



## Applications

Sockets are used to attach steel wire rope to a fixed point to which the socket is to be connected. This can be as an anchoring system for tubes or pipes, anchor wires of dredging material, anchor cables of oil platforms, towing cables or for fastening cables in construction purposes such as bridges, roof construction etc.

Sockets are the strongest steel wire rope end fitting and if they are assembled in the proper way they can meet at least the breaking strength of the steel wire rope. In the past melted zinc was poured into the sockets to attach the steel wire rope; nowadays suitable resins have been developed for this purpose.

## Range

Van Beest offers a wide range of sockets, i.e.:

- Closed spelter sockets;
- Open spelter sockets;
- Open wedge sockets;
- Short bow sockets;
- Open swage sockets;
- Closed swage sockets.

## Design

Green Pin® open and closed spelter sockets and open wedge sockets are made from cast high tensile steel. These sockets carry the following markings:

- socket number;
- diameter wire rope in mm and inches;
- manufacturer's symbol;
- batch number;
- CE conformity code.

With shortbow sockets you save money in replacement costs by eliminating costly downtime.

Swage sockets are drop forged from special bar quality carbon steel C-1035 and spheroidized annealed to be suitable for cold swaging.

## Finish

Green Pin® open and closed spelter sockets and open wedge sockets are galvanized. Swage sockets are self coloured.

## Certification

Upon request, Green Pin® open and closed spelter sockets, open wedge and shortbow sockets can be supplied with a works certificate, a proof load test certificate and EC Declaration of Conformity to the Machine Directive 2006/42/EC. All sockets are marked with the batch number which refers to the supplied certificate.

Swage sockets can be supplied with a works certificate.

## Instructions for use

### 1) Open spelter sockets – closed spelter sockets

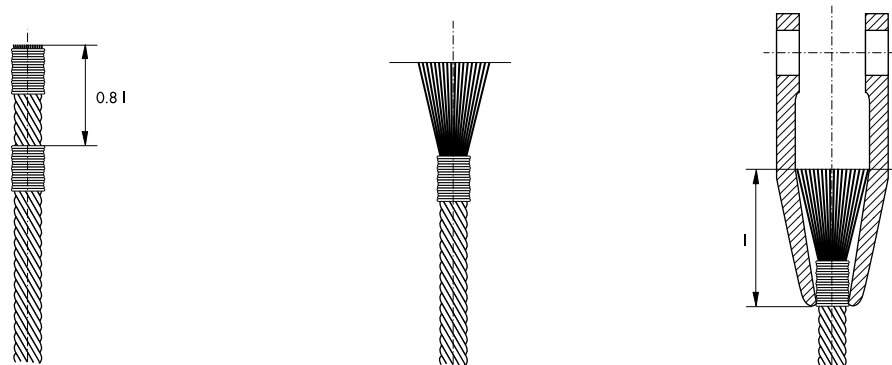


Figure 1

- brooming is done after the wire rope has been placed into the socket
- when using resins always exactly follow the instructions given by the manufacturer of the resins
- socketing is only to be carried out by specialists from a certified sling shop

## 2) Open wedge sockets

The wedge and body act as a vice which grips the wire rope and locks it in place. Green Pin® wedge sockets may be used within the range of wire rope diameters as shown in the table further on in the catalogue.

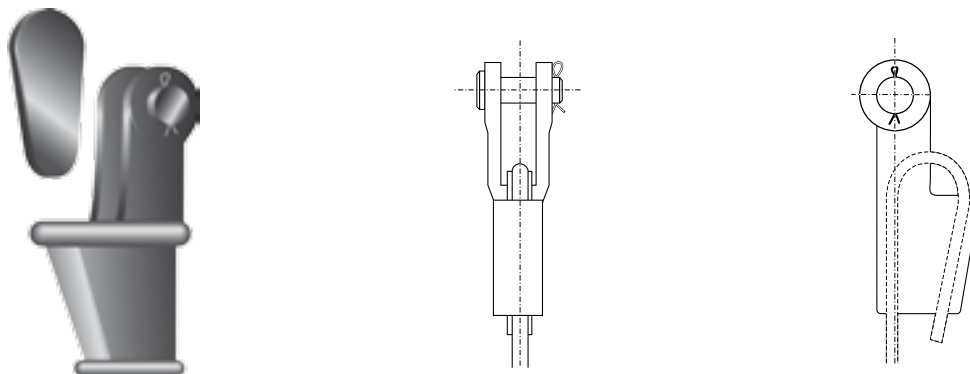


Figure 2

When using open wedge sockets the following precautions should be taken:

