

# General Purpose Clutches

## ASNU

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



Model ASNU is a ramp & roller type clutch, non-bearing supported. Bearings are required to support axial and radial loads. Lubrication and sealing are required.

Nominal outer diameter is the same as a Series 63 ball bearing.

A typical arrangement is to install this type alongside a bearing within the same location tolerances, as shown.

The outer race has positive n6 tolerance, to give a press fit in a H7 housing. Additional side notches in the outer race provide positive torque transmission.

If the housing is to K6 tolerance, use of the notches is not necessary, but the housing must be strong enough not to expand after assembly.

This design can accept an axial misalignment of inner and outer race of  $\pm S/2$ .

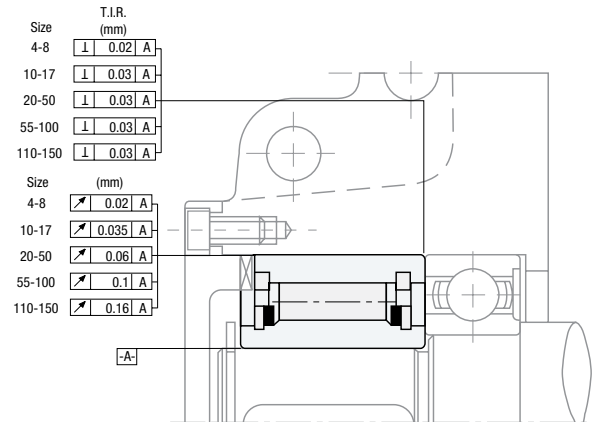
These clutches are oil dipped at the factory but must be filled to the proper level before operation.

This clutch is designed for oil lubrication. For grease lubrication, reduce the maximum overrunning speed to 50% of listed value.

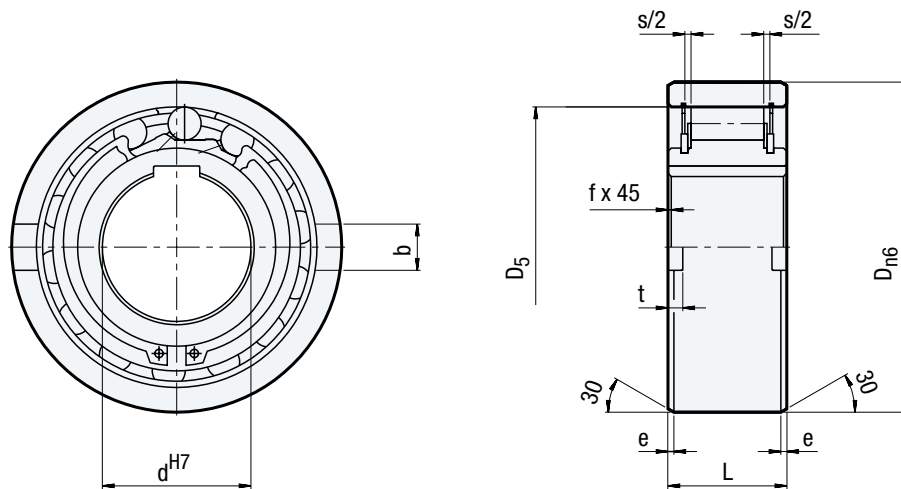
### Specifications

Size	Torque Capacity lb.ft. (Nm)	Overrunning Speed Max. RPM		Resistance after run-in lb.in. (Ncm)	Shipping Weight lb. (kg)
		Inner Race	Outer Race		
8	9 (12)	3,300	5,000	0.14 (1.6)	0.15 (0.07)
12	9 (12)	3,300	5000	0.14 (1.6)	0.13 (0.06)
15	22 (30)	2,400	3,600	0.17 (1.9)	0.24 (0.11)
17	36 (49)	2,300	3,400	0.17 (1.9)	0.33 (0.15)
20	58 (78)	2,100	3,100	0.17 (1.9)	0.42 (0.19)
25	92 (125)	1,700	2,600	0.50 (5.6)	0.84 (0.38)
30	188 (255)	1,400	2,200	1.20 (14)	1.19 (0.54)
35	283 (383)	1,200	1,900	1.40 (16)	1.63 (0.74)
40	397 (538)	1,100	1,700	3.30 (38)	2.03 (0.92)
45	576 (780)	1,000	1,600	3.80 (43)	2.89 (1.31)
50	748 (1013)	850	1,350	4.90 (55)	3.84 (1.74)
60	1,347 (1825)	750	1,050	9.70 (110)	6.11 (2.77)
70	1,697 (2300)	600	950	12.40 (140)	9.17 (4.16)
80	2,417 (3275)	550	850	15.90 (180)	13.43 (6.09)
90	3,930 (5325)	500	750	20.40 (230)	18.08 (8.2)
100	5,351 (7250)	450	680	33.60 (380)	27.78 (12.6)
120	9,963 (13500)	370	550	57.50 (650)	48.51 (22)
150	19,649 (26625)	300	460	88.50 (1000)	92.61 (42)
200	32,841 (44500)	230	350	177.10 (2000)	205.07 (93)

### Typical Mounting Arrangement



The ASNU clutch must be mounted adjacent to bearings to provide the concentricity and to support the axial and radial loads. Oil or grease lubrication must be provided along with seals to retain the lubricant.



