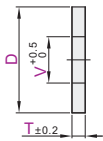


Urethane Washers

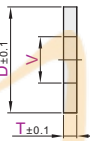
Code		Type	Material	Hardness
Standard Grade	Precision Grade			
NAC01	NAC51	Dimension Selectable	Urethane	Shore A80
NAC11	NAC61	Dimension Configurable		

Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

Standard Grade
NAC01
NAC11



Precision Grade
NAC51
NAC61



Standard Grade D Tolerance

D	Tolerance
8~40	±0.20
41~60	±0.30
61~100	±0.40

Precision Grade V Tolerance

V	Tolerance
2~50	+0.1 0
51~80	+0.2 0



Dimension Selectable

Part Number		V				T		
Code	D							
Standard Grade NAC01	8	2	3	4		1	2	3
	10	2	3	4	5	6	1	2
	12	3	4	5	6	8	1	2
	15	3	4	5	6	8	10	1
	20	4	5	6	8	10	12	1
Precision Grade NAC51	25	4	5	6	8	10	12	16
	30	5	6	8	10	12	16	20
	35	6	8	10	12	16	20	25
	40	6	8	10	12	16	20	25
	50	6	8	10	12	16	20	25
	60	8	10	12	16	20	25	30
	60	8	10	12	16	20	25	30

Dimension Configurable

Part Number	D	V	T
Code	0.5 mm Inc.	0.5 mm Inc.	0.5 mm Inc.
Standard Grade NAC11	6~15	0 (No Hole)	1.0~10
	10~30	2~40	
	25~45	(V≤D-4)	
	46~60	0 (No Hole)	
Precision Grade NAC61	50~80	6~70	
	50~80	(V≤D-4)	
	81~100	0 (No Hole)	



Please order as shown

Dimension Selectable

Part Number	D	V	T
Code	D	V	T
NAC01	8~20	2~3	1~2
NAC51	10~20	2~3	1~2

NAC01—D8—V3—T2

Dimension Configurable

Part Number	D	V	T
Code	0.5 mm Inc.	0.5 mm Inc.	0.5 mm Inc.
NAC11	6~15	0 (No Hole)	1.0~10
NAC61	50~80	6~70	1.0~10

NAC11—D6.5—V2.5—T3.5



Discount price
Per 1~19 20~
Price 100% Additional quotation

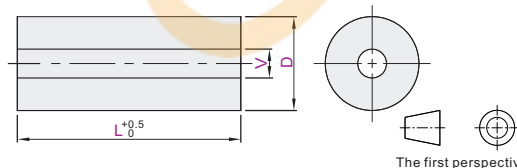


Urethane Bumpers, Through Hole Type

Code	Type	Material	Hardness	Color
NBD01	Standard Grade Fully Configurable Through Hole	Urethane	Shore A80	Natural Color

Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

D Tol.		V Tol.		Thickness Condition	
D	Tol.	V	Tol.	L	V
8~40	±0.20	30 or less	±0.20	30<L	V≤D-3
41~60	±0.30	31~88	±0.50	30≥L	V≤D-5
61~100	±0.40				



The first perspective

Part Number	0.5 mm Increment		
Code	D	L	V
NBD01	8~15		2~12
	16~30		4~28
	31~45		6~42
	46~60	8~320	6~58
	61~80		6~78
	81~100		6~88
	81~100		6~88



Please order as shown

Part Number	0.5 mm Increment
Code	D L V
NBD01	8~15 3~320 2~12
NBD01	16~30 8~320 4~28

NBD01—D17—L45—V10

Discount price
Per 1~19 20~
Price 100% Additional quotation

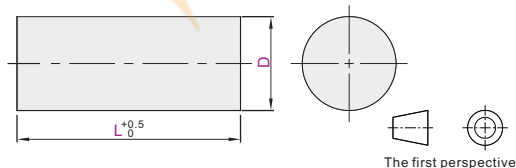


Urethane Bumpers, No Hole Type

Code	Type	Material	Hardness	Color
NBD51	Standard Grade Fully Configurable No Hole	Urethane	Shore A80	Natural Color

Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

D Tol.	
D	Tol.
8~40	±0.18
41~60	±0.28
61~100	±0.38



The first perspective

Part Number	0.5 mm Increment	
Code	D	L
NBD51	8~15	
	16~30	
	31~45	
	46~60	8~320
	61~80	
	81~100	
	81~100	



Please order as shown

Part Number	0.5 mm Increment
Code	D L
NBD51	8~15 3~320
NBD51	16~30 8~320

NBD51—D17—L45

Discount price
Per 1~19 20~
Price 100% Additional quotation



Counterbore Type ▶ Urethane Bumpers

❑ L Selectable/L Configurable

Code	Type	Material	Hardness	Color
NBE01	Counterbore Type	L Selectable	Urethane	Shore A80
NBE51		L Configurable		Natural Color

