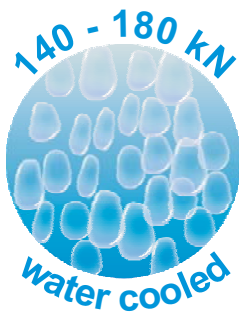


# Systems



# RMs

## Electrodynamic Vibration Test Systems

SW3-14590APP (140kN)

SW3-14650APP (140kN)

SW3-16590APP (160kN)

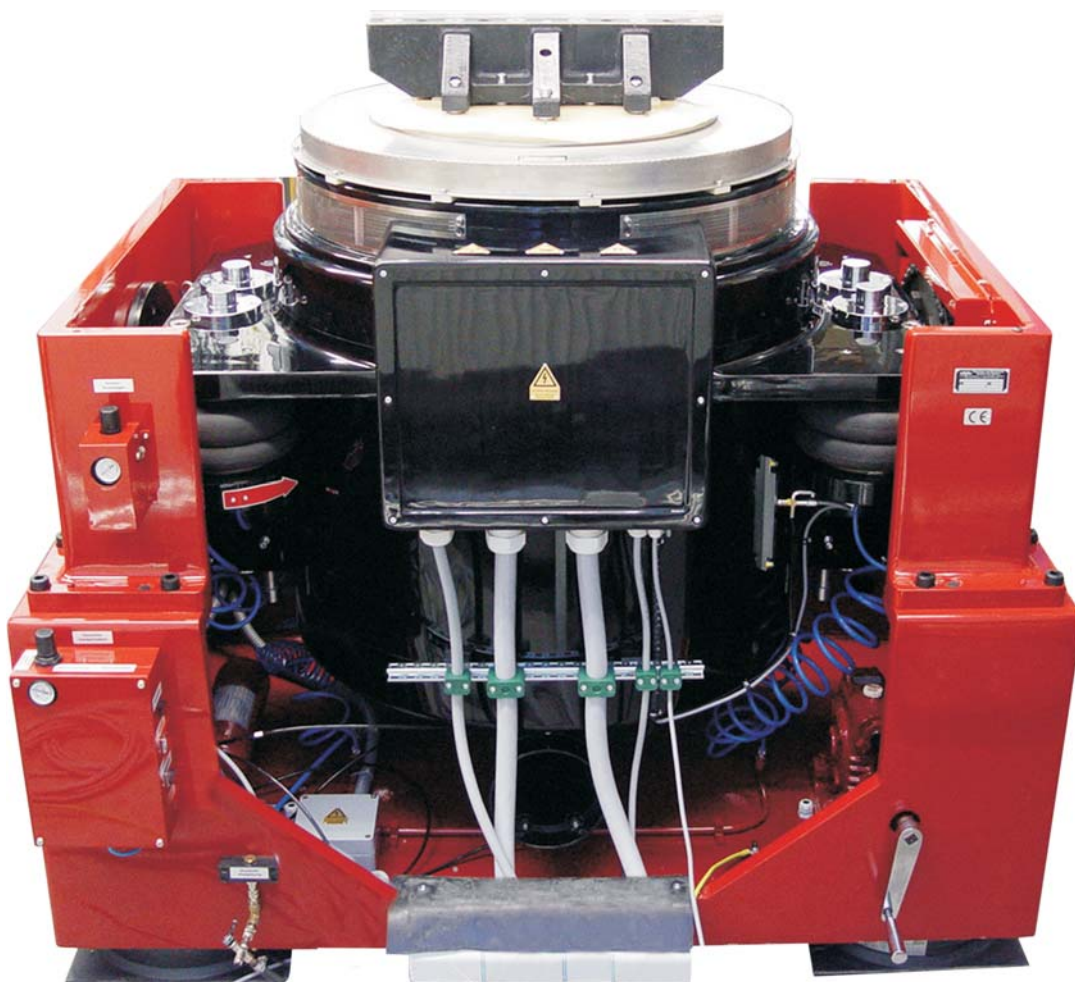
SW3-16650APP (160kN)

SW3-18590APP (180kN)

SW3-18650APP (180kN)



# Dynamic Test



Technical subject to changes without prior notice !



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## The vibrators SW3-14590APP (140KN) up to SW3-18650APP (180KN)

### Field of Applications

The 140-180KN water cooled ultra high force shaker series is designed to test high weight specimens. The Long Stroke Shaker types "LS3" provide strokes up to 3" peak to peak. They are equipped with a robust armature structure. They are suitable for resonance determination, premature aging and fatigue testing of complete assemblies.

The shaker series allows to operate in a useful frequency range of 5 to 2500 Hz (except large armatures) in sine, random and shock mode. The shaker series provide different armature diameters appropriate to the specimen size. Several features make these shaker series reliable for your applications.

### Water cooled design

The shaker is water cooled by a separate cooling unit. These systems dissipate the heat generated more efficiently and work more quietly than air cooled systems.

### High Overturning Moment

The armature design incorporates the robust top guidance and a linear bottom guidance. The system is capable to provide high overturning moments for testing products with a high centre of gravity.

### Automatic Payload Support

A superior automatic pneumatic load support system guarantees a full nominal displacement with a maximum vertical load for test specimen and fixtures.

### Standard Vertical and Horizontal Operation

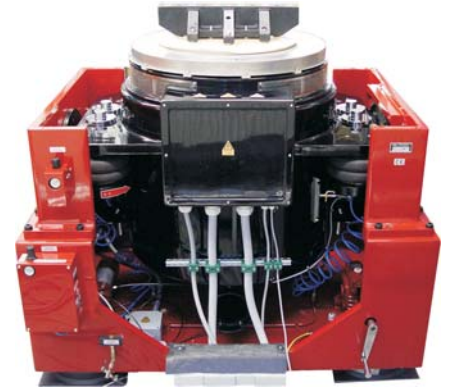
The 100-120KN water cooled high force shaker series are air suspended in a rigid swivel frame in order to operate in vertical and horizontal configuration. The shaker can easily be moved in either vertical or a horizontal direction and can be used in combination with a slip table or environmental chamber with optional thermal barrier.

### High Protection Standard

A high standard protection system of interlock circuits ensures the best level of protection for the operator, test specimens and the systems themselves.

### Controller

All RMS Shaker Systems can be operated with the RMS controller "Test Manager SWR1200/SWR1220" and with all third party Control Systems.





### Power Amplifier

The systems are driven with a RMS power amplifier TGE series which is build as a 19" width and 2000 mm standard height cabinet .

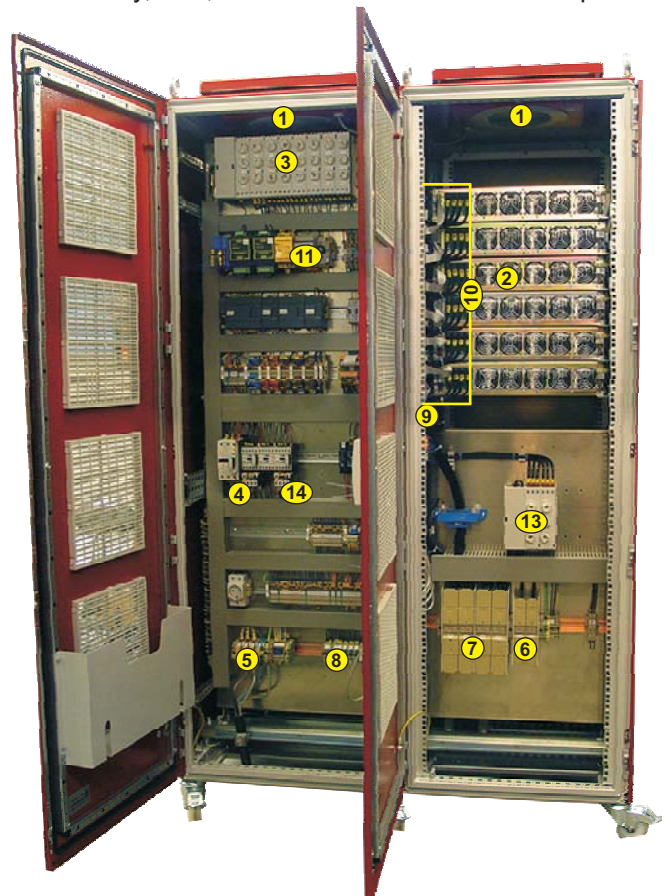
- Air cooled design in accordance to European Type of Protection IP 53.
- 3 up to 160KVA output power in steps of 10KVA power modules
- 3KVA power modules for low power shaker systems
- Using latest MOSFET technology
- High efficiency
- High protection standards with a full range of system interlock circuits ensures high reliability
- 100% compliance with international safety and EMC standards
- 110 kHz switching frequency allow high signal bandwidth
- Low harmonic distortion
- Compact stand alone-design including field/degaussing field supply and EMI filter with free space for vibration controller or customer instrumentation.
- PLC controlled using touch screen user interface
- Remote controllable
- Very high peak performance for shock and random tests

