

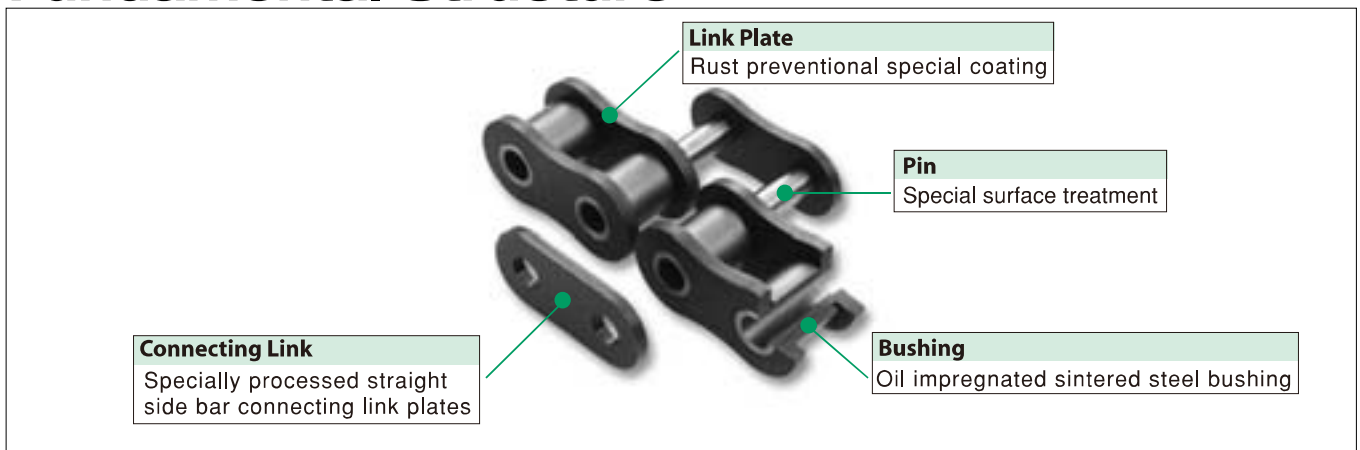
## Freedom Series Self-Lubricating Chains

Freedom Series Self-Lubricating Chains performs well in the application without additional lubrication.

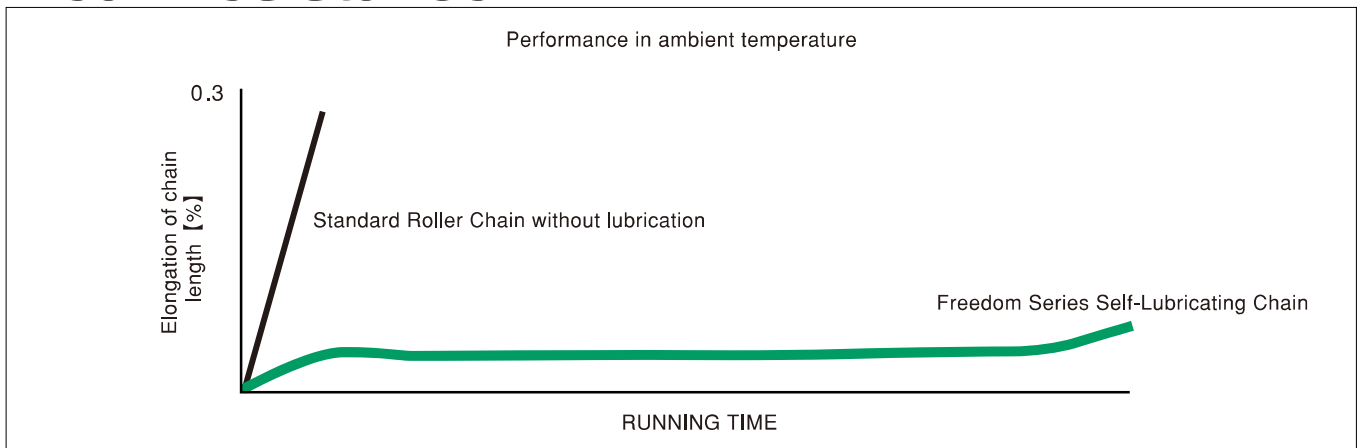
Oil impregnated sintered steel bushing provides self-lubricating and it is ideal for the industries that cleanliness is critical such as packaging, printing, food processing, textile and so on.

