

AUSTRALIAN LIFTING CENTRE PTY LTD

# TURN BUCKLES

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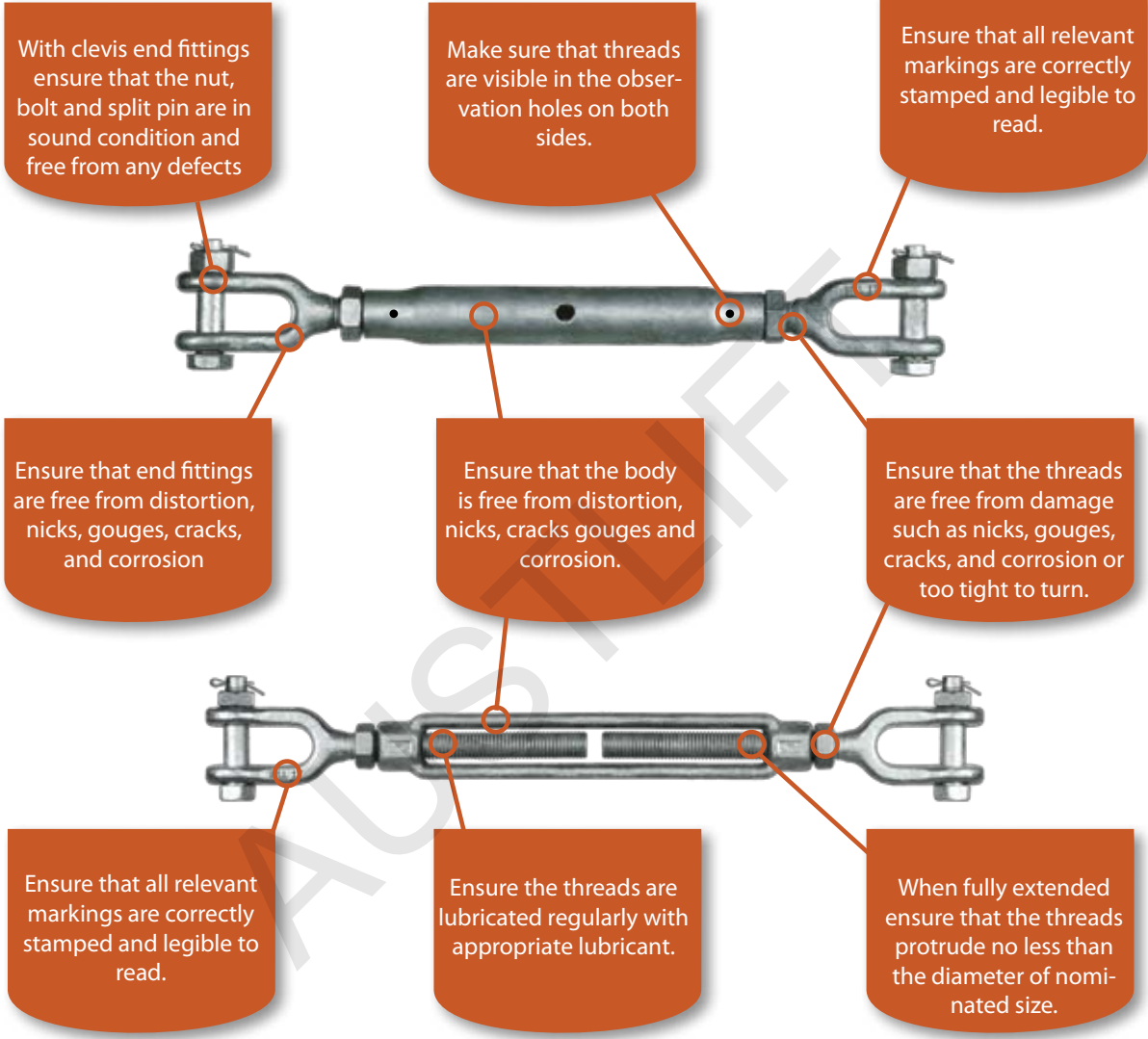
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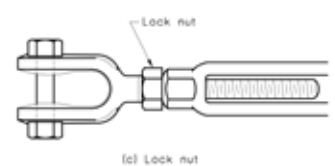
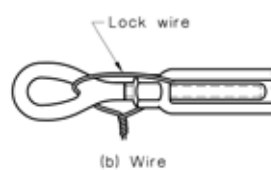
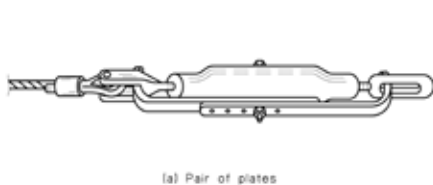
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**It is recommend that a competent person conduct the above checking of Turnbuckles & Rigging Screws and withdraw from service, if any of the above defects are found and cannot be rectified.**



