

## Applications

Turnbuckles are normally used for rigging or tensioning of wires, ropes, rods etc. They are designed for straight / in-line rigging, tensioning or lashing.

## Range

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

- Load rated Green Pin® turnbuckles;
- Open body rigging screws generally to DIN 1480;
- Rigging screws with welding ends;
- Closed body rigging screws;
- Special turnbuckles for lashing (hamburgers).

## Design

Green Pin® turnbuckles are manufactured to ASTM F1145-92, formerly U.S. Fed. Spec. FF-T-791, and have a safety factor of 5 to 1. The Green Pin® turnbuckles are drop forged.

Turnbuckles can be equipped with the following end fittings: eye/eye, hook/hook, hook/eye, jaw/jaw and jaw/eye. All parts are interchangeable, locking nuts are supplied with all sizes.

Rigging screws generally to DIN 1480 are available with welding ends and in hook/eye, eye/eye, hook/hook and jaw/jaw combinations.

Closed body rigging screws are available in jaw/jaw, jaw/eye and eye/eye combinations.

## Finish

Load rated Green Pin® turnbuckles and closed body rigging screws are hot dipped galvanized. Rigging screws according to DIN 1480 are electro-galvanized whereas lashing turnbuckles are self coloured or can be painted upon request.

## Certification

Upon request, Green Pin® turnbuckles can be supplied with a works certificate and a proof load test certificate.

## Instructions for use

Turnbuckles must be used for straight or in-line pulling only.

Special attention should be paid to prevent overloading.

While tensioning, the forces on the turnbuckle must not be such that any deformation occurs. In case of deformation, the tension should be decreased immediately and deformed parts should be replaced. Extreme circumstances or shock loading, if applicable, must be taken into account when selecting the correct products to be used for the application.

For the rigging of wires, ropes, rods etc., Green Pin® turnbuckles are recommended to be used.

The Working Load Limit (WLL) should be applied in a straight pull only and overloading is not permitted.

Nor should side loads be applied, as the products have not been designed for this purpose.

Open body rigging screws are used for tensioning wires and ropes for minor loads (i.e. rope railings).

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 steel structure.

## Safe use of turnbuckles

Turnbuckles should be inspected before use to insure that:

- the threads of the body and the end fittings are of the same type;
- the threads of the body and the end fittings are undamaged;
- the body and end fittings are not distorted or unduly worn;
- the body and end fittings are free from nicks, gouges and cracks.

Furthermore, it must be ensured that the end fittings are correctly screwed into the body. Always use the locking nuts supplied to prevent the turnbuckles from unscrewing.

Never replace an end fitting, other than the one designed for the purpose, as it may not be suitable for the loads imposed.



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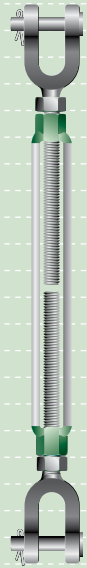
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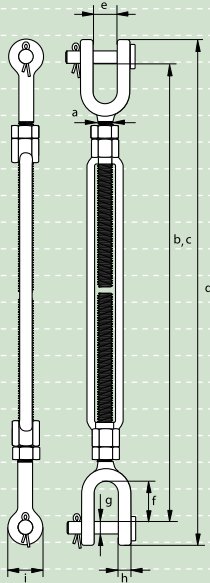
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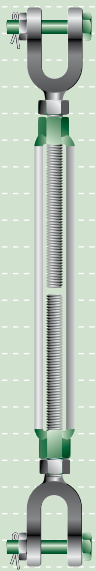
## Green Pin® turnbuckles Jaw - Jaw with cotter pin generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

