

Floating Joints

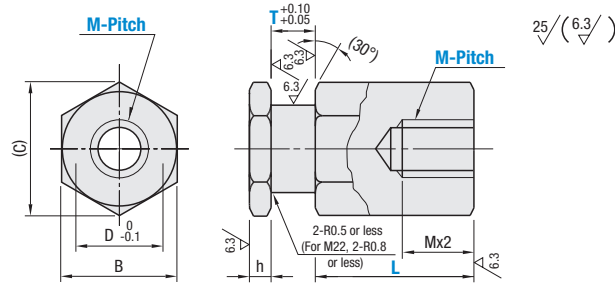
Quick Connection Type

Features: Length can be configured in 1mm increments.

Floating Joints – Quick Connection Type



RoHS 10



- For details of Salt-bath Nitriding, see P.4029
- Salt-bath Nitriding may cause uneven color, which doesn't affect mechanical function.
- No Salt-bath Nitriding Treatment on the Thread End of FJRL.

Type	Material	Surface Treatment	Hardness
FJGF	1045 Carbon Steel or Equivalent	Hard Chrome Plating	750 HV min.
FJRL	1045 Carbon Steel or Equivalent	Salt-bath Nitriding	500 HV min.
FJRSL	304 Stainless Steel	Nitride Treatment	1000 HV min.

T / L Configurable

Part Number		T		L		h	D	B	C
Type	M-Pitch	0.1 mm Increment	1 mm Increment	1 mm Increment	1 mm Increment				
FJGF	3-0.5	2.0-20.0	3-10			3	6	8	9.2
	4-0.7		7	10	11.5				
	5-0.8		8	12	13.9				
	6-1.0		10	14	16.2				
	8-1.0		13	17	19.6				
	8-1.25		16	21	24.2				
	10-1.25	3.0-20.0	4-30			4	16	21	24.2
	10-1.5		18	23	26.6				
	12-1.25		21	26	30				
	12-1.5		25	30	34.6				
	14-1.5		27	32	36.9				
	16-1.5		30	36.9	36.9				
18-1.5	4.0-20.0	5-40			5	25	30	34.6	
22-1.5		30	36.9	36.9					
FJRSL	3-0.5	2.0-20.0	3-10			3	6	8	9.2
	4-0.7		7	10	11.5				
	5-0.8		8	12	13.9				
	6-1.0		10	14	16.2				
	8-1.0		13	17	19.6				
	8-1.25		16	21	24.2				
	10-1.25	3.0-20.0	4-30			4	16	21	24.2
	10-1.5		18	23	26.6				
	12-1.25		21	26	30				
	12-1.5		25	30	34.6				
	14-1.5		27	32	36.9				
	16-1.5		30	36.9	36.9				
18-1.5	4.0-20.0	5-40			5	25	30	34.6	
22-1.5		30	36.9	36.9					

- When $h + T + L \leq 3M$, the tapped hole may go through.
- FJGF is a floating connector for air cylinders.

Example of T Dimension Configuring Method

- Configure T Dimension when using an Original Holder/Flat Bar combination.
- It is possible to minimize backlash by "Size Configuration allowing for Groove Width/Allowance".

Example of Connector T Dimensions for Connection to Flat Bar

Processing Method	Plate Thickness	Tolerance		Unit: mm	
		Upper Limit	Lower Limit	Connector T Dimension	Backlash*
Ex. 1 Cold Rolling	4.5	0	-0.1	4.5	0.05-0.2
Ex. 2 Hot Rolling	5	+0.3	-0.3	5.3	0.05-0.7

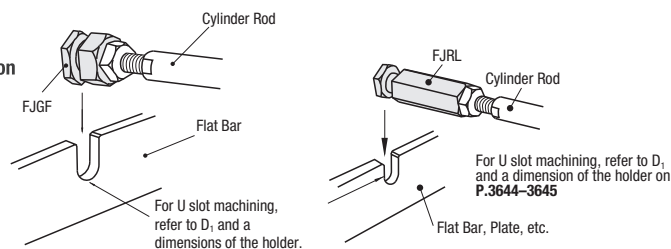
T Selection / L Configurable

Part Number		T		L		h	D	B	(C)
Type	M-Pitch	1 mm Increment	1 mm Increment	1 mm Increment	1 mm Increment				
FJRSL	3-0.5	2.0-20.0	3-50			3	6	8	9.2
	4-0.7		7	10	11.5				
	5-0.8		8	12	13.9				
	6-1.0		10	14	16.2				
	8-1.0		13	17	19.6				
	8-1.25		16	21	24.2				
	10-1.25	3.0-20.0	4-100			4	16	21	24.2
	10-1.5		18	23	26.6				
	12-1.25		21	26	30				
	12-1.5		25	30	34.6				
	14-1.5		27	32	36.9				
	16-1.5		30	36.9	36.9				
18-1.5	4.0-20.0	5-100			5	25	30	34.6	
22-1.5		30	36.9	36.9					

- For compatible holders, see HLRAF (P.3644).
- When $h + T + L \leq 3M$, the tapped hole may go through.

