



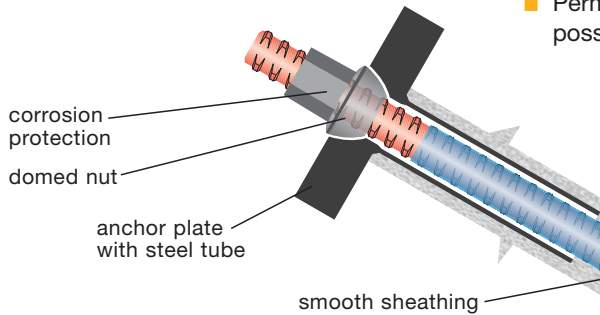
GEWI[®]Plus Geotechnical Systems



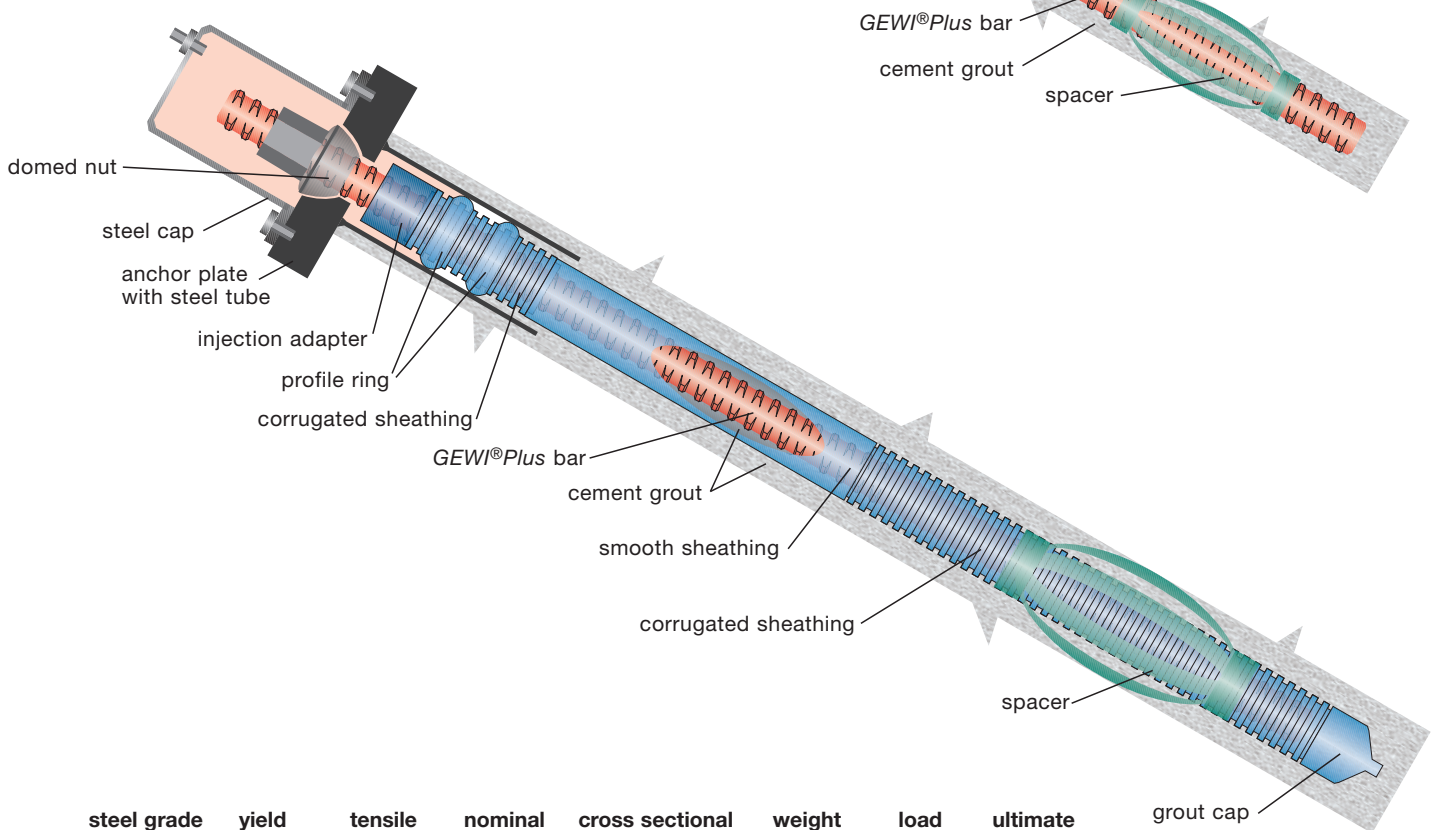
Advantages and Characteristics

- Easy system handling
- Simple restressing and destressing through anchorage with nut
- Permanent corrosion protection possible
- Easy removal of temporary anchors through threaded sleeves
- Flexibility in transport lengths by using couplers
- High bond strength between GEWI®Plus threadbar and cement grout
- High stiffness during installation
- Angle compensation using wedge washers
- Quality assurance through internal and external supervision of production