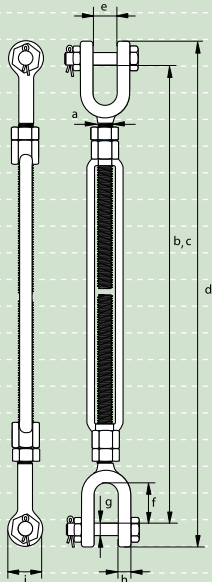
working load limit	diameter thread	take up	length closed position	length open position	length closed position	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
t	a	inch	b	c	d	e	f	g	h	i	kg
2.36	3/4	6	368	487	438	24	38	16	16	41	2.68
2.36	3/4	9	442	639	512	24	38	16	16	41	3.03
2.36	3/4	12	518	791	588	24	38	16	16	41	3.29
2.36	3/4	18	671	1095	740	24	38	16	16	41	3.65
3.27	7/8	12	559	825	636	27	42	19	19	48	4.90
3.27	7/8	18	712	1131	789	27	42	19	19	48	5.95
4.54	1	6	447	555	532	30	50	22	20	55	5.21
4.54	1	12	598	859	683	30	50	22	20	55	6.96
4.54	1	18	750	1164	835	30	50	22	20	55	8.4
4.54	1	24	902	1469	987	30	50	22	20	55	8.9
6.9	1 1/4	12	641	916	748	44	71	29	26	68	11.9
6.9	1 1/4	18	793	1218	900	44	71	29	26	68	13.6
6.9	1 1/4	24	961	1538	1069	44	71	29	26	68	14.2
9.71	1 1/2	12	675	941	806	52	71	35	28	80	16.9
9.71	1 1/2	18	825	1244	956	52	71	35	28	80	19.3
9.71	1 1/2	24	980	1550	1111	52	71	35	28	80	20.7
12.7	1 3/4	18	933	1310	1095	59	86	42	33	90	25
12.7	1 3/4	24	1084	1614	1246	59	86	42	33	90	28.7
16.8	2	24	1153	1672	1338	63	93	51	41	108	45.4
27.2	2 1/2	24	1254	1830	1479	75	114	57	41	143	88
34	2 3/4	24	1305	1878	1561	90	110	70	41	158	98

## Green Pin® turnbuckles Jaw - Jaw with safety bolt generally to ASTM F1145-92

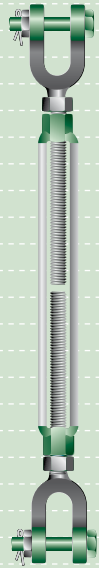
- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request



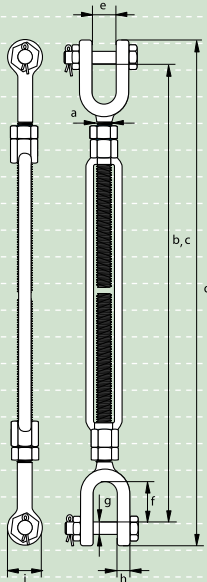
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working load limit	diameter thread	take up	length closed position	length open position	length closed position	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
t	a	b	c	d	e	f	g	h	i	kg	
0.54	3/8	6	273	409	305	12	21	8	9	21	0.57
1	1/2	6	305	435	344	16	26	10	11	26	0.96
1	1/2	9	380	587	418	16	26	10	11	26	1.18
1	1/2	12	455	739	494	16	26	10	11	26	1.50
1.59	5/8	6	346	469	406	18	32	13	14	33	1.84
1.59	5/8	9	421	622	481	18	32	13	14	33	2.12
1.59	5/8	12	496	773	556	18	32	13	14	33	2.56
2.36	3/4	6	368	487	438	24	38	16	16	41	2.68
2.36	3/4	9	442	639	512	24	38	16	16	41	3.03
2.36	3/4	12	518	791	588	24	38	16	16	41	3.29
2.36	3/4	18	671	1095	740	24	38	16	16	41	3.65
3.27	7/8	12	559	825	636	27	42	19	19	48	4.90
3.27	7/8	18	712	1131	789	27	42	19	19	48	5.95
4.54	1	6	447	555	532	30	50	22	20	55	5.21
4.54	1	12	598	859	683	30	50	22	20	55	6.96
4.54	1	18	750	1164	835	30	50	22	20	55	8.4
4.54	1	24	902	1469	987	30	50	22	20	55	8.9
6.9	1 1/4	12	641	916	748	44	71	28	26	68	11.9
6.9	1 1/4	18	793	1218	900	44	71	28	26	68	13.6
6.9	1 1/4	24	961	1538	1069	44	71	28	26	68	14.2
9.71	1 1/2	12	675	941	806	52	71	35	28	80	16.9
9.71	1 1/2	18	825	1244	956	52	71	35	28	80	19.3
9.71	1 1/2	24	980	1550	1111	52	71	35	28	80	20.7
12.7	1 3/4	18	933	1310	1095	59	86	42	33	90	25
12.7	1 3/4	24	1084	1614	1246	59	86	42	33	90	28.7
16.8	2	24	1153	1672	1338	63	93	50	41	108	45.4
27.2	2 1/2	24	1254	1830	1479	75	114	57	41	143	88
34	2 3/4	24	1305	1878	1561	90	110	70	41	158	98



