

The NFS Series clutch is available in 13 sizes and is designed with the same overall dimensions as a Standard medium metric series ball bearing (6300 series). The NFS Series clutch offers approximately twice the torque capacity of the NSS Series clutch. The inner race contains a key seat and the outer race is designed with European key slots. The clutch is furnished with protective oil and must be lubricated before installation. In addition, bearing support is required.

LUBRICATION

1. Oil lubrication is recommended.
2. Do not use greases or lubricants with EP additives.



MODEL	TORQUE CAPACITY		MAX. OVERRUNNING SPEED		DRAG TORQUE		BORE SIZE H7				KEYWAY		A	
	LB - FT	N-M	INNER RACE R/MIN	OUTER RACE R/MIN	LB - FT	N-M	INCH	INCH	MM	MM	INCH	MM	INCH	MM
NFS12	13.3	18	4,500	2,300	0.030	0.04	0.5	+0.0007 0.0000	12	+0.018 0.000	0.16 x 0.07	4 X 1.8	0.5	13
NFS15	20.7	28	3,500	1,800	0.044	0.06	0.6	+0.0007 0.0000	15	+0.018 0.000	0.20 x 0.05	5 X 1.2	0.7	18
NFS17	36.9	50	3,200	1,600	0.081	0.11	0.7	+0.0007 0.0000	17	+0.018 0.000	0.20 x 0.05	5 X 1.2	0.7	19
NFS20	62.0	84	2,500	1,300	0.133	0.18	0.8	+0.0008 0.0000	20	+0.021 0.000	0.24 x 0.06	6 X 1.6	0.8	21
NFS25	94.4	128	2,000	1,000	0.140	0.19	1.0	+0.0008 0.0000	25	+0.021 0.000	0.32 x 0.08	8 X 2.0	0.9	24
NFS30	147.5	200	1,600	800	0.155	0.21	1.2	+0.0008 0.0000	30	+0.021 0.000	0.32 x 0.08	8 X 2.0	1.1	27
NFS35	350.3	475	1,400	700	0.310	0.42	1.4	+0.0010 0.0000	35	+0.025 0.000	0.39 x 0.10	10 X 2.4	1.2	31
NFS40	447.7	607	1,300	650	0.339	0.46	1.6	+0.0010 0.0000	40	+0.025 0.000	0.47 x 0.09	12 X 2.2	1.3	33
NFS45	557.6	756	1,100	550	0.413	0.56	1.8	+0.0010 0.0000	45	+0.025 0.000	0.55 x 0.08	14 X 2.1	1.4	36
NFS50	829.0	1,124	1,000	500	0.443	0.60	2.0	+0.0010 0.0000	50	+0.025 0.000	0.55 x 0.08	14 X 2.1	1.6	40
NFS60	1,456.7	1,975	840	420	0.642	0.87	2.4	+0.0012 0.0000	60	+0.030 0.000	0.71 x 0.09	18 X 2.3	1.8	46
NFS70	1,854.2	2,514	750	380	0.671	0.91	2.8	+0.0012 0.0000	70	+0.030 0.000	0.79 x 0.11	20 X 2.7	2.0	51
NFS80	2,894.2	3,924	670	340	0.900	1.22	3.1	+0.0012 0.0000	80	+0.030 0.000	0.87 x 0.12	22 X 3.1	2.3	58

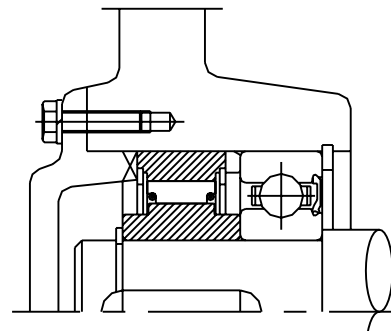
NFS clutch is commonly used in an application where reverse rotation must be prevented. The shaft on which the clutch is mounted is supported by bearings to provide proper concentricity between housing and shaft and to take up radial axial loads.

