Separate

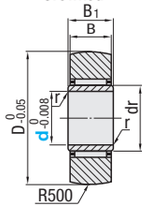
Grease	No Seal Crowned	No Seal Flat	With Seal Crowned	With Seal Flat	Material
General	NASTR	NASTF	NASTZ	NASTFZ	SUJ2 Equivalent
	-	NASTFS	NASTZS	NASTFZS	SUS440C
Low Dust Generation	-	-	-	NASTFZC	

* D	Tolerance
19~30	$^{0}_{-0.009}$
32	$^{0}_{-0.011}$

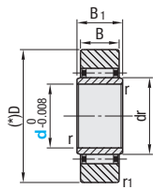
Operating Temp.: 80°C or lower

No Seal

Crowned

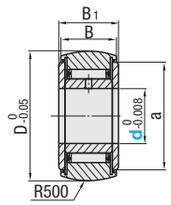


Flat

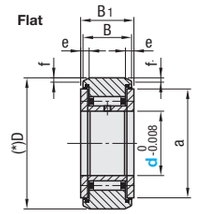


With Seal

Crowned



Flat



Outer ring, inner ring, and retainer will separate. See the figure on the overview page P.1042.

No Seal

Part Number Type	d	D	dr	B	B1	r	r1	Basic Dynamic Load Rating C(kN)	Basic Static Load Rating Co(kN)	Track Load Capacity (kN) NASTR□	Track Load Capacity (kN) NASTF□	Max. Rotational Speed (rpm)	Mass (g)	Unit Price NASTR	Unit Price NASTF	Unit Price NASTFS
(Crowned) NASTR (Flat) NASTF NASTFS	6	19	10	9.8	10	0.5	0.5	4.12	4.55	1.37	3.53	20000	17.8			
	8	24	12				1.0	5.68	5.89	1.86	4.02	17000	28			
	10	30	14	11.8	12		1.5	9.70	9.67	2.45	5.59	15000	50			
	12	32	16				1.5	10.4	10.9	2.74	5.98	13000	58			
	15	35	20	15.8	16		-	12.3	14.3	3.14	-	10000	62		-	-
	17	40	22					17.4	20.9	3.72		9500	110		-	-
	20	47	25					19.2	24.5	4.61		8500	155		-	-

Apply ample grease before use.

kgf=Nx0.101972

With Seal

Part Number Type	d	D	a	B	B1	e	f	Basic Dynamic Load Rating C(kN)	Basic Static Load Rating Co(kN)	Track Load Capacity (kN) NASTZ□	Track Load Capacity (kN) NASTFZ□	Max. Rotational Speed (rpm)	Mass (g)	Unit Price NASTZ	Unit Price NASTZS	Unit Price NASTFZ	Unit Price NASTFZS	Unit Price NASTFZC
(Crowned) NASTZ NASTZS (Flat) NASTFZ NASTFZS NASTFZC	6	19	14	13.8	14	2.5	0.8	4.12	4.55	1.37	3.53	8000	24.5					
	8	24	17.5					5.68	5.89	1.86	4.51	6800	39					
	10	30	23.5	15.8	16			9.70	9.67	2.45	6.86	6000	65					
	12	32	25.5					10.4	10.9	2.74	7.35	5200	75					
	15	35	29.0	19.8	20	3	1	12.3	14.3	-	8.04	4000	83	-	-		-	-
	17	40	32.5					17.4	20.9	-	11.8	3800	135	-	-		-	-
	20	47	38.0					19.2	24.5	-	13.8	3400	195	-	-		-	-

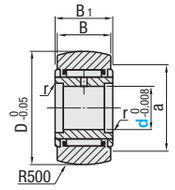
kgf=Nx0.101972

Solid

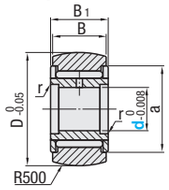
Grease	No Seal Crowned	No Seal Heavy Load Crowned	With Seal Crowned	With Seal Heavy Load Crowned	Material
General	NARTR	NARTRV	NARTU	NARTV	SUJ2 Equivalent
	NARTRS	-	NARTUS	NARTVS	SUS440C
Low Dust Generation	-	-	NARTUC	-	

