

KITO Chain Sling 100

(S5 Model)

Assembly Manual

For those assembling the chain sling

- This manual is intended for those having expertise*.
- When assembling KITO Chain Sling 100 (S5 Model), prepare KITO Chain Sling 100 Catalog (S5 Model) in addition to this document. Unless a catalog is available at hand, contact our nearest office.
- Prior to starting assembly, be sure to read this Assembly Manual thoroughly to familiarize yourself with all of product knowledge, safety information and precautions.
- Please read and understand the information in the Owner's Manual as well.

* Personnel familiar with the structure and mechanism of the chain sling and certified to have expertise by a business entity

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● **When assembling the chain sling, be sure to prepare “KITO Chain Sling 100 Catalog” (S5 Model).**

● **This Assembly Manual is intended for the sling chains and components (hooks and fittings) mentioned in the catalog of “KITO Chain Sling 100” (S5 Model) (hereinafter referred to as the catalog).**

● **To distinguish from the old products, compare the embossed type indication and the outer dimensions of the sling chains and fittings with the catalog.**

1. Safety Precautions

This Assembly Manual classifies the precautions into three categories of “DANGER”, “WARNING” and “CAUTION”.

⚠ DANGER : Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING : Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION : Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Further, the event described in **⚠ CAUTION** may result in serious accident depending on the situation. Both **⚠ DANGER** and **⚠ CAUTION** describe important contents. Please follow the instruction.

2. Determination of Specifications

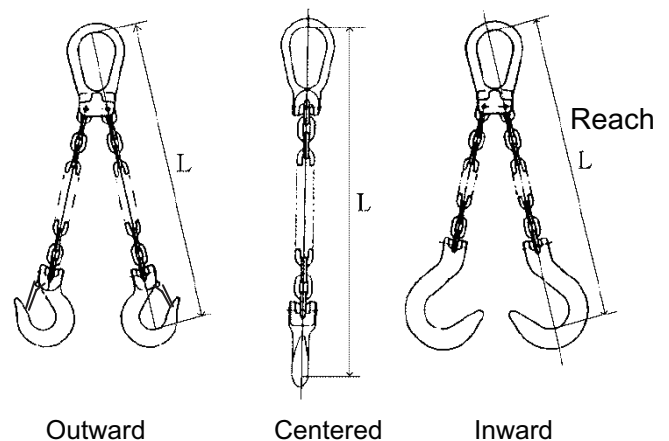
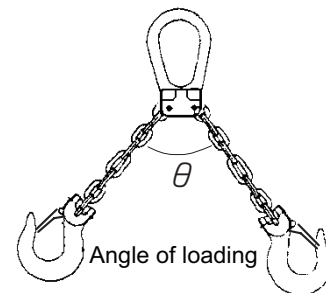
⚠ CAUTION The first step for safety is to prepare an adequate sling suitable for material-handling work. Before assembly, check customer’s order specifications.

Sling specification selection item				Order spec.	
Type	No. of chain legs	Single (Single leg)		:S	
		Double (Double legs)		:D	
		Triple (Triple legs)		:T	
		Quadruple (Quadruple legs)		:Q	
	Slinging method	Slinging with hooks	Clevis	Top fitting	
				Bottom fitting	
			Eye	Top fitting	
				Bottom fitting	
		Direct slinging	Endless	Top fitting (Clevis)	
				Top fitting (Eye)	
			Choke hitch	Bottom fitting (Clevis)	
				Bottom fitting (Eye)	
Double choke hitch	Top fitting (Clevis)				
	Top fitting (Eye)				
Bottom hook direction in slinging with hooks			Outward		
			Centered		
			Inward		

- When using the eye-type Large Master Link HMG/HMH or Master Link HMF with Sub Links for the top fitting, read the working load limit from the exclusive columns of “Table 1. Slinging Methods and Working Load Limits”.

Usage condition	Order spec.
Working load limit (t)	
Angle of loading θ (°)	
Ambient temperature (°C)	
Reach L (m)	

- Upon receiving an order, be sure to check the slinging method and angle of loading.



Directions of hooks and fittings

Adjust the direction of the bottom hook (bottom fitting) depending on the number of chain links, odd or even.

3. Preparation of Components

3-1 Selecting the Chain Diameter



Overload is strictly prohibited. Check whether the sufficient working load limit and chain diameter have been selected with respect to the actual load, considering the working conditions, working environment, etc.

- Based on the working load limit, angle of loading and type, select the chain diameter from “Table 1. Slinging Methods and Working Load Limits”.
- In case of the following working conditions, reduce the working load limit to 80% to use the chain sling.
 1. Work that is carried out with high frequency or when the working load is applied continuously
 2. Work in which vibration is applied continuously
 3. Usage by incorporation in an automatic line
- High-temperature work is subject to thermal effect, reducing the working load. Seeing “Table 2. Working Load Limits due to Temperature”, take a reduction rate into account to select a chain diameter.

Table 1. Slinging Methods and Working Load Limits (Unit: t)

Slinging method	Slinging with hooks									Direct slinging															
	Single leg			Double legs			Triple and quadruple legs			Endless						Choke hitch									
	Single leg	Double legs	Triple and quadruple legs	Double legs		Quadruple legs				Single leg	Double legs			Double choke hitch											
Angle of loading θ	—	60°	90°	120°	60°	90°	120°	60°	90°	120°	60°	90°	120°	60°	90°	120°	60°	90°	120°	—	60°	90°	120°	—	
Chain diameter (mm)	ø6.0	1.1	1.7	1.5	1.1	2.4	2.1	1.5	1.7	1.5	1.1	1.2	1.1	0.7	2.4	2.1	1.5	1.8	1.5	1.1	0.7	1.2	1.1	0.7	1.1
	ø7.0	1.5	2.4	2.1	1.5	3.2	2.8	2.0	2.4	2.1	1.5	1.6	1.5	1.0	3.2	2.8	2.0	2.5	2.1	1.5	1.0	1.6	1.5	1.0	1.5
	ø8.0	2.0	3.2	2.8	2.0	5.0	4.0	2.8	3.2	2.8	2.0	2.2	2.0	1.4	5.0	4.0	2.8	3.6	2.8	2.0	1.4	2.2	2.0	1.4	2.0
	ø10.0	3.2	5.1	4.5	3.2	8.0	6.4	4.5	5.1	4.5	3.2	3.6	3.2	2.2	8.0	6.4	4.5	5.6	4.5	3.2	2.2	3.6	3.2	2.2	3.2
	ø13.0	5.2	8.0	7.3	5.2	12.5	10.4	7.3	8.0	7.3	5.2	5.7	5.2	3.6	12.5	10.4	7.3	9.0	7.3	5.2	3.6	5.7	5.2	3.6	5.2
	ø16.0	8.0	12.5	11.2	8.0	20.0	16.0	11.2	12.5	11.2	8.0	9.0	8.0	5.6	20.0	16.0	11.2	14.0	11.2	8.0	5.6	9.0	8.0	5.6	8.0
	ø20.0	12.5	20.0	18.0	12.5	32.0	25.0	18.0	20.0	18.0	12.5	14.0	12.5	9.0	32.0	25.0	18.0	22.4	18.0	12.5	9.0	14.0	12.5	9.0	12.5
When using the Large Master Link HMG/HMH	ø6.0	1.1	1.7	1.5	1.1	2.0	2.0	1.5	1.7	1.5	1.1	1.2	1.1	0.7	2.0	2.0	1.5	1.8	1.5	1.1	0.7	1.2	1.1	0.7	1.1
	ø7.0	1.5	2.0	2.0	1.5	3.2	2.8	2.0	2.0	2.0	1.5	1.6	1.5	1.0	3.2	2.8	2.0	2.5	2.1	1.5	1.0	1.6	1.5	1.0	1.5
	ø8.0	2.0	3.2	2.8	2.0	5.0	4.0	2.8	3.2	2.8	2.0	2.2	2.0	1.4	5.0	4.0	2.8	3.6	2.8	2.0	1.4	2.2	2.0	1.4	2.0
	ø10.0	3.2	5.0	4.5	3.2	8.0	6.4	4.5	5.0	4.5	3.2	3.6	3.2	2.2	8.0	6.4	4.5	5.6	4.5	3.2	2.2	3.6	3.2	2.2	3.2
	ø13.0	5.0	8.0	7.3	5.2	11.5	10.4	7.3	8.0	7.3	5.2	5.7	5.2	3.6	11.5	10.4	7.3	9.0	7.3	5.2	3.6	5.7	5.2	3.6	5.2
	ø16.0	8.0	11.5	11.2	8.0	—	—	—	11.5	11.2	8.0	9.0	8.0	5.6	—	—	—	—	—	—	5.6	9.0	8.0	5.6	8.0
	ø20.0	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.0	—	—	—	—
When using the Master Link HMF with Sub Links	ø6.0					2.8	2.2	1.5							2.8	2.2	1.5	1.9	1.5	1.1					
	ø7.0					3.8	3.0	2.1							3.8	3.0	2.1	2.6	2.1	1.5					
	ø8.0					5.0	4.0	2.8							5.0	4.0	2.8	3.5	2.8	2.0					
	ø10.0	—	—	—	—	8.0	6.4	4.5	—	—	—	—	—	—	8.0	6.4	4.5	5.6	4.5	3.2	—	—	—	—	—
	ø13.0					13.0	10.4	7.3							13.0	10.4	7.3	9.1	7.3	5.2					
	ø16.0					20.0	16.0	11.2							20.0	16.0	11.2	14.0	11.2	8.0					
	ø20.0					32.0	25.0	18.0							32.0	25.0	18.0	22.4	18.0	12.5					

○ For slinging methods that have a “*” mark, in situations where the chain is used by hooking on a grab hook (in order to adjust the length, etc.) the working load limits become 70% of the values shown in the above table. For slinging methods that do not have a “*” mark, no load reduction is required.
 ○ The bold-faced numerical values in the tables are exclusive values for “When using the Large Master Link HMG/HMH” and “When using the Master Link HMF with Sub Links” respectively.

