

# (5) Tohatsu ISO standard 东发 ISO 标准弹簧

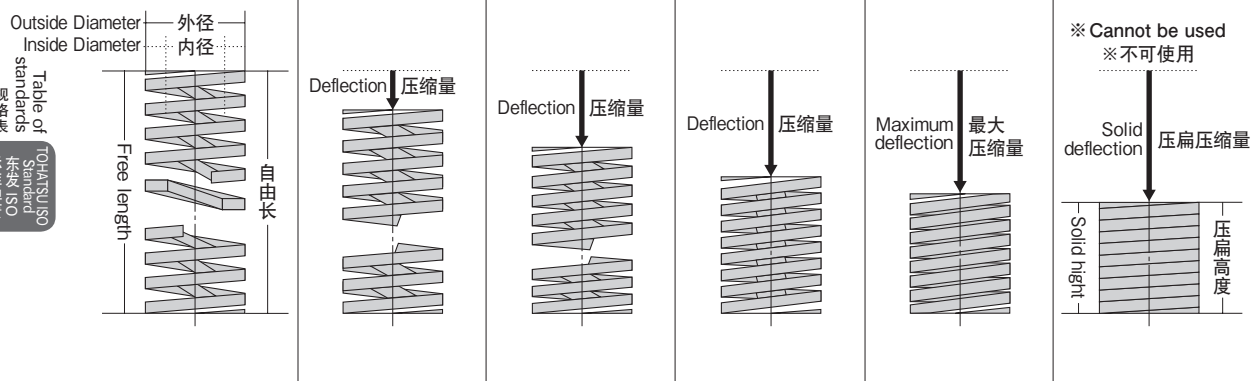
## ① Characteristics 特征

### ○ Types, materials, and anti-heat temperatures 种类、材料、耐热温度

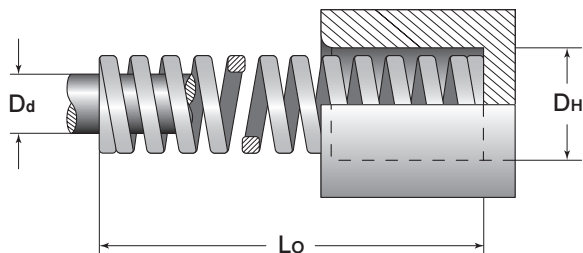
Type 种类	Model 型号	Identification colors, anti-rust treatment 识别颜色·防锈处理	Material 材料	Temperature range for use 使用温度
Light load 轻负荷	TJL	Green, Electrophoretic coating 绿色·电泳涂装	Oil tempered wire for mechanical spring 硅铬弹簧钢	- 30°C ~ 150°C
Medium load 中等负荷	TJM	Blue, Electrophoretic coating 蓝色·电泳涂装	Oil tempered wire for mechanical spring 硅铬弹簧钢	- 30°C ~ 150°C
Heavy load 重负荷	TJH	Red, Electrophoretic coating 红色·电泳涂装	Oil tempered wire for mechanical spring 硅铬弹簧钢	- 30°C ~ 150°C
Extra heavy load 极重负荷	TJB	Yellow, Electrophoretic coating 黄色·电泳涂装	Oil tempered wire for mechanical spring 硅铬弹簧钢	- 30°C ~ 150°C

### ○ The relationship between the usage frequency and compression ratio of Tohatsu iso standard 东发 ISO 标准弹簧的使用寿命与压缩比的关系

Type 种类	Usage frequency 使用次数	Free length × % 3,000,000cycles Deflection 自由长 × % 300万次	Free length × % 1,500,000cycles Deflection 自由长 × % 150万次	Free length × % 500,000cycles Deflection 自由长 × % 50万次	Free length × % 200,000cycles Deflection 自由长 × % 20万次	⚠ Solid deflection 压扁压缩量 (Free length × %) (自由长 × %)
TJL		25.0%	30.0%	35.0%	40.0%	(Reference value 参考值 42.0%)
TJM		25.0%	30.0%	33.75%	37.5%	(Reference value 参考值 39.5%)
TJH		20.0%	25.0%	27.5%	30.0%	(Reference value 参考值 32.0%)
TJB		17.0%	20.0%	22.5%	25.0%	(Reference value 参考值 27.0%)



### ○ Allowable variances 许用公差



D <sub>H</sub>	Housing diameter 孔径
D <sub>d</sub>	Spring-guide pin diameter 轴径
L <sub>o</sub>	Free length 自由长

### Caution 注意

It's necessary to note it, 「JIS B 5012」 There is restriction on tolerance to the outside diameter and inside diameter, 「ISO 10243」 There is no restriction on tolerance to the outside diameter and inside diameter of springs. 「ISO 10243」 is the standard which restricted the hole diameter and the shaft diameter of a spring which enter. If you need to know the size of the outside diameter and the inside diameter before uses.

「JIS B 5012 标准」对弹簧的外径·内径的许用公差进行规定，而「ISO 10243 标准」则对弹簧的安装孔径和穿过弹簧的轴径的许用公差进行规定。因此须对此特别注意。在使用之前，有必要确认弹簧的实际外径和内径时，请与本公司联系。

※ 1 表 1

○ Allowable variance 许用公差

DH	Dd	Free length 自由长			Maximum load 最大负荷	Windings 旋向
		25 ~ 64 mm	76 ~ 115 mm	127 ~ 305 mm		
H15	h15	± 3 %	± 2.5 %	± 2 %	± 10 %	Right 右

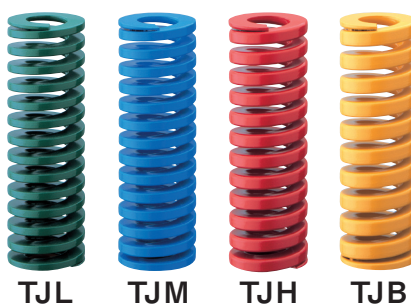
○ ADVANTAGES OF TOHATSU ISO STANDARD 东发 ISO 标准弹簧的优异性

- Tohatsu organized load range in stable which makes Tohatsu ISO springs more reliable and convenient!
- Tohatsu set up original regulation on load as ±10% tolerance at maximum load setting (200,000 times)!
- Indication of durability on the catalogue makes customer to use our products safely and maintenance free!
- Tohatsu developed and added 76 original sizes!

