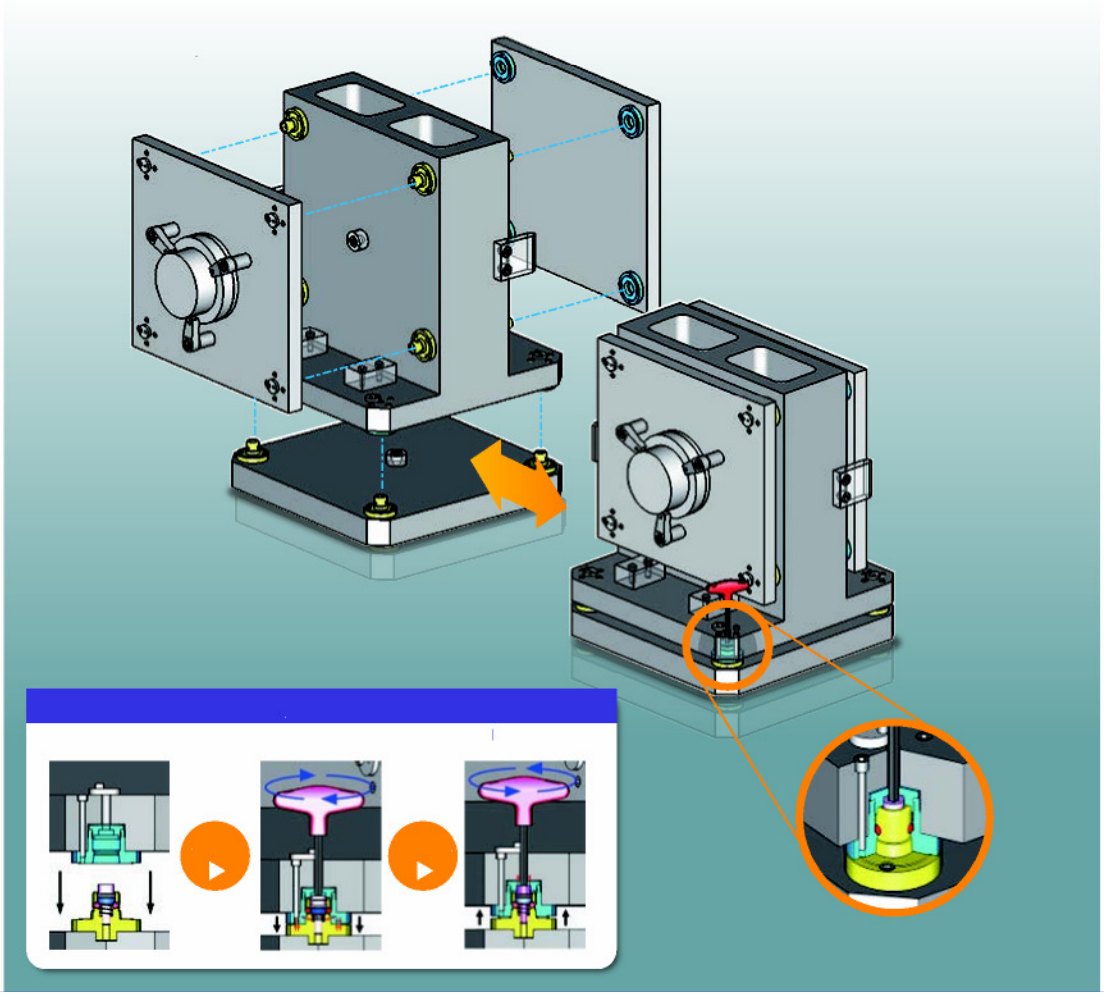


Product Lineup (Q-Lock Elements/Pins)

Multi piece type Position repeatability accuracy within 3Km.

Screw Type

Standard Type

Secure fixing using a wedge type mechanical locking mechanism. Compact with outside diameters starting from Π45, making it suitable for combination with small jig plates.

Model	Outside Diameter	Clamping Force	Torque
QLT19	45	7	9N m
QLT26	58	10	11N m
QLT32	72	16	35N m
QLT40	88	25	47N m

P31

Quick Type

Can be clamped with a single revolution, reducing operation time.

Model	Outside Diameter	Clamping Force	Torque
QLTF19	45	7	14N m
QLTF26	58	10	18N m
QLTF32	72	16	60N m
QLTF40	88	25	70N m

P31

Side Operation Type

If the Q-lock element cannot be operated from the top face of the jig plate, it can be operated from the side face.

Model	Outside Diameter	Clamping Force	Torque
QLTS26	70	8	23N m
QLTS40	108	20	80N m

P32

Clutch Type

Has a built-in clutch that prevents problems due to over-tightening the Q-lock element.

Model	Outside Diameter	Clamping Force
QLTC26	58	10

P32

Pneumatic Type

Double Acting

Air supply is used for clamping and unclamping. Automatic replacement of jigs is supported by changing the valve. A system can be built easily by using the air pipes within a factory.

