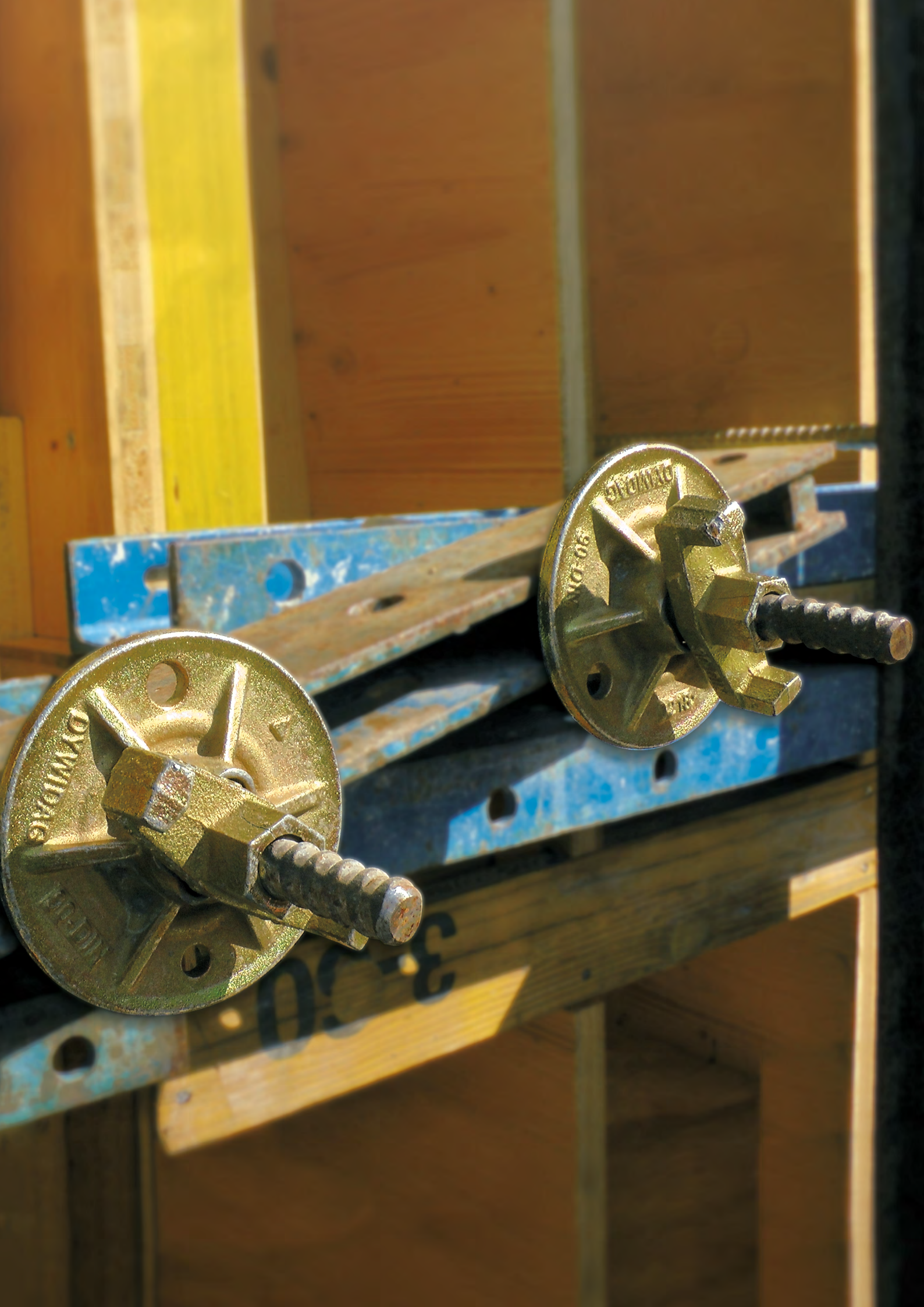
DYWIDAG
CONCRETE TECHNOLOGIES

DYWIDAG Form Ties


DYWIDAG
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DYWIDAG Form Ties

The DYWIDAG Form Ties is based on the original DYWIDAG Threadbar with hot-rolled, continuous thread on both sides. Together with matching accessories, it is used by formwork manufacturers around the world and has proven itself countless times on jobsites.

