

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Clip, Saddle, Band

with type designation(s)
CV, CVW

Issued to

KSS, Kai Suh Suh Enterprise Co., Ltd.
Taipei, Taiwan

is found to comply with
DNV GL rules for classification – Ships and offshore units
IEC 62275 (2006-10)

Application :

For fixing of cables indoor on board ships and offshore units.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2020-12-31**.

Issued at **Høvik** on **2015-12-22**

DNV GL local station: **Kaohsiung**

Approval Engineer: **Hanwee Low**

for **DNV GL**

Marit Laumann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

Type: Nylon Cable Ties made from nylon 6/6

CV - lockable cable tie. Colour: Normal is true colour (white), black, other can be special ordered.

CV-W - lockable cable tie, weather resistant.

Colour: Black

Max. operating temperature: 75 °C

Min. operating temperature: 0 °C for 4,8mm & 9,0mm cable tie width

-5 °C for other cable tie widths

Min. installation temperature: 0 °C

Loop tensile strength test for ties retains 50% strength after test conditions.

Item numbers shown below refer to 100pcs. Most items can be delivered with 1000pcs. Will have a suffix "K" in addition. (Not shown in the certificate.)

Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CVT-070	71	1,6	0,75	10	78,4
CV-060	63,7	2,4	1,0	10	78,4
CV-075	75	2,4	1,0	13	78,4
CV-080	80	2,4	1,0	14	78,4
CV-094	96	2,5	1,0	19	78,4
CV-100	100	2,5	1,1	20	78,4
CVT-100	103	1,95	0,9	10	78,4
CV-120S	120	2,5	1,3	25	78,4
CV-140S	142	2,5	1,2	32	78,4
CV-150S	155	2,5	1,3	35	78,4
CV-165	165	2,5	1,3	39	78,4
CV-200M	203	2,5	1,3	50	78,4
CV-250S	250	2,5	1,3	62	78,4
CV-300M	300	2,5	1,3	76	78,4
CV-400S	400	2,5	1,4	106	78,4
CV-120	120	3,2	1,35	24	176,5
CV-140	142	3,2	1,5	31	176,5
CV-150	150	3,6	1,4	33	176,5
CV-180T	180	3,6	1,3	44	176,5
CV-180	180	3,6	1,3	44	176,5
CV-200S	203	3,2	1,4	50	176,5
CV-200A	203	3,6	1,4	47	176,5
CV-250M	250	3,6	1,4	62	176,5
CV-265	265	3,6	1,4	67	176,5
CV-292	292	3,6	1,4	75	176,5
CV-330	330	3,6	1,5	85	176,5
CV-368S	368	3,6	1,4	96	176,5
CV-120L	120	4,8	1,5	24	215,6
CV-160L	160	4,8	1,6	35	215,6
CV-190T	190	4,8	1,5	45	215,6
CV-190	190	4,8	1,5	45	215,6
CV-200	203	4,6	1,6	47	215,6
CV-200D	203	4,8	1,35	47	215,6
CV-200T	200	4,6	1,5	51	215,6
CV-250	250	4,8	1,5	62	215,6
CV-280	280	4,8	1,5	70	215,6