- 标准负荷不随自由长变化！
- 在目录上标注负荷公差 ±10 %
- 重视疲劳寿命（目录上标注疲劳特性）
- 追加 76 种东发独自规格

Reference 参考	<ul style="list-style-type: none"> <li>The usage figures for all series are obtained from in-house tests and are not guaranteed.</li> <li>The solid deflection is a reference value.</li> <li>全系列的使用次数均为本公司的实验值，并非保证值。</li> <li>压扁压缩量为参考值（不同批号的数值有差异。）</li> </ul>
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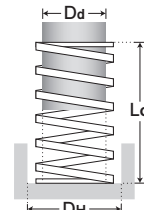
○ The appearance of the springs  
外观



 Warning 警告	<p>Please adhere to the following items when using our products. Due to their condition of use, springs can scatter upon breaking and be a cause of injury.</p> <ul style="list-style-type: none"> <li>Please do not use TJL with a deflection exceeding Free length × 40.0 %</li> <li>Please do not use TJM with a deflection exceeding Free length × 37.5 %</li> <li>Please do not use TJH with a deflection exceeding Free length × 30.0 %</li> <li>Please do not use TJB with a deflection exceeding Free length × 25.0 %</li> <li>Please install the spring in a slightly compressed condition (state of initial pressure).</li> </ul> <p>使用时请遵守以下事项。使用方法不当，有可能因断裂弹簧的飞散等导致人身伤害。</p> <ul style="list-style-type: none"> <li>TJL 的使用压缩量不可超过自由长 × 40.0 %</li> <li>TJM 的使用压缩量不可超过自由长 × 37.5 %</li> <li>TJH 的使用压缩量不可超过自由长 × 30.0 %</li> <li>TJB 的使用压缩量不可超过自由长 × 25.0 %</li> <li>在设置弹簧时，应使弹簧在受压缩的状态（有预压的状态）下使用。</li> </ul>
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# TJL TOHATSU ISO STANDARD Springs



Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length × 25.0% 3,000,000 cycles 自由长 × 25.0% 300万次		Free length × 30.0% 1,500,000 cycles 自由长 × 30.0% 150万次		Free length × 35.0% 500,000 cycles 自由长 × 35.0% 50万次		Free length × 40.0% 200,000 cycles 自由长 × 40.0% 20万次		Warning Cannot be used 不可使用 (mm)
					Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	
TJL10-25	10.0 +0.58mm -0mm	5.0 +0mm -0.58mm	25	12.0	6.3	75	90	105	120	10.5			
TJL10-32			32	9.4	8.0					13.4			
TJL10-38			38	7.9	9.5					16.0			
TJL10-44			44	6.8	11.0					18.5			
TJL10-51			51	5.9	12.8					21.4			
TJL10-64			64	4.7	16.0					26.9			
TJL10-76			76	3.9	19.0					31.9			
TJL10-89			89	3.4	22.3					37.4			
TJL10-102			102	2.9	25.5					42.8			
TJL10-305			305	1.0	76.3					128.1			
TJL12.5-25	12.5 +0.7mm -0mm	6.3 +0mm -0.58mm	25	24.0	6.3	150	180	210	240	10.5			
TJL12.5-32			32	18.8	8.0					13.4			
TJL12.5-38			38	15.8	9.5					16.0			
TJL12.5-44			44	13.6	11.0					18.5			
TJL12.5-51			51	11.8	12.8					21.4			
TJL12.5-64			64	9.4	16.0					26.9			
TJL12.5-76			76	7.9	19.0					31.9			
TJL12.5-89			89	6.7	22.3					37.4			
TJL12.5-102			102	5.9	25.5					42.8			
TJL12.5-115			115	5.2	28.8					48.3			
TJL12.5-305	305	2.0	76.3	128.1									
TJL16-25	16.0 +0.7mm -0mm	8.0 +0mm -0.58mm	25	30.0	6.3	188	225	263	300	10.5			
TJL16-32			32	23.4	8.0					13.4			
TJL16-38			38	19.7	9.5					16.0			
TJL16-44			44	17.0	11.0					18.5			
TJL16-51			51	14.7	12.8					21.4			
TJL16-64			64	11.7	16.0					26.9			
TJL16-76			76	9.9	19.0					31.9			
TJL16-89			89	8.4	22.3					37.4			
TJL16-102			102	7.4	25.5					42.8			
TJL16-115			115	6.5	28.8					48.3			
TJL16-127	127	5.9	31.8	53.3									
TJL16-305	305	2.5	76.3	128.1									
TJL20-25	20.0 +0.84mm -0mm	10.0 +0mm -0.58mm	25	60.0	6.3	375	450	525	600	10.5			
TJL20-32			32	46.9	8.0					13.4			
TJL20-38			38	39.5	9.5					16.0			
TJL20-44			44	34.1	11.0					18.5			
TJL20-51			51	29.4	12.8					21.4			
TJL20-64			64	23.4	16.0					26.9			
TJL20-76			76	19.7	19.0					31.9			
TJL20-89			89	16.9	22.3					37.4			
TJL20-102			102	14.7	25.5					42.8			
TJL20-115			115	13.0	28.8					48.3			
TJL20-127			127	11.8	31.8					53.3			
TJL20-139			139	10.8	34.8					58.4			
TJL20-152			152	9.9	38.0					63.8			
TJL20-178			178	8.4	44.5					74.8			
TJL20-203			203	7.4	50.8					85.3			
TJL20-305	305	4.9	76.3	128.1									
TJL25-25	25.0 +0.84mm -0.7mm	12.5 +0mm -0.7mm	25	90.0	6.3	563	675	788	900	10.5			
TJL25-32			32	70.3	8.0					13.4			
TJL25-38			38	59.2	9.5					16.0			
TJL25-44			44	51.1	11.0					18.5			
TJL25-51			51	44.1	12.8					21.4			
TJL25-64			64	35.2	16.0					26.9			
TJL25-76			76	29.6	19.0					31.9			

Table of standards  
规格表  
轻负荷

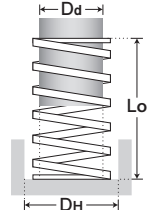
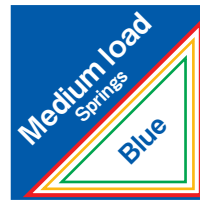
1N = 0.1daN = 0.102 kg      1mm = 0.0394 in.

