200 / 870 1200 / 1000	1200 / 1000	1200 / 1000	1200 / 1000	1200 / 1000
Velocity [m/s] peak (shock/sine) *1 *2	2 / 2	3 / 2	3 / 2	3 / 2	2,5 / 2	3 / 2	2,5 / 2	2,5 / 2
Displacement [mm] pk-pk (shock/sine) *3	25,4 / 25,4	51 / 36	51 / 36	51 / 36	76 / 51	76 / 51	76 / 51	76 / 51
Moving Mass [kg] (dynamic) *4	3	9	22	23	38	53	100	110
Load Support [kg] (max)	30	250	300	300	500	500	1000	1000
Armature Table Diameter [mm]	120	224	284	284	400	435	500 / 550	600
Insert Pattern Number	20	18	16	16	18	19	36	40
Pattern Thread [mm]	6	8	10	10	10	10	12	
Total Weight [kg] *5	390	1150	2200	2200	3500	3700	8600	8600
Dimensions (HxWxD) [mm] *5	602 x 560 x 520	950 x 1060 x 700	1048 x 1100 x 830	1075 x 1250 x 880	1200 x 1450 x 1150	1250 x 1450 x 1150	1404 x 2060 x 1485	1404 x 2060 x 1485
Noise Emission [dBA] (max) *6	120	120	120	120	120	120	120	120

Cooling system	Air	Air	Air	Water	Water	Water	Water	Water
Motor Power [kW]	5,5	3	7,5	1,5	1,5	3	3	4
Dimensions (HxWxD) [mm]	560 x 500 x 530	560 x 600 x 680	515 x 465 x 474	980 x 610 x 820				
Noise Emission [dBA] *6	75	78	85					
Air Flow [m³/min]	5,5	11	30					
Water Flow externl/min *7				18	21 / 25	57 / 76	58 / 75	98
Max Force [kN] peak: (Option Shock 11ms/100g)				65 / 80	120 / 160	160 / 170	200	

Power Amplifier	TGE13	TGE13	TGE13	TGE13	TGE13	TGE13	TGE13	TGE13
Number of Cabinets	1	1	1	1	2	3	3 / 4	4
Number of Power Moduls	1	1	2	2 / 3	3 / 4	6 / 8	8 / 9	10
Output Power [kVA]	13	13	26	26 / 39	39 / 52	78 / 108	104 / 117	130
Output Current [A] rms	130	130	260	260 / 390	390 / 520	780 / 1040	1040 / 1170	1300
Output Current [A] peak	435	435	870	870 / 1310	1310 / 1750	2620 / 3490	3490 / 3920	4550
Output Voltage [V] rms/peak	100 / 300	100 / 300	100 / 300	100 / 300	100 / 300	133 / 300	100 / 300	100 / 300
Efficiency [%]	>90	>90	>90	>90	>90	>90	>90	>90
Switching Frequency [kHz]	110	110	110	110	110	110	110	110
Signal Input [V] rms (for rated output voltage)	3	3	3	3	3	3	3	3
Signal to Noise Ratio [dB]	68	68	68	68	68	68	68	68
Bandwidth [Hz] (-3dB)	3000	3000	3000	3000	3000	3000	3000	3000
Dimension (HxWxD) [mm]	1980 x 610 x 820	2000 x 1830 x 820	1980 x 2440 x 820	1980 x 2440 x 820				
Weight [kg]	300	300	400	400	800	1300 / 1400	1300 / 1800	1800
System Total Pow. Requirements [kVA]	9,7	7,9	27,7	27,7 / 32,1	37,3 / 44	99,1 / 129,2	100,3 / 129,1	168,4
ECO-Steps			2	2	2	3	2	2

\*1 empty table, limited by test masses  
 \*2 extended speed with option 100g / 11ms  
 \*3 Path amplitude with large test masses restricted by counter movement  
 \*4 with standard thread inserts  
 \*5 standard vertical system without slip table  
 \*6 measured at 1m distance without silencer

Notes  
 only for 45 Power-Amp with Double Cabinet  
 Power-Amp: Double Cabinet, Field Supply: Single Cab  
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 Power-Amp: Double Cabinet, Field Supply: Single Cab



# SW9100 SERIE

## HIGH PERFORMANCE VIBRATION SYSTEMS



### BENEFITS

**PERFORMANCE**  
 80 kN sine force  
 160 kN shock force  
 Up to 280g Shock performance  
 3,5m/s for 100g / 11m shocks

Power precision <<0.1g

**ECO MODE**  
 Complies with ISO14001 and EU directive DIRECTIVE 2010/31/EU  
 Energy savings  
 Noise reduction

Intelligent Power Smart Diagnostic

**FUNCTIONAL**  
 Extremely compact  
 High force for small space  
 Automatic center positioning

**SAFETY**  
 ATEX Certification Option

**QUIET**  
 Water cooling system : 57 dBA  
 Amplifier system : 65 dBA

# SOLUTION ASSETS

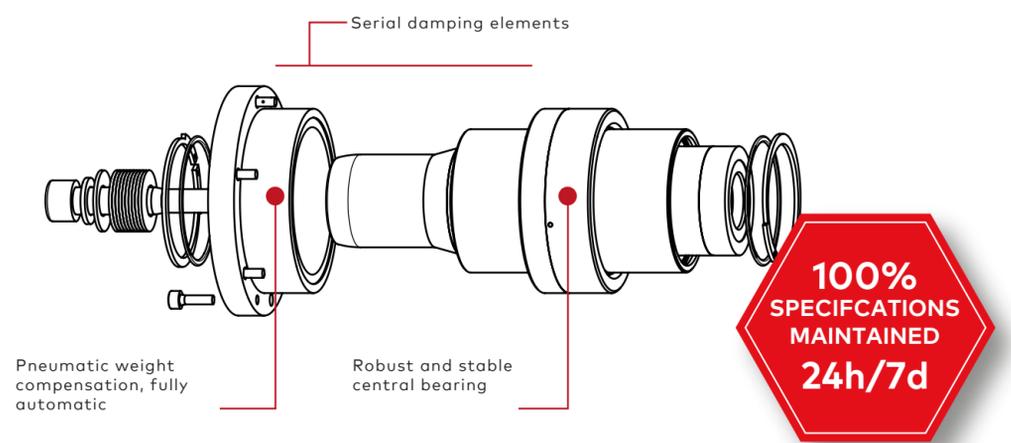
## COMPACT - EFFICIENT - CUSTOM

### COMPACT

RMS power amplifier consists of parallel-connected power modules. Their number depends on the required performance. All power modules are housed in movable cabinets. An active ventilation of the cabinets allows the system to operate in accordance to DIN EN 60721-3-3 3K2. Electrical safety design according to DIN EN 60204.



### EXCELLENT GUIDANCE SOLUTION



### VELOCITY SHOCK TESTING

Designed for continuous use under full load, RMS technology guarantees maximum operational strength and is also particularly low-maintenance. And the components are individually adapted to your requirements. Only with us can you get all systems from A to Z.

