

Chain and Sprockets for Water Treatment Plants

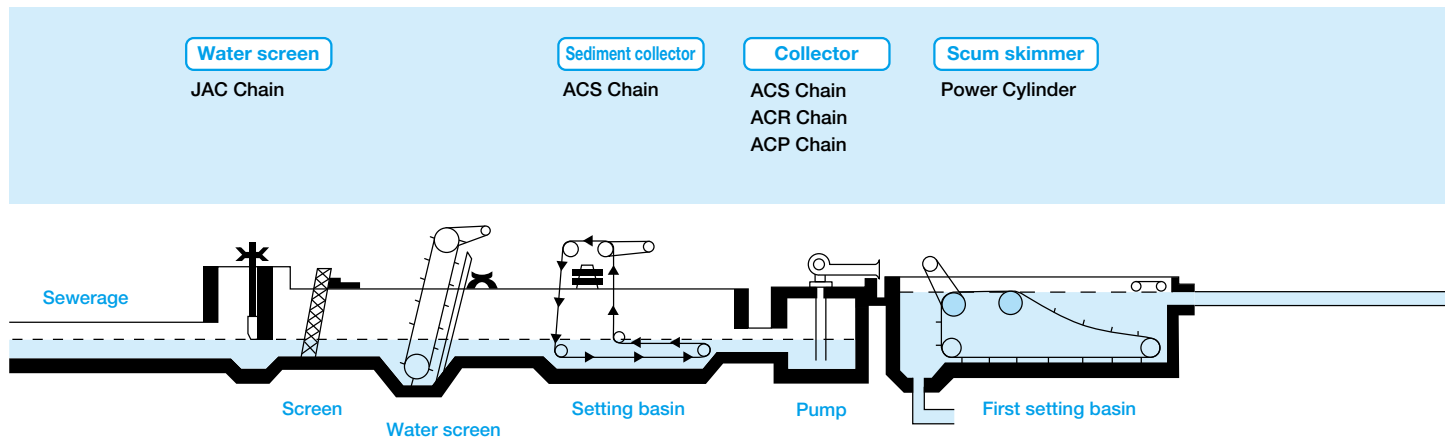
Model Numbering Example

ACS13078W – **20L** **SF4** + **400L** – **PR**

① ④ ⑤ ⑥ ⑦

See page 21 for ④⑥⑦.

Diagram of Water Treatment Facility



Code			See page
① Size	Indicates the basic shape of the chain. Enter chain size in the .		
	ACP	Collector (plastic)	p.127
	ACR8	Collector (steel)	p.128
	ACS	Sediment collector, conveyor	p.129
	JAC	Screening equipment	p.131
	WAC	Water screen	p.135
② Roller type	May or may not be available depending on the series and size.		
	R/F/S	Standard roller types	p.10
	FP	SJW Series with plastic F rollers	p.131
③ Series	See page 125		
⑤ Attachment type	SF4	Flight attachment for collectors	p.129
	LA1/ LONGPIN	Bucket attachment for sediment collector	p.129
	Y	Rotating-rake water screens	p.133
	A2T1	Fixed-rake water screens	p.133
	A2T2	Sediment conveyors	p.133

Drive chains

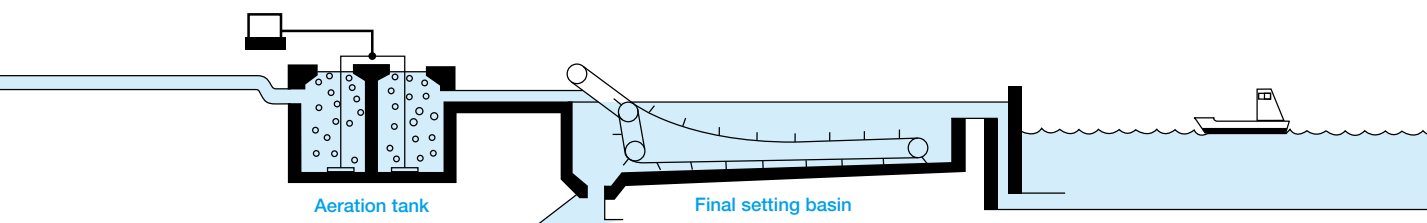
RS Roller Chain
BF Chain
ACRD Chain
EPCD Chain

Collector chains

ACS Chain
ACR Chain
ACP Chain

Power actuators

Miter Gear Boxes for underwater use
Shock Relays
Shock Monitors





Water Treatment Conveyor Chain

Application	Chain Type	Series	Material	Size	Attachment Type	Avg. Tensile Strength kN(kgf) (avg. fracture strength)	Min. Tensile Strength kN(kgf) (guaranteed fracture strength)	
Collector	ACP	—	Engineering plastic	ACP04152	SF4 ◆ Attachment hole-related dimensions can be changed.	39.2 { 4000}	35.3 { 3600}	
				ACP04152P		29.4 { 3000}	24.5 { 2500}	
	ACP (with rollers)	—	SUS400 series	ACR810		98.1 {10000}	88.3 { 9000}	
				ACR815		147 {15000}	132 {13500}	
				ACR816		157 {16000}	142 {14500}	
				ACR819		186 {19000}	172 {17500}	
				ACR810SS		58.8 { 6000}	52.9 { 5400}	
Sediment collectors and conveyors	ACS (bushed)	—	SUS400 series	ACS13078W	SF4 LA1 Extended pin ◆ LA1 uses alloy steel.	132 {13500}	123 {12500}	
				ACS13103W		147 {15000}	137 {14000}	
				ACS13152W		186 {19000}	172 {17500}	
				ACS15152W		186 {19000}	172 {17500}	
				ACS19152W		245 {25000}	226 {23000}	
				ACS19152WT		343 {35000}	314 {32000}	
				ACS35152W				
Water screens	JAC (with rollers)	NVJ	Pin/bush: SUS400 series Roller/plate: Alloy steel	JAC08152□-NVJ	Y A2T1 (type 1) A2T2 (type 2) Attachments can be alloy steel or SUS400/300 stainless steel.	147 {15000}	127 {13000}	
				JAC10152□-NVJ		216 {22000}	196 {20000}	
				JAC6205□-NVJ		275 {28000}	250 {25500}	
				JAC21152□-NVJ		382 {39000}	343 {35000}	
				JAC26152□-NVJ		510 {52000}	461 {47000}	
		PJ (PJH)	SUS400 series	JAC08152□-PJ		142 {14500}	132 {13500}	
				JAC10152□-PJ		167 {17000}	152 {15500}	
				JAC10152□-PJH		186 {19000}	172 {17500}	
				JAC6205□-PJ		235 {24000}	216 {22000}	
				JAC6205□-PJH		265 {27000}	245 {25000}	
		PJW (PJWH)	SUS400 series	JAC21152□-PJ		353 {36000}	324 {33000}	
				JAC26152□-PJ		490 {50000}	451 {46000}	
				JAC10152F-PJW		167 {17000}	152 {15500}	
				JAC10152F-PJWH		186 {19000}	172 {17500}	
				JAC6205F-PJW		235 {24000}	216 {22000}	
		SJ	SUS300 series	JAC6205F-PJWH		265 {27000}	245 {25000}	
				JAC08152□-SJ		68.6 { 7000}	58.8 { 6000}	
				JAC10152□-SJ		108 {11000}	93.2 { 9500}	
				JAC6205□-SJ		132 {13500}	113 {11500}	
				JAC21152□-SJ		186 {19000}	157 {16000}	
		NSJ	Pin/roller/plate: SUS300 series Bush: Special stainless steel	JAC26152□-SJ		250 {25500}	211 {21500}	
				JAC08152□-NSJ		68.6 { 7000}	58.8 { 6000}	
				JAC10152□-NSJ		108 {11000}	93.2 { 9500}	
				JAC6205□-NSJ		132 {13500}	113 {11500}	
				JAC21152□-NSJ		186 {19000}	157 {16000}	
		SJW	SUS300 series	JAC26152□-NSJ		250 {25500}	211 {21500}	
				JAC10152F-SJW		108 {11000}	93.2 { 9500}	
				JAC6205F-SJW		132 {13500}	113 {11500}	
				JAC21152F-SJW		186 {19000}	157 {16000}	
				JAC26152F-SJW		250 {25500}	211 {21500}	
		NSJW	Pin/roller/plate: SUS300 series Bush: Special stainless steel	JAC10152F-NSJW		108 {11000}	93.2 { 9500}	
				JAC6205F-NSJW		132 {13500}	113 {11500}	
				JAC21152F-NSJW		186 {19000}	157 {16000}	
				JAC26152F-NSJW		250 {25500}	211 {21500}	
				JAC10152FP-SJW		108 {11000}	93.2 { 9500}	
		SJW	F roller: Plastic Pin/bush/plate: SUS300 series	JAC6205FP-SJW		132 {13500}	113 {11500}	
				JAC21152FP-SJW		186 {19000}	157 {16000}	
Drive	ACRD (with rollers)	—	SUS400 series	ACRD08		142 {14500}	132 {13500}	
				ACRD10		186 {19000}	172 {17500}	
				ACRD12		235 {24000}	216 {22000}	
				ACRD17		353 {36000}	324 {33000}	
	BF (bushed)	—	SUS400 series	BF120N		108 {11000}	99.0 {10100}	
				BF140		137 {14000}	127 {13000}	
				BF140E		147 {15000}	132 {13500}	
				BF160		181 {18500}	167 {17000}	
				BF160E		233 {23800}	196 {20000}	
				BF200		309 {31500}	284 {29000}	
				BF200E		353 {36000}	324 {33000}	
				BF240		392 {40000}	363 {37000}	
				ACS4124		186 {19000}	167 {17000}	
				BF2120		147 {15000}	137 {14000}	
						19.6 { 2000}	17.7 { 1800}	
						37.3 { 3800}	32.4 { 3300}	
	EPCD	—	Engineering plastic	EPC78D				
				EPC90D				

Water Treatment Sprockets

Tsubaki provides sprockets that can satisfy the type, material, or dimensional requirements of any main or drive chain.

