NEW

part of the **Trifast plc** Group

Plas-Tech 30-20®

We are pleased to announce the launch of the **new Plas-Tech 30-20® Screws** to our product range. These products have been developed by TR to complement our existing range of Plas-Tech® products

Our technical engineering teams have worked in conjunction with TR's manufacturing locations to develop a new range of screws with an **optimised thread profile** to give superior performance in a wide variety of plastic materials to meet customers' exacting requirements.

Minimal radial stress: the faceted thread profile directs material flow to reduce radial stress

Superior vibration resistance: the full engagement of the self-locking, angled thread design avoids loosening

High torsional strength and tensile strength: a large core thread profile provides high strength

Optimal thread pitch: ensuring fastener engagement with a minimum number of rotations, keeping installation times to a minimum

High reusability: the fastener can be removed and re-installed a number of times

Most suited to robotic assembly

Product Range

Pan Head
Recess T Drive

Flange Head
Recess T Drive

Countersunk Head
Recess T Drive

Specifications

Thread diameter:
3.0mm, 4.0mm, 5.0mm, 6.0mm

Length:
6mm - 30mm

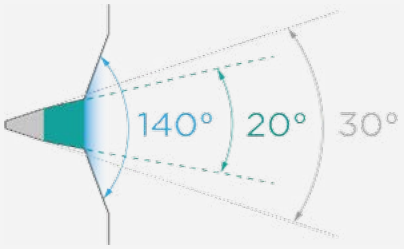
Material:
Steel, Stainless Steel

Finishes:
to customer requirements

Other variations are available on request

The thread profile consists of several distinctly angled surfaces. The 30-degree tip of the thread provides a strong and reliable edge, increasing the cross-sectional thickness of the 20-degree flanks for more axial strength.

These 20-degree flanks are optimised for optimum load transfer between the plastic and screw. The base of the thread consists of 140-degree flanks to optimise material flow during installation.



Features	Benefits	Compared to conventional thread forming screw
Optimal thread pitch, combining performance and fast installation, suitable for robotic installation	The optimised thread pitch ensures a high axial shear plane between the threads, whilst ensuring fastener engagement with a minimum number of rotations, keeping installation times to a minimum. The Hexalobular drive avoids camming out	The Plas-Tech 30-20® has a 20% finer pitch, reducing the thread angle. Together with the lower flank angle and optimised material flow, axial resistance has improved substantially
Compliant with the 'Design to Repair' principle	The fastener can be removed and installed numerous times, because of limited damage to the formed thread in the plastic during retightening. The joint therefore maintains its integrity	The reduced thread angle reduces axial displacement when tightening with a focus on axial loading
Optimal material flow into plastic	Stronger, reliable, and consistent joints with a higher pre-load can be achieved through optimised material flow between the threads, creating maximum shear strength	A 25% higher thread fill with an overall larger cross section, improves maximum joint strength and resistance against loosening caused by vibration
Reduced radial stress in plastics	Reliable and repeatable joints are created by the multi angled thread profile, directing the plastic in axial direction, thereby reducing the radial stress. Plas-Tech 30-20® can eliminate the need for threaded inserts	The narrower thread shape forms the plastic, with reduced radial stress. The 30° crest of the thread and the 20° flank combines screw strength with maximum axial joint loading capacity
Superior vibration resistance against loosening	The full engagement of the self-locking, angled thread design avoids loosening due to vibration	The Plas-Tech 30-20® reduced thread angle, and optimised material flow during installation increase vibration resistance in applications
High torsional and tensile strength of the fastener	A large core thread profile reduces the risk of sudden screw failure	A 20-25% increased core diameter ensures superior torsional and axial strength
Symmetrical thread profile	The symmetrical thread profile in both products provides a high fatigue strength and breaking torque	The symmetrical thread profile in both products provide a high fatigue strength and breaking torque
Full thread consistent thread profile with a convex tip	The high consistency of the thread profile allows rationalisation of fastener lengths. The convex edge increases the strength of the thread against damage prior to installation, allowing thinner and shorter boss designs	The overall higher performance of the fastener and causing relative lower radial stress in its joining material, reduction of screw sizes can aid rationalisation

We can also support with a full range of related fasteners and components including: Screws for Plastic, Inserts for Plastic & Compression Limiters

Contact TR Fastenings today!

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For further technical information on the Plas-Tech 30-20® please visit our website