Model	Outside Diameter	Clamping Force	Torque
QLA19	79	1.4	0.5 MPa
QLA26	104	2	

With air blow and mounting confirmation

For vertical machining centers and light cutting

P34

Hydraulic Type

Double Acting (Clamped by Hydraulic Pressure)

Uses hydraulics for clamping and unclamping. Automatic replacement of jigs is supported by changing the

Model	Outside Diameter	Clamping Force	Torque
QLHM03	-	3	5 MPa
QLHM07	-	7	
QLHM10	-	10	
QLHM16	-	16	
QLHM25	-	25	

With air blow and mounting confirmation

For heavy cutting with strong clamping

P38

Single Acting (Clamped by Spring)

Uses a conical spring washer for clamping, and hydraulics only for unclamping. This eliminates problems such as due to oil leaks, temperature variations, and line breakages while clamped.

Model	Outside Diameter	Clamping Force	Torque
QLSM03	-	3	5 MPa
QLSM07	-	7	
QLSM10	-	10	
QLSM16	-	16	

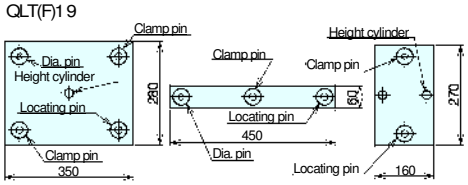
With air blow and mounting confirmation

For heavy cutting with strong clamping

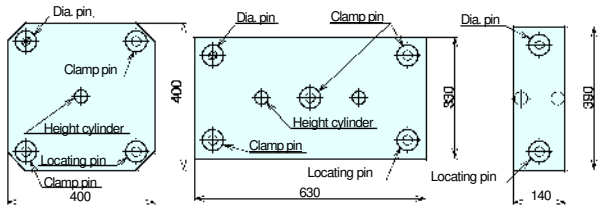
P36

Examples of Basic Layouts

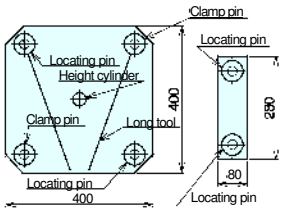
QLT(F)19



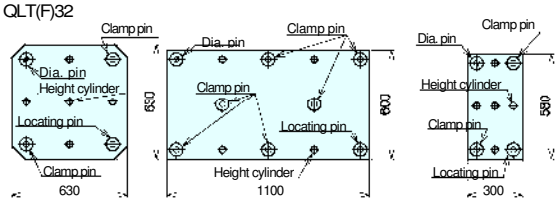
QLT(F)26



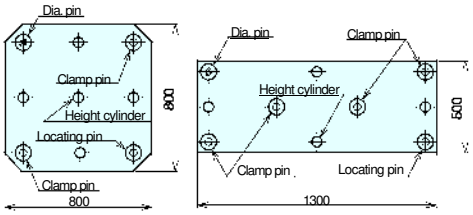
QLTS26 (side)



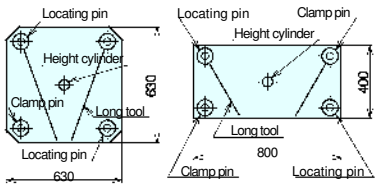
QLT(F)32



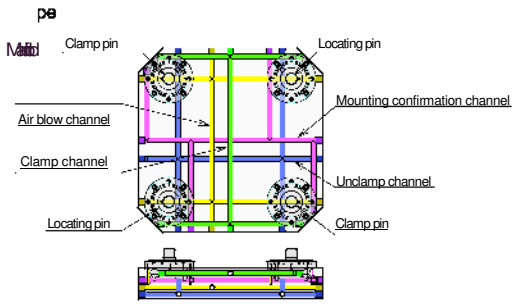
QLT(F)40

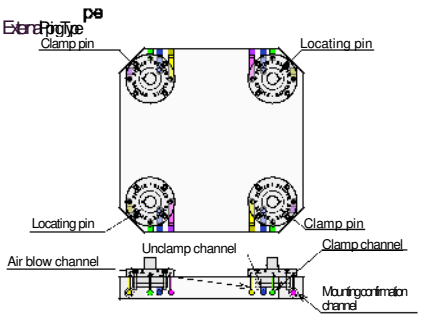


QLTS40 (side)



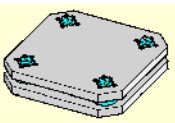
Examples of Piping for Pneumatics and Hydraulics



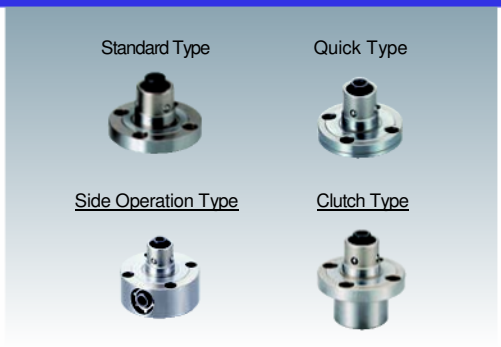


Features

The bush is temporary tightened from the top surface of the jig plate using mounting screws.



The base plate and jig plate are fastened using the Q-lock element, and then the mounting screws for the bushes are fully tightened.