Temporary GEWI®Plus Ground Anchor

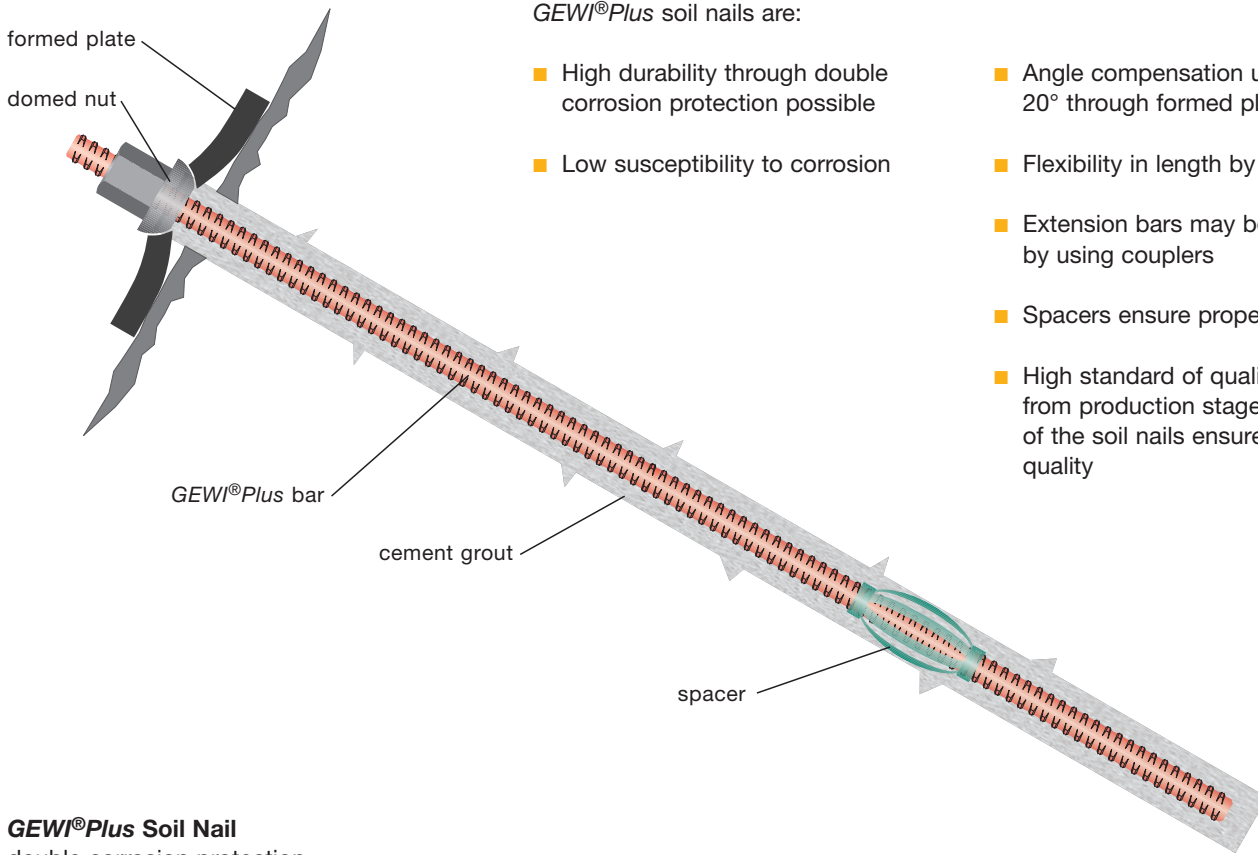


Permanent GEWI®Plus Ground Anchor



steel grade	yield strength [N/mm ²]	tensile strength [N/mm ²]	nominal diameter [mm]	cross sectional area [mm ²]	weight per metre [kg/m]	load at yield [kN]	ultimate load [kN]
GEWI®Plus	670	800	30	707	5.55	475	565
GEWI®Plus	670	800	35	962	7.55	640	770
