



Bore Additional Modification **BT**

- Coupling bores can be additionally modified. Bore diameters can be specified in 0.001 mm increments.
- For bore diameters D₁ and D₂, specify the standard bore diameter for each product from minimum diameter to maximum diameter.*¹

*1: For standard and maximum bore diameters, see each product page.

For disk type, the bore diameters listed in the "Disk Type Bore Diameters Available" below can be specified with this service.

For bore diameters outside the range, please contact our customer service.

- Combination with the keyway additional modification **KT** **KA** is also possible.*²

*2: The bore diameters listed in the "Keyway Additional Modification Applicable Bore Diameter List" are available for the service.

- Additional modification is also available for inch size bores. For inch size bore diameters, refer to the table below and specify in millimeter increments.

inch	mm	inch	mm
1/8	3.175	13/16	20.638
3/16	4.763	7/8	22.225
1/4	6.35	15/16	23.813
5/16	7.938	1	25.4
3/8	9.525	1 - 1/8	28.575
7/16	11.113	1 - 1/4	31.75
1/2	12.7	1 - 3/8	34.925
9/16	14.288	1 - 1/2	38.1
5/8	15.875	1 - 5/8	41.275
11/16	17.463	1 - 3/4	44.45
3/4	19.05	2	50.8

- When converting values into millimeters, round up the 4th digit after the decimal point.

Please note.

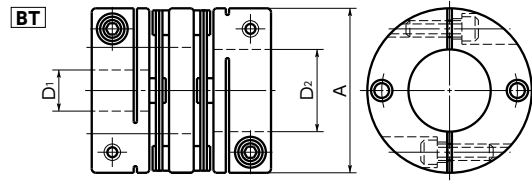
- For disk type, select bore diameters from the available options in the table below.

Unit: mm

Disk Type Bore Diameters Available									
D ₁ /D ₂									
3	4	4.5	5	6	6.35	7	8	9	
9.525	10	11	12	13	14	15	16	17	
18	19	20	22	24	25	28	30	32	
35	38	40	42	45	50				

- For bore diameters D₁ and D₂, specify the standard bore diameter for each product from minimum diameter to maximum diameter.

- Disk type specifiable bore diameters are regularly added. Please visit the NBK website for the latest information.



Eligible Coupling Types

- Coupling category products are targeted.
- Eligible Coupling Types are displayed with **Additional Keyway at Shaft Hole** at the bottom of the product page.



Type	Part Number					
High-Gain Rubber	XGT2	XGL2	XGS2	XGT	XGL	XGS
Vibration-Absorption Capable* ¹	XGHW					
Disk* ²	XHW	XHW-AC * ³	XHS	XBW	XBS	MDW
	MDS	MHW	MHS			
	XBWS					
	XBSS					
Slit	MSX	MST	MWS	MSH		
	MSTS					
	MWSS					
Jaw	MJC	MJS				
Cross Joint	XUT					
Oldham	MOC	MOR	MOL	MOS	MOP	
	MOM					
	MOHS					
Bellows	MFB					
	MFBS					
Serration	MSF					
Rigid* ⁴	MRG	MLR				
	MRGS	MLRS				

- For product series not listed above, please contact us.

*1: Bore additional modification is only performed on the D₁ side for The vibration-absorption capable disk type **XGHW**

*2: For disk type, select bore diameters from the available options in the "Disk Type Bore Diameters Available" table. **XHW-10** are not available.

*3: Bore additional modification is only performed on the D₂ side for **XHW-AC**.

*4: **MRG-W**, **MRGS-W**, **MLR-V**, and **MLRS-V** are not available.

Lead Time and Pricing

- For details on lead time, pricing, and compatibility with other services, please contact our customer service team.

Part Number Specification

Additional Modification of Single-Side Bore

XHW-25C-7-BT - 8

Coupling Part Number: D₁ Modification Symbol: D₂

Additional Modification of Double-Side Bores

XGT2-25C-7-BT - 9.525 - BT

Coupling Part Number: D₁ Modification Symbol: D₂ (Metric bore converted from inch) Modification Symbol

Additional Modification of Double-Side Bores + Keyways

MOL-50C-17-BT-KT-19-BT-KT

Coupling Part Number: D₁ Modification Symbol: D₂ Modification Symbol

Combination of Bore Additional Modification Service and Inch Keyway Modification

MOL-50C-11/16-BT-KA-3/4-BT-KA

Coupling Part Number: D₁ Modification Symbol: D₂ Modification Symbol

Specify the modification symbol **BT** after the bore diameter to be modified.

Combination with the keyway additional modification **KT** **KA** is also possible.*¹

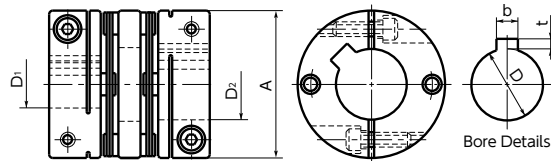
*1: The bore diameters listed in the "Keyway Additional Modification Applicable Bore Diameter List" are available for the service.

Bore additional modification

Keyway Additional Modification **KT** **KA**

- Couplings can be additionally modified with new JIS keyways based on JIS B 1301.
- Metric or inch keyways can be selected with the modification symbol.
- **KT** Metric Keyway Modification (JIS Standard)
- **KA** Inch Keyway Modification (AGMA Standard)
- The bore diameters listed in the "Keyway Additional Modification Applicable Bore List" in the table below are available for the service.
- Keyways are modified in positions determined by our standard specifications.
- Keyway modification is available for both single-sided and double-sided options.
- **Keyway modification is available for high-gain rubber type and rigid type only when both bore diameters are the same and keyways are added to both sides.**
- Combination with the bore additional modification **BT** is also possible.