Moreover it is designed for applications where regular maintenance is not easily accessible.

### Fundamental Structure



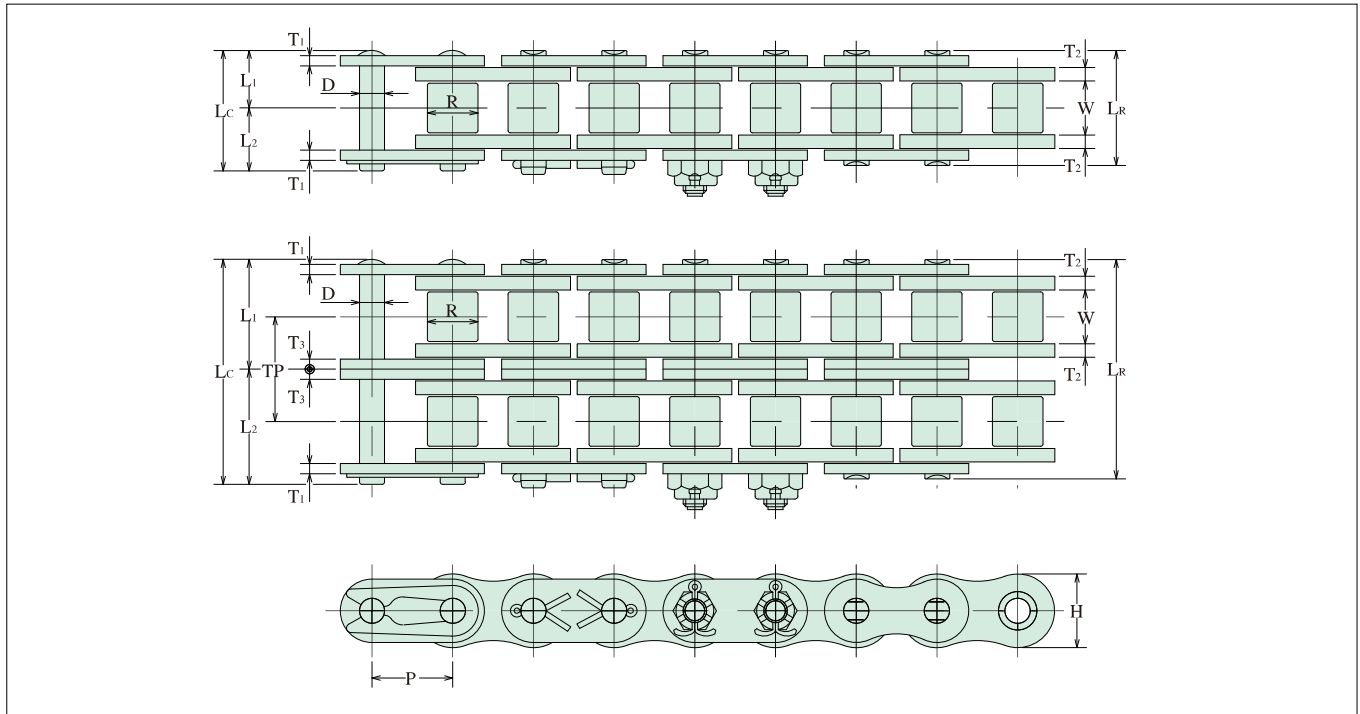
### Wear Resistance



#### Caution and Selection

- 1) In dusty environments, dusts absorb the lubrication of sintered steel bushings and it causes premature wear.
- 2) Used in water, the chain wears quickly.
- 3) Range of speed is from slow speed 25m/min to high speed 75m/min.
- 4) When lubrication depletes in the sintered steel bushings, the chain wears abruptly.
- 5) Operating temperature is from -10°C to 150°C.  
When ambient temperature is over 80°C, lubrication seeps out quickly.
- 6) The sintered bushings are heat treated, and allow standard chain selection.
- 7) An application of sintered steel bushing associated with shock load is not appropriate.