**Recommended Turnbuckle locking methods**



Turnbuckles & Rigging Screws are used in lifting, tensioning and staying systems to make adjustment to the length of the systems.

### **TYPES**

Non-rated Commercial Turnbuckles generally have combinations on end fittings such as eye & eye, hook & eye, stub & stub and hook & hook to tension commercial fittings, Wire Rope assemblies and alike, also available are special purpose buckles for the fencing industries. The most common buckles are made from cast or forged steel in galvanized finish therefore under any circumstance are not to be used for lifting and/or high tension applications.

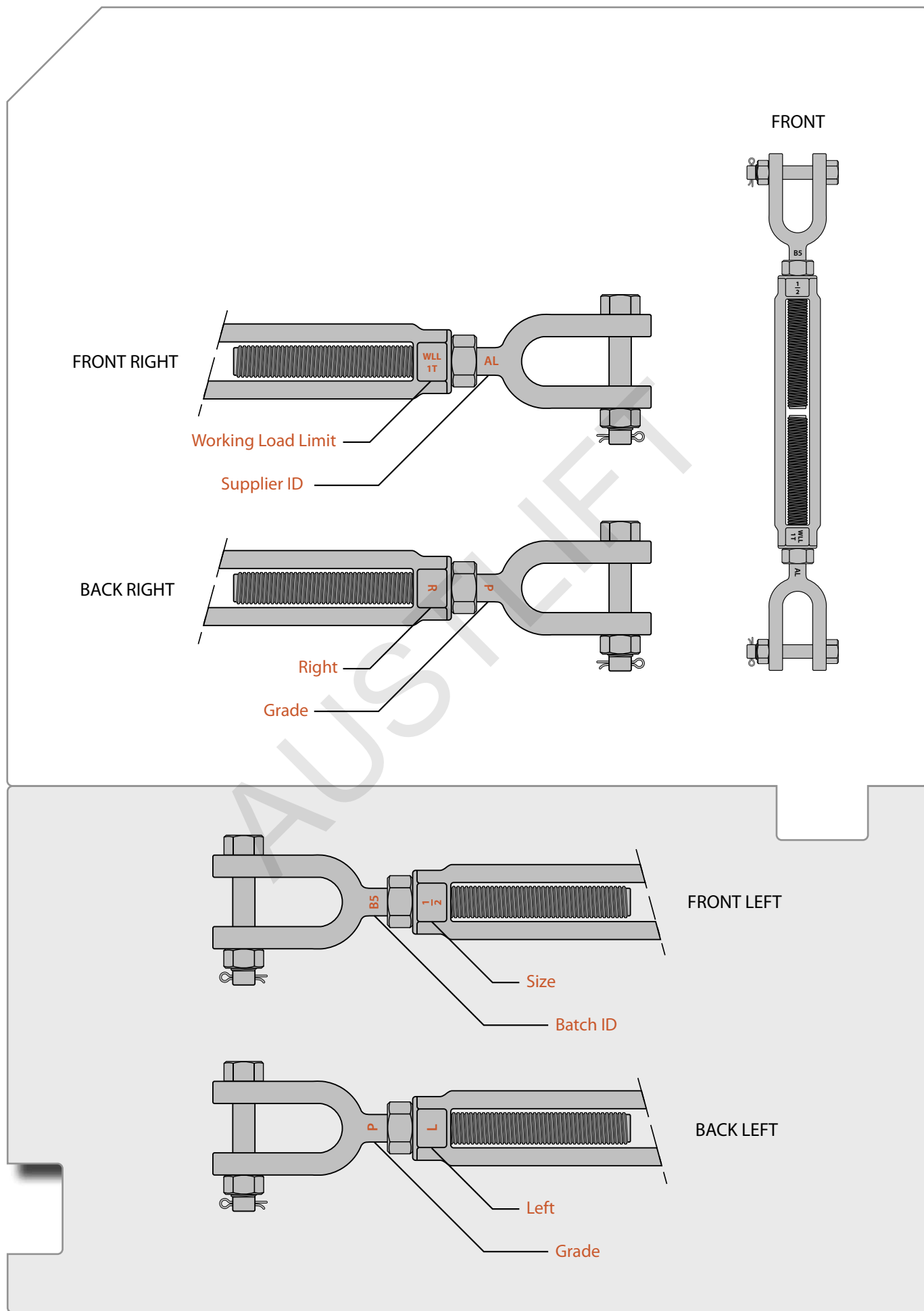
Rated Rigging Screws generally have elongated eyes or clevis end fittings for connection to Shackles, Wire Rope assemblies, Anchor Points and the like. Rigging Screw bodies are formed from tubular sections of steel and can have an almost infinite size range and length adjustment. Size and adjustment of Rigging Screws is limited by the available end fittings. The tubular body provides a reservoir for lubricates such as grease which gives the screw an advantage in corrosive applications.

