



RoHS Compliant



No.E-9659C

## Q-Lock Elements/Pins (Hydraulic Type Double Action)

**Material** Main body: SCM420 Piston: SCM440  
Steel ball: SUJ2

**Heat Treatment** Main body: HRC55 heat treatment  
Piston: HRC55 heat treatment  
Steel balls: HRC62 heat treatment

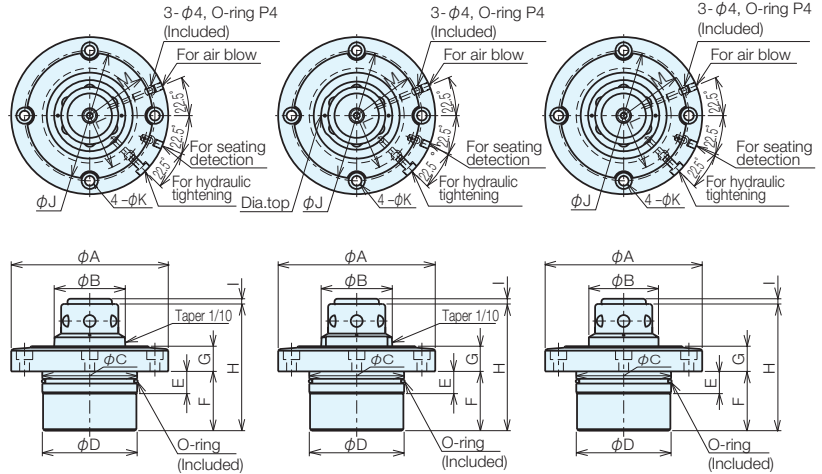
### Clamping by hydraulic pressure.

#### Types and External Dimensions

Locating pin

Dia. pin

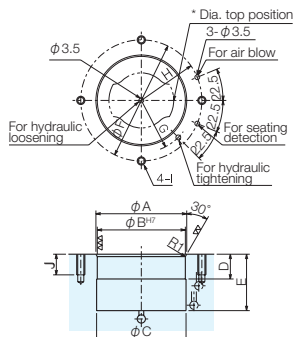
Clamp pin



#### Pin (Hydraulic Type Double Action) Specifications

Type	Order No.	No.	A	B	C <sup>h 5</sup>	D	E	F <sup>0.05 -0.1</sup>	G <sup>±0.003</sup>	H	I	J	K	L	M	Weight (kg)	
Clamping Parts	971078	QLHM03RP	66	32	42	41	10	25.5	12	65	3	54	5.5	25.5	25.5	0.5	
	968845	QLHM07RP	96	40	54	53	12	37	13.5	75	3	82	6.6	34	34	1.5	
Mechanical Parts	Locating pin	968846	QLHM10RP	106	48	64	63	15	40	17	85.5	3.5	88	6.6	38	44	2.3
		968847	QLHM16RP	120	55	80	79	15	45	18	96.5	3.5	100	9	46	50	3.5
		968848	QLHM25RP	140	55	90	89	15	50	18	103.5	3.5	116	11	54	58	4.8
Machine Vises	Dia. Pin	971079	QLHM03DP	66	32	42	41	10	25.5	12	65	3	54	5.5	25.5	25.5	0.5
		968849	QLHM07DP	96	40	54	53	12	37	13.5	75	3	82	6.6	34	34	1.5
		968850	QLHM10DP	106	48	64	63	15	40	17	85.5	3.5	88	6.6	38	44	2.3
		968851	QLHM16DP	120	55	80	79	15	45	18	96.5	3.5	100	9	46	50	3.5
Surface Plates and Measurement Instruments	Clamp pin	968852	QLHM25DP	140	55	90	89	15	50	18	103.5	3.5	116	11	54	58	4.8
		971081	QLHM03CP	66	30	42	41	10	25.5	12	65	3	54	5.5	25.5	25.5	0.5
		968853	QLHM07CP	96	39	54	53	12	37	13.5	75	3	82	6.6	34	34	1.5
Index	Clamp pin	968854	QLHM10CP	106	47	64	63	15	40	17	85.5	3.5	88	6.6	38	44	2.3
		968855	QLHM16CP	120	54	80	79	15	45	18	96.5	3.5	100	9	46	50	3.5
		968856	QLHM25CP	140	54	90	89	15	50	18	103.5	3.5	116	11	54	58	4.8

