



LOCK FASTENERS

RAIL. WAGON. CONSTRUCTION. BRIDGE. MINING FASTENERS



- ★ Never Loosening Fastener
- ★ Exceptional Vibration Resistance
- ★ Excellent Shear & Tensile Strength
- ★ Good Consistency
- ★ Quick Speed Assembly

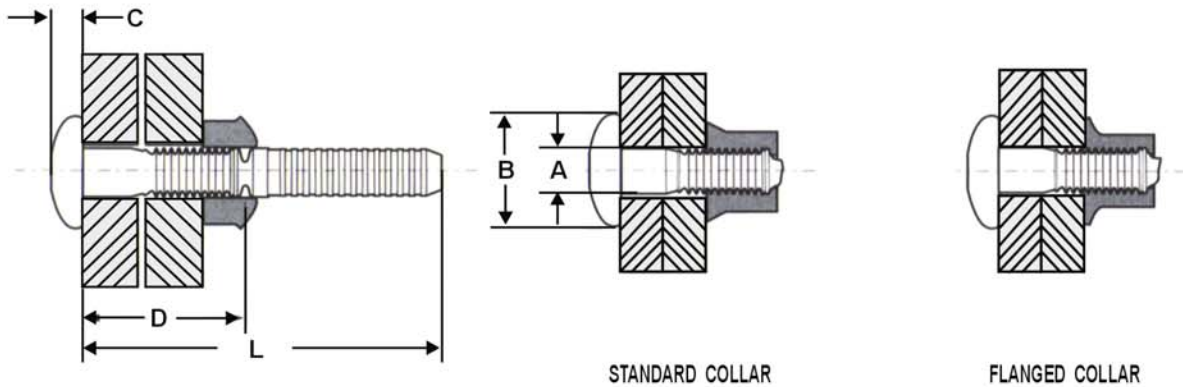
常州市睿博五金科技有限公司
CHANGZHOU RUIBO HARDWARE TECHNOLOGY CO., LTD.



LOCK FASTENERS

BENEFITS OF INSTALLATION

Lock fasteners provide high mechanical intensity and uniform clamp force, it is quite easy to install with firm riveting, consistency and control. It is a type of excellent fasteners called "Never Loosening" fasteners due to good vibration resistance and guard against theft. This can be used for a wide range of applications such as vehicle, railway, wagon, bridge, construction, aviation, container, mining, large-scale steel structure, electrical establishment etc.



LP-R-S6-2G

- G: Surface Finish (G=Galvanized, B=Bright)
- 2: Metric Code of Grip Number
- 6: Metric Diameter Code (X0.8=Metric Diameter)
- S: Material Code (S=Steel, 2AL=2024 Alloy Aluminum, 6Al=6061 Alloy Aluminum, SS=Stainless Steel)
- R: Head Type of Lockpin (R=Round Head, 90=90° Flush Head, T=Truss Head)
- LP: Lock Pin



LOCK FASTENERS

LOCK PIN

LOCKPIN Diameter			A	Round Head (R)		90° Flush Head (90)		Truss Head (T)	
Metric	Code	Imperial		B	C	B	C	B	C
5	-6	3/16	4.85-4.95	9.04-10.01	2.87-11.91	8.33-8.99	1.91-2.16		
6	-8	1/4	6.45-6.58	12.07-13.34	3.45-15.09	11.10-12.01	2.57-2.87		
8	-10	5/16	8.05-8.18	15.09-16.66	4.60-20.24	13.89-14.96	3.23-3.58		
10	-12	3/8	9.65-9.78	18.11-19.99	5.66-23.42	16.66-18.01	3.86-4.27		
13	-16	1/2	12.52-13.08	22.92-23.92	7.44-8.44	22.52-23.52	5.85-6.85	22.92-23.92	5.45-6.45
16	-20	5/8	15.67-16.31	28.47-29.47	9.42-10.42	28.87-29.87	7.44-8.44	28.47-29.47	7.04-8.04
20	-24	3/4	18.82-19.51	34.43-35.43	11.41-12.41	34.43-35.43	9.03-10.03	34.43-35.43	8.63-9.63
22	-28	7/8	22.00-22.73	39.98-40.98	13.39-14.39	39.98-40.98	10.61-11.61	39.98-40.98	9.82-10.82
25	-32	1	25.15-25.96	45.93-46.93	14.98-15.98	46.33-47.33	12.20-13.20		
28	-36	1-1/8	27.89-29.18	51.89-52.89	16.96-17.96				

