DOUBLE CAPACITY ROLLER CHAIN

JAPAN INDUSTRIAL CHAINS

Higher strength in a single strand roller chains

Roller chains are used in a wide variety of fields, including steel, cement, and heavy machinery as key components for power transmission.
In applications requiring particularly high load capacity, it has been common to introduce double strands of chains in order to increase the breaking strength of the chain itself. Our “Double Capacity Chain,” is a product that achieves nearly twice the breaking strength of conventional chains despite being a single strand chain by consisting of twice the number of side plates as a single strand chain.

Application for

SHOCKED LOAD

Mining / Port / Construction / Crane

- ***Size Reduction***
- ***Space-Saving***

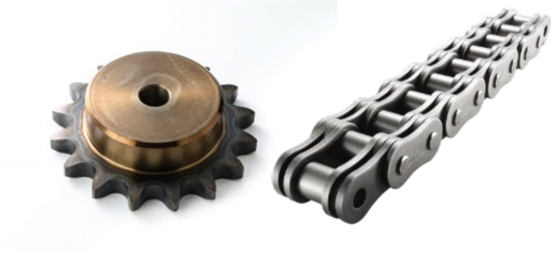
“DC” type and “TC” type roller chains can operate on standard sprocket.
It also saves space and weight by reducing the width of the chain by about 25% and the weight by about 5% compared to a double strand chain.
For suitable applications, the benefits of total cost reduction can be achieved.
The “Double Capacity Chain” has been adopted by many heavy machinery manufacturers.

Breaking Strength is close to double strands roller chains

Existing Sprockets & Roller Chain

After Replacement





Space-Saving and weight reduction



Increased strength
without sprocket changes

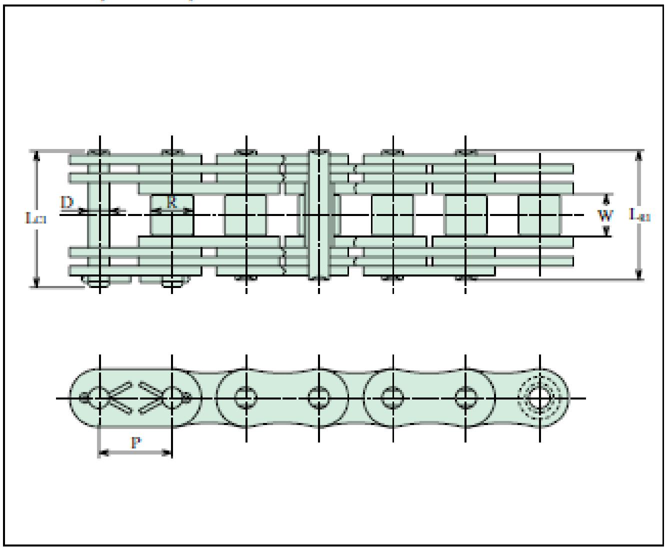
- ***Size Reduction***
- ***Space-Saving***

Comparison Table of Average Tensile Strength between Double Strand standard chain and Double Capacity Chain

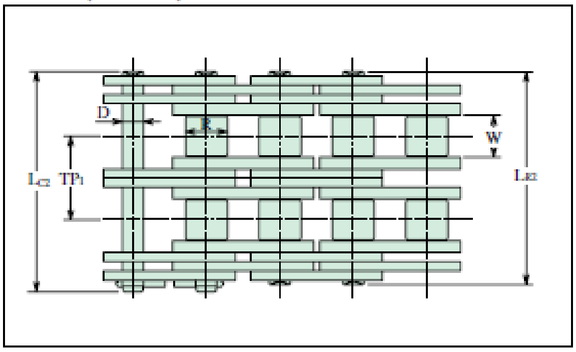
Chain No.	Pitch (mm)	Average Tensile Strength
80-1 DC	25.4	**149.0 kN**
80-2		157.0 kN
160-1 DC	50.8	**522.0 kN**
160-2		550.0 kN
240-1 DC	76.2	**1,286.0 kN**
240-2		1,354.0 kN

Double Capacity Chains

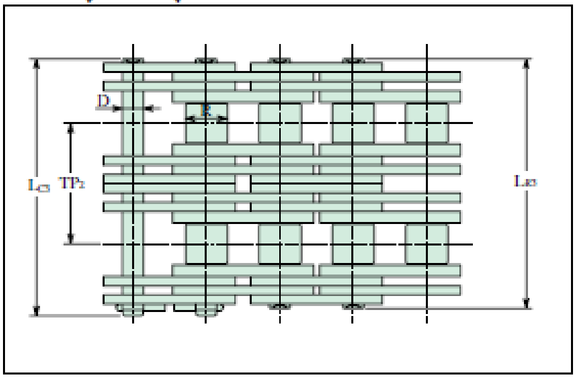
DC (×2)



TC (×3)



FC (×4)