All RMS shaker systems comply with the German, and international safety, EMI, EMC standards and the European Community directives:

- EU- Directive „Safety of machinery" 98/37/EWG
- DIN EN ISO 12100-1 and -2 , Safety of machinery Basis
- DIN EN 1050 Safety of machinery Principles for risk assessment
- DIN EN 60204-1, Safety of machinery Electrical equipment of machines
- DIN EN 50178, Electronic equipment for use in power installations
- DIN EN 61000-6-2 and -4, Electromagnetic compatibility ( EMC )

#### Legende

- |    |  |
|----|--|
| 1  | Blower   |
| 2  | Powermodule                                    |
| 3  | Lead fuses                                     |
| 4  | Motor protection relay of the cooling blower   |
| 5  | Mains connection                               |
| 6  | Connetion field coil                           |
| 7  | Connection Shaker A-B                          |
| 8  | Connection cooling blower                      |
| 9  | Reset button                                   |
| 10 | Modul monitor                                  |
| 11 | Fuses  |
| 12 | Connection strip X2                            |
| 13 | Intermediate circuit fuses                     |
| 14 | Motor protection relay of the hydraulic system |





## The operation of RMS-Electrodynamic Test Systems



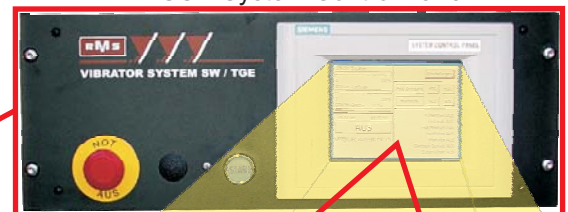
Typical 19-inch rack configuration with:

- Power module TGE 10-4
- SCP System Control Panel
- Degaussing field supply

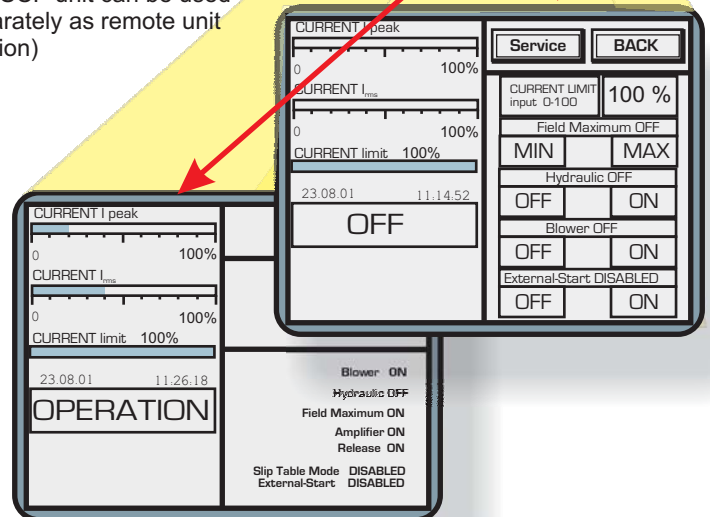
**SCP - System Control Panel**  
- comfort configuration (optional) -  
recommended for larger system  
configurations with slip table.

The SCP - System Control Panel - provides  
instant access to all essential system  
information via touch screen input and LCD  
display. Panel can be used remotely.

SCP-System Control Panel

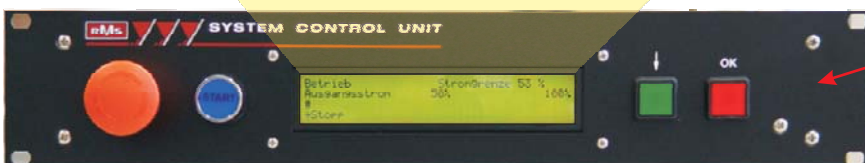
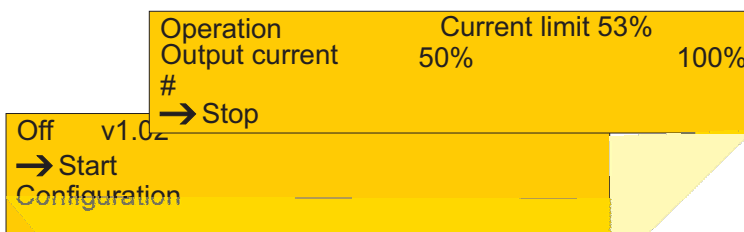


The SCP unit can be used  
separately as remote unit  
(Option)



### SCU System Control Unit - Standard equipment for amplifiers TGE 10-X -

Microprocessor based amplifier / system control unit with LCD function display (monochrome) provides  
instant access to essential information of the system as amplifier status, setting including interlocks and  
output current information. Remote function for amplifier start / stop included.



# RMS Dynamic Test Systems



## Digital Controller "Test Manager SWR 1200 and SWR 1220"



### Field of application:

The SWR 1200 Test Manager is an intelligent controller for the activation of electrodynamic and servo hydraulic vibrator systems. With its modern microprocessor technology and ergonomically designed software architecture it is the first choice of testing and R&D departments. It is a useful tool in enforcing the application of many international test specifications (e.g. DIN EN 600 68-2, VDE, MIL, etc.)

### Characteristics:

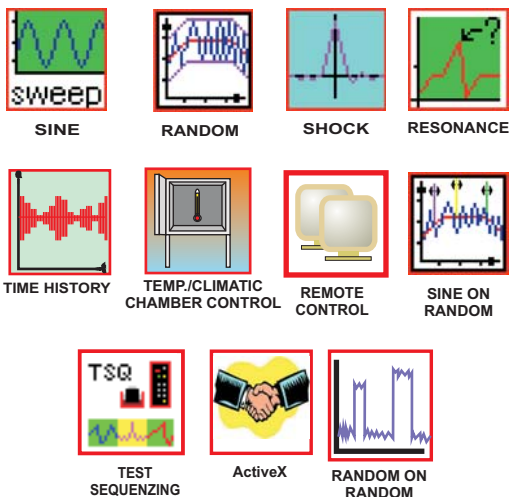
The self-explanatory user interface (based on MS Windows) together with the modular upgrading concept are the main focuses of the SWR 1200. The Test Manager is networked (TCP/IP) and has comprehensive analysis functions.

### Options:

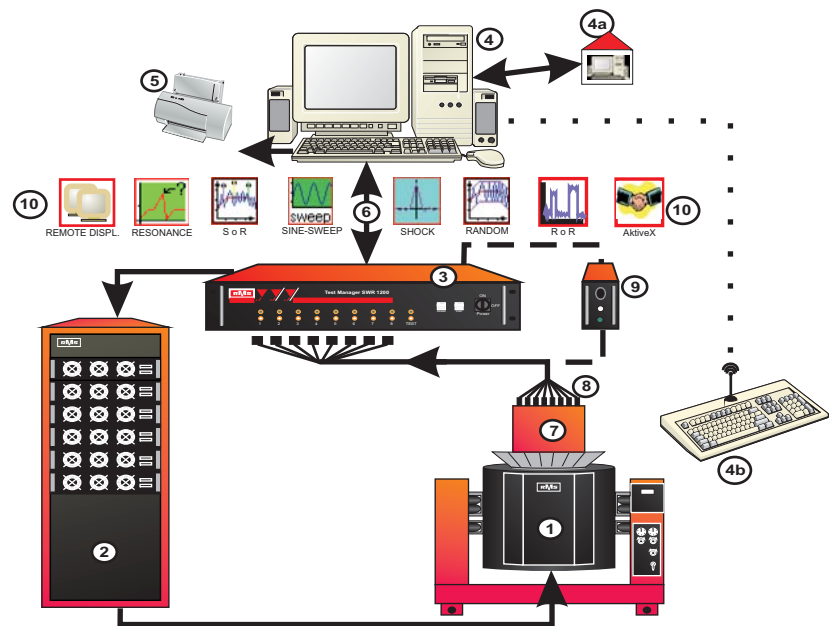
The SWR 1200 Test Manager is available with the following options:

- Basic software: sine, random, shock
- Sine on random
- Resonance mode
- Road simulation
- ActiveX interface
- Test sequencing
- Remote display software
- 4 or 8 channel
- and more.....

