

**Centrifugal Clutch**  
TENGWU腾武牌离心离合器系列

**FIFTH MACHINERYMANUFACTURE CO.,LTD**

**TENGWU**

无锡市第五机械制造有限公司

[www.tengwu.cn](http://www.tengwu.cn)

## 公司简介

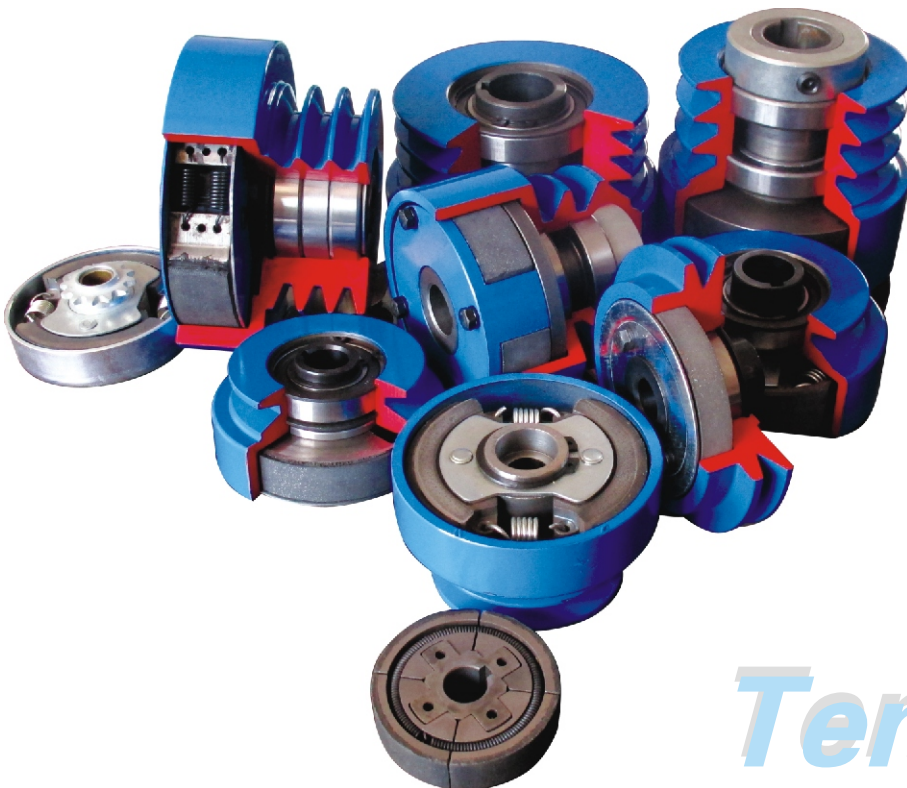
### Company Info

无锡市第五机械制造有限公司专业从事气动离合器和离心离合器的生产和销售，至今已有近30年历史。公司位于无锡市锡山区锡北镇，公司拥有员工近100人。主要产品离心离合器主要应用于通用机械的动力传递，大量运用于工程机械和铁路养护机械，目前我公司是国内唯一一家专业生产离心离合器的厂家，是国际著名工程机械宝马格的合格供应商。

在新世纪的发展历程中，我们愿与社会各界朋友真诚合作，共谋发展，为用户提供优质的产品，一流的诚信服务，为我国通用机械基础工业的发展添砖加瓦。

Wuxi Fifth Machinery Manufacture Co.,Ltd. specializes in the production and sales of pneumatic clutch and centrifugal clutch, and has been nearly 30 years up to now. The company is located in the Xibei Town, Xishan District, Wuxi City, nearly has 100 employees。The centrifugal clutch is mainly used in the power transmission of general machinery, massively applied in engineering machinery and railway maintenance machinery, and at present, our company is the only professional manufacturer producing the centrifugal clutch, and is the qualified supplier of Bomag, the internationally renowned engineering machinery companies.

In the course of new century's development, we would like to sincerely cooperate with friends from all quarters of society, seek common development and provide users with good quality products, first-class integrity service and do the best for development of China's general machinery's basic industry.



产品应用  
*Product Application*

离心离合器具有其它离合器所不具备的一些特点，在工业中得到广泛的应用，特别是一些野外作业的机械。主要应用在：小型工程机械、园林机械、建筑机械、铁路养护机械、小型钻探机械、风机、压缩机等场合。

The centrifugal clutch has some features other clutches don't have, and it is widely used in the industry, especially some machinery used in the fieldwork. It is mainly applied in small-size engineering machinery, garden machinery, building machinery, railway maintenance machinery, small-size drilling and exploring machinery, air blower, compressor and other occasions.