Collector Parts

See p.136

Part Name	Material
Flight	FRP
Shoe	Plastic, FCD, SCS
Distance spacer	Plastic

Note: Coatings

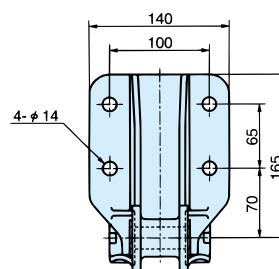
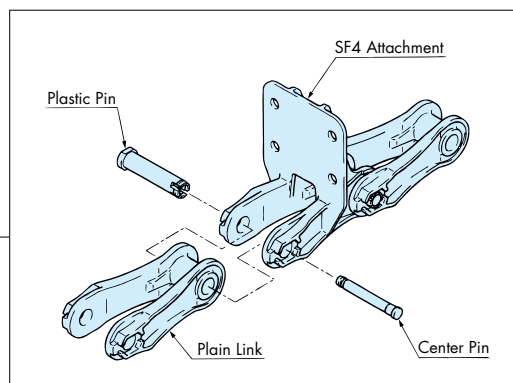
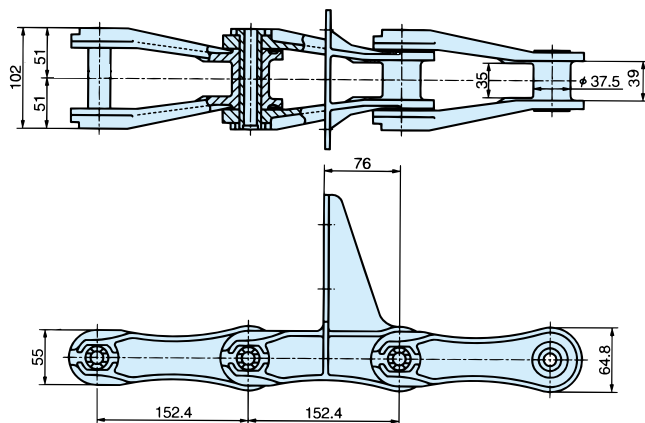
Chains designated with this mark ○ are manufactured with a coating of epoxy resin paint as standard. Contact a Tsubaki representative if a different coating is required.

Features	Coating*
Rolling contact is made possible through chains with rollers and block tooth sprockets, increasing wear resistance. Lightening the chain will also result in cost savings by reducing the necessary drive power.	—
Using together with a plastic sprocket will result in superior wear and corrosion resistance. And as plastic chains are lighter than steel chains, the lower power requirement will result in lower costs.	○ —
This chain was the first in the industry to use tempered stainless steel for increased wear and corrosion resistance. Also available in SUS300 series stainless steel. ACS19152WT uses Tokyo Specifications with a bush diameter of $\phi 30$.	○ —
The right combination of material will give you the right chain for any application. NVJ Series: Most economical chain, has high strength PJ Series: Provides excellent wear resistance SJ Series: Provides superb corrosion resistance NSJ Series: 1.5 times the bush-roller wear resistance of SJ Series PJW Series: Same as the PJ Series but with alternating flanges SJW Series: Same as the SJ Series but with alternating flanges NSJW Series: 1.5 times the bush-roller wear resistance of SJW Series ◆ PJW and SJW are wider than standard chains. Low Noise Series: Less running noise due to plastic F Roller ◆ The rollers on attachment links are steel. ◆ Uses special sprockets. Be sure to indicate chain specifications. ◆ Insert the roller type code in the □ area. ◆ NVJ Series is equivalent to VJ Series with different material for some components. ◆ Chain size -H indicates heavy duty specifications.	○
	○
	○
	○
	—
	—
	—
	—
Rolling contact is made possible through chain with rollers and sprockets to increase wear resistance.	○
Uses stainless steel for increased wear and corrosion resistance. ◆ Also available in SUS300 series	○
This special plastic drive chain for collectors combines engineering plastic and SUS300 series stainless steel.	—



ACP Sediment Collector Chain

ACP Chains do not suffer corrosion wear, and in combination with ultrahigh molecular polyethylene sprockets they offer unsurpassed wear resistance. They are also lighter than steel chains (chain: 1/4–1/2 lighter, sprocket: 1/3 lighter), making them easy to handle.



Note: The above dimensions are nominal dimensions and may differ from actual dimensions.

Size	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Chain Mass kg/m	Attachment Mass kg/each set	Specific Gravity
ACP04152-SF4	39.2{4000}	35.3{3600}	2.9	0.25	1.75
ACP04152P-SF4	29.4{3000}	24.5{2500}	2.4	0.25	1.45

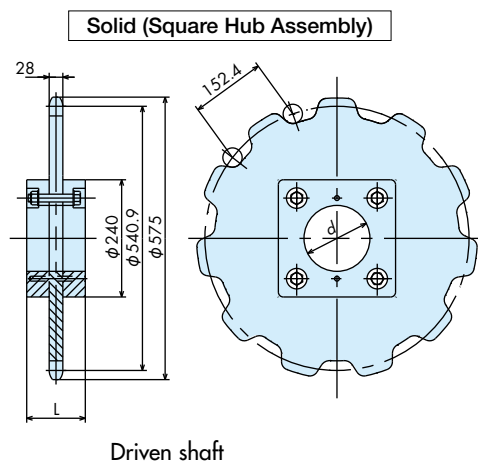
Model Numbering Example

(Made to Order)

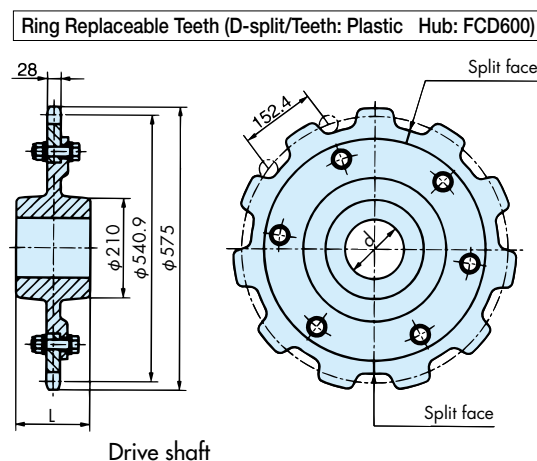
Chain	ACP04152 P-20LSF4+400L				
	Size	No. of Links	Attachment Type	Attachment Spacing	
	P: Plastic Center Pin				
	No code: SUS Center Pin				
Link	ACP04152P-OL				
	ACP04152P-SF4-OL				
Sprocket	ACP04152-1C T-				
	Type	No. of Teeth	No code: Solid (Square hub assembly)	RK: Ring Replaceable Teeth (D-split)	

Note: Specify the model number and contact a Tsubaki representative for a quote.

ACP Sprockets for Sediment Collector Chain



Driven shaft



Drive shaft

Applicable Size	Chain Pitch	No. of Teeth	Outer Dia.	Pitch Dia.	Tooth Width	Hub Dim.		Pilot Bore Dia. d	Max. Shaft Dia	Type/Material	Approx. Mass kg
						Dia. DH	Length L				
ACP04152	152.4	11	575	540.9	28	240	140	—	—	Square hub assembly	—
ACP04152P		11	575	540.9	28	210	140	90	130	Ring replaceable teeth (plastic)	64

Note: 1. Indicate drive shaft diameter and key dimensions, driven shaft sleeve outer diameter, and hub dimensions when ordering.

2. Standard number of teeth is listed. Tsubaki can manufacture sprockets with teeth numbers other than listed above. Contact a Tsubaki representative for more details.