### Software applications



### Blockdiagram of a vibration system with controller



1. Vibration Generator
2. Power amplifier with or without Field Power Supply
3. Test Manager Controller SWR
4. Host-PC
- 4a. Host-PC 2
- 4b. Remote control unit
5. Printer
6. Network
7. Equipment under test (EUT), acceleration sensors connected (ICP-type)
8. Accelerometer
9. Charge amplifier - necessary when piezoelectric accelerometers used.
10. Software



## Horizontal slip tables

### Field of application:

Horizontal slip tables extend the applications of vibration systems. A slip table is required in 3-axis tests where the operating position of the specimen is specified. The vertical axis (z) is tested on the shaker and the horizontal axes (x + y) on the slip table. The shaker can be pivoted within its frame for this purpose. A slip table enables a test of very heavy or bulky specimen in a horizontal position. This combination is the perfect completion for specimens which have to be tested in their original fitting position.

### Characteristics:

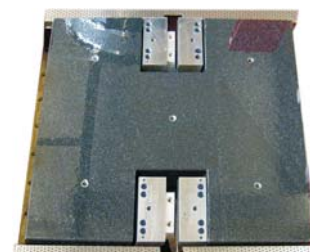
Vibrator and slip table are mounted on a common base element which is installed on air isolators to eliminate vibration transmission into the ground.

The slip plate with mounting inserts slides on an oil film provided by a hydraulic unit. Our horizontal slip tables consist of the slip table plate, linear bearings guidance, the coupling between shaker and plate and finally the main frame with integrated swivel frame and hydraulic supply.

The slip tables are suitable for combination with a temperature or climatic chamber.

### Options:

- Hydrostatic bearing design for enhanced guidance to support heavy payloads lead to a restrained movement, resulting in pure linear motion. (Type SWHxxx1)
- Regarding the application and the size and weight of the specimen, the hydrostatical guided slip table types can be optionally equipped with up to 7 bearings
- Various slip table dimensions can be supplied for our different vibration systems.
- Grid design and thread dimensions can be selected.
- Suitable accessories are available for use in combination with a temperature/climatic chamber.
- A number of thermal barriers are available to protect the slip table against heat and cold from the connected temperature chamber.



Slip table base with V-bearings

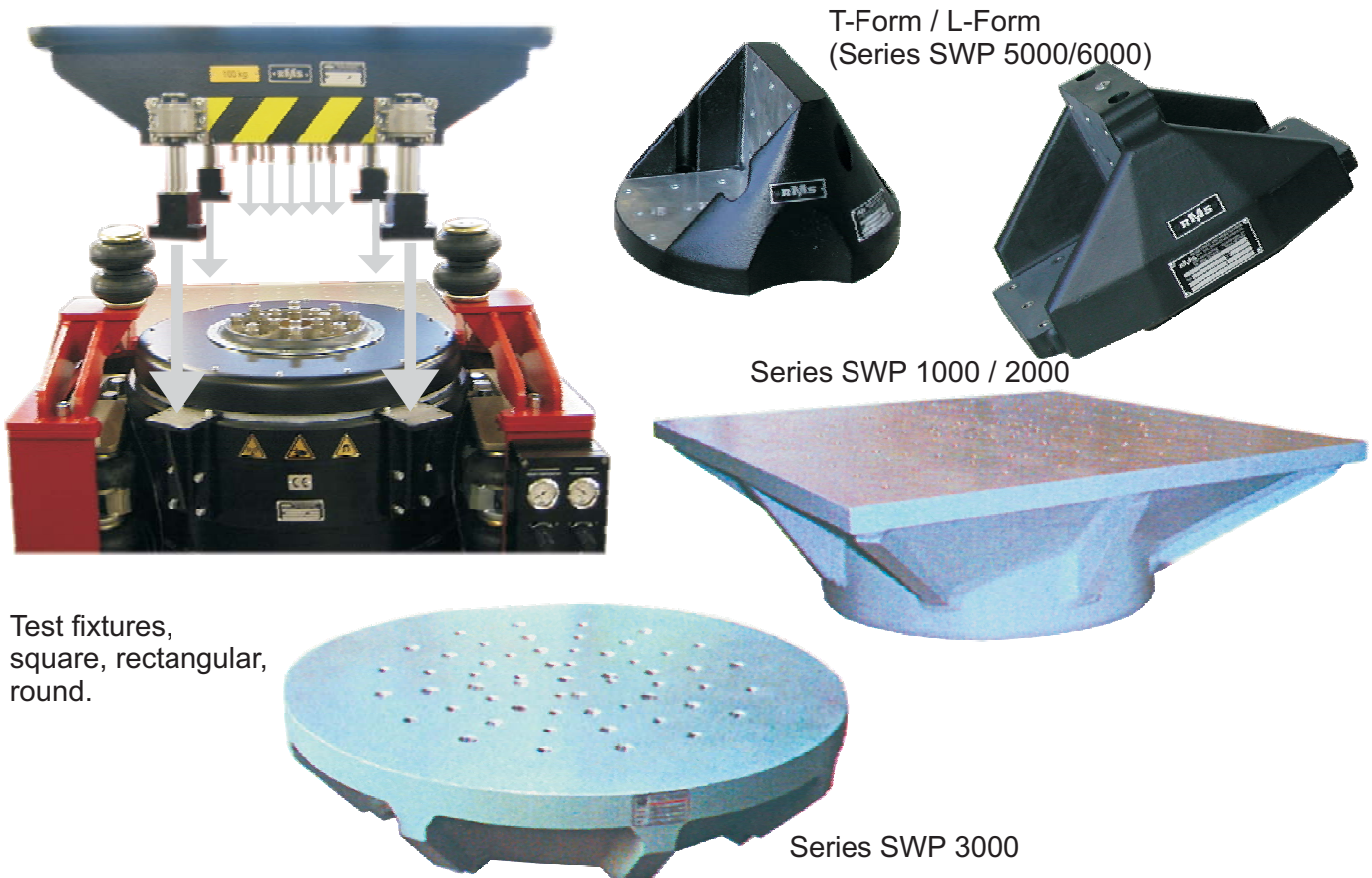


Slip table base with hydrostatic bearings





## Test fixtures and load-bearing platforms



### Field of application:

Only a small number of test items can be fastened directly onto the mounting surface of the vibrator. Shape, size and test position of the test items require custom-built fixtures.

### Characteristics:

We use test fixtures made of magnesium- and aluminium cast plates. These fixtures can be directly bolted to the moving element of the vibrator. The specimen can be mounted by means of the threaded inserts in the plate.

### Options:

A special multipart transmitter shaft with a thermal barrier is available for combined use with a temperature chamber. Fixtures with additional bearings are also available for our systems with more than 5 kN.

For additional information please contact RMS sales department at [vertrieb@rms-testsystems.de](mailto:vertrieb@rms-testsystems.de)



## RMS-vibration systems in temperature- /climatic chamber operation

### Field of application:

International test specifications of automobile and aircraft industry demand combined stress of vibration and temperature/climate. The challenge is to combine the vibration system optimal with the temperature/ climatic chamber.

### Characteristics:

Due to our multi-functional interface between chamber and vibrator we accomplish an optimal sealing of the temperature/climatic chamber and an effective temperature protection for the vibrator. Thus we ensure a perfect combination with all well-known temperature climatic chamber manufacturers.

### Options:

In close collaboration between our design engineers and the specialists for climatic chambers we develop special solutions for the individual requirements of our customers.





# Technical Data SW3-14590APP (140KN)

## Shaker Specification

### SW3-14590APP

Sine Force [kN] pk		140
Random Force [kN] rms (ISO5344)		140
Shock Force [kN] pk (half sine)		280
Usable Frequency Range [Hz]	5	2200
Armature -Resonance [Hz]		1800
Acceleration [m/s <sup>2</sup> ] pk )*1		1000,0
Velocity [m/s] pk (shock/sine) )*	1,9	2
Displacement [mm] pk-pk (shock/sine)	51	51
Moving Mass [kg] (rated)		140
Load Support [kg] (max)		1600
Armature Table Diameter [mm]		590
Insert Pattern Number		25
Insert Pattern Thread (metric)		12
Total Weight [kg] )*3		11000
Dimensions (HWD) [mm]	1605 x 2100 x	1430
Total Power Consumption [KW]		137
Shaker noise [dBA] (max) )*4		120

- )\*1: @ rated armature weight  
 )\*2: @ bare table  
 )\*3: @ standard trunnion  
 )\*4: @ 1m distance  
 )\*5: @ external raw water temp. 25°C  
 )\*6: @ 1m distance, incl. silencer

## Amplifier Specification

Type	Number of Cabinets
TGE10-14	3
Number of Power Moduls	14
Output Power [KVA]	140
Output Current [A] rms	1260
Peak Current [A] pk	5040
Output Voltage [V] rms/peak	90 / 240
Efficiency [%]	85-90
Switching Freq. [kHz]	110
Signal input [V] rms (for rated output voltage)	2
Signal-to-Noise [dB]	> 50
Bandwidth [Hz] (-3dB)	3000
Dim. (HWD) [mm]	1980x1830x820
Weight [kg]	1700