KT Metric Keyway Modification



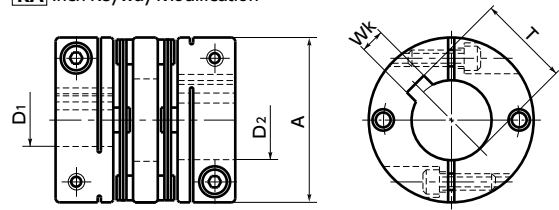
- Keyway Additional Modification Applicable Bore Diameter List

Unit: mm

Applicable Bore Diameter D1/D2	Keyway				Key b×h Nominal Dimension
	Reference Dimensions	Tolerance JS9	Reference Dimensions	Tolerance	
6 7	2	±0.0125	1.0	+0.1 0	2×2
8 9 10	3	±0.0125	1.4	+0.1 0	3×3
11 12	4	±0.0150	1.8	+0.1 0	4×4
13 14 15 16 17	5	±0.0150	2.3	+0.1 0	5×5
18 19 20 22	6	±0.0150	2.8	+0.1 0	6×6
24 25 28 30	8	±0.0180	3.3	+0.2 0	8×7
32 35 36 38	10	±0.0180	3.3	+0.2 0	10×8
40 42 44	12	±0.0215	3.3	+0.2 0	12×8
45 48 50	14	±0.0215	3.8	+0.2 0	14×9
55	16	±0.0215	4.3	+0.2 0	16×10

- Excerpt from JIS B 1301
- The service does not cover keyway additional modification for combinations with bore diameters not listed in the table. Please contact our customer service for details.

KA Inch Keyway Modification



Unit : inch

Standard Inch Bore Diameter D1,D2	Keyway			
	Wk Standard Dimension	Tolerance	T Standard Dimension	Tolerance
1/2	1/8	+0.002 0	0.560	+0.01 0
9/16	1/8	+0.002 0	0.623	+0.01 0
5/8	3/16	+0.002 0	0.709	+0.01 0
11/16	3/16	+0.002 0	0.773	+0.01 0
3/4	3/16	+0.002 0	0.837	+0.01 0
13/16	3/16	+0.002 0	0.900	+0.01 0
7/8	3/16	+0.002 0	0.964	+0.01 0
15/16	1/4	+0.002 0	1.051	+0.01 0
1	1/4	+0.002 0	1.114	+0.01 0
1 1/8	1/4	+0.002 0	1.241	+0.01 0
1 1/4	1/4	+0.002 0	1.367	+0.01 0
1 3/8	5/16	+0.002 0	1.518	+0.01 0
1 1/2	3/8	+0.002 0	1.669	+0.01 0
1 5/8	3/8	+0.002 0	1.796	+0.01 0
1 3/4	3/8	+0.002 0	1.922	+0.01 0

- Excerpt from AGMA Standards
- The service does not cover keyway additional modification for bore diameters not listed in the table. Please contact our customer service.

Eligible Coupling Types

- Coupling category products are targeted.
- Eligible Coupling Types are displayed with **Additional Keyway at Shaft Hole** at the bottom of the product page.



Type	Part Number					
High-Gain Rubber	XGT2	XGL2	XGS2	XGT	XGL	XGS
Vibration-Absorption Capable*1	XGHW					
Disk	XHW	XHW-AC*2	XHS	XBW	XBS	MDW
	MDS	MHW	MHS			
	XBWS	XBSS				
Jaw	MJC	MJS				
Cross Joint	XUT					
	MOC	MOR	MOL	MOS	MOP	
	MOM					
	MOHS					
Bellows	MFB					
	MFBS					
Serration	MSF					
Rigid*3	MRG	MLR	MRGS	MLRS		

- For product series not listed above, please contact us.
- We also offer keyway additional modification not listed in the catalog. Please contact our customer service.
- *1: Keyway additional modification is only performed on the D1 side for The vibration-absorption capable disk type **XGHW**.
- *2: Keyway additional modification is only performed on the D2 side for **XHW-AC**.
- *3: Keyway modification is not applicable for **MRG-W**, **MRGS-W**, **MLR-V**, **MLRS-V** in the Rigid type.

Lead Time and Pricing

- For details on lead time, pricing, and compatibility with other services, please contact our customer service team.

Part Number Specification

Additional Modification of Single-Side Keyway

XHW-25C-10-KT-12

Coupling Part Number D1 Modification Symbol D2

Additional Modification of Double-Side Keyways

XHW-25C-10-KT-12-KT

Coupling Part Number D1 Modification Symbol D2 Modification Symbol

Additional Modification of Double-Side Bores + Keyways

MOL-50C-17-BT-KT-19-BT-KT

Coupling Part Number D1 Modification Symbol D2 Modification Symbol

Combination of Bore Additional Modification Service and Inch Keyway Modification

MOL-50C-11/16-BT-KA-3/4-BT-KA

Coupling Part Number D1 Modification Symbol D2 Modification Symbol

Specify the modification symbol **KT** **KA** after the bore diameter with the keyway to be modified. Combination with the bore additional modification **BT** is also possible.