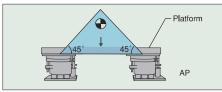
### Notice in case of selecting a type of "AP Series" or designing a device that shall be mounted on "AP Series":

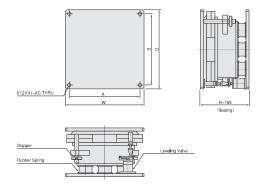
- · Larger span between air springs is required.
- Make sure that the center of gravity of mounted devices (including its platform) must be in the area of pale blue triangle as the diagram below indicates.



- Select "AP Series" in consideration of the most one-sided load condition when works move. If you have any specification for platform vibration or settling time.consult us in advance.
   We are pleased to advice if you give us information such as mass, velocity, acceleration, and stroke of the moving object.
- There should be 10mm or more clearance when you set up a cover or so around the platform and loaded instruments.
- When you move a device in which vibration isolation systems are installed, be sure to confirm that the platform and pedestal/a base-plate are clamped.
- Select a higher stiffness type of a platform and pedestals/a base-plate in order to achieve a full performance of vibration isolation.
- Standard type of "AP Series" consists of four air springs.
  However, it is possible for you to select other type of "AP Series" that consists of six, eight, or more air springs. If you have some idea, please contact with us.

#### **SPECIFICATIONS**

Term	AP-80	AP-100	AP-120	AP-140	AP-160	AP-180	AP-200	AP-230	AP-270	AP-330	AP-380	
Natural frequency	2.5~3.0Hz (Vertical or Horizontal)											
Vibration isolation method	Air Suspension											
Damping method	Damping by Orifice											
Leveling Method	Automatic Leveling by mechanical air valve (Positioning Tolerance : +/-200 micrometers)											
Dimensions (mm)	170×170×185	180×180×185	200×200×185	210×210×185	240×240×185	250×250×185	260×260×185	300×300×185	320×320×185	370×370×185	430×430×185	
Mass (kg per unit)	10.5	14	15	19	21	27.5	32	43.5	52	67.5	90	
Payload Range (kgf)	560	880	1200	1700	2200	2800	3600	4600	6400	9600	13000	
Installation Hole Interval : A(mm)xB(mm)	150×150	160×160	176×176	186×186	210×210	230×230	230×230	270×270	290×290	340×340	400×400	
Diameter of Installation Hole : C(mm)	10	10	10	10	13	13	13	13	13	13	13	
Accessories		A regulator with an air filter, Diameter 6 mm x 5 m length urethane tube (10 m in case of AP-200 or larger than AP-200), 2 pcs. of T-fitting										
Supplied Air Pressure (MPa)	0.40-0.70MPa (Air source : Compressed air by an air compressor, relieving a factory's piping of its air, or liquid nitrogen gas)											



\* All specifications are subject to change without notice.

Contact with

### 明立精機株式合社 MEIRITSU SEIKI Co., Ltd.

〒221-0031 横浜市神奈川区新浦島町 1-1-25 テクノウェイブ100ビル16階

テクノウェイブ100ビル16階 ☎(045)453-5731(代) FAX(045)453-3381 Technowave 100 Bldg. 16F, 1-25, Shin-Urashimacho 1-chome, Kanagawa-ku, Yokohama, 221-0031 JAPAN PHONE+81-45-453-5731 FAX+81-45-453-3381 URL:http://www.meiritsu.co.jp E-mail:info@meiritsu.co.jp

MEIRITSU Vibration Isolation & Optical Parts



# **VISOLATOR**

### **Pneumatic vibration isolation system AP series**









## You can compose the most suitable vibration isolation system fitted to your precise machines at low cost.

It is important that vibration isolation system has flexibility as well as excellent performance. Because it is the best way to install vibration isolation system that is tuned in on these precise machines. That is "AP Series" vibration isolation system that can be immediately adapted to your needs. In addition to the capacity for vibration isolation, "AP Series" has system extensibility too. This vibration isolation system, "AP Series" materializes an ideal vibration isolation environment.



AP-80

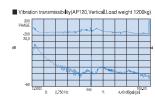


#### The pneumatic vibration isolation systems of Meiritsu have stirring performance in actual achievement of the technology.

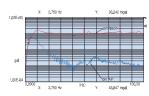
We adopted the pneumatic system with a lot of actual achievement in the variety field from microscopy or laser application technology to semiconductor manufacture/inspection devices.

We assure you that you get excellent vibration isolation performance in the wide band of frequency from 3 Hz to hundreds Hz.

And rubber installed in the lower part of air spring protects the precise mechanism of a mounted machine in case of supply stop of air.



#### Power spectrum



#### "AP Series" is a unit type of a versatile system.

When a vibration isolation system is installed in a machine, it is required to occupy less space of the machine.

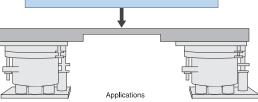
"AP Series" is a compact shaped unit type of isolation system that is composed of an air spring and a mechanical leveling valve.

You can install "AP Series" in a device without modifying the structure of the device on a large scale and can get good vibration isolation performance.

#### All the height of "AP Series" is standardized to 185mm.

All the height of "AP Series" is standardized to 185mm. Even if you have to increase or decrease the mass of your machine, you can fit the other type of "AP Series" without changing the height of installing space of your machine.

- Semiconductor Manufacturing/Inspection Equipment
- LCD Manufacturing/Inspection Equipment
- Scanning Electron Microscope (SEM)
- Scanning Probe Microscope (SPM)
- Laser Processing Machines
- Coordinate Measuring Instruments/Machines
- Ultra-Precision Non-Axisymmetric Generator
- Precision Processing Machines



#### "AP Series" covers a wide range of loading mass.

Abundant variety and purpose of precise machines that need vibration isolation system grow increasingly diverse. In order to respond to the requirement, we provide 11 types of "AP Series" from "AP-80" to "AP-380" You can select suitable one from "AP Series" even if a precision machine has a weight of hundreds kilograms or more than 10 tons.

#### High performance for a movement of the load.

In case of works handling, flat panel transferring, and stage movement of an automatic processing/measurement machine, position repeatability is required even when supported by air springs as elastic bodies.

"AP Series" has a high sensitive leveling valve as its standard developed by Meiritsu. The positioning repeatability is within +/- 200 micrometers.

And it is often said that the faster stages moves, the more problems of shakiness occur. These are as we say pitching, yawing, or rolling.

If you choose optional two-step-type of leveling valves, you can shorten the settling time.

And you can get positioning repeatability within +/-100 micrometers as the limit sensitivity of passive type of isolation system.

Be sure to make contact with us in advance if there is specification or aim for settling time.

#### You can use "AP Series" in clean rooms, too.

When "AP Series" is used in a high level clean room, you can choose leveling valves for clean room that can exhaust air to put together into a tube for evacuation. Please contact us about details because it is a special order. And note that twostep-type of leveling valve is not available for clean rooms.



High sensitive leveling valve



Two- step-type of leveling valve