RoHS Compliant

ERON

No.E-659C

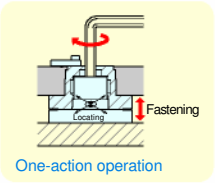
Q-Lock Elements/Pins (Screw Type)

Material Main body: SCM440 Steel balls: SUJ2

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

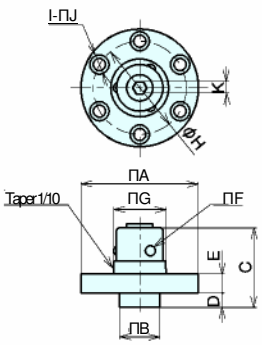
Types and External Dimensions

Standard Type/Quick Type

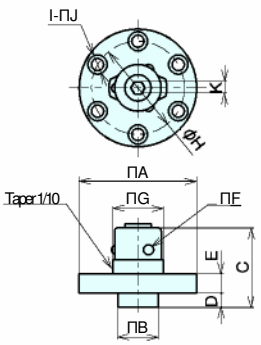


One-action operation

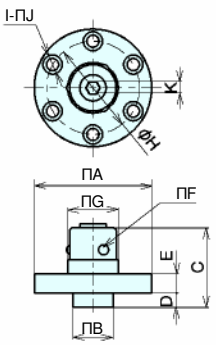
Locating pin



Dia. pin



Clamp pin



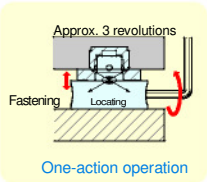
Pin (Standard Type) Specifications

Type	Order No.	No.	A	B -0.003 -0.013	C	D	E ±0.005	F	G	H	I	J	K	Weight (g)
Locating pin	66261	QLT19RP	45	15	31.3	6	7	4	19	36	4	4.5	5	110
	66262	QLT26RP	58	20	39.2	7	10	5	26	46	4	6	6	260
	66263	QLT32RP	72	25	49	8.5	12	6	32	58	4	7	8	500
	67647	QLT40RP	88	28	59	9.5	15	7	40	72	6	7	10	950
Dia. pin	66258	QLT19DP	45	15	31.3	6	7	4	19	36	4	4.5	5	110
	66259	QLT26DP	58	20	39.2	7	10	5	26	46	4	6	6	260
	66260	QLT32DP	72	25	49	8.5	12	6	32	58	4	7	8	500
	67648	QLT40DP	88	28	59	9.5	15	7	40	72	6	7	10	950
Clamp pin	66255	QLT19CP	45	15	31.3	6	7	4	17.8	36	4	4.5	5	110
	66256	QLT26CP	58	20	39.2	7	10	5	25	46	4	6	6	260
	66257	QLT32CP	72	25	49	8.5	12	6	30	58	4	7	8	500
	67649	QLT40CP	88	28	59	9.5	15	7	37	72	6	7	10	950

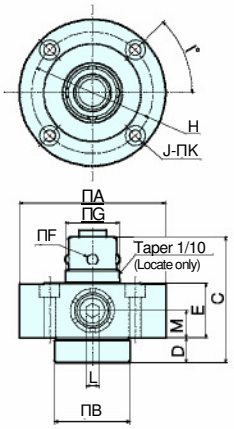
Pin (Quick Type) Specifications

Type	Order No.	No.	A	B -0.003 -0.013	C	D	E ±0.005	F	G	H	I	J	K	Weight (g)
Locating pin	91492	QLTF19RP	45	15	31.3	6	7	4	19	36	4	4.5	5	110
	91493	QLTF26RP	58	20	39.2	7	10	5	26	46	4	6	6	260
	91494	QLTF32RP	72	25	49	8.5	12.5	6	32	58	4	7	8	500
	91495	QLTF40RP	88	28	59	9.5	15	7	40	72	6	7	10	950
Dia. pin	91496	QLTF19DP	45	15	31.3	6	7	4	19	36	4	4.5	5	110
	91497	QLTF26DP	58	20	39.2	7	10	5	26	46	4	6	6	260
	91498	QLTF32DP	72	25	49	8.5	12.5	6	32	58	4	7	8	500
	91499	QLTF40DP	88	28	59	9.5	15	7	40	72	6	7	10	950
Clamp pin	91500	QLTF19CP	45	15	31.3	6	7	4	17.8	36	4	4.5	5	110
	91501	QLTF26CP	58	20	39.2	7	10	5	25	46	4	6	6	260
	91502	QLTF32CP	72	25	49	8.5	12.5	6	30	58	4	7	8	500
	91503	QLTF40CP	88	28	59	9.5	15	7	37	72	6	7	10	950

