

## DYWI® Drill Hollow Bar System





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# DYWI® Drill Hollow Bar System

The DYWI® Drill Hollow Bar is a fully threaded self-drilling anchorage system which can be simultaneously drilled and grouted into loose or collapsing soils and brittle rock without the need for a casing. Furthermore, the bar features a left-hand thread for standard rotary percussive drilling.

Manufactured from high grade steel tubing to EN 10083-1, DYWI® Drill Hollow Bar is cold rolled to form standard rope thread or “T” thread profiles. The DYWI® Drill rolling process refines the grain structure of the steel, increasing the yield strength and producing a robust drill steel suitable for a range of drilling and grouting applications.

The DYWI® Drill Hollow Bar System includes a full range of drill bits, adaptor sleeves, couplers, nuts and bearing plates. In addition, thanks to a wide range of DYWI® Drill injection adaptors and drill tooling, the hollow bar can be used with many types of drilling equipment.

Key features of the DYWI® Drill Hollow Bar System are:

## No Casing Required

Bars can be drilled into loose or collapsing soils without the need for a casing to support the borehole.

## Simultaneous Drill and Grout Installation

Grout is injected at all points of the borehole as drilling is advanced, permeating the local strata for increased bond performance and producing bulbing between the strata and the hollow bar in the softer sections of the soil.

## Rotary Percussive Drilling

This drilling technique is highly efficient, ensures fast progress of drilling as well as good directional stability of the drill string and helps to consolidate the grout within the borehole.

## Fully Threaded Rod Sections

Continuous thread ensures that rods can be cut and coupled or extended at any point.

## High Strength Threads

Both the rope threads and “T” threads provide a strong and robust thread, ideal for rotary percussive (drifter) drilling as well as ensuring a high level of bond with the borehole grout.

## Self-Drilling System

Thanks to their self-drilling function, bars can be drilled into most ground conditions for tension, compression or alternating load applications and can also be used as an injection conduit.



Bar/Grout bond



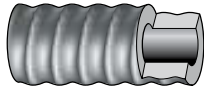
DYWI® Drill Hollow Bar soil nails, top bar galvanized, for slope stabilization



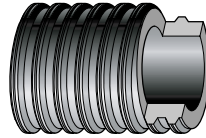
Restricted access soil nailing

# DYWI® Drill Technical Data

## DYWI® Drill Rope Thread (R)



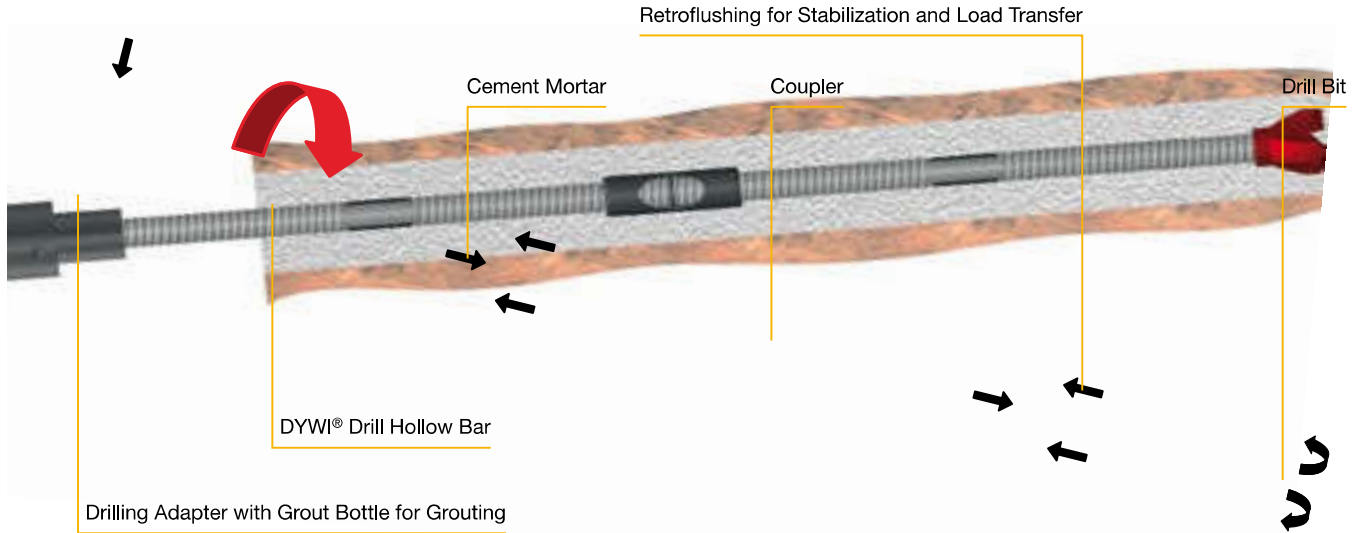
## DYWI® Drill "T" Thread



- Bar Finishes: Plain or Galvanized to EN 1461

E Value:

- Strain at Ultimate Load
- Fractile Value of Strain



## Technical Data

Type	Cross-sectional area	Load at yield	Ultimate load	Weight	Approval
	A [mm <sup>2</sup> ]	F <sub>yk</sub> [kN]	F <sub>tk</sub> [kN]		
R32-210 (R32L)	340	160	210	2.65	○ × △
R32-250	370	190	250	2.90	○ × △
R32-280 (R32N)	410	220	280	3.20	○ × △
R32-320	470	250	320	3.70	○ × △
R32-360 (R32S)	510	280	360	4.00	○ × △
R32-400	560	330	400	4.40	○ × △
R38-420	660	350	420	5.15	○ × △
R38-500 (R38N)	750	400	500	5.85	○ × △
R38-550	800	450	550	6.25	○ × △
R51-550 (R51L)	890	450	550	6.95	○ × △
R51-660	970	540	660	7.65	○ × △
R51-800 (R51N)	1,150	640	800	9.00	○ × △
T76-1200 (T76L)	1,610	1,000	1,200	12.60	
T76-1600 (T76N)	1,990	1,200	1,600	15.60	
T76-1900 (T76S)	2,360	1,500	1,900	18.50	

Lengths of delivery L = 2/3/4/6m

- Germany: Z-14.4-674 & Z-34.13-208
- × Austria: BMVIT-327.120/0010-IV/ST2/2012
- △ Europe: ETA-12/0603

## Additional Information

German Approval DIBt Z-14.4-674 und Z-34.13-208 / Austrian Approval BMVIT-327.120/0010-IV/ST2/2012 / European Approval ETA-12/0603