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Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CV-300STZ	300	4,8	1,5	76	215,6
CV-300S	300	4,8	1,5	76	215,6
CV-310	310	4,8	1,5	79	215,6
CV-368	368	4,8	1,5	96	215,6
CV-385	385	4,8	1,5	101	215,6
CV-432	432	4,8	1,5	115	215,6
CV-450M	450	4,8	1,5	129	215,6
CV-500	500	4,8	1,6	135	215,6
CV-550S	550	4,8	1,5	149	215,6
CV-610S	610	4,8	1,8	166	215,6
CV-635S	635	4,8	1,8	173	215,6
CV-914S	914	4,8	1,9	255	215,6
CV-380S	380	6,4	2,0	103	441,0
CV-750	750	7,5	1,8	205	539,0
CV-120LL	120	7,6	1,5	20	539,0
CV-150L	150	7,6	1,5	29	539,0
CV-200L	203	7,6	1,8	47	539,0
CV-240L	240	7,6	1,8	56	539,0
CV-280L	280	7,6	1,7	68	539,0
CV-300	300	7,6	1,6	73	539,0
CV-340	340	7,6	1,8	84	539,0
CV-380	380	7,6	2,0	96	539,0
CV-380L	380	8,0	2,0	96	784,0
CV-450	450	8,0	2,0	117	784,0
CV-500L	500	8,0	1,9	131	784,0
CV-550	550	8,0	2,0	147	784,0
CV-610	610	9,0	2,0	162	784,0
CV-685	685	9,0	2,0	185	784,0
CV-710	710	9,0	2,0	192	784,0
CV-762	762	9,0	2,0	208	784,0
CV-812	812	9,0	1,9	223	784,0
CV-914	914	9,0	2,0	253	784,0
CV-940	940	9,0	2,0	261	784,0
CV-1168	1168	9,0	2,0	327	784,0
CV-1219	1219	9,0	2,0	342	784,0
CV-1500	1500	9,0	2,0	462	784,0
CV-230XL	230	12,7	2,2	53	882,0
CV-255XXL	254	17,8	1,4	39	294,0
CV-280XL	280	12,7	2,2	67	882,0
CV-380XL	380	12,7	2,2	96	882,0
CV-480XL	480	12,7	2,2	126	1117,2
CV-550L	550	12,7	2,0	146	1117,2
CV-580XL	580	12,7	2,2	155	1117,2
CV-730XL	730	12,7	2,2	214	1117,2
CV-880XL	880	12,7	2,2	242	1117,2
CV-1030XL	1030	12,7	2,2	305	1117,2
CVT-070W	71	1,6	0,75	10	78,4
CV-060W	63,7	2,4	1,0	10	78,4
CV-075W	75	2,4	1,0	13	78,4
CV-080W	80	2,4	1,0	14	78,4

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Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CV-094W	96	2,5	1,0	19	78,4
CV-100W	100	2,5	1,1	20	78,4
CVT-100W	103	1,95	0,9	10	78,4
CV-120SW	120	2,5	1,3	25	78,4
CV-140SW	142	2,5	1,2	32	78,4
CV-150SW	155	2,5	1,3	35	78,4
CV-165W	165	2,5	1,3	39	78,4
CV-200MW	203	2,5	1,3	50	78,4
CV-250SW	250	2,5	1,3	62	78,4
CV-300MW	300	2,5	1,3	76	78,4
CV-400SW	400	2,5	1,4	106	78,4
CV-120W	120	3,2	1,35	24	176,5
CV-140W	142	3,2	1,5	31	176,5
CV-150W	150	3,6	1,4	33	176,5
CV-180TW	180	3,6	1,3	44	176,5
CV-180W	180	3,6	1,3	44	176,5
CV-200SW	203	3,2	1,4	50	176,5
CV-200AW	203	3,6	1,4	47	176,5
CV-250MW	250	3,6	1,4	62	176,5
CV-265W	265	3,6	1,4	67	176,5
CV-292W	292	3,6	1,4	75	176,5
CV-330W	330	3,6	1,5	85	176,5
CV-368SW	368	3,6	1,4	96	176,5
CV-120LW	120	4,8	1,5	24	215,6
CV-160LW	160	4,8	1,6	35	215,6
CV-190TW	190	4,8	1,5	45	215,6
CV-190W	190	4,8	1,5	45	215,6
CV-200W	203	4,6	1,6	47	215,6
CV-200DW	203	4,8	1,35	47	215,6
CV-200TW	200	4,6	1,5	51	215,6
CV-250W	250	4,8	1,5	62	215,6
CV-280W	280	4,8	1,5	70	215,6
CV-300STZW	300	4,8	1,5	76	215,6
CV-300SW	300	4,8	1,5	76	215,6
CV-310W	310	4,8	1,5	79	215,6
CV-368W	368	4,8	1,5	96	215,6
CV-385W	385	4,8	1,5	101	215,6
CV-432W	432	4,8	1,5	115	215,6
CV-450MW	450	4,8	1,5	129	215,6
CV-500W	500	4,8	1,6	135	215,6
CV-550SW	550	4,8	1,5	149	215,6
CV-610SW	610	4,8	1,8	166	215,6
CV-635SW	635	4,8	1,8	173	215,6
CV-914SW	914	4,8	1,9	255	215,6
CV-380SW	380	6,4	2,0	103	441,0
CV-750W	750	7,5	1,8	205	539,0
CV-120LLW	120	7,6	1,5	20	539,0
CV-150LW	150	7,6	1,5	29	539,0
CV-200LW	203	7,6	1,8	47	539,0
CV-240LW	240	7,6	1,8	56	539,0