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## Green Pin® Polar turnbuckles Jaw - Jaw with safety bolt

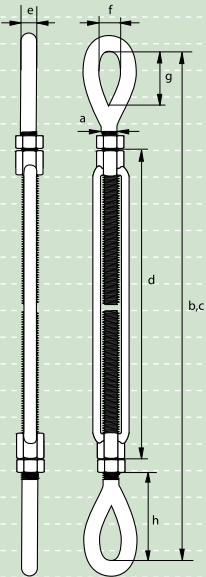
generally to ASTM F1145-92

- **Material** : drop forged alloy steel, Grade 8, quenched and tempered
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Temperature Range** : -40°C up to +200°C
- **Certification** : a works certificate, 3.1 material certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	length closed position	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
t	a	inch	b	c	d	e	f	g	h	i	kg
1	1/2	12	455	739	494	16	26	10	11	26	1.50
1.59	5/8	12	496	773	556	18	32	13	14	33	2.56
2.36	3/4	18	671	1095	740	24	38	16	16	41	3.65
3.27	7/8	18	712	1131	789	27	42	19	19	48	5.95
4.54	1	18	750	1164	835	30	50	22	20	55	8.4
6.9	1 1/4	18	793	1218	900	44	71	29	26	68	13.6
9.71	1 1/2	18	825	1244	956	52	71	35	28	80	19.3
12.7	1 3/4	18	933	1310	1095	59	86	42	33	90	25



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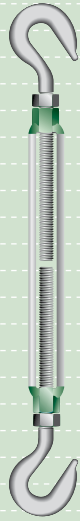


## Green Pin® turnbuckles Eye - Eye

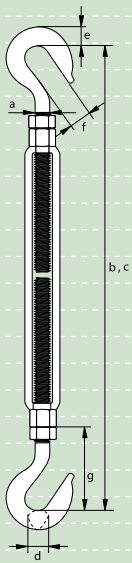
generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	length	diameter	width inside	length inside	length closed position	weight each
t	a	b	c	d	e	f	g	h	h	kg
	inch	inch	mm	mm	mm	mm	mm	mm	mm	
0.54	3/8	6	292	428	183	10	13	29	49	0.47
1	1/2	6	325	455	193	12	18	36	58	0.84
1	1/2	9	400	607	269	12	18	36	57	1.05
1	1/2	12	476	760	346	12	18	36	57	1.26
1.59	5/8	6	381	503	203	14	21	44	79	1.35
1.59	5/8	9	455	655	279	14	21	44	78	1.60
1.59	5/8	12	531	808	356	14	21	44	78	1.92
2.36	3/4	6	414	532	213	17	25	54	90	2.03
2.36	3/4	9	488	684	289	17	25	54	89	2.49
2.36	3/4	12	564	837	366	17	25	54	89	2.65
2.36	3/4	18	717	1142	518	17	25	54	89	3.06
3.27	7/8	12	601	869	376	20	32	61	100	3.98
3.27	7/8	18	754	1174	528	20	32	61	101	5.12
4.54	1	6	497	604	233	24	36	75	118	4.35
4.54	1	12	647	909	386	24	36	75	117	5.92
4.54	1	18	800	1214	538	24	36	75	117	7.17
4.54	1	24	950	1517	690	24	36	75	116	7.52
6.9	1 1/4	12	711	984	385	30	46	90	145	9.8
6.9	1 1/4	18	861	1286	537	30	46	90	144	11.31
6.9	1 1/4	24	1014	1590	689	30	46	90	144	12.1
9.71	1 1/2	12	756	1023	401	32	54	105	156	14.2
9.71	1 1/2	18	916	1335	553	32	54	105	160	16.5
9.71	1 1/2	24	1065	1635	705	32	54	105	158	17.1
12.7	1 3/4	18	1019	1396	577	38	60	119	197	23.1
12.7	1 3/4	24	1171	1701	729	38	60	119	196	26.3
16.8	2	24	1264	1783	746	46	69	147	231	40.7
27.2	2 1/2	24	1429	1965	800	51	80	165	274	64
34	2 3/4	24	1503	2038	800	57	84	178	311	88