A decisive advantage of the DYWIDAG Threadbar is its coarse thread that does not run around the complete circumference of the bar. Consequently, the bar is not only insensitive against damages and dirt, but also self-cleaning. Furthermore, it can be cut at any point and used continuously with couplers or nuts.

The high thread pitch allows a quick assembly and disassembly of the connecting and anchoring parts.
The high strength of ftk= 1,100 N/ mm2 permits a high load capacity in relation to its low weight per meter.

We offer a large range of accessories in diameters 12.5; 15; 20 and 26.5 mm for all kinds of applications.

Safety Instructions

Appropriate use of form ties and accessories is necessary to prevent accidents and failure. All products are intented to be used by qualified and experienced workmen. It is the user´s responsibility to continually inspect working hardware for wear and to discard worn parts.

Improper use of the DYWIDAG Form Ties can expose workers to extreme danger that may result in severe injury or death.

Threadbars

DYWIDAG Threadbar

According to the German approval the original, high quality Type FA DYWIDAG Threadbar is insensitive to weld spatter, but only features limited weldability.

DYWIDAG Threadbar, insensitive to weld spatter

Article No.	Ø [mm]	Steel Grade	Max Load [kN]	Working Load [kN]	Weight [kg/m]
15 FA 0105	15/17	St 900/1100	190	90	1.44
20 FA 0105	20/23	St 900/1100	345	160	2.51
26 FA 0105	26.5/31	St 900/1100	606	283	4.46

Welding is not reco mmended, but Threadbars are insensitive to weld spatter.
All Threadbars also available galvanized > Article No. .../V (example 15 FA 0105/V)

MUKUSOL Threadbar

MUKUSOL Threadbar, weldable

Article No.	Ø [mm]	Max Load [kN]	Working Load [kN]	Weight [kg/m]
12 FS 0000	12/14	60	30	1.04
15 FS 0000	15/17	170	80	1.50
15 VA 0000*	15/17	140	70	1.58
20 FS 0000	20/23	275	140	2.60
26 ES 0000	26.5/30	500	240	4.56

Cold rolled, *stainless steel, grade VA
Weldable: for weldability and methods, please contact DSI
All Threadbars also available galvanized > Article No. .../V (example 15 FS 0000/V)

Anchorages in Concrete

Wobble Anchor

For bracings in concrete. The anchor length is very short thanks to the favorable bond behavior of the threadbar and the special wave form.

Article No.	Bar Ø [mm]	Length [mm]	Weight [kg/no.]
15 FS 2080	15	550	0.90
15 FA 2080	15	550	0.86
20 FS 2080	20	700	1.95
20 FA 2080	20	700	1.88
26 ES 2080	26.5	800	3.88
26 FA 2080	26.5	800	3.79

Hook Anchor

Hook Anchors are used for anchoring single-sided shuttering, climbing formwork etc.

Article No.	Bar Ø [mm]	Length [mm]	Hook Ø [mm]	Weight [kg/no.]
15 FS 3047/250	15	250	100	0.75
15 FA 3047/250	15	250	100	0.72
15 FS 3047/450	15	450	150	1.05
15 FA 3047/450	15	450	200	1.01
20 FS 3047600	20	600	100	2.24
20 FA 3047/600	20	600	100	2.16
26 ES 3047/800	26.5	800	150	5.47
26 FA 3047/800	26.5	800	200	5.35

Loop Anchor

Loop Anchors are embedded in concrete for anchoring single-sided shuttering, climbing formwork and for other applications.

Article No.	Bar Ø [mm]	Length [mm]	Width [mm]	Weight [kg/no.]
15 FS 3076	15	550	230	2.25
15 FA 3076	15	550	230	2.16
20 FS 3076	20	600	300	4.19
20 FA 3076	20	600	300	4.04
26 ES 3076	26.5	800	400	9.71

For anchoring brace frames at an angle of 45°

Fix Anchor/ Shuttering Sleeve/ Plate Anchor

For bracings in concrete. Since they can be nailed to the formwork skin at any point using the nail plug in the PE Foot or in the closing plug, the point is independent of existing anchor holes, and the formwork skin must not be perforated.
Round Fix Anchors (20+26.5 mm) should be installed with the flat side facing downwards in order to reach higher pull-out values with a larger pull-out cone. The actual pull-out values depend on many factors, which is why we reco mmend to always carry out pull-out tests on site.