- before use always inspect the socket, the wedge and the pin
- use only with standard 6-8 strand wire rope
- always be sure that socket and wedge have the correct size for the wire rope diameter
- the loaded part of the steel wire rope should be mounted in the centre line of the pin
- when installing the wire rope, always pre-load the wedge with the wire rope in place
- never weld the tail on standard wire rope; the tail should have a length of at least 6 times the wire rope diameter with a minimum of 150 mm, secure the dead end of the rope with a wire rope clip as shown in figure 3
- before applying the first load always use a hammer to seat the wedge and rope as deep as possible into the socket
- check the assembly regularly to re-tighten or re-position if necessary
- never side load the wedge socket as it has not been designed for that purpose
- load may slip if the connection is not properly installed
- the efficiency of a wire rope - wedge socket connection is 80% of the minimum breaking load of the wire but limited to the minimum breaking load of the socket
- only use the original wedge supplied by the manufacturer of the socket and be sure it is suitable for the diameter of the rope used
- never use a wedge from any other supplier than the original socket supplier as the dimensions will not match

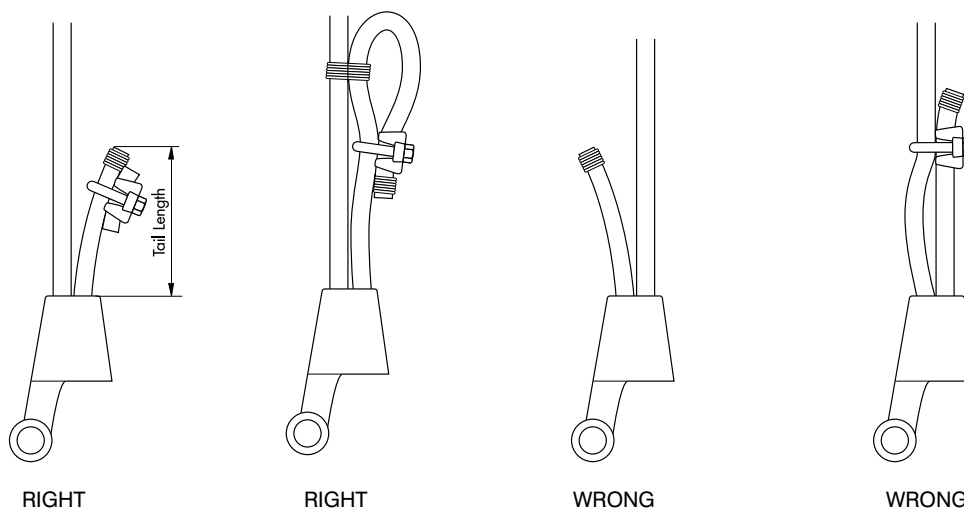


Figure 3

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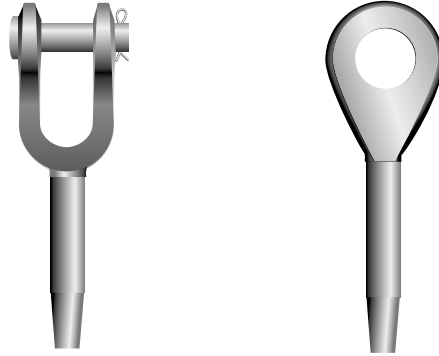
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## 3) Swage sockets



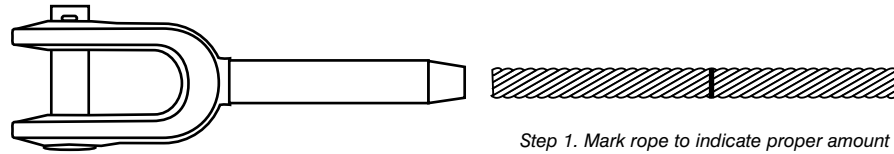
Open swage socket

Closed swage socket

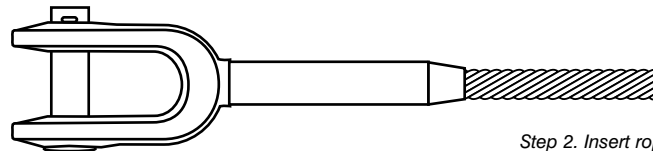
Figure 4

- swage sockets are recommended for use on 6 x 19 or 6 x 37 IWRC regular lay ropes
- mark the rope to indicate the proper length of rope to be inserted into the socket (figure 5)
- insert the rope into the socket and swage the socket with the specified dies (figure 5)
- all slings terminated with swage sockets must be proof loaded
- always swage under supervision of a specialist from a certified sling shop