Example order 订货例: [TJL] [10] - [25] ([M] [DH] - [Lo])

Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length×25.0% 3,000,000 cycles 自由长×25.0% 300万次		Free length×30.0% 1,500,000 cycles 自由长×30.0% 150万次		Free length×35.0% 500,000 cycles 自由长×35.0% 50万次		Free length×40.0% 200,000 cycles 自由长×40.0% 20万次		Warning Cannot be used 不可使用 (mm)						
					Deflection 压缩量 (mm)	Load 负荷 N/kgfj	Deflection 压缩量 (mm)	Load 负荷 N/kgfj	Deflection 压缩量 (mm)	Load 负荷 N/kgfj	Deflection 压缩量 (mm)	Load 负荷 N/kgfj							
TJL25-89	25.0 +0.84mm -0mm	12.5 +0mm -0.7mm	89	25.3	22.3	563	26.7	675	31.2	788	35.6	900	37.4						
TJL25-102			102	22.1	25.5		30.6		35.7		40.8		42.8						
TJL25-115			115	19.6	28.8		34.5		40.3		46.0		48.3						
TJL25-127			127	17.7	31.8		38.1		44.5		50.8		53.3						
TJL25-139			139	16.2	34.8		41.7		48.7		55.6		58.4						
TJL25-152			152	14.8	38.0		45.6		53.2		60.8		63.8						
TJL25-178			178	12.6	44.5		53.4		62.3		71.2		74.8						
TJL25-203			203	11.1	50.8		60.9		71.1		81.2		85.3						
TJL25-229			229	9.8	57.3		68.7		80.2		91.6		96.2						
TJL25-305			305	7.4	76.3		91.5		106.8		122.0		128.1						
TJL32-38	32.0 +1mm -0mm	16.0 +0mm -0.7mm	38	92.1	9.5	875	11.4	1,050	13.3	1,225	15.2	1,400	16.0						
TJL32-44			44	79.5	11.0		13.2		15.4		17.6		18.5						
TJL32-51			51	68.6	12.8		15.3		17.9		20.4		21.4						
TJL32-64			64	54.7	16.0		19.2		22.4		25.6		26.9						
TJL32-76			76	46.1	19.0		22.8		26.6		30.4		31.9						
TJL32-89			89	39.3	22.3		26.7		31.2		35.6		37.4						
TJL32-102			102	34.3	25.5		30.6		35.7		40.8		42.8						
TJL32-115			115	30.4	28.8		34.5		40.3		46.0		48.3						
TJL32-127			127	27.6	31.8		38.1		44.5		50.8		53.3						
TJL32-139			139	25.2	34.8		41.7		48.7		55.6		58.4						
TJL32-152			152	23.0	38.0		45.6		53.2		60.8		63.8						
TJL32-178			178	19.7	44.5		53.4		62.3		71.2		74.8						
TJL32-203			203	17.2	50.8		60.9		71.1		81.2		85.3						
TJL32-229			229	15.3	57.3		68.7		80.2		91.6		96.2						
TJL32-254			254	13.8	63.5		76.2		88.9		101.6		106.7						
TJL32-305	305	11.5	76.3	91.5	106.8	122.0	128.1												
TJL40-51	40.0 +1mm -0mm	20.0 +0mm -0.84mm	51	98.0	12.8	1,250	15.3	1,500	17.9	1,750	20.4	2,000	21.4						
TJL40-64			64	78.1	16.0		19.2		22.4		25.6		26.9						
TJL40-76			76	65.8	19.0		22.8		26.6		30.4		31.9						
TJL40-89			89	56.2	22.3		26.7		31.2		35.6		37.4						
TJL40-102			102	49.0	25.5		30.6		35.7		40.8		42.8						
TJL40-115			115	43.5	28.8		34.5		40.3		46.0		48.3						
TJL40-127			127	39.4	31.8		38.1		44.5		50.8		53.3						
TJL40-139			139	36.0	34.8		41.7		48.7		55.6		58.4						
TJL40-152			152	32.9	38.0		45.6		53.2		60.8		63.8						
TJL40-178			178	28.1	44.5		53.4		62.3		71.2		74.8						
TJL40-203			203	24.6	50.8		60.9		71.1		81.2		85.3						
TJL40-229			229	21.8	57.3		68.7		80.2		91.6		96.2						
TJL40-254			254	19.7	63.5		76.2		88.9		101.6		106.7						
TJL40-305			305	16.4	76.3		91.5		106.8		122.0		128.1						
TJL50-64			50.0 +1mm -0mm	25.0 +0mm -0.84mm	64		156.3		16.0		2,500		19.2	3,000	22.4	3,500	25.6	4,000	26.9
TJL50-76	76	131.6			19.0	22.8	26.6	30.4	31.9										
TJL50-89	89	112.4			22.3	26.7	31.2	35.6	37.4										
TJL50-102	102	98.0			25.5	30.6	35.7	40.8	42.8										
TJL50-115	115	87.0			28.8	34.5	40.3	46.0	48.3										
TJL50-127	127	78.7			31.8	38.1	44.5	50.8	53.3										
TJL50-139	139	71.9			34.8	41.7	48.7	55.6	58.4										
TJL50-152	152	65.8			38.0	45.6	53.2	60.8	63.8										
TJL50-178	178	56.2			44.5	53.4	62.3	71.2	74.8										
TJL50-203	203	49.3			50.8	60.9	71.1	81.2	85.3										
TJL50-229	229	43.7			57.3	68.7	80.2	91.6	96.2										
TJL50-254	254	39.4			63.5	76.2	88.9	101.6	106.7										
TJL50-305	305	32.8			76.3	91.5	106.8	122.0	128.1										
TJL63-76	63.0 +1.2mm -0mm	38.0 +0mm -0.1mm			76	197.4	19.0	3,750	22.8	4,500		26.6	5,250		30.4		6,000		31.9
TJL63-89					89	168.5	22.3		26.7			31.2			35.6				37.4
TJL63-102			102	147.1	25.5	30.6	35.7		40.8		42.8								
TJL63-115			115	130.4	28.8	34.5	40.3		46.0		48.3								
TJL63-127			127	118.1	31.8	38.1	44.5		50.8		53.3								
TJL63-152			152	98.7	38.0	45.6	53.2		60.8		63.8								
TJL63-178			178	84.3	44.5	53.4	62.3		71.2		74.8								
TJL63-203			203	73.9	50.8	60.9	71.1		81.2		85.3								
TJL63-229			229	65.5	57.3	68.7	80.2		91.6		96.2								
TJL63-254			254	59.1	63.5	76.2	88.9		101.6		106.7								
TJL63-305	305	49.2	76.3	91.5	106.8	122.0	128.1												



