

REMFORM® II™ Screws For Plastics



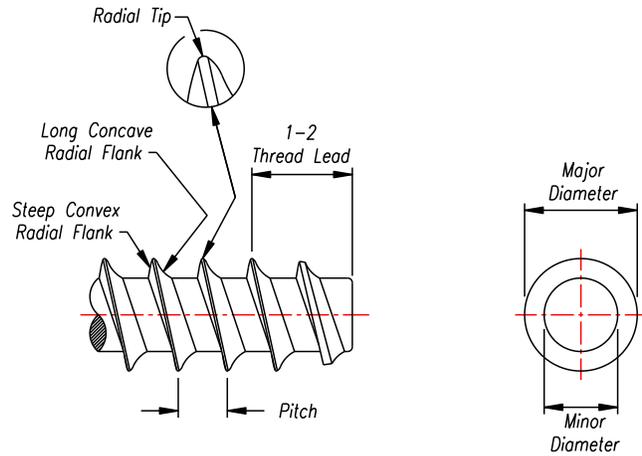
REMFORM® II™ Screws

Designed for the Demanding Plastic Applications of Today and Tomorrow

The REMFORM® II™ screw is a thread forming fastener with a unique thread form to provide superior performance in today's wide range of plastics. The asymmetrical thread minimizes radial hoop stress to reduce boss bursting. The narrow tip angle also reduces stress in the plastic nut member.

Leaders in Lowering the Cost of Assembly

REMFORM® II™ Screws For Plastics



Shown are typical applications
suitable for REMFORM® II™ Screws

Metric Series

SIZE mm	PITCH mm	MAJOR DIA.		MINOR DIA.
		Max.	Min.	Min.
1.0	0.55	1.07	1.00	0.64
1.2	0.65	1.27	1.20	0.77
1.4	0.75	1.47	1.40	0.89
1.6	0.85	1.70	1.60	1.02
1.8	0.85	1.90	1.80	1.15
2.0	1.00	2.10	2.00	1.17
2.2	1.05	2.30	2.20	1.29
2.5	1.15	2.60	2.50	1.48
3.0	1.35	3.10	3.00	1.90
3.5	1.55	3.60	3.50	2.22
4.0	1.75	4.10	4.00	2.55
4.5	2.00	4.60	4.50	2.87
5.0	2.25	5.15	5.00	3.19
6.0	2.65	6.15	6.00	3.84
7.0	3.10	7.15	7.00	4.48
8.0	3.50	8.15	8.00	5.11
9.0	4.00	9.15	9.00	5.74
10.0	4.50	10.15	10.00	6.37

Inch Series

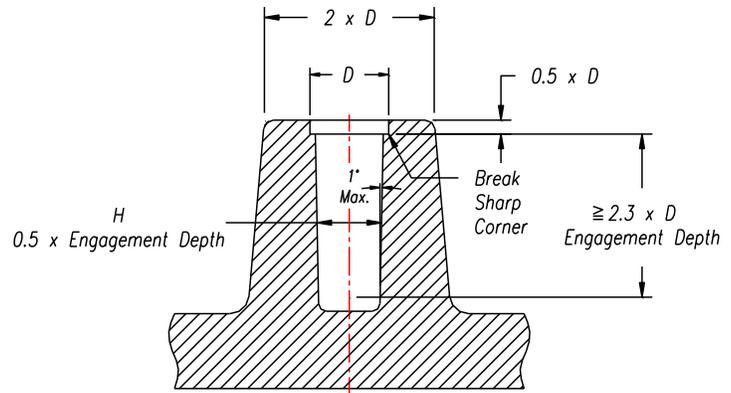
SIZE	PITCH TPI	MAJOR DIA.		MINOR DIA.
		Max.	Min.	Min.
2	20	0.088	0.084	0.049
4	18	0.114	0.110	0.067
6	16	0.139	0.135	0.085
8	15	0.167	0.161	0.101
10	13	0.193	0.187	0.123
12	11	0.218	0.212	0.144
1/4	10	0.253	0.247	0.157
5/16	8	0.316	0.309	0.195

