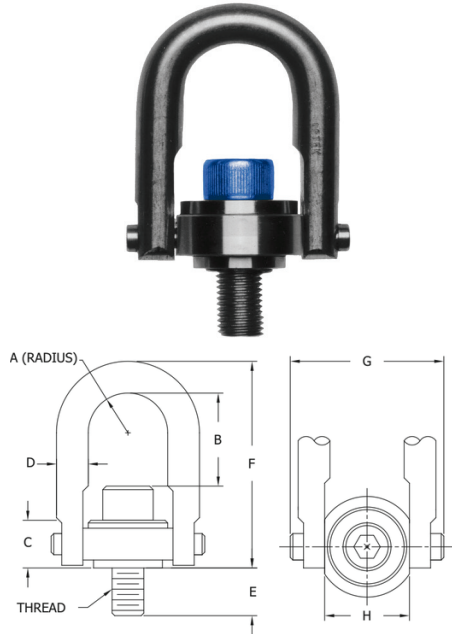




METRIC SAFETY SWIVEL HOIST RING

**READ SAFETY PRECAUTION PRIOR TO USE
(SAFETY INFORMATION PAGE 144)**



- 200% Proof-Load Tested with Serial Number for Traceability
- Swivels 360° - Pivots 180°
- Material: Alloy Steel
- Finish: Black Oxide (Also available: Cadmium Plated, Electroless Nickel Plated, Zinc Plated)
- Safety Factor: 5:1
- Magnetic Particle Inspected
- Certified Heat Treatment
- Rated at 100% from 0°-90°
- Fatigue Tested to 20,000 Cycles at 1-1/2x the Rated Load
- Meets or Exceeds the Requirements of ASME B30.26
- Thread: Longer Thread Projection and Fine Threads Available
- Comforms to CE

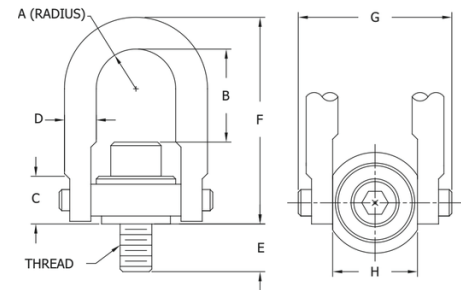
RATED LOADS (KGS)	THREAD SIZE	A	C	D	E	STANDARD U-BAR			LONG U-BAR			G	H	TORQUE N-M	WT. (LBS)
						PART NO.	B	F	PART NO.	B	F				
400	M8x1.25	11	18	10	13	46912	32	68				47	25	9	0.4
400	M8x1.25	11	18	10	18	46913	32	68				47	25	9	0.4
500	M10x1.50	11	18	10	18	46916	30	68				47	25	16	0.4
625	M12x1.75	11	19	10	23	49301	28	68				47	25	37	0.4
1,050	M12x1.75	18	24	13	27	46608	48	96				66	38	37	1.0
1,050	M12x1.75	22	31	19	19	46924	60	121	47124	110	171	89	51	37	2.5
1,050	M14x2.00	22	31	19	29	46928	58	121	47128	108	171	89	51	40	2.5
1,900	M16x2.00	22	31	19	24	46933	56	121	47126	106	171	89	51	80	2.5
1,900	M16x2.00	22	31	19	29	46930	56	121	47130	106	171	89	51	80	2.5
1,900	M18x2.50	22	31	19	29	46934	54	121	47134	104	171	89	51	90	2.5
2,150	M20x2.50	22	31	19	29	46938	52	121	47132	102	171	89	51	135	2.7
2,150	M20x2.50	22	31	19	34	46936	52	121	47136	102	171	89	51	135	2.7
2,650	M22x2.50	22	32	19	39	49302	50	121	49351	100	171	89	51	311	3.0
2,850	M24x3.00	22	32	19	39	49303	48	121	49353	98	171	89	51	311	3.0
3,000	M20x2.50	36	43	25	27	46941	78	166	47140	118	206	131	76	135	6.7
3,000	M20x2.50	36	43	25	32	46942	78	166	47142	118	206	131	76	135	6.7
3,000	M22x2.50	36	43	25	37	46944	76	166	47144	116	206	131	76	135	7.0
4,200	M24x3.00	36	43	25	32	46947	74	166	47146	114	206	131	76	311	7.0
4,200	M24x3.00	36	43	25	37	46948	74	166	47148	114	206	131	76	311	7.0
4,200	M30x3.50	36	43	25	58				46950	108	206	131	76	637	7.0
5,000	M33x3.50	36	48	25	42	49304	65	166	49355	105	206	131	76	637	8.5
5,500	M36x4.00	36	48	25	52	49305	62	166	49357	102	206	131	76	1085	8.5
7,000	M30x3.50	45	54	32	42	46956	106	222				165	95	637	15.0
7,000	M30x3.50	45	54	32	46	46955	106	222				165	95	637	15.0
7,000	M30x3.50	45	54	32	62	46958	106	222				165	95	637	15.0
7,000	M30x3.50	45	54	32	67	46957	106	222				165	95	637	15.0
7,000	M33x3.50	45	54	32	67	46960	103	222				165	95	637	15.0
8,500	M36x4.00	45	55	32	56	49306	100	222				165	95	1085	16.0