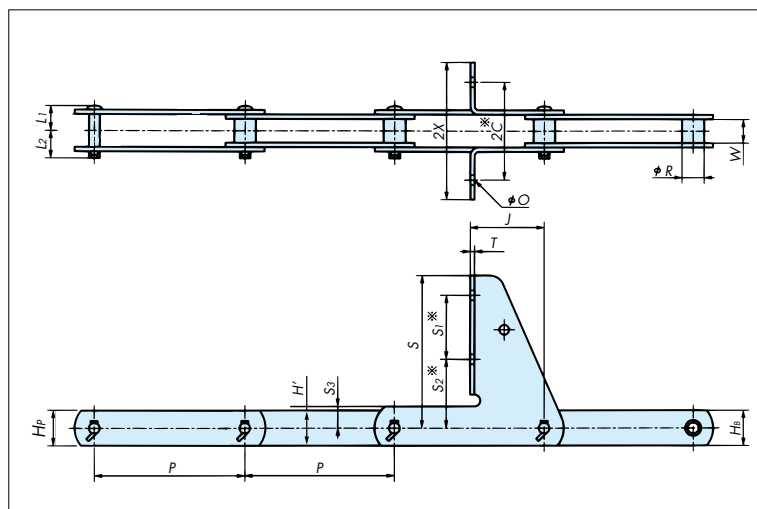
3. Shaded items are for reference and not standard dimensions. Indicate dimensions and number of teeth on your inquiry, or attach a drawing.

4. Please indicate finished bores on square hub assembly sets. Finished bores available up to 160mm.

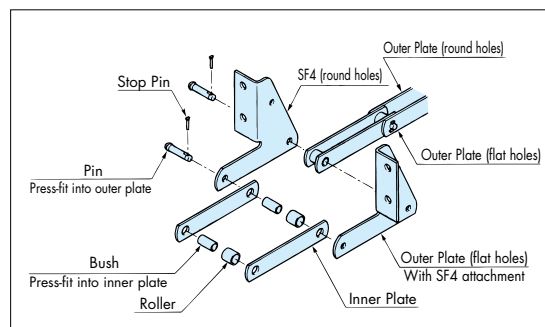
5. The above dimensions are nominal dimensions and may differ from actual dimensions.

ACR Sediment Collector Chain

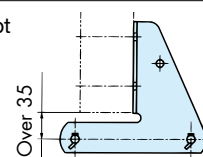
The Japan Sewage Works Corporation Examination for Privately Developed Technology (Certificate No. 109)



Flights that do not have standard attachment dimensions (※) can be made to order.



Ensure that flights do not interfere with sprockets when designing.

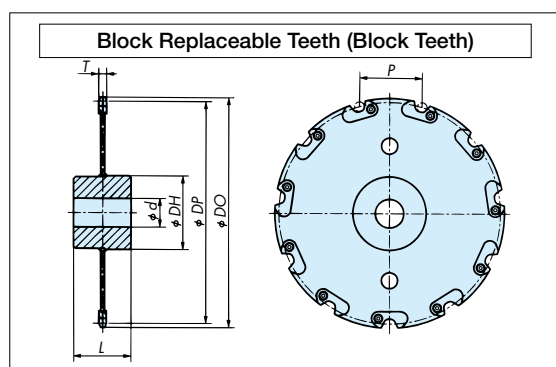


Size	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Pitch P	Roller Dia R	Inner Link Inner Width W	Pin		Inner Plate Width H _B	Outer Plate Width H _P	Mass kg/m
						L ₁	L ₂			
ACR810	98.1 {10000}	88.3 {9000}	152.4	22.2	22	25	28.5	33	33	3.2
ACR815	147 {15000}	132 {13500}	152.4	22.2	27.6	31	34.5	38	38	5
ACR816	157 {16000}	142 {14500}	152.4	25	26	30	34	38	38	5
ACR819	186 {19000}	172 {17500}	152.4	29	30.6	33	36	44	38	6
ACR810SS	58.8 {6000}	52.9 {5400}	152.4	22.2	22	25	29	29	25	2.9

Size	Attachment Dimensions									Mass kg/each
	2C	2X	J	S	S ₁	S ₂	S ₃	O	T	
ACR810-SF4	100	140	76	155	65	70	22	14	4.5	1.0
ACR815-SF4	100	140	76	157	65	70	22	14	6	1.4
ACR816-SF4	100	138	76	157	65	70	22	14	6	1.4
ACR819-SF4	100	142.5	76	157	65	70	22	14	6	1.4
ACR810SS-SF4	100	140	76	155	65	70	22	14	4.5	1.0

Note: The above dimensions are nominal dimensions and may differ from actual dimensions.

ACR Sprockets for Sediment Collector Chain



Model Numbering Example (Made to Order)

Chain	ACR810-SS-20LSF4+400L-PR	End Link
	Size	No. of Links
	Series	Attachment Type
	SS: SUS300 series	Attachment Spacing
	No code: SUS400 series	
Sprocket	ACR810-1C-TQ	
	Type	BK: Block Replaceable Teeth (Block teeth)
	No. of Teeth	No code: Solid
	Hardened Teeth	RK: Ring Replaceable Teeth (D-split)

Note: Specify the model number and contact a Tsubaki representative for a quote.

Applicable Size	Chain Pitch	No. of Teeth	Outer Dia.	Pitch Dia.	Tooth Width	Hub Dim.		Pilot Bore Dia. d	Max. Shaft Dia	Type/Material	Approx. Mass kg
						Dia. DH	Length L				
ACR810	152.4	11	565	540.9	18	210	140	90	130	Block replaceable teeth: SS400 or FCD600 (arm, hub), SCS2 (teeth) Solid: SCS2 or SCS13	47
ACR815		11	567	540.9	22	210	140	90	130		53
ACR816		11	566	540.9	22	210	140	90	130		53
ACR819		11	570	540.9	22	210	140	90	130		53
ACR810SS		11	565	540.9	18	200	130	80	125		55

Note: 1. Indicate drive shaft diameter and key dimensions, driven shaft sleeve outer diameter, and hub dimensions when ordering.

2. Standard number of teeth is listed. Tsubaki can manufacture sprockets with teeth numbers other than listed above. Contact a Tsubaki representative for more details.

3. Chains using SUS300 Series stainless steel rollers require special sprockets.

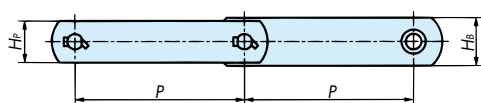
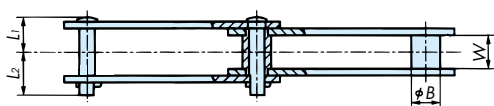
4. Shaded items are for reference and not standard dimensions. Indicate dimensions and number of teeth on your inquiry, or attach a drawing.

5. The above dimensions are nominal dimensions and may differ from actual dimensions.



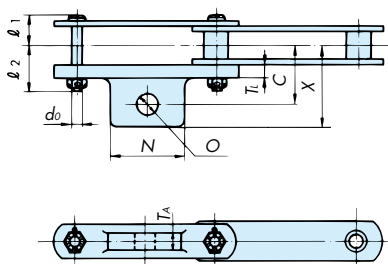
ACS Heavy Duty Collector Chain

Main Chain



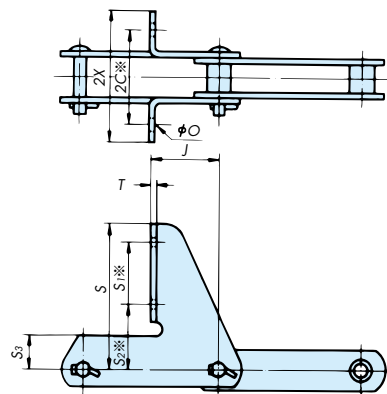
LA1 Attachment

Bucket attachment for sediment collector.
Buckets attach easily.



SF4 Attachment

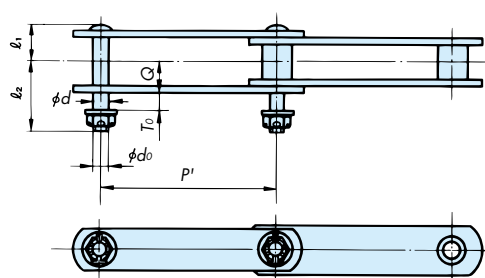
Flight attachment for grit and sediment collectors.



Flight dimensions marked with ※ available in other non-standard dimensions.

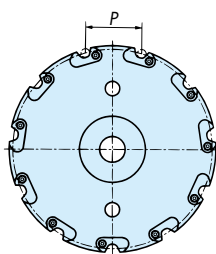
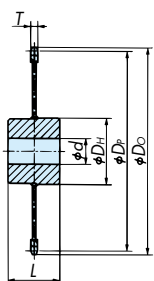
Long Pin Attachment

Bucket attachment for sediment collector.
Buckets attach easily.

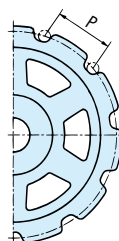
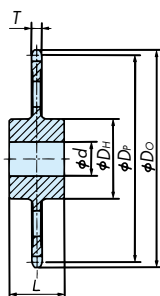


ACS Sprockets for Heavy Duty Collector Chain

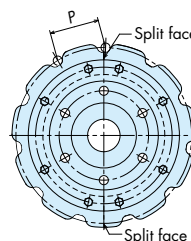
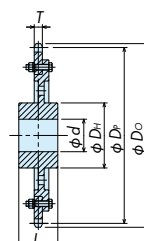
Block Replaceable Teeth (1C)



Solid (C)



Ring Replaceable Teeth (D-split)



Model Numbering Example

(Made to Order)

Chain

ACS13078W-20LSF4+400L-PR

Size

Attachment Spacing

End Link
No. of Links

Attachment Type

SF4 : SF4 Attachment

LA1 : LA1 Attachment

LONGPIN : Longpin Attachment

Sprocket

ACS13078W-1C TQ

Type

No. of Teeth

Hardened Teeth

No code: Solid
BK: Block Replaceable
Teeth (Block teeth)
RK: Ring Replaceable
Teeth (D-split)

Note: Specify the model number and contact a Tsubaki representative for a quote.