LR2=LR1+TP1
LC2=LC1+TP1
LR3=LR1+TP2
LC3=LC1+TP2

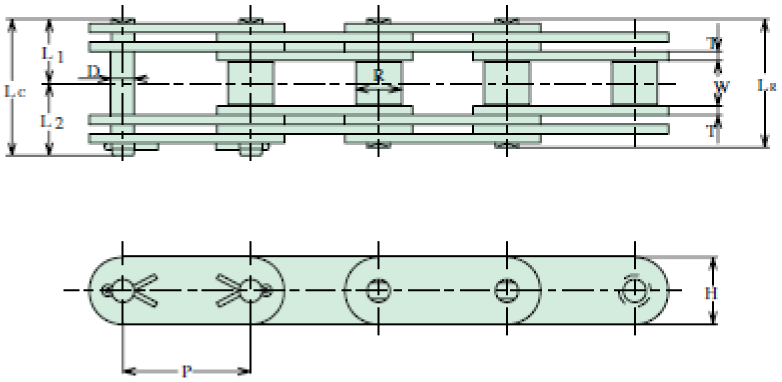
ANSI

Chain No.	Dimensions - mm								Average Ultimate Strength (kN)			Maximum Allowable Load (kN)
	Pitch	Roller		Pin			Transverse Pitch					
		Width	Dia.	Dia.	Length							
	P	W	R	D	LR1	LC1	TP1	TP2	DC	TC	FC	DC
80 DC·TC·FC	25.40	15.88	15.88	7.93	45.60	48.70	29.30	42.10	149	223	298	22.40
100 DC·TC·FC	31.75	19.05	19.05	9.53	55.80	59.50	35.80	51.80	224	336	448	33.50
120 DC·TC·FC	38.10	25.40	22.23	11.10	69.00	73.30	45.40	64.20	317	475	634	49.00
140 DC·TC·FC	44.45	25.40	25.40	12.70	76.40	81.10	48.90	71.30	410	615	820	64.40
160 DC·TC·FC	50.80	31.75	28.58	14.28	90.00	95.10	58.50	84.10	522	783	1044	79.80
180 DC·TC·FC	57.15	35.70	35.70	17.45	101.60	107.70	65.80	94.60	670	1005	1340	103.00
200 DC·TC·FC	63.50	38.10	39.67	19.83	111.20	120.00	71.60	103.60	857	1285	1714	133.00
240 DC·TC·FC	76.20	47.63	47.63	23.78	135.60	143.20	87.80	125.80	1286	1929	2572	193.00

BS

Chain No.	Dimensions - mm								Average Ultimate Strength (kN)			Maximum Allowable Load (kN)
	Pitch	Roller		Pin			Transverse Pitch					
		Width	Dia.	Dia.	Length							
	P	W	R	D	LR1	LC1	TP1	TP2	DC	TC	FC	DC
16BDC·TC·FC	25.40	17.02	15.88	8.26	50.00	53.20	31.90	44.70	130	195	260	19.50
20BDC·TC·FC	31.75	19.56	19.05	10.16	56.00	60.40	36.50	50.50	201	301	402	30.20
24BDC·TC·FC	38.10	25.40	25.40	14.63	75.40	80.50	48.40	68.00	340	510	680	51.20
28BDC·TC·FC	44.45	31.00	27.94	15.88	93.00	98.80	59.60	84.80	424	636	848	63.80
32BDC·TC·FC	50.80	31.00	29.21	17.81	92.40	98.50	58.60	83.80	520	780	1040	78.40

Double Capacity Double Pitch Chains



DOUBLE PITCH

Chain No.	Dimensions - mm										Average Ultimate Strength	Maximum Allowable Load	Average Chain Weight
	Pitch	Roller		Pin					Plate				
		Width	Dia.	Dia.	Length				Height	Thickness			
	P	W	R	D	L_R	L_C	L_1	L_2	H	T	kN	kN	kg/m
C2040 DC	25.40	7.95	7.92	3.96	23.00	24.70	11.50	13.20	11.40	1.50	38.20	4.02	0.50
C2050 DC	31.75	9.53	10.16	5.08	28.80	30.50	14.40	16.10	15.00	2.00	63.80	6.72	0.85
C2060H DC	38.10	12.70	11.91	5.95	42.20	44.20	21.10	23.10	17.00	3.20	109.80	11.56	1.46
C2080H DC	50.80	15.88	15.88	7.93	52.00	55.10	26.00	29.10	22.60	4.00	180.40	18.99	2.50
C2100H DC	63.50	19.05	19.05	9.53	62.00	65.60	31.00	34.60	28.60	4.80	274.00	28.84	3.81
C2120H DC	76.20	25.40	22.23	11.10	77.80	82.10	38.90	43.20	34.90	5.60	372.00	39.16	5.50
C2160H DC	101.60	31.75	28.58	14.28	97.40	102.60	48.70	53.90	47.60	7.20	612.00	64.42	9.27