GEWI®Plus	670	800	43	1,466	11.51	980	1,170
GEWI®Plus	670	800	57.5	2,597	20.38	1,740	2,080
GEWI®Plus	670	800	63.5	3,167	24.86	2,120	2,540
GEWI®Plus	670	800	75	4,418	34.68	2,960	3,535

GEWI®Plus Soil Nail

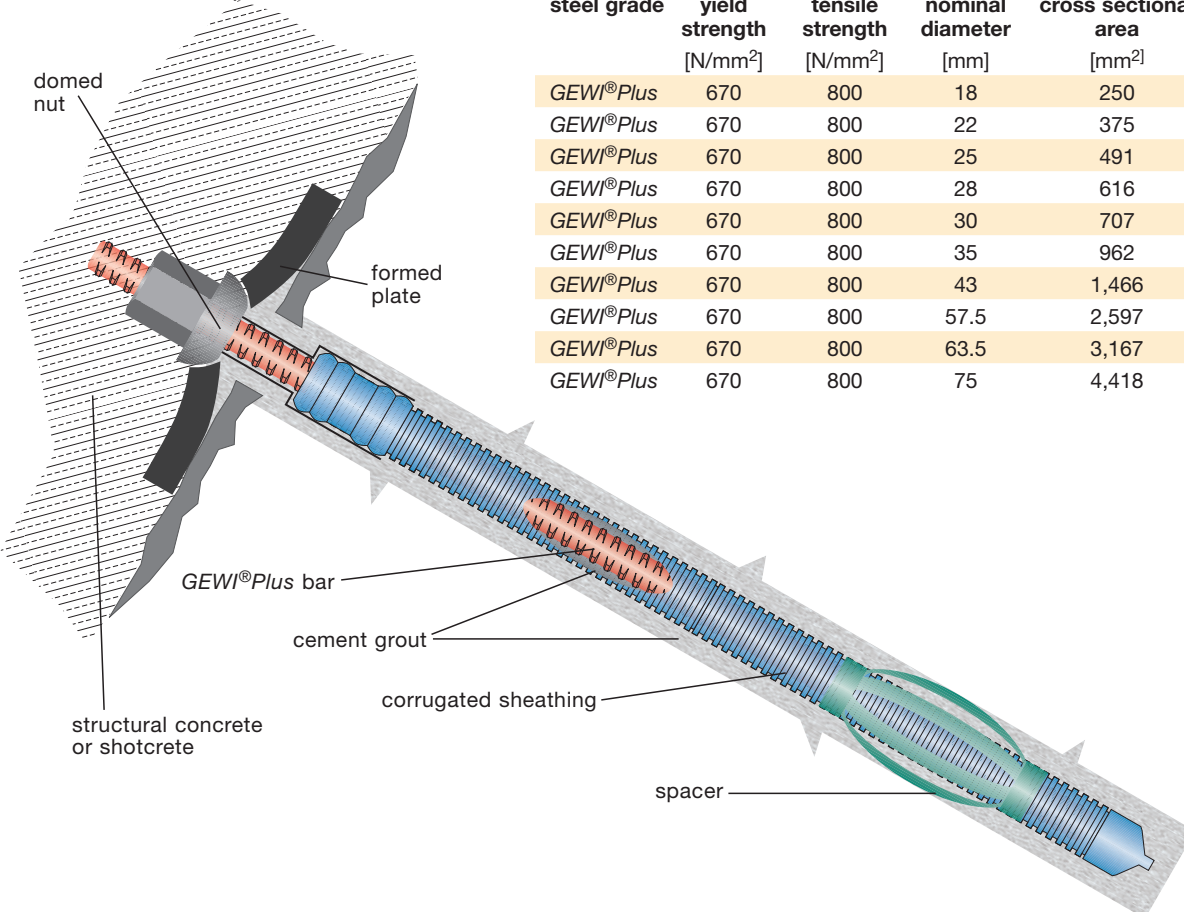


Advantages and Characteristics

The essential advantages of the GEWI®Plus soil nails are:

- High durability through double corrosion protection possible
- Low susceptibility to corrosion
- Angle compensation up to 20° through formed plate
- Flexibility in length by using couplers
- Extension bars may be attached by using couplers
- Spacers ensure proper grout cover
- High standard of quality control from production stage to installation of the soil nails ensures consistent quality

**GEWI®Plus Soil Nail
double corrosion protection**



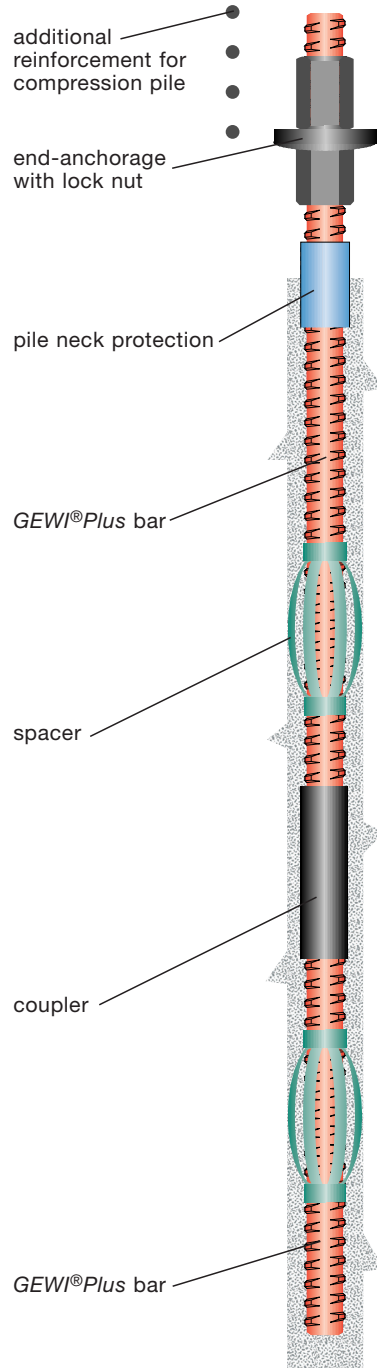
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GEWI®Plus	670	800	18	250	1.96	170	200
GEWI®Plus	670	800	22	375	2.94	250	300
GEWI®Plus	670	800	25	491	3.85	330	390
GEWI®Plus	670	800	28	616	4.83	410	490
GEWI®Plus	670	800	30	707	5.55	475	565
GEWI®Plus	670	800	35	962	7.55	640	770
GEWI®Plus	670	800	43	1,466	11.51	980	1,170
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GEWI®Plus	670	800	75	4,418	34.68	2,960	3,535

Advantages and Characteristics

The DYWIDAG *GEWI®Plus* pile is a drilled micropile with a central steel element based on the *GEWI®Plus* threadbar with hot-rolled, continuous thread deformations on both sides. The *GEWI®Plus* threadbar is encapsulated in cement grout which acts both as corrosion protection and as load transfer into the soil or rock.