Article No.	Bar Ø [mm]	Plate Size [mm]	Height [mm]	Weight [kg/no.]
15 F 3074	15	100 x 70	60	0.52
15 F 3174	15	80 x 55	60	0.45
20 F 3074	20	Ø 90	80	0.85
26 E 3074	26.5	Ø 120	70	1.90
Fix Anchor with Concrete Spacer Sleeve[1)]				
15 F 3074/S	15	100 x 70	60	0.65




1) Including Nail Plug and Closing Plug, Installation depth = 125 mm Cast
15 F 3074 and 15 F 3174 are installed using a PE Foot
20 F 3074 and 26 E 3074 are installed using cones For details and specifications, please ask DSI

PE Foot

Article No.	Bar Ø [mm]	Nominal Installation Depth [mm]	Weight [kg/no.]
15 F 3174/K	15	85	0.03

For the assembly of Fix Anchors 15 F 3074 and 15 F 3174 Delivery includes Nails and PE Plug

Installation with cones

Shuttering Sleeve including Nail Plug

Article No.	Bar Ø [mm]	Length [mm]	Weight [kg/no.]
15 F 3116	15	100	0.04

Delivery includes Ø 18 mm Nail Plug

Plate Anchor

Article No.	Bar Ø [mm]	Plate Size [mm]	Gl/Vl [mm]	Weight [kg/no.]
15 FA 3058	15	120 x 100 x 10	160/140	1.29
15 FA 3058/400	15	120 x 100 x 10	400/380	1.64
15 FS 3058	15	120 x 100 x 10	160/140	1.20
20 FS 3058	20	120 x 100 x 10	480/400	2.60
20 FA 3058	20	120 x 100 x 10	480/400	2.56

Installation with cones

Expansion Shell

Expansion shells are used for fixing single-sided shuttering or similar structures in rock, concrete or comparable load-bearing ground. When installing expansion shells, please consult the separate installation instructions available on demand.

Please ask for installation instructions

Article No.	Bar Ø [mm]	Borehole Ø [mm]	Weight [kg/no.]
15 F 2128	15	32 – 34	0.20
15 F 2184	15	35 – 37	0.39
15 F 2190	15	35 – 37	0.42
20 F 2136	20	43 – 48	0.48
26 E 2137	26.5	51 – 53	0.60

Weldable Neck Flange

This flange can be welded on in order to anchor sheet pile walls at a 90° angle without perforating them. The material characteristics and dimensions of the welding area ensure the transfer of the full working load.

Article No.	Bar Ø [mm]	Length x Width x Height [mm]	Weight [kg/no.]
15 F 3026	15	130 x 30 x 50	0.37

Weldable, Application with steel structures, Working load max. 90 kN

Nuts and Couplers

Flanged Wing Nut

The Flanged Wing Nut, which is available in five different diameters, differs from the Wing Nut by a larger pedestal allowing a direct bearing on walings.
It can be screwed on or loosened using a hexagon wrench, threadbar or ha mmer.

Article No.	Bar Ø [mm]	Plate Ø [mm]	Height [mm]	Hex [mm]	Hole Ø[1] [mm]	Weight [kg/no.]
12 F 2072	12	70	50	24	-	0.45
15 F 2072/70	15	70	53	27	≤ 35	0.53
15 F 2072/100	15	100	53	27	≤ 35	0.70
15 F 2072/130	15	130	53	27	≤ 35	0.90
20 F 2072/130	20	130	65	36	≤ 40	1.53

1) Maximum diameter of the hole
Cast, galvanized

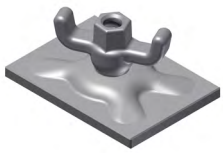
Slope Plate

Like the Combination Plate, the Slope Plate also features a wing nut that is undetachable from the plate.
In the case of the Slope Plate, both the plate and the nut are cast.
The articulation of the wing nut is approx. 15° for square plates and 5° for round plates.