Table 2. Working Load Limits due to Temperature

Temperature	Working load limit (%)
Over -40°C to 100°C	100
Over 100°C to 200°C	90
Over 200°C to 300°C	75
Over 300°C to 350°C	65
Over 350°C to 400°C	60
Over 400°C	Unacceptable

When using the chain sling in a high-temperature environment, or when using it again under normal temperature after using in a high-temperature atmosphere, reduce the working load limit as shown in Table 2 according to the temperature.

■ Select the chain diameter based on the customer's order specifications.

<Selection example> Select the chain size, naming as an example the assembled products mentioned in the catalog. (See the catalog for the outer shape of the sling.)

Conditions {
 assembled products: Double-leg sling D-VD-VSL4
 Actual load: 2.5 t
 Angle of loading: 90°
 Ambient temperature: Normal temperature

The chain diameter of 8 mm is selected from "Table 1. Slinging Methods and Working Load Limits".

3-2 Preparing the Components (Hooks and Fittings)

■ Select the top and bottom fittings based on the chain diameter and number of chain legs selected in 3-1 in line with the customer's order specifications.

■ In case of the assembled products in the catalog, select the required components, seeing "Chapter 5. List of Required Chain Length and Required Components for assembled products".

■ A chain pin kit is enclosed in the same package as the fittings and hooks.

<Selection example> In case of the assembled products, chain diameter = 8 mm

In case of Clevistype

D-VD-VSL4

clevis Master Link VD (VD20807), 1 pc.
 Sling hook VSL (VSL4080), 2 pcs.

Q-VD-VSL4

clevis Master Link VD (VD21008), 1 pc.
 Dual connector VB (VB2080), 2 pcs.
 Sling hook VSL (VSL4080), 4 pcs.

In case of Eyetype

Q-HMM-HTL4

Master Link HMM (HMM1310), 1 pc.
 Sling hook HTL (HTL4080), 4 pcs.
 Hi-coupling HC (HC3080), 8 pcs.
 Hi-coupling HC (HC3100), 2 pcs.

Q-HMF-HTL4

(Master Link with Sub Links)

Master Link HMF (HMF08), 1 pc.
 Sling hook HTL (HTL4080), 4 pcs.
 Hi-coupling HC (HC3080), 8 pcs.

(See the catalog for the outer shape of the sling.)



Do not cut, extend, or weld the load chains. Doing so may break the chains.



The double, triple and quadruple types may use the fittings components such as clevis Master Links or Master Links one or two sizes larger than the chain diameter. Select them carefully.

3-3 Determining the Chain Length



Cut the chain with a high-speed cutting machine or a chain cutter.

3-3-1 Calculating the assembled products

■ See "Chapter 5. List of Required Chain Length and Required Components for assembled products". See the catalog for the P-dimension of the fittings components.

(1) Clevis type

$$\boxed{\text{Reach L dimension}} - \boxed{\text{Top fitting P dimension}} - \boxed{\text{Bottom fitting P dimension}} = \boxed{\text{Required chain length}}$$

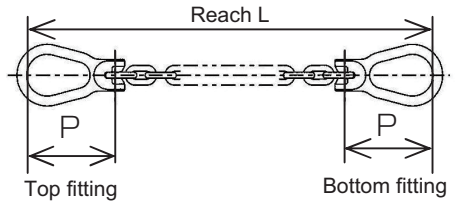
$$\boxed{\text{Required chain length}} / \boxed{\text{Selected chain pitch}} = \boxed{\text{No. of links}}$$

<Selection example> In case of type S-VE-VE, chain diameter = 6 mm, reach L = 2.0 m

$$2000 - 115 - 115 = 1770 \text{ mm}$$

$$1770 / 18.0 = 98.3 \text{ links} \rightarrow \boxed{\text{No. of required links}} = 99$$

- Round up the chain links so that it will not be shorter than the reach L dimension.
- For the sum of P dimension of the fittings components and the chain pitch, see “Chapter 5. List of Required Chain Length and Required Components for assembled products”.



(2) Eye type

$$\boxed{\text{Reach L dimension}} - \boxed{\text{Top fitting P dimension}} - \boxed{\text{Hi-coupling P dimension}} - \boxed{\text{Hi-coupling P dimension}} - \boxed{\text{Bottom fitting P dimension}} = \boxed{\text{Required chain length}}$$

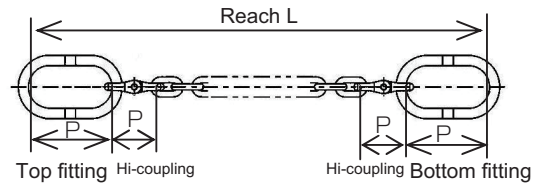
$$\boxed{\text{Required chain length}} / \boxed{\text{Selected chain pitch}} = \boxed{\text{No. of links}}$$

<Selection example> In case of type S-HMM-HMM, chain diameter = 6 mm, reach L = 2.0 m

$$2000 - 110 - 48 - 48 - 110 = 1684 \text{ mm}$$

$$1684 / 18.0 = 93.5 \text{ links} \rightarrow \boxed{\text{No. of required links}} = 95$$

- Round up the chain links so that it will not be shorter than the reach L dimension.
- The number of required links is 94 according to the calculation result, however, 95 links are required so as to direct the top and bottom fittings as shown in the figure.
- For the sum of P dimension of the fittings components and the chain pitch, see “Chapter 5. List of Required Chain Length and Required Components for assembled products”.

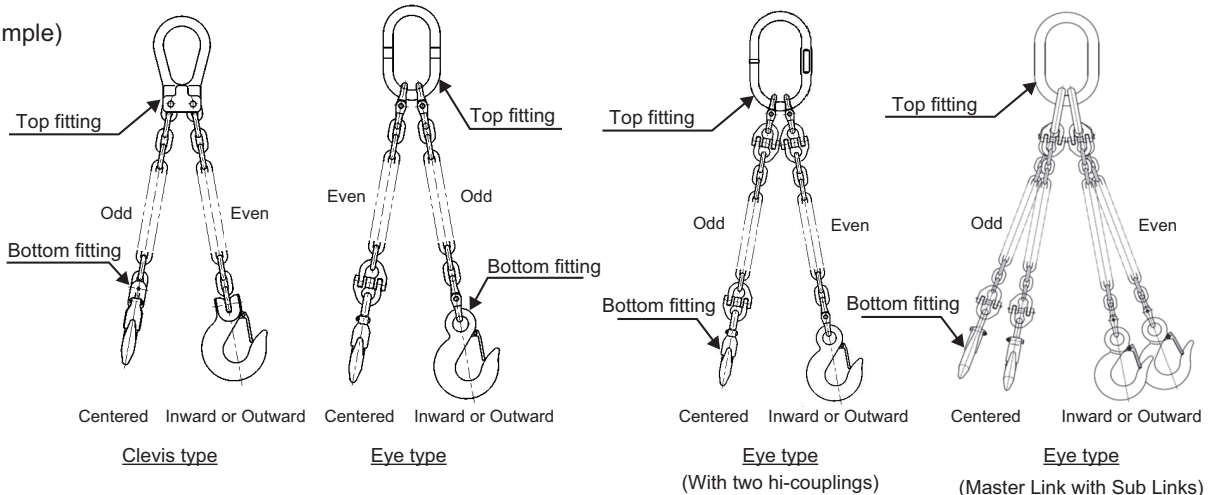


CAUTION For the endless type slings (D-VD-OO, Q-VD-OO, D-HMM-OO, Q-HMM-OO), determine the chain length so that the number of chain links will be always odd. Even links causes a twist of chain.

(3) Odd links and even links versus direction of the bottom fitting

- The bottom fitting is directed differently depending on the number of chain links, odd or even. Note particularly when the direction of the bottom fitting is specified by the customer’s specifications. The fittings of the assembled products shall be directed as shown in the catalog.

Example)



4. Assembly Procedures



Wrong assembly may result in death or serious injury.

Observe the assembly procedures to assemble the chain sling correctly.

