

Wobble Sticks - Mechanical Hand Series (MH)

The mechanical hand used for gripping linear and rotary movement. Tactile operation to give the user a true 'feeling' of position inside the vacuum chamber. The mechanical hand can be used for the movement, re-arrangement and transfer of samples, STM tip changes, or as an in-vacuum screwdriver.



Product Overview

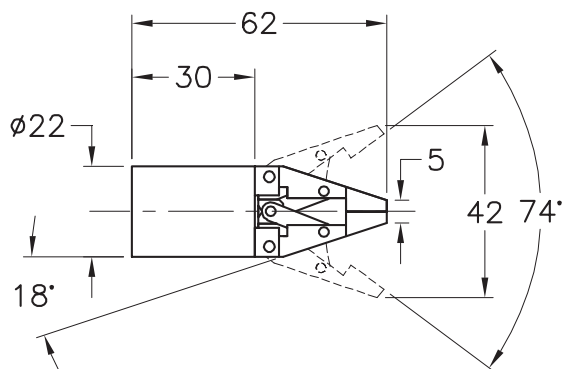


- Linear travels from 80 mm to 280 mm available
- +/- 22° of angular movement
- Dual edge welded bellows.
- 70 mm OD conflat mounting flange.
- Leak rate <math> < 1 \times 10^{-10}</math> mbar ls⁻¹
- Pressure range 1 bar to 10⁻¹¹ mbar
- All stainless steel, in vacuum, construction
- Rotation and linear locks
- Spring loaded jaws (normally closed)
- On-axis symmetric jaw operation (74° max opening angle)
- Perpendicular jaw operation, 10 mm opening.
- Jaws to customer specifications available

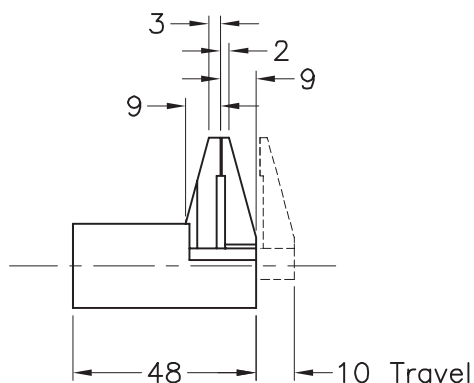
Technical Data - MH Series	
Mounting Flange	70 mm OD
Orientation	Any
Construction	Stainless steel, bellows sealed actuation
Articulation	±22.5° tilt
Z Travel Range	80, 151, 237, 280 mm
Rotation	360° continuous
Azimuthal Force	10 N Maximum rotational
Torque	0.3 Nm

Technical Data - MH Series	
Torque Limiting Mechanism	Yes, extends bellows lifetime
Rotation Lock	Yes
Linear Lock/Clamp	Yes
Bake out temperature	250 °C
Jaw/Pincer Options	1: Perpendicular parallel acting pincer (10N max force, 10 mm opening, sprung closed) 2: Symmetrical double acting in-line pincer (3N max force, 74° max opening, sprung closed)

ZJAWSY Inline Jaw
 ADDS 47 mm to MH to D/B Length

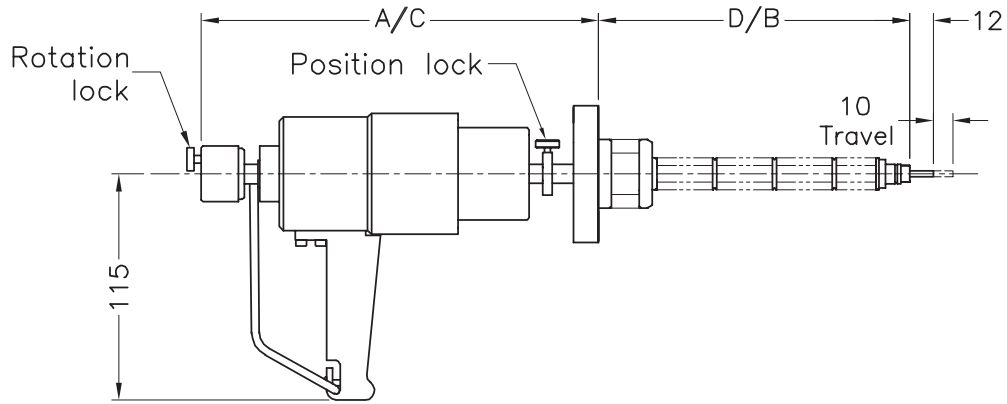


ZJAWPE Perpendicular Jaw
 ADDS 33 mm to MH to D/B Length



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MH Without Jaws



Mechanical Hand - MH Series									
DN Type	Flange OD		Linear Travel	Retracted A	Extended B	Extended C	Retracted D	Description	Order Code
	mm	Inch							
DN40	70	2.75	80	285	159	205	79	No Jaw	ZMH075
DN40	70	2.75	151	356	259	205	108	No Jaw	ZMH150
DN40	70	2.75	237	442	381	205	144	No Jaw	ZMH225
DN40	70	2.75	280	485	442	205	162	No Jaw	ZMH275
DN40	70	2.75	80	285	159 + 47	205	79 + 47	Inline Jaw	ZMH075S*
DN40	70	2.75	151	356	259 + 47	205	108 + 47	Inline Jaw	ZMH150S*
DN40	70	2.75	237	442	381 + 47	205	144 + 47	Inline Jaw	ZMH225S*
DN40	70	2.75	280	485	442 + 47	205	162 + 47	Inline Jaw	ZMH275S*
DN40	70	2.75	80	285	159 + 33	205	79 + 33	Perpendicular Jaw	ZMH075P*
DN40	70	2.75	151	356	259 + 33	205	108 + 33	Perpendicular Jaw	ZMH150P*
DN40	70	2.75	237	442	381 + 33	205	144 + 33	Perpendicular Jaw	ZMH225P*
DN40	70	2.75	280	485	442 + 33	205	162 + 33	Perpendicular Jaw	ZMH275P*
DN40	70	2.75	80	285	159 + 47	205	79 + 47	Flag Jaw	ZMH075FL*
DN40	70	2.75	151	356	259 + 47	205	108 + 47	Flag Jaw	ZMH150FL*
DN40	70	2.75	237	442	381 + 47	205	144 + 47	Flag Jaw	ZMH225FL*
DN40	70	2.75	280	485	442 + 47	205	162 + 47	Flag Jaw	ZMH275FL*
								Inline Jaw	ZJAWSY
								Perpendicular Jaw	ZJAWPE

*The plus represents the end of the jaws when extended and retracted