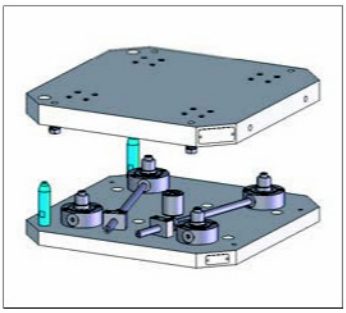
Side Operation Type



One-action operation



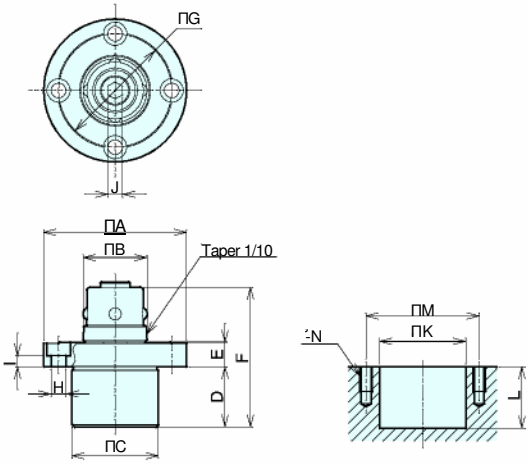
Usage Examples



Pin (Side Operation Type) Specifications

Type	Order No.	No.	A	B $^{-0.003}_{-0.02}$	C	D	E±0.005	F	G	H	I	J	K	L	M	Weight(g)
Locating pin	114597	QLTS26RPV	70	36	60.2	12	26	5	26	58	45	4	6	6	13	770
	114598	QLTS40RPV	108	58	83.5	14.5	37	7	40	86	60	6	7	10	18.5	2700
Clamp pin	114595	QLTS26CPV	70	36	60.2	12	26	5	25	58	45	4	6	6	13	770
	114596	QLTS40CPV	108	58	83.5	14.5	37	7	37	86	60	6	7	10	18.5	2700

Clutch Type

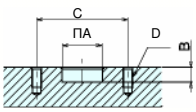


Pin (Clutch Type) Specifications

Type	Order No.	No.	A	B	C $^{-0.005}_{-0.016}$	D	E±0.005	F	G	H	I	J	Weight(g)
Locating pin	109775	QLTC26RP	58	26	36	24.5	10	56.7	46	6	4.5	6	400
Dia. pin	109776	QLTC26DP	58	26	36	24.5	10	56.7	46	6	4.5	6	400
Clamp pin	109777	QLTC26CP	58	24	36	24.5	10	56.7	46	6	4.5	6	400

Mounting Dimensions

Standard Type/Quick Type/Side Operation Type
Clutch Type

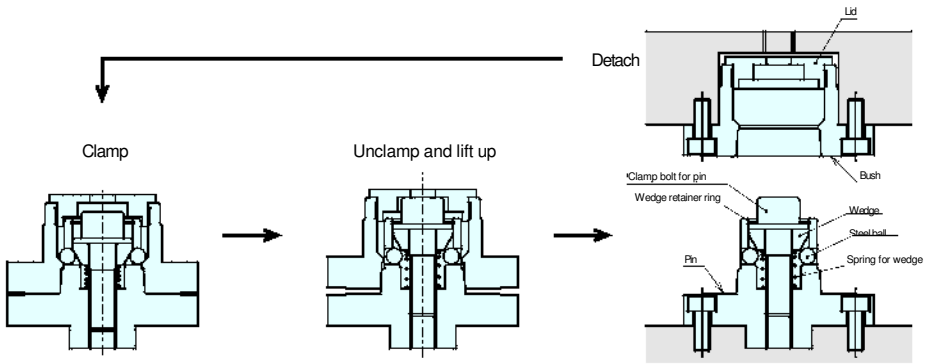


Base plate side

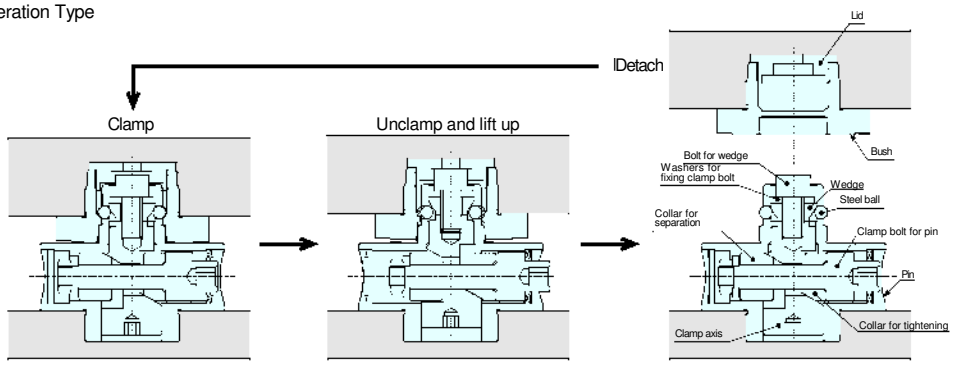
No.	A	B	C	D
QLT(F)19	15 $^{+0.011}_{0}$	6.5	36	4-M4 depth 8
QLT(F)26	20 $^{+0.013}_{0}$	7.5	46	4-M5 depth 10
QLT(F)32	25 $^{+0.013}_{0}$	9	58	4-M6 depth 12
QLT(F)40	28 $^{+0.013}_{0}$	10	72	6-M6 depth 12
QLTS26	36 $^{+0.016}_{0}$	12.5	58	4-M5 depth 10
QLTS40	58 $^{+0.019}_{0}$	15	86	6-M6 depth 12
QLTC26	36 $^{+0.016}_{0}$	25	46	4-M5 depth 10

