

QUICK SPECS

Scan code for more information.

## TRUE-LOCK Washer

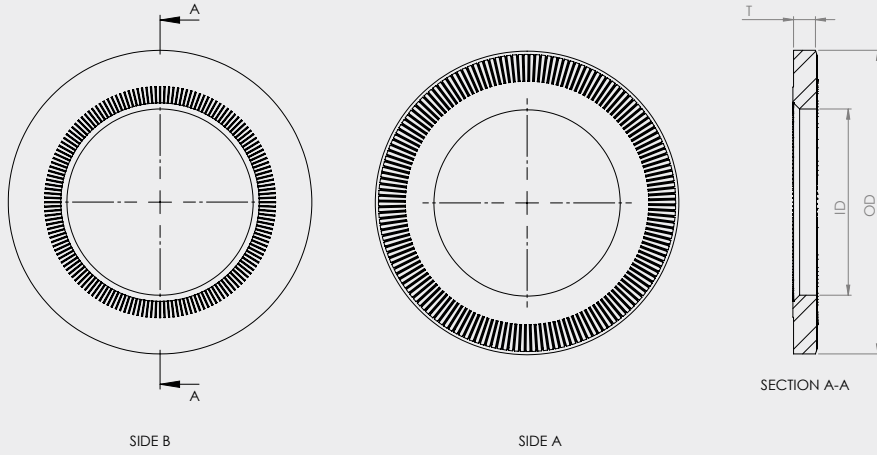
Unparalleled bolting efficiency

The **HYTORC TRUE-LOCK Washer** ensures reliable bolting results by incorporating a locking feature that minimizes loosening, keeping bolts tight under dynamic loads. Its strategically placed ridged band on the surface prevents the loosening of pre-loaded fasteners without requiring special equipment. This innovative design has been verified by the industry-standard Junker test, which simulates the transverse forces that typically loosen assemblies.

Built for durability, the TRUE-LOCK Washer is made from hardened alloy steel, meeting ASTM F436 and F3394 standards and finished with black oxide for corrosion protection. These washers are ideal for harsh structural and industrial applications, providing a dependable solution to maintain the integrity of your bolted connections.

- ANTI-LOOSENING
- CORROSION-RESISTANT

# FULL SPECIFICATIONS



**LEGEND:** OD = Outside Diameter ID = Inside Diameter T = Thickness

HYTORC TRUE-LOCK Washers are made from durable alloy steel, meeting ASTM F436 and F3394 standards for strength and reliability and are finished with black oxide for added corrosion protection—perfect for tough structural and industrial applications.

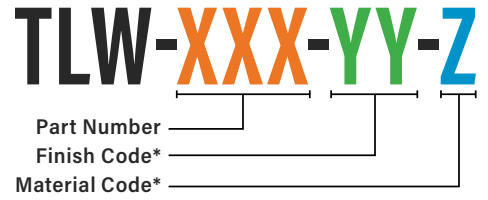
## VIBRATION TEST RESULTS ACCORDING TO DIN 25201-4

PARAMETER	VALUE	
<b>NOMINAL BOLT SIZE (INCH/MM)</b>	0.5" / 13mm	1.5" / 38mm
<b>PART NUMBER</b>	TLW-008	TLW-108
<b>NUMBER OF SAMPLES TESTED</b>	12	12
<b>AVERAGE LOAD INITIAL</b>	3,868 lbf / 17,21 KN	78,073 lbf / 347,42
<b>AVERAGE LOAD AT CYCLE 2000</b>	3,509 lbf / 15,62 KN	75,106 lbf / 347,22
<b>AVERAGE PERCENT LOAD AT CYCLE 2000</b>	91%	96%

**NOMINAL LOCKING WASHER DIMENSIONS** (All dimensions are for reference only. This is not a conversion chart.)

IMPERIAL					METRIC				
BOLT SIZE	PART NUMBER	ID	OD	T	BOLT SIZE	PART NUMBER	ID	OD	T
1/2"	TLW-008	0.531	1.118	0.123	M14	TLW-M14	15.00	28.40	3.10
9/16"	TLW-009	0.625	1.219	0.123	M16	TLW-M16	17.00	30.96	3.10
5/8"	TLW-010	0.688	1.432	0.130	M18	TLW-M18	19.00	36.37	3.30
3/4"	TLW-012	0.813	1.600	0.152	M20	TLW-M20	21.00	37.01	3.30
7/8"	TLW-014	0.938	1.865	0.152	M22	TLW-M22	23.00	40.64	3.30
1"	TLW-100	1.063	2.057	0.158	M24	TLW-M24	25.00	47.37	4.10
1-1/8"	TLW-102	1.241	2.307	0.190	M27	TLW-M27	28.00	52.25	4.10
1-1/4"	TLW-104	1.346	2.492	0.190	M30	TLW-M30	31.00	58.60	4.80
1-3/8"	TLW-106	1.497	2.742	0.190	M33	TLW-M33	34.00	63.30	4.80
1-1/2"	TLW-108	1.592	2.928	0.190	M36	TLW-M36	37.00	69.65	4.80
1-5/8"	TLW-110	1.703	3.179	0.245	M39	TLW-M39	40.00	74.37	4.80
1-3/4"	TLW-112	1.823	3.355	0.245	M42	TLW-M42	43.00	80.75	6.40
1-7/8"	TLW-114	1.977	3.617	0.245	M45	TLW-M45	46.00	85.22	6.40
2"	TLW-200	2.135	3.787	0.245	M48	TLW-M48	50.00	91.87	6.40
2-1/4"	TLW-204	2.341	4.280	0.298	M52	TLW-M52	54.00	96.19	6.40
					M56	TLW-M56	58.00	108.71	7.60

## PART DESIGNATION



\*Additional coatings and materials are available upon request. Please contact HYTORC for assistance with choosing the appropriate configuration.

## SAMPLE IMPERIAL DESIGNATION

**T L W - 1 0 2**  
True-Lock Washer 1-1/8" Bolt Size

## SAMPLE METRIC DESIGNATION

**T L W - M 3 0**  
True-Lock Washer M30 Bolt Size

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