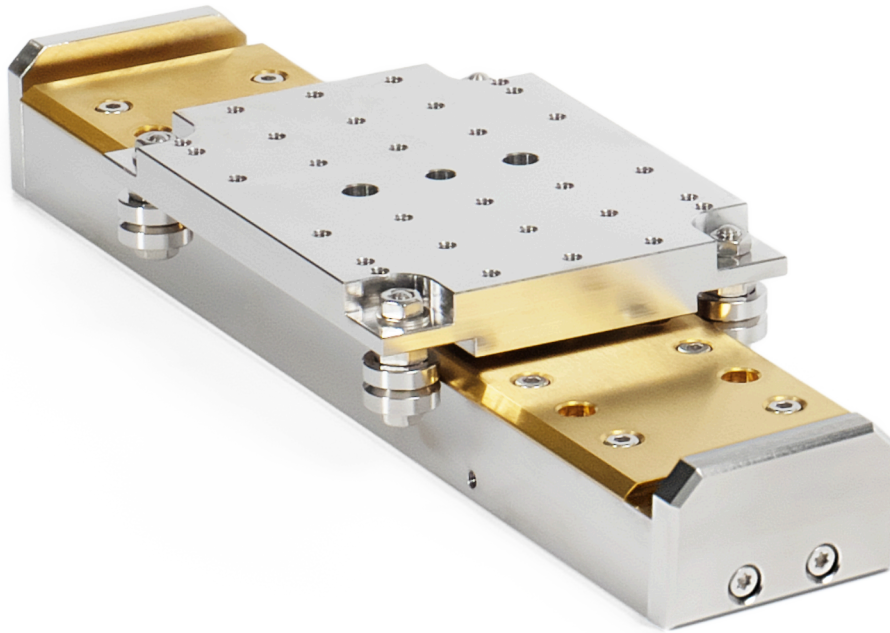


VSM23-P Datasheet

Long Travel, Modular UHV Passive Stage



AML ultra high vacuum compatible modular linear passive stage. Designed for use where an additional stage is required to support high moment loads or as the passive element in a kinematic adjustment system.



FEATURES

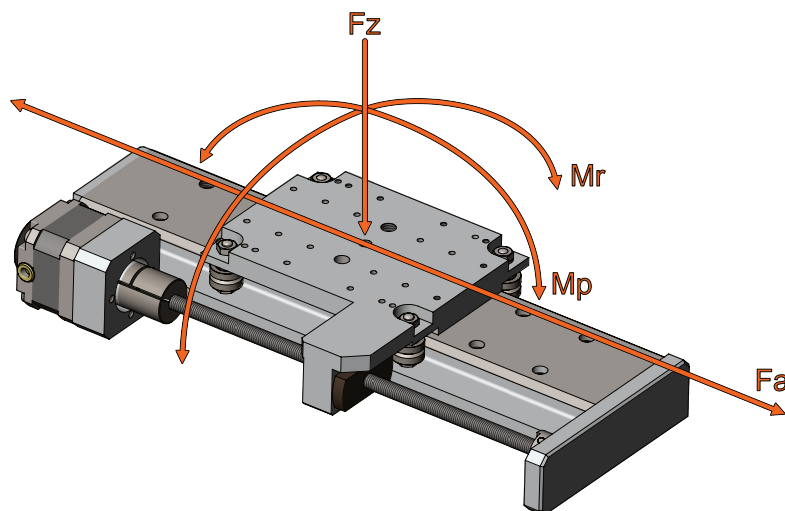
- Passive stage - no motor or leadscrew
- Standard travels from 100 to 450 mm
- Suitable for use to 1×10^{-10} mBar
- Load capacity to 20 kg
- UHV-prepared aluminium construction as standard
- Stainless steel construction available (option SS)
- Bakeable to 150°C (200°C for option SS)

SPECIFICATIONS

Specification	VSM23-P
Travel (mm)	100 / 150 / 200 / 250 / 300 / 350 / 400 / 450
Centred Load Capacity (Normal) (Fz)	20 kg
Maximum Load Moment (Mr, Mp)	10 Nm
Roll and Pitch	$\pm 350 \mu\text{rad}$
Roll and Pitch Compliance	$\pm 70 \mu\text{rad/Nm}$
Yaw Compliance	$\pm 30 \mu\text{rad/Nm}$
Vacuum Environment	$< 1 \times 10^{-10}$ mBar
Maximum Temperature	150 °C (200 °C for option SS)
Mass for 100 mm Travel	TBC kg
Mass Increase per 50 mm Travel	TBC kg

NOTES

LOAD DIAGRAM:



MATERIALS: The major components of standard stages are manufactured from 6061 T6 aluminium. The material surface is processed to obtain a thin, dense aluminium oxide coating which reduces diffusion and desorption at UHV. A 304L stainless steel version can be specified using option code "SS".