Grip No.	Grip Range	5 Diameter (-6)		6 Diameter (-8)		Grip No.	Grip Range	8 Diameter (-10)		10 Diameter (-12)	
		D±0.8	L+1.5/-0	D±0.8	L+1.5/-0			D±0.8	L+1.5/-0	D±0.8	L+1.5/-0
2	1.60-4.78	10.01	35.66	12.32	38.61	4	3.18-9.53	19.02	48.51	20.55	53.87
3	3.18-6.35	11.61	37.24	13.92	40.21	6	6.35-12.70	22.2	51.69	23.72	57.05
4	4.78-7.95	13.18	38.84	15.49	41.78	8	9.53-15.88	25.37	54.86	26.9	60.22
5	6.35-9.53	14.78	40.41	17.09	43.38	10	12.70-19.05	28.55	58.04	30.07	63.4
6	7.95-11.13	16.36	42.01	18.67	44.96	12	15.88-22.23	31.72	61.21	33.25	66.57
7	9.53-12.70	17.96	43.59	20.27	46.56	14	19.05-25.40	34.9	64.39	36.42	69.75
8	11.13-14.30	19.53	45.19	21.84	48.13	16	22.23-28.58	38.07	67.56	39.6	72.92
9	12.70-15.88	21.13	46.76	23.44	49.73	18	25.40-31.75	41.25	70.74	42.77	76.1
10	14.30-17.48	22.71	48.36	25.02	51.31	20	28.58-34.93	44.42	73.91	45.95	79.27
11	15.88-19.05	24.31	49.94	26.62	52.91						
12	17.48-20.65	25.88	51.54	28.19	54.48						

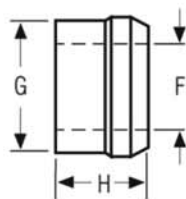


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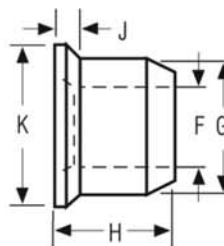
Metric Code	Grip Range		13		16		20		22		25		28	
			(-16)		(-20)		(-24)		(-28)		(-32)		(-36)	
No.	min	max	D±0.6	L+3.0/-1.5	D±0.6	L+3.0/-1.5	D±0.6	L+3.0/-1.5	D±0.6	L+3.0/-1.5	D±0.6	L+3.0/-1.5	D±0.6	L+3.0/-1.5
4	6.35	12.70	30.81	80.57	36.40	92.87	38.56	105.57						
8	12.70	19.05	37.16	86.92	42.75	99.22	44.91	111.92	48.79	119.06	52.65	136.53		
12	19.05	25.40	43.51	93.27	49.10	105.57	51.26	118.27	55.14	125.41	59.00	142.88		
16	25.40	31.75	49.86	99.62	55.45	111.92	57.61	124.62	61.49	131.76	65.35	149.23		
20	31.75	38.10	56.21	105.97	61.80	118.27	63.96	130.97	67.84	138.11	71.70	155.58		
24	38.10	44.45	62.56	112.32	68.15	124.62	70.31	137.32	74.19	144.46	78.05	161.93		
28	44.45	50.80	68.91	118.67	74.50	130.97	76.66	143.67	80.54	150.81	84.40	168.28		
32	50.80	57.15	75.26	125.02	80.85	137.32	83.01	150.02	86.89	157.16	90.75	174.63		
36	57.15	63.50	81.61	131.37	87.20	143.67	89.36	156.37	93.24	163.51	97.10	180.98		
40	63.50	69.85	87.96	137.72	93.55	150.02	95.71	162.72	99.59	169.86	103.45	187.33		
44	69.85	76.20	94.31	144.07	99.90	156.37	102.06	169.07	105.94	176.21	109.80	193.68		
48	76.20	82.55	100.66	150.42	106.25	162.72	108.41	175.42	112.29	182.56	116.15	200.03		
52	82.55	88.90	107.01	156.77	112.60	169.07	114.76	181.77	118.64	188.91	122.50	206.38		
56	88.90	95.25	113.36	163.12	118.95	175.42	121.11	188.12	124.99	195.26	128.85	212.73	133.35	217.49
60	95.25	101.60	119.71	169.47	125.30	181.77	127.46	194.47	131.34	201.61	135.20	219.08	139.70	223.84
64	101.60	107.95	126.06	175.82	131.65	188.12	133.81	200.82	137.69	207.96	141.55	225.43	146.05	230.19
68	107.95	114.30	132.41	182.17	138.00	194.47	140.16	207.17	144.04	214.31	147.90	231.78	152.40	236.54
72	114.30	120.65	138.76	188.52	144.35	200.82	146.51	213.52	150.39	220.66	154.25	238.13	158.75	242.89
76	120.65	127.00	145.11	194.87	150.70	207.17	152.86				160.60	244.48	165.10	249.24
80	127.00	133.35	151.46								166.95	250.83	171.45	255.59
84	133.35	139.70									173.30	257.18	177.80	261.94
88	139.70	146.05									179.65	263.53	184.15	268.29
92	146.05	152.40									186.00	269.88	190.50	274.64

