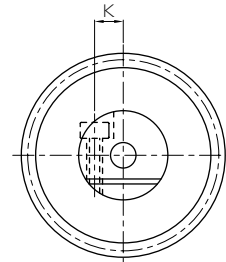
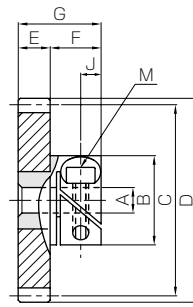




Specifications	
Precision grade	JIS grade N10 (JIS B1702-1: 1998) * JIS grade 6 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	Acetal with SUS303 core
Heat treatment	—
Tooth hardness	110 ~ 120HRR

\* The gear grade listed is the value before clamping. The precision grade of products with a module of less than 0.8 is equivalent to the value shown in the table.



S1

Catalog No.	Module	No. of teeth	Shape	Bore										Cap screw dimensions		
				AH7	B	C	D	E	F	G	M	J	K			
DSL0.5-28	m0.5	28	S1	5	14	14	15	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-30		30	S1	5	14	15	16	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-32		32	S1	5	14	16	17	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-36		36	S1	5	14	18	19	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-40		40	S1	5	14	20	21	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-45		45	S1	5	14	22.5	23.5	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-48		48	S1	5	14	24	25	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-50		50	S1	5	14	25	26	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-56		56	S1	5	14	28	29	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-60		60	S1	5	14	30	31	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-64	m0.8	64	S1	5	14	32	33	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-70		70	S1	5	14	35	36	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-72		72	S1	5	14	36	37	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-75		75	S1	5	14	37.5	38.5	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-80		80	S1	5	14	40	41	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.5-90		90	S1	8	17	45	46	5	9.8	14.8	M3	4.3	5.9			
DSL0.5-96		96	S1	8	17	48	49	5	9.8	14.8	M3	4.3	5.9			
DSL0.5-100		100	S1	8	17	50	51	5	9.8	14.8	M3	4.3	5.9			
DSL0.5-120		120	S1	8	17	60	61	5	9.8	14.8	M3	4.3	5.9			
DSL0.8-20		m0.8	20	S1	5	14	16	17.6	5	8.5	13.5	M2.5	3.3	4.4		
DSL0.8-24	24		S1	5	14	19.2	20.8	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-25	25		S1	5	14	20	21.6	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-28	28		S1	5	14	22.4	24	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-30	30		S1	5	14	24	25.6	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-32	32		S1	5	14	25.6	27.2	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-36	36		S1	5	14	28.8	30.4	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-40	40		S1	5	14	32	33.6	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-45	45		S1	5	14	36	37.6	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-48	48		S1	5	14	38.4	40	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-50	m0.8	50	S1	5	14	40	41.6	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-56		56	S1	5	14	44.8	46.4	5	8.5	13.5	M2.5	3.3	4.4			
DSL0.8-60		60	S1	8	17	48	49.6	5	9.8	14.8	M3	4.3	5.9			
DSL0.8-72		72	S1	8	17	57.6	59.2	5	9.8	14.8	M3	4.3	5.9			
DSL0.8-80		80	S1	8	17	64	65.6	5	9.8	14.8	M3	4.3	5.9			
DSL0.8-90		90	S1	8	17	72	73.6	5	9.8	14.8	M3	4.3	5.9			
DSL0.8-100		100	S1	8	17	80	81.6	5	9.8	14.8	M3	4.3	5.9			

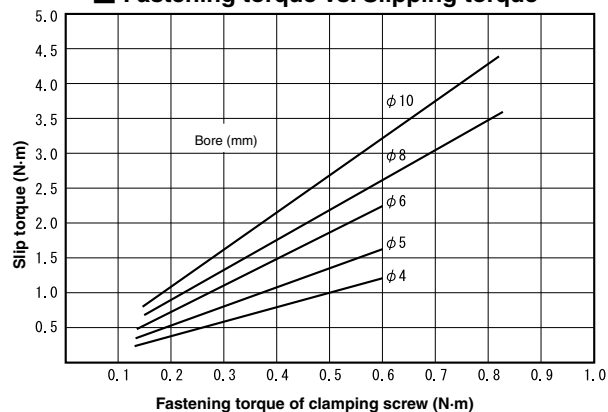
[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
- ③ Fairloc Hub Gears are attached to the shaft by friction. Slipping torque should be considered when making a selection.
- ④ Do not tighten the clamping screw without inserting a shaft, or the bore will be permanently deformed and will not accept a shaft.

