Strain Wave Gearboxes

The strain wave gearing provide zero backlash and high output torque power transmission in a light-weight and compact gearbox for robotic and high positional accuracy applications. This gearing system is used in industrial robotics, aerospace, medical equipment, machine tools, milling machines, measuring and testing equipment, printing machines, semiconductor equipment and so on.

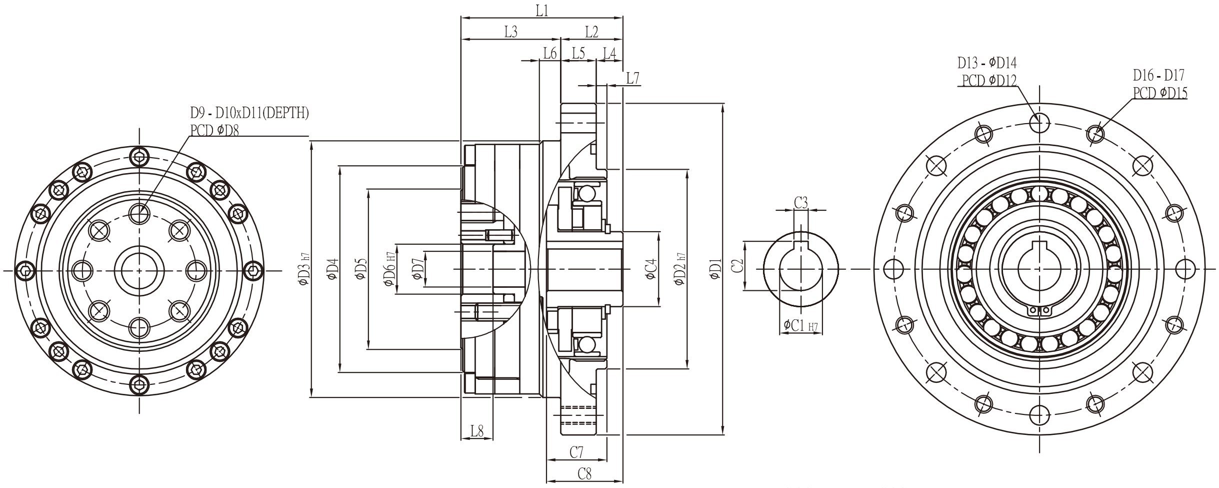
SESAME strain wave gearboxes are available in two types depending on installation requirements, enclosed in a housing to drop in industry standards or as a component set integrated into customer's configuration.

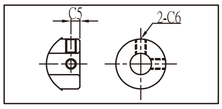
Frame Size (mm)	14 to 32
Ratio	50 : 1 - 120 : 1
Backlash (arc-min)	Zero Backlash

Features

- Zero Backlash
- Peak Torque: 46 Nm to 892 Nm.
- Accuracy <1 arc-min, excellent repeatability.
- Reduction ratios 50:1 to 120:1.
- High torsional stiffness & high torque density.
- Robust cross roller output bearing.
- High reliability and long service life