# TJM TOHATSU ISO STANDARD springs



Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length × 25.0% 3,000,000 cycles 自由长 × 25.0% 300万次		Free length × 30.0% 1,500,000 cycles 自由长 × 30.0% 150万次		Free length × 33.75% 500,000 cycles 自由长 × 33.75% 50万次		Free length × 37.5% 200,000 cycles 自由长 × 37.5% 20万次		Warning Cannot be used 不可使用 (mm)	
					Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]		
TJM10-25	10.0 +0.58mm -0mm	5.0 +0mm -0.58mm	25	18.1	6.3		7.5		8.4		9.4		9.9	
TJM10-32			32	14.2	8.0		9.6		10.8		12.0		12.6	
TJM10-38			38	11.9	9.5		11.4		12.8		14.3		15.0	
TJM10-44			44	10.3	11.0		13.2		14.9		16.5		17.4	
TJM10-51			51	8.9	12.8		15.3	113	136	17.2	153	19.1	170	20.1
TJM10-64			64	7.1	16.0		19.2			21.6		24.0		25.3
TJM10-76			76	6.0	19.0		22.8			25.7		28.5		30.0
TJM10-89			89	5.1	22.3		26.7			30.0		33.4		35.2
TJM10-102			102	4.4	25.5		30.6			34.4		38.3		40.3
TJM10-305			305	1.5	76.3		91.5			102.9		114.4		120.5
TJM12.5-25	12.5 +0.7mm -0mm	6.3 +0mm -0.58mm	25	32.0	6.3		7.5		8.4		9.4		9.9	
TJM12.5-32			32	25.0	8.0		9.6		10.8		12.0		12.6	
TJM12.5-38			38	21.1	9.5		11.4		12.8		14.3		15.0	
TJM12.5-44			44	18.2	11.0		13.2		14.9		16.5		17.4	
TJM12.5-51			51	15.7	12.8		15.3	200	240	17.2	270	19.1	300	20.1
TJM12.5-64			64	12.5	16.0		19.2			21.6		24.0		25.3
TJM12.5-76			76	10.5	19.0		22.8			25.7		28.5		30.0
TJM12.5-89			89	9.0	22.3		26.7			30.0		33.4		35.2
TJM12.5-102			102	7.8	25.5		30.6			34.4		38.3		40.3
TJM12.5-115			115	7.0	28.8		34.5			38.8		43.1		45.4
TJM12.5-305	305	2.6	76.3		91.5			102.9		114.4		120.5		
TJM16-25	16.0 +0.7mm -0mm	8.0 +0mm -0.58mm	25	53.3	6.3		7.5		8.4		9.4		9.9	
TJM16-32			32	41.7	8.0		9.6		10.8		12.0		12.6	
TJM16-38			38	35.1	9.5		11.4		12.8		14.3		15.0	
TJM16-44			44	30.3	11.0		13.2		14.9		16.5		17.4	
TJM16-51			51	26.1	12.8		15.3	333	400	17.2	450	19.1	500	20.1
TJM16-64			64	20.8	16.0		19.2			21.6		24.0		25.3
TJM16-76			76	17.5	19.0		22.8			25.7		28.5		30.0
TJM16-89			89	15.0	22.3		26.7			30.0		33.4		35.2
TJM16-102			102	13.1	25.5		30.6			34.4		38.3		40.3
TJM16-115			115	11.6	28.8		34.5			38.8		43.1		45.4
TJM16-127	127	10.5	31.8		38.1			42.9		47.6		50.2		
TJM16-305	305	4.4	76.3		91.5			102.9		114.4		120.5		
TJM20-25	20.0 +0.84mm -0mm	10.0 +0mm -0.58mm	25	85.3	6.3		7.5		8.4		9.4		9.9	
TJM20-32			32	66.7	8.0		9.6		10.8		12.0		12.6	
TJM20-38			38	56.1	9.5		11.4		12.8		14.3		15.0	
TJM20-44			44	48.5	11.0		13.2		14.9		16.5		17.4	
TJM20-51			51	41.8	12.8		15.3	533	640	17.2	720	19.1	800	20.1
TJM20-64			64	33.3	16.0		19.2			21.6		24.0		25.3
TJM20-76			76	28.1	19.0		22.8			25.7		28.5		30.0
TJM20-89			89	24.0	22.3		26.7			30.0		33.4		35.2
TJM20-102			102	20.9	25.5		30.6			34.4		38.3		40.3
TJM20-115			115	18.6	28.8		34.5			38.8		43.1		45.4
TJM20-127	127	16.8	31.8		38.1			42.9		47.6		50.2		
TJM20-139	139	15.3	34.8		41.7			46.9		52.1		54.9		
TJM20-152	152	14.0	38.0		45.6			51.3		57.0		60.0		
TJM20-178	178	12.0	44.5		53.4			60.1		66.8		70.3		
TJM20-203	203	10.5	50.8		60.9			68.5		76.1		80.2		
TJM20-305	305	7.0	76.3		91.5			102.9		114.4		120.5		
TJM25-25	25.0 +0.84mm -0.7mm	12.5 +0mm -0.7mm	25	128.0	6.3		7.5		8.4		9.4		9.9	
TJM25-32			32	100.0	8.0		9.6		10.8		12.0		12.6	
TJM25-38			38	84.2	9.5		11.4		12.8		14.3		15.0	
TJM25-44			44	72.7	11.0		13.2	800	960	14.9	1,080	16.5	1,200	17.4
TJM25-51			51	62.7	12.8		15.3			17.2		19.1		20.1
TJM25-64			64	50.0	16.0		19.2			21.6		24.0		25.3
TJM25-76			76	42.1	19.0		22.8			25.7		28.5		30.0

Table of standards  
TJM  
中轴径  
中轴径

1N = 0.1daN = 0.102 kg      1mm = 0.0394 in.

Example order 订货例: [TJM] [10] - [25] ([M] [DH] - [Lo])