Section Drawing

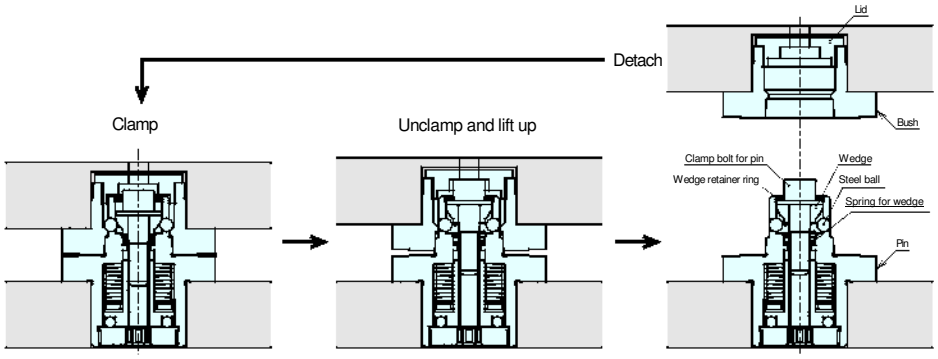
Standard Type/Quick Type



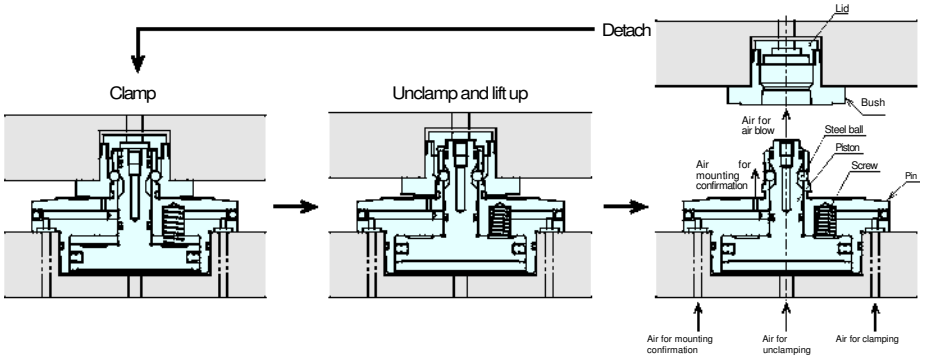
Side Operation Type



Clutch Type



Pneumatic Type



RoHS Compliant

ERON

No.E-659C

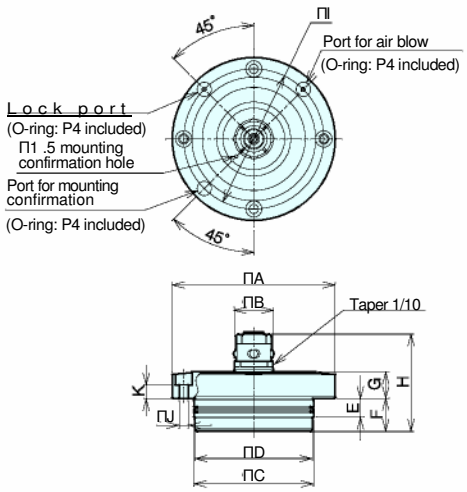
Q-Lock Elements/Pins

(Pneumatic Type)

Material Main body: SUS440C

Heat Treatment Main body: HRC55 heat treatment

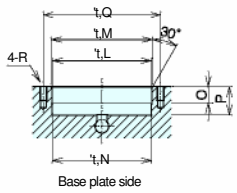
- Types and External Dimensions



Pin (Pneumatic Type) Specifications

Type	Order No.	No.	A	B	C	D	E	F	G±0.005	H	I	J	K	Weight (kg)	
Locating pin	109771	QLA19RP	79	19	$58^{0}_{-0.013}$	57	9	16	13	47.3	68	4.5	6.5	0.7	
	109772	QLA26RP	104	26	$78^{0}_{-0.013}$	77	9	19.5	15	56.7	90	6.6	6	1.4	
Clamp pin	109773	QLA19CP	79	17.8	$58^{0}_{-0.013}$	57	9	16	13	47.3	68	4.5	6.5	0.7	
	109774	QLA26CP	104	24	$78^{0}_{-0.013}$	77	9	19.5	15	56.7	90	6.6	6	1.4	

- Mounting Dimensions



No.	L	M	N	O	P +0.30	Q	R
QLA19	$58^{+0.013}_{059}$		57.5	10	16.5	68	M4
QLA26	$78^{+0.013}_{0}$	79	77.5	10	20	90	M6

- Technical Data

Type		Pneumatic Type	
Drive Method	Clamping	Spring + Pneumatic	
	Unclamp	Pneumatic	
No.		QLA19	QLA26
Clamping Force (kN) (at 0.5 MPa)		1.4	2
Liftup Force (kN/piece) (at 0.5MPa)		0.6	1.1
Clamp Stroke (mm)		3.3	4
Amount of Lift Up (mm)			
Cylinder Volume(cm^3)	Clamp Side	9.5	15.5
	Unclamp Side	10	22.7
Maximum Usage Pressure (MPa)		1	
Minimum Usage Pressure (MPa)		0.35	
Guaranteed Withstand Pressure		1.5	
Recommended Air Blow Pressure (MPa)		0.5	
Used Fluid		Dry Air	
Ambient Operating Temperature (°C)		0-65	
Weight (kg)		0.7	1.4

RoHS Compliant

ERON

No.E-659C

Q-Lock Elements/Bushes

(Screw Type/Pneumatic Type)

