

## AHR Series

### Gripper-Heavy Duty Air

### Water Resistant



#### Feature

- Parallel open and close, suitable for inner and outer workpiece clamping.
- Large carrying loads and torque.
- High degree of mounting flexibility.
- Built-in Magnet.
- Cylinder port can accommodate push-in fitting where joints are not practical to be used.
- Sealed design makes it suitable for many kinds of harsh environment.

#### Specification

Bore Size	mm	25	32	40	50
Open / Close Stroke	mm	12	16	20	26
Action		Double Acting			
Fluid		Air			
Operating Pressure Range	MPa ( kgf/cm <sup>2</sup> )	0.3 ~ 0.7 ( 3.0 ~ 7.0 )			
Operating Temperature Range	°C	0 ~ 60 ( No Freezing )			
Lubrication <sup>①</sup>		Not Required			
Cushion		No			
Repeatability	mm	± 0.03			
Max Operating Frequency	c.p.m	45			
Port	Side Ported	M5X0.8		Rc1/8	
	Axial Ported	OR3X1.0 ( O-ring )		OR4X1.5 ( O-ring )	
Mass	kg	0.40	0.65	1.10	1.90

Note: ① Use only Turbine Oil ISO VG32 for lubricant, if required.

Code of order

AHR-25-D-AMS-L  
① ② ③

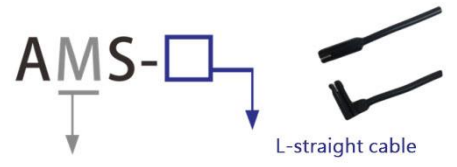
①

Bore Size mm	
25	Ø25
32	Ø32
40	Ø40
50	Ø50

②

Port	
Nil	Side Ported
D	Axial Ported

③



Model :

M-2 wire Without contact

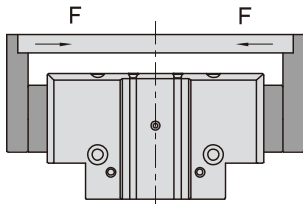
N-3 wire Without contact(NPN)

P-3 wire Without contact(PNP)