### Notes

## Water Cooling Unit

Motor Power [KW]		5
Dimensions (HWD) [mm]	1980 x 810 x	610
Water Flow [l/min] )*5	79	80
	external	internal

## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH800	45	MG	102	800×800	500	2
SWH801	45	MG	111	800×800	4000	2
SWH900	45	MG	118	900×900	600	2
SWH901	45	MG	138	900×900	4000	2
SWH1000	45	MG	138	1000×1000	700	2
SWH1001	45	MG	148	1000×1000	4000	2
SWH1100	45	MG	158	1100×1100	800	2
SWH1101	45	MG	168	1100×1100	4500	2

- )\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint  
 )\*3 depending on the location of the payload on the table

More usable slip tables next page →



## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH1200	45	MG	180	1200×1200	800	2
SWH1201	45	MG	190	1200×1200	4500-8000	2-4
SWH1301	50	MG	233	1300×1300	6500-13500	3-7
SWH1401	50	MG	263	1400×1400	7000-14000	3-7
SWH1501	50	MG	293	1500×1500	7000-14000	3-7

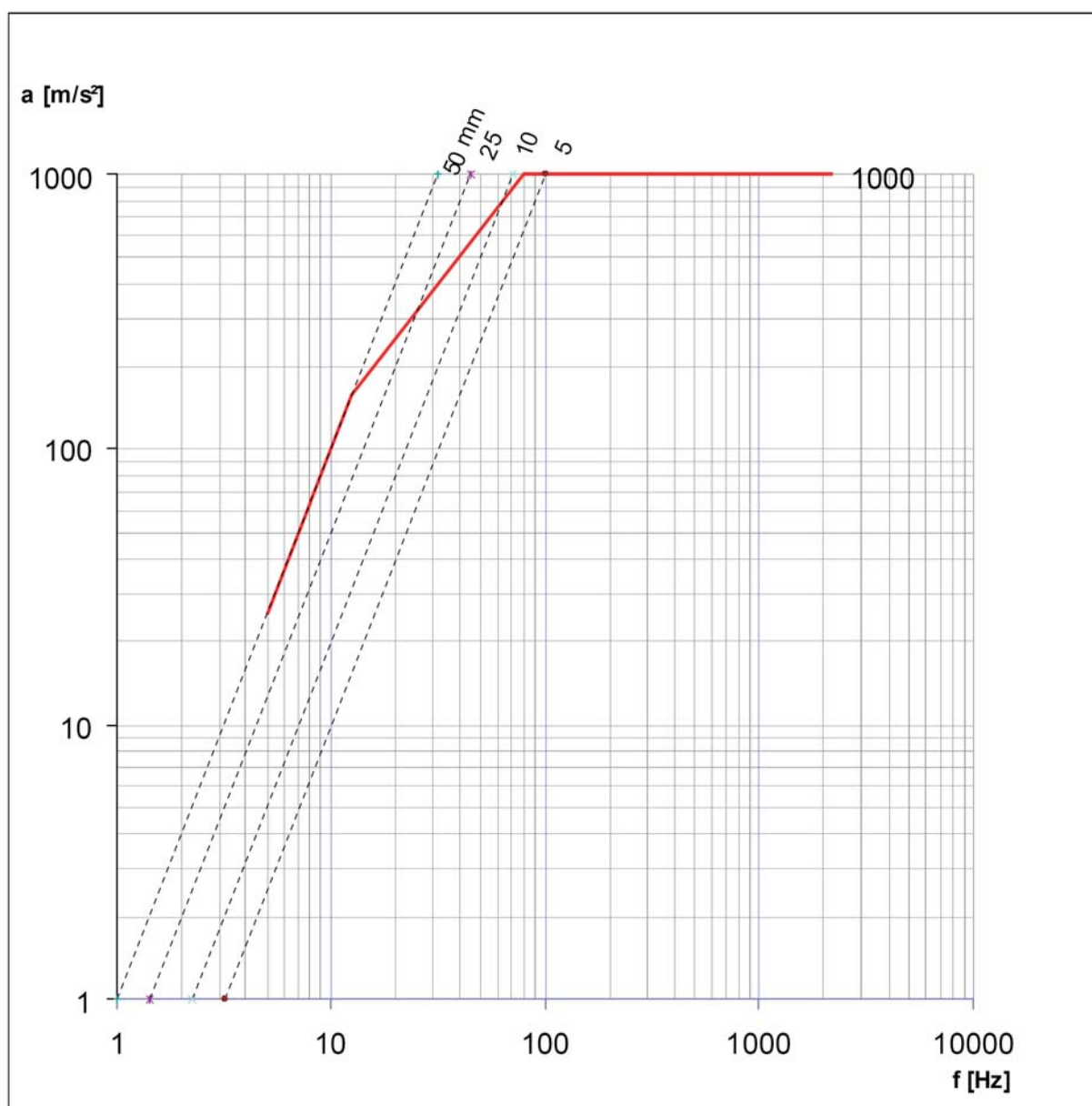
)\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint

)\*3 depending on the location of the payload on the table

← [More usable slip tables previous page](#)

Sine Performance Curve :

SW3-14590APP





# Technical Data SW3-14650APP (140KN)

## Shaker Specification

### SW3-14650APP

Sine Force [kN] pk		140
Random Force [kN] rms (ISO5344)		140
Shock Force [kN] pk (half sine)		280
Usable Frequency Range [Hz]	5	2200
Armature -Resonance [Hz]		1800
Acceleration [m/s <sup>2</sup> ] pk )*1		933,3
Velocity [m/s] pk (shock/sine) )*	1,9	2
Displacement [mm] pk-pk (shock/sine)	51	51
Moving Mass [kg] (rated)		150
Load Support [kg] (max)		1800
Armature Table Diameter [mm]		650
Insert Pattern Number		25
Insert Pattern Thread (metric)		12
Total Weight [kg] )*3		11000
Dimensions (HWD) [mm]	1630 x 2100 x	1430
Total Power Consumption [KW]		137
Shaker noise [dBA] (max) )*4		120

- )\*1: @ rated armature weight  
 )\*2: @ bare table  
 )\*3: @ standard trunnion  
 )\*4: @ 1m distance  
 )\*5: @ external raw water temp. 25°C  
 )\*6: @ 1m distance, incl. silencer

## Amplifier Specification

Type	Number of Cabinets
TGE10-14	3
Number of Power Moduls	14
Output Power [KVA]	140
Output Current [A] rms	1260
Peak Current [A] pk	5040
Output Voltage [V] rms/peak	90 / 240
Efficiency [%]	85-90
Switching Freq. [kHz]	110
Signal input [V] rms (for rated output voltage)	2
Signal-to-Noise [dB]	> 50
Bandwidth [Hz] (-3dB)	3000
Dim. (HWD) [mm]	1980x1830x820
Weight [kg]	1700

Notes

## Water Cooling Unit

Motor Power [KW]		5
Dimensions (HWD) [mm]	1980 x 810 x	610
Water Flow [l/min] )*5	79	80
	external	internal

## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH800	45	MG	102	800×800	500	2
SWH801	45	MG	111	800×800	4000	2
SWH900	45	MG	118	900×900	600	2
SWH901	45	MG	138	900×900	4000	2
SWH1000	45	MG	138	1000×1000	700	2
SWH1001	45	MG	148	1000×1000	4000	2
SWH1100	45	MG	158	1100×1100	800	2
SWH1101	45	MG	168	1100×1100	4500	2

- )\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint  
 )\*3 depending on the location of the payload on the table

More usable slip tables next page →



## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH1200	45	MG	180	1200×1200	800	2
SWH1201	45	MG	190	1200×1200	4500-8000	2-4
SWH1301	50	MG	233	1300×1300	6500-13500	3-7
SWH1401	50	MG	263	1400×1400	7000-14000	3-7
SWH1501	50	MG	293	1500×1500	7000-14000	3-7