G-6312



## Green Pin® turnbuckles Hook - Hook generally to ASTM F1145-92

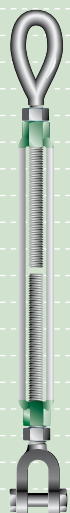
- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	thickness hook	thickness hook	opening hook	length closed position	weight each
t	a inch	inch	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.45	3/8	6	280	415	10	15	14	43	0.36
0.68	1/2	6	311	440	13	19	16	51	0.62
0.68	1/2	9	385	592	13	19	16	50	0.85
0.68	1/2	12	461	745	13	19	16	50	1.04
1.02	5/8	6	357	480	16	23	21	67	0.98
1.02	5/8	9	432	632	16	23	21	67	1.18
1.02	5/8	12	508	785	16	23	21	67	1.71
1.36	3/4	6	393	511	20	27	24	79	1.53
1.36	3/4	9	467	663	20	27	24	78	1.88
1.36	3/4	12	543	816	20	27	24	78	2.3
1.36	3/4	18	695	1121	20	27	24	78	2.85
1.81	7/8	12	580	846	24	31	28	90	3.33
1.81	7/8	18	733	1152	24	31	28	90	4.24
2.27	1	6	479	586	26	35	31	109	3.87
2.27	1	12	625	886	26	35	31	106	5.09
2.27	1	18	778	1191	26	35	31	106	6
2.27	1	24	928	1495	26	35	31	105	7.52
2.95	1 1/4	12	683	952	31	38	37	131	8.12
2.95	1 1/4	18	835	1256	31	38	37	131	10.4
2.95	1 1/4	24	987	1560	31	38	37	130	12.1
3.4	1 1/2	12	763	1006	34	45	45	160	12.7
3.4	1 1/2	18	910	1305	34	45	45	157	15.1
3.4	1 1/2	24	1062	1610	34	45	45	157	17.1

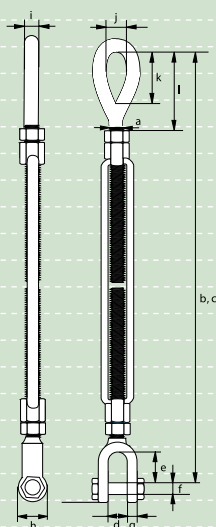
## Green Pin® turnbuckles Eye - Jaw

### generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request
- **Note** : jaw ends up to and including 5/8" are fitted with bolts and nuts, sizes 3/4" and up are equipped with pins and cotters.

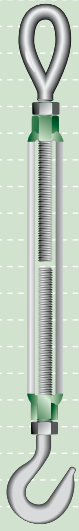


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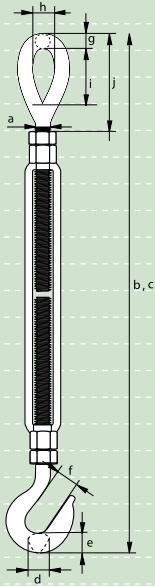