METRIC SAFETY SWIVEL HOIST RING

**READ SAFETY PRECAUTION PRIOR TO USE
(SAFETY INFORMATION PAGE 144)**

- 200% Proof-Load Tested with Serial Number for Traceability
- Swivels 360° - Pivots 180°
- Material: Alloy Steel
- Finish: Black Oxide (Also available: Cadmium Plated, Electroless Nickel Plated, Zinc Plated)
- Safety Factor: 5:1
- Magnetic Particle Inspected
- Certified Heat Treatment
- Rated at 100% from 0°-90°
- Fatigue Tested to 20,000 Cycles at 1-1/2x the Rated Load
- Meets or exceeds the Requirements of ASME B30.26
- Thread: Longer Thread Projection and Fine Threads Available
- Comforms to CE



RATED LOADS (KGS)	THREAD SIZE	A	C	D	E	STANDARD U-BAR			LONG U-BAR			G	H	TORQUE N-M	WT. (LBS)
						PART NO.	B	F	PART NO.	B	F				
9,000	M39x4.00	45	55	32	56	49307	97	222				165	95	1085	17.0
9,250	M42x4.50	45	55	32	66	49308	94	222				165	95	1085	18.0
9,500	M45x4.50	45	55	32	66	49309	91	222				165	95	1085	18.0
9,500	M46x5.00	45	55	32	66	49310	90	222				165	95	1085	18.0
10,000	M48x5.00	45	55	32	66	49311	88	222				165	95	1085	18.0
10,000	M33x3.50	50	62	38	58	46961	140	259				189	109	637	23.0
10,000	M33x3.50	50	62	38	68	46962	140	259				189	109	637	23.0
11,000	M36x4.00	57	71	44	58	46963	166	317				217	124	1085	35.0
11,000	M36x4.00	57	71	44	63	46966	166	317				217	124	1085	35.0
11,000	M36x4.00	57	71	44	68	46964	166	317				217	124	1085	35.0
12,500	M42x4.50	57	71	44	68	46965	160	317				217	124	1085	36.0
12,500	M42x4.50	57	71	44	83	46968	160	317				217	124	1085	36.0
13,500	M48x5.00	57	71	44	68	46980	154	317				217	124	1085	38.0
13,500	M48x5.00	57	71	44	83	46970	154	317				217	124	1085	38.0
13,500	M48x5.00	57	71	44	88	46979	154	317				217	124	1085	38.0
14,500	M52x5.00	57	77	44	83	49312	150	317				217	124	1085	42.0
15,500	M56x5.50	57	77	44	83	49313	146	317				217	124	1085	42.0
16,500	M64x6.00	57	77	44	93	49314	138	317				217	124	2847	42.0
22,300	M64x6.00	76	104	57	101	46972	204	428				271	165	2847	86.0
24,500	M72x6.00	76	110	57	100	49315	196	428				296	165	5830	92.0
26,500	M80x6.00	76	110	57	110	49316	188	428				296	165	5830	92.0
31,500	M72x6.00	95	133	70	132	46988	220	495				359	206	5830	165.0
31,500	M80x6.00	95	133	70	132	46989	200	495				359	206	5830	165.0
33,000	M90x6.00	95	133	70	140	49317	200	495				359	206	6914	280.0
33,000	M100x6.00	95	133	70	150	49318	200	495				359	206	6914	280.0
44,600	M90x6.00	102	153	83	177	46990	235	561				404	218	6914	260.0
44,600	M100x6.00	102	153	83	200	46994	235	561				404	218	6914	280.0