4-1 Clevis Type

4-1-1 Assembly

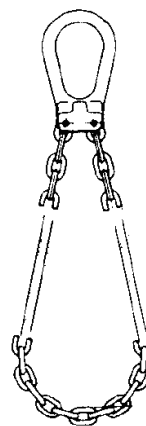
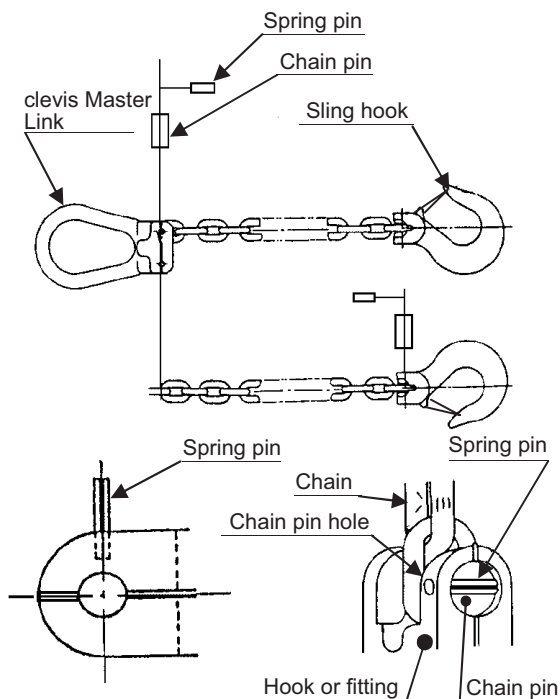


A removed spring pin is not reusable.

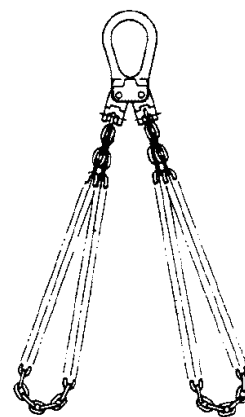
- Check if all the constituent components are included.
- Use the chain pins and spring pins which are accompanying the fittings and hooks.
- Check the types of the replacement chain pins and spring pins (chain pin kit) and use the conforming ones.
- In case of the double, triple and quadruple legs, check if each chain length has the same length.
- During work, care should be taken not to damage coating of the fittings, etc.
- Arrange the components on the workbench and connect the chain and fitting with the chain pin.
- Ensure that the weld area of the links at both ends of the chain to be assembled into the fitting assembly are set in the same direction as other links.
- Drive the spring pin firmly into the fitting until it is fully embedded.
(To facilitate work, it is recommended to insert the spring pin beforehand in such a manner that it will not project into a chain pin hole in the fitting.)
- In case of the endless type (D-VD-OO and Q-VD-OO), set the chain length so that the number of links will be odd, check for any twist of chain, and assemble.



After assembly, check again if the chain pin has been inserted and spring pin has been driven into until it has been fully embedded, if the chain is free from twist, if the chain length is the same, and so on.



D-VD-OO



Q-VD-OO

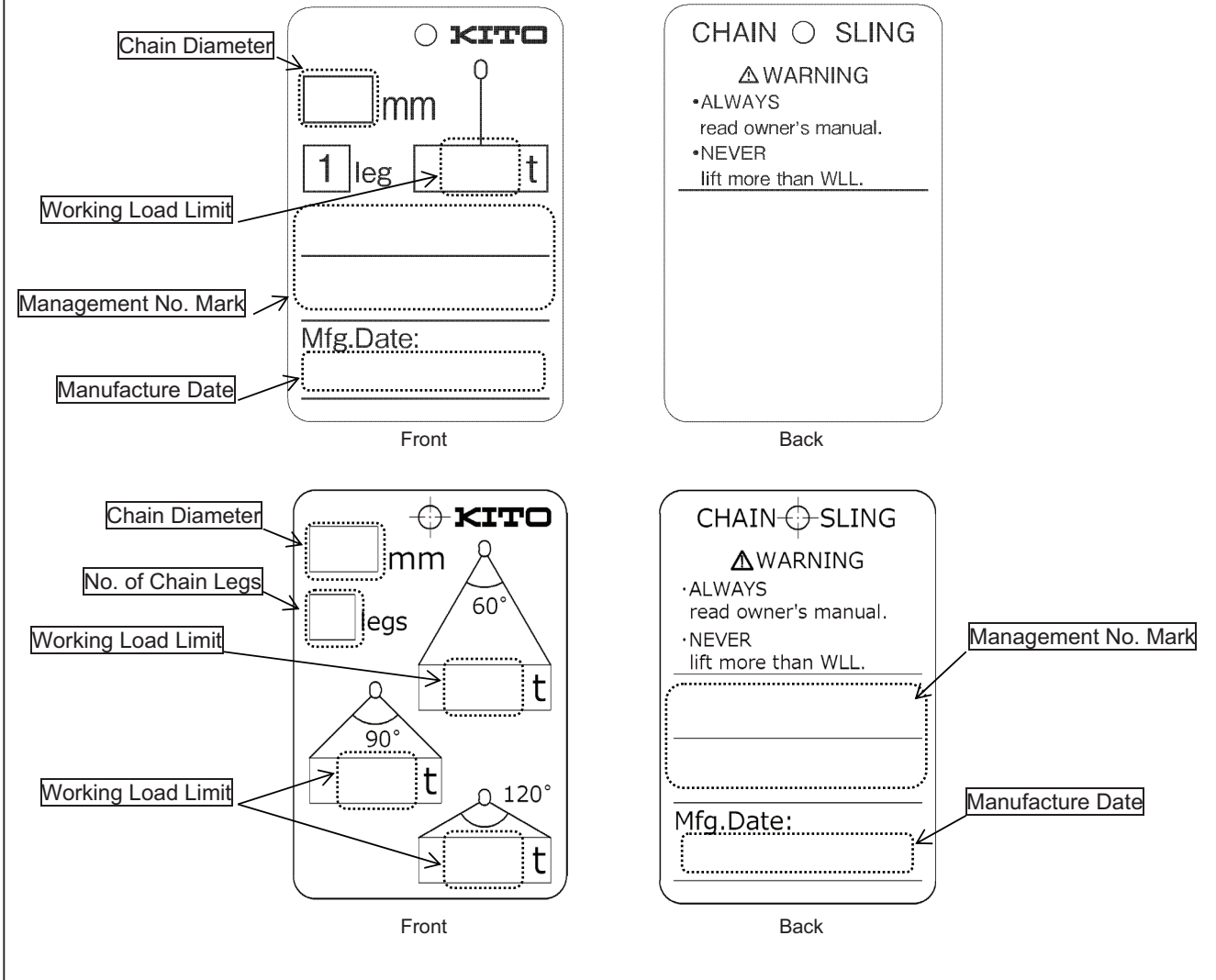
4-1-2 Marking on the Sling Tag



Upon receiving an order, be sure to check the slinging method, No. of chain legs and fittings type, clearly mark the working load limit on the sling tag.

- Two types of sling tags are available; one for single leg and the other for double, triple and quadruple legs. (See Page 8.)
 1. Sling tag for single leg: Mark the chain diameter, working load limit, and manufacture date.
 2. Sling tag for double, triple and quadruple legs: Mark the chain diameter, working load limit 60°, working load limit 90°, working load limit 120°, No. of chain legs, and manufacture date.

Sling Tag



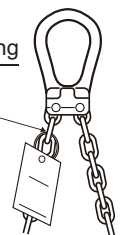
4-1-3 Attaching the Sling Tag



Be sure to mark the working load limit on the sling tag and attach it to the chain sling. The sling tag contains significant information for safe work.

- Attach to the 2nd or 3rd link from the top fitting.

Sling tag attaching position



4-1-4 Owner's Manual



When delivering the chain sling after assembly, remember to enclose "KITO Chain Sling 100 (S5 Model) Owner's Manual" in the same package. It contains significant information for safe work.

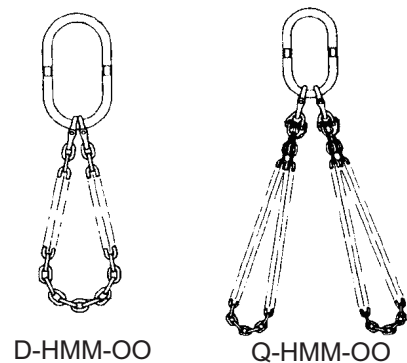
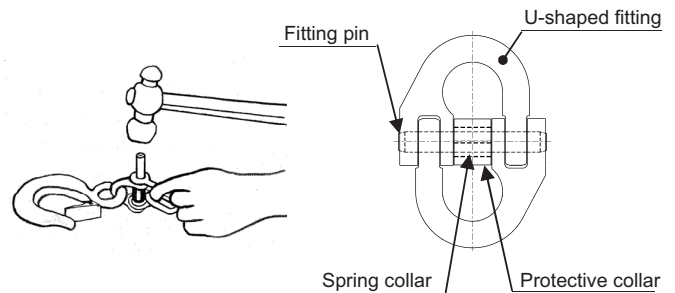
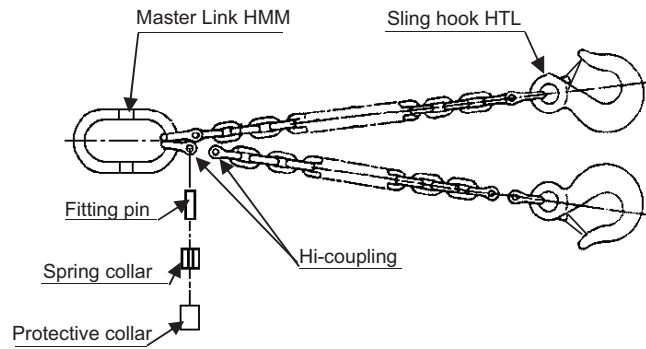
4-2 Eye Type

4-2-1 Assembly



Never reuse the spring collar.