working load limit	diameter thread	take up	length closed position	length open position	opening jaw	length inside jaw	diameter pin jaw	thickness eye jaw	diameter eye jaw	diameter eye	width inside eye	length inside eye	length closed position	weight each
t	a	b	c	d	e	f	g	h	i	j	k	l	kg	
0.54	3/8	6	283	418	12	21	8	9	21	10	13	29	49	0.51
1	1/2	6	315	445	16	26	10	11	26	12	18	36	58	0.89
1	1/2	9	389	597	16	26	10	11	26	12	18	36	57	1.10
1	1/2	12	465	749	16	26	10	11	26	12	18	36	57	1.31
1.59	5/8	6	363	486	18	32	13	14	33	14	21	44	79	1.58
1.59	5/8	9	438	638	18	32	13	14	33	14	21	44	78	1.84
1.59	5/8	12	514	790	18	32	13	14	33	14	21	44	78	2.22
2.36	3/4	6	391	509	24	38	16	16	41	17	25	54	90	2.34
2.36	3/4	9	465	661	24	38	16	16	41	17	25	54	89	2.72
2.36	3/4	12	541	814	24	38	16	16	41	17	25	54	89	2.95
2.36	3/4	18	694	1118	24	38	16	16	41	17	25	54	89	3.30
3.27	7/8	12	580	847	27	42	19	19	48	20	32	61	100	4.35
3.27	7/8	18	733	1152	27	42	19	19	48	20	32	61	101	5.46
4.54	1	6	472	579	30	50	22	20	55	24	36	75	118	4.66
4.54	1	12	623	884	30	50	22	20	55	24	36	75	117	6.35
4.54	1	18	775	1189	30	50	22	20	55	24	36	75	117	7.98
4.54	1	24	926	1493	30	50	22	20	55	24	36	75	116	8.39
6.9	1 1/4	12	676	949	44	71	29	26	68	30	46	90	145	10.92
6.9	1 1/4	18	832	1257	44	71	29	26	68	30	46	90	144	11
6.9	1 1/4	24	988	1564	44	71	29	26	68	30	46	90	144	12.9
9.71	1 1/2	12	716	982	52	71	35	28	80	32	54	105	156	13.1
9.71	1 1/2	18	871	1289	52	71	35	28	80	32	54	105	160	14.7
9.71	1 1/2	24	1022	1593	52	71	35	28	80	32	54	105	158	17.8
12.7	1 3/4	18	980	1356	59	86	42	33	90	38	60	119	197	22.3
12.7	1 3/4	24	1131	1661	59	86	42	33	90	38	60	119	196	27.5
16.8	2	24	1208	1728	63	93	51	41	108	46	69	147	231	42.9
27.2	2 1/2	24	1341	1866	75	114	57	41	143	51	80	165	274	68
34	2 3/4	24	1404	1923	90	110	70	41	158	57	84	178	311	91





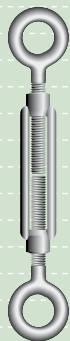
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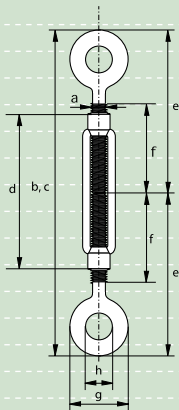
## Green Pin® turnbuckles Eye - Hook generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	thickness hook	thickness hook	opening hook	diameter eye	width inside eye	length inside eye	length closed position	weight each
t	a inch	inch	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	kg
0.45	3/8	6	286	422	10	15	14	10	13	29	49	0.47
0.68	1/2	6	318	448	13	19	16	12	18	36	58	0.82
0.68	1/2	9	392	600	13	19	16	12	18	36	57	1.06
0.68	1/2	12	469	752	13	19	16	12	18	36	57	1.28
1.02	5/8	6	369	491	16	23	21	14	21	44	79	1.31
1.02	5/8	9	443	644	16	23	21	14	21	44	78	1.56
1.02	5/8	12	520	796	16	23	21	14	21	44	78	1.71
1.36	3/4	6	403	522	20	27	24	17	25	54	90	2.04
1.36	3/4	9	477	674	20	27	24	17	25	54	89	4.49
1.36	3/4	12	554	826	20	27	24	17	25	54	89	2.3
1.36	3/4	18	706	1131	20	27	24	17	25	54	89	2.85
1.81	7/8	12	590	858	24	31	28	20	32	61	100	3.33
1.81	7/8	18	744	1163	24	31	28	20	32	61	101	4.24
2.27	1	6	488	595	26	35	31	24	36	75	118	3.87
2.27	1	12	636	897	26	35	31	24	36	75	117	5.09
2.27	1	18	789	1202	26	35	31	24	36	75	117	6
2.27	1	24	939	1506	26	35	31	24	36	75	116	7.52
2.95	1 1/4	12	697	968	31	38	37	30	46	90	145	8.12
2.95	1 1/4	18	848	1271	31	38	37	30	46	90	144	10.4
2.95	1 1/4	24	1000	1575	31	38	37	30	46	90	144	12.1
3.4	1 1/2	12	760	1014	34	45	45	32	54	105	156	12.7
3.4	1 1/2	18	913	1320	34	45	45	32	54	105	160	15.1
3.4	1 1/2	24	1063	1623	34	45	45	32	54	105	158	17.1