# Freedom Series ANSI Self-Lubricating Chains



## TS type (for Drive)

Chain No.	Dimensions - mm												Average Ultimate Strength	Maximum Allowable Load	Average Chain Weight
	Pitch	Roller		Pin				Plate		Trans. Pitch					
		Width	Dia.	Dia.	Length		Height	Thickness							
P	W	R	D	LR	LC	L1	L2	H	T1	T2	TP	kN	kN	kg/m	
40FS-TS	12.70	7.95	7.92	3.96	17.5	19.6	8.8	10.8	11.7	1.5	2.0	15.6	19.1	3.63	0.7
50FS-TS	15.875	9.53	10.16	5.08	21.3	23.3	10.7	12.6	14.6	2.0	2.4	19.2	31.9	6.28	1.1
60FS-TS	19.05	12.70	11.91	5.95	27.4	29.8	13.7	16.1	17.5	2.4	3.2	24.9	43.1	8.63	1.7
80FS-TS	25.40	15.88	15.88	7.93	34.1	37.4	17.1	20.3	23.4	3.2	4.0	31.1	78.5	14.7	2.7
100FS-TS	31.75	19.05	19.08	9.53	41.0	44.8	20.5	24.3	29.3	4.0	4.8	37.6	118	22.6	4.3

\*Standard sprocket is available for single strand.

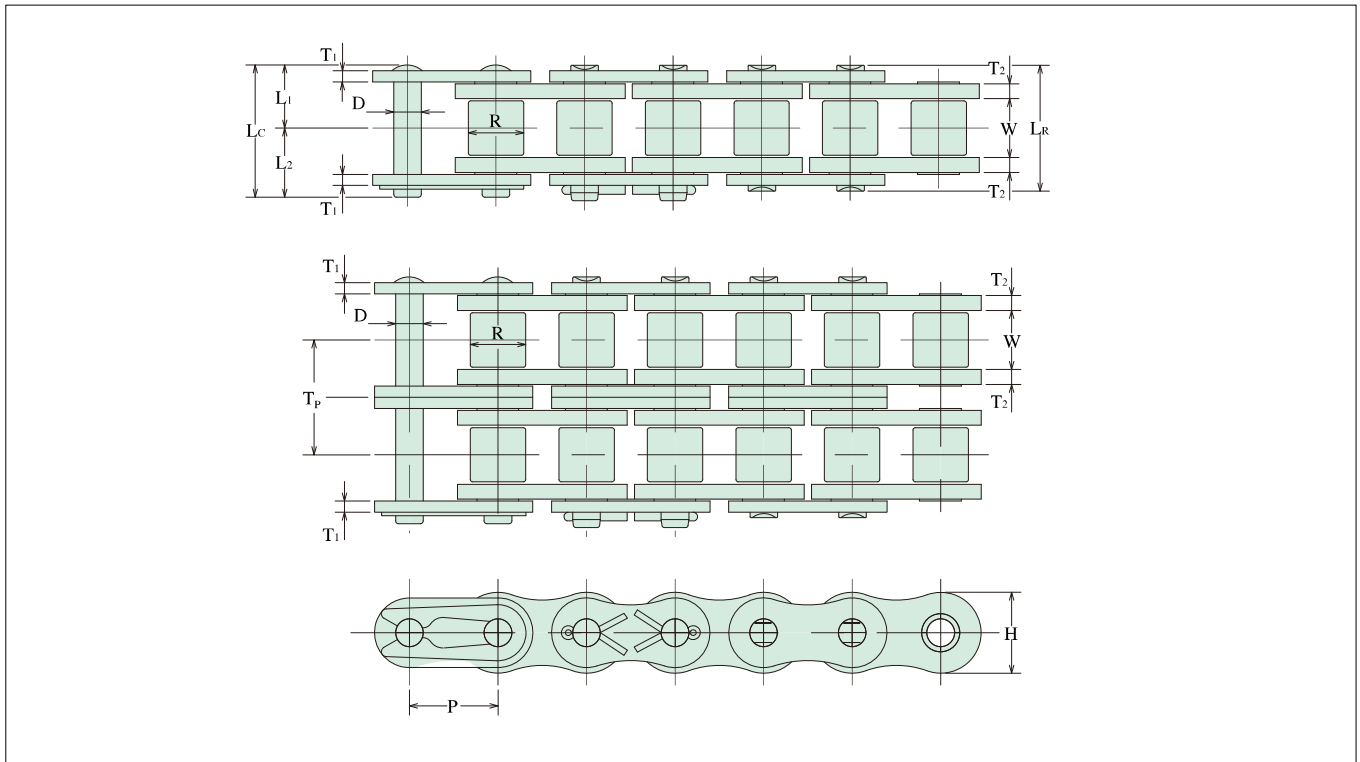
## CS type (for Conveyor)