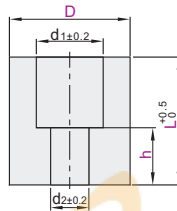
❑ Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

❑ h Tolerance

h	Tolerance
30 or Less	±0.20
31~220	±0.50

❑ D Tolerance

D	Tolerance
40 or Less	±0.20
50	±0.30
60	±0.30
80	±0.40
100	±0.40



The first perspective

❑ L Selectable

Part Number	D	L Selection	M Applicable Screw	h
NBE01	12	12 15	M3	5
	15	12 15		
		12 15 20	M4	6
	20	15 20 25	M5	7
	25	15 20 25	M6	8
	30	20 25 30	M8	9
	40	20 25 30 40	M10	11
		20 25 30 40 50	M12	14
	50	25 30 40 50	M10	
	60	25 30 40 50	M12	

❑ L Configurable

Part Number		L	M	h
Code	D			
NBE51	15	0.1 mm Inc.	M3 M4	0.1 mm Inc.
	20		M4 M5	
	25		M5 M6 M8	
	30			
	40			
	50	20~160	M8 M10 M12	
	60			
	80	20~220	M10 M12 M16	
	100			

❑ Hole Diameter of Applicable Screw

Screw Size	Hole Dia. d1	Hole Dia. d2
M3	6	3.5
M4	8	4.5
M5	9.5	5.5
M6	11	6.5
M8	14	9
M10	17	11
M12	19	13
M16	25	17



Please order as shown

❑ L Selectable

Part Number	D	L	M	h
NBE01	20	15 20 25	M4	6

NBE01—D20—L25—M4

❑ L Configurable

Part Number	D	L	M	h
NBE51	40	10~100	M6 M8	h≤5>L

NBE51—D40—L30—M12—h20



Discount price
Per 1~50 51~
Price 100% Additional quotation



Delivery
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❑ Fully Configurable

Code	Type	Material	Hardness	Color
NBF01	Standard Grade	Counterbore	Urethane	Shore A80
NBF51	Precision Grade	Type		Natural Color

❑ Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

❑ Standard Grade D Tol.

D	Tol.
8~40	±0.20
41~60	±0.30
61~100	±0.40

❑ Precision Grade L Tol.

L	Tol.
6~100	±0.20
100~200	±0.30

❑ Standard Grade V · H · G Tol.

Dimension	V	H	G
30 or Less	±0.20	±0.20	±0.20
31~90	±0.30	±0.50	±0.30
91~200	—	±0.50	—

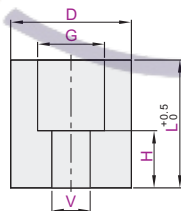
❑ Precision Grade V · H · G Tol.

Dimension	V	H-G
2~50	±0.14	±0.09
51~	±0.14	±0.14

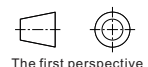
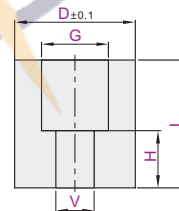
❑ Thickness Condition

L	V
30<L-H	V≤D-3
30≥L-H	V≤D-5

Standard Grade
NBF01



Precision Grade
NBF51



The first perspective

Part Number	1 mm Increment	0.5 mm Increment			
Code	D	V	H	G	L
Standard Grade NBF01	8~15	2~12	H=3~L	3~90	6.0~80
	16~30	2~18			
	31~45	5~40			8.0~150
Precision Grade NBF51	46~60	5~50	H=2~L		20.0~150
	61~82	5~70			
	83~100	5~84			20.0~200



Please order as shown

Part Number	D	V	H	G	L
NBF01	8~15	2~12	H=3~L		6.0~80

NBF01—D10—V4—H6—G6—L50



Discount price
Per 1~50 51~
Price 100% Additional quotation



Delivery
12



Code	Type	Material	Hardness	Color
NDC01	Square Type	Urethane	Shore A80	Natural Color
NDC21	Standard Type			
NDC31	Hole Machining Type			

① Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

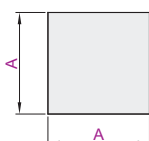
T Tolerance

Dimension	Tolerance
1~4	±0.30
5~10	±0.40
15~30	±0.50

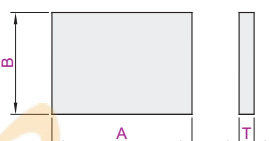
A/B Tolerance

Dimension	Tolerance
200 or Less	±0.4
201~300	±0.9
301~400	±1.1
401~550	±1.4

Square Type
NDC01

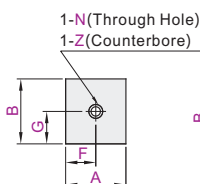


Standard Type
NDC21

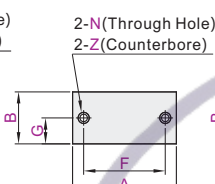


Hole Machining Type NDC31

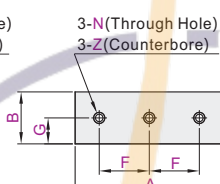
1K(1 Hole)



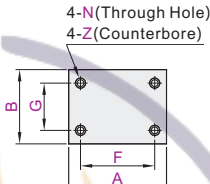
2K(2 Holes)



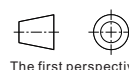
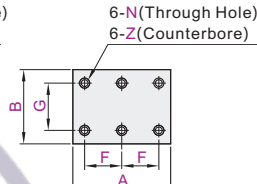
3K(3 Holes)



4K(4 Holes)



6K(6 Holes)



The first perspective

Square Type

Part Number	Code	T	A
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
8	8	8	8
10	10	10	10
15	15	15	15
20	20	20	20
25	25	25	25
30	30	30	30

Standard Type

Part Number	Code	T	A	B
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
8	8	8	8	8
10	10	10	10	10
15	15	15	15	15
20	20	20	20	20
25	25	25	25	25
30	30	30	30	30

Hole Machining Details	
N(Through Hole)	Z(Counterbore)
Bolt Nominal	3 4 5 6 8 10
d	3.3 4.3 5.3 6.3 8.5 11
d1	6.5 8 9.5 11 14 17
h	3.5 4.5 5.5 6.5 8.5 10.5

Hole Machining Type

Part Number	Code	Nominal	T	0.5 mm Inc.	0.5 mm Inc.	N (Through Hole)	Z (Counterbore Hole)
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
8	8	8	8	8	8	8	8
10	10	10	10	10	10	10	10
15	15	15	15	15	15	15	15
20	20	20	20	20	20	20	20
25	25	25	25	25	25	25	25
30	30	30	30	30	30	30	30



Optional Processing

Code	Spec.
AB()	Hole Position from Left Ordering Code AB10 ① 0.1 mm Inc. ② AB The value range is: 5~542.
AC()	Hole Position from Bottom Ordering Code AC10 ① 0.1 mm Inc. ② AC The value range is: 5~542.

- ① When choosing F and G size, please consider the hole margin and hole spacing.
 ② For the hole machining type, please choose one of the two forms of N (Through Hole) and Z (Counterbore Hole).

Square Type

Part Number	Code	T	A
1	1	1	1
2	2	2	2

NDC01-T2-A300

Standard Type

Part Number	Code	T	A	B
1	1	1	1	1
2	2	2	2	2

NDC21-T2-A300-B300

Optional Processing(Hole Machining Type)

Part Number	Code	Nominal	T	0.5 mm Inc.	0.5 mm Inc.	N (Through Hole)	Z (Counterbore Hole)	Optional Processing Code
1	1	1	1	1	1	1	1	AB()
2	2	2	2	2	2	2	2	AC()

NDC31-2K-T15-A150-B100-F70-G50-Z8-AB20



Please order as shown

Discount price
Per 1~10 11~
Price 100% Additional quotation

Delivery
12

Urethane Blocks

Code	Type	Material	Hardness	Color
NDR01	Urethane Blocks	Urethane	Shore A80	Natural Color

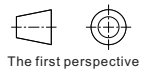
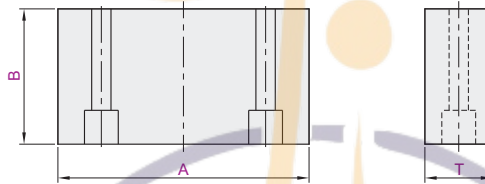
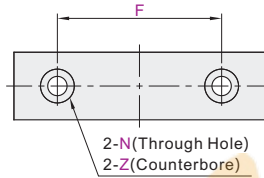
① Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

T Tolerance

Dimension	Tolerance
6~9	±0.30
10 or More	±0.50

A/B Dimension Tolerance

Dimension	Tolerance
30 or Less	±0.50
31~50	±0.70
51 or More	±0.80



Part Number	1 mm Increment				N(Through Hole)	Z(Counterbore Hole)
Code	A	B	T	F		
NDR01	20~200	20~150	5~35	9~191	0 3 4 5 6 8 10 12 (When B<30) 0 5 6 8 10 12 (When 30<B<50) 0 10 12 (When 50<B)	

① When N=0, F=0.



