

## Module 0.5

Catalog No.	Module	No. of teeth	Bore <small>NOTE 1</small>	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Cap Screw Dimensions <small>NOTE 2</small>		
	<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G	Size	J	K
<b>DSL0.5- 28</b>	0.5	28	5	14	14	15	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 30</b>	0.5	30	5	14	15	16	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 32</b>	0.5	32	5	14	16	17	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 36</b>	0.5	36	5	14	18	19	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 40</b>	0.5	40	5	14	20	21	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 45</b>	0.5	45	5	14	22.5	23.5	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 48</b>	0.5	48	5	14	24	25	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 50</b>	0.5	50	5	14	25	26	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 56</b>	0.5	56	5	14	28	29	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 60</b>	0.5	60	5	14	30	31	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 64</b>	0.5	64	5	14	32	33	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 70</b>	0.5	70	5	14	35	36	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 72</b>	0.5	72	5	14	36	37	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 75</b>	0.5	75	5	14	37.5	38.5	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 80</b>	0.5	80	5	14	40	41	5	8.5	13.5	M2.5	3.3	4.4
<b>DSL0.5- 90</b>	0.5	90	8	17	45	46	5	9.8	14.8	M3	4.3	5.9
<b>DSL0.5- 96</b>	0.5	96	8	17	48	49	5	9.8	14.8	M3	4.3	5.9
<b>DSL0.5-100</b>	0.5	100	8	17	50	51	5	9.8	14.8	M3	4.3	5.9
<b>DSL0.5-120</b>	0.5	120	8	17	60	61	5	9.8	14.8	M3	4.3	5.9

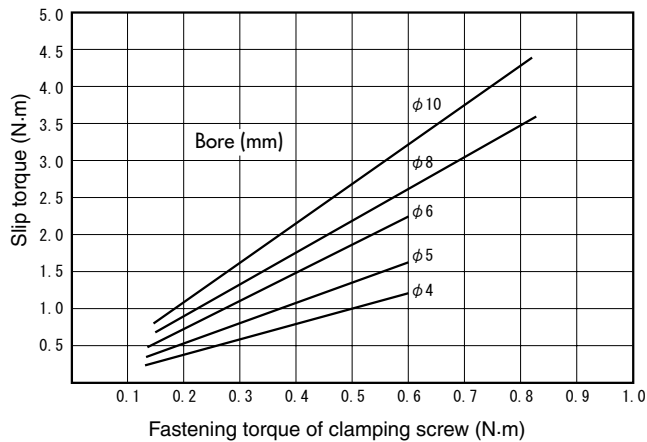
**NOTE 1:** The bore cannot be modified. It is possible to pin the gear to the shaft to prevent slippage.

**NOTE 2:** 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. Slip torque

The slip 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 slip torque and the fastening torque.

## Fastening torque vs. Slip torque



\*Data supplied by Designatronics Inc.



## Specifications

Precision grade	JIS N10 grade (JIS B1702-2: 1998)	Tooth hardness	110~120HRR
Gear teeth	Standard full depth	Surface treatment	—
Pressure angle	20°	Tooth surface finish	Cut
Material	Acetal with SUS303 Insert	Datum reference surface for gear cutting	Bore
Heat treatment	—	Secondary Operations	Not Possible