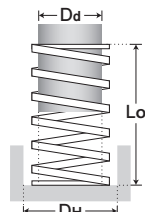
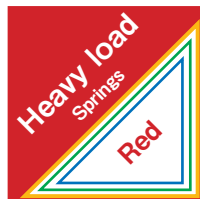
Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length×25.0% 3,000,000 cycles 自由长×25.0% 300万次		Free length×30.0% 1,500,000 cycles 自由长×30.0% 150万次		Free length×33.75% 500,000 cycles 自由长×33.75% 50万次		Free length×37.5% 200,000 cycles 自由长×37.5% 20万次		Warning Cannot be used 不可使用 (mm)
					Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	
TJM25-89	25.0 +0.84mm -0mm	12.5 +0mm -0.7mm	89	36.0	22.3	800	960	1,080	1,200	35.2			
TJM25-102			102	31.4	25.5					40.3			
TJM25-115			115	27.8	28.8					45.4			
TJM25-127			127	25.2	31.8					50.2			
TJM25-139			139	23.0	34.8					54.9			
TJM25-152			152	21.1	38.0					60.0			
TJM25-178			178	18.0	44.5					70.3			
TJM25-203			203	15.8	50.8					80.2			
TJM25-229			229	14.0	57.3					90.5			
TJM25-305			305	10.5	76.3					120.5			
TJM32-38	32.0 +1mm -0mm	16.0 +0mm -0.7mm	38	154.4	9.5	1,467	1,760	1,980	2,200	15.0			
TJM32-44			44	133.3	11.0					17.4			
TJM32-51			51	115.0	12.8					20.1			
TJM32-64			64	91.7	16.0					25.3			
TJM32-76			76	77.2	19.0					30.0			
TJM32-89			89	65.9	22.3					35.2			
TJM32-102			102	57.5	25.5					40.3			
TJM32-115			115	51.0	28.8					45.4			
TJM32-127			127	46.2	31.8					50.2			
TJM32-139			139	42.2	34.8					54.9			
TJM32-152			152	38.6	38.0					60.0			
TJM32-178			178	33.0	44.5					70.3			
TJM32-203			203	28.9	50.8					80.2			
TJM32-229			229	25.6	57.3					90.5			
TJM32-254	254	23.1	63.5	100.3									
TJM32-305	305	19.2	76.3	120.5									
TJM40-51	40.0 +1mm -0mm	20.0 +0mm -0.84mm	51	156.9	12.8	2,000	2,400	2,700	3,000	20.1			
TJM40-64			64	125.0	16.0					25.3			
TJM40-76			76	105.3	19.0					30.0			
TJM40-89			89	89.9	22.3					35.2			
TJM40-102			102	78.4	25.5					40.3			
TJM40-115			115	69.6	28.8					45.4			
TJM40-127			127	63.0	31.8					50.2			
TJM40-139			139	57.6	34.8					54.9			
TJM40-152			152	52.6	38.0					60.0			
TJM40-178			178	44.9	44.5					70.3			
TJM40-203			203	39.4	50.8					80.2			
TJM40-229			229	34.9	57.3					90.5			
TJM40-254			254	31.5	63.5					100.3			
TJM40-305			305	26.2	76.3					120.5			
TJM50-64	50.0 +1mm -0mm	25.0 +0mm -0.84mm	64	208.3	16.0	3,333	4,000	4,500	5,000	25.3			
TJM50-76			76	175.4	19.0					30.0			
TJM50-89			89	149.8	22.3					35.2			
TJM50-102			102	130.7	25.5					40.3			
TJM50-115			115	115.9	28.8					45.4			
TJM50-127			127	105.0	31.8					50.2			
TJM50-139			139	95.9	34.8					54.9			
TJM50-152			152	87.7	38.0					60.0			
TJM50-178			178	74.9	44.5					70.3			
TJM50-203			203	65.7	50.8					80.2			
TJM50-229			229	58.2	57.3					90.5			
TJM50-254			254	52.5	63.5					100.3			
TJM50-305			305	43.7	76.3					120.5			
TJM63-76			63.0 +1.2mm -0mm	38.0 +0mm -0.1mm	76					280.7	19.0	5,333	6,400
TJM63-89	89	239.7			22.3	35.2							
TJM63-102	102	209.2			25.5	40.3							
TJM63-115	115	185.5			28.8	45.4							
TJM63-127	127	168.0			31.8	50.2							
TJM63-152	152	140.4			38.0	60.0							
TJM63-178	178	119.9			44.5	70.3							
TJM63-203	203	105.1			50.8	80.2							
TJM63-229	229	93.2			57.3	90.5							
TJM63-254	254	84.0			63.5	100.3							
TJM63-305	305	69.9	76.3	120.5									

Example order 订货例: TJM 10 - 25 (M) DH - Lo





# TJH TOHATSU ISO STANDARD springs



Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length × 20.0% 3,000,000 cycles 自由长 × 20.0% 300万次		Free length × 25.0% 1,500,000 cycles 自由长 × 25.0% 150万次		Free length × 27.5% 500,000 cycles 自由长 × 27.5% 50万次		Free length × 30.0% 200,000 cycles 自由长 × 30.0% 20万次		Warning Cannot be used 不可使用 (mm)
					Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	
TJH10-25	10.0 +0.58mm -0mm	5.0 +0mm -0.58mm	25	26.7	5.0	133	6.3	167	6.9	183	7.5	200	8.0
TJH10-32			32	20.8	6.4		8.0		8.8		9.6		10.2
TJH10-38			38	17.5	7.6		9.5		10.5		11.4		12.2
TJH10-44			44	15.2	8.8		11.0		12.1		13.2		14.1
TJH10-51			51	13.1	10.2		12.8		14.0		15.3		16.3
TJH10-64			64	10.4	12.8		16.0		17.6		19.2		20.5
TJH10-76			76	8.8	15.2		19.0		20.9		22.8		24.3
TJH10-89			89	7.5	17.8		22.3		24.5		26.7		28.5
TJH10-102			102	6.5	20.4		25.5		28.1		30.6		32.6
TJH10-305			305	2.2	61.0		76.3		83.9		91.5		97.6
TJH12.5-25	12.5 +0.7mm -0mm	6.3 +0mm -0.58mm	25	44.0	5.0	220	6.3	275	6.9	303	7.5	330	8.0
TJH12.5-32			32	34.4	6.4		8.0		8.8		9.6		10.2
TJH12.5-38			38	28.9	7.6		9.5		10.5		11.4		12.2
TJH12.5-44			44	25.0	8.8		11.0		12.1		13.2		14.1
TJH12.5-51			51	21.6	10.2		12.8		14.0		15.3		16.3
TJH12.5-64			64	17.2	12.8		16.0		17.6		19.2		20.5
TJH12.5-76			76	14.5	15.2		19.0		20.9		22.8		24.3
TJH12.5-89			89	12.4	17.8		22.3		24.5		26.7		28.5
TJH12.5-102			102	10.8	20.4		25.5		28.1		30.6		32.6
TJH12.5-115			115	9.6	23.0		28.8		31.6		34.5		36.8
TJH12.5-305	305	3.6	61.0	76.3	83.9	91.5	97.6						
TJH16-25	16.0 +0.7mm -0mm	8.0 +0mm -0.58mm	25	80.0	5.0	400	6.3	500	6.9	550	7.5	600	8.0
TJH16-32			32	62.5	6.4		8.0		8.8		9.6		10.2
TJH16-38			38	52.6	7.6		9.5		10.5		11.4		12.2
TJH16-44			44	45.5	8.8		11.0		12.1		13.2		14.1
TJH16-51			51	39.2	10.2		12.8		14.0		15.3		16.3
TJH16-64			64	31.3	12.8		16.0		17.6		19.2		20.5
TJH16-76			76	26.3	15.2		19.0		20.9		22.8		24.3
TJH16-89			89	22.5	17.8		22.3		24.5		26.7		28.5
TJH16-102			102	19.6	20.4		25.5		28.1		30.6		32.6
TJH16-115			115	17.4	23.0		28.8		31.6		34.5		36.8
TJH16-127	127	15.7	25.4	31.8	34.9	38.1	40.6						
TJH16-305	305	6.6	61.0	76.3	83.9	91.5	97.6						
TJH20-25	20.0 +0.84mm -0mm	10.0 +0mm -0.58mm	25	160.0	5.0	800	6.3	1,000	6.9	1,100	7.5	1,200	8.0
TJH20-32			32	125.0	6.4		8.0		8.8		9.6		10.2
TJH20-38			38	105.3	7.6		9.5		10.5		11.4		12.2
TJH20-44			44	90.9	8.8		11.0		12.1		13.2		14.1
TJH20-51			51	78.4	10.2		12.8		14.0		15.3		16.3
TJH20-64			64	62.5	12.8		16.0		17.6		19.2		20.5
TJH20-76			76	52.6	15.2		19.0		20.9		22.8		24.3
TJH20-89			89	44.9	17.8		22.3		24.5		26.7		28.5
TJH20-102			102	39.2	20.4		25.5		28.1		30.6		32.6
TJH20-115			115	34.8	23.0		28.8		31.6		34.5		36.8
TJH20-127	127	31.5	25.4	31.8	34.9	38.1	40.6						
TJH20-139	139	28.8	27.8	34.8	38.2	41.7	44.5						
TJH20-152	152	26.3	30.4	38.0	41.8	45.6	48.6						
TJH20-178	178	22.5	35.6	44.5	49.0	53.4	57.0						
TJH20-203	203	19.7	40.6	50.8	55.8	60.9	65.0						
TJH20-305	305	13.1	61.0	76.3	83.9	91.5	97.6						
TJH25-25	25.0 +0.84mm -0mm	12.5 +0mm -0.7mm	25	266.7	5.0	1,333	6.3	1,667	6.9	1,833	7.5	2,000	8.0
TJH25-32			32	208.3	6.4		8.0		8.8		9.6		10.2
TJH25-38			38	175.4	7.6		9.5		10.5		11.4		12.2
TJH25-44			44	151.5	8.8		11.0		12.1		13.2		14.1
TJH25-51			51	130.7	10.2		12.8		14.0		15.3		16.3
TJH25-64			64	104.2	12.8		16.0		17.6		19.2		20.5
TJH25-76			76	87.7	15.2		19.0		20.9		22.8		24.3
TJH25-89			89	74.9	17.8		22.3		24.5		26.7		28.5

