

“LOYAL” Coil Spring – Coiled Helical Springs for Stamping Dies

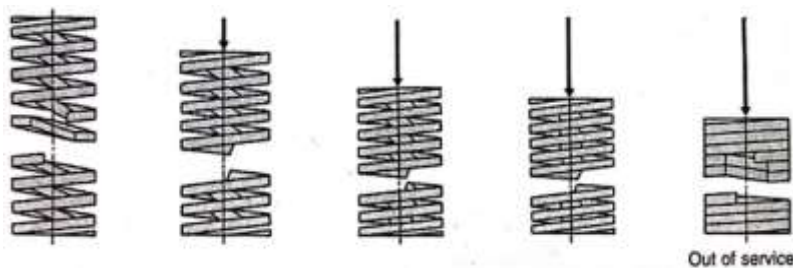
“LOYAL” 钢弹簧 - 冲床模具用优质线钢弹簧



Description	种类	Model	记号	Color	色别
Lightest Load	轻小荷重	TF		Yellow	黄色
Light Load	轻荷重	TL		Blue	蓝色
Medium Load	中荷重	TM		Red	红色
Heavy Load	重荷重	TH		Green	绿色
Super Load	极荷重	TB		Brown	茶色

Model 型号称呼	Outer Dia. 外径 (mm)	Inner Dia. 内径 (mm)	Free Length 自由长度 (mm)	Spring Const. 定数 (kgf / mm)	1 Million 100 万回	
					Flexibility 压缩数 (mm)	Load 荷重 (kg)
TM 50 X 125	50	25	125	12.5	32.0	400

Working Times 使用回数	1million (% of free length) 100 万回	0.5million (% of free length) 50 万回	0.3million (% of free length) 30 万回	Max. Deflection (% of free length) 最大压缩数
Description 种类				
Lightest Load TF	40.0%	45.0%	50.0%	Approx. 58.0%
Light Load TL	32.0%	36.0%	40.0%	Approx. 48.0%
Medium Load TH	25.6%	28.8%	32.0%	Approx. 38.0%
Heavy Load TH	19.2%	21.6%	24.0%	Approx. 28.0%
Super Load TB	16.0%	18.0%	20.0%	Approx. 24.0%



Relations between Working Times and Compression Ratio (% of free length)

使用次数与压缩比之关系

Outer-Dia. 外径	Inner-Dia. 内径	Free Length 自由长 长度		Load 荷重	Coil Direction 卷方向
		Below 50mm 50mm 以下	Above 50mm 50mm 以上		
+0mm -0.7mm	+0.7mm +0.1mm	+/- 0.5mm	+/- 1%	+/- 10%	Right 右

Tolerance 公差

1. APPLICATIONS

The "LOYAL" springs described in this catalog are designed and manufactured for application in press dies. Selection according to required characteristics can be performed using the tables contained herein. The outstanding performance of these springs makes them widely applicable in all types of machinery.

2. FEATURES

Unlike conventional round wire springs, the special configuration of "LOYAL" springs makes possible a reduction in the size of dies. A full selection of ready-made springs are always available in stock for quick delivery.

3. TYPES

The 5 types of "LOYAL" springs for super loads, heavy loads, medium loads, light loads, and lightest loads are color coded for easy identification.

4. MATERIAL

"LOYAL" springs are made of steel developed by Suzuki Metal Industries Corporation, (JIS G3566 SWOSC-V) using raw materials from Nippon Steel Corporation. Demonstrating excellent high stress, high speed amplitude and heat-resistance characteristics, they are mainly used as automotive engine valve springs.

5. PRODUCTION

Safety is built into every "LOYAL" spring. (Rigorous fatigue testing) (360-500 cycles/minute) and stringent production controls assure excellent reliability.

1. 使用范围

可配合各种不同冲床使用，备有不同荷重及尺寸之型号以供选择。对一般机械亦可发挥其优越性能。

2. 特点

采用日本优质材料制造，与一般原线弹簧不同，成功地使公模小型化，并常备不同尺寸型号之现货以供选购。

3. 种类

根据不同的荷重，共分五种不同颜色加以烤漆处理区分，容易判别。

4. 材料

“钢弹簧”的原料是由新日本制铁株式会社提供，并经铃木金属工业株式会社研制而成的“合金钢”制成，具耐高应力，高速振幅之特性。并用作汽车引擎阀门弹簧为主。

5. 品质保证

经过多番严格的制造管理和疲劳测试，造出一流品质的强力模具弹簧，行程特大，耐热能力特高。