- Check if all the constituent components are included.
- In case of the double, triple and quadruple legs, check if each chain length has the same length.
- In case of the double, triple and quadruple legs, check if each chain length has the same length.
- During work, care should be taken not to damage coating of the fittings, etc.
- Arrange the components on the workbench and connect the chain and fitting with the hi-coupling.
- Ensure that the weld area of the links at both ends of the chain to be assembled into the hi-coupling are set in the same direction as other links.
- Insert the spring collar with the protective collar between U-shaped fittings and drive in the fitting pin firmly.
- In case of the endless type (D-HMM-OO, D-HMG-OO, D-HMH-OO, Q-HMM-OO, Q-HMG-OO and Q-HMH-OO), set the chain length so that the number of links will be odd, check for any twist of chain, and assemble.



After assembly is completed, check again if the fitting pin and collar have been firmly driven into, if the chain is free from twist, and if the chain length is the same.

4-2-2 Marking on the Sling Tag

- See 4-1-2 for the clevis type.

4-2-3 Attaching the Sling Tag

- See 4-1-3 for the clevis type.

4-2-4 Owner's Manual



When delivering the chain sling after assembly, remember to enclose "KITO Chain Sling 100 (S5 Model) Owner's Manual" in the same package. It contains significant information for safe work.

5. List of Required Chain Length and Required Components for assembled products

The following tables list the required chain length and required components for assembly of the assembled products mentioned in the catalog.

* For the P-dimension of the fittings components, see the catalog.

5-1 Combinations of the Clevis Type



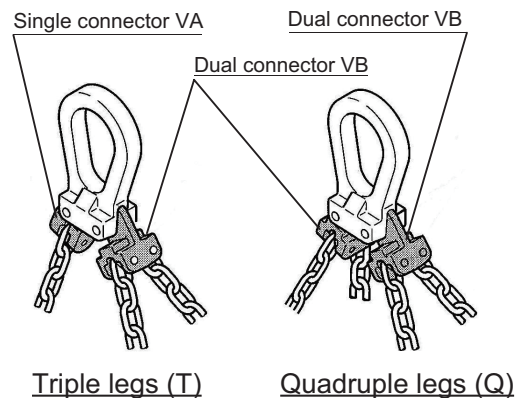
When using for the triple-leg (T) or quadruple-leg (Q) sling, the clevis Master Link D and single/dual connector connecting chain pin will be one level higher the size selected based on the chain diameter.



Note that the code of chain pin kit differs depending on the fitting to be combined, even if the chain diameter is the same. (There are two kinds of ϕ 20-mm chain pins with different diameters.)



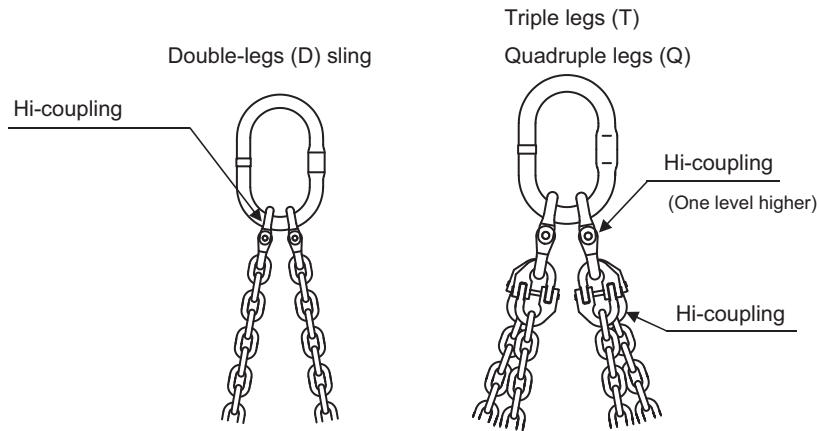
The number of cut chain links for the endless type D-VD-OO and Q-VD-OO is mentioned at the bottom of Tables 5-3-2 and 5-3-4.



5-2 Combinations of the Eye Type

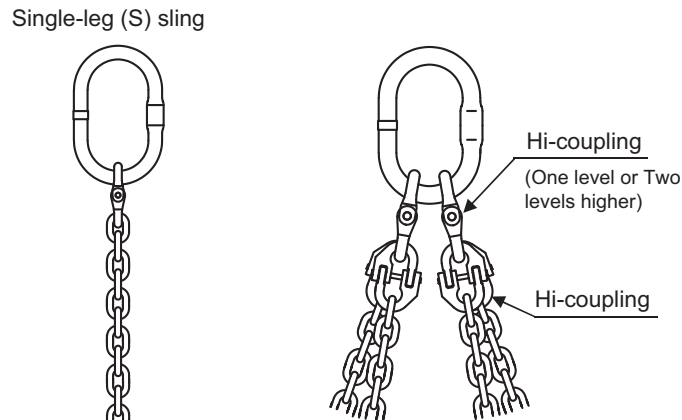
5-2-1 Master Link

■ When using the product in triple legs (T) or quadruple legs (Q) by using the Master Link HMM, additional hi-couplings whose sizes are one level higher that of the hi-coupling connected to the chain are required for connection.



5-2-2 Large Master Link

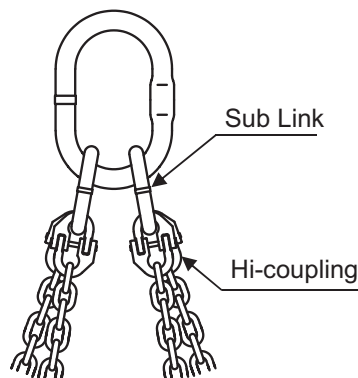
■ When using the Large Master Link HMG/HMH, additional hi-couplings whose sizes are one level or two levels higher that of the hi-coupling connected to the chain may be required for connection.



■ For the combinations of the Large Master Links and hi-couplings, see the catalog.

5-2-3 Master Link with Sub Links

■ When using the Master Link HMF with Sub Links, connect the hi-coupling connected to chains to the Sub Link.



The number of cut chain links for the endless type D-HMM-OO and Q-HMM-OO is mentioned at the bottom of Tables 5-3-6 and 5-3-8.

Also, the number of cut chain links for the D-HMG-OO and D-HMH-OO is mentioned at the bottom of the Table 5-3-12, and that for the Q-HMG-OO and Q-HMH-OO is mentioned at the bottom of Table 5-3-14.

List of Required Chain Length and Required Components for assembled products; Clevis-type Single-leg Sling Code (2/2)

Code	W.L.L. (t) (Working Load Limit)	Chain diameter (mm)	Standard reach L (mm)	No. of links Odd/Even	Actual reach (mm)	<< Link chain cutting data >>					Sum of P-dimension of fittings component (mm)	Required components (Code x Qty.)						
						Chain pitch (mm)	Calculated links	Rounded-up links	Actual links	Actual chain length (mm)		Link chain SV	Sling hook VSL4	Grab hook VGG	Shortening clutch VWW			
S-VSL4-VSL4	1.1	φ6	1500	Odd	1520	18.0	73.9	74	75	1350	170	SV2060 x 1	VSL4060 x 2	85				
	1.5	φ7	1500	Odd	1523	21.0	61.9	62	63	1323	200	SV2070 x 1	VSL4070 x 2	100				
	2.0	φ8	1500	Odd	1519	24.0	54.2	55	55	1320	199	SV2080 x 1	VSL4080 x 2	99.5				
	3.2	φ10	1500	Odd	1528	30.0	42.1	43	43	1290	238	SV2100 x 1	VSL4100 x 2	119				
	5.2	φ13	2000	Odd	2035	39.0	44.1	45	45	1755	280	SV2130 x 1	VSL4130 x 2	140				
	8.0	φ16	2500	Odd	2593	48.0	45.1	46.0	47	2256	337	SV2160 x 1	VSL4160 x 2	168.5				
	12.5	φ20	3000	Odd	3118	60.0	43.0	44	45	2700	418	SV2200 x 1	VSL4200 x 2	209				
S-VSL4-VGG *1	1.1	φ6	1500	Odd	1522	18.0	75.8	76	77	1386	135.5	SV2060 x 1	VSL4060 x 1	85	VGG06 x 1	50.5		
	1.5	φ7	1500	Odd	1531	21.0	63.5	64	65	1365	165.9	SV2070 x 1	VSL4070 x 1	100	VGG07 x 1	65.9		
	2.0	φ8	1500	Odd	1532	24.0	55.7	56	57	1368	164.4	SV2080 x 1	VSL4080 x 1	99.5	VGG08 x 1	64.9		
	3.2	φ10	1500	Odd	1552	30.0	43.3	44	45	1350	202.1	SV2100 x 1	VSL4100 x 1	119	VGG10 x 1	83.1		
	5.2	φ13	2000	Odd	2001	39.0	45.0	45	45	1755	246.1	SV2130 x 1	VSL4130 x 1	140	VGG13 x 1	106.1		
	8.0	φ16	2500	Odd	2553	48.0	45.9	46	47	2256	297.4	SV2160 x 1	VSL4160 x 1	168.5	VGG16 x 1	128.9		
	12.5	φ20	3000	Odd	3071	60.0	43.8	44	45	2700	371.1	SV2200 x 1	VSL4200 x 1	209	VGG20 x 1	162.1		
S-VSL4-VWW	1.1	φ6	1500	Even	1500	18.0	76.0	76.0	76	1368	132	SV2060 x 1	VSL4060 x 1	85			VWW06 x 1	47
	1.5	φ7	1500	Even	1507	21.0	63.7	64.0	64	1344	163	SV2070 x 1	VSL4070 x 1	100			VWW07 x 1	63
	2.0	φ8	1500	Even	1506	24.0	55.8	56	56	1344	161.5	SV2080 x 1	VSL4080 x 1	99.5			VWW08 x 1	62
	3.2	φ10	1500	Even	1517	30.0	43.4	44	44	1320	197	SV2100 x 1	VSL4100 x 1	119			VWW10 x 1	78
	5.2	φ13	2000	Even	2036	39.0	45.1	46	46	1794	242	SV2130 x 1	VSL4130 x 1	140			VWW13 x 1	102
	8.0	φ16	2500	Even	2502	48.0	46.0	46	46	2208	293.5	SV2160 x 1	VSL4160 x 1	168.5			VWW16 x 1	125