No Seal

Crowned

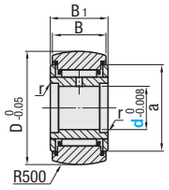


Heavy Load Crowned

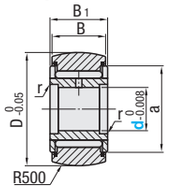


With Seal

Crowned



Heavy Load Crowned



No Seal

Part Number Type	d	D	a	B	B1	r	Basic Dynamic Load Rating C (kN) NARTR□	Basic Dynamic Load Rating C (kN) NARTRV□	Basic Static Load Rating Co (kN) NARTR□	Basic Static Load Rating Co (kN) NARTRV□	Track Load Capacity (kN)	Max. Rotational Speed (rpm) NARTR□	Max. Rotational Speed (rpm) NARTRV□	Mass (g)	Unit Price NARTR	Unit Price NARTRS	Unit Price NARTRV
(Crowned) NARTR NARTRS (Heavy Load Crowned) NARTRV	5	16	12	11	12	0.5	2.84	6.46	2.65	7.81	1.08	25000	10500	15			
	6	19	14				3.33	7.58	3.35	10.2	1.37	20000	8700	21			
	8	24	17.5	14	15		5.68	11.7	5.89	15.6	1.86	17000	7000	42			
	10	30	23.5				7.94	15.8	7.59	18.5	2.45	15000	5700	66			
	12	32	25.5				8.53	17.0	8.44	21.0	2.74	13000	5200	73			

kgf=Nx0.101972

With Seal

Part Number Type	d	D	a	B	B1	r	Basic Dynamic Load Rating C (kN) NARTU□	Basic Dynamic Load Rating C (kN) NARTV□	Basic Static Load Rating Co (kN) NARTU□	Basic Static Load Rating Co (kN) NARTV□	Track Load Capacity (kN)	Max. Rotational Speed (rpm) NARTU□	Max. Rotational Speed (rpm) NARTV□	Mass (g) NARTU□	Mass (g) NARTV□	Unit Price NARTU	Unit Price NARTUS	Unit Price NARTUC	Unit Price NARTV	Unit Price NARTVS
(Crowned) NARTU NARTUS NARTUC (Heavy Load Crowned) NARTV NARTVS	5	16	12	11	12	0.5	2.84	6.46	2.65	7.81	1.08	10000	4200	14.5	15.1					
	6	19	14				3.33	7.58	3.35	10.2	1.37	8000	3480	20.5	21.5					
	8	24	17.5	14	15		5.68	11.7	5.89	15.6	1.86	6800	2800	41.5	42.5					
	10	30	23.5				7.94	15.8	7.59	18.5	2.45	6000	2280	64.5	66.5					
	12	32	25.5				8.53	17.0	8.44	21.0	2.74	5200	2080	71	73					
	15	35	29.0	18.0	19		13.7	25.3	16.4	36.9	3.14	4000	1720	102	106		-	-		-
	17	40	32.5	20.0	21		17.4	32.0	19.3	46.6	3.72	3800	1560	149	155		-	-		-
	20	47	38.0	24.0	25		22.9	41.7	30.6	67.7	7.15	3200	1360	250	255		-	-		-

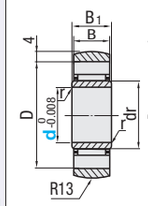
kgf=Nx0.101972

Ordering Example: Part Number — NASTR8

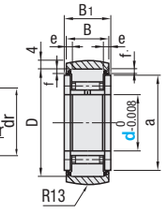
Urethane Roller Followers

Separate, R

(No Seal) NAUTRR

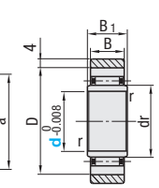


(With Seal) NAUTR

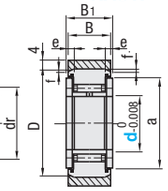


Separate, Flat

(No Seal) NAUTFR

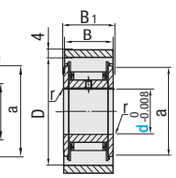


(With Seal) NAUTF

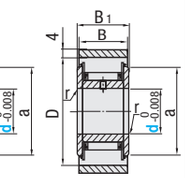


Solid, Flat

(No Seal) NAUGFR



(With Seal) NAUGF



Operating Temp.: 80°C or lower Urethane is baked on the outer rings of the cam followers. Material: Main Body: SUJ2 Equivalent Urethane Shore A90 (Black)

Separate, No Seal (Common to R and Flat)

Part Number Type	d	D	dr	B	B1	r	Allowable Load (N)	Max. Rotational Speed (rpm)	Mass (g)	Unit Price NAUTRR	Unit Price NAUTFR
NAUTRR NAUTFR	6	19	10	9.8	10	0.5	96	4900	22.3		
	8	24	12				115	4150	33.5		
	10	30	14	11.8	12		147	3475	58		
	12	32	16				151	3300	66		

kgf=Nx0.101972

Separate, With Seal (Common to R and Flat)