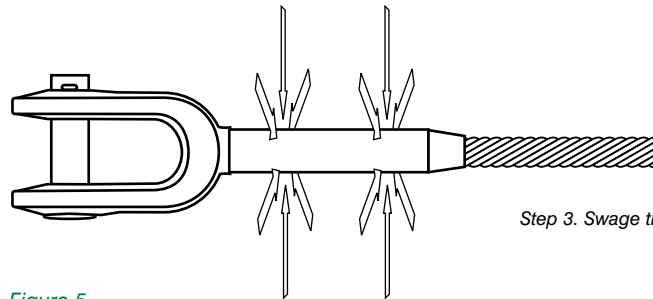
It is required that the products are regularly inspected and that the inspection should take place in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc. with a consequence of deformation and alteration of the material structure. Inspection should take place at least every six months and even more frequently when the sockets are used in severe operating conditions.



Step 1. Mark rope to indicate proper amount to insert into socket.

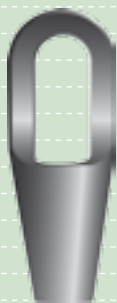


Step 2. Insert rope into socket.

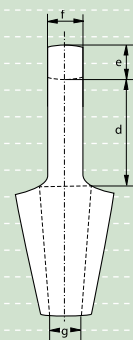
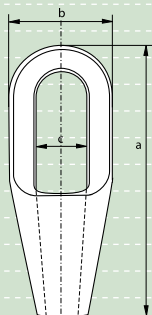


Step 3. Swage the socket.

Figure 5



G-6411



## Green Pin® sockets

### closed spelter socket

- **Material** : high tensile steel
- **Finish** : hot dipped galvanized
- **Temperature Range**: -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	width	width inside bow	length inside bow	thickness bow	thickness bow	opening	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
296	8	6 - 7	101	37	22	40	11	13	8.5	0.3
297	12	8 - 10	119	43	25	48	14	17.5	12	0.5
298	20	11 - 13	140	52	30	58	18	23.4	14.8	0.7
299	25	14 - 16	162	68	37	66	21	26	17.6	1.5
200	40	18 - 19	194	76	42	78	27	32	21.5	2.1
201	55	20 - 22	224	92	47	90	33	38	24	3.6
204	75	23 - 26	253	104	57	103	36	44	28	5.8
207	90	27 - 30	282	114	63	116	39	51	32	7
212	125	31 - 36	312	127	70	130	43	57	38	10.5
215	150	37 - 39	358	136	79	155	51	63	41	13
217	170	40 - 42	390	146	83	171	54	70	44	17
219	225	43 - 48	443	171	93	198	55	76	51	26
222	280	49 - 54	502	193	100	224	62	82	57	37.5
224	360	55 - 60	548	216	112	247	73	92	63	50
226	425	61 - 68	597	241	140	270	79	102	73	65
227	460	69 - 75	644	273	159	286	79	124	79	94
228	560	76 - 80	686	292	171	298	83	133	86	115
229	625	81 - 86	743	311	184	311	102	146	92	145
230	720	87 - 93	788	330	197	330	102	159	99	168
231	875	94 - 102	845	362	216	356	108	178	108	210
233	1200	108 - 115	1000	405	235	425	125	190	125	330
240	1300	120 - 130	1150	450	260	525	125	200	143	500



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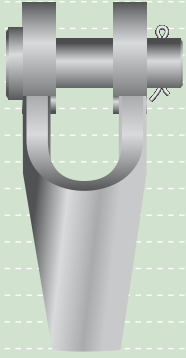
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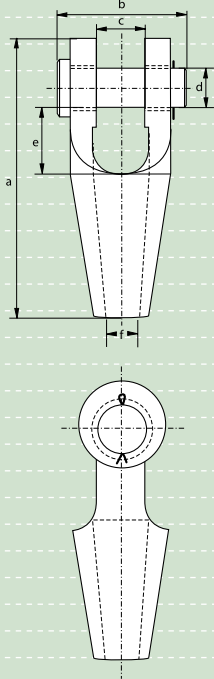
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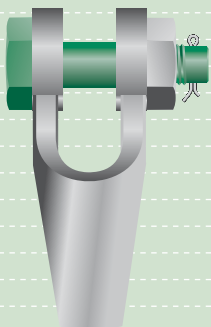
## Green Pin® sockets

