

Spur Gears - Bearing Built-In

Pressure Angle 20°, Module 1.0, 1.5, 2.0

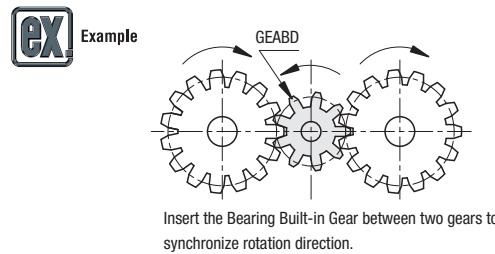
■ **Features:** Bearing built-in spur gears can be used for reversing rotations and synchronizing.

Type	Material		Surface Treatment
	Main Body	Bearing	
GEABD	S45C Equivalent	Steel	-
GEABDB			Black Oxide
GEABDG			Electroless Nickel Plating
GEABDM			-

* Bearing Accuracy: JIS B 1514 Class 0
 Ⓜ Bearings are press-fit.
 Ⓜ For Shafting, refer to cantilever shafts. (P. 883 ~ 906)

Part Number Type	Module	Number of Teeth	B	d ₁	d Reference Dia.	D Tip Dia.	G Root Dia.	GEABD, GEABDB, GEABDG			GEABDM			Unit Price						
								Bearing Number	D ₁	b	S	Bearing Number	D ₁	b	S	GEABD	GEABDB	GEABDG	GEABDM	
GEABD	1.0	20	12	5	20	22	17.5	695ZZx1	13	4	4	-	-	-	-	-	-	-		
		24		8	24	26	21.5	688ZZx1	16	5	3.5	-	-	-	-	-	-	-		
		25		8	25	27	22.5	698ZZx1	19	6	3	678ZZx1	12	3.5	4.25	-	-	-	-	
		30		10	30	32	27.5	6900ZZx1	22	6	3	6700ZZx1	15	4	4	-	-	-	-	
		40		12	40	42	37.5	6901ZZx1	24	6	3	6901ZZx1	24	6	3	-	-	-	-	
		48		12	48	50	45.5	6901ZZx1	24	6	3	6901ZZx1	24	6	3	-	-	-	-	
	GEABDB	1.5	15	15	5	22.5	25.5	18.75	695ZZx2	13	4	3.5	-	-	-	-	-	-	-	
			16		8	24	27	20.25	688ZZx1	16	5	5	-	-	-	-	-	-	-	
			20		10	30	33	26.25	6900ZZx1	22	6	4.5	6700ZZx2	15	4	3.5	-	-	-	-
			24		10	36	39	32.25	6000ZZx1	26	8	3.5	6900ZZx1	22	6	4.5	-	-	-	-
			25		10	37.5	40.5	33.75	6000ZZx1	26	8	3.5	6900ZZx1	22	6	4.5	-	-	-	-
			26		10	39	42	35.25	6000ZZx1	26	8	3.5	6900ZZx1	22	6	4.5	-	-	-	-
GEABDG	1.5	28	15	12	42	45	38.25	6001ZZx1	28	8	3.5	6001ZZx1	28	8	3.5	-	-	-		
		30		12	45	48	41.25	6001ZZx1	28	8	3.5	6001ZZx1	28	8	3.5	-	-	-		
		40		12	60	63	56.25	6001ZZx1	28	8	3.5	6001ZZx1	28	8	3.5	-	-	-		
		48		15	72	75	68.25	6002ZZx1	32	9	3	6002ZZx1	32	9	3	-	-	-		
		50		15	75	78	71.25	6002ZZx1	32	9	3	6002ZZx1	32	9	3	-	-	-		
		60		15	90	93	86.25	6002ZZx1	32	9	3	6002ZZx1	32	9	3	-	-	-		
GEABDM	2.0	15	20	8	30	34	25.5	698ZZx2	19	6	4	678ZZx2	12	3.5	6.5	-	-	-		
		20		10	40	44	35.5	6200ZZx1	30	9	5.5	6900ZZx2	22	6	4	-	-	-		
		24		12	48	52	43.5	6201ZZx1	32	10	5	6201ZZx1	32	10	5	-	-	-		
		25		12	50	54	45.5	6201ZZx1	32	10	5	6201ZZx1	32	10	5	-	-	-		
		30		15	60	64	55.5	6202ZZx1	35	11	4.5	6202ZZx1	35	11	4.5	-	-	-		
		32		15	64	68	59.5	6202ZZx1	35	11	4.5	6202ZZx1	35	11	4.5	-	-	-		
GEABDM	2.0	36	20	15	72	76	67.5	6202ZZx1	35	11	4.5	6202ZZx1	35	11	4.5	-	-	-		
		40		15	80	84	75.5	6202ZZx1	35	11	4.5	6202ZZx1	35	11	4.5	-	-	-		
		48		20	96	100	91.5	6004ZZx1	42	12	4	6004ZZx1	42	12	4	-	-	-		
		50		20	100	104	95.5	6004ZZx1	42	12	4	6004ZZx1	42	12	4	-	-	-		
		60		25	120	124	115.5	6005ZZx1	47	12	4	6005ZZx1	47	12	4	-	-	-		

Ordering Example: Part Number - Number of Teeth - B
 GEABD1.0 - 20 - 12



Note that, for some of the types shown here, order might be unable to be received by the MISUMI Indonesia offices.