Part Number Type	d	D	a	B	B1	e	f	Allowable Load (N)	Max. Rotational Speed (rpm)	Mass (g)	Unit Price NAUTR	Unit Price NAUTF
NAUTR NAUTF	6	19	14	13.8	14	2.5	0.8	96	1960	29		
	8	24	17.5					115	1660	44.5		
	10	30	23.5	15.8	16			147	1390	73		
	12	32	29.5					151	1320	83		

kgf=Nx0.101972

Solid, Flat

Part Number Type	d	D	a	B	B1	r	Allowable Load (N)	Max. Rotational Speed (rpm)	Mass (g)	Unit Price NAUGFR	Unit Price NAUGF
NAUGFR NAUGF	5	16	12	11	12	0.5	100	6525	19.5		
	6	19	14				125	5220	26.5		
	8	24	17.5	14	15		150	5910	50		
	10	30	23.5				190	4785	74		
	12	32	25.5				196	5055	81		

kgf=Nx0.101972

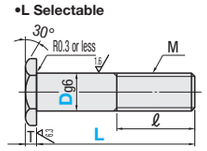
Ordering Example: Part Number — NAUTF6

Roller Follower Pins Threaded

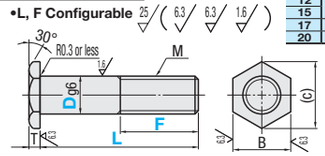
Type L Selectable	Type L, F Configurable	Material	Surface Treatment
RFN	FRFN	S45C	Black Oxide
-	FSRFN	SUS304	-

D	M (Coarse)	ℓ	T	B	(C)
5	M 5	14	2	8	9.2
6	M 6			10	11.5
8	M 8	16	3	13	15.0
10	M10	19		17	19.6
12	M12	22	4	19	21.9
15		25		24	27.7
17	M16	28			
20	M20	31	5	27	31.2

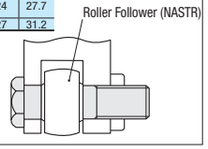
•L Selectable



•L, F Configurable



Example



Part Number Type	Dg6		L	ℓ	Unit Price
RFN	5	-0.004 -0.012	20 25 30	14	
	6		30 32 34 36		
	8	-0.005 -0.014	30 32 34 36 38	16	
	10		36 38 42	19	
	12	-0.006 -0.017	38 42 46	22	
	15		38 42 46 50	25	
	17			28	
	20	-0.007 -0.020	38 42 46 50 54	31	

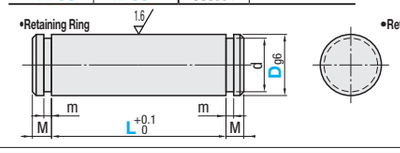
Part Number Type	Dg6		L 1mm Increment	F 1mm Increment	Unit Price FRFN	Unit Price FSRFN
FRFN FSRFN	5	-0.004 -0.012	20~30	M≤F≤L-10		
	6		20~36			
	8	-0.005 -0.014	20~38			
	10		20~42			
	12	-0.006 -0.017	25~46			
	15		25~50			
	17		25~50			
	20	-0.007 -0.020	25~54			

Ordering Example: Part Number — L — F
RFN6 - 30
FRFN6 - 35 - F10

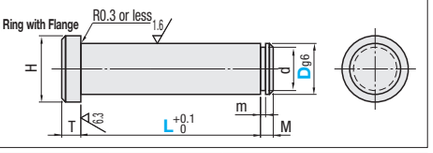
Roller Follower Pins Retaining Ring

Type Retaining Ring	Type Retaining Ring with Flange	Material	Surface Treatment
RFC	RFS	S45C	Black Oxide
RFCS	RFSS	SUS304	-

•Retaining Ring



•Retaining Ring with Flange



Part Number Type	Dg6		L 1mm Increment	d	Tolerance	m	Tolerance	M	T	H	Unit Price RFC, RFS	Unit Price RFCS, RFSS
(Retaining Ring) RFC RFCS (Retaining Ring with Flange) RFS RFSS	5	-0.004 -0.012	20~44	4	+0.075 0	0.7	+0.1 0	2	2	10		
	6		22~46	5						11		
	8	-0.005 -0.014	22~47	7	+0.09 0	0.9		3	3	13		
	10		25~48	9.6	0 -0.09	1.15	+0.14 0			15		
	12	-0.006 -0.017		11.5	0 -0.11				4	17		
	15		25~52	14.3				4	4	20		
	17		25~58	16.2						23		
	20	-0.007 -0.020	25~68	19	0 -0.21	1.35		5	5	27		

Ordering Example: Part Number — L
RFC5 - 40
RFSS5 - 22