Rated Turnbuckles have the same applications as Rigging Screws, but have a generally smaller size range and shorter adjustment. The advantages of a Turnbuckle is they have a greater ability to be tightened under load as well as providing means for locking while in service.

### **CARE & USE**

1. Make sure that the correct Turnbuckle or Rigging Screw is selected for intended use and application.
2. Where components are connected to Turnbuckle or Rigging Screw ensure they do not bind and freely articulate so that the system can sit in a straight line when tension is applied .
3. When tensioning the body of a Turnbuckle or Rigging Screw ensure that both end terminals and fittings do not rotate .
4. Do not tension Turnbuckles or Rigging Screws beyond the specified rating especially smaller sizes.
5. Turnbuckles and Rigging Screws are not designed for continuous adjustment under rated load conditions therefore wear on the threads should be considered if used in this way.
6. Locknuts, fitted to the ends of the body, are a method of locking, but may not provide positive or reliable locking under all circumstances therefore should inspected regularly.
7. High temperatures affect the WLL of the Turnbuckle and Rigging Screw therefore the working load limit should be reduced by 0-200C no reduction, 10% for temperatures between 200-300C, 25% for temperatures between 300-400C, Do not use if for temperatures over 400C. Extremely low temperature applications may present a high risk of failure while loaded below the WLL.
8. Threads should be protected from corrosion by effective means.
9. Turnbuckles and Rigging Screws should be inspected periodically by a competent person

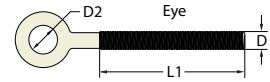
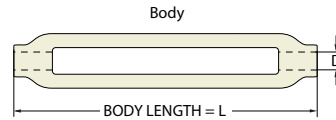
**AUSTLIFT TURNBUCKLES IDENTIFYING FEATURES**



**COMMERCIAL TURNBUCKLES**

**NOT FOR LIFTING APPLICATIONS**
**Eye & Eye, Cast Type**

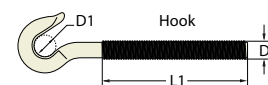
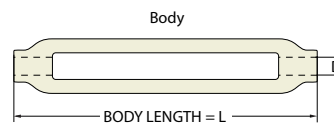
- Used in conjunction with Wire Rope assemblies etc for light duty tensioning applications.
- Manufactured from malleable cast steel in zinc plated finish
- Eye and eye end fittings for intended applications.
- Sizes available from 5mm to 25mm.
- NOT FOR LIFTING APPLICATIONS