SCS-UK

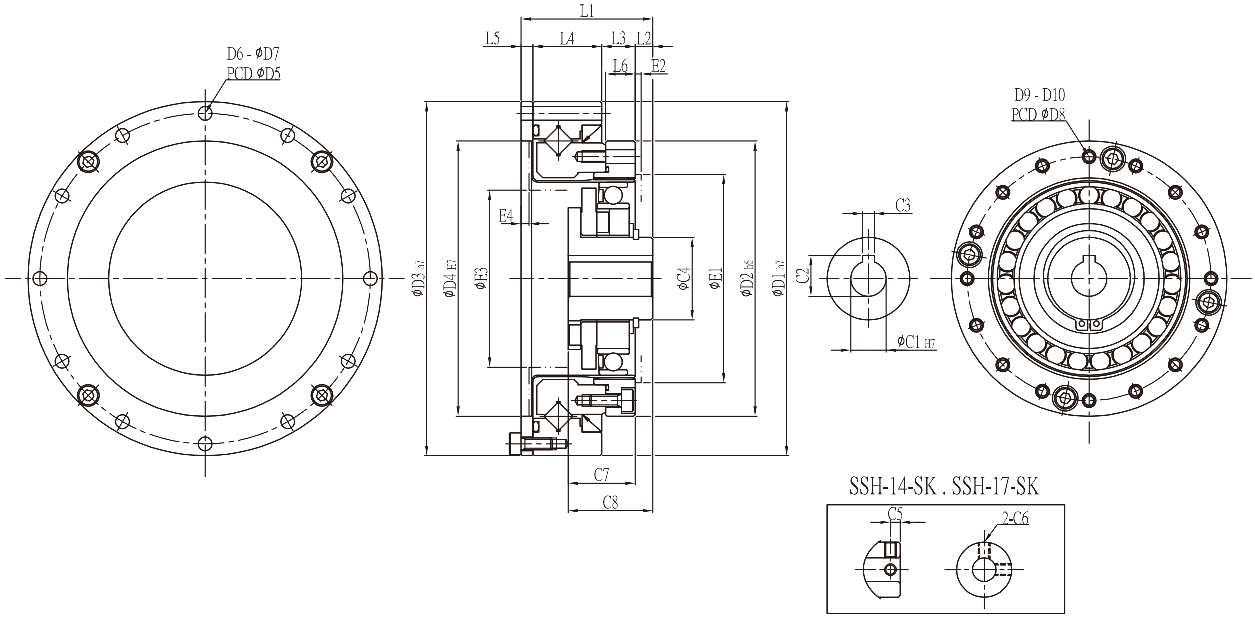




Specifications Unit:mm

Dimensions	14	17	20	25	32
D1	73	79	93	107	138
D2	38	48	56	67	90
D3	56	63	72	86	113
D4	42.5	49.5	58	73	96
D5	31	38	45	58	78
D6	11	10	14	20	26
D7	8	7	10	15	20
D8	23	27	32	42	55
D9	6	6	8	8	8
D10	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M10x1.5P
D11	8	10	9	12	15.5
D12	65	71	82	96	125
D13	8	8	8	10	12
D14	4.5	4.5	5.5	5.5	6.6
D15	65	71	82	96	125
D16	8	8	8	10	12
D17	M4	M4	M5	M5	M6
L1	41	45	45.5	52	62
L2	14	16	17.5	16	17
L3	27	29	28	36	45
L4	7	8	7.5	6	5
L5	7	8	10	10	12
L6	4	4	6	5	5
L7	2	2	3	3	3
L8	9.4	9.5	9	12	15
C1	6	8	12	14	14
C2	-	-	13.8	16.3	16.3
C3	-	-	4	5	5
C4	14	18	21	26	26
C5	2.5	3	-	-	-
C6	M3	M3	-	-	-
C7	13.5	14.7	17	18.6	18.6
C8	18.5	20.7	21.5	21.6	23.6