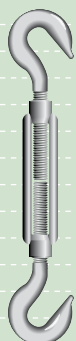
E-6351



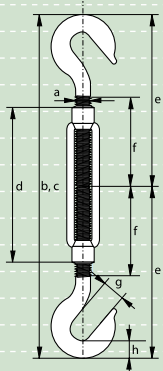
## Rigging screws Eye - Eye according to DIN 1480

- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized

diameter thread	length closed position	length open position	length body	length end fitting	length thread	diameter eye outside	diameter eye inside	weight each
a	b	c	d	e	f	g	h	kg
mm	mm	mm	mm	mm	mm	mm	mm	
5	114	170	70	57	35	16	8	0.07
6	160	246	110	80	55	20	9	0.11
8	168	248	110	84	57	22	10	0.2
10	210	300	125	105	68	31	14	0.28
12	222	305	125	110	70	35	16	0.43
14	244	334	140	123	75	40	18	0.61
16	300	416	170	143	88	47	22	1
20	334	466	200	165	105	52	24	1.6
22	372	527	220	185	118	60	27	2.2
24	410	587	255	208	135	65	27	2.8
30	440	605	255	220	135	71	31	4.1
33	490	690	295	245	148	88	36	6
36	554	740	295	277	158	94	38	8.5
42	600	800	330	300	170	110	49	11



E-6352



## Rigging screws Hook - Hook according to DIN 1480

- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized

diameter thread	length closed position	length open position	length body	length end fitting	length thread	opening hook	thickness hook	weight each
a	b	c	d	e	f	g	h	kg
mm	mm	mm	mm	mm	mm	mm	mm	
6	184	270	110	92	55	8	15	0.11
8	200	280	110	100	57	10.5	15	0.2
10	234	323	125	117	68	13	11	0.28
12	260	343	125	130	70	16	13	0.43
14	278	368	140	139	75	18	15	0.61
16	322	438	170	161	88	20	17	1
20	382	514	200	191	105	21	21	1.6
22	456	601	220	228	118	24	28	2.2
24	496	673	255	248	135	26	33	2.8
30	550	715	255	275	135	34	35	4.1
33	600	799	295	300	148	38	40	6
36	640	825	295	320	158	46	45	8.3

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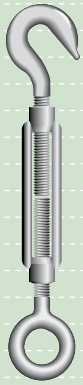
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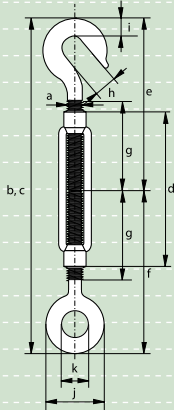
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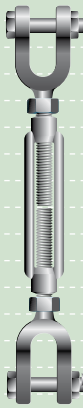
E-6354



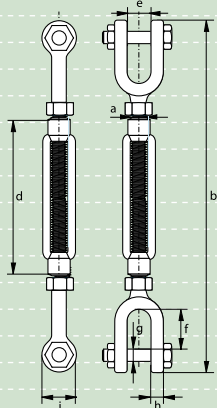
## Rigging screws Eye - Hook according to DIN 1480

- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized

diameter thread	length closed position	length open position	length body	length end fitting	length end fitting	length thread	opening hook	thickness hook	diameter eye outside	diameter eye inside	weight each
a	b	c	d	e	f	g	h	i	j	k	kg
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
5	125	180	70	56	57	35	7	12	16	8	0.07
6	172	258	110	77	80	55	8	15	20	9	0.11
8	184	264	110	85	84	57	10.5	15	22	10	0.2
10	222	311	125	106	105	68	13	11	31	14	0.28
12	241	324	125	117	111	70	16	13	35	16	0.43
14	261	351	140	124	122	75	18	15	40	18	0.61
16	311	427	170	144	150	88	20	17	47	22	1
20	358	490	200	170	167	105	21	21	52	24	1.6
22	414	559	220	200	186	118	24	28	60	27	2.2
24	453	630	255	215	205	135	26	33	65	27	2.8
30	495	660	255	240	220	135	34	35	71	31	4.1
33	545	744	295	260	245	148	38	40	88	36	6
36	597	782	295	275	277	158	46	45	94	38	8.4



E-6353



## Rigging screws Jaw - Jaw according to DIN 1480

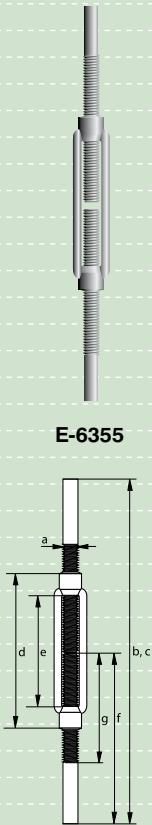
- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized
- **Note** : supplied with locking nuts

diameter thread	length closed position	length open position	length body	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
a	b	c	d	e	f	g	h	i	kg
mm	mm	mm	mm	mm	mm	mm	mm	mm	
6	191	277	110	7.5	12	M 6	5	13	0.16
8	194	274	110	8.5	12	M 6	6	14	0.21
10	236	325	125	11	16	M 8	8	18	0.38
12	266	349	125	13	20	M 10	10	24	0.66
14	316	406	140	16	30	M 12	12	28	1.15
16	374	490	170	18	38	M 12	12	32	1.45
20	438	570	200	20	42	M 16	16	38	2.61
22	466	611	220	22	44	M 18	18	40	3.24
24	514	691	255	24	46	M 20	20	42	4.35
30	544	709	255	30	50	M 24	22	46	6.48

## Rigging screws with Welding Ends according to DIN 1480

- Material : drop forged mild steel
- Standard : DIN 1480
- Finish : Body : electro-galvanized  
Welding ends : self coloured

diameter thread	length closed position	length open position	length body	length body inside	length stub-ends	length thread	weight per 100 pcs
a	b	c	d	e	f	g	kg
mm	mm	mm	mm	mm	mm	mm	
6	240	326	110	86	120	65	9.3
8	240	320	110	80	120	65	14
10	300	389	125	89	150	75	29
12	300	383	125	83	150	75	40
14	330	420	140	90	165	85	66
16	400	516	170	116	200	100	89
20	440	572	200	132	220	120	160
22	440	585	220	145	220	130	227
24	520	697	255	177	260	150	282
30	520	685	255	165	260	160	423
36	600	780	295	185	300	180	710

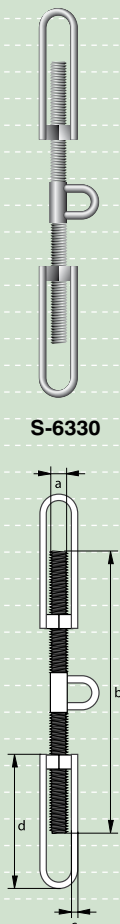


E-6355

## Turnbuckles (hamburgers) for deck lashing

- Material : mild steel
- Finish : self coloured

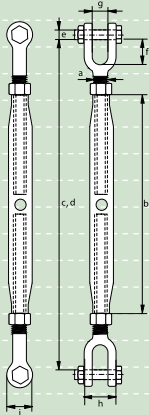
minimum breaking load	diameter thread	length thread	diameter bow	length bow	weight each
t	a	b	c	d	kg
	mm	mm	mm	mm	
13	24	400	16	210	3
13	24	500	16	260	3.8
18	27	400	18	210	4.4
18	27	500	18	260	5.5
20	30	400	20	210	5
20	30	500	20	260	6.3
21	36	400	20	210	7
21	36	500	20	260	8.8