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Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CV-280LW	280	7,6	1,7	68	539,0
CV-300W	300	7,6	1,6	73	539,0
CV-340W	340	7,6	1,8	84	539,0
CV-380W	380	7,6	2,0	96	539,0
CV-380LW	380	8,0	2,0	96	784,0
CV-450W	450	8,0	2,0	117	784,0
CV-500LW	500	8,0	2,0	131	784,0
CV-550W	550	8,0	1,9	147	784,0
CV-610W	610	9,0	2,0	162	784,0
CV-685W	685	9,0	2,0	185	784,0
CV-710W	710	9,0	2,0	192	784,0
CV-762W	762	9,0	2,0	208	784,0
CV-812W	812	9,0	1,9	223	784,0
CV-914W	914	9,0	2,0	253	784,0
CV-940W	940	9,0	2,0	261	784,0
CV-1168W	1168	9,0	2,0	327	784,0
CV-1219W	1219	9,0	2,0	342	784,0
CV-1500W	1500	9,0	2,0	462	784,0
CV-230XLW	230	12,7	2,2	53	882,0
CV-255XXLW	254	17,8	1,4	39	294,0
CV-280XLW	280	12,7	2,2	67	882,0
CV-380XLW	380	12,7	2,2	96	882,0
CV-480XLW	480	12,7	2,2	126	1117,2
CV-550LW	550	12,7	2,0	146	1117,2
CV-580XLW	580	12,7	2,2	155	1117,2
CV-730XLW	730	12,7	2,2	214	1117,2
CV-880XLW	880	12,7	2,2	242	1117,2
CV-1030XLW	1030	12,7	2,2	305	1117,2
TCV-100	113	2,5	1,1	25	80,0
TCV-155	171,5	3,7	1,3	40	180,0
TCV-205	221,3	4,2	1,3	52	220,0
TCV-370	370	4,8	1,5	102	220,0
TCV-400	410	7,8	1,8	112	530,0
MCV-100	100	2,5	1,1	21	80,0
MCV-110	110	2,5	1,2	18	80,0
MCV-200	200	4,6	1,4	46	220,0
HV-125	125	7,6	1,3	27	220,0
HV-150	150	7,6	1,3	32	220,0
HV-200	200	7,6	1,3	46	220,0
HV-300	300	7,6	1,3	73	220,0

Name and place of manufacturer

KSS, Kai Suh Suh Enterprise Co., Ltd
 Tainan, Taiwan

Application/Limitation

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Certificate No: **TAE00000US**

For fixing of cables indoor on board ships and offshore units.
Additional metallic cable ties to be installed as required by the DNV GL Rules.

Type Approval documentation

The approval is based on the following documentation:
Test report no. KV-09-03571X-1, dated 27. October 2009, from SGS.
Drawing revised on 2009/Nov. total 6 pages.

Tests carried out

Installation test, minimum installation temp. test, minimum operation temp. test, loop tensile strength test as received condition, after heat aging and after temperature cycling, contribution to fire (IEC60698-11-5), resistance to UV light (Exposed for 1000 hours to Xenon-Arc)

Marking of product

Company Name, Type designation and Size

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Survey to be performed at least every second year.

END OF CERTIFICATE