### open spelter socket

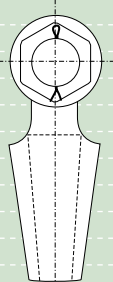
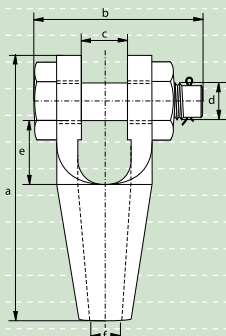
- **Material** : high tensile steel
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	width	width inside	dia- meter pin	length inside	opening	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	kg
196	8	6 - 7	109	51	19	16	30	8.5	0.4
197	12	8 - 10	124	63	21	21	34	12	0.8
198	20	11 - 13	143	67	26	25	37	15	1
199	25	14 - 16	172	85	33	30	49	18	1.8
100	40	18 - 19	205	98	38	35	58	21	3
104	55	20 - 22	235	111	44	41	68	24	4.6
108	75	23 - 26	275	132	51	51	75	28	8
111	90	27 - 30	306	144	57	57	85	32	11
115	125	31 - 36	338	155	63	63	95	38	16
118	150	37 - 39	394	180	76	70	127	41	23
120	170	40 - 42	418	187	76	76	127	44	27
125	225	43 - 48	468	213	89	89	133	51	41
128	280	49 - 54	552	240	101	95	180	57	58
130	360	55 - 60	598	270	113	108	196	63	85
132	425	61 - 68	654	303	127	121	212	73	125
135	460	69 - 75	696	349	133	127	215	79	155
138	560	76 - 80	737	371	146	133	219	86	173
140	625	81 - 86	788	391	159	140	228	92	230
142	720	87 - 93	852	411	171	152	242	99	265
144	875	94 - 102	914	447	191	178	254	108	370
146	1200	108 - 115	1160	489	206	193	367	125	525
150	1300	120 - 130	1310	603	225	250	390	143	735





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## Green Pin® sockets

### open spelter socket with safety bolt

- **Material** : high tensile steel
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	width	width inside	diameter pin	length inside	opening	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	kg
196	8	6 - 7	109	62	19	16	30	8.5	0.4
197	12	8 - 10	124	75	21	21	34	12	0.8
198	20	11 - 13	143	109	26	25	37	15	1
199	25	14 - 16	172	133	33	30	49	18	1.8
100	40	18 - 19	205	145	38	35	58	21	3
104	55	20 - 22	235	161	44	41	68	24	4.6
108	75	23 - 26	275	189	51	50	75	28	8
111	90	27 - 30	306	208	57	57	85	32	11
115	125	31 - 36	338	226	63	63	95	38	16
118	150	37 - 39	394	246	76	70	127	41	23
120	170	40 - 42	418	256	76	77	127	44	27



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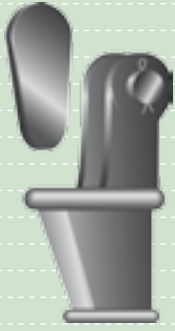
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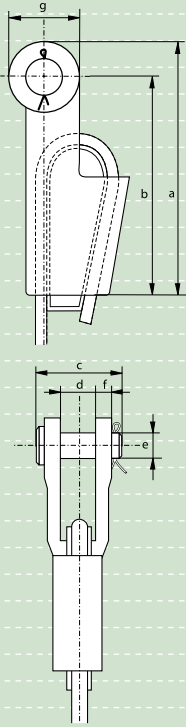
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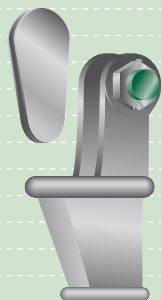