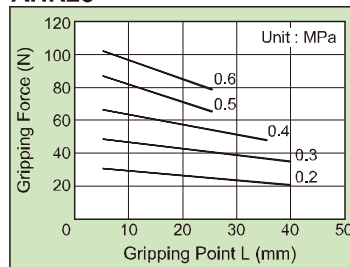
wire length-L : 2000mm

Effective Gripping Force

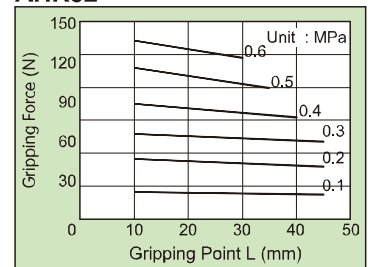
• External Clamp Gripping Force



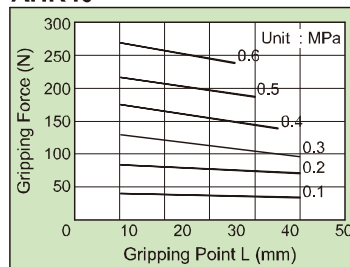
AHR25



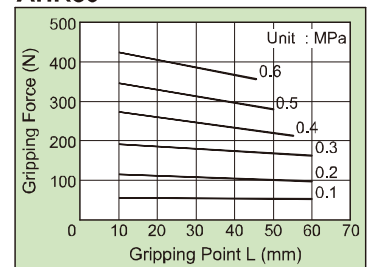
AHR32



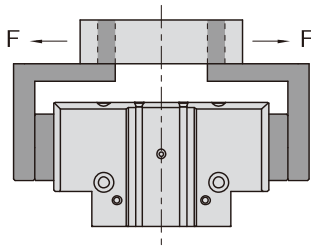
AHR40



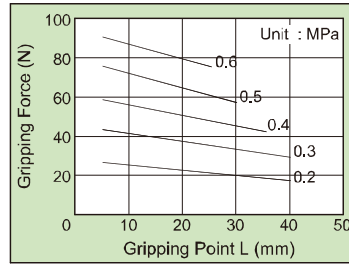
AHR50



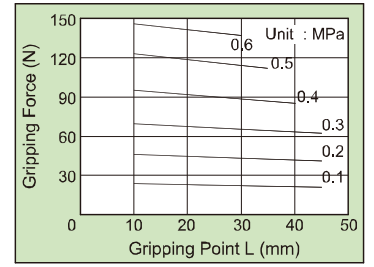
## • Internal Clamp Gripping Force



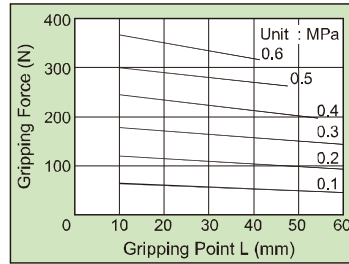
**AHR25**



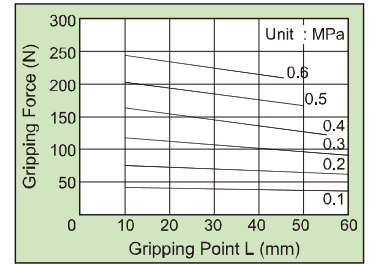
**AHR32**



**AHR40**



**AHR50**



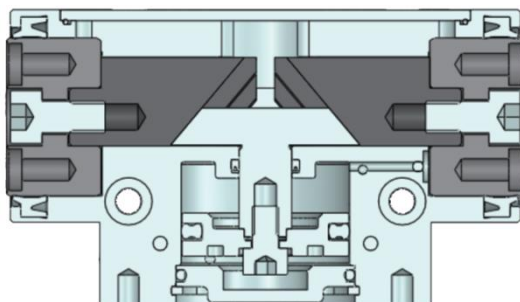
## Allowable Load

Bore Size (mm)	Allowable Vertical Load (N)	Allowable Moment (N·m)		
		Pitch Moment	Yaw Moment	Roll Moment
25	825	30	45	30
32	1125	45	71	40
40	1500	60	85	53
50	2100	90	110	75