Chain No.	Dimensions - mm												Average Ultimate Strength	Maximum Allowable Load	Average Chain Weight
	Pitch	Roller		Pin				Plate		Trans. Pitch					
		Width	Dia.	Dia.	Length		Height	Thickness							
P	W	R	D	LR	LC	L1	L2	H	T	TP	kN	kN	kg/m		
40FS-CS	12.70	7.95	7.92	3.96	16.5	18.6	8.3	10.3	11.7	1.5	14.4	15.7	3.62	0.6	
50FS-CS	15.875	9.53	10.16	5.08	20.5	22.5	10.3	12.2	14.6	2.0	18.1	25.5	6.27	1.0	
60FS-CS	19.05	12.70	11.91	5.95	25.9	28.3	13.7	14.6	17.5	2.4	22.8	37.3	8.63	1.5	
80FS-CS	25.40	15.88	15.88	7.93	33.0	35.9	16.5	19.4	23.4	3.2	29.3	63.7	14.7	2.5	
100FS-CS	31.75	19.05	19.08	9.53	39.8	43.1	19.9	23.2	29.3	4.0	35.8	100	22.5	3.9	

\*Standard sprocket is available for multiple strands.

\*Attachment can be installed

## Freedom Series BS Self-Lubricating Chains

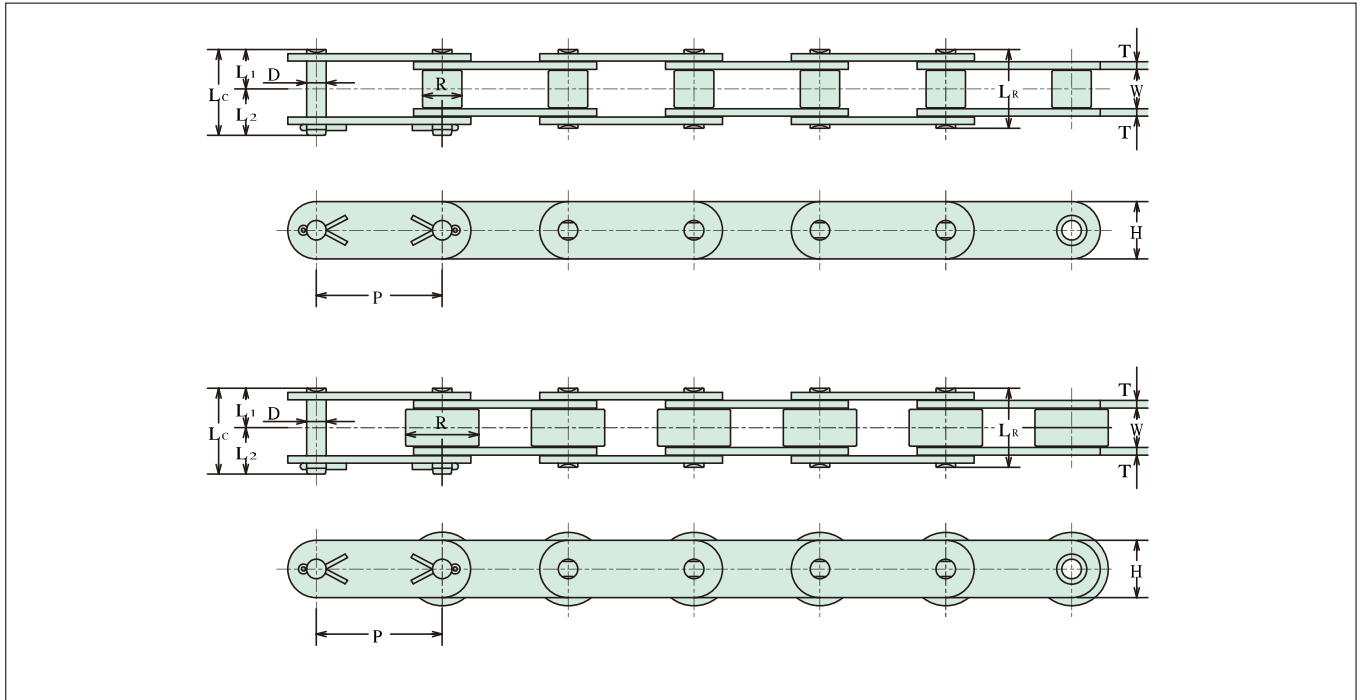


Chain No.	Dimensions - mm											Average Ultimate Strength	Maximum Allowable Load	Average Chain Weight	
	Pitch	Roller		Pin				Plate		Trans. Pitch					
		Width	Dia.	Dia.	Length			Height	Thickness						
		P	W	R	D	L <sub>R</sub>	L <sub>C</sub>	L <sub>1</sub>	L <sub>2</sub>		H				T <sub>1</sub>
08B-FS	12.70	7.75	8.51	4.45	16.7	18.6	8.4	10.2	11.8	1.5	1.5	13.92	16.8	2.9	0.6
10B-FS	15.875	9.65	10.16	5.08	19.4	21.0	9.7	11.3	14.5	1.65	1.65	16.59	24.6	4.4	0.9
12B-FS	19.05	11.68	12.07	5.72	22.0	24.4	11.0	13.4	17.4	1.8	1.8	19.46	32.4	6.3	1.1
16B-FS	25.40	17.02	15.87	8.26	35.1	38.2	17.6	20.6	21.0	3.1	3.9	31.88	74.6	12.2	2.6
20B-FS	31.75	19.56	19.05	10.16	40.2	44.0	20.1	23.9	29.3	3.5	4.7	36.45	128.3	19.1	3.8