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RECOMMENDED HOLE SIZES

MATERIAL TYPE	H HOLE DIA. Factor X Min. Screw Dia.
PP	0.75
PE	0.75
PA (Nylon 6 / 6.6)	0.75
ABS / PC Blend	0.75
ASA	0.75
ABS	0.75
PVC (rigid)	0.80
SAN	0.80
PS	0.80
PBT	0.80
PET	0.80
PC	0.80
PPO	0.80
PET 30% GF	0.80
PC 30% GF	0.82
PPO 30% GF	0.82
PA 6 30%GF	0.85
PBT 30% GF	0.85

SUGGESTED BOSS CONFIGURATION



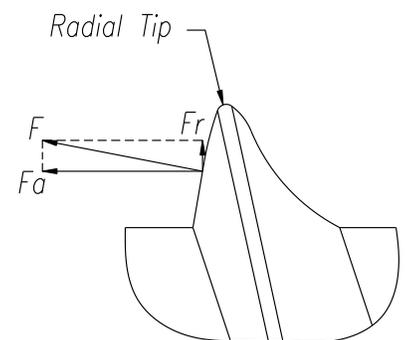
"D" = Minimum Screw Diameter

Hole sizes for the plastics listed in the table are derived by multiplying the minimum screw diameter by the factor listed in the table. The resulting hole size should be considered as a starting point which may need to be adjusted due to specific application conditions.

Reduced Hoop Stress

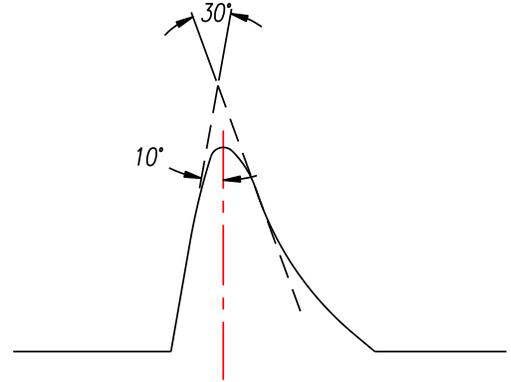
The radial tip thread crest of REMFORM® II™ screws reduces sharp corners, which reduces radial hoop stress in the plastic caused by thread forming.

When a threaded fastener is tightened, nearly all of the axial tightening load, designated **F**, is opposed by the trailing or pressure flank of the screw and the mating thread flank of the internal thread. The steep pressure flank transfers most of the resultant tightening load in the axial direction, **F_a**, minimizing boss bursting tendencies created by the radial force, **F_r**. The axial force, **F_a**, is over 4.5 times greater than **F_r**, the radial force.



The Unique Radius Flank™ Thread Form

REMFORM® II™ screws employ the Unique Radius Flank™ asymmetrical thread form shown in the drawing to the right. The leading thread flank is most influential in forming the mating thread. The intercepting radius form on the leading flank is there to promote efficient material displacement and material flow. The pressure flank which opposes the fastener head is engineered to resist pull-out forces, whether they be applied by a tensile load or induced by torque. The steep pressure flank has a subtle radius designed to increase resistance to pullout and to efficiently develop tension. It also provides excellent material contact resulting in a high resistance to the internal threads stripping. In applications where the failure mode is fastener fracture, the high torsional strength of REMFORM® II™ fasteners ensures a high failure torque. This unique thread and its narrow tip angle efficiently displace material and therefore require minimal energy to form an internal thread. The tip also utilizes a radius to better create the internal thread without increasing hoop stress in the plastic.



The REMFORM® II™ asymmetrical Unique Radius Flank™ thread form has the thread forming advantages of a 30° thread, without the difficulty of manufacturing a 30° thread.

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TECHNICAL ASSISTANCE

This brochure contains basic information needed to achieve the cost-savings potential of REMFORM® II™ fasteners

To obtain further assistance and a list of qualified producers, visit our website at www.remform.com or contact REMINC or CONTI.

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