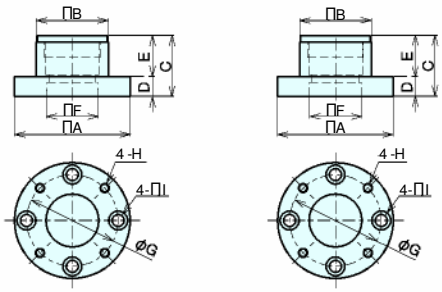
Material Main body: SCM440

Heat Treatment Main body: HRC55 heat treatment

Accessories Chip cover

- Types and External Dimensions

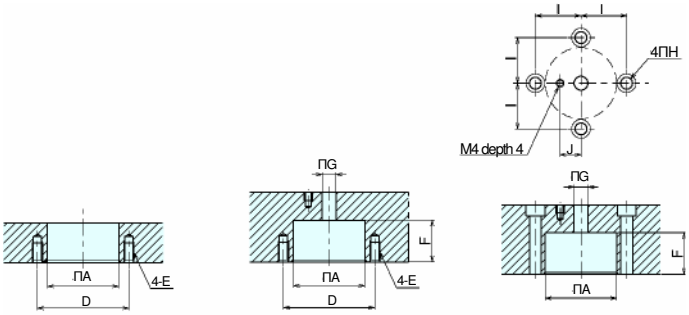
Locate bush Clamp bush



Bush Specifications

Type	Order No.	No.	A	$B_{-0.016}^{0}$	C	D±0.005	E	F	G	H	I	Weight(g)
Locate Bush	66264	QLT19RB	45	27	24.5	7	17.5	19	36	M4X0.7	4.5	110
	66265	QLT26RB	58	36	30.5	10	20.5	26	46	M5 X 0.8	6	250
	66266	QLT32RB	72	45	37.5	12	25.5	32	58	M6 X 1.0	7	470
	67650	QLT40RB	88	58	46.5	15	31.5	40	72	M6 X 1.0	7	1000
Clamping Bush	66252	QLT19CB	45	27	24.5	7	17.5	18.5	36	M4X0.7	4.5	110
	66253	QLT26CB	58	36	30.5	10	20.5	25.5	46	M5 X 0.8	6	250
	66254	QLT32CB	72	45	37.5	12	25.5	31.5	58	M6 X 1.0	7	470
	67651	QLT40CB	88	58	46.5	15	31.5	39.5	72	M6 X 1.0	7	1000

- Mounting Dimensions



No.	A	Tolerance of A	E	F	G	H	I	J
QLT19	27	$^{+0.033}_{+0.020}$	M4 depth 8	18.5	6.2	4.5	18	7.8
QLT26	36	$^{+0.041}_{+0.025}$	M5 depth 10	21.5	7.3	6.0	23	10.5
QLT32	45	$^{+0.041}_{+0.025}$	M6 depth 12	26.5	9.7	7.0	29	13.0
QLT40	58	$^{+0.049}_{+0.030}$	M6 depth 12	32.5	12.0	7.0	36	13.0

* The pitch tolerance of 1' A is within ± 0.01. (If ± 0.01 is exceeded, add an adjusting allowance by making the dimension of 1' A larger to match the pitch dimension.)

RoHS Compliant

ERON

No.E-659C

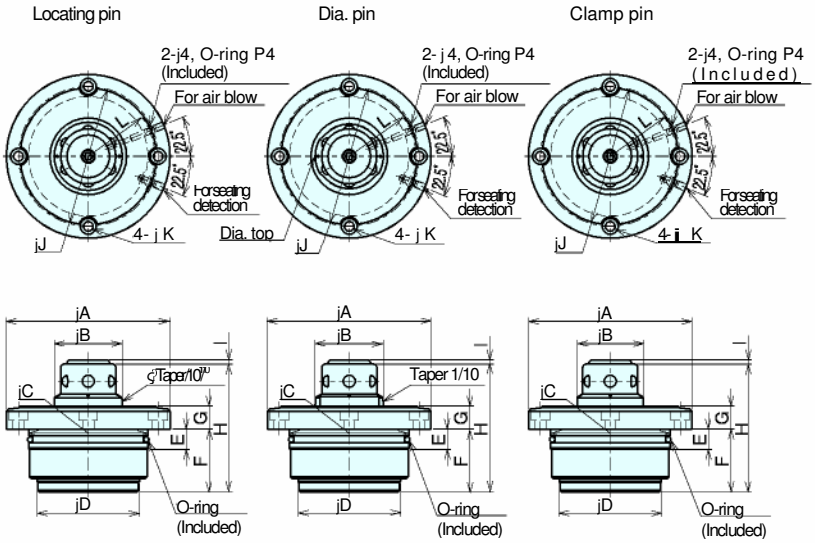
Q-Lock Elements/Pins (Hydraulic Type Single Action)

Material Main body: SCM420 Piston: SCM440
alls: SUJ2

Heat Treatment Main body: HRC55 heat treatment
5 heat reatment
RC62 heat reatment

Clamping by spring.

