Conveyor Chain Specification Codes

Conveyor chains are categorized as in the table, according to the component materials and heat treatment used.

■Table of Specification Codes

Application Category	Code	Link Plate	Pin	Bush	Roller		Main Characteristics
					S, M	R, F	
Standard series	DH	CS	ASⒽ	CSⒽ		CS	• Economical • General-purpose • Quick delivery
Strong series	AH	CSⒽ ASⒽ	ASⒽ			CSⒽ ASⒽ	• Around double the breakage strength of DH, with the same dimensions. • Improved wear resistance between pins and bushes. • Improved wear resistance between bushes and rollers.
Applied series	GH	CS	ASⒽ	CSⒽ			• Improved wear resistance between bushes and rollers.
	CH	CS	ASⒽ			CSⒽ ASⒽ	• Improved wear resistance between pins and bushes. • Improved wear resistance between bushes and rollers.
	BH	CSⒽ ASⒽ	ASⒽ			CSⒽ ASⒽ	• Around double the breakage strength of CH, with the same dimensions. • Improved wear resistance between pins and bushes. • Improved wear resistance between bushes and rollers. • Special heat treatment for pin surface.
High wear resistance series	VK1	CSⒽ ASⒽ	ASⒽ	ASⒽ*2	ASⒽ		• Improved wear resistance between pins-bushes compared with AH. • Special heat treatment for bushes.
	VK2	CSⒽ ASⒽ	ASⒽ*2	ASⒽ*2		CSⒽ ASⒽ	• Improved wear resistance between pins-bushes, bushes-roller. • Special heat treatment for pins and bushes.
	VK3	CSⒽ ASⒽ	ASⒽ*2	ASⒽ*3	CSⒽ ASⒽ		• Improved wear resistance between pins-bushes, bushes-roller. • Special heat treatment for pins and bushes. • Special steel for bushes.
	VP1*1	CSⒽ ASⒽ	ASⒽ	ASⒽ*2	ASⒽ*2		• Improved wear resistance between bushes- roller compared with AH. • Special heat treatment for bushes and roller.
	VP2*1	CSⒽ ASⒽ	ASⒽ	ASⒽ*3	ASⒽ*3		• Improved wear resistance between bushes-roller. • Special steel and heat treatment for bushes and roller.
Environment-resistant series	PH	SUS400Ⓗ					• Improved corrosion and heat resistances. • SUS400 series materials used for all components.
	YH	CSⒽ ASⒽ	SUS400Ⓗ				• Improved corrosion and heat resistances. • SUS400 series materials used for pins, bushes and rollers.
	SH	SUS300					• Even better corrosion and heat resistances than PH. • SUS300 series materials used in all components.

Key to codes

CS : Carbon Steel
AS : Alloy Steel
SUS400 : 400-series Stainless Steel
SUS300 : 300-series Stainless Steel
Ⓗ : Heat treated
＊1 VP1-A and VP2-A, which have wear and corrosion resistance, are also available. See p.30
＊2 Special Heat Treatment
＊3 Special Steel + Special Heat Treatment