小型工程机械  
small-size engineering machinery



园林机械  
Garden machinery

## 产品应用 Product Application



专用汽车  
Special Purpose Vehicle



铁路养护机械  
Railway maintenance machinery

## 产品特点 Product Features

离心离合器是靠原动机本身的转速实现主从动部分的接合和分离的离合器，它具有以下特点：

1. 离合器的扭矩取决于离心力，因此不能传递大于额定扭矩的负荷。如果从动端超载，离合器会出现打滑。也不宜装在低速轴上使用，在低速时为了达到足够的离心力，就要增大结构尺寸，将增加成本。
2. 由于离心离合器的离心力正比于转速的平方，而输出功率则随工作转速的立方而变化，因此不宜在变速系统中使用。也不适用于频繁启动或启动过程太久的场合。
3. 对于直接启动的工作机械，运用离心离合器可降低启动载荷，获得平稳的起动效果，用于电机时，可显著地减小启动电流。

The centrifugal clutch is motivated by prime motor's own rotating speed to achieve the engagement and separation of the clutch between active part and driven part and it has following features:

1. The torque of clutch depends on centrifugal force, so it can not transmit the load bigger than the rated torque. If the driven side is overloaded, the clutch will be slipping. It should not be installed in the low speed shaft to use, because at the low speed, in order to reach the enough centrifugal force, the structure size should be enlarged, which will increase its cost.
2. Due to the centrifugal force of centrifugal clutch is proportional to the square of the rotating speed, while the output power changes with the cube of the working speed, it

should not be used in the transmission system and apply to the occasions of frequent start-up or starting up with too long time.

3. For the working machinery which is directly started up, using centrifugal clutch can reduce the start-up load and get the stable start-up effect, and when it is used in the motor, it can significantly reduce the start-up current.

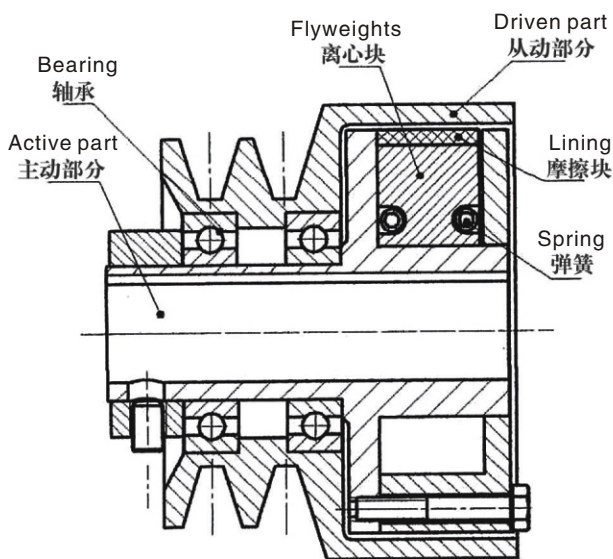
## 参数和结构尺寸 Parameter & Structure Size

按照离心离合器的结构型式可以分为两类，皮带轮型式和联轴器型式。

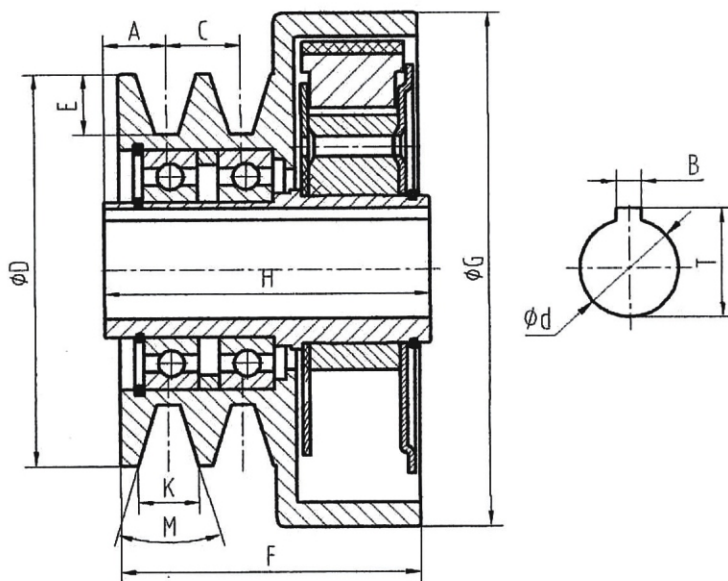
In terms of the structure of centrifugal clutch, it can be divided into two types, belt pulley type and coupling type.

### 离心离合器型号标示 Centrifugal clutch type label

离心离合器(Centrifugal clutch)	L41BH 100.5xBx2-25.4J	径向固定型式 J (J:Radial fixed type)
规格(specification)		发动机轴端螺钉固定型式无标记 (The screw fixing type at the motor shaft side is unmarked)
皮带轮型式B(Belt pulley type)		轴孔 (Shaft hole)
联轴器型式C(Coupling type)		皮带轮外径×槽型×槽数 (External diameter of belt pulley × belt type × belt number)
		常规接合转数H(Conventional engagement rotating speed)
		低接合转数L (Low engagement rotating speed)