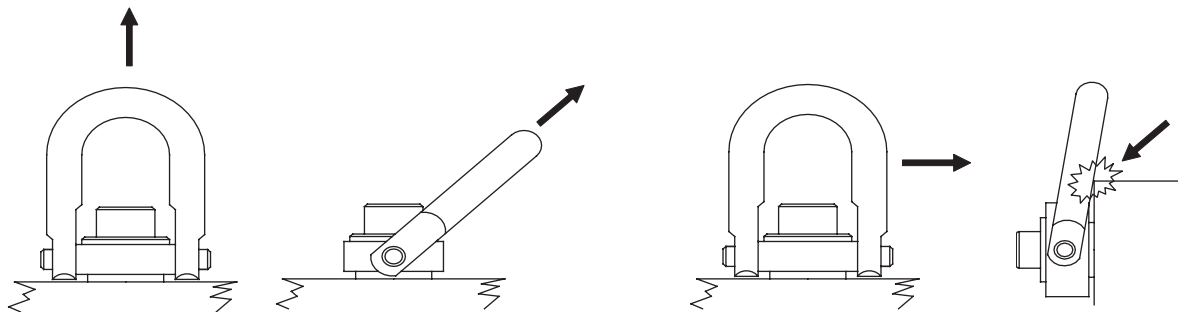
SAFETY ENGINEERED SWIVEL HOIST RING SAFETY PRECAUTION

WARNING: PRIOR TO USING ANY HOIST RING, PLEASE READ THE FOLLOWING FOR PROPER INSTALLATION AND USAGE.

As with all mechanical devices, regular inspection for wear and strict adherence to use instruction is necessary to prevent misuse failure.

- Despite the 5:1 safety factor, **NEVER EXCEED THE RATED LOAD CAPACITY**. This safety margin is needed in case of misuse, which could drastically lower load capacity.
- Tighten mounting screws to torque recommended. Periodically check torque because screws could loosen in extended service.
- Tensile strength of parent material should be above 80,000 PSI to achieve full load rating. For weaker material, consider through-hole mounting with a nut and washer on the other side.
- **DO NOT APPLY SHOCK LOADS**. Always lift gradually. Repeat magnaflux testing if shock loading ever occurs.

Make sure the hoist ring pivots and rotates in all directions freely.



RIGHT

RIGHT

WRONG

WRONG

Important: The load on each hoist ring is not simply total weight divided by the number of hoist rings. The resultant force can be significantly greater at shallow lift angles and with unevenly distributed loads. See the example below.

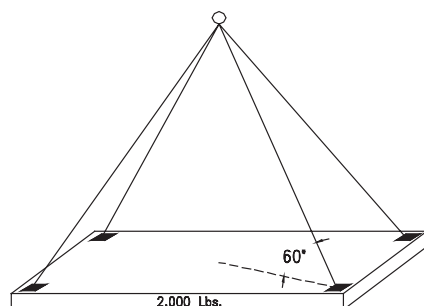
L = Load N = Number of hoist rings = 4 W = Total weight = 2,000 Lbs. A = Lifting angle

$$L = \frac{W}{N \sin A}$$

If A = 60:

$$L = \frac{2000}{4 \sin 60} = 577 \text{ Lbs.}$$

GOOD



If A = 20:

$$L = \frac{2000}{4 \sin 20} = 1,462 \text{ Lbs.}$$

BAD