Table of Average Ultimate Tensile Strengths

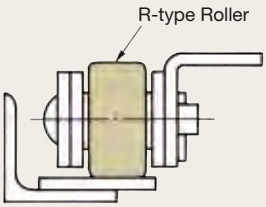
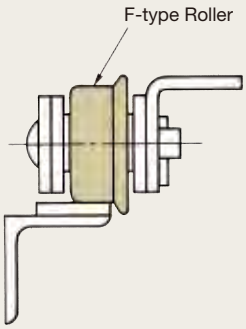
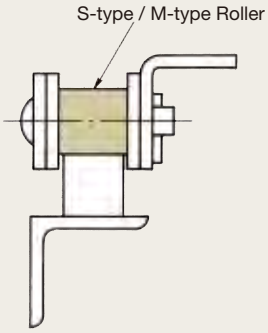
Specification Code / Chain No.	DH, GH, CH		AH, BH, YH VK1-3, VP1-2		PH		SH	
	kN	kgf	kN	kgf	kN	kgf	kN	kgf
HRS03075 03100 03150	29.4	3000	69.6	7100	53.9	5500	33.3	3400
HRS05075 05100 05150	68.6	7000	142.2	14500	107.9	11000	68.6	7000
HR10105	53.9	5500	98.1	10000	83.4	8500	48.1	4900
HR10108	83.3	8500	142.2	14500	122.6	12500	68.6	7000
HR15208	83.3	8500	142.2	14500	142.2	14500	68.6	7000
HR10011 15011	112.7	11500	225.6	23000	176.5	18000	107.9	11000
HR7813	117.6	12000	240.3	24500	186.3	19000	122.6	12500
HR10113	137.2	14000						
HR15215 20015 25015	186.2	19000	279.5	28500	264.8	27000	132.4	13500
HR15219 20019 25019 30019	245.0	25000	387.4	39500	357.9	36500	186.3	19000
HR25026 30026 45026	313.8	32000	519.8	53000	460.9	47000	250.1	25500
HR30048 45048 60048	475.6	48500	681.6	69500	—	—	—	—
HR30054 45054 60054	529.2	54000	1029.7	105000	—	—	—	—

Note

Values in this table are set from calculation of tensile strength by engineering design. This value is not assured tensile strength. Miinimum tensile strength is 85% of average tensile strength.

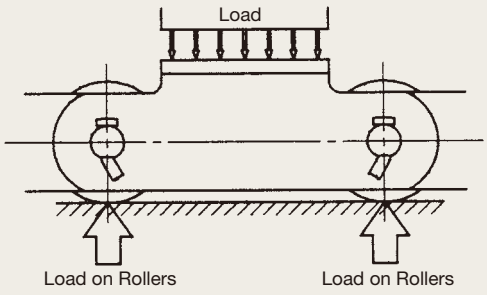
Roller Forms

The roller forms for conveyor chains can be broadly classified as below.

Roller Form	Diagram	Characteristics
R-type Rollers  RTYPE		The external diameter of the roller exceeds the height of the link plate, making this the basic form for a conveyor chain. Normally used in flat or inclined conveyors.
F-type Rollers  FTYPE		This type has a flange added to the form of an R-type roller, so that it uses the rail edge as a guide while moving. Normally used in flat or inclined conveyors.
S-type and M-type Rollers  S,MTYPE		The external diameter of the roller is smaller than the height of the link plate, with the aim of avoiding wear to the sprockets and to the chain bushes. M-type rollers have larger external diameters than S-type rollers.

Allowable Load on Rollers

For conveyor chains which move while carrying a load, the allowable load on the rollers must be considered when selecting the chain. The allowable loads that can be borne by well-lubricated rollers are as described in the table below.



Allowable load per roller

Chain No.	R-type and F-type Rollers				S-type and M-type Rollers	
	Normal series		Strong series			
	kN	kgf	kN	kgf	kN	kgf
HRS03075 03100 03150	0.54	55	0.88	90	0.54	55
HRS05075 05100 05150	1.03	105	1.71	175	1.03	105
HR10105	0.93	95	1.57	160	0.93	95
HR10108	1.27	130	2.11	215	1.27	130
HR15208	1.42	145	2.35	240	1.42	145
HR10011 15011	1.77	180	2.94	300	1.77	180
HR7813 10113	2.11	215	3.38	345	2.11	215
HR15215 20015 25015	2.50	255	4.17	425	2.50	255
HR15219	3.14	320	5.10	520	3.14	320
HR20019 25019 30019	4.12	420	6.86	700	4.12	420
HR25026 30026 45026	5.39	550	8.82	900	5.39	550
HR30048 45048 60048	7.64	780	12.5	1280	7.64	780
HR30054 45054 60054	10.1	1030	16.7	1700	10.1	1030

Note

Materials used for rails must have tensile strength of at least 400N/mm^2 (41kgf/mm^2).