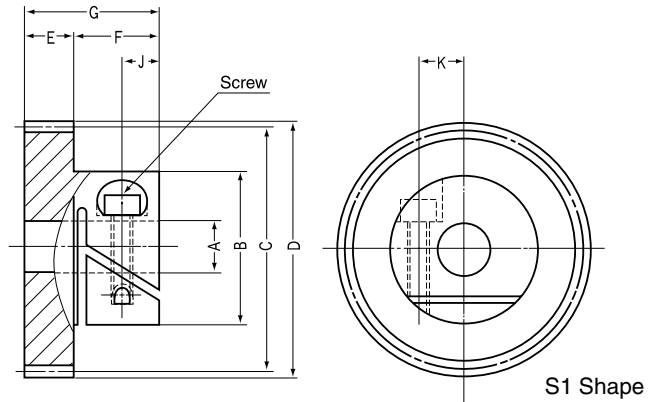
Shape	Allowable torque (N·m) NOTE 3	Allowable torque (kg·m)	Backlash (mm) NOTE 4	Weight (gf)	Catalog No.
	Bending strength	Bending strength			
S1	0.3935	(0.0401)	0 ~ 0.1	12	<b>DSL0.5- 28</b>
S1	0.4279	(0.0436)	0 ~ 0.1	12	<b>DSL0.5- 30</b>
S1	0.4647	(0.0474)	0 ~ 0.1	12	<b>DSL0.5- 32</b>
S1	0.5417	(0.0552)	0 ~ 0.1	12	<b>DSL0.5- 36</b>
S1	0.6182	(0.063 )	0 ~ 0.1	12	<b>DSL0.5- 40</b>
S1	0.7149	(0.0729)	0 ~ 0.1	12	<b>DSL0.5- 45</b>
S1	0.775	(0.079 )	0 ~ 0.1	13	<b>DSL0.5- 48</b>
S1	0.8158	(0.0832)	0 ~ 0.1	13	<b>DSL0.5- 50</b>
S1	0.9285	(0.0947)	0 ~ 0.1	14	<b>DSL0.5- 56</b>
S1	1.0053	(0.1025)	0 ~ 0.1	14	<b>DSL0.5- 60</b>
S1	1.081	(0.1102)	0 ~ 0.1	15	<b>DSL0.5- 64</b>
S1	1.1964	(0.122 )	0 ~ 0.1	16	<b>DSL0.5- 70</b>
S1	1.2354	(0.126 )	0 ~ 0.1	16	<b>DSL0.5- 72</b>
S1	1.2944	(0.132 )	0 ~ 0.1	17	<b>DSL0.5- 75</b>
S1	1.3886	(0.1416)	0 ~ 0.1	19	<b>DSL0.5- 80</b>
S1	1.5799	(0.1611)	0 ~ 0.1	24	<b>DSL0.5- 90</b>
S1	1.6967	(0.173 )	0 ~ 0.1	25	<b>DSL0.5- 96</b>
S1	1.7752	(0.181 )	0 ~ 0.1	25	<b>DSL0.5-100</b>
S1	2.1527	(0.2195)	0 ~ 0.1	32	<b>DSL0.5-120</b>

**NOTE 3:** The allowable torques shown in the table are calculated values using the Lewis formula. Please see page 27 for more details.

**NOTE 4:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



# DSL Acetal Fairloc Hub Spur Gears Module 0.8~1



## Module 0.8

Catalog No.	Module	No. of teeth	Bore NOTE 1	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Cap Screw Dimensions NOTE 2		
	m	z	AH7	B	C	D	E	F	G	Size	J	K
DSL0.8- 20	0.8	20	5	14	16	17.6	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 24	0.8	24	5	14	19.2	20.8	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 25	0.8	25	5	14	20	21.6	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 28	0.8	28	5	14	22.4	24	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 30	0.8	30	5	14	24	25.6	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 32	0.8	32	5	14	25.6	27.2	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 36	0.8	36	5	14	28.8	30.4	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 40	0.8	40	5	14	32	33.6	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 45	0.8	45	5	14	36	37.6	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 48	0.8	48	5	14	38.4	40	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 50	0.8	50	5	14	40	41.6	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 56	0.8	56	5	14	44.8	46.4	5	8.5	13.5	M2.5	3.3	4.4
DSL0.8- 60	0.8	60	8	17	48	49.6	5	9.8	14.8	M3	4.3	5.9
DSL0.8- 72	0.8	72	8	17	57.6	59.2	5	9.8	14.8	M3	4.3	5.9
DSL0.8- 80	0.8	80	8	17	64	65.6	5	9.8	14.8	M3	4.3	5.9
DSL0.8- 90	0.8	90	8	17	72	73.6	5	9.8	14.8	M3	4.3	5.9
DSL0.8-100	0.8	100	8	17	80	81.6	5	9.8	14.8	M3	4.3	5.9