## Green Pin® sockets open wedge socket

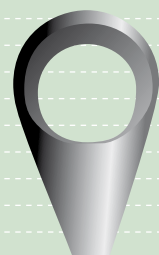
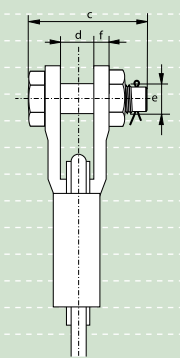
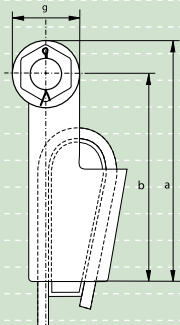
- **Material** : high tensile steel
- **Standard** : generally to EN 13411-6
- **Finish** : hot dipped galvanized
- **Temperature Range**: -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	length to center pin	width	width inside	diameter pin	thickness side plates	diameter eye	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.25	8	7 - 8	128	110	51	18	16	9	36	0.8
0.5	12	9 - 10	165	142	62	20	21	11	46	1.5
1	20	11 - 13	175	146	66	25	25	12	57	2.4
2	25	14 - 16	211	176	82	31	30	15	70	4
3	40	18 - 19	252	212	95	38	35	16	80	7
4	55	20 - 22	288	240	110	44	41	19	95	11
5	75	24 - 26	329	274	130	51	51	22	110	16
6	90	27 - 29	375	310	145	57	57	25	130	21
7	110	30 - 32	423	350	155	63	64	28	146	30
8	125	34 - 36	474	400	163	69	64	28	148	37
9	150	37 - 39	527	450	178	76	70	30	153	51
10	170	40 - 42	580	500	187	76	76	33	160	64
11	225	43 - 48	650	550	226	89	89	39	186	96
12	280	49 - 52	745	640	257	101	95	46	194	130
13	360	54 - 58	785	660	275	114	108	54	230	180
14	425	60 - 68	970	835	300	127	121	60	250	275
15	460	72 - 76	1150	1000	355	146	133	76	270	440
16	625	81 - 86	1252	1100	375	159	140	79	300	510

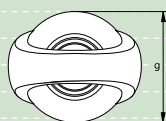
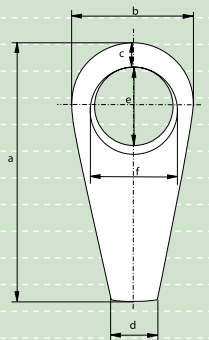




G-6423



G-6416



## Green Pin® sockets

### open wedge socket with safety bolt

- **Material** : high tensile steel
- **Standard** : generally to EN 13411-6
- **Finish** : hot dipped galvanized
- **Temperature Range**: -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

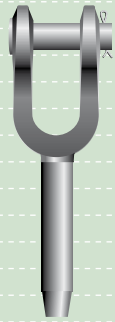
number	minimum breaking load	diameter wire rope	length	length to center pin	width	width inside	diameter pin	thickness side plates	diameter eye	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.25	8	7 - 8	128	110	76	18	16	9	36	0.8
0.5	12	9 - 10	165	142	91	20	20	11	46	1.5
1	20	11 - 13	175	146	109	25	25	12	57	2.4
2	25	14 - 16	211	176	133	31	30	15	70	4
3	40	18 - 19	252	212	145	38	35	16	80	7
4	55	20 - 22	288	240	161	44	41	19	95	11
5	75	24 - 26	329	274	189	51	50	22	110	16
6	90	27 - 29	375	310	208	57	57	25	130	21
7	110	30 - 32	423	350	226	63	63	28	146	30
8	125	34 - 36	474	400	233	69	65	28	148	37
9	150	37 - 39	527	450	246	76	70	30	153	51
10	170	40 - 42	580	500	256	76	77	33	160	64

## Short bow sockets

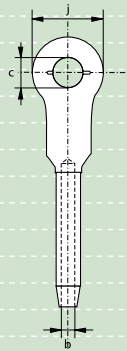
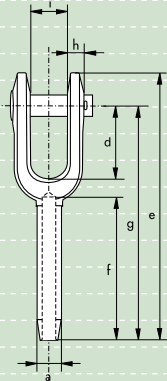
### closed spelter socket

- **Material** : alloy steel
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate and a proof load test certificate can be supplied upon request

diameter wire rope	length	width	thickness bow	width	length eye	width eye	thickness	weight each
inch	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
1 1/4 - 1 3/8	246	122	38	48	83	76	97	18
1 1/2 - 1 5/8	305	152	40	57	104	92	123	22
1 3/4 - 1 7/8	356	178	47	66	121	112	140	28
2 - 2 1/8	391	202	53	76	133	121	158	32
2 1/4 - 2 3/8	438	221	61	80	146	133	184	44
2 1/2 - 2 5/8	457	264	68	96	165	149	217	56
2 3/4 - 2 7/8	540	273	74	105	178	163	222	68
3 - 3 1/8	584	295	76	115	194	174	243	100
3 1/4 - 3 3/8	626	319	82	121	216	194	260	120
3 1/2 - 3 5/8	670	340	92	127	219	202	270	145
3 3/4 - 3 7/8	698	356	98	133	235	214	290	190
4 - 4 1/4	803	412	112	152	270	242	318	250