■ ACS Main Chain

Size	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Pitch P	Bush Dia. B	Inner Link Inner Width W	Pin		Outer Plate Width H _P	Inner Plate Width H _B	Approx. Mass kg/m
						L ₁	L ₂			
ACS13078W	132{13500}	123{12500}	78.11	23	26	28	32	33	36	5.2
ACS13103W			103.2							4.6
ACS13152W			152.4							3.6
ACS15152W	147{15000}	137{14000}	152.4	24	26	29	33	36	38	4.8
ACS19152W	186{19000}	172{17500}	152.4	26	30	32	39.5	38	44	5.8
ACS19152WT*			152.4	30						6.8
ACS25152W	245{25000}	226{23000}	152.4	29	30	35	41	44	54	7.9
ACS35152W	343{35000}	314{32000}	152.4	35	38	41	46	54	60	10.9

Note: 1. Offset links available.

2. * Indicates Tokyo specifications.

3. All sizes also available in SUS300 series stainless steel.

■ SF4 Attachment for ACS Chain

Size		Attachment Dimensions									Additional Mass per Set kg
		2C	2X	J	S	S ₁	S ₂	S ₃	O	T	
ACS13078W-SF4	78.11	90	131.5	38	110	35	55	28	14	5	0.6
ACS13103W-SF4	103.2			52							0.7
ACS13152W-SF4	152.4			76							1.0
ACS15152W-SF4	152.4	100	143.5	76	155	65	70	35	14	5	1.2
ACS19152W-SF4	152.4	100	141.5	76	157	65	70	38	14	6	1.4
ACS19152WT-SF4											
ACS25152W-SF4	152.4	100	143.5	76	154	65	70	38	14	6	1.4
ACS35152W-SF4	152.4	110	152.0	76	160	65	75	40	14	7.9	1.6

■ LA1 Attachment for ACS Chain

Size		Attachment Dimensions									Additional Mass per Set kg
		d ₀	ℓ ₁	ℓ ₂	C	X	N	O	TA	TL	
ACS13078W-LA1	78.11	M10	29.5	41.5	55	77	40	19	16	12	0.4
ACS13103W-LA1	103.2						56				0.6
ACS15152W-LA1	152.4	M12	30.5	44.5	55	77	68	19	16	12	0.8
ACS19152W-LA1	152.4	M12	33.5	51.5	65	90	80	24	20	16	1.2
ACS25152W-LA1	152.4	M14	36.5	53.5	65	90	80	24	20	16	1.4
ACS35152W-LA1	152.4	M16	42.5	61.5	75	102	80	26	24	19	2.0

■ Long Pin Attachment for ACS Chain

Size	Attachment Dimensions								Additional Mass per Set kg
	P	P'	d	d_0	ℓ_1	ℓ_2	Q	T_0	
ACS13078W-LONGPIN	78.11	77.7	12	M10	28	49	24	12	0.06
ACS13103W-LONGPIN	103.2	102.8							
ACS15152W-LONGPIN	152.4	152.0	13	M12	29	51	25	12	0.10
ACS19152W-LONGPIN	152.4	151.9	14	M12	32	59	28	16	0.11
ACS25152W-LONGPIN	152.4	151.9	15.5	M14	35	62	29	16	0.14
ACS35152W-LONGPIN	152.4	151.8	18.5	M16	41	72	34.2	19	0.20

Note: P: Nominal dimensions P': Actual dimensions

■ ACS Sprockets

Applicable Size	Chain Pitch	No. of Teeth	Outer Dia.	Pitch Dia.	Tooth Width	Hub Dim.		Pilot Bore Dia. d	Max. Shaft Dia	Type/Material	Approx. Mass kg
						Dia. D _H	Length L				
ACS13078W	78.11	11	300	277.3	22	140	110	60	85	C, C-split: FCD600 or SCS2	15
ACS13103W	103.2		390	366.3		150	110	50	90	D-split: FCD600 (hub, arm)	22
ACS13152W	152.4		565	540.9		150	130	60	90	SCS2 (teeth)	36
ACS15152W	152.4	11	565	540.9	22	170	130	60	105	1C (block teeth):	44
ACS19152W	152.4	11	565	540.9	25	210	140	80	130	SS400 or FCD600 (hub, arm)	51
ACS25152W	152.4	11	570	540.9	25	210	140	80	130	SCS2 (teeth)	51
ACS35152W	152.4	11	570	540.9	32	210	140	80	130		62

Note: 1. Standard number of teeth is listed. Tsubaki can manufacture sprockets with teeth numbers other than listed above. Contact a Tsubaki representative for more details.

2. Shaded items are for reference and not standard dimensions. Indicate dimensions and number of teeth on your inquiry, or attach a drawing.

3. The above dimensions are nominal dimensions and may differ from actual dimensions.



JAC Water Screen Chain

NVJ Series

Tsubaki's most economical chain. Highly durable and wear resistant.

PJ (PJH) Series

Offers superb wear and corrosion resistance.

SJ Series

Our most corrosion resistant chain.

NSJ Series

1.5 times the bush-roller wear resistance of SJ Series.

PJW (PJWH) Series

A PJ Series chain with alternating flanges, preventing chain from falling off of guide rail.

SJW Series

An SJ Series chain with alternating flanges, preventing chain from falling off of guide rail.

NSJW Series

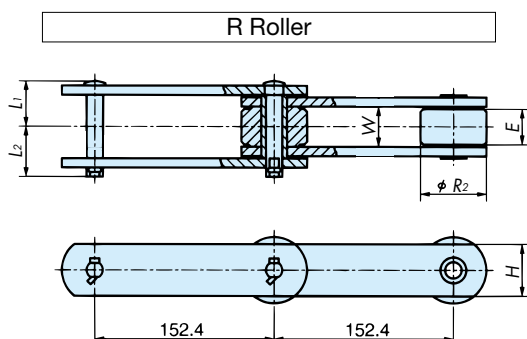
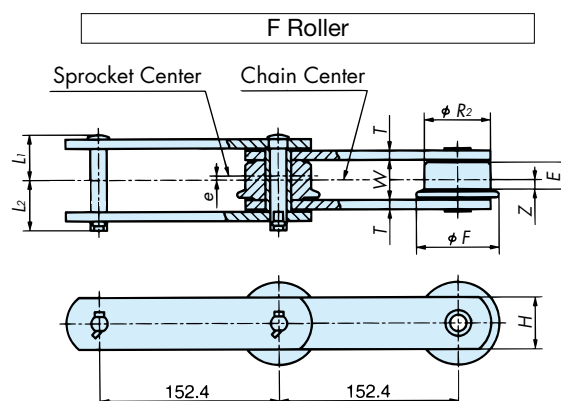
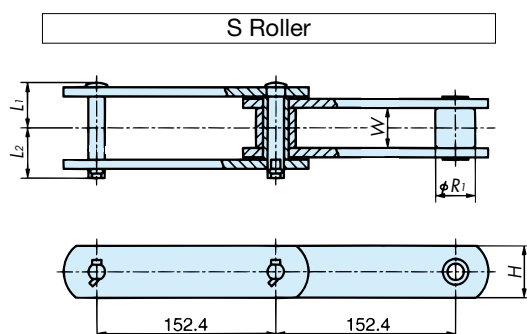
1.5 times the bush-roller wear resistance of SJW Series.

FP-SJW Series

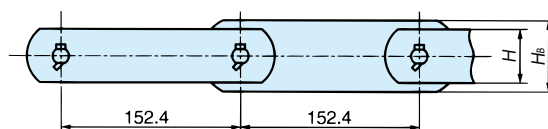
Reduced running noise thanks to engineering plastic F rollers.

(Low Noise Series)

PJH and PJWH are heavy duty versions of PJ and PJW, respectively.



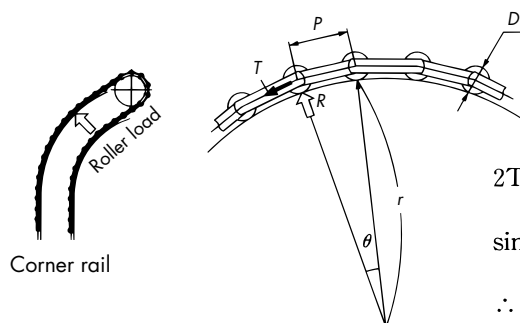
Heavy Duty Specs (Same for S, R, and F Rollers)



Note: Has a wider inner plate for more strength.

Note: The following needs to be considered for FP-SJW Series (low noise type).