SSH-SK

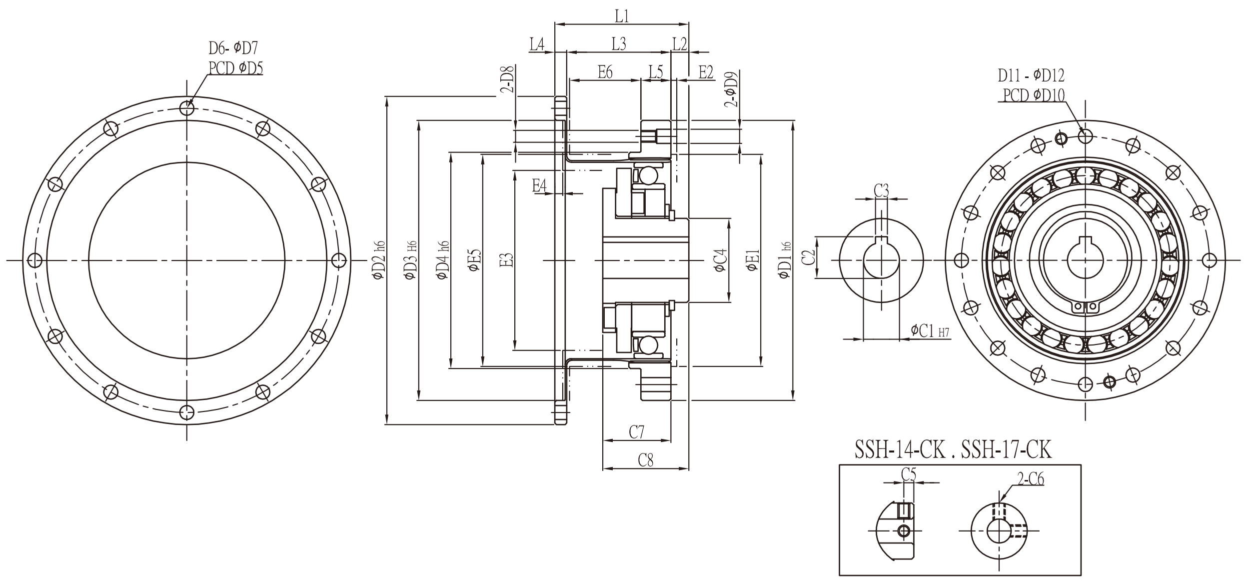


Specifications

Unit:mm

Dimensions	14	17	20	25	32
D1	70	80	90	110	142
D2	50	60	70	85	110
D3	70	80	90	110	142
D4	48	60	70	88	114
D5	64	74	84	102	132
D6	8	12	12	12	12
D7	3.5	3.5	3.5	4.5	5.5
D8	44	54	62	77	100
D9	8	16	16	16	16
D10	M3	M3	M3	M4	M5
L1	28.5	32.5	33.5	37	44
L2	5	6	4.5	3	2
L3	7	7.5	8.5	12	15
L4	14.1	16	17.5	18.7	23.4
L5	2.4	3	3	3.3	3.6
L6	6	6.5	7.5	10	14
C1	6	8	9	11	14
C2	-	-	10.4	12.8	16.3
C3	-	-	3	4	5
C4	14	18	21	26	26
C5	2.5	M3	-	-	-
C6	3	M3	-	-	-
C7	13.5	14.7	17	18.6	21.6
C8	18.5	20.7	21.5	21.6	23.6
E1	38	45	53	66	86
E2	1	1	1.5	1.5	1.5
E3	31	38	45	56	73
E4	1.7	2.1	2	2	2