CODE	SIZE	Wt.	DIMENSIONS				
			L	L1	D	D2	
	mm	kg/pc	mm	mm	mm	mm	
401005	5	0.048	70	32	5	8	
401006	6	0.067	80	35	6	9	
401008	8	0.13	105	50	8	11	
401010	10	0.23	130	62	10	16	
401012	12	0.35	140	65	12	18	
401016	16	0.90	178	88	16	24	
401020	20	1.43	215	110	20	28	
401022	22	2.10	240	120	22	32	
401025	24	2.62	255	135	24	36	

**Hook & Eye, Cast Type**

- Used in conjunction with Wire Rope assemblies etc for light duty tensioning applications.
- Manufactured from malleable cast steel in zinc plated finish
- Hook and eye end fittings for intended applications.
- Sizes available from 5mm to 24mm.
- NOT FOR LIFTING APPLICATIONS.



CODE	SIZE	Wt.	DIMENSIONS				
			D	D1	D2	L	L1
	mm	kg/pc	mm	mm	mm	mm	mm
402005	5	0.034	5	7	8	70	32
402006	6	0.052	6	8	9	80	35
402008	8	0.098	8	10	11	105	50
402010	10	0.226	10	16	16	130	62
402012	12	0.338	12	18	18	140	65
402016	16	0.898	16	24	24	178	88
402020	20	1.595	20	28	28	215	110
402022	22	2.18	22	32	32	240	120
402025	24	2.8	24	36	36	255	135



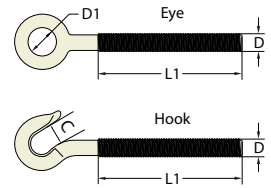
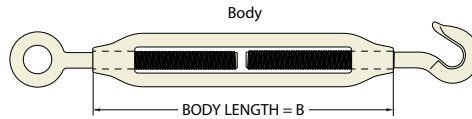
**NOT FOR LIFTING APPLICATIONS**

**Hook & Eye, Forged**

- Suitable for outdoor use in conjunction with Wire Rope assemblies etc for heavy duty tensing applications.
- Manufactured from forged steel in hot dipped galvanized finish
- Hook and eye end fittings for intended applications.
- Sizes available from 6mm to 32mm.
- NOT FOR LIFTING APPLICATIONS



Hook & Eye



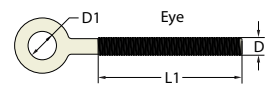
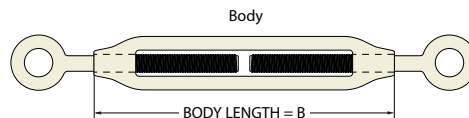
CODE	SIZE	Wt.	DIMENSIONS				
			B	D	D1	C	L1
	mm	kg/pc	mm	mm	mm	mm	mm
403006	6	0.1	100	6	11	8	48
403008	8	0.18	125	8	14	10	58
403010	10	0.31	150	10	18	13	70
403012	12	0.55	200	12	19	14	95
403016	16	1.1	250	16	24	18	105
403020	20	1.94	300	20	26.5	22	130
403022	22	2.64	330	22	34	24	165
403025	25	4	350	25	37	26	190
403028	28	6	350	28	38	29	160
403032	32	10	400	32	38	33	200

**Eye & Eye, Forged**

- Suitable for outdoor use in conjunction with Wire Rope assemblies etc for heavy duty tensing applications.
- Manufactured from forged steel in hot dipped galvanized finish
- Eye and eye end fittings for intended applications.
- Sizes available from 6mm to 28mm.
- NOT FOR LIFTING APPLICATIONS



Eye & Eye



CODE	SIZE	Wt.	DIMENSIONS			
			B	D	D1	L1
	mm	kg/pc	mm	mm	mm	mm
404006	6	0.1	100	6	11	48
404008	8	0.18	125	8	14	58
404010	10	0.31	150	10	18	70
404012	12	0.55	200	12	19	95
404016	16	1.1	250	16	24	105
404020	20	1.94	300	20	26.5	130
404022	22	2.64	330	22	34	165
404025	25	4	350	24	37	190
404028	28	6	350	27	38	160