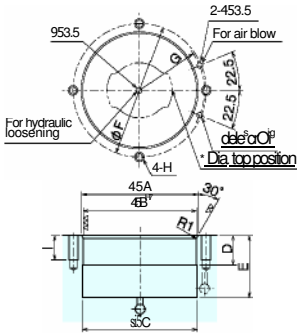
Types and External mensions



Pin (Hydraulic Type Single Action) Specifications

Type	Order No.	No.	A	B	C	D	E	F	G	H	I	J	K	L	Weight(kg)
Locating pin	71075	QLSM03RP	66	32	45	37.5	10	30	12	65	1.8	54	5.5	27	0.7
	68836	QLSM07RP	96	40	70	60	12	37	13.5	75	1.8	82	6.6	41	2.1
	68837	QLSM10RP	118	48	90	75	15	43	17	88.5	2.6	102	6.6	51	4.0
	68838	QLSM16RP	132	55	100	85	15	58	18	109.5	3.3	114	9	57	5.8
Dia. Pin	71076	QLSM03DP	66	32	45	37.5	10	30	12	65	1.8	54	5.5	27	0.7
	68839	QLSM07DP	96	40	70	60	12	37	13.5	75	1.8	82	6.6	41	2.1
	68840	QLSM10DP	118	48	90	75	15	43	17	88.5	2.6	102	6.6	51	4.0
	68841	QLSM16DP	132	55	100	85	15	58	18	109.5	3.3	114	9	57	5.8
Clamp pin	71077	QLSM03CP	66	30	45	37.5	10	30	12	65	1.8	54	5.5	27	0.7
	68842	QLSM07CP	96	39	70	60	12	37	13.5	75	1.8	82	6.6	41	2.1
	68843	QLSM10CP	118	47	90	75	15	43	17	88.5	2.6	102	6.6	51	4.0
	68844	QLSM16CP	132	54	100	85	15	58	18	109.5	3.3	114	9	57	5.8

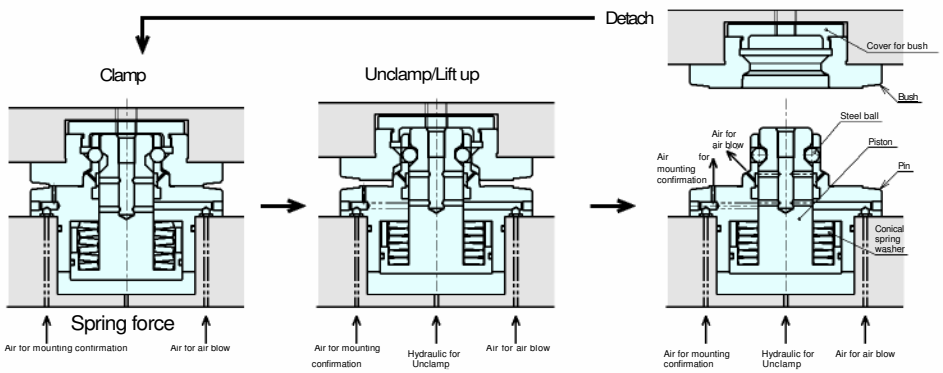
Mounting Dimensions



No.	A	B^{H7}	C		DE	F	G	H	I
QLSM03	46	45	44.5	12	32	54	27	M5	13
QLSM07	72	70	71	18	39	82	41	M6	15
QLSM10	92	90	91	20	45	102	51	M6	15
QLSM16	102	100	101	20	60	114	57	M8	20

* For dia. pins, the position between the top position and tapping hole is as shown in the diagram, and the tapping holes and port holes should be machined to suit the direction of the dia.

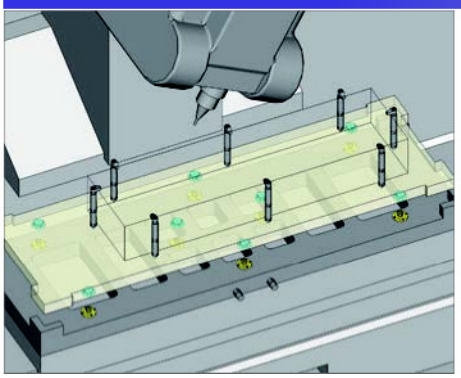
- Section Drawing

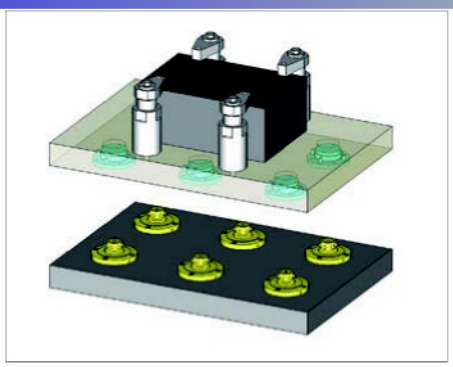


- Technical Data

Type		Hydraulic Type Single Action			
Drive Method	Clamping	Spring			
	Unclamp	Hydraulics			
No.		QLSM03	QLSM07	QLSM10	QLSM16
Clamping Force (kN) (at 5 MPa)		3	7	10	16
Cylinder Volume (□³)	Clamp Side	-	-	-	-
	Unclamp Side	2	7	14	15
Clamp Stroke (mm)		1.8	2.3	3.1	2.6
Liftup Amount (mm) (at 5 MPa)		1.3	1.8	2.6	2.1
Liftup Force (kN/piece) (at 5 MPa)		1.7	5	9	10
Minimum Operating Pressure When Unclamped (MPa)		3.6			
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