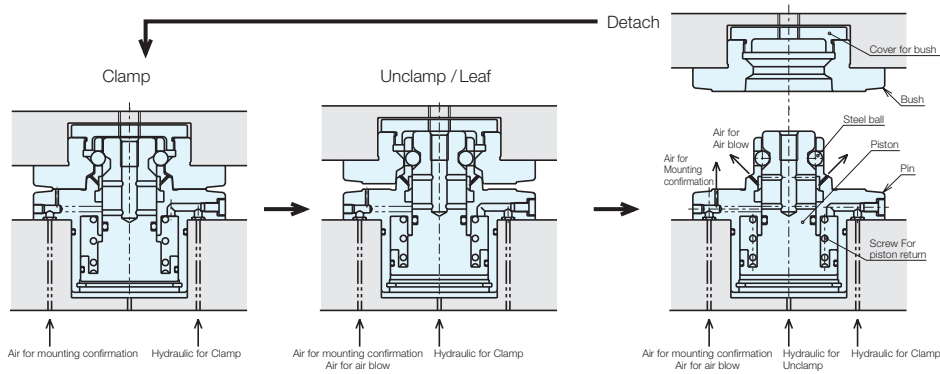
#### Mounting Dimensions



No.	A	B <sup>H7</sup>	C	D	E	F	G	H	I	J
QLHM03	43	42	41.5	12	31	54	25.5	25.5	M 5	13
QLHM07	56	54	55	18	38	82	34	34	M 6	15
QLHM10	66	64	65	20	41	88	38	44	M 6	15
QLHM16	82	80	81	20	46	100	46	50	M 8	20
QLHM25	92	90	91	20	51	116	54	58	M10	20

\* The relationship between the dia. pin top position and the tap hole is as shown in the diagram. Machine the tap holes and port holes according to the direction of the dia. pin.

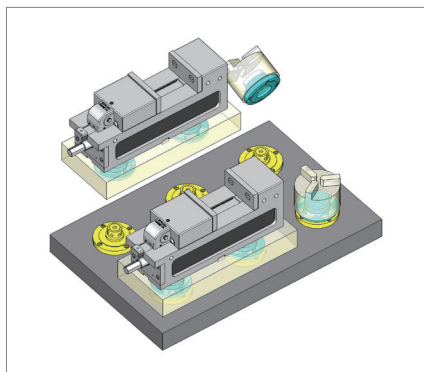
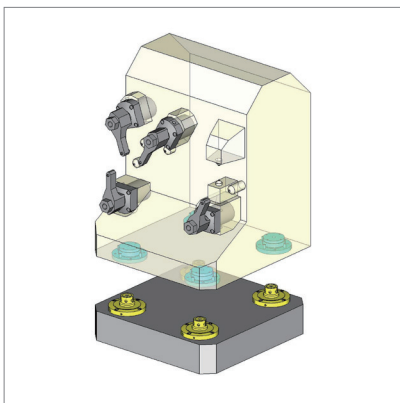
■ Section Drawing



■ Technical Data

Type		Hydraulic Type Double Action				
Drive Method	Clamping	Hydraulics				
	Unclamp	Hydraulics				
No.		QLHM03	QLHM07	QLHM10	QLHM16	QLHM25
Clamping Force (kN) (at 5 MPa)		3	7	10	16	25
Cylinder Volume (cm <sup>3</sup> )	Clamp Side	2	3	6	10	13
	Unclamp Side	3	5	7	13	16
Clamp Stroke (mm)		3	3	3.5	3.5	3.5
Liftup Amount (mm) (at 5 MPa)		2.5	2.5	3	3	3
Liftup Force (kN/piece) (at 5 MPa)		4.5	7.5	11	18.5	23
Minimum Operating Pressure When Unclamped (MPa)		2.5				
Guaranteed Withstand Pressure (MPa)		10				
Recommended Air Blow Pressure (MPa)		0.5				
Ambient Operating Temperature (°C)		0 - 65				
Normal Usage Pressure (MPa)		5				

Usage Examples



Jig Set-up Systems (Q-lock)

Base Elements

Clamp Units

Clamping Parts

Mechanical Parts

Machine Vises

Surface Plates and Measurement Instruments

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