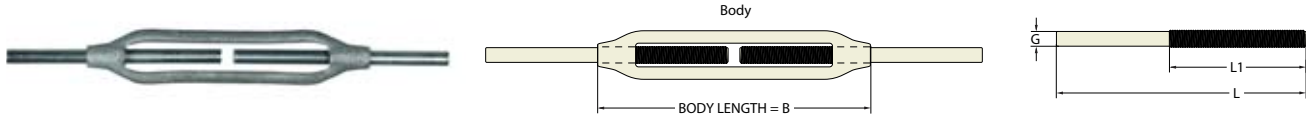
**TURNBUCKLES**



**NOT FOR LIFTING APPLICATIONS**

**Stub & Stub, Forged**

- Stub ends allow the flexibility to be welded and customize complicated systems.
- Manufactured from heavy duty forged steel body in hot dipped galvanized finish.
- Available in zinc or black finish stub ends.
- Sizes available from 10mm to 32mm.
- NOT FOR LIFTING APPLICATIONS



\*Maximum adjustment = B-2A

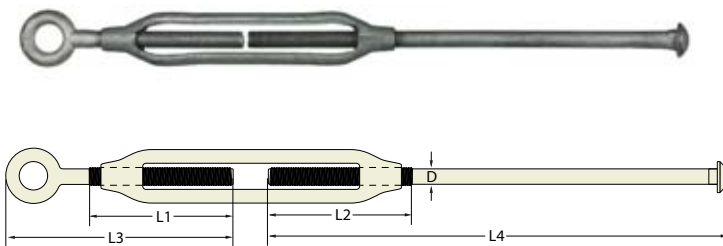
CODE		SIZE	Wt.	DIMENSIONS			
ZINC	BLACK	mm	kg/pc	B mm	D mm	L mm	L1 mm
405010	405010B	10	0.31	150	8.9	130	75
405012	-	12	0.55	200	10.68	150	100
405016	-	16	1.1	250	14.5	180	125
405020	-	20	1.94	300	18.1	220	150
405022	405022B	22	3	330	20.1	250	165
405025	405025B	25	4	350	21.7	270	175
405028	405028B	28	5.5	350	25.8	290	190
405032	-	32	7	400	28.85	300	200



**NOT FOR LIFTING APPLICATIONS**

**Fencing Turnbuckles, Forged**

- Suitable for outdoor use in conjunction with fence posts etc for heavy duty tensioning applications.
- Manufactured from forged steel in hot dipped galvanized finish in cup head bolt and eye end fittings for intended applications.
- NOT FOR LIFTING APPLICATIONS