Code	W.L.L. (t) (Working Load Limit)	Chain diameter (mm)	Standard reach L (mm)	No. of links Odd/Even	Actual reach (mm)	<< Link chain cutting data >>					Sum of P-dimension of fittings component (mm)	Required components (Code x Qty.)		
						Chain pitch (mm)	Calculated links	Rounded-up links	Actual links	Actual chain length (mm)		Link chain SV	Shortening clutch VWW	
S-VWW-VWW	1.1	φ6	1500	Odd	1516	18.0	78.1	79	79	1422	94	SV2060 x 1	VWW06 x 2	47
	1.5	φ7	1500	Odd	1533	21.0	65.4	66.0	67	1407	126	SV2070 x 1	VWW07 x 2	63
	2.0	φ8	1500	Odd	1540	24.0	57.3	58	59	1416	124	SV2080 x 1	VWW08 x 2	62
	3.2	φ10	1500	Odd	1506	30.0	44.8	45	45	1350	156	SV2100 x 1	VWW10 x 2	78
	5.2	φ13	2000	Odd	2037	39.0	46.1	47	47	1833	204	SV2130 x 1	VWW13 x 2	102
	8.0	φ16	2500	Odd	2506	48.0	46.9	47	47	2256	250	SV2160 x 1	VWW16 x 2	125

*1 When using this type of fittings in combination with chains, the working load limits are 70% of the values in the table above.

List of Required Chain Length and Required Components for assembled products; Eye-type Double-leg Sling Code

Code	W.L.L. (t) (Working Load Limit) Angle of loading 60°	Chain diameter (mm)	Standard reach L (mm)	No. of links Odd/Even	Actual reach (mm)	<< Link chain cutting data >>					Sum of P-dimension of fittings component (mm)	Required components (Code x Qty.)																
						Chain pitch (mm)	Calculated links	Rounded-up links	Actual links	Actual chain length (mm)		Link chain SV	Master Link HMM	Sling hook HTL4	Self locking hook HJJ	Swivel hook HJK	Foundry hook HSF	Hi-coupling HC3 (HC)										
D-HMM-HTL4	1.7	φ6	1500	Odd	1512	18.0	66.3	67	67	1206	306	SV2060 x 2	HMM0706 x 1	110	HTL4060 x 2	100						HC3060 x 4	48					
	2.4	φ7	1500	Odd	1537	21.0	55.2	56	57	1197	340	SV2070 x 2	HMM0807 x 1	110	HTL4080 x 2	120							HC3070 x 4	55				
	3.2	φ8	1500	Odd	1509	24.0	46.6	47	47	1128	381	SV2080 x 2	HMM1008 x 1	135	HTL4080 x 2	120							HC3080 x 4	63				
	5.1	φ10	1500	Odd	1500	30.0	35.0	35	35	1050	450	SV2100 x 2	HMM1310 x 1	160	HTL4100 x 2	140								HC3100 x 4	75			
	8.0	φ13	2000	Odd	2064	39.0	37.4	38	39	1521	543	SV2130 x 2	HMM1613 x 1	180	HTL4130 x 2	171								HC3130 x 4	96			
	12.5	φ16	2500	Odd	2508	48.0	38.8	39.0	39	1872	636	SV2160 x 2	HMM2016 x 1	200	HTL4160 x 2	200									HC3160 x 4	118		
	20.0	φ20	3000	Odd	3029	60.0	36.5	37.0	37	2220	809	SV2200 x 2	HMM2220 x 1	275	HTL4200 x 2	250									HC3200 x 4	142		
D-HMM-HJJ	1.7	φ6	1500	Odd	1522	18.0	65.8	66.0	67	1206	316	SV2060 x 2	HMM0706 x 1	110			HJJ06 x 2	110						HC3060 x 4	48			
	2.4	φ7	1500	Odd	1511	21.0	54.5	55.0	55	1155	356	SV2070 x 2	HMM0807 x 1	110			HJJ08 x 2	136						HC3070 x 4	55			
	3.2	φ8	1500	Odd	1525	24.0	46.0	46.0	47	1128	397	SV2080 x 2	HMM1008 x 1	135			HJJ08 x 2	136						HC3080 x 4	63			
	5.1	φ10	1500	Odd	1529	30.0	34.1	35.0	35	1050	478.5	SV2100 x 2	HMM1310 x 1	160			HJJ10 x 2	168.5							HC3100 x 4	75		
	8.0	φ13	2000	Odd	2020	39.0	36.5	37.0	37	1443	577	SV2130 x 2	HMM1613 x 1	180			HJJ13 x 2	205							HC3130 x 4	96		
	12.5	φ16	2500	Odd	2560	48.0	37.8	38.0	39	1872	687.5	SV2160 x 2	HMM2016 x 1	200			HJJ16 x 2	251.5							HC3160 x 4	118		
D-HMM-HJK	1.7	φ6	1500	Odd	1500	18.0	63.0	63.0	63	1134	366	SV2060 x 2	HMM0706 x 1	110					HJK06 x 2	160					HC3060 x 4	48		
	2.4	φ7	1500	Odd	1514	21.0	52.3	53.0	53	1113	401	SV2070 x 2	HMM0807 x 1	110					HJK08 x 2	181					HC3070 x 4	55		
	3.2	φ8	1500	Odd	1522	24.0	44.1	45	45	1080	442	SV2080 x 2	HMM1008 x 1	135					HJK08 x 2	181					HC3080 x 4	63		
	5.1	φ10	1500	Odd	1519	30.0	32.4	33.0	33	990	528.5	SV2100 x 2	HMM1310 x 1	160					HJK10 x 2	218.5						HC3100 x 4	75	
	8.0	φ13	2000	Odd	2005	39.0	34.9	35	35	1365	639.5	SV2130 x 2	HMM1613 x 1	180					HJK13 x 2	267.5						HC3130 x 4	96	
D-HMM-HSF	1.7	φ6	1500	Odd	1514	18.0	66.2	67	67	1206	308	SV2060 x 2	HMM0706 x 1	110								HSF06 x 2	102		HC3060 x 4	48		
	2.4	φ7	1500	Odd	1540	21.0	55.1	56	57	1197	343	SV2070 x 2	HMM0807 x 1	110								HSF08 x 2	123		HC3070 x 4	55		
	3.2	φ8	1500	Odd	1512	24.0	46.5	47	47	1128	384	SV2080 x 2	HMM1008 x 1	135								HSF08 x 2	123		HC3080 x 4	63		
	5.1	φ10	1500	Odd	1509	30.0	34.7	35	35	1050	459	SV2100 x 2	HMM1310 x 1	160									HSF10 x 2	149		HC3100 x 4	75	
	8.0	φ13	2000	Odd	2067	39.0	37.3	38	39	1521	545.5	SV2130 x 2	HMM1613 x 1	180								HSF13 x 2	173.5		HC3130 x 4	96		
	12.5	φ16	2500	Odd	2513	48.0	38.7	39	39	1872	641	SV2160 x 2	HMM2016 x 1	200								HSF16 x 2	205		HC3160 x 4	118		
	20.0	φ20	3000	Odd	3016	60.0	36.7	37	37	2220	796	SV2200 x 2	HMM2220 x 1	275								HSF20 x 2	237		HC3200 x 4	142		
D-HMM-OO *1	1.7	φ6	1500	Odd	1517	18.0	149.1	150	151	2718	158	SV2060 x 1	HMM0706 x 1	110											HC3060 x 2	48		
	2.4	φ7	1500	Odd	1520	21.0	127.1	128.0	129	2709	165	SV2070 x 1	HMM0807 x 1	110												HC3070 x 2	55	
	3.2	φ8	1500	Odd	1506	24.0	108.5	109	109	2616	198	SV2080 x 1	HMM1008 x 1	135												HC3080 x 2	63	
	5.1	φ10	1500	Odd	1510	30.0	84.3	85	85	2550	235	SV2100 x 1	HMM1310 x 1	160													HC3100 x 2	75
	8.0	φ13	2000	Odd	2012	39.0	88.4	89	89	3471	276	SV2130 x 1	HMM1613 x 1	180													HC3130 x 2	96
	12.5	φ16	2500	Odd	2502	48.0	90.9	91	91	4368	318	SV2160 x 1	HMM2016 x 1	200													HC3160 x 2	118
	20.0	φ20	3000	Odd	3027	60.0	86.1	87	87	5220	417	SV2200 x 1	HMM2220 x 1	275													HC3200 x 2	142

*1 Calculating the number of cut chain links for the Q-HMG-OO and Q-HMH-OO

(“Required reach” – “Sum of P-dimension of fittings component”) x 2 / Chain pitch = “No. of links”

Round up the decimal places of the calculated number of links. If the number of links is even as a result of rounding up, add “1” to make the number odd.

