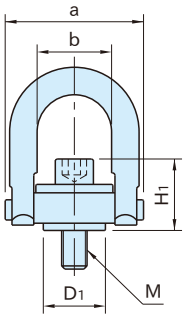
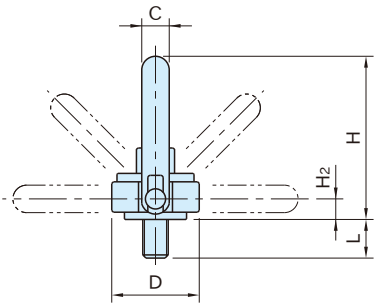
HR / HRB HOIST RINGS, Center-Pull Style

RoHS 200°C





[HR Type]
Material : SCM440 steel
Finish : Black oxide

[HRB Type]
Material : SCM440 steel
Finish : Nickel-based coating

∗ HR42, HR48, HR64 and all HRBs are not stock items.

Strength Factor 5:1

Black oxide Part Number	Nickel-based coating Part Number	M	L	a	H	C	D	b	H_1	H_2	D_1	Allowable Load(kN)	Weight (kg)
HR 6	HRB 6	M 6X1	12	46.7	67.8	9.7	□25.4	21.8	24	8.7	19	2	0.15
HR 8	HRB 8	M 8X1.25	12.5						26			4	0.17
HR10	HRB10	M10X1.5	17.5						28			4.5	
HR12	HRB12	M12X1.75	19	89.4	123	19	57.3	44.7	43.5	15.7	38.1	10.5	1.1
HR12L	-				170.7								1.3
HR16	HRB16	M16X2	29		123				47.5			19	1.1
HR16L	-				170.7								1.3
-	HRB20S	M20X2.5	34		123				51.5			21.5	1.2
HR20	HRB20		32	130.6	163	25.4	82.7	71.1	64.5	19.4	58.7	30	3
HR20L	-				203								3.3
HR24	HRB24	M24X3	37		163				68.5			42	3.1
-	HRB30S	M30X3.5	46	165.1	221.7	31.7	104.5	88.9	82.5	25.3	81	70	6.3
HR30	HRB30		66										6.4
HR36	HRB36	M36X4	68	217.2	316.7	44.4	133.7	114.3	106	33.3	106.4	110	15.5
HR42	HRB42	M42X4.5							112			125	16
HR48	HRB48	M48X5	88						118			135	16.8
HR64	HRB64	M64X6	96	297.6	419.1	57.15	185.7	152.4	152	48.5	146	225	40

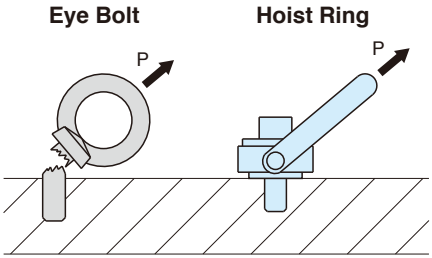
Bolt replacement kits are available.
A certificate of proof test accompanies the product.

Technical Information

Heat resistance : Max. 204°C

Features:

The U-bar allows lifting a weight safely with full swivel (360°) and pivot (180°) action.



Stated load capacity applies to lifting in all directions.
U-bar, bolt, pins, base, washer and bushing are magnetic particle inspected.
Rated load capacity and proper screw torque are stamped on each Hoist Ring.
HRB type is over 10 times as corrosion-proof as HR type.

Important!

In multipoint lift applications, the applied load changes with sling angles. The applied load on each Hoist Ring must be less than the stated load capacity.

How To Calculate

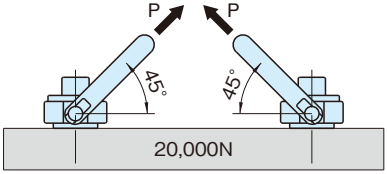
$$P = \frac{\frac{W}{N}}{\text{Sin } \theta}$$

P : Applied load on each Hoist Ring(N)
W : Weight to be lifted(N)
N : Number of Hoist Rings
θ : Sling angle(°)

Sample Calculation:

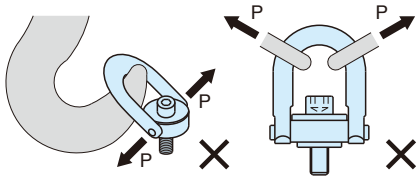
W : 20,000N, N : 2, θ : 45°

$$P = \frac{\frac{20,000}{2}}{\text{Sin } 45°} = 14,142N$$



Installation Instructions

Ensure that a hoist ring swivels and pivots freely in all directions.
The allowable load capacity value and tightening torque are stamped on the body top.
Never use a hook or other lifting device that will pry or tend to open the U-bar on Hoist Rings.
The workpiece surface must be flat, providing complete contact for the hoist ring bushing.
Do not use spacers between the hoist ring bushing and the workpiece surface.
When installing in soft metal such as aluminum, the minimum effective thread engagement should be 2 times the thread diameter. When installing in steel, thread engagement should be 1-1/2 times the thread diameter.
Do not apply shock loads.



The side of the U-bar must not contact anything!