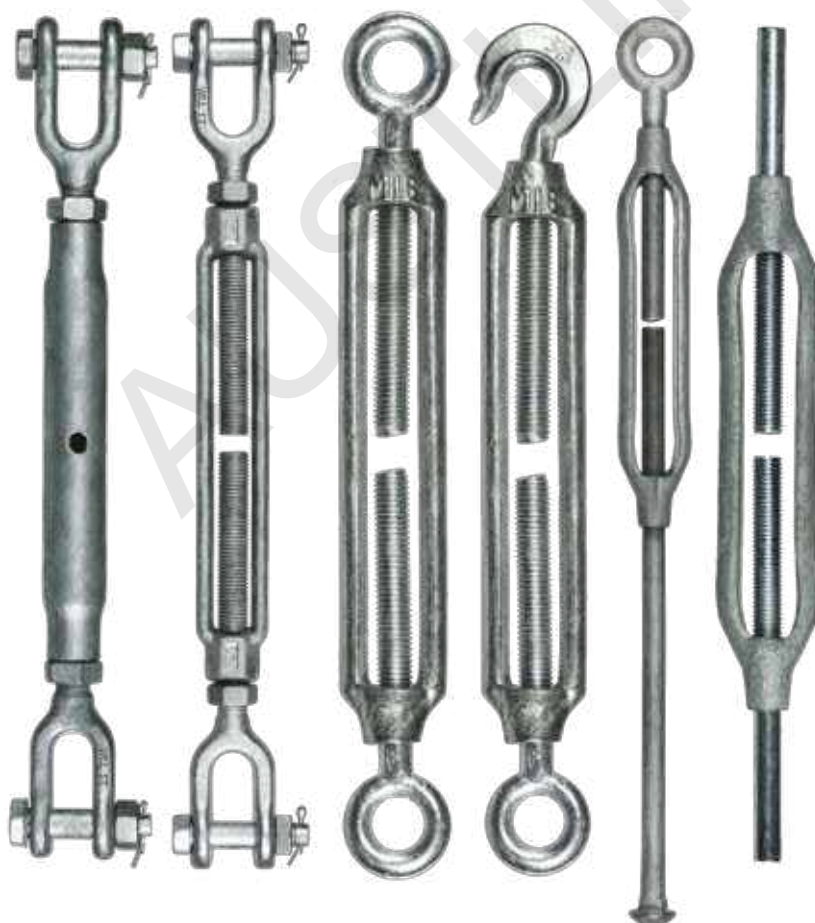
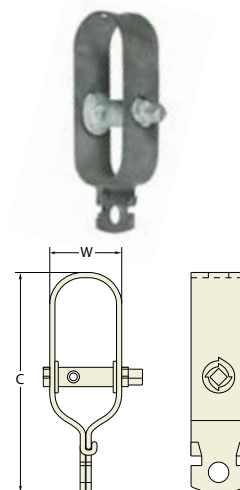
CODE	SIZE	Wt.	DIMENSIONS			
	mm	kg/pc	L1 mm	L2 mm	L3 mm	L4 mm
405035	16	1.3	120	130	190	370



Self locking teeth on both sides of frame for firm & quick straining  
 Hot dip galvanized for outdoor application.  
 NOT FOR LIFTING APPLICATIONS.

CODE	Wire Rope SIZE	Wt. kg/pc	DIMENSIONS	
	mm		B (mm)	L (mm)
405040*	6	0.2	42	127

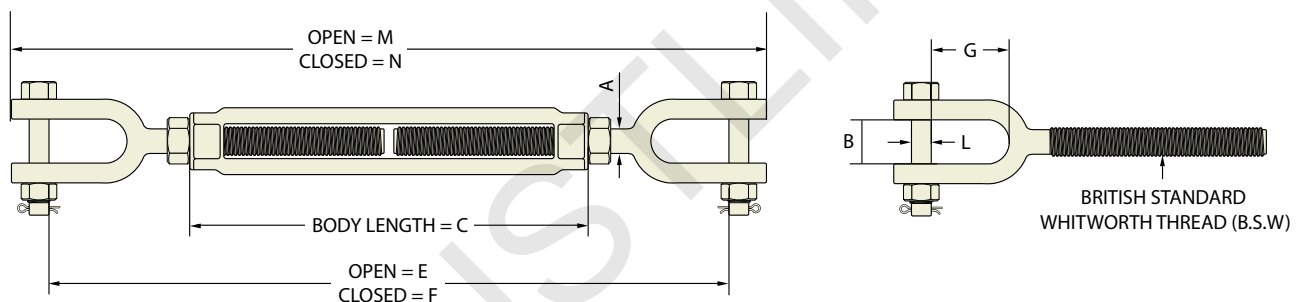
\*Deleted stock line available until sold out.