List of Required Chain Length and Required Components for assembled products; Eye-type Quadruple-leg Sling Code

Code	W.L.L. (t) (Working Load Limit) Angle of loading 60°	Chain diameter (mm)	Standard reach L (mm)	No. of links Odd/Even	Actual reach (mm)	<< Link chain cutting data >>					Sum of P-dimension of fittings component (mm)	Required components (Code x Qty.)															
						Chain pitch (mm)	Calculated links	Rounded-up links	Actual links	Actual chain length (mm)		Link chain SV	Master Link HMM	Sling hook HTL4	Self locking hook HJJ	Swivel hook HJK	Foundry hook HSF	Hi-coupling HCC (HC)	Hi-coupling HCC (HC)								
Q-HMM-HTL4	2.4	φ6	1500	Even	1513	18.0	63.3	64	64	1152	361	SV2060 x 4	HMM0807 x 1	110	HTL4060 x 4	100							HC3070 x 2	55	HC3060 x 8	48	
	3.2	φ7	1500	Even	1520	21.0	51.0	52	52	1092	428	SV2070 x 4	HMM1008 x 1	135	HTL4080 x 4	120							HC3080 x 2	63	HC3070 x 8	55	
	5.0	φ8	1500	Even	1537	24.0	42.5	43	44	1056	481	SV2080 x 4	HMM1310 x 1	160	HTL4080 x 4	120							HC3100 x 2	75	HC3080 x 8	63	
	8.0	φ10	1500	Even	1526	30.0	31.1	32	32	960	566	SV2100 x 4	HMM1613 x 1	180	HTL4100 x 4	140							HC3130 x 2	96	HC3100 x 8	75	
	12.5	φ13	2000	Even	2007	39.0	33.8	34	34	1326	681	SV2130 x 4	HMM2016 x 1	200	HTL4130 x 4	171							HC3160 x 2	118	HC3130 x 8	96	
	20.0	φ16	2500	Even	2581	48.0	34.3	35.0	36	1728	853	SV2160 x 4	HMM2220 x 1	275	HTL4160 x 4	200							HC3200 x 2	142	HC3160 x 8	118	
Q-HMM-HJJ	2.4	φ6	1500	Even	1523	18.0	62.7	63.0	64	1152	371	SV2060 x 4	HMM0807 x 1	110			HJJ06 x 4	110					HC3070 x 2	55	HC3060 x 8	48	
	3.2	φ7	1500	Even	1536	21.0	50.3	51.0	52	1092	444	SV2070 x 4	HMM1008 x 1	135			HJJ08 x 4	136					HC3080 x 2	63	HC3070 x 8	55	
	5.0	φ8	1500	Even	1505	24.0	41.8	42.0	42	1008	497	SV2080 x 4	HMM1310 x 1	160			HJJ08 x 4	136					HC3100 x 2	75	HC3080 x 8	63	
	8.0	φ10	1500	Even	1555	30.0	30.2	31.0	32	960	594.5	SV2100 x 4	HMM1613 x 1	180			HJJ10 x 4	168.5					HC3130 x 2	96	HC3100 x 8	75	
	12.5	φ13	2000	Even	2041	39.0	32.9	33.0	34	1326	715	SV2130 x 4	HMM2016 x 1	200			HJJ13 x 4	205					HC3160 x 2	118	HC3130 x 8	96	
	20.0	φ16	2500	Even	2537	48.0	33.2	34.0	34	1632	904.5	SV2160 x 4	HMM2220 x 1	275			HJJ16 x 4	251.5					HC3200 x 2	142	HC3160 x 8	118	
Q-HMM-HJK	2.4	φ6	1500	Even	1501	18.0	59.9	60.0	60	1080	421	SV2060 x 4	HMM0807 x 1	110					HJK06 x 4	160				HC3070 x 2	55	HC3060 x 8	48
	3.2	φ7	1500	Even	1539	21.0	48.1	49.0	50	1050	489	SV2070 x 4	HMM1008 x 1	135					HJK08 x 4	181				HC3080 x 2	63	HC3070 x 8	55
	5.0	φ8	1500	Even	1502	24.0	39.9	40.0	40	960	542	SV2080 x 4	HMM1310 x 1	160					HJK08 x 4	181				HC3100 x 2	75	HC3080 x 8	63
	8.0	φ10	1500	Even	1545	30.0	28.5	29	30	900	644.5	SV2100 x 4	HMM1613 x 1	180					HJK10 x 4	218.5				HC3130 x 2	96	HC3100 x 8	75
	12.5	φ13	2000	Even	2026	39.0	31.3	32.0	32	1248	777.5	SV2130 x 4	HMM2016 x 1	200					HJK13 x 4	267.5				HC3160 x 2	118	HC3130 x 8	96
Q-HMM-HSF	2.4	φ6	1500	Even	1515	18.0	63.2	64	64	1152	363	SV2060 x 4	HMM0807 x 1	110								HSF06 x 4	102	HC3070 x 2	55	HC3060 x 8	48
	3.2	φ7	1500	Even	1523	21.0	50.9	51	52	1092	431	SV2070 x 4	HMM1008 x 1	135								HSF08 x 4	123	HC3080 x 2	63	HC3070 x 8	55
	5.0	φ8	1500	Even	1540	24.0	42.3	43	44	1056	484	SV2080 x 4	HMM1310 x 1	160								HSF08 x 4	123	HC3100 x 2	75	HC3080 x 8	63
	8.0	φ10	1500	Even	1535	30.0	30.8	31	32	960	575	SV2100 x 4	HMM1613 x 1	180								HSF10 x 4	149	HC3130 x 2	96	HC3100 x 8	75
	12.5	φ13	2000	Even	2010	39.0	33.8	34	34	1326	683.5	SV2130 x 4	HMM2016 x 1	200								HSF13 x 4	173.5	HC3160 x 2	118	HC3130 x 8	96
	20.0	φ16	2500	Even	2586	48.0	34.2	35	36	1728	858	SV2160 x 4	HMM2220 x 1	275								HSF16 x 4	205	HC3200 x 2	142	HC3160 x 8	118
Q-HMM-OO *1	2.4	φ6	1500	Odd/	1500	18.0	143.0	143	143	2574	213	SV2060 x 2	HMM0807 x 1	110									HC3070 x 2	55	HC3060 x 4	48	
	3.2	φ7	1500	Odd/	1503	21.0	118.8	119	119	2499	253	SV2070 x 2	HMM1008 x 1	135									HC3080 x 2	63	HC3070 x 4	55	
	5.0	φ8	1500	Odd/	1510	24.0	100.2	101	101	2424	298	SV2080 x 2	HMM1310 x 1	160									HC3100 x 2	75	HC3080 x 4	63	
	8.0	φ10	1500	Odd/	1506	30.0	76.6	77.0	77	2310	351	SV2100 x 2	HMM1613 x 1	180									HC3130 x 2	96	HC3100 x 4	75	
	12.5	φ13	2000	Odd/	2033	39.0	81.3	82	83	3237	414	SV2130 x 2	HMM2016 x 1	200									HC3160 x 2	118	HC3130 x 4	96	
	20.0	φ16	2500	Odd/	2527	48.0	81.9	82	83	3984	535	SV2160 x 2	HMM2220 x 1	275									HC3200 x 2	142	HC3160 x 4	118	

*1 Calculating the number of cut chain links for the Q-HMG-OO and Q-HMH-OO

("Required reach" – "Sum of P-dimension of fittings component") x 2 / Chain pitch = "No. of links"

Round up the decimal places of the calculated number of links. If the number of links is even as a result of rounding up, add "1" to make the number odd.

