



**Research Engineering &
Manufacturing Inc.**



**RB&W,
a Park Ohio Company**

The SPACTITE[®] Solution

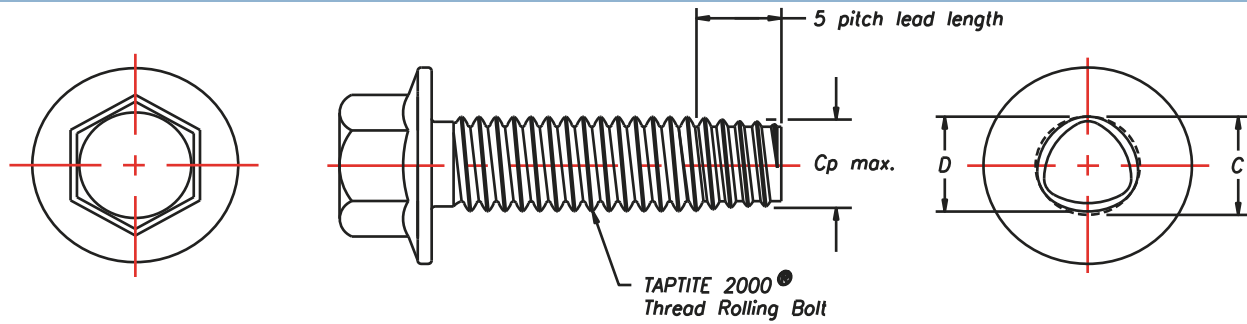
TAPTITE 2000[®] Bolts and TRHT SPAC[®] Nuts



Engineered Joint - Bolt & Nut Designed as Unit
A System Approach to In-Place Cost Savings
Compatible with High Strength Steel up to Grade 080
Pierce & Join Multiple Layers
Assemble Dissimilar Materials
Peak Failure Mode Typically Screw Fracture

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TAPTITE 2000[®], TAPTITE[®] and CORFLEX[®] are registered trademarks of Research Engineering & Manufacturing Inc.

TAPTITE 2000® THREAD ROLLING BOLT

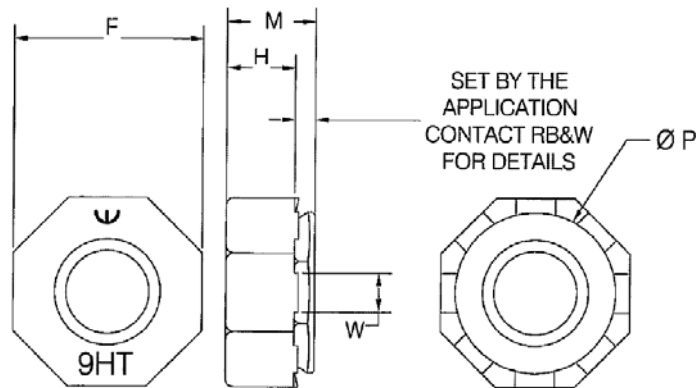


SIZE	PITCH	LIMITS	C	D	Cp Max
MR6	1.00	Max	6.03	5.93	5.38
		Min	5.90	5.78	
MR8	1.25	Max	8.03	7.91	7.23
		Min	7.87	7.71	
MR10	1.50	Max	10.03	9.88	9.08
		Min	9.85	9.66	
MR12	1.75	Max	12.04	11.87	10.92
		Min	11.83	11.61	

NOTES:

- 1) Material: Alloy steel per SAE 4037 Grade.
- 2) Heat Treat: Property Class 10 with an induction hardened point, per CORFLEX®-'I' specifications
- 3) Hardness: HRC 33-39