**When you choose Austlift™  
 You choose quality.**

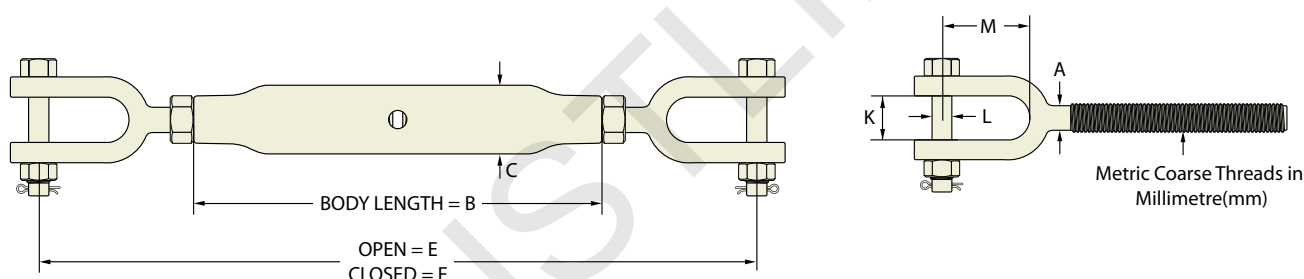
**Rated Turnbuckle**
**Jaw/Jaw**

- Generally used for straight or in line tensioning in conjunction with Wire Rope and or Chain assemblies when heavy duty straining and lifting applications are required.
- Manufactured from **Grade P** high tensile material quenched and tempered hot dipped galvanized finish suitable for outdoor use available in imperial sizing and jaw end fittings with Lock Nuts.
- Meets the design requirements of : Federal Specifications FF-T-791 Type1 Form1 Class
- Proof tested to 2 x WLL and Minimum Break Force is 5 x WLL
- Test certificates available upon request
- Suitable for industrial lifting purposes.



CODE	SIZE	WLL	Wt.	DIMENSIONS								
				A	B	C	E	F	G	M	N	L
	mm,inch	T	kg/pc	mm	mm	mm	mm	mm	mm	mm	mm	mm
406010	10, 3/8"	0.54	0.37	9.65	12.7	152	410	258	22.1	441	289	8
406012	12, 1/2"	1	0.71	12.7	16	152	470	292	26.9	508	330	10
406016	16, 5/8"	1.59	1.56	16	19	229	662	401	33.3	715	454	13
406016C	16, 5/8"	1.59	1.23	16	19	152	509	325	3.3	562	378	13
406020	20, 3/4"	2.36	2.98	19.1	23.4	305	851	508	38.1	917	574	16
406022	22, 7/8"	3.27	3.71	22.4	28.7	305	892	543	44.5	967	618	19
406025	25, 1"	4.54	5.53	25.4	30	305	933	577	52.5	1018	662	22.5
406032	32, 1 1/4"	6.89	9.36	31.8	44.5	305	1012	644	71.5	1119	750	28
406038	38, 1 1/2"	9.71	13.9	38.1	52	305	1054	673	71.5	1181	800	35
406045	45, 1 3/4"	12.7	24.5	44.5	60	457	1356	899	86	1503	1046	41
406051	51, 2"	16.8	42.8	51	63.5	610	1766	1157	93.5	1949	1339	50.8
406064	64, 2 1/2"	27.2	75	63.5	73	610	1854	1244	113	2087	1478	57

- Generally used for straight or in line tensioning in conjunction with Wire Rope and or Chain assemblies when heavy duty straining and lifting applications are required.
- Manufactured from **Grade L/P** high tensile material quenched and tempered hot dipped galvanized finish suitable for outdoor use available in metric sizing and jaw end fittings with lock nuts.
- Meets the design requirements of AS2319 Proof tested to 2 x WLL and Minimum Break Force is 6 x WLL
- Test certificates available upon request.
- Suitable for industrial lifting purposes.



CODE		SIZE	WLL	Wt.	DIMENSIONS							
Grade P	Grade L	mm	T P / L	kg/pc	A mm	B mm	C mm	E mm	F mm	K mm	M mm	L mm
407010	407010L	10	0.6/0.3	0.48	10	152	21	349	235	11	21	8
407012	407012L	12	1/0.5	0.98	12	229	25	524	343	19	35	10
407016	407016L	16	1.6/0.75	1.4	16	229	27	550	361	22	51	12
407020	407020L	20	2.5/1.25	2.3	20	229	34	550	387	22	48	16
407024	407024L	24	4/2.5	4.85	24	356	42	822	556	32	65	22
407027	407027L	27	5/3	5.75	27	356	45	822	559	32	65	22
407033	407033L	33	8/5	8.08	33	381	51	872	604	38	76	24
407039	407039L	39	10/6	13.5	39	407	57	949	670	47	90	32
407048	407048L	48	16/10	23	48	407	76	977	743	51	121	42

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