List of Required Chain Length and Required Components for assembled products; Eye-type Triple-leg Sling with Master Link with Sub Links Code

Code	W.L.L. (t) (Working Load Limit) Angle of loading 60°	Chain diameter (mm)	Standard reach L (mm)	No. of links Odd/Even	Actual reach (mm)	<< Link chain cutting data >>					Sum of P-dimension of fittings component (mm)	Required components (Code x Qty).															
						Chain pitch (mm)	Calculated links	Rounded-up links	Actual links	Actual chain length (mm)		Link chain SV	Master Link HMF	Sling hook HTL4	Self locking hook HJJ	Swivel hook HJK	Foundry hook HSF	Hi-coupling HCC (HC)									
T-HMF-HTL4	2.8	φ6	1500	Even	1507	18.0	61.6	62	62	1116	391	SV2060×3	HMF07 x 1	195	HTL4060 x 3	100								HC3060 x 6	48		
	3.8	φ7	1500	Even	1517	21.0	51.2	52	52	1092	425	SV2070 x 3	HMF07 x 1	195	HTL4080 x 3	120									HC3070 x 6	55	
	5.0	φ8	1500	Even	1532	24.0	42.7	43	44	1056	476	SV2080 x 3	HMF08 x 1	230	HTL4080 x 3	120									HC3080 x 6	63	
	8.0	φ10	1500	Even	1515	30.0	31.5	32	32	960	555	SV2100 x 3	HMF10 x 1	265	HTL4100 x 3	140										HC3100 x 6	75
	13.0	φ13	2000	Even	2004	39.0	33.9	34	34	1326	678	SV2130 x 3	HMF13 x 1	315	HTL4130 x 3	171										HC3130 x 6	96
	20.0	φ16	2500	Even	2579	48.0	34.4	35.0	36	1728	851	SV2160×3	HMF16 x 1	415	HTL4160 x 3	200										HC3160 x 6	118
	32.0	φ20	3000	Even	3074	60.0	32.8	33.0	34	2040	1034	SV2200 x 3	HMF20 x 1	500	HTL4200 x 3	250										HC3200 x 6	142
T-HMF-HJJ	2.8	φ6	1500	Even	1517	18.0	61.1	62.0	62	1116	401	SV2060×3	HMF07 x 1	195			HJJ06 x 3	110							HC3060 x 6	48	
	3.8	φ7	1500	Even	1533	21.0	50.4	51.0	52	1092	441	SV2070 x 3	HMF07 x 1	195			HJJ08 x 3	136							HC3070 x 6	55	
	5.0	φ8	1500	Even	1500	24.0	42.0	42.0	42	1008	492	SV2080 x 3	HMF08 x 1	230			HJJ08 x 3	136							HC3080 x 6	63	
	8.0	φ10	1500	Even	1544	30.0	30.6	31.0	32	960	583.5	SV2100 x 3	HMF10 x 1	265			HJJ10 x 3	168.5							HC3100 x 6	75	
	13.0	φ13	2000	Even	2038	39.0	33.0	34.0	34	1326	712	SV2130 x 3	HMF13 x 1	315			HJJ13 x 3	205							HC3130 x 6	96	
	20.0	φ16	2500	Even	2535	48.0	33.3	34.0	34	1632	902.5	SV2160×3	HMF16 x 1	415			HJJ16 x 3	251.5							HC3160 x 6	118	
	32.0	φ20	3000	Even	3074	60.0	32.8	33.0	34	2040	1034	SV2200 x 3	HMF20 x 1	500											HC3200 x 6	142	
T-HMF-HJK	2.8	φ6	1500	Even	1531	18.0	58.3	59.0	60	1080	451	SV2060×3	HMF07 x 1	195					HJK06 x 3	160					HC3060 x 6	48	
	3.8	φ7	1500	Even	1536	21.0	48.3	49.0	50	1050	486	SV2070 x 3	HMF07 x 1	195					HJK08 x 3	181					HC3070 x 6	55	
	5.0	φ8	1500	Even	1545	24.0	40.1	41	42	1008	537	SV2080 x 3	HMF08 x 1	230					HJK08 x 3	181					HC3080 x 6	63	
	8.0	φ10	1500	Even	1534	30.0	28.9	29.0	30	900	633.5	SV2100 x 3	HMF10 x 1	265					HJK10 x 3	218.5					HC3100 x 6	75	
	13.0	φ13	2000	Even	2023	39.0	31.4	32	32	1248	774.5	SV2130 x 3	HMF13 x 1	315					HJK13 x 3	267.5					HC3130 x 6	96	
T-HMF-HSF	2.8	φ6	1500	Even	1509	18.0	61.5	62	62	1116	393	SV2060×3	HMF07 x 1	195							HSF06 x 3	102		HC3060 x 6	48		
	3.8	φ7	1500	Even	1520	21.0	51.0	52	52	1092	428	SV2070 x 3	HMF07 x 1	195							HSF08 x 3	123		HC3070 x 6	55		
	5.0	φ8	1500	Even	1535	24.0	42.5	43	44	1056	479	SV2080 x 3	HMF08 x 1	230							HSF08 x 3	123		HC3080 x 6	63		
	8.0	φ10	1500	Even	1524	30.0	31.2	32	32	960	564	SV2100 x 3	HMF10 x 1	265							HSF10 x 3	149		HC3100 x 6	75		
	13.0	φ13	2000	Even	2007	39.0	33.8	34	34	1326	680.5	SV2130 x 3	HMF13 x 1	315							HSF13 x 3	173.5		HC3130 x 6	96		
	20.0	φ16	2500	Even	2584	48.0	34.3	35	36	1728	856	SV2160×3	HMF16 x 1	415							HSF16 x 3	205		HC3160 x 6	118		
	32.0	φ20	3000	Even	3061	60.0	33.0	33	34	2040	1021	SV2200 x 3	HMF20 x 1	500							HSF20 x 3	237		HC3200 x 6	142		

List of Required Chain Length and Required Components for assembled products; Eye-type Quadruple-leg Sling with Master Link with Sub Links Code

Code	W.L.L. (t) (Working Load Limit) Angle of loading 60°	Chain diameter (mm)	Standard reach L (mm)	No. of links Odd/Even	Actual reach (mm)	<< Link chain cutting data >>					Sum of P-dimension of fittings component (mm)	Required components (Code x Qty.)																
						Chain pitch (mm)	Calculated links	Rounded-up links	Actual links	Actual chain length (mm)		Link chain SV	Master Link HMF	Sling hook HTL4		Self locking hook HJJ		Swivel hook HJK		Foundry hook HSF		Hi-coupling HCC (HC)						
Q-HMF-HTL4	2.8	φ6	1500	Even	1507	18.0	61.6	62	62	1116	391	SV2060 x 4	HMF07 x 1	195	HTL4080 x 4	100								HC3060 x 8	48			
	3.8	φ7	1500	Even	1517	21.0	51.2	52	52	1092	425	SV2070 x 4	HMF07 x 1	195	HTL4080 x 4	120									HC3070 x 8	55		
	5.0	φ8	1500	Even	1532	24.0	42.7	43	44	1056	476	SV2080 x 4	HMF08 x 1	230	HTL4080 x 4	120									HC3080 x 8	63		
	8.0	φ10	1500	Even	1515	30.0	31.5	32	32	960	555	SV2100 x 4	HMF10 x 1	265	HTL4100 x 4	140										HC3100 x 8	75	
	13.0	φ13	2000	Even	2004	39.0	33.9	34	34	1326	678	SV2130 x 4	HMF13 x 1	315	HTL4130 x 4	171										HC3130 x 8	96	
	20.0	φ16	2500	Even	2579	48.0	34.4	35.0	36	1728	851	SV2160 x 4	HMF16 x 1	415	HTL4160 x 4	200										HC3160 x 8	118	
Q-HMF-HJJ	2.8	φ6	1500	Even	3074	60.0	32.8	33.0	34	2040	1034	SV2200 x 4	HMF20 x 1	500	HTL4200 x 4	250										HC3200 x 8	142	
	2.8	φ6	1500	Even	1517	18.0	61.1	62.0	62	1116	401	SV2060 x 4	HMF07 x 1	195			HJJ06 x 4	110							HC3060 x 8	48		
	3.8	φ7	1500	Even	1533	21.0	50.4	51.0	52	1092	441	SV2070 x 4	HMF07 x 1	195			HJJ08 x 4	136							HC3070 x 8	55		
	5.0	φ8	1500	Even	1500	24.0	42.0	42.0	42	1008	492	SV2080 x 4	HMF08 x 1	230			HJJ08 x 4	136							HC3080 x 8	63		
	8.0	φ10	1500	Even	1544	30.0	30.6	31.0	32	960	583.5	SV2100 x 4	HMF10 x 1	265			HJJ10 x 4	168.5							HC3100 x 8	75		
	13.0	φ13	2000	Even	2038	39.0	33.0	34.0	34	1326	712	SV2130 x 4	HMF13 x 1	315			HJJ13 x 4	205							HC3130 x 8	96		
Q-HMF-HJK	2.8	φ6	1500	Even	2535	48.0	33.3	34.0	34	1632	902.5	SV2160 x 4	HMF16 x 1	415											HC3160 x 8	118		
	2.8	φ6	1500	Even	1531	18.0	58.3	59.0	60	1080	451	SV2060 x 4	HMF07 x 1	195					HJK06 x 4	160						HC3060 x 8	48	
	3.8	φ7	1500	Even	1536	21.0	48.3	49.0	50	1050	486	SV2070 x 4	HMF07 x 1	195					HJK08 x 4	181						HC3070 x 8	55	
	5.0	φ8	1500	Even	1545	24.0	40.1	41	42	1008	537	SV2080 x 4	HMF08 x 1	230					HJK08 x 4	181						HC3080 x 8	63	
	8.0	φ10	1500	Even	1534	30.0	28.9	29.0	30	900	633.5	SV2100 x 4	HMF10 x 1	265					HJK10 x 4	218.5						HC3100 x 8	75	
Q-HMF-HSF	13.0	φ13	2000	Even	2023	39.0	31.4	32	32	1248	774.5	SV2130 x 4	HMF13 x 1	315					HJK13 x 4	267.5						HC3130 x 8	96	
	2.8	φ6	1500	Even	1509	18.0	61.5	62	62	1116	393	SV2060 x 4	HMF07 x 1	195											HSF06 x 4	102	HC3060 x 8	48
	3.8	φ7	1500	Even	1520	21.0	51.0	52	52	1092	428	SV2070 x 4	HMF07 x 1	195											HSF08 x 4	123	HC3070 x 8	55
	5.0	φ8	1500	Even	1535	24.0	42.5	43	44	1056	479	SV2080 x 4	HMF08 x 1	230											HSF08 x 4	123	HC3080 x 8	63
	8.0	φ10	1500	Even	1524	30.0	31.2	32	32	960	564	SV2100 x 4	HMF10 x 1	265											HSF10 x 4	149	HC3100 x 8	75
	13.0	φ13	2000	Even	2007	39.0	33.8	34	34	1326	680.5	SV2130 x 4	HMF13 x 1	315											HSF13 x 4	173.5	HC3130 x 8	96
Q-HMF-HSF	20.0	φ16	2500	Even	2584	48.0	34.3	35	36	1728	856	SV2160 x 4	HMF16 x 1	415											HSF16 x 4	205	HC3160 x 8	118
	32.0	φ20	3000	Even	3061	60.0	33.0	33	34	2040	1021	SV2200 x 4	HMF20 x 1	500											HSF20 x 4	237	HC3200 x 8	142