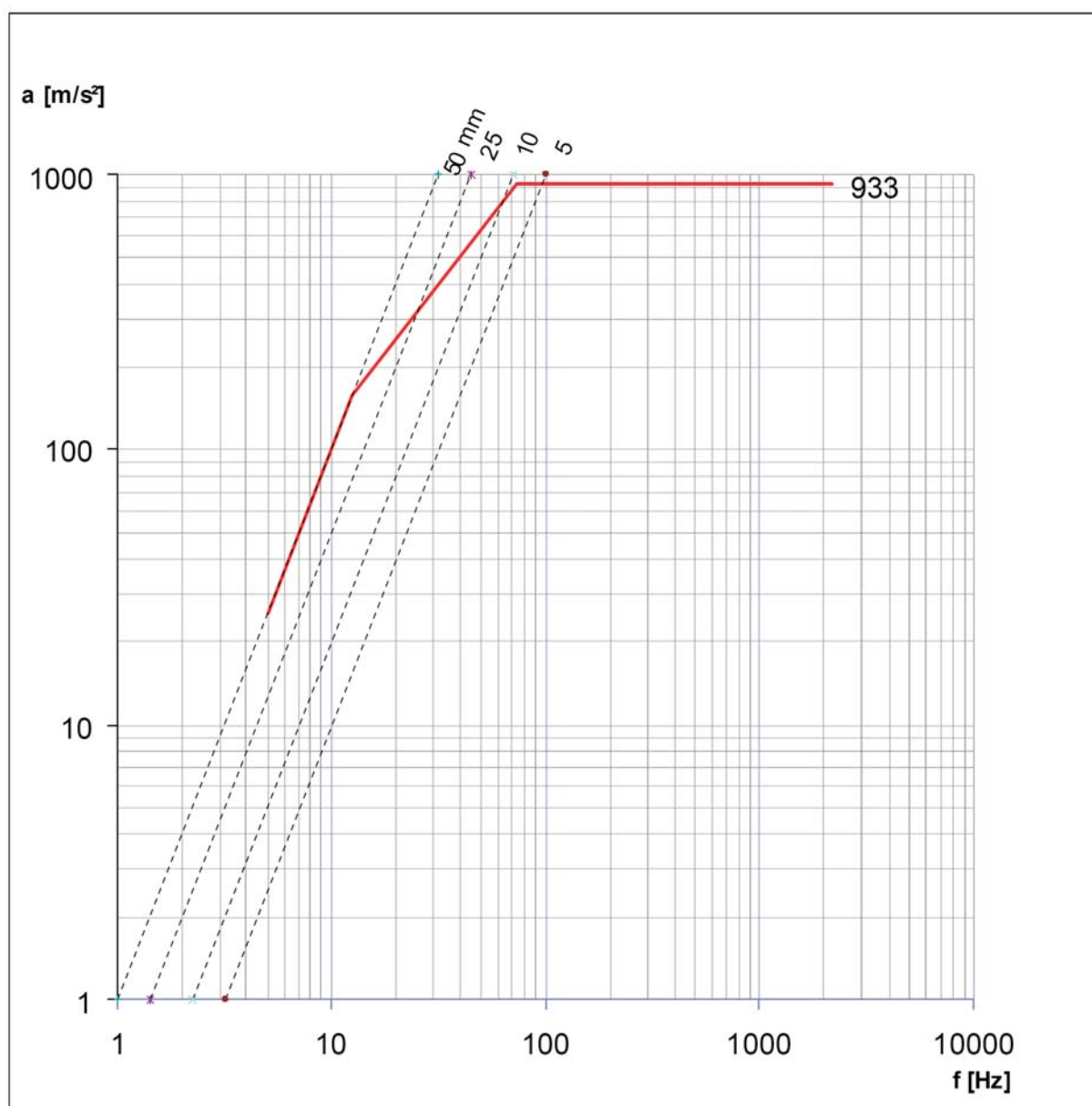
)\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint

)\*3 depending on the location of the payload on the table

← [More usable slip tables previous page](#)

Sine Performance Curve :

SW3-14650APP



# RMS Dynamic Test Systems



# Technical Data SW3-16590APP (160KN)

## Shaker Specification

### SW3-16590APP

Sine Force [kN] pk		160
Random Force [kN] rms (ISO5344)		160
Shock Force [kN] pk (half sine)		320
Usable Frequency Range [Hz]	5	2200
Armature -Resonance [Hz]		1800
Acceleration [m/s <sup>2</sup> ] pk )*1		1142,9
Velocity [m/s] pk (shock/sine) )*	1,8	2
Displacement [mm] pk-pk (shock/sine)	51	51
Moving Mass [kg] (rated)		140
Load Support [kg] (max)		1600
Armature Table Diameter [mm]		590
Insert Pattern Number		25
Insert Pattern Thread (metric)		12
Total Weight [kg] )*3		11000
Dimensions (HWD) [mm]	1605 x 2100 x	1430
Total Power Consumption [KW]		164
Shaker noise [dBA] (max) )*4		120

- )\*1: @ rated armature weight  
 )\*2: @ bare table  
 )\*3: @ standard trunnion  
 )\*4: @ 1m distance  
 )\*5: @ external raw water temp. 25°C  
 )\*6: @ 1m distance, incl. silencer

## Amplifier Specification

Type	Number of Cabinets
TGE10-16	4
Number of Power Modules	16
Output Power [KVA]	160
Output Current [A] rms	1420
Peak Current [A] pk	5680
Output Voltage [V] rms/peak	90 / 240
Efficiency [%]	85-90
Switching Freq. [kHz]	110
Signal input [V] rms (for rated output voltage)	2
Signal-to-Noise [dB]	> 50
Bandwidth [Hz] (-3dB)	3000
Dim. (HWD) [mm]	1980x2440x820
Weight [kg]	1800

Notes

## Water Cooling Unit

Motor Power [KW]		8
Dimensions (HWD) [mm]	1980 x 810 x	610
Water Flow [l/min] )*5	94	80
	external	internal

## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH800	45	MG	102	800×800	500	2
SWH801	45	MG	111	800×800	4000	2
SWH900	45	MG	118	900×900	600	2
SWH901	45	MG	138	900×900	4000	2
SWH1000	45	MG	138	1000×1000	700	2
SWH1001	45	MG	148	1000×1000	4000	2
SWH1100	45	MG	158	1100×1100	800	2
SWH1101	45	MG	168	1100×1100	4500	2

- )\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint  
 )\*3 depending on the location of the payload on the table

More usable slip tables next page →



## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH1200	45	MG	180	1200×1200	800	2
SWH1201	45	MG	190	1200×1200	4500-8000	2-4
SWH1301	50	MG	233	1300×1300	6500-13500	3-7
SWH1401	50	MG	263	1400×1400	7000-14000	3-7
SWH1501	50	MG	293	1500×1500	7000-14000	3-7

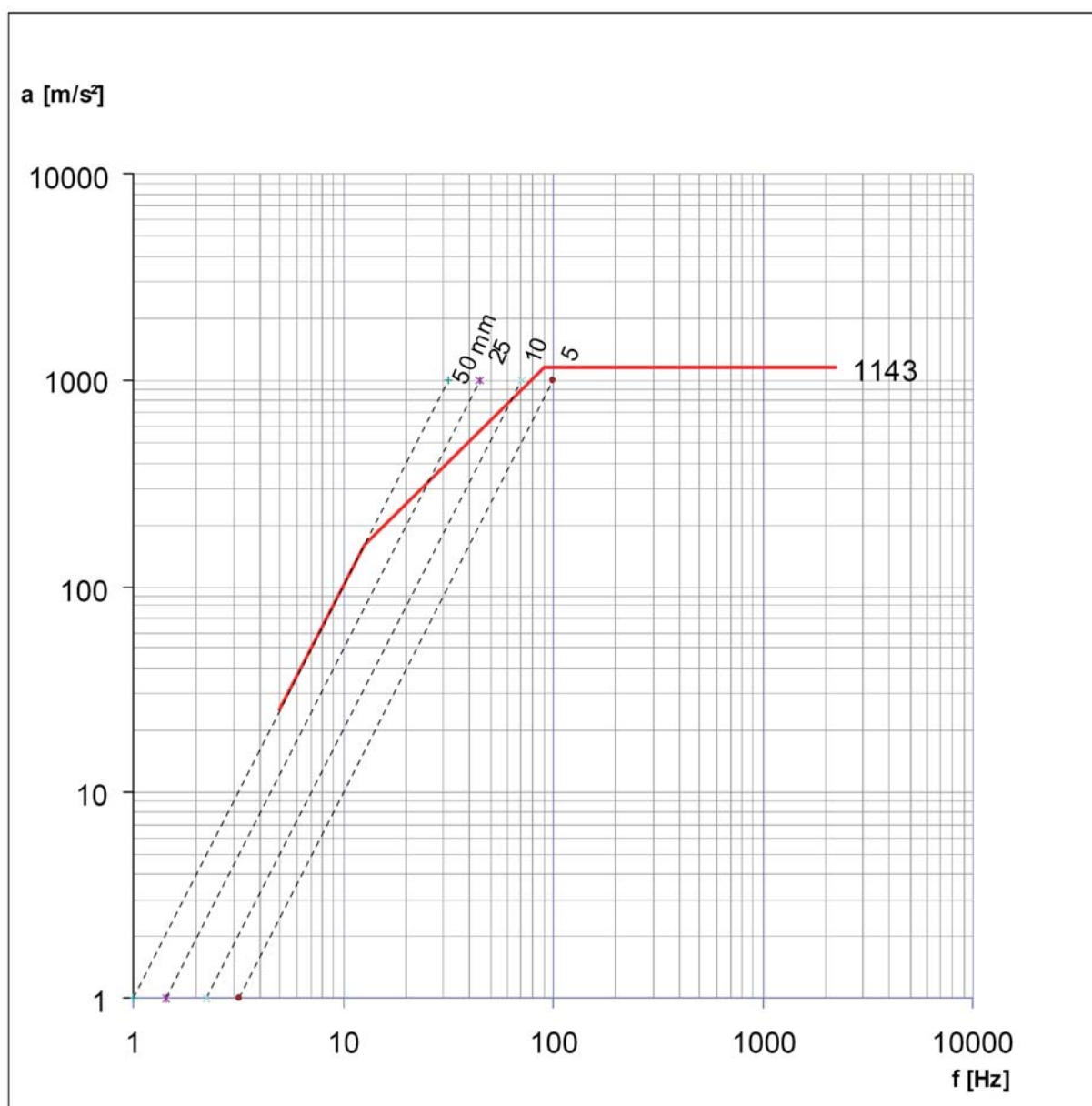
)\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint

)\*3 depending on the location of the payload on the table

← **More usable slip tables previous page**

Sine Performance Curve :

SW3-16590APP





# Technical Data SW3-16650APP (160KN)

## Shaker Specification

### SW3-16650APP

Sine Force [kN] pk		160
Random Force [kN] rms (ISO5344)		160
Shock Force [kN] pk (half sine)		320
Usable Frequency Range [Hz]	5	2200
Armature -Resonance [Hz]		1800
Acceleration [m/s <sup>2</sup> ] pk )*1		1066,7
Velocity [m/s] pk (shock/sine) )*	1,8	2
Displacement [mm] pk-pk (shock/sine)	51	51
Moving Mass [kg] (rated)		150
Load Support [kg] (max)		1800
Armature Table Diameter [mm]		650
Insert Pattern Number		25
Insert Pattern Thread (metric)		12
Total Weight [kg] )*3		11000
Dimensions (HWD) [mm]	1630 x 2100 x	1430
Total Power Consumption [KW]		164
Shaker noise [dBA] (max) )*4		120

- )\*1: @ rated armature weight  
 )\*2: @ bare table  
 )\*3: @ standard trunnion  
 )\*4: @ 1m distance  
 )\*5: @ external raw water temp. 25°C  
 )\*6: @ 1m distance, incl. silencer

## Amplifier Specification

Type	Number of Cabinets
TGE10-16	4
Number of Power Moduls	16
Output Power [KVA]	160
Output Current [A] rms	1420
Peak Current [A] pk	5680
Output Voltage [V] rms/peak	90 / 240
Efficiency [%]	85-90
Switching Freq. [kHz]	110
Signal input [V] rms (for rated output voltage)	2
Signal-to-Noise [dB]	> 50
Bandwidth [Hz] (-3dB)	3000
Dim. (HWD) [mm]	1980x2440x820
Weight [kg]	1800

Notes

## Water Cooling Unit

Motor Power [KW]		8
Dimensions (HWD) [mm]	1980 x 810 x	610
Water Flow [l/min] )*5	94	80
	external	internal

## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH800	45	MG	102	800×800	500	2
SWH801	45	MG	111	800×800	4000	2
SWH900	45	MG	118	900×900	600	2
SWH901	45	MG	138	900×900	4000	2
SWH1000	45	MG	138	1000×1000	700	2
SWH1001	45	MG	148	1000×1000	4000	2
SWH1100	45	MG	158	1100×1100	800	2
SWH1101	45	MG	168	1100×1100	4500	2

- )\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint  
 )\*3 depending on the location of the payload on the table

More usable slip tables next page →



## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH1200	45	MG	180	1200×1200	800	2
SWH1201	45	MG	190	1200×1200	4500-8000	2-4
SWH1301	50	MG	233	1300×1300	6500-13500	3-7
SWH1401	50	MG	263	1400×1400	7000-14000	3-7
SWH1501	50	MG	293	1500×1500	7000-14000	3-7

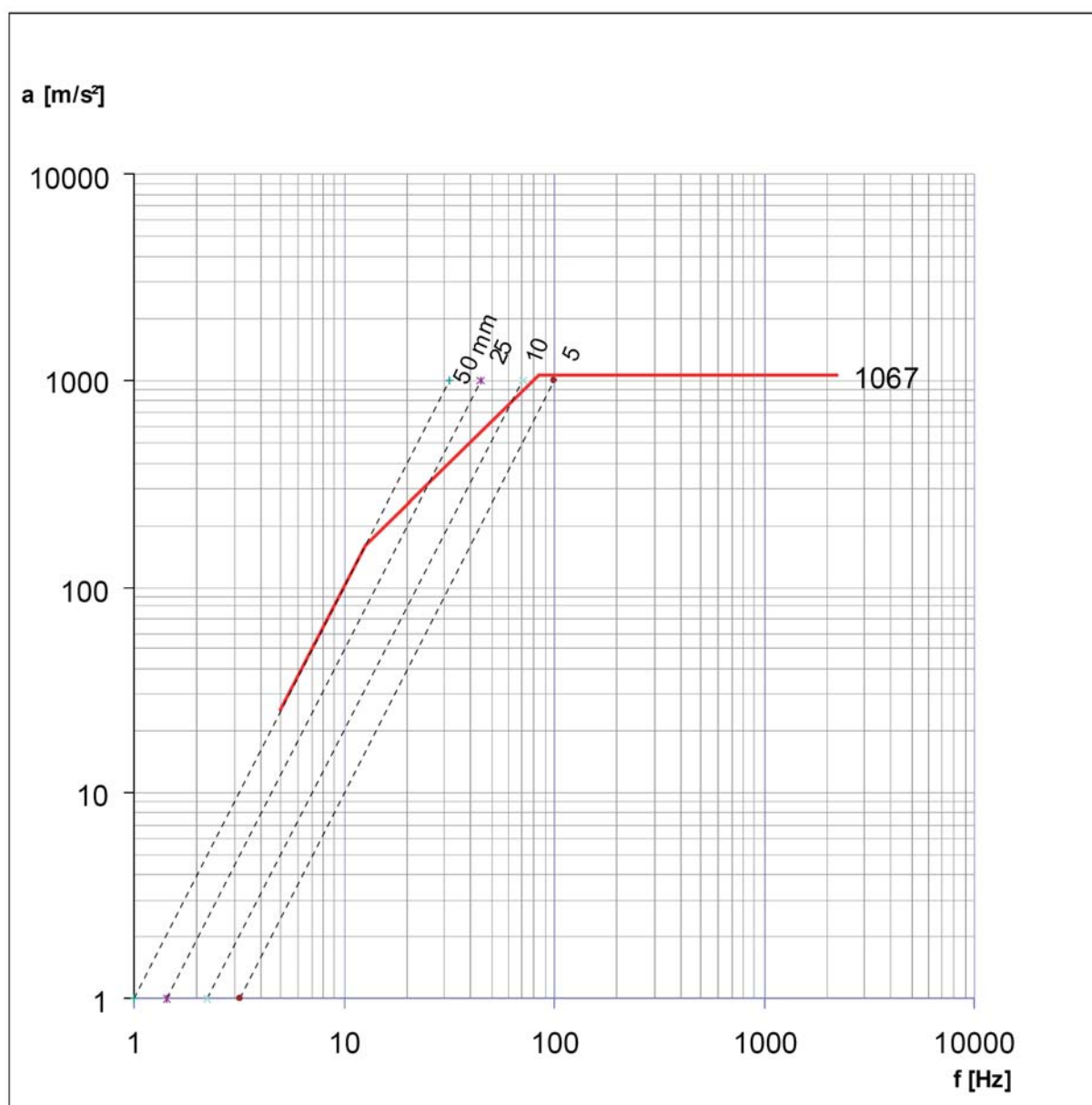
)\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint

)\*3 depending on the location of the payload on the table

← [More usable slip tables previous page](#)

Sine Performance Curve :