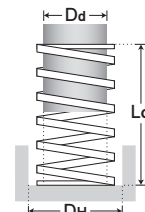
Table of standards  
TJH  
重荷重  
规格表

Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length×20.0% 3,000,000 cycles 自由长×20.0% 300万次		Free length×25.0% 1,500,000 cycles 自由长×25.0% 150万次		Free length×27.5% 500,000 cycles 自由长×27.5% 50万次		Free length×30.0% 200,000 cycles 自由长×30.0% 20万次		Warning Cannot be used 不可使用 (mm)
					Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	
TJH25-102	25.0 +0.84mm -0mm	12.5 +0mm -0.7mm	102	65.4	20.4	1,333	25.5	1,667	28.1	1,833	30.6	2,000	32.6
TJH25-115			115	58.0	23.0		28.8		31.6		34.5		36.8
TJH25-127			127	52.5	25.4		31.8		34.9		38.1		40.6
TJH25-139			139	48.0	27.8		34.8		38.2		41.7		44.5
TJH25-152			152	43.9	30.4		38.0		41.8		45.6		48.6
TJH25-178			178	37.5	35.6		44.5		49.0		53.4		57.0
TJH25-203			203	32.8	40.6		50.8		55.8		60.9		65.0
TJH25-229			229	29.1	45.8		57.3		63.0		68.7		73.3
TJH25-305			305	21.9	61.0		76.3		83.9		91.5		97.6
TJH32-38			32.0 +1mm -0mm	16.0 +0mm -0.7mm	38	298.2	7.6	2,267	9.5	2,833	10.5	3,117	11.4
TJH32-44	44	257.6			8.8		11.0		12.1		13.2		14.1
TJH32-51	51	222.2			10.2		12.8		14.0		15.3		16.3
TJH32-64	64	177.1			12.8		16.0		17.6		19.2		20.5
TJH32-76	76	149.1			15.2		19.0		20.9		22.8		24.3
TJH32-89	89	127.3			17.8		22.3		24.5		26.7		28.5
TJH32-102	102	111.1			20.4		25.5		28.1		30.6		32.6
TJH32-115	115	98.6			23.0		28.8		31.6		34.5		36.8
TJH32-127	127	89.2			25.4		31.8		34.9		38.1		40.6
TJH32-139	139	81.5			27.8		34.8		38.2		41.7		44.5
TJH32-152	152	74.6			30.4		38.0		41.8		45.6		48.6
TJH32-178	178	63.7			35.6		44.5		49.0		53.4		57.0
TJH32-203	203	55.8			40.6		50.8		55.8		60.9		65.0
TJH32-229	229	49.5			45.8		57.3		63.0		68.7		73.3
TJH32-254	254	44.6			50.8		63.5		69.9		76.2		81.3
TJH32-305	305	37.2			61.0		76.3		83.9		91.5		97.6
TJH40-51	40.0 +1mm -0mm	20.0 +0mm -0.84mm	51	326.8	10.2	3,333	12.8	4,167	14.0	4,583	15.3	5,000	16.3
TJH40-64			64	260.4	12.8		16.0		17.6		19.2		20.5
TJH40-76			76	219.3	15.2		19.0		20.9		22.8		24.3
TJH40-89			89	187.3	17.8		22.3		24.5		26.7		28.5
TJH40-102			102	163.4	20.4		25.5		28.1		30.6		32.6
TJH40-115			115	144.9	23.0		28.8		31.6		34.5		36.8
TJH40-127			127	131.2	25.4		31.8		34.9		38.1		40.6
TJH40-139			139	119.9	27.8		34.8		38.2		41.7		44.5
TJH40-152			152	109.6	30.4		38.0		41.8		45.6		48.6
TJH40-178			178	93.6	35.6		44.5		49.0		53.4		57.0
TJH40-203			203	82.1	40.6		50.8		55.8		60.9		65.0
TJH40-229			229	72.8	45.8		57.3		63.0		68.7		73.3
TJH40-254			254	65.6	50.8		63.5		69.9		76.2		81.3
TJH40-305			305	54.6	61.0		76.3		83.9		91.5		97.6
TJH50-64	50.0 +1mm -0mm	25.0 +0mm -0.84mm	64	390.6	12.8	5,000	16.0	6,250	17.6	6,875	19.2	7,500	20.5
TJH50-76			76	328.9	15.2		19.0		20.9		22.8		24.3
TJH50-89			89	280.9	17.8		22.3		24.5		26.7		28.5
TJH50-102			102	245.1	20.4		25.5		28.1		30.6		32.6
TJH50-115			115	217.4	23.0		28.8		31.6		34.5		36.8
TJH50-127			127	196.9	25.4		31.8		34.9		38.1		40.6
TJH50-139			139	179.9	27.8		34.8		38.2		41.7		44.5
TJH50-152			152	164.5	30.4		38.0		41.8		45.6		48.6
TJH50-178			178	140.4	35.6		44.5		49.0		53.4		57.0
TJH50-203			203	123.2	40.6		50.8		55.8		60.9		65.0
TJH50-229			229	109.2	45.8		57.3		63.0		68.7		73.3
TJH50-254			254	98.4	50.8		63.5		69.9		76.2		81.3
TJH50-305			305	82.0	61.0		76.3		83.9		91.5		97.6
TJH63-76			63.0 +1.2mm -0mm	38.0 +0mm -0.1mm	76	526.3	15.2	8,000	19.0	10,000	20.9	11,000	22.8
TJH63-89	89	449.4			17.8		22.3		24.5		26.7		28.5
TJH63-102	102	392.2			20.4		25.5		28.1		30.6		32.6
TJH63-115	115	347.8			23.0		28.8		31.6		34.5		36.8
TJH63-127	127	315.0			25.4		31.8		34.9		38.1		40.6
TJH63-152	152	263.2			30.4		38.0		41.8		45.6		48.6
TJH63-178	178	224.7			35.6		44.5		49.0		53.4		57.0
TJH63-203	203	197.0			40.6		50.8		55.8		60.9		65.0
TJH63-229	229	174.7			45.8		57.3		63.0		68.7		73.3
TJH63-254	254	157.5			50.8		63.5		69.9		76.2		81.3
TJH63-305	305	131.1			61.0		76.3		83.9		91.5		97.6