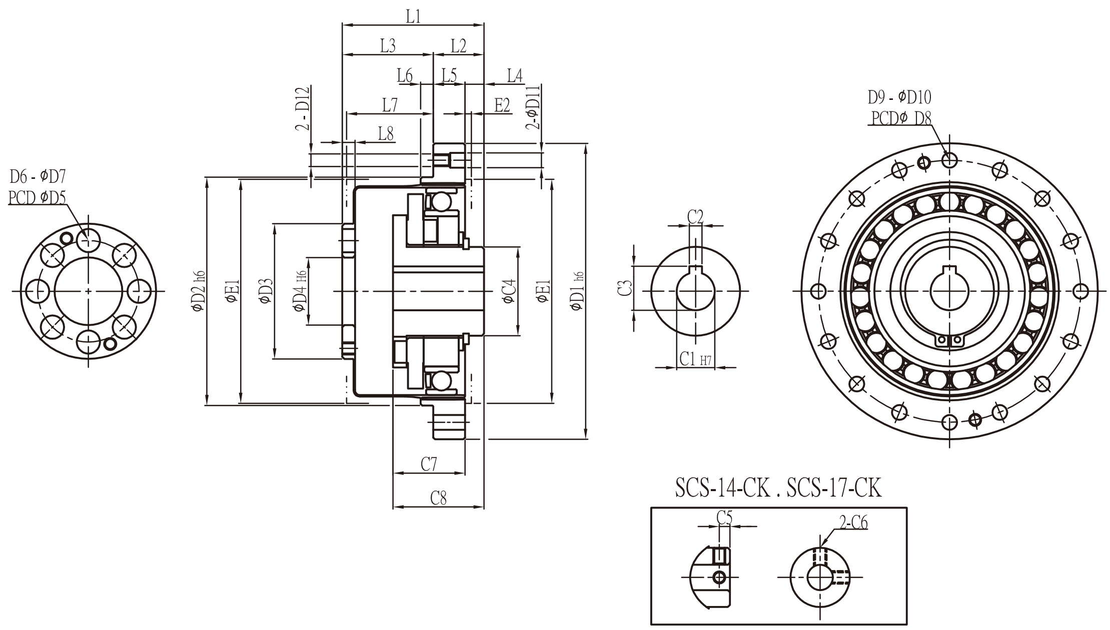
SSH-CK



Specifications Unit:mm

Dimensions	14	17	20	25	32
D1	50	60	70	85	110
D2	60	72	82	104	134
D3	48	60	70	88	114
D4	38	48	54	67	90
D5	54	66	76	96	124
D6	8	12	12	12	12
D7	3.5	3.5	3.5	4.5	5.5
D8	M3x0.5P	M3x0.5P	M3x0.5P	M4x0.7P	M5x0.8P
D9	-	-	3.5	4.5	5.5
D10	44	54	62	75	100
D11	8	16	16	16	16
D12	3.5	3.5	3.5	4.5	5.5
L1	28.5	32.5	33.5	37	44
L2	5	6	4.5	3	2
L3	21.1	23.5	26	30.7	38.4
L4	2.4	3	3	3.3	3.6
L5	6	6.5	7.5	10	14
C1	6	8	9	11	14
C2	-	-	10.4	12.8	16.3
C3	-	-	3	4	5
C4	14	18	21	26	26
C5	2.5	3	-	-	-
C6	M3x0.5P	M3x0.5P	-	-	-
C7	13.5	14.7	17	18.6	21.6
C8	18.5	20.7	21.8	21.6	23.6
E1	38	45	53	66	86
E2	1	1	1.5	1.5	1.5
E3	31	38	45	56	73
E4	1.7	2.1	2	2	2
E5	38	45	53	66	86
E6	14.6	16.4	17.8	19.8	23.2