S-6330



G-6343



## Closed body rigging screws

### Jaw - Jaw

- **Material** : mild steel
- **Safety factor** : MBL equals 5 x WLL,
- **Finish** : hot dipped galvanized
- **Note** : end fittings of 6 and 8 mm rigging screws are electro-galvanized

working load limit	diameter thread	length body	length closed position	length open position	diameter pin	length inside	opening jaw	width jaw	diameter jaw eye	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
0.2	6	100	170	250	5	16	7	20	13	0.16
0.32	8	108	199	279	6	22	9	24	14	0.27
0.5	10	125	222	312	8	22	10.5	28	19	0.45
0.7	12	195	315	470	10	27	13	34	23	0.85
1.2	16	230	388	568	12	33	18	42	29	1.57
1.5	20	270	449	654	16	38	20	51	33	2.67
2.2	22	295	490	715	20	45	25	55	38	3.68
3.2	24	325	538	793	22	52	30	70	46	5.3
4.8	33	370	680	965	30	70	38	82	60	12
6	39	400	707	1002	33	70	45	85	76	14.2
8.5	45	400	761	1011	39	86	50	94	85	20.8
11	48	400	780	1005	45	97	58	98	92	24

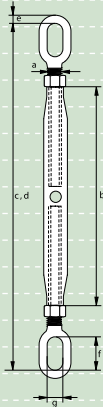
## Closed body rigging screws

### Eye - Eye

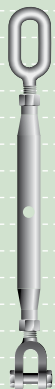
- **Material** : mild steel
- **Safety factor** : MBL equals 5 x WLL,
- **Finish** : hot dipped galvanized
- **Note** : end fittings of 6 and 8 mm rigging screws are electro-galvanized



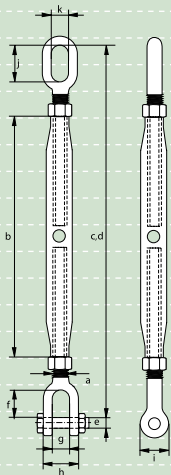
G-6340



working load limit	diameter thread	length body	length closed position	length open position	diameter	length eye inside	width eye inside	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.2	6	100	160	240	5.5	11	11	0.13
0.32	8	108	175	255	6	12	12	0.2
0.5	10	125	205	300	8.5	13	13	0.6
0.7	12	195	298	458	11	19	15	0.8
1.2	16	230	356	531	12	28	20	1.4
1.5	20	270	423	628	16	34	24	2.4
2.2	22	295	463	688	16	34	24	3
3.2	24	325	502	752	19	37	28	4
4.8	33	370	602	882	29	41	35	9
6	39	400	651	951	35	45	40	11.5
8.5	45	400	721	879	31	49	49	20.8
11	48	400	767	1032	37	52	52	24



G-6345



## Closed body rigging screws

### Eye - Jaw

- **Material** : mild steel
- **Safety factor** : MBL equals 5 x WLL,
- **Finish** : hot dipped galvanized
- **Note** : end fittings of 6 and 8 mm rigging screws are electro-galvanized

working load limit	diameter thread	length body	length closed position	length open position	diameter pin	length jaw inside	opening jaw	width jaw	diameter jaw eye	length eye inside	width eye inside	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
0.2	6	100	165	245	5	16	7	20	13	11	11	0.14
0.32	8	108	187	267	6	22	9	24	14	12	12	0.24
0.5	10	125	214	306	8	22	10.5	28	19	13	13	0.53
0.7	12	195	307	464	10	27	13	34	23	19	15	0.83
1.2	16	230	372	549	12	33	18	42	29	28	20	1.49
1.5	20	270	436	641	16	38	20	51	33	34	24	2.54
2.2	22	295	477	701	20	45	25	55	38	34	24	3.34
3.2	24	325	520	772	22	52	30	70	46	37	28	4.65
4.8	33	370	641	923	30	70	38	82	60	41	35	10.5
6	39	400	679	976	33	70	45	85	76	45	40	12.8
8.5	45	400	741	945	39	86	50	94	85	49	49	20.8
11	48	400	774	1018	45	97	58	98	92	52	52	24

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