24B-FS	38.10	25.40	25.40	14.63	53.4	58.1	26.7	31.4	35.1	4.7	5.9	48.36	195.6	25.5	7.3
28B-FS	44.45	31.00	27.94	15.88	65.1	70.5	32.6	37.9	37.0	6.3	7.4	59.56	215.7	34.8	9.3
32B-FS	50.80	31.00	29.21	15.88	64.2	69.6	32.1	37.5	42.2	6.3	6.9	58.55	274.6	44.1	9.9

\*Standard sprocket is available.

\*Attachment can be installed.

# Freedom Series Double Pitch Self-Lubricating Chains



## Small Roller

Chain No.	Dimensions - mm										Average Ultimate Strength kN	Maximum Allowable Load kN	Average Chain Weight kg/m
	Pitch P	Roller		Pin				Plate					
		Width W	Dia. R	Dia. D	Length			Height H	Thick. T				
				LR	LC	L1	L2						
C2040-FS	25.40	7.95	7.92	3.96	16.5	18.5	8.3	10.2	11.5	1.5	15.7	2.65	0.5
C2050-FS	31.75	9.53	10.16	5.08	20.5	22.5	10.3	12.2	15.1	2.0	25.5	4.31	0.8
C2060H-FS	38.10	12.70	11.91	5.95	29.1	31.5	14.6	16.9	17.2	3.2	37.3	6.28	1.4
C2080H-FS	50.80	15.88	15.88	7.93	35.8	39.0	17.9	21.1	22.8	4.0	63.7	10.7	2.4

\*Standard sprocket is available.

\*Attachment can be installed.

## Large Roller

Chain No.	Dimensions - mm										Average Ultimate Strength kN	Maximum Allowable Load kN	Average Chain Weight kg/m
	Pitch P	Roller		Pin				Plate					
		Width W	Dia. R	Dia. D	Length			Height H	Thick. T				
				LR	LC	L1	L2						
C2042-FS	25.40	7.95	15.88	3.96	16.5	18.5	8.3	10.2	11.5	1.5	31.4	4.50	1.0
C2052-FS	31.75	9.53	19.05	5.08	20.5	22.5	10.3	12.2	15.1	2.0	51.0	7.30	1.6
C2062H-FS	38.10	12.70	22.23	5.95	29.1	31.5	14.6	16.9	17.2	3.2	74.6	10.6	2.8
C2082H-FS	50.80	15.88	28.58	7.93	35.8	39.0	17.9	21.1	22.8	4.0	127	18.1	4.6

\*Standard sprocket is available.

\*Attachment can be installed.