PART NUMBER EXPLANATION

NFS - 35

— Bore size in millimeters

— Clutch series



FEATURES

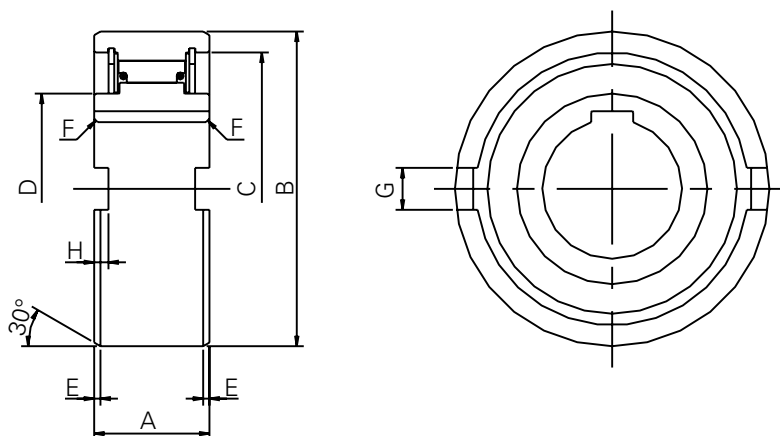
- Sprag type one way clutch
- High torque and longer life than roller ramp clutches
- Full metric design
- Overrunning speed is higher than roller ramp clutches

INDUSTRIES SERVED

- Food and beverageGearing
- PrintingTextile
- European machinery

FIELD APPLICATIONS

- Exercise equipmentPrinting presses
- Roll conveyorsFood processing equipment



DIMENSIONS AND CAPACITIES																
MODEL	B		C		D		E		F		G		H		WEIGHT	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	LB	G
NFS12	1.4	35	1.2	30	0.7	18	0.02	0.6	0.01	0.3	0.2	4	0.06	1.4	0.1	68
NFS15	1.7	42	1.4	36	0.9	22	0.03	0.8	0.01	0.3	0.2	5	0.07	1.8	0.3	120
NFS17	1.9	47	1.5	38	0.9	22	0.05	1.2	0.03	0.8	0.2	5	0.09	2.3	0.3	150
NFS20	2.0	52	1.8	45	1.1	27	0.05	1.2	0.03	0.8	0.2	6	0.09	2.3	0.5	220
NFS25	2.4	62	2.0	52	1.4	35	0.05	1.2	0.03	0.8	0.3	8	0.11	2.8	0.8	360
NFS30	2.8	72	2.4	62	1.6	40	0.07	1.8	0.04	1.0	0.4	10	0.10	2.5	1.2	530
NFS35	3.1	80	2.8	70	1.9	48	0.07	1.8	0.04	1.0	0.5	12	0.14	3.5	1.7	790
NFS40	3.5	90	3.1	78	2.1	54.4	0.07	1.8	0.04	1.0	0.5	12	0.16	4.1	2.3	1050
NFS45	3.9	100	3.4	85.3	2.3	59	0.07	1.8	0.04	1.0	0.6	14	0.18	4.6	3.0	1370
NFS50	4.3	110	3.6	92	2.6	65	0.07	1.8	0.04	1.0	0.6	14	0.22	5.6	4.2	1900
NFS60	5.1	130	4.3	110	3.3	84	0.10	2.6	0.06	1.5	0.7	18	0.22	5.5	6.9	3110
NFS70	5.9	150	4.9	125	3.6	91	0.10	2.6	0.06	1.5	0.8	20	0.27	6.9	9.7	4390
NFS80	6.7	170	5.5	140	3.9	100	0.10	2.6	0.06	1.5	0.8	20	0.30	7.5	14.2	6440

INSTALLATION AND USAGE

1. The outer race of the NFS Series cam clutch is designed for press fit installation to the housing. Correct interference dimensions of the outer race must be maintained to obtain maximum clutch performance. The internal diameter of the housing should meet the H7 tolerance. Keyways should be made in the end faces of the clutch for proper installation.
2. Make sure the housing has enough strength to withstand the pressure required for the press fitting installation of the clutch.

3. When installing the clutch, mount it with a type 63 bearing to avoid radial force, since this clutch does not have any bearings inside.
4. Mount the clutch on the shaft by rotating it in the direction marked by the arrow shown on the clutch plate.
5. The recommended shaft tolerance is H7, and the key profile should be in accordance with the following standard.
NFS-12DIN 6885. 1
NFS-15 – 80DIN6885. 3
Suitable surface pressure of the key should be selected according to your company design standards.