Use the following formula to calculate the rail reactive force R generated by chain tension T on the corner rail area.



$$2T \sin \frac{\theta}{2} = R$$

$$\sin \frac{\theta}{2} = \frac{P/2}{r + D/2}$$

$$\therefore R = 2T \times \frac{P}{2r + D}$$

Next, use the following formula to calculate the Hertz stress Q (contact compression stress) from the rail reactive force.

$$Q = 0.591 \sqrt{R/L \times [E_1 + E_2 / (E_1 + E_2) \times (r - d) / (r \times d)]}$$

$$Q \leq 49 \text{ [N/mm}^2\text{]}$$

d: Roller radius (D/2) [mm]

L: Rail width [mm]

E1: Roller Young modulus (plastic: $3.43 \times 10^3 \text{ N/mm}^2$)

E2: Rail Young modulus (SUS304: $1.89 \times 10^5 \text{ N/mm}^2$)

Model Numbering Example

JAC10152F-PJH

Mounting one A2 (type 1) attachment somewhere along the 100 links

1 JAC10152F-PJH-20LA2T1+20L-PR

2 JAC10152F-PJH+80L-PR

Note: You can also specify chain configuration using a diagram.

■ Water Screen Chain Dimensional Chart

Series	Material	Size	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Roller Type	Inner Link Inner Width W	S Roller		R Roller		F Roller						Pin			Plate		Approx. Mass kg/m		
							Dia. R ₁	Dia. R ₂	Contact Width E	Dia. R ₂	Flange Dia. F	Contact Width		Off-center e	Z	L ₁	L ₂	H	H _B	S Roller	F Roller	R Roller		
												E	E ₂											
NVJ	*1	JAC08152□-NVJ	147 {15000}	127 {13000}	S	26.2	22.2	-	-	-	-	-	-	-	-	31	34.5	28.6	-	3.9	-	-		
		JAC10152□-NVJ	216 {22000}	196 {20000}	S/R/F	29.0	29.0	50.8	26	50.8	65	20	-	3	7	33	36	38.1	-	5.9	8.0	7.6		
		JAC6205□-NVJ	275 {28000}	250 {25500}	S/R/F	35.9	34.9	65	32	65	85	24	-	4	8	40.5	43	44.5	-	9.3	14.5	13.5		
		JAC21152□-NVJ	382 {39000}	343 {35000}	S/R/F	35.7	40.1	70	32	70	90	24	-	4	8	44.5	51	50.8	-	12.6	18.1	17.1		
		JAC26152□-NVJ	510 {52000}	461 {47000}	S/R/F	55.6	44.5	80	52	80	95	40	-	5	15	55.5	61	63.5	-	17.8	29.3	28.0		
PJ (PJH)	SUS400 series	JAC08152□-PJ	142 {14500}	132 {13500}	S	27	22.2	-	-	-	-	-	-	-	-	31	34.5	38	-	5.0	-	-		
		JAC10152□-PJ	167 {17000}	152 {15500}	S/R/F	30	29	50.8	26	50.8	65	20	-	3	7	33	36	38	-	5.6	7.9	7.5		
		JAC10152□-PJH	186 {19000}	172 {17500}	S/R/F													38	44	6.0	8.3	7.9		
		JAC6205□-PJ	235 {24000}	216 {22000}	S/R/F	37.1	34.9	65	32	65	85	24	-	4	8	39.5	42	44.5	-	8.2	13.3	12.3		
		JAC6205□-PJH	265 {27000}	245 {25000}	S/R/F													44.5	54	8.9	14	13		
		JAC21152□-PJ	353 {36000}	324 {33000}	S/R/F	37.1	40.1	70	32	70	90	24	-	4	8	44	50	54	-	12.8	19.0	18.1		
		JAC26152□-PJ	490 {50000}	451 {46000}	S/R/F	55.2	44.5	80	52	80	95	40	-	5	15	56	61.5	63.5	-	18.6	30.0	28.7		
PJW (PJWH)	SUS400 series	JAC10152F-PJW	167 {17000}	152 {15500}	F	36.2	-	-	-	50.8	65	26	20	-	10	36.5	39.5	38	-	-	8.3	-		
		JAC10152F-PJWH	186 {19000}	172 {17500}	F			-	-									44	-	-	8.7	-		
		JAC6205F-PJW	235 {24000}	216 {22000}	F	44.5	-	-	-	65	85	32	24	-	12	43	45.5	44.5	-	-	14.4	-		
		JAC6205F-PJWH	265 {27000}	245 {25000}	F			-	-									54	-	-	15.1	-		
SJ NSJ	*2	JAC08152□-SJ/NSJ	68.6 {7000}	58.8 {6000}	S	27	22.2	-	-	-	-	-	-	-	-	31	34.5	28.6	-	3.8	-	-		
		JAC10152□-SJ/NSJ	108 {11000}	93.2 {9500}	S/R/F	30	29	50.8	26	50.8	65	20	-	3	7	33	36	38.1	-	5.6	7.9	7.5		
		JAC6205□-SJ/NSJ	132 {13500}	113 {11500}	S/R/F	37.1	34.9	65	32	65	85	24	-	4	8	40.5	43	44.5	-	9.1	14.2	13.2		
		JAC21152□-SJ/NSJ	186 {19000}	157 {16000}	S/R/F	37.1	40.1	70	32	70	90	24	-	4	8	44.5	52	50.8	-	13.3	18.2	17.2		
		JAC26152□-SJ/NSJ	250 {25500}	211 {21500}	S/R/F	57.2	44.5	80	52	80	95	40	-	5	15	55.5	62	63.5	-	18.8	30.0	28.7		
SJW NSJW	*3	JAC10152F-SJW/NSJW	108 {11000}	93.2 {9500}	F	36.0	-	-	-	50.8	65	26	20	-	10	36	39	38.1	-	-	8.3	-		
		JAC6205F-SJW/NSJW	132 {13500}	113 {11500}	F	44.5	-	-	-	65	85	32	24	-	12	44.5	46.5	44.5	-	-	15.3	-		
		JAC21152F-SJW/NSJW	186 {19000}	157 {16000}	F	44.5	-	-	-	70	90	32	24	-	12	49	55.5	50.8	-	-	19.1	-		
		JAC26152F-SJW/NSJW	250 {25500}	211 {21500}	F	57.2	-	-	-	80	95	38	26	-	13	56.5	62	50.8	63.5	-	28.6	-		
FP- SJW	*4	JAC10152FP-SJW	108 {11000}	93.2 {9500}	F	36	-	-	-	50.8	65	26	20	-	10	36	39	38.1	-	-	6.0	-		
		JAC6205FP-SJW	132 {13500}	113 {11500}	F	44.5	-	-	-	65	85	32	24	-	12	44.5	46.5	44.5	-	-	9.5	-		
		JAC21152FP-SJW	186 {19000}	157 {16000}	F	44.5	-	-	-	70	90	32	24	-	12	49	55.5	50.8	-	-	12.2	-		

*1: NVJ Series material: Pin/bush use SUS400 series stainless steel, while roller/link plate use alloy steel. (NVJ Series is equivalent to the VJ Series using different material for some parts.)

*2: SJ Series material: SUS300 series stainless steel.
NSJ Series material: Pin/roller/plate use SUS300 series stainless steel, while bush uses special stainless steel.

*3: SJW Series material: SUS300 series stainless steel.
NSJW Series material: Pin/roller/plate use SUS300 series stainless steel, while bush uses special stainless steel.

*4: FP-SJW Plastic Series material: F roller uses plastic, while pin/bush/link plate use SUS300 series stainless steel.
The rollers on the attachments on engineering plastic F roller chains (low noise chains) are stainless steel.

Note: 1. Offset link available.

2. Contact a Tsubaki representative regarding tensile strengths, chain pitches, and so on not shown above.

3. Enter roller type in the □ box.

4. The E dimension is the rolling contact width. E2 is the length of the roller (real rolling contact width) when there are alternating flanges (SJW, PJW).

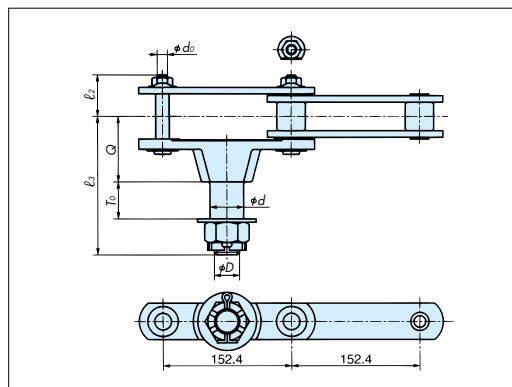
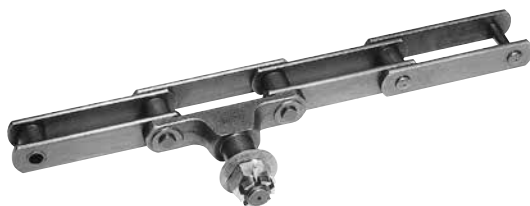
5. The above dimensions are nominal dimensions and may differ from actual dimensions.