# TJB TOHATSU ISO STANDARD springs



Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length × 17.0% 3,000,000 cycles 自由长 × 17.0% 300万次		Free length × 20.0% 1,500,000 cycles 自由长 × 20.0% 150万次		Free length × 22.5% 500,000 cycles 自由长 × 22.5% 50万次		Free length × 25.0% 200,000 cycles 自由长 × 25.0% 20万次		Warning Cannot be used 不可使用 (mm)
					Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	
TJB10-25	10.0 +0.58mm -0mm	5.0 +0mm -0.58mm	25	36.8	4.3	156	5.0	184	5.6	207	6.3	230	6.8
TJB10-32			32	28.8	5.4		6.4		7.2		8.0		
TJB10-38			38	24.2	6.5		7.6		8.6		9.5		
TJB10-44			44	20.9	7.5		8.8		9.9		11.0		
TJB10-51			51	18.0	8.7		10.2		11.5		12.8		
TJB10-64			64	14.4	10.9		12.8		14.4		16.0		
TJB10-76			76	12.1	12.9		15.2		17.1		19.0		
TJB10-89			89	10.3	15.1		17.8		20.0		22.3		
TJB10-102			102	9.0	17.3		20.4		23.0		25.5		
TJB10-305			305	3.0	51.9		61.0		68.6		76.3		
TJB12.5-25	12.5 +0.7mm -0mm	6.3 +0mm -0.58mm	25	57.6	4.3	245	5.0	288	5.6	324	6.3	360	6.8
TJB12.5-32			32	45.0	5.4		6.4		7.2		8.0		
TJB12.5-38			38	37.9	6.5		7.6		8.6		9.5		
TJB12.5-44			44	32.7	7.5		8.8		9.9		11.0		
TJB12.5-51			51	28.2	8.7		10.2		11.5		12.8		
TJB12.5-64			64	22.5	10.9		12.8		14.4		16.0		
TJB12.5-76			76	18.9	12.9		15.2		17.1		19.0		
TJB12.5-89			89	16.2	15.1		17.8		20.0		22.3		
TJB12.5-102			102	14.1	17.3		20.4		23.0		25.5		
TJB12.5-115			115	12.5	19.6		23.0		25.9		28.8		
TJB12.5-305	305	4.7	51.9	61.0	68.6	76.3							
TJB16-25	16.0 +0.7mm -0mm	8.0 +0mm -0.58mm	25	112.0	4.3	476	5.0	560	5.6	630	6.3	700	6.8
TJB16-32			32	87.5	5.4		6.4		7.2		8.0		
TJB16-38			38	73.7	6.5		7.6		8.6		9.5		
TJB16-44			44	63.6	7.5		8.8		9.9		11.0		
TJB16-51			51	54.9	8.7		10.2		11.5		12.8		
TJB16-64			64	43.8	10.9		12.8		14.4		16.0		
TJB16-76			76	36.8	12.9		15.2		17.1		19.0		
TJB16-89			89	31.5	15.1		17.8		20.0		22.3		
TJB16-102			102	27.5	17.3		20.4		23.0		25.5		
TJB16-115			115	24.3	19.6		23.0		25.9		28.8		
TJB16-127	127	22.0	21.6	25.4	28.6	31.8							
TJB16-305	305	9.2	51.9	61.0	68.6	76.3							
TJB20-25	20.0 +0.84mm -0mm	10.0 +0mm -0.58mm	25	240.0	4.3	1,020	5.0	1,200	5.6	1,350	6.3	1,500	6.8
TJB20-32			32	187.5	5.4		6.4		7.2		8.0		
TJB20-38			38	157.9	6.5		7.6		8.6		9.5		
TJB20-44			44	136.4	7.5		8.8		9.9		11.0		
TJB20-51			51	117.6	8.7		10.2		11.5		12.8		
TJB20-64			64	93.8	10.9		12.8		14.4		16.0		
TJB20-76			76	78.9	12.9		15.2		17.1		19.0		
TJB20-89			89	67.4	15.1		17.8		20.0		22.3		
TJB20-102			102	58.8	17.3		20.4		23.0		25.5		
TJB20-115			115	52.2	19.6		23.0		25.9		28.8		
TJB20-127			127	47.2	21.6		25.4		28.6		31.8		
TJB20-139			139	43.2	23.6		27.8		31.3		34.8		
TJB20-152			152	39.5	25.8		30.4		34.2		38.0		
TJB20-178			178	33.7	30.3		35.6		40.1		44.5		
TJB20-203			203	29.6	34.5		40.6		45.7		50.8		
TJB20-305	305	19.7	51.9	61.0	68.6	76.3							
TJB25-32	25.0 +0.84mm -0mm	12.5 +0mm -0.7mm	32	312.5	5.4	1,700	6.4	2,000	7.2	2,250	8.0	2,500	8.6
TJB25-38			38	263.2	6.5		7.6		8.6		9.5		
TJB25-44			44	227.3	7.5		8.8		9.9		11.0		
TJB25-51			51	196.1	8.7		10.2		11.5		12.8		
TJB25-64			64	156.3	10.9		12.8		14.4		16.0		
TJB25-76			76	131.6	12.9		15.2		17.1		19.0		
TJB25-89			89	112.4	15.1		17.8		20.0		22.3		
TJB25-102			102	98.0	17.3		20.4		23.0		25.5		