SCS-CK Simple Unit Type

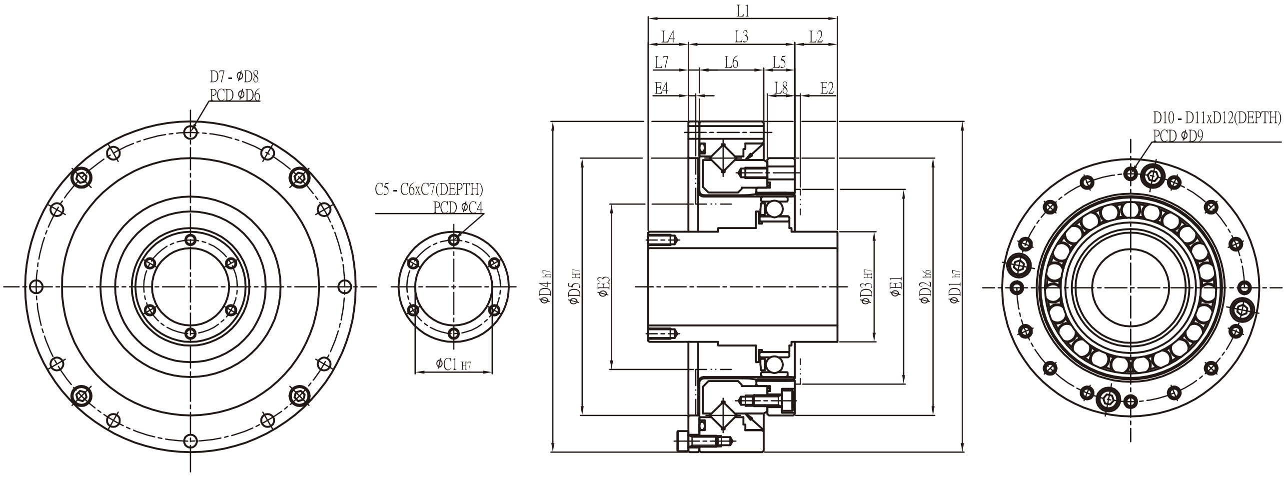


Specifications

Unit:mm

Dimensions	14	17	20	25	32
D1	50	60	70	85	110
D2	38	48	54	67	90
D3	23	27.2	32	40	52
D4	11	10	16	20	26
D5	17	19	24	30	40
D6	6	6	8	8	8
D7	4.5	5.5	5.5	6.6	9
D8	44	54	62	75	100
D9	8	16	16	16	16
D10	3.5	3.5	3.5	4.5	5.5
D11	-	-	3.5	4.5	5.5
D12	M3	M3	M3	M4	M5
L1	28.5	32.5	33.5	37	44
L2	11	12.5	12	13	16
L3	17.5	20	21.5	24	28
L4	5	6	4.5	3	2
L5	6	6.5	7.5	10	14
L6	2	2.5	3	3	3
L7	17.1	19	20.5	23	26.8
L8	2.4	3	3	3	3.2
C1	6	8	9	11	14
C2	-	-	10.4	12.8	16.3
C3	-	-	3	4	5
C4	14	18	21	26	26
C5	2.5	3	-	-	-
C6	M3x0.5P	M3x0.5P	-	-	-
C7	13.5	14.7	17	18.6	21.6
C8	18.5	20.7	21.5	21.6	23.6
E1	38	45	53	66	86
E2	1	1	1.5	1.5	1.5

SSH-SH



Specifications Unit:mm

Dimensions	14	17	20	25	32
D1	70	80	90	110	142
D2	50	60	70	85	110
D3	20	25	30	38	45
D4	70	80	90	110	142
D5	48	60	70	88	114
D6	64	74	84	102	132
D7	8	12	12	12	12
D8	3.5	3.5	3.5	4.5	5.5
D9	44	54	62	77	100
D10	8	16	16	16	16
D11	M3x0.5P	M3x0.5P	M3x0.5P	M4x0.7P	M5x0.8P
D12	5	5	6	8	8
L1	52.5	56.5	51.5	55.5	65.5
L2	12	12.7	11.6	10.1	9.8
L3	23.5	26.5	29	34	42
L4	17	17.3	10.9	11.4	13.7
L5	7	7.5	8.5	12	15
L6	14.1	16	17.5	18.7	23.4
L7	2.4	3	3	3.3	3.6
L8	6	6.5	7.5	10	14
C1	14	19	21	29	36
C2	2.5	2.5	-	-	-
C3	M3x0.5P	M3x0.5P	-	-	-
C4	-	-	25.5	33.5	40.5
C5	-	-	6	6	6
C6	-	-	M3x0.5P	M3x0.5P	M3x0.5P
C7	-	-	6	6	6
E1	38	45	53	66	86
E2	1	1	1.5	1.5	1.5
E3	31	38	45	56	73
E4	1.7	2.1	2	2	2

Strain Wave Gearboxes Specifications

Size	Ratio	Rated Torque at 2000rpm	Limit for Repeated Peak Torque	Limit for Average Torque	Limit for Momentary Peak Torque	Maximum Input Speed (rpm)	Limit for Average Input Speed (rpm)	Service Life
		Nm	Nm	Nm	Nm	RPM	RPM	Hours
14	50	7	23	9	46	8500	3500	10000
	80	10	30	14	58			
	100	10	36	14	58			
17	50	21	44	34	91	7300		
	80	29	56	35	109			
	100	31	70	51	109			
	120	31	70	51	109			
20	50	33	73	44	127	6500		
	80	44	96	61	165			
	100	52	107	64	191			
	120	52	113	64	191			
25	50	51	127	72	242	5600		
	80	82	178	113	332			
	100	87	204	140	369			
	120	87	217	140	395			
32	50	99	281	140	497	4800		
	80	153	395	217	738			
	100	178	433	281	841			
	120	178	459	281	892			