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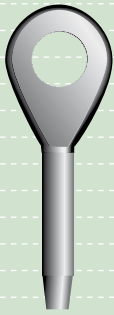


## Green Pin® swage sockets

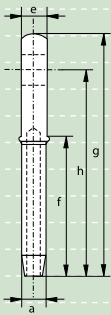
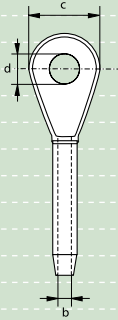
### open type

- **Material** : drop forged steel C-1035
- **Finish** : self coloured

diameter rope	diameter before swage	diameter after swage		diameter inside	diameter pin	length	length	length	length	thickness	width inside	width eye	weight each
mm	a	a min	a max	b	c	d	e	f	g	h	i	j	kg
6	13	10.9	11.7	7	17	38	121	54	102	8	17	35	0.25
8	20	17.2	18.0	9	21	44	159	81	135	10	21	41	0.50
10	20	17.2	18.0	12	21	44	159	81	135	10	21	41	0.49
11	25	22.0	23.1	12	25	51	198	108	169	13	25	51	1.11
13	25	22.0	23.1	14	25	51	198	108	169	13	25	51	1.11
14	32	28.3	29.5	15	30	57	243	135	206	16	32	63	2.09
16	32	28.3	29.5	17	30	57	243	135	206	16	32	63	2.04
19	39	34.7	36.1	20	35	70	297	162	254	19	38	76	3.54
22	43	37.8	39.4	24	41	83	346	189	295	23	44	86	5.31
25	50	44.2	45.7	27	51	95	397	216	340	26	51	102	8.07
29	57	50.5	52.1	30	57	108	444	243	381	30	57	114	13.5
32	64	56.8	58.4	34	64	121	494	270	419	30	63	127	16.3
35	71	63.2	65.0	37	64	133	540	297	460	33	63	133	21.3
38	78	69.6	71.4	40	70	146	591	324	502	37	76	146	29.5
44	86	75.9	77.7	47	89	171	689	378	584	43	89	178	42.2
51	100	88.6	90.4	54	95	203	798	432	679	46	102	203	65.8
57	113	100.3	102.1	60	108	171	835	486	705	65	114	222	93.4
63	125	110.5	112.3	67	108	171	879	498	749	65	114	222	103
76	151	113.1	134.9	80	133	219	1045	603	905	76	146	241	181



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## Green Pin® swage sockets

### closed type

- Material : drop forged steel C-1035
- Finish : self coloured

diameter rope	diameter before swage	diameter after swage		diameter inside	diameter	diameter eye	thickness	length	length	length	weight each
		min	max								
mm	a	a	a	b	c	d	e	f	g	h	kg
6	13	10.9	11.7	7	37	19	13	54	111	89	0.15
8	20	17.2	18.0	9	43	22	17	81	140	114	0.36
10	20	17.2	18.0	12	43	22	17	81	140	114	0.35
11	25	22.0	23.1	12	51	27	22	108	176	146	0.66
13	25	22.0	23.1	14	51	27	22	108	176	146	0.63
14	32	28.3	29.5	15	63	32	29	135	222	184	1.26
16	32	28.3	29.5	17	63	32	29	135	222	184	1.25
19	39	34.7	36.1	20	76	37	33	162	264	219	2.27
22	43	37.8	39.4	24	89	43	38	189	308	257	3.40
25	50	44.2	45.7	27	102	52	44	216	349	292	5.08
29	57	50.5	52.1	30	114	59	51	243	387	324	7.17
32	64	56.8	58.4	34	127	65	57	270	438	365	10.4
35	71	63.2	65.0	37	133	65	57	297	479	400	14.1
38	78	69.6	71.4	40	140	71	63	324	518	432	17.7
44	86	75.9	77.7	47	171	91	76	378	610	508	23.6
51	100	88.6	90.4	54	197	97	83	432	698	584	40.8
57	113	100.3	102.1	60	219	110	102	486	756	632	55.3
63	125	110.5	112.3	67	219	110	102	498	791	667	64.4
76	151	113.1	134.9	80	235	135	137	603	959	816	114

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