COLLAR

Standard Collar-2LBC



Flanged Collar-3LBC



2LBC-S6-G

- G: Surface Finish (G=Galvanized, B=Bright)
- 6: Metric Diameter Code (X0.8=Metric Diameter)
- S: Material Code (S=Steel, 2AL=2024 Alloy Aluminum, 6Al=6061 Alloy Aluminum, SS=Stainless Steel)
- 2LBC: Collar Type Code (2LBC=Standard Collar, 3LBC=Flanged Collar)

COLLAR	Diameter			F	G	H	J	K
	Metric	Code	Imperial					
2LBC Standard Collar	5	-6	3/16	4.75-4.98	7.72-7.90	5.59-6.60		
	6	-8	1/4	6.50-6.73	10.21-10.39	7.37-8.13		
	8	-10	5/16	7.72-7.92	12.32-12.55	8.89-9.65		
	10	-12	3/8	9.53-9.78	14.99-15.24	10.92-11.68		
	13	-16	1/2	13.08-13.72	19.43-20.32	15.49-16.38		
	16	-20	5/8	16.51-16.89	24.64-25.65	21.47-22.23		
	20	-24	3/4	19.69-20.07	29.59-29.97	23.62-24.38		
	22	-28	7/8	23.11-23.75	34.16-34.93	27.51-28.27		
	25	-32	1	26.04-26.67	38.99-40.01	31.24-32.39		
	28	-36	1-1/8	29.21-29.97	44.20-44.96	35.18-36.20		
3LBC Flanged Collar	5	-6	3/16	4.75-4.98	7.72-7.90	6.35-7.11	0.79-1.57	9.12-9.93
	6	-8	1/4	6.50-6.78	10.21-10.39	8.86-9.63	1.19-1.98	12.29-13.11
	8	-10	5/16	7.72-7.92	12.65-12.88	10.01-10.82	1.57-2.39	15.47-16.28
	10	-12	3/8	9.60-9.91	15.21-15.49	12.75-13.51	1.57-3.18	18.26-19.84
	13	-16	1/2	13.08-13.59	20.14-20.50	18.19-18.95	2.39-3.96	24.61-26.19
	16	-20	5/8	16.51-16.89	24.64-25.65	23.60-24.36	3.18-4.75	30.94-32.54
	20	-24	3/4	19.69-20.07	29.72-30.48	28.37-29.13	3.96-5.54	37.29-38.89
	22	-28	7/8	23.11-23.62	34.54-34.93	33.02-33.78	4.75-6.35	39.67-41.28
	25	-32	1	26.16-26.67	39.37-40.01	37.72-38.48	5.54-7.14	46.81-48.41
	28	-36	1-1/8	29.21-29.97	44.20-44.96	42.42-43.18	6.35-7.92	53.16-54.76

Mechanical Properties

Metric	Diameter	Metric Code	Material for the Lock Pin & Collar	S & S	6AL & 6AL	2AL & 6AL
5		-6	Shear	>7800	>3600	>4800
			Tensile	>7500	>2600	>4600
			Clamp Force	>4700	>1600	>2500
6		-8	Shear	>14000	>6500	>8500
			Tensile	>13800	>4500	>8200
			Clamp Force	>8200	>3000	>4350
8		-10	Shear	>21500	>9800	>13500
			Tensile	>21000	>7500	>13000
			Clamp Force	>13000	>4500	>6800
10		-12	Shear	>31000	>14000	>19500
			Tensile	>30000	>11000	>19000
			Clamp Force	>185000	>6500	>10000

Unit: N

Metric Diameter	Metric Code	Material for the Lock Pin & Collar	S & S	6AL & 6AL	2AL & 6AL	SS & SS
13	-16	Shear	65318	24041	33113	63050
		Tensile	77339	22226	35608	77339
		Clamp Force	54659	19958	26762	54659
16	-20	Shear	102060	37649	51710	95256
		Tensile	122926	34791	55793	122926
		Clamp Force	87091	31298	41731	87091
20	-24	Shear	146966	53978	74390	137441
		Tensile	181894	50077	80287	181894
		Clamp Force	128822	45133	60329	128822
22	-28	Shear	196862			
		Tensile	251521			
		Clamp Force	178038			
25	-32	Shear	256284			
		Tensile	329767			
		Clamp Force	233604			
28	-36	Shear	315252			
		Tensile	376261			
		Clamp Force	265129			



Ruibob
HARDWARE

Add: Room 1601, Building B, WTC CZ, No.2 Middle Yanzheng Road, Changzhou, China
Tel: 86-519-86305569 89851038 Fax: 86-519-86305575
Web: <http://www.ruibotechnology.com>
Emai: sales@ruibotechnology.com