径向固定型式  
Radial fixed type



发动机轴端螺钉固定型式  
The screw fixing type at the moto shaft side

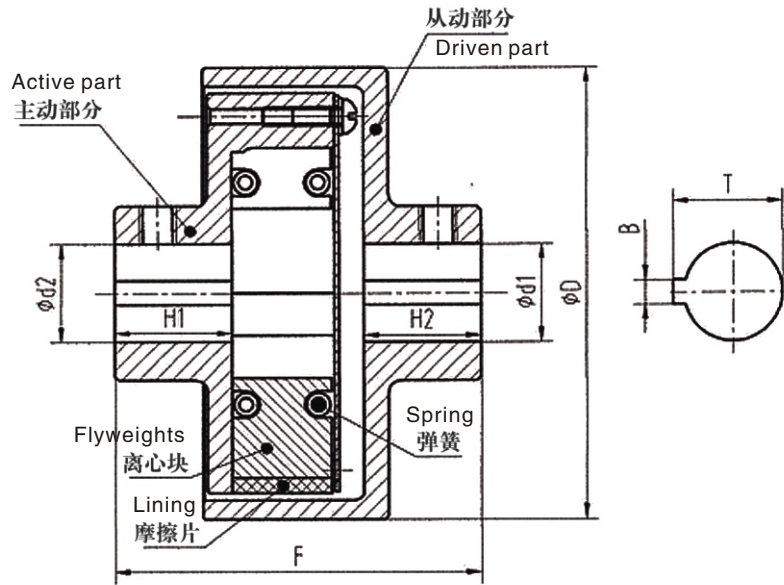
### 皮带型式离心离合器 Belt pulley type centrifugal clutch



**皮带轮型式离心离合器参数和结构尺寸:**  
**Belt pulley type Parameter & Structure Size**

Specification	performance parameter				structure dimension											
	Recommended motor power (HP/KW)	working speed (rpm)	Engagement speed (rpm)	Torque at working speed 3000rpm (Nm)	Φd1①	ΦD	ΦG	H	A	C	E	F	K	M	B	T
L07BH	2.5/1.8	3600	2000	8.4	15	-	81	20	-	-	-	-	-	-	4	16.5
L20BH	6.5/4.8	3600	1800	24	19.05/20	133	90	52	25	-	14.6	36	11.7	38	4.78/5	21.3
L22BH	5.5/4	3600	1700	18	19.05/20	85	102.6	70	14	15	11.7	63	12.7	34	4.78/5	21.3/22.3
L30BH	15/11	3600	1700	54	25.4/25	91	100	85	12	15	13.8	62	12.7	34	6.4/7	28.1
L41BH	13/9.5	3600	2000	40	25.4/25	100.5/160	117.5	103/74	26.8	19	15.8	90	15.7	35	6.4/7	28.1/28.3
L65BH	24/17.6	3600	1700	106	25.4/25	101.5	114.5	83	16	19	15.8	76.4	15.7	35	6.4/7	28.1/28.3
L80BH	38/28	3600	1700	141	≤42		125									
L90BH	68/50	3600	1700	247	≤48		138									
L91BH	125/92	3000	1100	587	≤48		138									
L100BH	94/69	3000	1700	437	≤55		150									
L105BH	39/28	3600	1400	145	36.5	125.8	130	96	16.5	19	15.8	114.5	15.7	35	9.525	39
L110BH	162.5/119	3000	1400	760	≤60		165									
L111BH	191/140	2500	1100	1075 at 2500rpm	≤55		165									

Remarks: 1) bores and belt pulley can be manufactured on request.  
 2) Motor power is calculated using a safety factor of 2.0  
 Final selection of the clutch should be carried out by TENGWU!



联轴器型式离心离合器  
Coupling type centrifugal clutch

联轴器型式离心离合器参数和结构尺寸:  
Coupling type Parameter & Structure Size

Specification	performance parameter				structure dimension		
	Recommended motor power (HP/KW)	working speed (rpm)	Engagement speed (rpm)	Torque at working speed 3000rpm (Nm)	$\phi d1^2$	$\phi d2^2$	$\phi G$
L07CH	2.5/1.8	3600	2000	8.4	15	15	81
L20CH	6.5/4.8	3600	1800	24	19.05/20	19.05/20	90
L22CH	5.5/4	3600	1700	18	19.05/20	19.05/20	102.6
L30CH	15/11	3600	1700	54	25.4/25	25.4/25	100
L41CH	13/9.5	3600	2000	40	25.4/25	25.4/25	117.5
L65CH	24/17.6	3600	1700	106	25.4/25	25.4/25	114.5
L80CH	38/28	3600	1700	141	$\leq 42$	$\leq 42$	125
L90CH	68/50	3600	1700	247	$\leq 48$	$\leq 48$	138
L91CH	125/92	3000	1100	587	$\leq 48$	$\leq 48$	138
L100CH	94/69	3000	1700	437	$\leq 55$	$\leq 55$	150
L105CH	39/28	3600	1400	145	36.5	36.5	130
L110CH	162.5/119	3000	1400	760	$\leq 60$	$\leq 60$	165
L111CH	191/140	2500	1100	1075 at 2500rpm	$\leq 55$	$\leq 55$	165

Remarks: 1) the proper alignment for input and output is less than  $\pm 0.1$   
2) F、H1、H2 can be manufactured on request



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