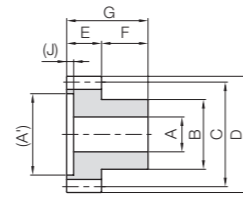
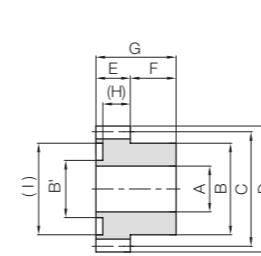




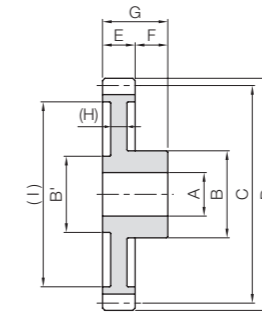
Specifications	
Precision grade	JIS grade N12 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	Duracon (R) (M90-44)**
Heat treatment	—
Tooth hardness	(110 to 120HRR)



S8



S8B



S9

* The precision grade is equivalent to the value shown in the table.

** "Duracon (R)" is a registered trademark of Polyplastics Co., Ltd. in Japan as well as other countries.

Catalog Number	Module	No. of teeth	Shape	Bore 1	Bore 2	Hub dia. 1	Hub dia. 2	Pitch dia.	Outside dia.	Face width	Hub width
				A	(A')	B	B'	C	D	E	F
DS0.5-12	m0.5	12	S8	2	(4)	4.5	—	6	7	3	4
DS0.5-15		15	S8	—	(5.5)	4.5	—	7.5	8.5		
DS0.5-16		16	S8	3	(6)	6	—	8	9		
DS0.5-20		20	S8B	—	—	8	5	10	11		
DS0.5-24		24	S9	4	—	8	5	12	13		
DS0.5-40	m0.5	40	S9	5	—	12	8	20	21	3	5
DS0.5-48		48				12	8	24	25		
DS0.5-50		50				12	8	25	26		
DS0.5-56		56	6	—	14	10	28	29	36		
DS0.5-60		60			14	10	30	31			
DS0.5-70	m0.5	70	S9	6	—	14	10	35	36	3	5
DS0.5-80		80				14	10	40	41		
DS0.8-12	m0.8	12	S9	3	—	6	4	9.6	11.2	4	5
DS0.8-16		16		4		8	6	12.8	14.4		
DS0.8-20		20		5		10	8	16	17.6		
DS0.8-30		30		6		12	10	24	25.6		
DS0.8-45		45				12	10	36	37.6		
DS0.8-56	56	14.5	11.7	44.8	46.4	6					

[Caution on Product Characteristics] ① The bore tolerance is -0.05 to -0.30, but it may be slightly higher at the center of the hole.

② For the dimensional accuracy of each part, see the dimensional tolerance of molded items on Page 187.

[Caution on Secondary Operations] ① As it is a molded item, bubbles may form inside the material. Avoid performing secondary operations.

Total length	Web thickness	Web O.D.	Hole depth	Allowable torque (N·m)	Allowable torque (kgf·m)	Backlash (mm)	Weight (g)	Catalog Number
G	(H)	(I)	(J)	Bending strength	Bending strength			
7	—	—	(0.6)	0.063	0.0064	0~0.30	0.17	DS0.5-12
	—	—	(0.6)	0.092	0.0094		0.23	DS0.5-15
	—	—	(0.6)	0.10	0.010		0.28	DS0.5-16
	(2.4)	(8)	—	0.14	0.014		0.47	DS0.5-20
	(1.8)	(9.5)	—	0.17	0.018		0.58	DS0.5-24
8	(1.8)	(16.5)	—	0.33	0.034	0~0.30	1.53	DS0.5-40
		(21)		0.42	0.043		1.91	DS0.5-48
		(21.5)		0.44	0.045		2.02	DS0.5-50
		(24.5)		0.50	0.051		2.77	DS0.5-56
		(26.5)		0.54	0.055		3.02	DS0.5-60
9	(2)	(31.5)	—	0.64	0.066	0~0.48	3.71	DS0.5-70
		(36.5)		0.75	0.076		4.51	DS0.5-80
		(6.7)		0.22	0.022		0.48	DS0.8-12
10	(2)	(9.2)	—	0.35	0.035	0~0.48	0.84	DS0.8-16
		(12.7)		0.47	0.048		1.26	DS0.8-20
		(19.5)		0.79	0.080		2.37	DS0.8-30
		(31)		1.31	0.13		4.18	DS0.8-45
		(39.5)		1.70	0.17		6.55	DS0.8-56

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gears

Gearboxes

Other Products

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gears

Gearboxes

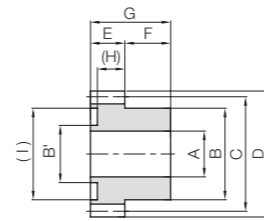
Other Products



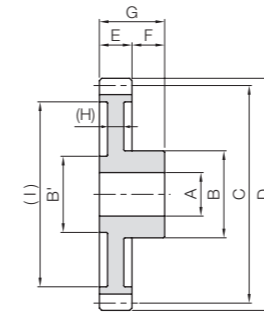
Specifications	
Precision grade	JIS grade N12 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	Duracon (R) (M90-44)**
Heat treatment	—
Tooth hardness	(110 to 120HRR)

* The precision grade is equivalent to the value shown in the table.