Y Attachment for JAC Chain

◆ For rotating-rake water screens

Attachment type: Y

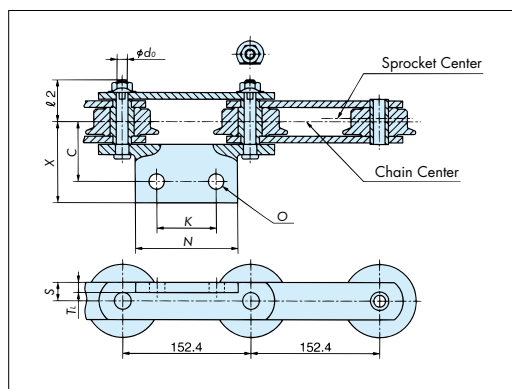


Series	Size	Roller Type	d	do	D	l ₂	l ₃	Q	To	Add. Mass per Set kg/set
NVJ/PJ	JAC08152	S	25	M10	M20	38	120	60	30	1.1
	JAC10152	R/S	35	M12	M27	42	148.5	70	40	1.9
	JAC6205	R/S	40	M12	M30	49	164.5	78	44	2.7
	JAC21152	S	45	M16	M36	55	174	78	46	3.2
	JAC26152	S	50	M16	M45	65	204	95	50	5.1

A2 Attachment (Type 1) for JAC Chain

◆ For fixed-rake water screens

Attachment type: A2T1

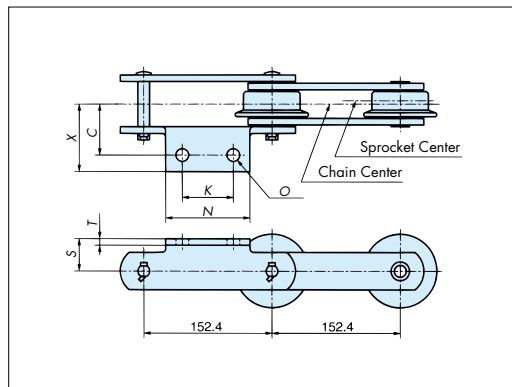


Series	Size	Roller Type	do	l ₂	C	X	K	N	S	O	T _l	Add. Mass per Set kg/set
NVJ/PJ/ SJ/NSJ/PJH	JAC10152	R/F	M12	42	60	80	65	110	19.0	15	9.5	0.6
	JAC6205	R/F	M12	49	70	95	70	120	22.2	18	12	0.9

A2 Attachment (Type 2) for JAC Chain

◆ For sediment conveyors

Attachment type: A2T2



Series	Size	Roller Type	C	X	K	N	S	O	T			Add. Mass per Set kg/set
									NVJ Series	PJ Series	SJ Series	
NVJ/PJ/ SJ/NSJ/PJH	JAC10152	R/F	50	65	60	90	32	12	6.3	6	6	0.20
	JAC6205	R/F	60	79	60	100	38	15	7.9	7	8	0.37

Note: The above dimensions are nominal dimensions and may differ from actual dimensions.

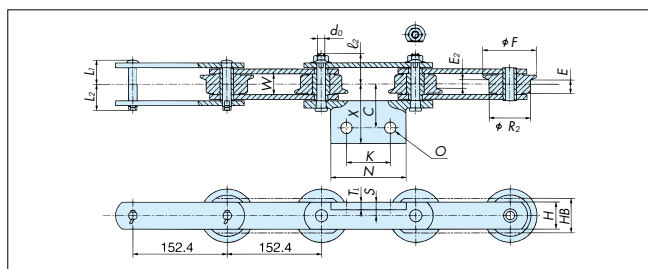
PJW/SJW/NSJW Series A2 Attachment (Type 1) for JAC Chain

◆ For fixed-rake water screens

Attachment type: A2T1



HB: Inner plate width is wider on Heavy Duty specifications



■ PJW Series

Size and Roller Type	Attachment Dimensions									Contact Width		Add. Mass per Set kg/set
	d_0	ℓ_2	C	X	K	N	S	O	T_L	E	E_2	
JAC10152F	M12	45	63	83	65	110	19.0	15	9.5	26	20	0.6
JAC6205F	M12	51.5	74	99	70	120	22.2	18	12	32	24	0.9

■ SJW/NSJW Series

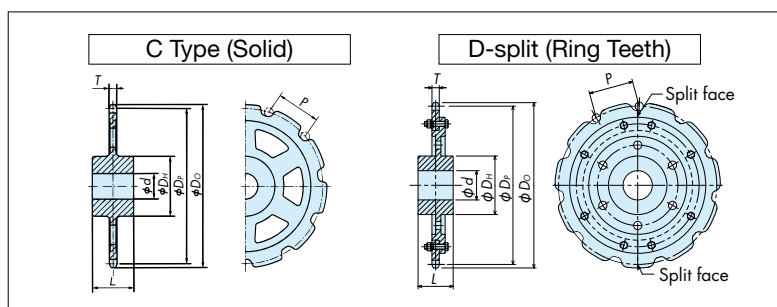
Size and Roller Type	Attachment Dimensions									Contact Width		Add. Mass per Set kg/set
	d_0	ℓ_2	C	X	K	N	S	O	T_L	E	E_2	
JAC10152F	M12	45	63	83	65	110	19.0	15	9.5	26	20	0.6
JAC6205F	M12	53	74	99	70	120	22.2	18	12	32	24	0.9
JAC21152F	M16	61	80	105	70	120	25.4	23	12	32	24	1.4
JAC26152F	M16	66	90	120	70	120	31.75	23	16	38	26	1.7

Note: 1. Attachment dimensions are the same with plastic F rollers.

2. E dimension is the contact width. E2 dimension is roller length (actual contact width) when two flanges alternate (SJW, PJW).

3. The above dimensions are nominal dimensions and may differ from actual dimensions.

JAC Sprockets (Water Screen)



Size and Roller Type	Pitch	No. of Teeth	Outer Dia.	Pitch Dia.	Tooth Width	Boss Dim.		Pilot Bore Dia. <i>d</i>	Max. Shaft Dia	Type/Material	Approx. Mass kg
						Dia. <i>D_H</i>	Length <i>L</i>				
JAC08152S	152.4	11	556	540.9	21	180	130	90	110	C: SCS13, FCD600, or SCS2 Note: Indicate sprocket specs when ordering, if chain rollers are SUS300 series stainless steel or plastic.	51
JAC10152S		11	561	540.9	24	190	130	90	115		45
JAC10152F	152.4	10	528	493.2	16	170	120	80	105		36
		11	576	540.9		180	130	90	110		46
JAC6205S	152.4	11	565	540.9	30	220	170	110	135		80
JAC6205F		10	539	493.2	21	180	130	90	110		47
			11	586		540.9	220	160	110		135
JAC21152S	152.4	11	569	540.9	30	230	170	110	140		78
JAC21152F		10	542	493.2	21	170	120	80	105		41
			11	590		540.9	230	170	110		140
JAC26152S	152.4	11	572	540.9	48	260	190	120	160		110
JAC26152F		10	549	493.2	24	230	170	110	140		68
			11	597		540.9	260	190	120		160
JAC10152F-PJW	152.4	10	528	493.2	16	170	120	80	105		35
		11	576	540.9		180	130	90	110		42
JAC6205F-PJW	152.4	10	539	493.2	21	180	130	90	110		43
		11	586	540.9		220	160	110	135		62
JAC10152F-SJW JAC6205FP-SJW (Plastic roller)	152.4	10	528	493.2	16	170	120	80	105		35
		11	576	540.9		180	130	90	110		42
JAC6205F-SJW JAC6205FP-SJW (Plastic roller)	152.4	10	539	493.2	21	180	130	90	110		43
		11	586	540.9		220	160	110	135		62
JAC21152F-SJW JAC21152FP-SJW (Plastic roller)	152.4	10	542	493.2	21	180	120	80	110		41
		11	590	540.9		220	160	110	135		68

Note: 1. Indicate drive shaft diameter and key dimensions, driven shaft sleeve outer diameter, and hub dimensions when ordering.

2. Standard number of teeth is listed. Tsubaki can manufacture sprockets with teeth numbers other than listed above. Contact a Tsubaki representative for more details.

3. Sprockets must be made to order if chain rollers are SUS300 series stainless steel or plastic.

4. Shaded items are for reference and not standard dimensions. Indicate dimensions and number of teeth on your inquiry, or attach a drawing.