Part Number Example	Part Number	T	L
FJGF4-0.7	4.5	15	
FJRL4-0.7	8	20	

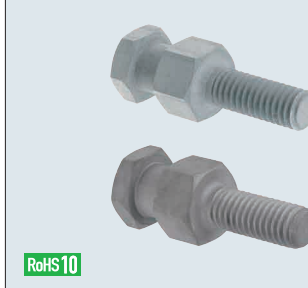
Application Example



Compact Floating Joints / Floating Joints

Threaded Type / Sheet Metal Holder Set

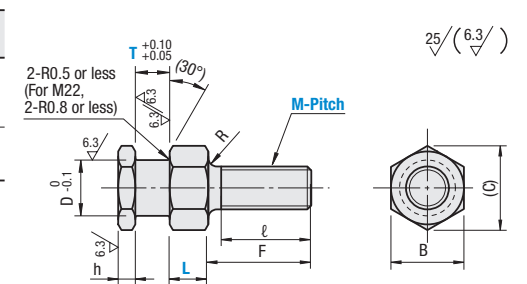
Compact Floating Joint – Threaded Type



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Type		Material	Surface Treatment	Surface Hardness
L Fixed	L Configurable			
FJD	FJDL	1045 Carbon Steel or Equivalent	Salt-bath Nitriding	500 HV min.
FJDSW	—	304 Stainless Steel	Nitride Treatment	1,000 HV min.

- Salt-bath Nitriding may cause uneven color, which doesn't affect mechanical function.
- For details of Salt-bath Nitriding, refer to P.4029
- No Salt-bath Nitriding Treatment on F Dimension for FJDL.



Part Number		T Selection		L		h	D	F	ℓ	B	(C)	R		
Type	M-Pitch	L Fixed	L Configurable (1 mm Increment)	L Fixed	L Configurable (1 mm Increment)									
L Fixed FJD	3-0.5	3	4	4	3-15	3	4	8	6	6	6.9	1		
	4-0.7	3	4	5	6		8	9	10	11	9		6	
	5-0.8	3	4	5	6		8	3-20	6	13	11		8	9.2
	6-1.0	4	5	6	8		4-30	7	19	17	10		11.5	
	8-1.25	5	6	8	12		4-40	10	20	18	14		16.2	
	10-1.5	6	8	9	10		12	13	24	21	17		19.6	
L Configurable FJDL	16-2.0	12	20	12	8-80	4	21	40	37	26	30	2		
	20-2.5	15	20	15	10-100		25	50	46	30	34.6			
	22-2.5	12	15	20	17		10-100	27	60	56	32		36.9	

- FJDSW is not available for M22-2.5.

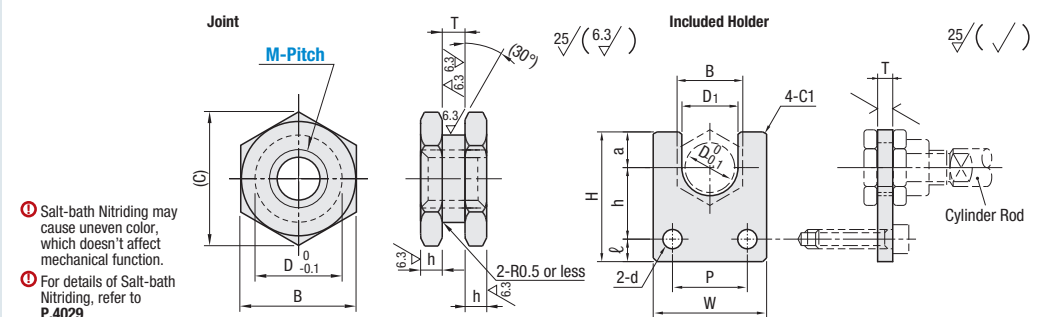
Part Number Example	Part Number	T	L
FJD5-0.8	5		
FJDL10-1.5	8	20	

Floating Joint – Sheet Metal Holder Set



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Type	Material		Surface Treatment	Surface Hardness
	Floating Joint	Holder		
FJSC	1045 Carbon Steel or Equivalent	Low Carbon Steel Equivalent	Salt-bath Nitriding	500 HV min.



- Salt-bath Nitriding may cause uneven color, which doesn't affect mechanical function.
- For details of Salt-bath Nitriding, refer to P.4029.

kgf=Nx0.101972

Part Number		T		h	D	B	(C)	Included Holder												
Type	M-Pitch	Tolerance	Tolerance					Tolerance	B	D ₁	W	H	a	h	ℓ	P	d	Maximum Applied Tensile/Compression Force (N)		
FJSC	3-0.5	2.3	+0.3	+0.25	2	6	8	9.2	2.3	±0.19	8	6.5	16	25	5	14	6	8	4.5	19
	4-0.7	2.3	+0.3	+0.25	2	7	10	11.5	2.3	±0.19	10	8	19	26	6	14	6	8	4.5	54
	5-0.8	3.2	+0.35	+0.3	3	8	12	13.9	3.2	±0.23	12	9	22	33	7	18	8	12	5.5	123
	6-1.0	3.2	+0.35	+0.3	3	10	14	16.2	3.2	±0.23	14	11	25	34	8	18	8	14	5.5	123

Part Number Example	Part Number
FJSC4-0.7	

Application Example