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Model 型号	Hole Diameter 孔径 DH (mm)	Rod Diameter 轴径 Dd (mm)	Free Length 自由长 Lo (mm)	Spring Constant 弹簧常数 R (N/mm)	Free length×17.0% 3,000,000 cycles 自由长×17.0% 300万次		Free length×20.0% 1,500,000 cycles 自由长×20.0% 150万次		Free length×22.5% 500,000 cycles 自由长×22.5% 50万次		Free length×25.0% 200,000 cycles 自由长×25.0% 20万次		Warning Cannot be used 不可使用 (mm)						
					Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]	Deflection 压缩量 (mm)	Load 负荷 N[kgf]							
TJB25-115	25.0 +0.84mm -0mm	12.5 +0mm -0.7mm	115	87.0	19.6	1,700	23.0	2,000	25.9	2,250	28.8	2,500	31.1						
TJB25-127			127	78.7	21.6		25.4		28.6		31.8		34.3						
TJB25-139			139	71.9	23.6		27.8		31.3		34.8		37.5						
TJB25-152			152	65.8	25.8		30.4		34.2		38.0		41.0						
TJB25-178			178	56.2	30.3		35.6		40.1		44.5		48.1						
TJB25-203			203	49.3	34.5		40.6		45.7		50.8		54.8						
TJB25-229			229	43.7	38.9		45.8		51.5		57.3		61.8						
TJB25-305	305	32.8	51.9	61.0	68.6	76.3	82.4												
TJB32-38	32.0 +1mm -0mm	16.0 +0mm -0.7mm	38	421.1	6.5	2,720	7.6	3,200	8.6	3,600	9.5	4,000	10.3						
TJB32-44			44	363.6	7.5		8.8		9.9		11.0		11.9						
TJB32-51			51	313.7	8.7		10.2		11.5		12.8		13.8						
TJB32-64			64	250.0	10.9		12.8		14.4		16.0		17.3						
TJB32-76			76	210.5	12.9		15.2		17.1		19.0		20.5						
TJB32-89			89	179.8	15.1		17.8		20.0		22.3		24.0						
TJB32-102			102	156.9	17.3		20.4		23.0		25.5		27.5						
TJB32-115			115	139.1	19.6		23.0		25.9		28.8		31.1						
TJB32-127			127	126.0	21.6		25.4		28.6		31.8		34.3						
TJB32-139			139	115.1	23.6		27.8		31.3		34.8		37.5						
TJB32-152			152	105.3	25.8		30.4		34.2		38.0		41.0						
TJB32-178			178	89.9	30.3		35.6		40.1		44.5		48.1						
TJB32-203			203	78.8	34.5		40.6		45.7		50.8		54.8						
TJB32-229			229	69.9	38.9		45.8		51.5		57.3		61.8						
TJB32-254			254	63.0	43.2		50.8		57.2		63.5		68.6						
TJB32-305	305	52.5	51.9	61.0	68.6	76.3	82.4												
TJB40-51	40.0 +1mm -0mm	20.0 +0mm -0.84mm	51	509.8	8.7	4,420	10.2	5,200	11.5	5,850	12.8	6,500	13.8						
TJB40-64			64	406.3	10.9		12.8		14.4		16.0		17.3						
TJB40-76			76	342.1	12.9		15.2		17.1		19.0		20.5						
TJB40-89			89	292.1	15.1		17.8		20.0		22.3		24.0						
TJB40-102			102	254.9	17.3		20.4		23.0		25.5		27.5						
TJB40-115			115	226.1	19.6		23.0		25.9		28.8		31.1						
TJB40-127			127	204.7	21.6		25.4		28.6		31.8		34.3						
TJB40-139			139	187.1	23.6		27.8		31.3		34.8		37.5						
TJB40-152			152	171.1	25.8		30.4		34.2		38.0		41.0						
TJB40-178			178	146.1	30.3		35.6		40.1		44.5		48.1						
TJB40-203			203	128.1	34.5		40.6		45.7		50.8		54.8						
TJB40-229			229	113.5	38.9		45.8		51.5		57.3		61.8						
TJB40-254			254	102.4	43.2		50.8		57.2		63.5		68.6						
TJB40-305			305	85.2	51.9		61.0		68.6		76.3		82.4						
TJB50-64			50.0 +1mm -0mm	25.0 +0mm -0.84mm	64		625.0		10.9		6,800		12.8	8,000	14.4	9,000	16.0	10,000	17.3
TJB50-76	76	526.3			12.9	15.2	17.1	19.0	20.5										
TJB50-89	89	449.4			15.1	17.8	20.0	22.3	24.0										
TJB50-102	102	392.2			17.3	20.4	23.0	25.5	27.5										
TJB50-115	115	347.8			19.6	23.0	25.9	28.8	31.1										
TJB50-127	127	315.0			21.6	25.4	28.6	31.8	34.3										
TJB50-139	139	287.8			23.6	27.8	31.3	34.8	37.5										
TJB50-152	152	263.2			25.8	30.4	34.2	38.0	41.0										
TJB50-178	178	224.7			30.3	35.6	40.1	44.5	48.1										
TJB50-203	203	197.0			34.5	40.6	45.7	50.8	54.8										
TJB50-229	229	174.7			38.9	45.8	51.5	57.3	61.8										
TJB50-254	254	157.5			43.2	50.8	57.2	63.5	68.6										
TJB50-305	305	131.1			51.9	61.0	68.6	76.3	82.4										
TJB63-76	63.0 +1.2mm -0mm	38.0 +0mm -0.1mm			76	842.1	12.9	10,880	15.2	12,800		17.1	14,400		*		16,000		18.6
TJB63-89					89	719.1	15.1		17.8			20.0			*				21.8
TJB63-102			102	627.5	17.3	20.4	23.0		25.5		27.5								
TJB63-115			115	556.5	19.6	23.0	25.9		28.8		31.1								
TJB63-127			127	503.9	21.6	25.4	28.6		31.8		34.3								
TJB63-152			152	421.1	25.8	30.4	34.2		38.0		41.0								
TJB63-178			178	359.6	30.3	35.6	40.1		44.5		48.1								
TJB63-203			203	315.3	34.5	40.6	45.7		50.8		54.8								
TJB63-229			229	279.5	38.9	45.8	51.5		57.3		61.8								
TJB63-254			254	252.0	43.2	50.8	57.2		63.5		68.6								
TJB63-305			305	209.8	51.9	61.0	68.6		76.3		82.4								

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Example order 订货例: TJB 10 - 25 (M DH - Lo)