Round Rack Gears / Worm / Worm Wheel

L Fixed and Configurable, Pressure Angle 20°

Type	Material		Surface Treatment
	L Fixed	L Configurable	
RGMA	RGMAL	S45C Equivalent	Black Oxide
RGMAS	RGMASL	SUS303	-

Enlarged View of End Face
 End Machining
 For the L configurable type, this can be positioned as desired at one end
 End Machining

Accuracy: Accumulated Pitch Error (μm)

Module	Nominal, Overall Length L		
	-100	101-300	301-500
0.5-1.5	54 (76)	65 (92)	72 (101)
2.0-3.0	62 (86)	73 (102)	80 (112)

Ⓜ Values in () are for RGMAS and RGMASL.

L Fixed							L Configurable										
Part Number Type	Module	Nominal	Effective Number of Teeth (Z)	D (h9)	(L)	h	Unit Price	Part Number Type	Module	Overall Length 1mm Increment	D (h9)	h	Unit Price				
													L50-99	L100-199	L200-300	L301-500	
RGMA (S45C)	0.5	300	192	8	301.59	7.5		RGMAL (S45C)	0.5	50-300	8	7.5					
	0.8	300	120	10	298.45	7.2			0.8		8	7.2					
	1.0	300	95	10	298.45	9			1.0		10	9					
	1.5	300	63	15	296.88	13.5			1.5		15	13.5					
	2.0	300	47	20	295.31	18			2.0		20	18					
	3.0	300	31	30	292.17	27			2.5		25	22.5					
	RGMAS (SUS303)	0.5	300	192	8	301.59	7.5		RGMASL (SUS303)	0.5	50-300	8	7.5				
		0.8	300	120	10	298.45	7.2			0.8		8	7.2				
		1.0	300	95	10	298.45	9			1.0		10	9				
		1.5	300	63	15	296.88	13.5			1.5		15	13.5				
		2.0	300	47	20	295.31	18			2.0		20	18				
		3.0	300	31	30	292.17	27			2.5		25	22.5				

Ordering Example: Part Number - Nominal Length L
 RGMA1.0 - 500
 RGMAL0.8 - 205

Alterations Code	One End Tapped MC		Both Ends Tapped WMC	
	Module	M Selection	Module	M Selection
Spec.	0.5	3 4 5	0.5	3 4 5
	0.8	3	0.8	3
	1.0	4 5	1.0	4 5
	1.5-3.0	4 5 6	1.5-3.0	4 5 6

Alterations: Part Number - Nominal Length L - (MC, WMC)
 RGMA1.0 - 500 - MC5

Worm		Worm Wheel	
Part Number	WGEAU	Part Number	WGEAH
0.8			
1.0			

Material: S45C Equivalent, Surface Treatment: Black Oxide
 Tooth Surface Hardness: 12HRC or less, Accessory: Set Screw M4
 Accuracy Grade: JIS B 1702 Class 4 Equivalent (Tooth Surface Finish: Rolled)

Material: Phosphor Bronze (CAC502)
 Accuracy Grade: JIS B 1702 Class 4 Equivalent (Tooth Surface Finish: Machined)

Part Number Type	Module	Number of Starts	Shaft Bore Dia. P ₁ Straight Bore + Tap	Twisting Direction	Advance Angle	d	D	L	ℓ	Unit Price 1 - 5 pc(s).
WGEAU	0.8	1	6	R (Right)	3°17'	14	15.6	30	5	
	1.0	2	6		6°34'	16	18	32	5	
					3°35'					
					7°11'					

Part Number Type	Module	Number of Starts	Shaft Bore Dia. P ₁ Straight Bore	Twisting Direction	d	D	B	H	L	ℓ	F Engagement Center Distance	Allowable Torque (N·m) Tooth Surface Strength	Backlash (mm)	Reduction Ratio	Unit Price 1 - 5 pc(s).
WGEAH	0.8	2	5	R (Right)	16.11	17.6	12				15	0.86	0.04-0.22	1/10	
		2	5		24.04	25.6	18				19	1.89	1/30		
		2	6		24.16	25.6	18	18	9		19	1.87	1/15		
		4	1		32.05	33.6	20				23	3.24	1/40		
		4	1		40.06	41.6	25				27	4.90	1/50		
		5	1		40.06	41.6	25				27	4.90	1/50		
	1.0	2	6			20.05	23	16			18	1.58	1/20		
		2	6			20.16	23	16			18	1.54	1/10		
		1	1			30.07	33	20			23	3.38	1/30		
		1	1			30.24	33	20			23	3.35	1/15		
		4	1		8	40.08	43	26			28	5.79	1/40		
		5	1		8	50.10	53	30			33	8.76	1/50		

Ordering Example: Part Number - Number of Teeth - Number of Starts - Shaft Bore Dia. P₁ - Twisting Direction
 WGEAU1.0 - 20 - 1 - 6 - R
 WGEAH1.0 - 20 - 2 - 6 - R