**Dimensions** inches (mm)

Size	D <sub>n6</sub>	L	D <sub>5</sub>	b	t	s	e	f
8	1.38 (35)	0.51 (13)	1.10 (28)	0.16 (4)	0.06 (1.4)	0.09 (2.4)	0.02 (0.6)	0.01 (0.3)
12	1.38 (35)	0.51 (13)	1.10 (28)	0.16 (4)	0.06 (1.4)	0.09 (2.4)	0.02 (0.6)	0.01 (0.3)
15	1.65 (42)	0.71 (18)	1.46 (37)	0.20 (5)	0.07 (1.8)	0.09 (2.4)	0.03 (0.8)	0.01 (0.3)
17	1.85 (47)	0.75 (19)	1.57 (40)	0.20 (5)	0.09 (2.3)	0.09 (2.4)	0.05 (1.2)	0.03 (0.8)
20	2.05 (52)	0.83 (21)	1.65 (42)	0.24 (6)	0.09 (2.3)	0.09 (2.4)	0.05 (1.2)	0.03 (0.8)
25	2.44 (62)	0.94 (24)	2.01 (51)	0.31 (8)	0.11 (2.8)	0.09 (2.4)	0.05 (1.2)	0.03 (0.8)
30	2.83 (72)	1.06 (27)	2.36 (60)	0.39 (10)	0.10 (2.5)	0.09 (2.4)	0.07 (1.8)	0.04 (1)
35	3.15 (80)	1.22 (31)	2.76 (70)	0.47 (12)	0.14 (3.5)	0.09 (2.4)	0.07 (1.8)	0.04 (1)
40	3.54 (90)	1.30 (33)	3.07 (78)	0.47 (12)	0.16 (4.1)	0.10 (2.5)	0.07 (1.8)	0.04 (1)
45	3.94 (100)	1.42 (36)	3.35 (85)	0.55 (14)	0.18 (4.6)	0.10 (2.5)	0.07 (1.8)	0.04 (1)
50	4.33 (110)	1.57 (40)	3.62 (92)	0.55 (14)	0.22 (5.6)	0.10 (2.5)	0.07 (1.8)	0.04 (1)
60	5.12 (130)	1.81 (46)	4.33 (110)	0.71 (18)	0.22 (5.5)	0.14 (3.6)	0.10 (2.6)	0.06 (1.5)
70	5.91 (150)	2.01 (51)	4.92 (125)	0.79 (20)	0.27 (6.9)	0.14 (3.6)	0.10 (2.6)	0.06 (1.5)
80	6.69 (170)	2.28 (58)	5.51 (140)	0.79 (20)	0.30 (7.5)	0.14 (3.6)	0.10 (2.6)	0.06 (1.5)
90	7.48 (190)	2.52 (64)	6.30 (160)	0.79 (20)	0.31 (8)	0.14 (3.6)	0.10 (2.6)	0.08 (2)
100	8.46 (215)	2.87 (73)	6.89 (175)	0.94 (24)	0.33 (8.5)	0.14 (3.6)	0.10 (2.6)	0.08 (2)
120	10.24 (260)	3.39 (86)	8.46 (215)	1.10 (28)	0.39 (10)	0.14 (3.6)	0.10 (2.6)	0.10 (2.5)
150	12.60 (320)	4.25 (108)	10.24 (260)	1.26 (32)	0.47 (12)	0.14 (3.6)	0.14 (3.6)	0.10 (2.5)
200	16.54 (420)	5.43 (138)	13.78 (350)	1.77 (45)	0.63 (16)	0.30 (7.6)	0.14 (3.6)	0.12 (3)

**Bore sizes and keyseats** inches (mm)

Size	d <sup>H7</sup> Bore Size	Keyseat*
8	0.31 (8)	(2 X 1)
12	0.47 (12)	(4 X 1.8)
15	0.59 (15)	(5 X 1.2)
17	0.67 (17)	(5 X 1.2)
20	0.79 (20)	(6 X 1.6)
25	0.98 (25)	(8 X 2)
30	1.18 (30)	(8 X 2)
35	1.38 (35)	(10 X 2.4)
40	1.57 (40)	(12 X 2.2)
45	1.77 (45)	(14 X 2.1)
50	1.97 (50)	(14 X 2.1)
60	2.36 (60)	(18 X 2.3)
70	2.76 (70)	(20 X 2.7)
80	3.15 (80)	(22 X 3.1)
90	3.54 (90)	(25 X 2.9)
100	3.94 (100)	(28 X 3.2)
120	4.72 (120)	(32 X 3.5)
150	5.91 (150)	(36 X 3.8)
200	7.87 (200)	—

\* For keyseat sizes see ASNU 8–12 and 200 use DIN 6885.1. All other sizes use DIN 6885.3 table on page 129.