TRHT SPACTITE® NUT SPECIFICATIONS



Dimensions shown are in millimeters

Thread Blank Size	Through Hole Size		F Across Flats Max	H Body Height Min	M Nut Thkns Min	P Punch Dia. Min	W Lug Width Max
	Min	Max					
M6 x 1.00	5.38	5.58	15.40	4.00	5.20	12.50	3.40
M8 x 1.25	7.23	7.47	18.30	5.00	6.85	14.55	3.95
M10 x 1.50	9.07	9.37	20.10	5.50	8.50	17.05	4.35
M12 x 1.75	10.92	11.26	24.20	6.50	10.15	19.30	5.15

NOTES:

- 1) Material per ISO 898-2 Property Class 9 with 0.0005% Boron min. by weight optional.
TAPTITE 2000® formed thread proof load per ISO 898-2 Property Class 10. Hardness range HRC 20 - 32.
- 2) Hardness processing per an RB&W proprietary specification.
- 3) Contact RB&W Engineering for installation details and options.

“SPACTITE® Solutions”

RB&W Corporation of Canada has developed a new line of unthreaded SPAC® nuts, designated as “TRHT” for use in high strength steel with TAPTITE 2000® thread rolling bolts. SPAC® nuts are pierce and clinch nuts that are a cost effective and clean alternative to weld nuts. No pre-formed hole in the base material is needed.

REMINC, the originator of the TAPTITE® TRILOBULAR™ family of thread rolling fasteners, and RB&W worked in partnership to optimize the TRHT SPAC® nut for use with TAPTITE 2000® CORFLEX®-I' thread rolling fasteners. The hole size and length of engagement have been designed so that Property Class 10 TAPTITE 2000® bolts can be driven into TRHT SPAC® nuts to create a joint which meets Property Class 10 strength levels.

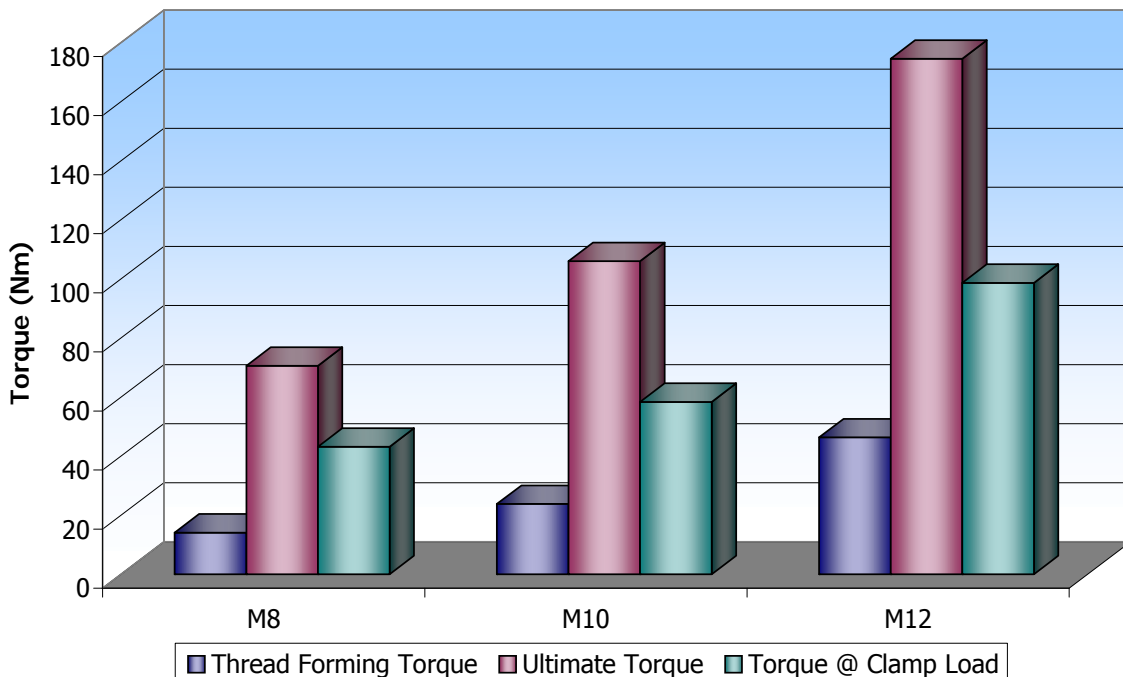
The combination of TAPTITE 2000® screws and TRHT SPAC® nuts is being promoted by REMINC and RB&W as “SPACTITE® Solutions”.