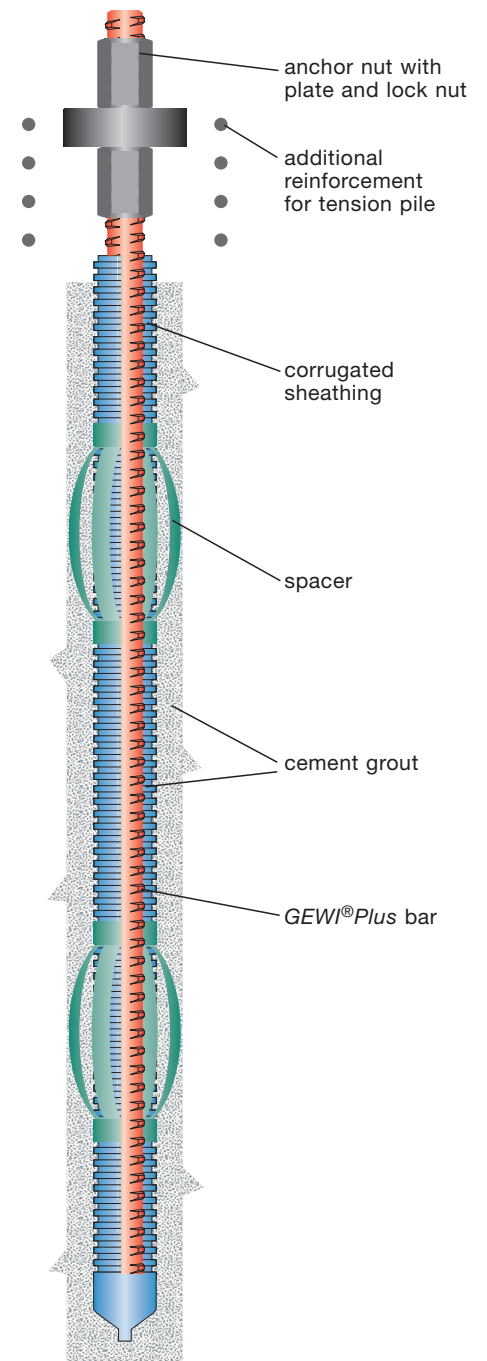
- Excellent load transfer into concrete structures by means of anchoring elements
- Tensile, compressive and alternating loads can be efficiently transferred to the structure
- The coarse *GEWI®Plus* thread guarantees maximum bond between steel and cement grout
- The stress-strain curve of the *GEWI®Plus* bar shows high ductility
- Settlement can be prevented by using preloaded *GEWI®Plus* piles
- Load transfer into soil optimized by post-grouting
- Double corrosion protected piles can be used for high corrosion impact like in aggressive media such as seawater or contaminated ground
- Can be cut off or coupled at any given point
- A small drill hole diameter permits economic drilling equipment
- robust coarse thread remains threadable even when dirty or damaged

GEWI®Plus Pile



GEWI®Plus Pile

double corrosion protection



steel grade	yield strength [N/mm ²]	tensile strength [N/mm ²]	nominal diameter [mm]	cross sectional area [mm ²]	weight per metre [kg/m]	load at yield [kN]	ultimate load [kN]
<i>GEWI®Plus</i>	670	800	28	616	4.83	410	490
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GEWI®Plus – the ultimate in threadbar technology

The booming market of geotechnical systems needs higher performance!

DYWIDAG-SYSTEMS INTERNATIONAL faces this challenge. With the new GEWI®Plus systems we present the latest stage of threadbar technology for ground works:

- complete systems for piles, anchors, rock bolts and soil nails
- bar diameters from 18 to 75 mm
- yield loads from 160 to 2,960 kN
- ultimate loads from 200 to 3,535 kN
- all systems in accordance with the latest European standards and provisional European standards
- corrosion protection systems complying with the latest developments and European standards
- yield strength: 670 N/mm² – an increase of 34% compared to standard GEWI® rebars (500 N/mm²)
- ultimate strength: 800N/mm² – an increase of 45% compared to standard GEWI® rebars (550 N/mm²)
- for the same design load you will save about 25% of steel quantity compared to standard GEWI® rebars



These factors bring big advantages during transport and in handling.

- the robust GEWI®Plus thread is specially designed for rough site conditions
- the right-hand thread over the full length offers the possibility to fix and couple the bars at any point. Adaptions to varying conditions are very easy and can be done quickly on site
- in spite of the high strengths, GEWI®Plus is not sensitive to stress crack corrosion and hydrogen induced embrittlement
- GEWI®Plus is fully integrated in the quality assurance system of DYWIDAG-SYSTEMS INTERNATIONAL – all our workshops are certificated to DIN EN ISO 9001
- DYWIDAG-SYSTEMS INTERNATIONAL is the inventor of the GEWI® thread, we have all the know-how in this business. As the producer of the systems for more than 30 years we can help you with our experience and show you a solution for almost every problem that you will face on site

**GEWI®Plus –
a system for the future**

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