## Module 1

DSL1 - 15	1	15	5	14	15	17	5	8.5	13.5	M2.5	3.3	4.4
DSL1 - 16	1	16	5	14	16	18	5	8.5	13.5	M2.5	3.3	4.4
DSL1 - 18	1	18	5	14	18	20	5	8.5	13.5	M2.5	3.3	4.4
DSL1 - 20	1	20	5	14	20	22	5	8.5	13.5	M2.5	3.3	4.4
DSL1 - 24	1	24	5	14	24	26	5	8.5	13.5	M2.5	3.3	4.4
DSL1 - 25	1	25	5	14	25	27	5	8.5	13.5	M2.5	3.3	4.4
DSL1 - 28	1	28	5	14	28	30	5	8.5	13.5	M2.5	3.3	4.4
DSL1 - 30	1	30	8	17	30	32	5	9.8	14.8	M3	4.3	5.9
DSL1 - 32	1	32	8	17	32	34	5	9.8	14.8	M3	4.3	5.9
DSL1 - 35	1	35	8	17	35	37	5	9.8	14.8	M3	4.3	5.9
DSL1 - 36	1	36	8	17	36	38	5	9.8	14.8	M3	4.3	5.9
DSL1 - 40	1	40	8	17	40	42	5	9.8	14.8	M3	4.3	5.9
DSL1 - 45	1	45	8	17	45	47	5	9.8	14.8	M3	4.3	5.9
DSL1 - 48	1	48	8	17	48	50	5	9.8	14.8	M3	4.3	5.9
DSL1 - 50	1	50	8	17	50	52	5	9.8	14.8	M3	4.3	5.9
DSL1 - 56	1	56	8	17	56	58	5	9.8	14.8	M3	4.3	5.9
DSL1 - 60	1	60	8	17	60	62	5	9.8	14.8	M3	4.3	5.9
DSL1 - 64	1	64	8	17	64	66	5	9.8	14.8	M3	4.3	5.9
DSL1 - 70	1	70	8	17	70	72	5	9.8	14.8	M3	4.3	5.9
DSL1 - 72	1	72	8	17	72	74	5	9.8	14.8	M3	4.3	5.9
DSL1 - 80	1	80	8	17	80	82	5	9.8	14.8	M3	4.3	5.9
DSL1 - 90	1	90	8	17	90	92	5	9.8	14.8	M3	4.3	5.9
DSL1 -100	1	100	8	17	100	102	5	9.8	14.8	M3	4.3	5.9

CAUTION: Gears with wider face widths such as SS and SSA series can be used as the mating gears to these.

NOTE 1: The bore cannot be modified. It is possible to pin the gear to the shaft to prevent slippage.

NOTE 2: Do not tighten the clamping screw without inserting a shaft, or the bore will be permanently deformed and will not accept a shaft.



# Acetal Fairloc Hub Spur Gears

## Specifications

Precision grade	JIS N10 grade (JIS B1702-2: 1998)	Tooth hardness	110~120HRR
Gear teeth	Standard full depth	Surface treatment	—
Pressure angle	20°	Tooth surface finish	Cut
Material	Acetal with SUS303 Insert	Datum reference surface for gear cutting	Bore
Heat treatment	—	Secondary Operations	Not Possible