## Fastening torque vs. Slipping torque

The slipping torque which is dependent on the fastening torque can sometimes be less than the gear strength. Please use caution in selecting. The chart on the right shows the relationship between the slipping torque and the fastening torque.

## Fastening torque vs. Slipping torque



※ Data supplied by Designatronics Inc.

## Acetal Fairloc Hub Spur Gears

Allowable torque (N·m)		Allowable torque (kgf·m)		Recommended fastening torque		Backlash (mm)	Weight (kg)	Catalog No.
Bending strength	Surface durability	Bending strength	Surface durability	(N·m)	(kgf·m)			
0.39	—	0.04	—	0.60	0.061	0~0.10	10.8	<b>DSL0.5-28</b>
0.43	—	0.044	—	0.60	0.061	0~0.10	11.0	<b>DSL0.5-30</b>
0.46	—	0.047	—	0.60	0.061	0~0.10	11.2	<b>DSL0.5-32</b>
0.54	—	0.055	—	0.60	0.061	0~0.10	11.5	<b>DSL0.5-36</b>
0.62	—	0.063	—	0.60	0.061	0~0.10	12.0	<b>DSL0.5-40</b>
0.71	—	0.073	—	0.60	0.061	0~0.10	12.5	<b>DSL0.5-45</b>
0.78	—	0.079	—	0.60	0.061	0~0.10	12.9	<b>DSL0.5-48</b>
0.82	—	0.083	—	0.60	0.061	0~0.10	13.2	<b>DSL0.5-50</b>
0.93	—	0.095	—	0.60	0.061	0~0.10	14.1	<b>DSL0.5-56</b>
1.01	—	0.10	—	0.80	0.082	0~0.10	14.7	<b>DSL0.5-60</b>
1.08	—	0.11	—	0.80	0.082	0~0.10	15.4	<b>DSL0.5-64</b>
1.20	—	0.12	—	0.80	0.082	0~0.10	16.5	<b>DSL0.5-70</b>
1.24	—	0.13	—	0.80	0.082	0~0.10	16.9	<b>DSL0.5-72</b>
1.29	—	0.13	—	0.80	0.082	0~0.10	17.5	<b>DSL0.5-75</b>
1.39	—	0.14	—	0.80	0.082	0~0.10	18.6	<b>DSL0.5-80</b>
1.58	—	0.16	—	0.80	0.082	0~0.10	23.9	<b>DSL0.5-90</b>
1.70	—	0.17	—	0.80	0.082	0~0.10	25.5	<b>DSL0.5-96</b>
1.78	—	0.18	—	0.80	0.082	0~0.10	26.6	<b>DSL0.5-100</b>
2.15	—	0.22	—	0.80	0.082	0~0.10	32.6	<b>DSL0.5-120</b>
0.58	—	0.059	—	0.60	0.061	0~0.10	11.2	<b>DSL0.8-20</b>
0.73	—	0.075	—	0.60	0.061	0~0.10	11.8	<b>DSL0.8-24</b>
0.78	—	0.079	—	0.60	0.061	0~0.10	12.0	<b>DSL0.8-25</b>
0.89	—	0.091	—	0.60	0.061	0~0.10	12.5	<b>DSL0.8-28</b>
0.97	—	0.099	—	0.60	0.061	0~0.10	12.9	<b>DSL0.8-30</b>
1.06	—	0.11	—	0.60	0.061	0~0.10	13.4	<b>DSL0.8-32</b>
1.23	—	0.13	—	0.60	0.061	0~0.10	14.3	<b>DSL0.8-36</b>
1.41	—	0.14	—	0.60	0.061	0~0.10	15.4	<b>DSL0.8-40</b>
1.62	—	0.17	—	0.60	0.061	0~0.10	16.9	<b>DSL0.8-45</b>
1.76	—	0.18	—	0.60	0.061	0~0.10	17.9	<b>DSL0.8-48</b>
1.85	—	0.19	—	0.60	0.061	0~0.10	18.6	<b>DSL0.8-50</b>
2.11	—	0.22	—	0.60	0.061	0~0.10	20.8	<b>DSL0.8-56</b>
2.28	—	0.23	—	0.80	0.082	0~0.10	25.5	<b>DSL0.8-60</b>
2.8	—	0.29	—	0.80	0.082	0~0.10	31.1	<b>DSL0.8-72</b>
3.15	—	0.32	—	0.80	0.082	0~0.10	35.4	<b>DSL0.8-80</b>
3.58	—	0.37	—	0.80	0.082	0~0.10	41.4	<b>DSL0.8-90</b>
4.03	—	0.41	—	0.80	0.082	0~0.10	48.1	<b>DSL0.8-100</b>