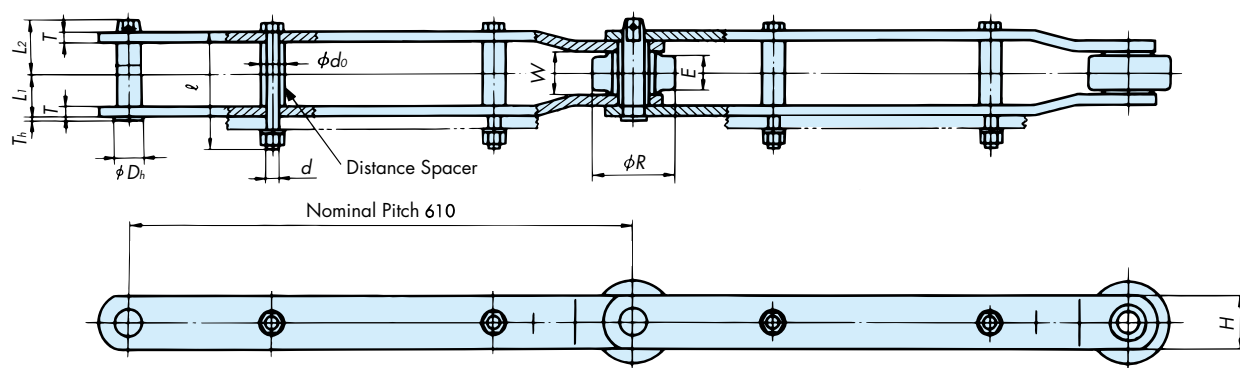
5. The above dimensions are nominal dimensions and may differ from actual dimensions.



WAC Chain for Water Screens



WAC Chain for water screens is used for automatic water screens, such as those found in water intakes at thermal power plants. The pins, bushes, and rollers use tempered SUS400 series stainless steel, giving them the corrosion and wear resistance necessary to operate continuously in both seawater and air. There are special plastic bearings in the roller inner diameter, allowing for lube-free operation in seawater for easy maintenance.



Size	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Roller		Inner Width W	Plate		Pin				Distance Spacer			Approx. Mass kg/m
			Dia. R	E		T	H	L1	L2	Th	Dh	d0	d	R	
WAC25610	245 {25000}	216 {22000}	100	41	50	9.5	63.5	45.0	57.0	4	28	27.2	M16	130	17.0
WAC32610	314 {32000}	275 {28000}	100	41	50	12.7	63.5	51.5	65.5	4	32	27.2	M16	140	20.5
WAC45610	441 {45000}	382 {39000}	100	41	50	12.7	76.2	51.5	65.5	4	32	27.2	M16	145	23.8
WAC55610	539 {55000}	461 {47000}	100	41	50	12.7	76.2	51.5	65.5	4	32	27.2	M16	140	23.8
WAC65610	637 {65000}	549 {56000}	110	41	50	16	76.2	58.7	76.3	4	38	27.2	M20	165	30.0
WAC75610	735 {75000}	628 {64000}	110	58	66.7	16	80	67.0	84.0	4	38	27.2	M20	180	34.0
WAC100610	981 {100000}	834 {85000}	130	58	66.7	22	100	79.0	98.5	8	40	34	M22	210	53.1
WAC120610	1180 {120000}	1000 {102000}	150	62	70	22	115	80.7	100	8	46	34	M22	210	64.5

Note: Please indicate plate coating. Dimensions are for reference only. Specify dimensions in a drawing when making your inquiry. The above dimensions are nominal dimensions and may differ from actual dimensions.

Model Numbering Example

(Made to Order)

Base Chain

WAC25610+400L 1 H

Size

No. of Links

Quantity

Unit (strand)

Link

WAC25610+OL 1 K

Size

Part

Quantity

Unit (piece)

Note: Specify the model number and contact a Tsubaki representative for a quote.

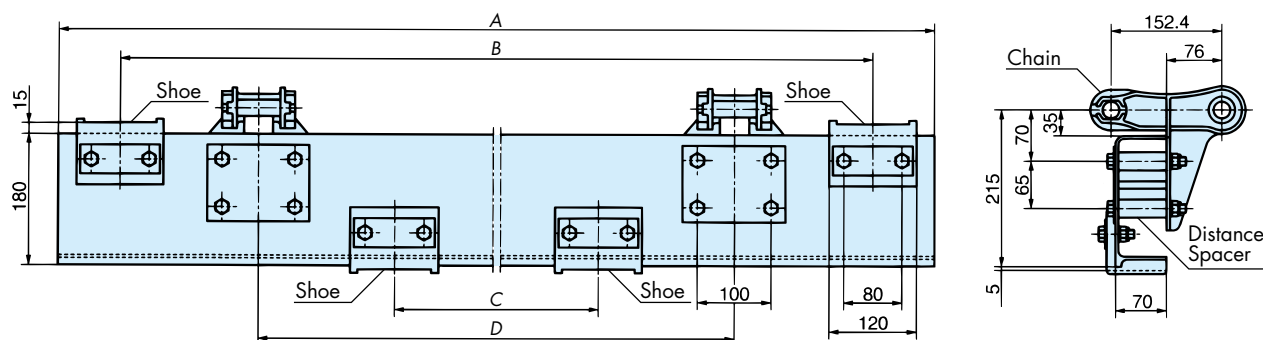
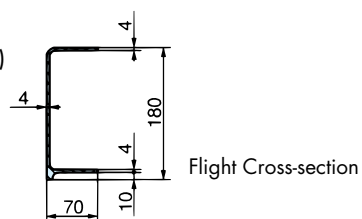
Accessories for Collection Tank Chains

F Type Flight

Specific Gravity: 1.9
Mass: 2.4kg/m
Material: FRP
Color: Blue

Model Numbering Example

AC-FL (A dimensions)-(B dimensions)-(C dimensions)-(D dimensions)



Note: 1. Add A, B, C, D dimensions (unit: mm) to the model number when ordering flights, and ask a Tsubaki representative for a quote.
Attach the SF4 attachment, distance spacer, flight, and retainer plate, or flight and shoe, with SUS300 bolts, nuts, washers, spring washers, etc.
(Flights do not include shoes or distance spacers.)
2. Contact a Tsubaki representative when minimum order quantity is under 100m.

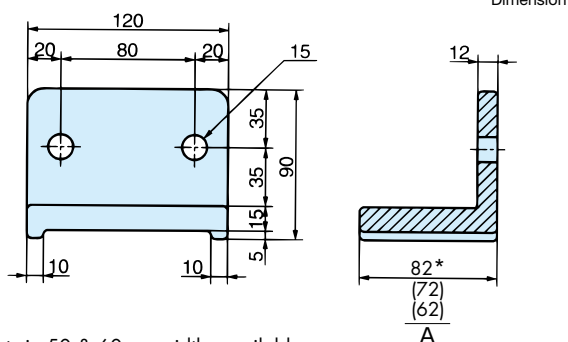
Shoe

Dual Collars

Specific Gravity: 1.14
Mass: 260g (when width is 70mm)
Material: Plastic
Color: Black

Model Numbering Example

AC-FL-SHD82



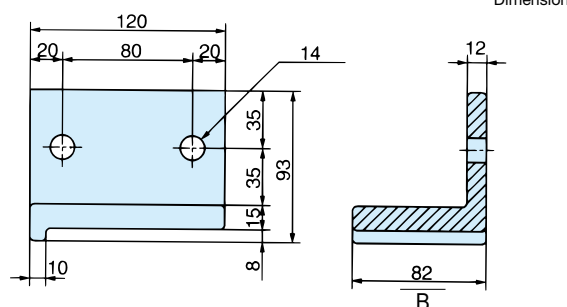
* Flights in 50 & 60mm widths available.
Other dimensions are the same as above.

Single Collar

Specific Gravity: 1.17
Mass: 290g
Material: Polyurethane
Color: Black

Model Numbering Example

AC-FL-SHS82



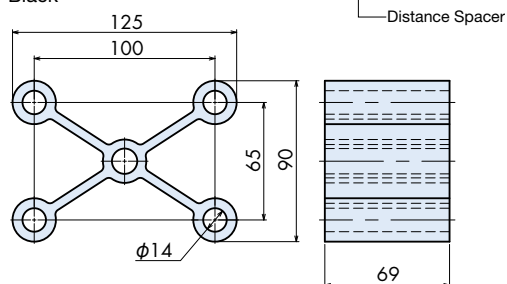
Note: Tsubaki can custom make shoes in other dimensions.
Contact a Tsubaki representative for further details.

Distance Spacer

Specific Gravity: 1.4
Material: Plastic
Mass: 240g
Color: Black

Model Numbering Example

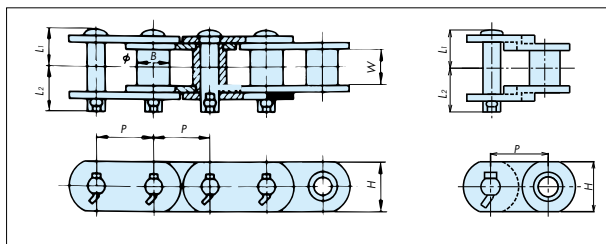
AC-FL-DIS



Note: The above dimensions are nominal dimensions and may differ from actual dimensions.



BF Drive Chain



All parts use tempered SUS400 series stainless steel, giving BF chains high strength and resistance to pitting. JIS roller chain sprockets can be used as is.