Article No.	Bar Ø [mm]	Plate [mm]	Height [mm]	Hex [mm]	Articulation [°]	Weight [kg/no.]
15 F 1026	15	120 x 120	65	27	max 15	1.10
15 F 1030	15	Ø 120	65	27	max 5	1.00
20 F 1030	20	Ø 130	85	36	max 10	1.52

Galvanized, for inclined formwork
15 F 1026/15 F 1030: Casts
20 F 1030: Forged
15 F 1026 and 20 F 1030 for use with steel walings

Combination Plate



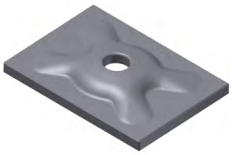
Combination Plates consist of a waler plate and a forged wing nut that are articulated (max. 5°) but undetachable. The load capacity for wood and steel walings corresponds to the values of the base plates.

Article No.	Bar Ø [mm]	Plate [mm]	Hex [mm]	Weight [kg/no.]
15 F 1020	15	120 x 120 x 10	27	1.42
15 F 1021	15	140 x 100 x 10	27	1.42
15 F 1023	15	200 x 150 x 10	27	2.70

Galvanized, nut: forged, plate: steel S235,
max. articulation of nut: 5°
Working load 30 kN if supported on timber
Working load 90 kN if use with steel
walings

Unless noted, working loads of Nuts and Couplers are as follows: 12 F ...: 30 kN; 15 F...: 90 kN; 20 F...: 160 kN; 26 E...: 250 kN

Pressed Waler Plate

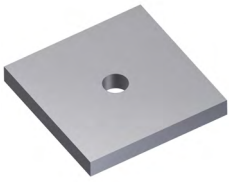


Pressed Waler Plates are used for timber or steel walings in conjunction with a winged nut or a hex nut for load transfer. The embossing of the plate increases its rigidity. Load capacity depends on the contact area, the admissible bearing pressure and the threadbar that is used.

Article No.	Bar Ø [mm]	Plate [mm]	Hole Ø [mm]	Weight [kg/no.]
15 F 2062	15	140 x 100 x 10	20	1.15
15 F 2066	15	120 x 120 x 10	20	1.10
15 F 2097	15	200 x 150 x 10	20	2.30

Galvanized, steel grade S235 or similar,
15 F 2062: For use with steel waling
15 F 2066: Working load of 20 kN if supported on timber
15 F 2097: Working load of 50 kN if supported on timber

Flat Bearing Plate



Flat Plates are used for timber or steel walings in conjunction with a winged nut or a hex nut for load transfer. Load capacity depends on the contact area, the admissible bearing pressure and the threadbar that is used.

Article No.	Bar Ø [mm]	Dimensions* [mm]	Hole Ø [mm]	Weight [kg/no.]
15 F 2122	15	120 x 120 x 15	20	1.60
20 F 2122	20	120 x 120 x 20	25	2.15
26 E 2122	26.5	150 x 120 x 30	32	4.00

* Further dimensions available on request

All Bearing Plates are also available galvanized > Article No .../V
(example: 15 F 2122/V)

Wing Nut

With different Waler Plates, Wing Nuts can be used as anchor nuts both for timber and steel walings.
They can be fixed and loosened using a hexagon wrench or a threadbar.
If necessary, a clamping effect can be attained or overcome by applying ha mmer strokes to the wings.

Article No.	Bar Ø [mm]	Height [mm]	Hex [mm]	Weight [kg/no.]
12 F 2071	12	50	24	0.19
15 F 2071	15	55	27	0.35
20 F 2177	20	60	36	0.48
26 E 2177	26.5	65	46	0.87

Cast, galvanized

Unless noted, working loads of Nuts and Couplers are as follows: 12 F ...: 30 kN; 15 F...: 90 kN; 20 F...: 160 kN; 26 E...: 250 kN

Hex Nut

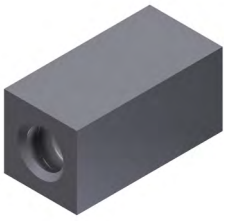
Similar to Wing Nuts, Hex Nuts can be used as anchor nuts in conjunction with a Waler Plate or a Flat Bearing Plate.