[Caution on Secondary Operations]

- ① These are finished products, avoid performing secondary operations on the bore.  
 ② Perform secondary operations carefully as to not distort the groove for clamping.

Spur  
GearsHelical  
GearsInternal  
Gears

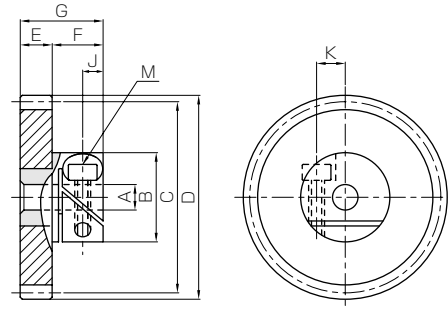
Racks

CP Racks  
& PinionsMiter  
GearsBevel  
GearsScrew  
GearsWorm  
Gear PairBevel  
GearboxesOther  
Products



Specifications	
Precision grade	JIS grade N10 (JIS B1702-1: 1998) * JIS grade 6 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	Acetal with SUS303 core
Heat treatment	—
Tooth hardness	110 ~ 120HRR

\* The gear grade listed is the value before clamping. The precision grade of products with a module of less than 0.8 is equivalent to the value shown in the table.



S1

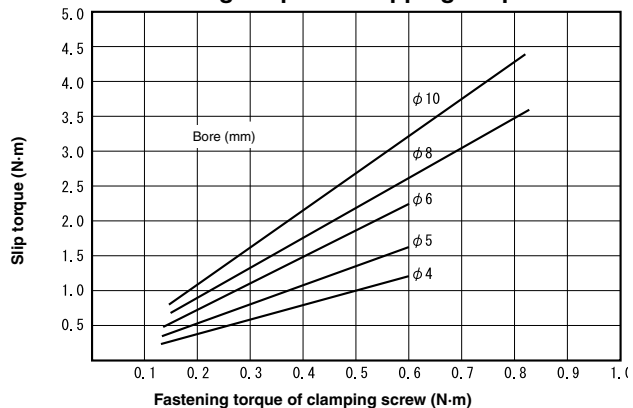
Catalog No.	Module	No. of teeth	Shape	Dimensions									
				Bore AH7	Hub dia. B	Pitch dia. C	Outside dia. D	Face width E	Hub width F	Total length G	Cap screw dimensions		
				M	J	K							
<b>DSL1-15</b>	m1	15	S1	5	14	15	17	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL1-16</b>		16	S1	5	14	16	18	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL1-18</b>		18	S1	5	14	18	20	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL1-20</b>		20	S1	5	14	20	22	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL1-24</b>		24	S1	5	14	24	26	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL1-25</b>		25	S1	5	14	25	27	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL1-28</b>		28	S1	5	14	28	30	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL1-30</b>		30	S1	8	17	30	32	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-32</b>		32	S1	8	17	32	34	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-35</b>		35	S1	8	17	35	37	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-36</b>		36	S1	8	17	36	38	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-40</b>		40	S1	8	17	40	42	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-45</b>		45	S1	8	17	45	47	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-48</b>		48	S1	8	17	48	50	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-50</b>		50	S1	8	17	50	52	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-56</b>		56	S1	8	17	56	58	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-60</b>		60	S1	8	17	60	62	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-64</b>		64	S1	8	17	64	66	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-70</b>		70	S1	8	17	70	72	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-72</b>		72	S1	8	17	72	74	5	9.8	14.8	M3	4.3	5.9
<b>DSL1-80</b>	80	S1	8	17	80	82	5	9.8	14.8	M3	4.3	5.9	
<b>DSL1-90</b>	90	S1	8	17	90	92	5	9.8	14.8	M3	4.3	5.9	
<b>DSL1-100</b>	100	S1	8	17	100	102	5	9.8	14.8	M3	4.3	5.9	

- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
  - ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
  - ③ Fairloc Hub Gears are attached to the shaft by friction. Slipping torque should be considered when making a selection.
  - ④ Do not tighten the clamping screw without inserting a shaft, or the bore will be permanently deformed and will not accept a shaft.

### Fastening torque vs. Slipping torque

The slipping torque which is dependent on the fastening torque can sometimes be less than the gear strength. Please use caution in selecting. The chart on the right shows the relationship between the slipping torque and the fastening torque.

### Fastening torque vs. Slipping torque



※ Data supplied by Designatronics Inc.

## Acetal Fairloc Hub Spur Gears

Allowable torque (N·m)		Allowable torque (kgf·m)		Recommended fastening torque		Backlash (mm)	Weight (kg)	Catalog No.
Bending strength	Surface durability	Bending strength	Surface durability	(N·m)	(kgf·m)			
0.53	—	0.054	—	0.60	0.061	0~0.10	11.0	<b>DSL1-15</b>
0.59	—	0.06	—	0.60	0.061	0~0.10	11.2	<b>DSL1-16</b>
0.69	—	0.07	—	0.60	0.061	0~0.10	11.5	<b>DSL1-18</b>
0.80	—	0.081	—	0.60	0.061	0~0.10	12.0	<b>DSL1-20</b>
1.00	—	0.10	—	0.60	0.061	0~0.10	12.9	<b>DSL1-24</b>
1.06	—	0.11	—	0.60	0.061	0~0.10	13.2	<b>DSL1-25</b>
1.22	—	0.12	—	0.60	0.061	0~0.10	14.1	<b>DSL1-28</b>
1.33	—	0.14	—	0.80	0.082	0~0.10	17.7	<b>DSL1-30</b>
1.44	—	0.15	—	0.80	0.082	0~0.10	18.4	<b>DSL1-32</b>
1.62	—	0.17	—	0.80	0.082	0~0.10	19.5	<b>DSL1-35</b>
1.68	—	0.17	—	0.80	0.082	0~0.10	19.9	<b>DSL1-36</b>
1.92	—	0.20	—	0.80	0.082	0~0.10	21.6	<b>DSL1-40</b>
2.22	—	0.23	—	0.80	0.082	0~0.10	23.9	<b>DSL1-45</b>
2.41	—	0.25	—	0.80	0.082	0~0.10	25.5	<b>DSL1-48</b>
2.53	—	0.26	—	0.80	0.082	0~0.10	26.6	<b>DSL1-50</b>
2.88	—	0.29	—	0.80	0.082	0~0.10	30.1	<b>DSL1-56</b>
3.12	—	0.32	—	0.80	0.082	0~0.10	32.6	<b>DSL1-60</b>
3.35	—	0.34	—	0.80	0.082	0~0.10	35.4	<b>DSL1-64</b>
3.71	—	0.38	—	0.80	0.082	0~0.10	39.8	<b>DSL1-70</b>
3.83	—	0.39	—	0.80	0.082	0~0.10	41.4	<b>DSL1-72</b>
4.30	—	0.44	—	0.80	0.082	0~0.10	48.1	<b>DSL1-80</b>
4.89	—	0.50	—	0.80	0.082	0~0.10	57.6	<b>DSL1-90</b>
5.49	—	0.56	—	0.80	0.082	0~0.10	68.1	<b>DSL1-100</b>

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Spur  
GearsHelical  
GearsInternal  
Gears

Racks

CP Racks  
& PinionsMiter  
GearsBevel  
GearsScrew  
GearsWorm  
Gear PairBevel  
GearboxesOther  
Products