SW3-16650APP





# Technical Data SW3-18590APP (180KN)

## Shaker Specification

### SW3-18590APP

Sine Force [kN] pk		180
Random Force [kN] rms (ISO5344)		180
Shock Force [kN] pk (half sine)		360
Usable Frequency Range [Hz]	5	2200
Armature -Resonance [Hz]		1800
Acceleration [m/s <sup>2</sup> ] pk )*1		1200,0
Velocity [m/s] pk (shock/sine) )*	1,8	2
Displacement [mm] pk-pk (shock/sine)	51	51
Moving Mass [kg] (rated)		150
Load Support [kg] (max)		1600
Armature Table Diameter [mm]		590
Insert Pattern Number		25
Insert Pattern Thread (metric)		12
Total Weight [kg] )*3		11000
Dimensions (HWD) [mm]	1605 x 2100 x	1430
Total Power Consumption [KW]		188
Shaker noise [dBA] (max) )*4		120

- )\*1: @ rated armature weight  
 )\*2: @ bare table  
 )\*3: @ standard trunnion  
 )\*4: @ 1m distance  
 )\*5: @ external raw water temp. 25°C  
 )\*6: @ 1m distance, incl. silencer

## Amplifier Specification

Type	Number of Cabinets
TGI20-9	4
Number of Power Moduls	9
Output Power [KVA]	180
Output Current [A] rms	1700
Peak Current [A] pk	6800
Output Voltage [V] rms/peak	90/240
Efficiency [%]	85-90
Switching Freq. [kHz]	120
Signal input [V] rms (for rated output voltage)	2
Signal-to-Noise [dB]	>50
Bandwidth [Hz] (-3dB)	3000
Dim. (HWD) [mm]	1980x1830x820
Weight [kg]	1500

Notes

## Water Cooling Unit

Motor Power [KW]	8
Dimensions (HWD) [mm]	1980 x 810 x 610
Water Flow [l/min] )*5	108 external 80 internal

## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH800	45	MG	102	800×800	500	2
SWH801	45	MG	111	800×800	4000	2
SWH900	45	MG	118	900×900	600	2
SWH901	45	MG	138	900×900	4000	2
SWH1000	45	MG	138	1000×1000	700	2
SWH1001	45	MG	148	1000×1000	4000	2
SWH1100	45	MG	158	1100×1100	800	2
SWH1101	45	MG	168	1100×1100	4500	2

- )\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint  
 )\*3 depending on the location of the payload on the table

More usable slip tables next page →



## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH1200	45	MG	180	1200×1200	800	2
SWH1201	45	MG	190	1200×1200	4500-8000	2-4
SWH1301	50	MG	233	1300×1300	6500-13500	3-7
SWH1401	50	MG	263	1400×1400	7000-14000	3-7
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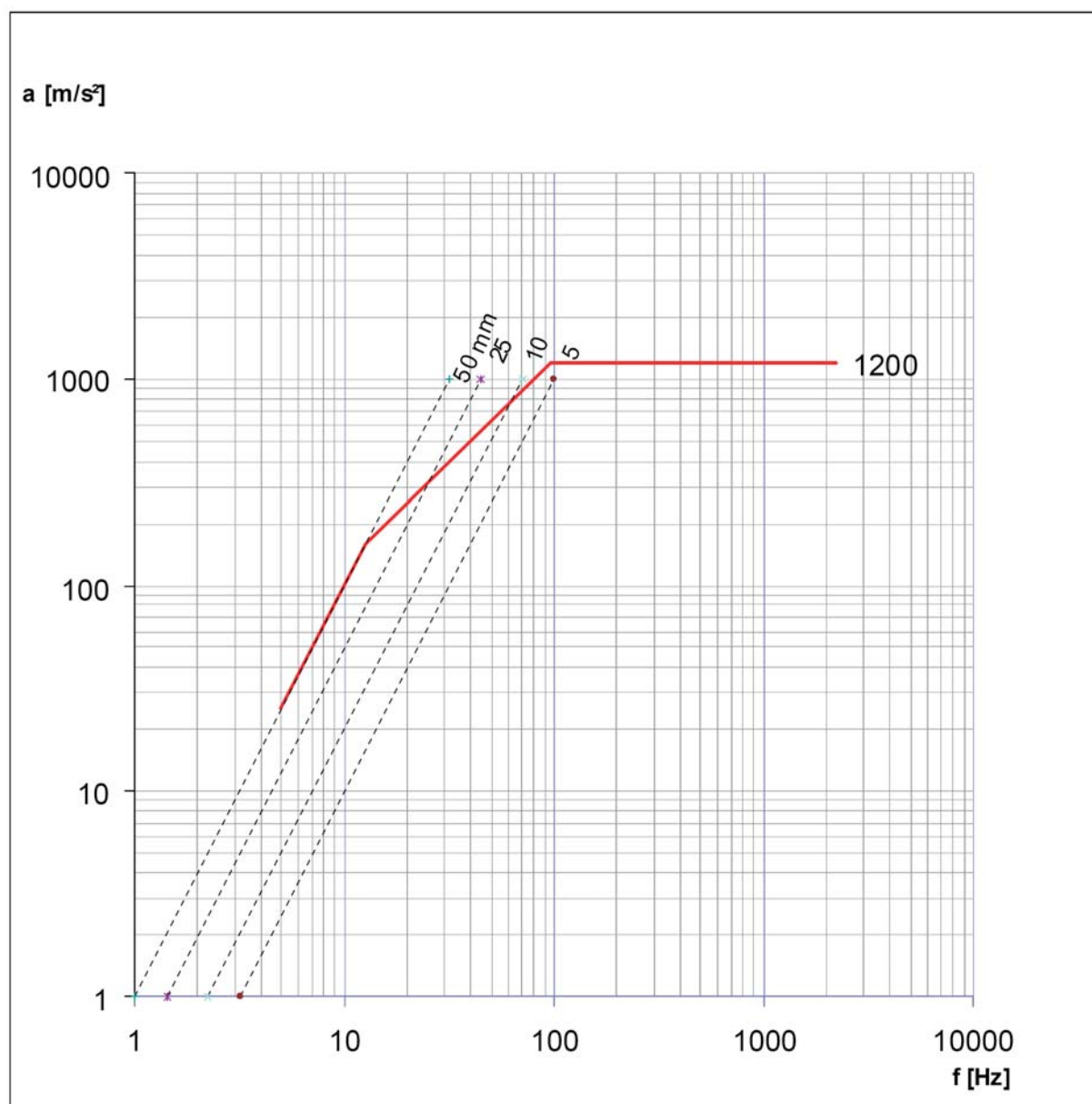
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)\*3 depending on the location of the payload on the table

← [More usable slip tables previous page](#)

Sine Performance Curve :

SW3-18590APP



# RMS Dynamic Test Systems



# Technical Data SW3-18650APP (180KN)

## Shaker Specification

### SW3-18650APP

Sine Force [kN] pk		180
Random Force [kN] rms (ISO5344)		180
Shock Force [kN] pk (half sine)		360
Usable Frequency Range [Hz]	5	2200
Armature -Resonance [Hz]		1700
Acceleration [m/s <sup>2</sup> ] pk )*1		1125,0
Velocity [m/s] pk (shock/sine) )*	1,8	2
Displacement [mm] pk-pk (shock/sine)	51	51
Moving Mass [kg] (rated)		160
Load Support [kg] (max)		2500
Armature Table Diameter [mm]		650
Insert Pattern Number		25
Insert Pattern Thread (metric)		12
Total Weight [kg] )*3		11000
Dimensions (HWD) [mm]	1630 x 2100 x	1430
Total Power Consumption [KW]		188
Shaker noise [dBA] (max) )*4		120

- )\*1: @ rated armature weight  
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 )\*5: @ external raw water temp. 25°C  
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## Amplifier Specification

Type	Number of Cabinets
TGI20-9	4
Number of Power Moduls	9
Output Power [KVA]	180
Output Current [A] rms	1700
Peak Current [A] pk	6800
Output Voltage [V] rms/peak	90/240
Efficiency [%]	85-90
Switching Freq. [kHz]	120
Signal input [V] rms (for rated output voltage)	2
Signal-to-Noise [dB]	>50
Bandwidth [Hz] (-3dB)	3000
Dim. (HWD) [mm]	1980x1830x820
Weight [kg]	1500

### Notes

## Water Cooling Unit

Motor Power [KW]		8
Dimensions (HWD) [mm]	1980 x 810 x	610
Water Flow [l/min] )*5	108	80
	external	internal

## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH800	45	MG	102	800×800	500	2
SWH801	45	MG	111	800×800	4000	2
SWH900	45	MG	118	900×900	600	2
SWH901	45	MG	138	900×900	4000	2
SWH1000	45	MG	138	1000×1000	700	2
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- )\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint  
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More usable slip tables next page →