Article No.	Bar Ø [mm]	Plate Ø [mm]	Hex [mm]	Weldable	Weight [kg/no.]
Hex Nut – designed to take the full bar load [1]					
15 F 2002/50	15	50	30	Yes	0.22
15 F 2002/70	15	70	30	Yes	0.30
15 VA 2002/50[2]	15	50	30		0.22
15 F 2002/50/G[3]	15	50	30		0.19
20 F 2002/70	20	70	36	Yes	0.40
26 E 2002/60[1]	26.5	60	46	Yes	0.60
26 E 2002/80	26.5	80	46	Yes	0.80
Lock Nut – designed for securing, not for taking loads					
15 F 2040/30	15	30	30	Yes	0.15
20 F 2040/30	20	30	36	Yes	0.16
26 E 2040/30	26.5	30	46	Yes	0.30

1) Working load of 26 E 2002/60: 200 kN
2) Stainless steel, grade VA
3) Cast, galvanized

All Hex Nuts are also available galvanized > Article No. .../V
(example: 15 F 2002/50/V)

Counter Nut/Square Nut



Square Nuts with low heights are used as counter nuts in order to achieve a slip-free bar connection despite the coarse thread. They are only designed for transferring the counter moment and cannot be used as anchor nuts.

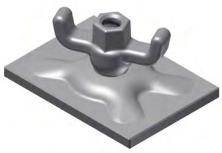
Article No.	Bar Ø [mm]	Length [mm]	Hex [mm]	Weight [kg/no.]
15 F 2028/35[1]	15	35	30	0.18
15 F 2028/60	15	60	30	0.32

1) Lock Nut, not designed to take the full load of the threadbar

All Square Nuts are also available galvanized > Article No. .../V
(example: 15 F 2028/35/V)

Unless noted, working loads of Nuts and Couplers are as follows: 12 F ...: 30 kN; 15 F...: 90 kN;20 F...: 160 kN; 26 E...: 250 kN

Combination Plate



Combination Plates consist of a waler plate and a forged wing nut that are articulated (max. 5°) but undetachable. The load capacity for wood and steel walings corresponds to the values of the base plates.

Article No.	Bar Ø [mm]	Plate [mm]	Hex [mm]	Weight [kg/no.]
15 F 1020	15	120 x 120 x 10	27	1.42
15 F 1021	15	140 x 100 x 10	27	1.42
15 F 1023	15	200 x 150 x 10	27	2.70

Galvanized, nut: forged, plate: steel S235, max. articulation of nut: 5°
Working load 30 kN if supported on timber
Working load 90 kN if use with steel walings

Couplers

We offer different couplers for the force-fit connection of two threadbars. A stop pin in the middle of the coupler ensures an equal screwing-in length of both bars. Two fixed threadbars can be connected and tensioned using a turnbuckle splice.

Hex Coupler

Article No.	Bar Ø [mm]	Length [mm]	Hex [mm]	Weight [kg/no.]
15 F 2002/90[1)]	15	90	30	0.40
15 F 3005	15	105	30	0.45
20 F 3005	20	130	36	0.74
26 E 3005/120[2)]	26.5	120	46	1.10
26 E 3005/150	26.5	150	46	1.38

1) Working load of 15 F 2002/90: 80 kN
2) Working load of 26 E 3005/120: 200 kN

Screwing-in length is guaranteed by stop pin
All Couplers are also available galvanized > Article No. .../V
(example: 15 F 3005/V)

Round Coupler

Article No.	Bar Ø [mm]	Length [mm]	Diameter [mm]	Weight [kg/no.]
15 F 3003	15	105	30	0.40
20 F 3003	20	130	40	0.85
26 E 3003	26.5	150	50	1.50

Screwing-in length is guaranteed by stop pin
All Couplers are also available galvanized > Article No. .../V
(example: 15 F 3003/V)

Turnbuckle Splice

Article No.	Bar Ø [mm]	Length [mm]	Hex [mm]	Weight [kg/no.]
15 F 3013/14	15	185	41	1.40
20 F 3013/14	20	190	46	1.90
26 E 3013/14	26.5	250	60	3.80

For screwing and tensioning with two fixed bar ends 15 F 3013/14: Tensile force of 40 kN if a torque of 0.5 kNm is applied 20 F 3013/14: Tensile force of 70 kN if a torque of 0.75 kNm is applied 26 E 3013/14: Tensile force of 100 kN if a torque of 1.0 kNm is applied

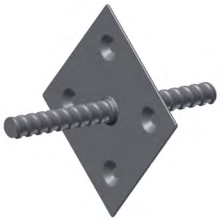
Unless noted, working loads of Nuts and Couplers are as follows: 12 F ...: 30 kN; 15 F...: 90 kN; 20 F...: 160 kN; 26 E...: 250 kN

Water Stops

When using a recoverable anchor with a plastic or fiber concrete sleeve, we reco mmend using a cast Water Stop for a water and gas tight tie point. Water Stops are certified for watertightness up to 7 bar in accordance with DIN 1048. In order to seal the tie point even more easily and more securely, we reco mmend using a Water Stop Type N.
It consists of a cold rolled anchor bar with a welded-on metal plate and an optional bentonite sheet that is glued on.