RoHS Compliant

ERON

No.E-659C

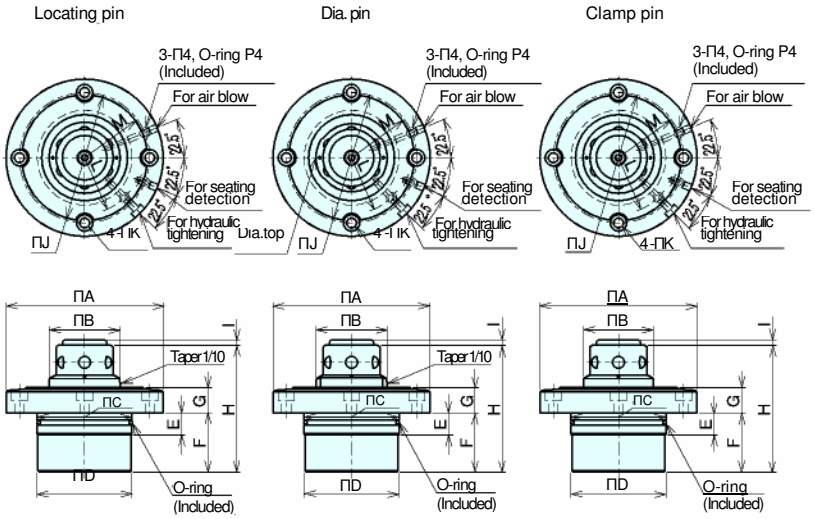
Q-Lock Elements/Pins (Hydaulic Type Double Acton)

Material Main body: SCM420 Piston: SCM440
all: SUJ2

Heat Treatment Main body: HRC55 heat treatment
5 heat reatment
RC62 heat reatment

Clamping by hydraulic pressure.

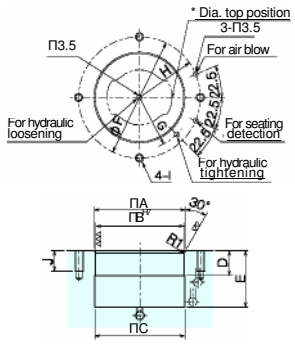
- Types and External Dimensions



Pin (Hydraulic Type Double Action) Specifications

Type	Order No.	No.	A	B	C[5]	D	E	F$^{-0.05}_{-0.1}$	G$^{-0.003}$	H	I	J	K	L	M	Weight(kg)	
Locating pin	71078	QLHM03RP	66	32	42	41	10	25.5	12	65	3	54	5.5	25.5	25.5	0.5	
	68845	QLHM07RP	96	40	54	53	12	37	13.5	75	3	82	6.6	34	34	1.5	
	68846	QLHM10RP	106	48	64	63	15	40	17	85.5	3.5	88	6.6	38	44	2.3	
	68847	QLHM16RP	120	55	80	79	15	45	18	96.5	3.5	100	9	46	50	3.5	
	68848	QLHM25RP	140	55	90	89	15	50	18	103.5	3.5	116	11	54	58	4.8	
Dia. Pin	71079	QLHM03DP	66	32	42	41	10	25.5	12	65	3	54	5.5	25.5	25.5	0.5	
	68849	QLHM07DP	96	40	54	53	12	37	13.5	75	3	82	6.6	34	34	1.5	
	68850	QLHM10DP	106	48	64	63	15	40	17	85.5	3.5	88	6.6	38	44	2.3	
	68851	QLHM16DP	120	55	80	79	15	45	18	96.5	3.5	100	9	46	50	3.5	
	68852	QLHM25DP	140	55	90	89	15	50	18	103.5	3.5	116	11	54	58	4.8	
Clamp pin	71081	QLHM03CP	66	30	42	41	10	25.5	12	65	3	54	5.5	25.5	25.5	0.5	
	68853	QLHM07CP	96	39	54	53	12	37	13.5	75	3	82	6.6	34	34	1.5	
	68854	QLHM10CP	106	47	64	63	15	40	17	85.5	3.5	88	6.6	38	44	2.3	
	68855	QLHM16CP	120	54	80	79	15	45	18	96.5	3.5	100	9	46	50	3.5	
	68856	QLHM25CP	140	54	90	89	15	50	18	103.5	3.5	116	11	54	58	4.8	

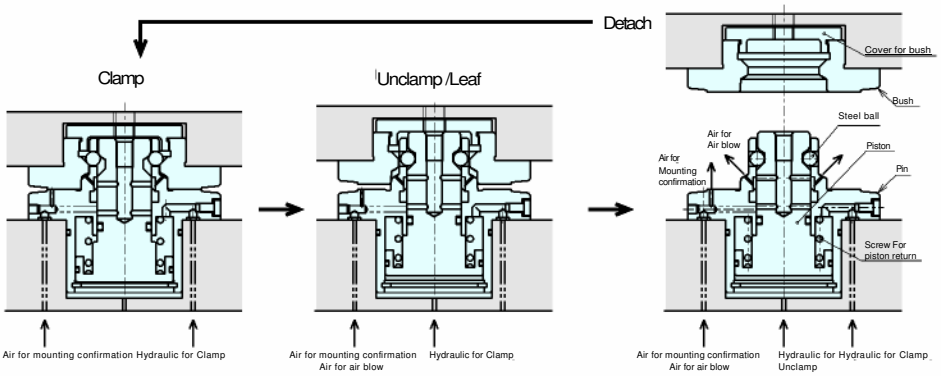
- Mounting Dimensions



No.	A	B$_{H7}$	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

* For dia. pins, the position between the top position and tapping hole is as shown in the diagram, and the tapping holes and port holes should be machined to suit the direction of the dia.

- 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 (□ 3)	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