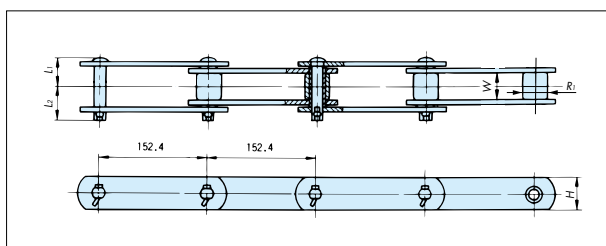


Model Numbering Example **BF140E+100L-PR**

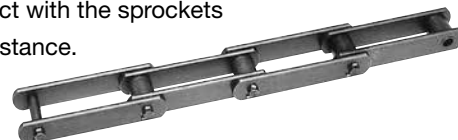
Size	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Pitch P	Bush Dia. B	Inner Link Inner Width W	Plate Height H	Pin		Approx. Mass kg/m
							L ₁	L ₂	
BF120N*	108 {11000}	99 {10100}	38.1	22.23	25.4	33.0	27.5	31.5	6.8
BF140*	137 {14000}	127 {13000}	44.45	25.40	25.4	38.0	29.5	37.0	9.5
BF140E	147 {15000}	132 {13500}				44.0			10.6
BF160*	181 {18500}	167 {17000}	50.8	28.58	31.7	44.0	34.5	40.5	10.9
BF160E	233 {23800}	196 {20000}				44.5	35.5	38.5	12.5
BF200	309 {31500}	284 {29000}	63.5	39.69	38.1	54.0	45.5	50.5	20.7
BF200E	353 {36000}	324 {33000}				44.0	44.0		20.9
BF240	392 {40000}	363 {37000}	76.2	47.62	47.6	63.5	53.5	57.5	27.8
ACS4124	186 {19000}	167 {17000}	103.2	43.7	37.0	44.0	37.0	39.5	10.5
BF2120*	147 {15000}	137 {14000}	76.2	22.23	26.0	38.0{36.0}	29.0	33.0	5.9

Note: Values in parentheses () are outer plate dimensions. The above dimensions are nominal dimensions and may differ from actual dimensions.
* BF120N, BF140, BF160, and BF2120 links resemble offset links and look different from the above.

ACRD Drive Chain



A chain with rollers made of tempered SUS400 series stainless steel. Rolling contact with the sprockets increases wear resistance.

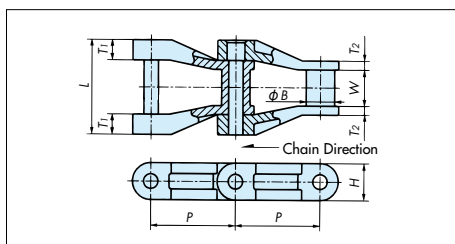


Model Numbering Example **ACRD10+100L-PR**

Size	Pitch P	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Inner Width W	Roller Dia. R ₁	Pin		Plate Height H	Approx. Mass kg/m
						L ₁	L ₂		
ACRD08	101.6	142 {14500}	132 {13500}	27.6	22.2	31	34.5	38	6
ACRD10	127	186 {19000}	172 {17500}	30.6	29	33	36	44{38}	6.4
ACRD12	152.4	235 {24000}	216 {22000}	38.9	34.9	39.4	42	44.5	8.2
ACRD17	152.4	353 {36000}	324 {33000}	38.1	40.1	44	50	54	12.8

Note: Values in parentheses () are outer plate dimensions. The above dimensions are nominal dimensions and may differ from actual dimensions.

EPCD Drive Chain



A plastic drive chain for collectors.



Model Numbering Example

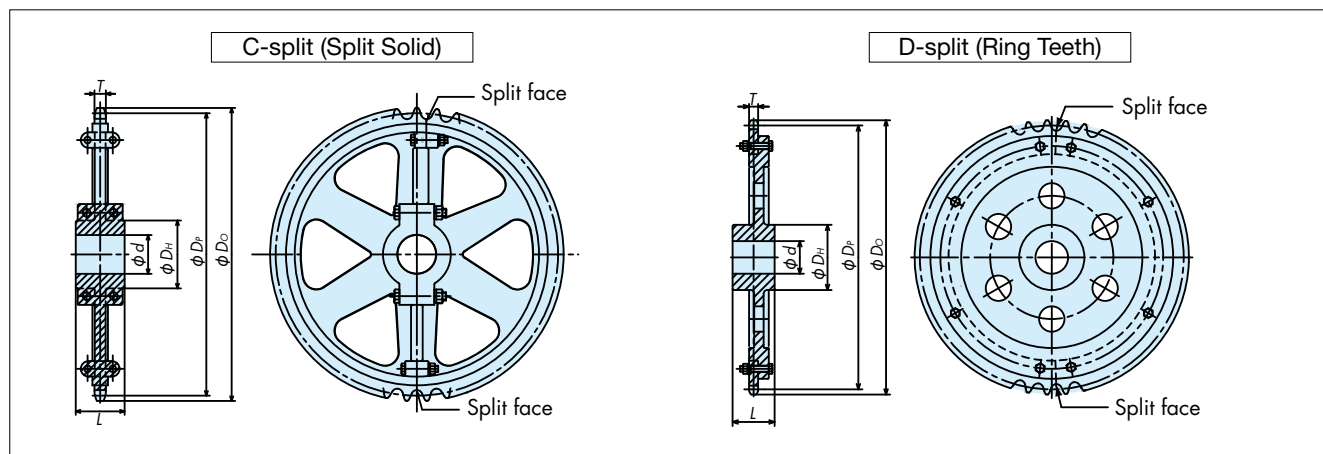
Base Chain **EPC78D+100L**
Link **EPC78D-OL**

Note: This model differs from EPC chain.

Size	Avg. Tensile Strength kN{kgf}	Min. Tensile Strength kN{kgf}	Pitch P	Barrel Dia. B	Link Inner Width W	Outer Width L	Plate Height H	Approx. Mass kg/m
EPC78D	19.6 {2000}	17.7 {1800}	66.27	22.2	27.4	74.3	28.6	2.3
EPC90D	37.3 {3800}	32.4 {3300}	90	35	30	82.9	40.0	2.9

Note: 1. Plastic links are black and highly corrosion resistant.
2. The above dimensions are nominal dimensions and may differ from actual dimensions.

Drive Sprockets



Applicable Size	Pitch	No. of Teeth	Outer Dia.	Pitch Circle Dia.	Tooth Width	Hub Dim.		Pilot Bore Dia. d	Max. Shaft Dia.	Type/Material	Approx. Mass kg
						Dia. D _H	Length L				
ACRD08	101.6	12	419	392.6	22	140	115	50	85	1C (block teeth): SS400 (hub) SCS2 (teeth)	26
		24	561	778.4		160	135	60	95		77
ACRD10	127	10	528	411	25	150	125	50	90		29
		18	576	731.4		180	150	70	110		74
ACRD12	152.4	9	565	445.6	30	160	135	60	95		40
		15	539	733		190	160	80	115		90
ACRD17	152.4	9	542	445.6	30	180	150	70	110		45
		15	590	733		230	200	100	140		110

Applicable Size	Pitch	No. of Teeth	Outer Dia.	Pitch Circle Dia.	Tooth Width	Hub Dim.		Pilot Bore Dia. d	Max. Shaft Dia.	Type/Material	Approx. Mass kg
						Dia. D _H	Length L				
BF120N	38.10	15	202	183.25	24	110	100	55	65	C, C-split: SCS2 D-split : FCD600 (hub) SCS2 (teeth) Only C Type is available with 25 or fewer teeth.	9
		23	300	279.8		120	100	55	75		17
		40	507	485.6		170	130	80	105		49
		45	568	546.19		170	130	75	105		50
BF140 BF140E	44.45	11	178	157.78	24	100	100	40	60		8
		17	350	326.44		120	100	55	70		21
		35	521	495.88		150	100	50	90		45
		40	591	566.54		170	110	60	105		60
		45	662	637.22		170	110	60	105		73
		50	733	707.91		170	110	60	105		87
BF160 BF160E	50.80	11	204	180.31	30	115	120	40	70		12
		17	302	276.46		130	120	65	80		18
		23	400	373.07		130	120	55	80		29
		25	433	405.32		190	170	80	115		55
		30	514	485.99		170	110	60	105		55
		35	595	566.71		170	110	60	105		71
		40	676	647.47		200	130	70	125		98
		45	757	728.25		200	130	70	125		119
		50	838	809.04		200	130	70	125		142
		50	838	809.04		200	130	70	125		142
BF200 BF200E	63.50	11	254	225.39	36	145	120	50	85		21
		24	520	486.49		160	110	70	95		61
		35	744	708.39		250	160	90	155		150
		40	845	809.34		250	160	90	155		185
		45	946	910.31		280	180	100	175		242
BF240	76.20	11	305	270.47	45	150	120	50	90		29
		37	941	898.52		250	150	125	155		250
		40	1014	971.21		250	160	125	155		293

Note: 1. Standard number of teeth is listed. Tsubaki can manufacture sprockets with teeth numbers other than listed above.

Contact a Tsubaki representative for more details.

2. Shaded items are for reference and not standard dimensions. Indicate dimensions and number of teeth on your inquiry, or attach a drawing.

3. The above dimensions are nominal dimensions and may differ from actual dimensions.



PT. MASA JAYA PERKASA

M info@masajayaperkasa.com

**Jl. Hayam Wuruk No. 76,
Jakarta Barat, DKI Jakarta 11160**

(+62)21-649-6496

(+62)852-1116-7713