Optional Processing

Alteration	Counterbore Hole Detailed Size
Code	AD()
Spec.	Changes the dimensions of Counterbore Hole. Ordering Code: AD-Z17.5-J15 ① 0.5mm Increment ① Z-d ≥ 4 ① B-J ≥ 2

Hole Machining Details	
N(Through Hole)	Z(Counterbore)
Screw Nominal	3 4 5 6 8 10 12
d	3.3 4.3 5.3 6.3 8.5 11 13
d1	6.5 8 9.5 11 14 17 20
h	3.5 4.5 5.5 6.5 9 11 14



Please order as shown

Part Number	A	B	T	F	N
NDR01	20~200	20~150	5~35	9~191	0~10~12

NDR01—A80—B90—T25—F50—N10

Optional Processing

Part Number	A	B	T	F	Z	Optional Processing Code
NDR01	20~200	20~150	5~35	9~191	①	AD()

NDR01—A80—B90—T25—F50—Z10—AD-Z17.5-J15



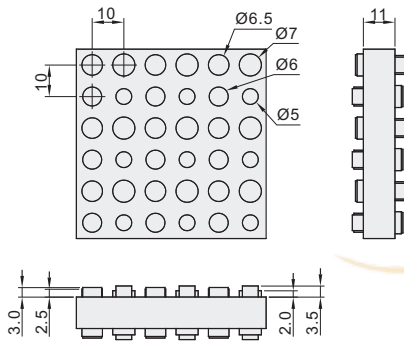
Discount price	
Per	1~10 11~
Price	100% Additional quotation



Delivery	
	12

Antivibration Pads

Code	Type	Material	Hardness
NFK01	Standard Type	Nitrile Rubber	Shore A35
NFK11	Hole Machining Type		

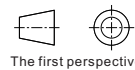
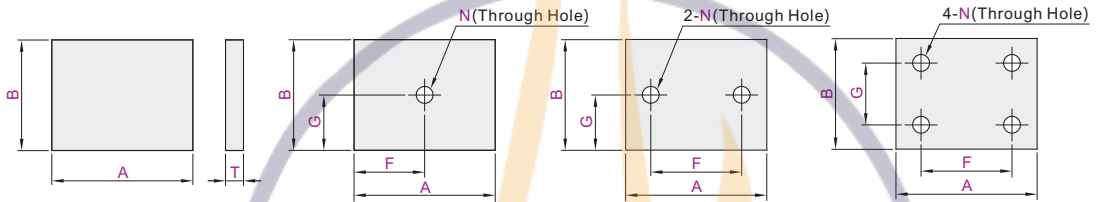


Standard Type
NFK01

Hole Machining Type
NFK11 1K(1 Hole)

2K(2 Holes)

4K(4 Holes)



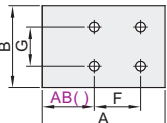
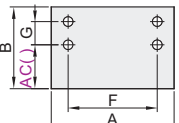
Standard Type

Part Number		A	B	Applicable Load N(kgf)	Deflection Characteristic N/mm(kgf/mm)
Code	T				
NFK01	18	60	60	230~1000(23.5~102)	115(11.7)
		120	120	980~4000(100~408)	245(25)
		180	180	2480~8000(253~897)	895(91.3)
		240	240	4000~16000(408~1632)	145(14.8)

Hole Machining Type

Part Number		60 mm Increment		1 mm Increment	1 mm Increment	Applicable Load N(kgf)/cm ²	Deflection Characteristic N/mm(kgf/mm)/cm ²
Code	T	Nominal	A	B	F	G	
NFK11	18	1K	60~300	60~300	5~295	5~295	9(0.92)
		2K					
		4K					

When choosing F and G size, please consider the hole margin and hole spacing.

 Optional Processing	Alteration	Hole Position from Left	Hole Position from Bottom
	Code	AB ()	AC ()
Spec.		Ordering Code AB15 ① 1mm Increment ② AB The value range is:3~287. ③ Applicable to 2K and 4K Type only.	
		Ordering Code AC38 ① 1mm Increment ② AC The value range is:3~287. ③ Applicable to 4K Type only.	

Hole Machining Type

Part Number		A	B	F	G	N
Code	T					
NFK11	18	60~300	60~300	5~295	5~295	20

NFK11-T18-1K-A60-B60-F30-G30-N6

Optional Processing

Part Number		A	B	F	G	N	Optional Processing Code
Code	T						
NFK11	18	60~300	60~300	5~295	5~295	20	ABD AC ()

NFK11-T18-2K-A60-B60-F30-G30-N6-AB15



Discount price
Per 1~19 20~
Price 100% Additional quotation.



Delivery
12