** "Duracon (R)" is a registered trademark of Polyplastics Co., Ltd. in Japan as well as other countries.



S8B



S9

Catalog Number	Module	No. of teeth	Shape	Bore 1	Bore 2	Hub dia. 1	Hub dia. 2	Pitch dia.	Outside dia.	Face width	Hub width
				A	(A')	B	B'	C	D	E	F
DS1-12	m1	12	S8B	4	—	8	6	12	14	6	6
DS1-16		10				8	16	18			
DS1-18		10				8	18	20			
DS1-20		11.7				9	20	22			
DS1-24		24	5	—	11.7	9	24	26			
DS1-28		28			11.7	9	28	30			
DS1-30		30	6	—	14	12	30	32			
DS1-32		32			14	12	32	34			
DS1-35		35			14	12	35	37			
DS1-36		36			14	12	36	38			
DS1-40		40	8	S9	—	16	14	40	42		
DS1-48		48				16	14	48	50		
DS1-50		50				16	14	50	52		
DS1-60		60				18	15.6	60	62		
DS1-64		64				18	15.6	64	66		
DS1-70		70				18	15.6	70	72		
DS1-80		80				18	15.6	80	82		

[Caution on Product Characteristics] ① The bore tolerance is -0.05 to -0.30, but it may be slightly higher at the center of the hole.

② For the dimensional accuracy of each part, see the dimensional tolerance of molded items in the table at right.

Total Length	Web thickness	Web O.D.	Allowable torque (N·m)	Allowable torque (kgf·m)	Backlash (mm)	Weight (g)	Catalog Number
G	(H)	(I)	Bending strength	Bending strength			
12	(3)	(5.5)	0.44	0.045	0~0.60	1.10	DS1-12
		(8.5)	0.71	0.073		1.87	DS1-16
		(11.5)	0.83	0.085		2.15	DS1-18
		(13.5)	0.96	0.098		2.85	DS1-20
		(15)	1.22	0.12		3.81	DS1-24
		(17)	1.48	0.15		4.39	DS1-28
		(23)	1.61	0.16		5.46	DS1-30
		(24)	1.75	0.18		5.86	DS1-32
		(26.5)	1.96	0.20		6.73	DS1-35
		(29)	2.04	0.21		7.01	DS1-36
14	(3)	(30)	2.33	0.24	8.39	DS1-40	
		(34)	2.92	0.30	12.0	DS1-48	
		(40)	3.07	0.31	12.6	DS1-50	
		(42.5)	3.78	0.39	17.6	DS1-60	
		(52.5)	4.07	0.41	19.4	DS1-64	
		(56.5)	4.50	0.46	22.4	DS1-70	
		(62.5)	5.23	0.53	27.9	DS1-80	
		(72.5)					

[Caution on Secondary Operations] ① As it is a molded item, bubbles may form inside the material. Avoid performing secondary operations.



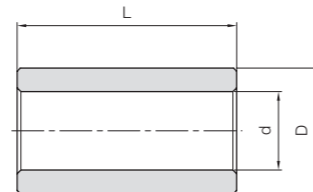
BB

Sintered Metal Bushings

Sintered Metal Bushings



When using the injection molded spur gear with an idler gear (bearing metal press fitting) and diameter smaller than the inside diameter of the molded gear, please press fit the following standard bushing.



T8

Catalog Number	Inner dia.	Outside dia.	Length	Gear example
	d ^{+0.02} ₀	D ^{+0.02} _{-0.01}	L ⁰ _{-0.3}	
BB30507	3	5	7	DS0.5
BB30608	3	6	8	DS0.5, DS0.8
BB40609	4	6	9	DS0.8
BB40612	4	6	12	DS1
BB50812	5	8	12	DS1
BB50814	5	8	14	DS1

Material: Oil-free copper alloy



■ Dimensional tolerance of molded item (unit: mm)

Dimensional classification	Grade	Rough grade
	3 or less	±0.20
4 to 6	±0.25	
7 to 10	±0.30	
11 to 18	±0.35	
19 to 30	±0.40	
Over 30	±0.50	