Shape	Allowable torque (N·m) NOTE 3	Allowable torque (kgf·m)	Backlash (mm) NOTE 4	Weight (gf)	Catalog No.
	Bending strength	Bending strength			
S1	0.5827	(0.0594)	0 ~ 0.1	11	<b>DSL0.8- 20</b>
S1	0.7349	(0.0749)	0 ~ 0.1	12	<b>DSL0.8- 24</b>
S1	0.7762	(0.0792)	0 ~ 0.1	12	<b>DSL0.8- 25</b>
S1	0.8946	(0.0912)	0 ~ 0.1	12	<b>DSL0.8- 28</b>
S1	0.9728	(0.0992)	0 ~ 0.1	13	<b>DSL0.8- 30</b>
S1	1.0563	(0.1077)	0 ~ 0.1	14	<b>DSL0.8- 32</b>
S1	1.2313	(0.1256)	0 ~ 0.1	15	<b>DSL0.8- 36</b>
S1	1.405	(0.1433)	0 ~ 0.1	15	<b>DSL0.8- 40</b>
S1	1.6244	(0.1656)	0 ~ 0.1	16	<b>DSL0.8- 45</b>
S1	1.7608	(0.1796)	0 ~ 0.1	18	<b>DSL0.8- 48</b>
S1	1.8536	(0.189 )	0 ~ 0.1	19	<b>DSL0.8- 50</b>
S1	2.109	(0.2151)	0 ~ 0.1	20	<b>DSL0.8- 56</b>
S1	2.2834	(0.2328)	0 ~ 0.1	25	<b>DSL0.8- 60</b>
S1	2.8049	(0.286 )	0 ~ 0.1	30	<b>DSL0.8- 72</b>
S1	3.1518	(0.3214)	0 ~ 0.1	35	<b>DSL0.8- 80</b>
S1	3.5849	(0.3656)	0 ~ 0.1	42	<b>DSL0.8- 90</b>
S1	4.0269	(0.4106)	0 ~ 0.1	48	<b>DSL0.8-100</b>

S1	0.5333	(0.0544)	0 ~ 0.1	10	<b>DSL1 - 15</b>
S1	0.5893	(0.0601)	0 ~ 0.1	10	<b>DSL1 - 16</b>
S1	0.6878	(0.0701)	0 ~ 0.1	11	<b>DSL1 - 18</b>
S1	0.7963	(0.0812)	0 ~ 0.1	11	<b>DSL1 - 20</b>
S1	1.0043	(0.1024)	0 ~ 0.1	12	<b>DSL1 - 24</b>
S1	1.0606	(0.1082)	0 ~ 0.1	12	<b>DSL1 - 25</b>
S1	1.2224	(0.1246)	0 ~ 0.1	14	<b>DSL1 - 28</b>
S1	1.3291	(0.1355)	0 ~ 0.1	17	<b>DSL1 - 30</b>
S1	1.4432	(0.1472)	0 ~ 0.1	19	<b>DSL1 - 32</b>
S1	1.621	(0.1653)	0 ~ 0.1	20	<b>DSL1 - 35</b>
S1	1.682	(0.1715)	0 ~ 0.1	20	<b>DSL1 - 36</b>
S1	1.9193	(0.1957)	0 ~ 0.1	22	<b>DSL1 - 40</b>
S1	2.2189	(0.2263)	0 ~ 0.1	25	<b>DSL1 - 45</b>
S1	2.405	(0.2452)	0 ~ 0.1	25	<b>DSL1 - 48</b>
S1	2.5316	(0.2582)	0 ~ 0.1	27	<b>DSL1 - 50</b>
S1	2.8801	(0.2937)	0 ~ 0.1	30	<b>DSL1 - 56</b>
S1	3.1178	(0.3179)	0 ~ 0.1	33	<b>DSL1 - 60</b>
S1	3.3517	(0.3418)	0 ~ 0.1	35	<b>DSL1 - 64</b>
S1	3.7084	(0.3782)	0 ~ 0.1	40	<b>DSL1 - 70</b>
S1	3.8287	(0.3904)	0 ~ 0.1	41	<b>DSL1 - 72</b>
S1	4.302	(0.4387)	0 ~ 0.1	48	<b>DSL1 - 80</b>
S1	4.892	(0.4988)	0 ~ 0.1	58	<b>DSL1 - 90</b>
S1	5.4936	(0.5602)	0 ~ 0.1	68	<b>DSL1 -100</b>

**NOTE 3:** The allowable torques shown in the table are calculated values using the Lewis formula. Please see page 27 for more details.

**NOTE 4:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.