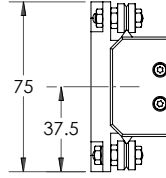
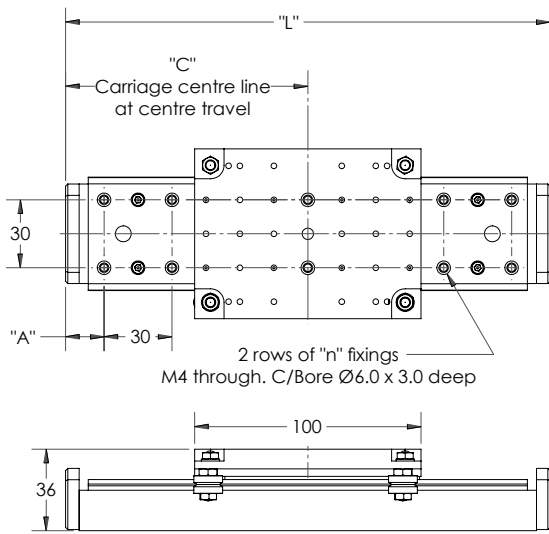
LUBRICATION: Running surfaces are dissimilar materials or dry lubricated with molybdenum disulfide.

OPTIONS

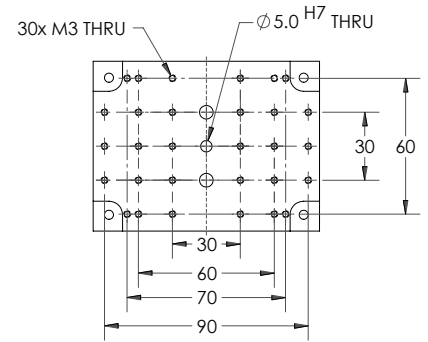
SS Option SS is for the material of the VSM23-P to be 304L stainless steel. This increases the maximum temperature of the stage to 200°C from its standard 150°C.

DIMENSIONS

VSM23-P



Travel mm	L	C	A	n
100	214	107	17	7
150	264	132	42	7
200	314	157	22	9
250	364	182	32	11
300	414	207	27	13
350	464	232	22	15
400	514	257	17	17
450	564	282	42	17



APPLICATION EXAMPLE

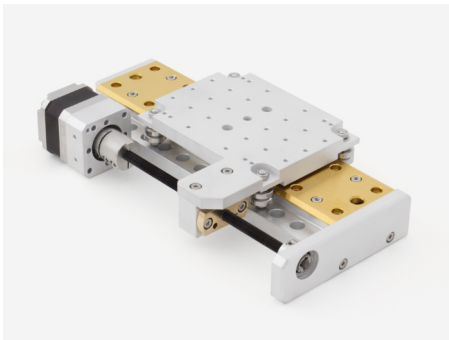
RELATED PRODUCTS



VSA MOUNTING BRACKETS AND TABLE

Mounting Brackets and Table For UHV Compatible Stages.

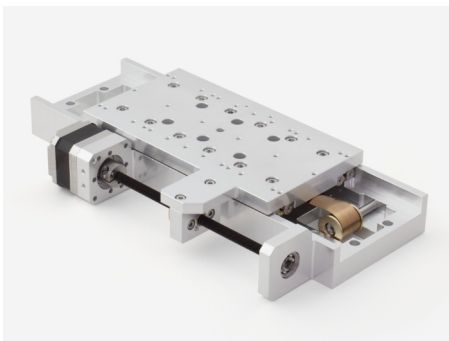
AML UHV compatible mounting brackets for use with VSM stages. Used to reorient stages and create complex multi-axis mechanisms with standard products. Constructed with lightweight uhv-prepared aluminium to reduce mass whilst maintaining stability.



VSM23-X

Long Travel, Modular UHV Compatible Stage.

Linear translation stage for ultra high vacuum applications. Travel ranges from 100 to 450 mm and can support loads up to 20 kg. 1 μm or 5 μm resolution available. Modular design enables direct compatibility with all VSM23 and VSM17 stages.



VSM17-X

High Performance, Modular UHV Compatible Stage.

Linear translation stage suitable for use in UHV. Travel ranges from 50 to 200 mm. Can support loads of up to 50 kg. 5 μm resolution allows for precise in-vacuum motion.

ORDERING INFORMATION

Order Codes	
VSM23-P-xxx	Passive linear stage (xxx=travel in mm)
VSM23-P-xxx-SS	Passive linear stage, stainless steel

Example Order Code	
VSM23-P-400-SS	Passive linear stage, 400 mm travel, stainless steel



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AML pursues a policy of continuous improvement and reserves the right to make detail changes to specifications without consultation. E and OE.