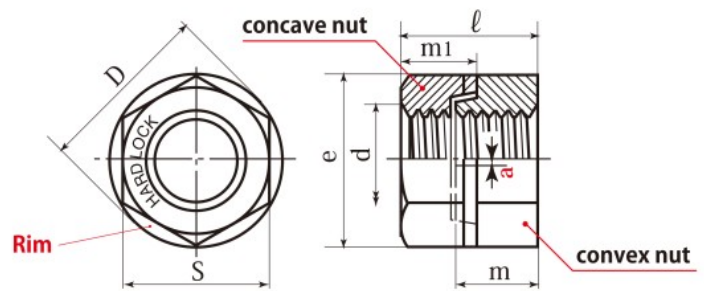


HARDLOCK NUT DIMENSION TABLE1

HLN-R : RIM TYPE



HLN-R is our standard series with improved workability by adding a Rim to the Concave nut.

Unit : mm

Nominal size	Thickness				Width across flats		e	Overall height	Rim dia.	Unit weight	Recommended tightening torque for the concave nut (N·m)
	Convex nut		Concave nut								
d	m		m1		s			ℓ	D	(g)	
	Basic	Tolerance	Basic	Tolerance	Basic	Tolerance	approx.	approx.	approx.	approx.	Common to all (Min - Max)
M5×0.8	4	0.1 -0.15	4	0.5 -0.2	8	0 -0.2	9.2	7.2	9.2	1.9	2 - 3
M6×1.0	5	±0.3	5	0 -0.3	10	0 -0.6	11.5	8.5	11.5	4	4 - 5
M8×1.25	6.5	0 -0.58	6.5	0 -0.58	13	0 -0.7	15.0	10.8	15.0	8.9	9 - 13
M10×1.5	8	0 -0.58	8	0 -0.58	17	0 -0.7	19.6	13.2	19.6	18	18 - 24
M12×1.75	10	0 -0.58	9.3	0 -0.58	19	0 -0.8	21.9	16.0	21.9	26	27 - 39
M16×2.0	13	±0.9	11	0 -0.7	24	0 -0.8	27.7	21.2	27.7	46	70 - 100
M20×2.5	16	±0.9	14.5	0 -0.7	30	0 -0.8	34.6	26.7	34.6	93	120 - 200
M22×2.5	18	±0.9	15.6	0 -1.2	32	0 -1	37.0	29.9	37.0	115	150 - 250
M24×3.0	19	±0.9	17.6	0 -1.2	36	0 -1	41.6	32.4	41.6	183	160 - 300
M27×3.0	21	±1.0	17.6	0 -1.2	41	0 -1	47.3	33.5	47.3	243	250 - 390
M30×3.5	23	±1.0	18.6	0 -1.2	46	0 -1	53.1	36.5	53.1	312	270 - 440

External dimensions : JIS B1181(2004) / ISO 4302(Width across flats only)

Screw thread tolerances : JIS B0209(2001) / ISO 965 6H

• In the case of HDZ, please tighten the concave nut 50% more than the above torque value due to the high torque coefficient.

AVAILABLE STEEL GRADE :

Strength Class	Class 4		Class 8	Class 10	A2-70
Steel Grade	Low carbon steel		Medium carbon steel	Chromium Molybdenum steel	Stainless steel 304
Applicable Standard	JIS S5400 equivalent		JIS S45C	JIS SCM435	JIS SUS304 equivalent
	ASTM A563 Gr. A equivalent		ASTM A194 Gr. 2H equivalent	ASTM A194 Gr. 7 equivalent	ASTM A194 Gr. 8 equivalent
Surface finish	Zinc plating trivalent chromate	Hot Dip Galvanized (HDZ35)	Manganese Phosphate	Manganese Phosphate	—
M5×0.8	✓	—	—	—	✓
M6×1.0	✓	—	—	—	✓
M8×1.25	✓	✓	✓	✓	✓
M10×1.5	✓	✓	✓	✓	✓
M12×1.75	✓	✓	✓	✓	✓
M16×2.0	✓	✓	✓	✓	✓
M20×2.5	✓	✓	✓	✓	—
M22×2.5	✓	✓	✓	✓	—
M24×3.0	✓	✓	✓	✓	—
M27×3.0	✓	✓	✓	✓	—
M30×3.5	✓	✓	✓	✓	—

Other Materials or fine pitches are available in Basic Normal type. Other surface finishes are available upon request.

Medium carbon steel Concave nut (Rim) is used in combination with Class 10 Convex nut.