

ROLLER CLUTCHES



FOR 1/8 TO 3/4 HARDENED SHAFTS
UNIDIRECTIONAL DRIVE

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> MATERIAL:

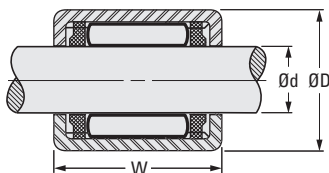
- Roller Cup** - Case-Hardened Steel
- Needle Bearing** - 52100 Hardened Chrome Steel
- Springs** - Stainless Steel
- Cage** - Nylon 66 (or Equivalent)

> OPERATING TEMPERATURE:

Grease +50°F to +160°F

> FEATURES:

- Ideal for indexing, backstopping or overrunning operations.
- Free rolling one way, drives in opposite direction.
- Lightweight, low profile.
- High indexing frequency, up to 4 CPS.
- Minimum backlash.

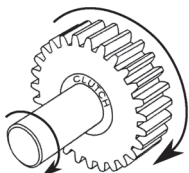


> SHAFT REQUIREMENTS:

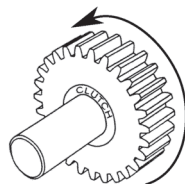
Shaft surface hardness must be Rc 58 min.

WHAT IT DOES:

Transmits torque load in one direction.
Overruns freely in opposite direction.
Either shaft or housing can be driving member.



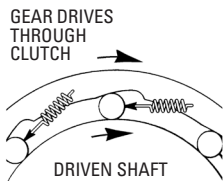
GEAR DRIVES
SHAFT CLOCKWISE



GEAR OVERRUNS
SHAFT COUNTERCLOCKWISE

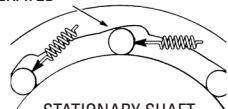
HOW IT WORKS:

Rollers wedge between shaft and outer race. Positive wedging forces prevent slipping. Springs position rollers for instantaneous lockup.



DRIVEN SHAFT

GEAR OVERRUNS
COUNTERCLOCKWISE
CLEARANCE
EXAGGERATED



STATIONARY SHAFT
CAUSES ROLLER TO MOVE
OUT OF WEDGE TO RELEASE
CLUTCH WHEN OVERRUNNING

INCH COMPONENT

Catalog Number	Bore	D O.D.	W Clutch Width +.00 -.01	Max. Torque lbf in.	d Recom. Shaft Dia. +.0000 -.0005	Housing Bore +.001 -.000	Max. Rotating Overrun Speed rpm	
							Shaft	Housing
*S99NH3-URC0204	1/8	9/32	.250	2.86	.1250	.2812	5000	30000
S99NH3-URC0408	1/4	7/16	.500	18.60	.2500	.4370	21000	12000
S99NH3-URC0608	3/8	5/8	.500	50.40	.3750	.6245	14000	12000
S99NH3-URC0808	1/2	3/4	.500	85.90	.5000	.7495	11000	9000
S99NH3-URC1010	5/8	7/8	.625	175.20	.6250	.8745	8500	5000
S99NH3-URC1210	3/4	1	.625	206.00	.7500	.9995	12000	7000

* Plastic Springs