The main benefit of “SPACTITE® Solutions” is the ability to create a Class 10 strength joint in high strength sheet steel applications. Increasingly, automotive manufacturers are using thinner gauge sheet steel to reduce weight. The loss of strength that occurs from using thinner sheet steel is compensated for by using high strength steels. Manufacturers, in accomplishing their weight reduction goals, have experienced assembly problems because of the extreme work hardening that occurs when using high strength steels.

Tapping high strength steel, forming usable extruded holes or attaching weld nuts is difficult to do using high strength steel. “SPACTITE® Solutions” solves these problems and also provides the combined potential in-place cost savings associated with both TAPTITE 2000® bolts and SPAC® nuts.

PERFORMANCE DATA **TAPTITE 2000® Bolts in SPAC® Nuts**

Fastener Size	Thread Forming Torque (Nm)	Ultimate Torque (Nm)	Torque @ Clamp Load (Nm)	Clamp Load (kN)	Drive to Fail Ratio
M8	14.1	70.6	43.2	22.8	5.0:1
M10	23.8	106.0	58.4	36.1	4.5:1
M12	46.3	174.6	98.7	52.5	3.8:1



RB&W, a Park Ohio Company

Specialty Cold Formed Products & Shapes



RB&W Corporation has been at the forefront of providing creatively engineered, cost-saving solutions for countless manufacturers since 1845. As a company competing on a worldwide level, we have recognized and upheld the standards required for success.

RB&W provides fastening and cold-forming solutions through high-caliber professionals who insist on excellence in productivity, engineering, marketing and quick-response customer service at every level of our organization.



VALUE ADDED ASPECTS OF SPAC® NUTS

- Manufactured from medium carbon steel
- Property Class 10 for critical joints
- Base material metallurgy unaltered
- Installable in restricted access locations
- Replaceable
- Base material embossment minimized



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Research Engineering & Manufacturing Inc.

The originator of the TRILOBULAR™ Family of Fasteners



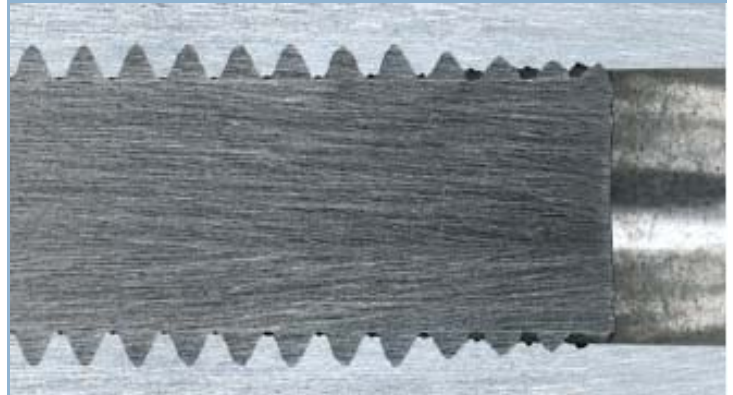
REMINC has successfully marketed TAPTITE® fastener technology internationally for over 48 years by training leading fastener producers worldwide and providing technical/ marketing support and innovative fastener design.

TAPTITE 2000® fasteners incorporate an innovative new thread design - the Radius Profile™ Thread, resulting in excellent mechanical assembly, and ergonomic characteristics surpassed by no other technology.



ADVANTAGES OF TAPTITE 2000® FASTENERS

- "Ergonomically" friendly and "Assembly" friendly.
- Superior vibration resistance.
- Excellent axial alignment.
- Low end load.
- High strip-to-drive ratio.
- High prevailing torque.
- Excellent torque-tension relationship.



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