## Usable slip tables

Type )*1	Thickness [mm]	Material	Mass [kg])*2	Size [mm]	Max. Load [kg])*3	No. of Bearings
SWH1200	45	MG	180	1200×1200	800	2
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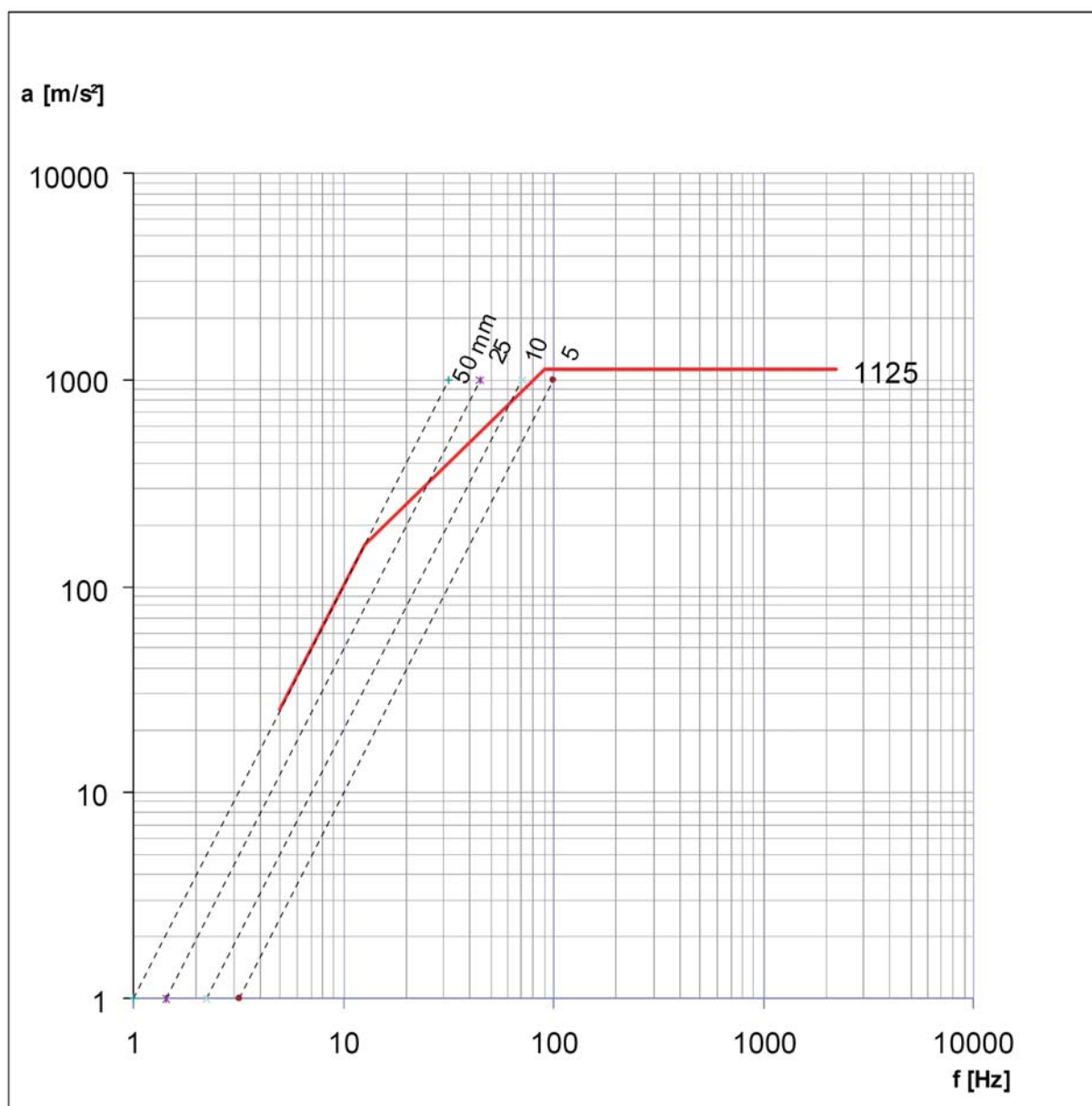
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)\*3 depending on the location of the payload on the table

← [More usable slip tables previous page](#)

Sine Performance Curve :

SW3-18650APP





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## THE WORLD OF RMS TEST SYSTEMS

### Test systems for vibration testing of components and units

- Electrodynamic Vibrator Systems for Sine, Random, Shock, Resonance and Multitesting
- Benches for environmental stress screening
- Pneumatic shock test machines (AVEX/USA)
- Servo hydraulic Vibrators / Slip Tables



### Test Benches & Motion Simulators

- Single/Multi Axis Rate/Position Systems
- Direct Drive Centrifuges for generation of accelerations
- Customized Simulators / Hardware-in-the-Loop Testing
- Long-stroke vibration system for surveying Dynamic acceleration sensors
- Cornering Fatigue and Torsional Vibration Test Stands



### Test Benches & Motion Simulators

- Single/Multi Axis Rate/Position Systems
- Direct Drive Centrifuges for generation of accelerations
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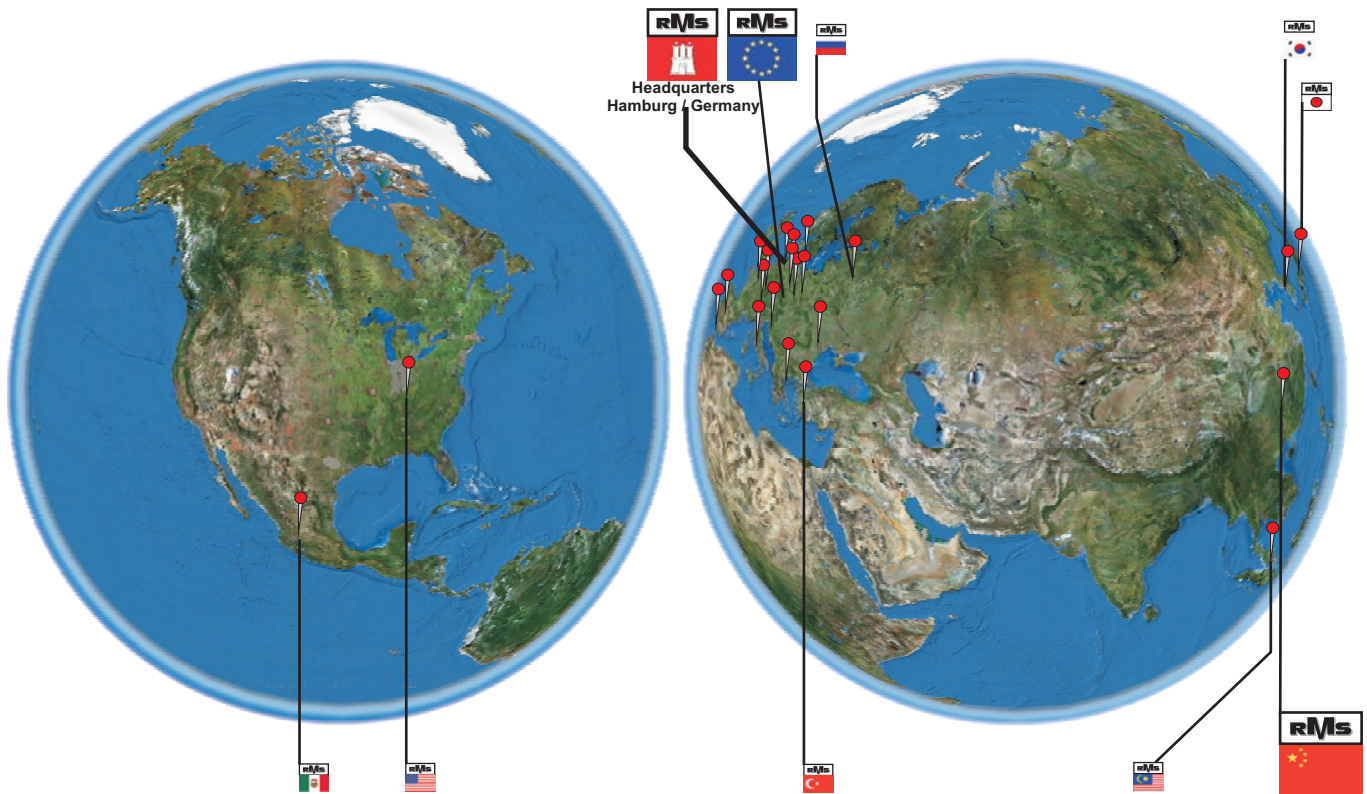


### Engine and Airframe Test Equipment

- Engine Tracking/Trim Equipment ( Line Maintenance )
- Test & Simulation of APU, PMC, N1/N2, RPM
- Electronic Tester for Overhaul and Workshop
- Check/Test & Adjustment of the angular deflection of aircraft flight control surfaces



## RMS worldwide distribution network



2008



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