List of Required Chain Length and Required Components for assembled products; Eye-type Double-leg Sling with Large Master Link Code

Code	W.L.L. (t) (Working Load Limit) Angle of loading 60°	Chain diameter (mm)	Standard reach L (mm)	No. of links Odd/Even	Actual reach (mm)	<< Link chain cutting data >>					Sum of P-dimension of fittings component (mm)	Required components (Code x Qty.)															
						Chain pitch (mm)	Calculated links	Rounded-up links	Actual links	Actual chain length (mm)		Link chain SV	Master Link HMG/HMH	Sling hook HTL4	Self locking hook HJJ	Swivel hook HJK	Foundry hook HSF	Hi-coupling HCC	Hi-coupling HCC								
D-HMG-HTL4	1.7	φ6	1500	Even	1528	18.0	56.4	57	58	1044	484	SV2060 x 2	HMG0807 x 1	225	HTL4060 x 2	100								HC3080 x 2	63	HC3060 x 4	48
	2.0	φ7	1500	Even	1526	21.0	46.8	47	48	1008	518	SV2070 x 2	HMG0807 x 1	225	HTL4080 x 2	120								HC3080 x 2	63	HC3070 x 4	55
	3.2	φ8	1500	Odd	1503	24.0	42.9	43	43	1032	471	SV2080 x 2	HMG1008 x 1	225	HTL4080 x 2	120								HC3080 x 4	63		
D-HMH-HTL4	5.0	φ10	1500	Odd	1505	30.0	32.8	33	33	990	515	SV2100 x 2	HMG1310 x 1	225	HTL4100 x 2	140								HC3100 x 4	75		
	8.0	φ13	2000	Even	2069	39.0	30.2	31.0	32	1248	821	SV2130 x 2	HMH1613 x 1	340	HTL4130 x 2	171								HC3160 x 2	118	HC3130 x 4	96
	11.5	φ16	2500	Even	2550	48.0	33.0	33.0	34	1632	918	SV2160 x 2	HMH2016 x 1	340	HTL4160 x 2	200								HC3200 x 2	142	HC3160 x 4	118
D-HMG-HJJ	1.7	φ6	1500	Even	1502	18.0	55.9	56.0	56	1008	494	SV2060 x 2	HMG0807 x 1	225			HJJ06 x 2	110					HC3080 x 2	63	HC3060 x 4	48	
	2.0	φ7	1500	Even	1500	21.0	46.0	46.0	46	966	534	SV2070 x 2	HMG0807 x 1	225			HJJ08 x 2	136					HC3080 x 2	63	HC3070 x 4	55	
	3.2	φ8	1500	Odd	1519	24.0	42.2	43.0	43	1032	487	SV2080 x 2	HMG1008 x 1	225			HJJ08 x 2	136					HC3080 x 4	63			
D-HMH-HJJ	5.0	φ10	1500	Odd	1534	30.0	31.9	32.0	33	990	543.5	SV2100 x 2	HMG1310 x 1	225			HJJ10 x 2	168.5					HC3100 x 4	75			
	8.0	φ13	2000	Even	2025	39.0	29.4	30.0	30	1170	855	SV2130 x 2	HMH1613 x 1	340			HJJ13 x 2	205					HC3160 x 2	118	HC3130 x 4	96	
	11.5	φ16	2500	Even	2506	48.0	31.9	32.0	32	1536	969.5	SV2160 x 2	HMH2016 x 1	340			HJJ16 x 2	251.5					HC3200 x 2	142	HC3160 x 4	118	
D-HMG-HJK	1.7	φ6	1500	Even	1516	18.0	53.1	54.0	54	972	544	SV2060 x 2	HMG0807 x 1	225					HJK06 x 2	160			HC3080 x 2	63	HC3060 x 4	48	
	2.0	φ7	1500	Even	1503	21.0	43.9	44	44	924	579	SV2070 x 2	HMG0807 x 1	225					HJK08 x 2	181			HC3080 x 2	63	HC3070 x 4	55	
	3.2	φ8	1500	Odd	1516	24.0	40.3	41.0	41	984	532	SV2080 x 2	HMG1008 x 1	225					HJK08 x 2	181			HC3080 x 4	63			
D-HMH-HJK	5.0	φ10	1500	Odd	1524	30.0	30.2	31	31	930	593.5	SV2100 x 2	HMG1310 x 1	225					HJK10 x 2	218.5			HC3100 x 4	75			
	8.0	φ13	2000	Even	2010	39.0	27.8	28	28	1092	917.5	SV2130 x 2	HMH1613 x 1	340					HJK13 x 2	267.5			HC3160 x 2	118	HC3130 x 4	96	
	11.5	φ16	2500	Even	2530	48.0	56.3	57	58	1044	486	SV2060 x 2	HMG0807 x 1	225									HC3080 x 2	63	HC3060 x 4	48	
D-HMG-HSF	2.0	φ7	1500	Even	1529	21.0	46.6	47	48	1008	521	SV2070 x 2	HMG0807 x 1	225							HSF06 x 2	102	HC3080 x 2	63	HC3070 x 4	55	
	3.2	φ8	1500	Odd	1506	24.0	42.8	43	43	1032	474	SV2080 x 2	HMG1008 x 1	225							HSF08 x 2	123	HC3080 x 2	63	HC3070 x 4	55	
	5.0	φ10	1500	Odd	1514	30.0	32.5	33	33	990	524	SV2100 x 2	HMG1310 x 1	225							HSF08 x 2	123	HC3080 x 4	63			
D-HMH-HSF	8.0	φ13	2000	Even	2072	39.0	30.2	31	32	1248	823.5	SV2130 x 2	HMH1613 x 1	340							HSF10 x 2	149	HC3100 x 4	75			
	11.5	φ16	2500	Even	2555	48.0	32.9	33.0	34	1632	923	SV2160 x 2	HMH2016 x 1	340							HSF13 x 2	173.5	HC3160 x 2	118	HC3130 x 4	96	
	1.7	φ6	1500	Odd	1515	18.0	129.3	130	131	2358	336	SV2060 x 1	HMG0807 x 1	225							HSF16 x 2	205	HC3200 x 2	142	HC3160 x 4	118	
D-HMG-OO *1	2.0	φ7	1500	Odd	1509	21.0	110.2	111	111	2331	343	SV2070 x 1	HMG0807 x 1	225									HC3080 x 2	63	HC3070 x 2	55	
	3.2	φ8	1500	Odd	1500	24.0	101.0	101	101	2424	288	SV2080 x 1	HMG1008 x 1	225									HC3080 x 2	63			
	5.0	φ10	1500	Odd	1515	30.0	80.0	80	81	2430	300	SV2100 x 1	HMG1310 x 1	225									HC3100 x 2	75			
D-HMH-OO *1	8.0	φ13	2000	Odd	2017	39.0	74.2	75	75	2925	554	SV2130 x 1	HMH1613 x 1	340									HC3160 x 2	118	HC3130 x 2	96	
	11.5	φ16	2500	Odd	2544	48.0	79.2	80	81	3888	600	SV2160 x 1	HMH2016 x 1	340									HC3200 x 2	142	HC3160 x 2	118	

*1 Calculating the number of cut chain links for the Q-HMG-OO and Q-HMH-OO
 ("Required reach" – "Sum of P-dimension of fittings component") x 2 / Chain pitch = "No. of links"
 Round up the decimal places of the calculated number of links. If the number of links is even as a result of rounding up, add "1" to make the number odd.

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