# Overrunning, Indexing, Backstopping External Bearing Support Required, Ramp & Roller Clutches



Model KI is a ramp & roller clutch. It is an assembly comprised of an inner race and rollers fitted into a polyamide cage.

This model cannot be disassembled. It is designed for small mechanisms in office equipment or packaging machines, to be mounted inside gears or feed rollers.

The gear or feed roller inner diameter is used as the outer race. Additional bearing support is required, and the clutch must not be subjected to axial loading; mounting examples are shown on page 32.

The outer race does not need to be hardened; min. strength: 700 N/mm<sup>2</sup>.

Mounting onto the shaft can be a press fit to r6 tolerance or a glue fit with a clearance of 0.0007" (.02mm) to 0.0019" (.05mm).

Sizes 268 and above can be supplied with a keyway.

Temperature range : -40°F to +248°F (-40°C to +120°C) (continuous operation). A peak temperature of 302°F (+150°C) is acceptable for a short period of time.

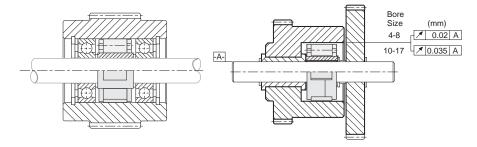
These clutches are oil dipped at the factory but must be filled to the proper level before operation.

This clutch is designed for oil lubrication. For grease lubrication contact Formsprag.

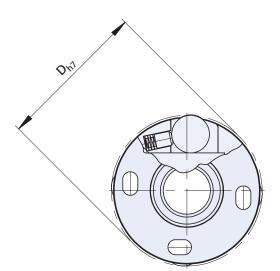
#### **Specifications**

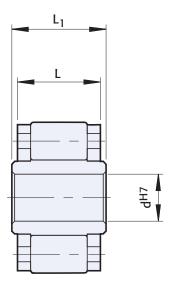
	Torque Capacity lb.ft.	Overrunning Speed  Max. RPM Inner Outer		Shipping Weight Ib.
Size	(Nm)	Race	Race	(kg)
164	0.93 (1.26)	8,000	10,000	0.02 (0.008)
165	0.93 (1.26)	8,000	10,000	0.02 (0.007)
194	1.05 (1.42)	7,000	9,000	0.03 (0.012)
195	1.05 (1.42)	7,000	9,000	0.02 (0.011)
196	1.05 (1.42)	7,000	9,000	0.02 (0.010)
268	3.39 (4.6)	5,000	6,000	0.05 (0.023)
269	3.39 (4.6)	5,000	6,000	0.05 (0.021)
2610	3.39 (4.6)	5,000	6,000	0.04 (0.019)

### **Typical Mounting Arrangements**



The Model KI clutch must be mounted into a customer supplied outer race and requires external bearing support to assure concentricity. The outer race does not need to be hardened and the roller surface roughness should not exceed 30 rms. The clutch-to-shaft fit should be a press of an r6 DIN tolerance or an adhesive.





## **Dimensions** inches (mm)

Size	D <sub>h7</sub> <sup>(1)</sup>	L <sub>1</sub>	L
164	0.63	0.39	0.35
	(16)	(10)	(9)
165	0.63	0.39	0.35
	(16)	(10)	(9)
194	0.75	0.39	0.35
	(19)	(10)	(9)
195	0.75	0.39	0.35
	(19)	(10)	(9)
196	0.75	0.39	0.35
	(19)	(10)	(9)
268	1.02	0.55	0.51
	(26)	(14)	(13)
269	1.02	0.55	0.51
	(26)	(14)	(13)
2610	1.02	0.55	0.51
	(26)	(14)	(13)

# Bore sizes and keyseats inches (mm)

	-	,
Size	d <sup>H7</sup> Bore Size	Keyseat <sup>(1)</sup>
164	.16 (4)	None
165	.20 (5)	None
194	.16 (4)	None
195	.20 (5)	None
196	.24 (6)	None
268	.31 (8)	None (2)
269	.35 (9)	None (2)
2610	.39 (10)	None (2)

<sup>(1)</sup> Press fit is required; see Typical Mounting Arrangement, page 32.

<sup>(1)</sup> Outer race bore diameter

 $<sup>^{(2)}</sup>$  Can also be supplied with a keyway to DIN 6885.1.