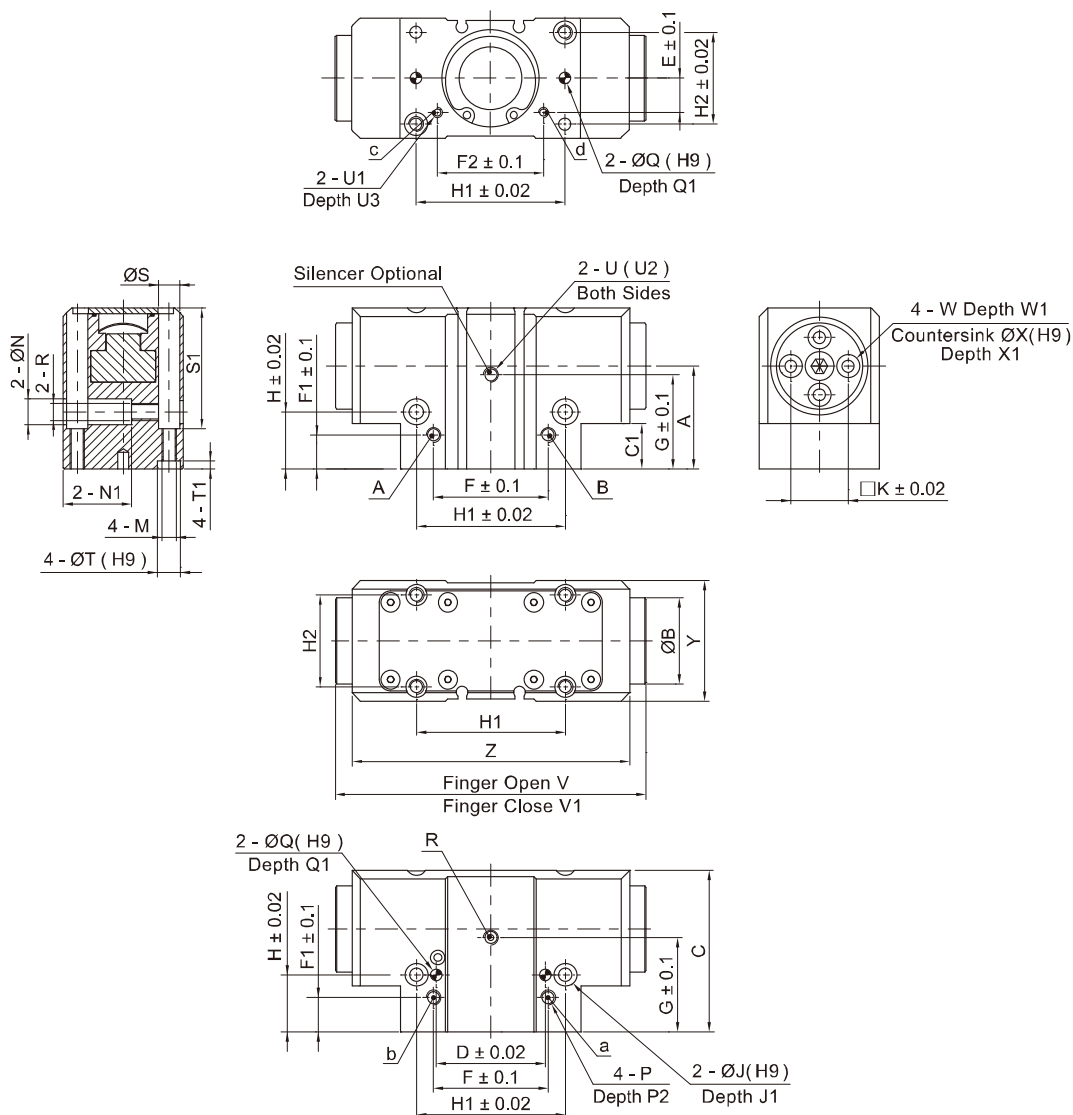
Force Diagram	Mp	My	Mr

Construction



Bore Size ( mm )	Compression Area ( mm <sup>2</sup> )		Angle Between Guide and Piston Direction
	Finger Close	Finger Open	
25	440.6	490.9	40°
32	725.7	804.2	
40	1143.5	1256.6	
50	1762.4	1963.5	

Dimensions



Note: A, B are side ports; a, b are spare side ports; c, d are bottom ports.

Bore Size	A	B	C	C1	D	E	F	F1	F2	G	H	H1	H2	J	J1	K	M	N	N1	P	P1
25	29.75	22	45.4	14.5	—	10	31	10	27	33	18	42	27	8	3	15.2	M5X0.8	7.4	25	M5X0.8	6
32	36	30	56.4	17	38	12	40	12	37	39.5	20	52	32	8	3	20	M5X0.8	9	24	M5X0.8	6
40	41.5	32	63	21	50	17	49	15	47.5	46	24	66	38	10	4	22.5	M6X1.0	11	35	Rc1/8	7
50	46.35	40	72.5	21.2	60	20	63	15	61	53	26	82	45	12	4	28	M8X1.25	14	38	Rc1/8	7

Bore Size	Q	Q1	R	S	S1	T	T1	U	U1	U2	U3	V	V1	W	W1	X	X1	Y	Z
25	4	6	M5X0.8	7.4	21.9	8	3	M5X0.8	M3X0.5	6	4	94	82	M4X0.7	8	6	3	36	80
32	4	6	M6X1.0	7.4	21.9	8	3	M5X0.8	M3X0.5	6	4	114.5	98.5	M5X0.8	10.5	8	3	42	97
40	5	6	M8X1.25	9	20.9	10	4	M5X0.8	M3X0.5	6	4	142.5	122.5	M5X0.8	10.5	8	3	50	120.5
50	6	7	M10X1.25	11	31.9	12	4	M5X0.8	M5X0.8	6	6	180	154	M6X1.0	12.5	10	4.9	60	151.5