Water Stops prevent water from seeping alongside the Threadbar.
Data sheets, installation instructions and test results are available on request.

Water Stop Type N



Article No.	Bar Ø [mm]	Plate Size [mm]	Weight [kg/no.]
15 FS 3043	15	120 x 120 x 2	0.20
20 FS 3043	20	120 x 120 x 2	0.20
26 ES 3043	26.5	120 x 120 x 2	0.20

Only plate without Threadbar; Threadbar must be ordered separately Calculation of bar length:
Bar length = wall thickness minus double concrete cover of cone.

Water Stop Type G

Article No.	Bar Ø [mm]	Length [mm]	Plate Ø [mm]	Spigot Ø [mm]	Weight [kg/no.]
15 F 3093	15	110	65	26[1)]	0.55
20 F 3093	20	160	80	31	1.26

1) For tubes with 26 mm inner diameter.

Water Stop Type S

Article No.	Bar Ø [mm]	Length [mm]	Plate Ø [mm]	Spigot Ø [mm]	Weight [kg/no.]
15 F 3044	15	110	120 x 120 x 2	26[1)]	0.76
20 F 3044	20	160	120 x 120 x 2	31	1.55

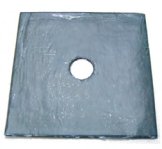
1) For tubes with 26 mm inner diameter.

PE Reduction Piece

Article No.	Bar Ø [mm]	Length [mm]	Diameter [mm]	Weight [kg/no.]
15 F 3093/K	15	33	26/22	0.01

For the connection of Type 15 F 3093 and 15 F 3044 Water Stops to 22 mm internal diameter tubes

Water Stop Plus – Bentonite Layer



Article No.	Bar Ø [mm]	Plate Size [mm]	Weight [kg/no.]
15 FS 3043/A	15	120 x 120 x 2	0.04
20 FS 3043/A	20	120 x 120 x 2	0.04
26 ES 3043/A	26.5	120 x 120 x 2	0.04

For the connection of Type 15 F 3093 and 15 F 3044 Water Stops to 22 mm internal diameter tubes

Cones for Lost Formties

Shear forces and lateral pressure caused by steel brackets should be avoided when using anchor bars or products derived from threadbars. Cones must be used for deflecting lateral forces.

Steel cones with movable contact cover

Steel cones are used for applications such as the construction of watertight concrete walls. The cones are supported at the inner side of the formwork and are fastened from the outside using a threadbar and a combination plate, flanged wing nut or equivalent accessories. Size accuracy of the formwork distance is achieved using a lost formtie/water stop Type N.
The steel cones are loosened via an easily accessible hex in the cone cover. The matching PE sleeve facilitates the loosening of the cone. The slim edge cover defines a clear hole that can be easily closed with mortar. However, it leaves a clearly visible indentation in the formwork skin if the outer threadbar is overtightened. The wide edge cover prevents damages to the formwork skin.
The hole that remains after unscrewing must be closed elaborately.

Unless noted, working loads of Cones for Lost Formties are as follows: 15 F...: 90 kN; 20 F...: 160 kN; 26 E...: 250 kN

Steel Cone

Article No.	Bar Ø [mm]	Ø1/Ø2/ØD[1)] [mm]	Length [mm]	Hex [mm]	C[2)] [mm]	Weight [kg/no.]
15 F 3034	15	30/43/62	100	30	50	0.64
20 F 3034	20	33/44/62	130	36	65	0.86
26 E 3034	26.5	40/54/95	150	41	75	1.24

1) Ø1 = lower cone diameter; Ø2 = upper cone diameter; ØD = cover diameter
2) C = concrete cover, all cones galvanized

For de-installation, please use hexagon wrench .. F 7044

PE Sleeve for Steel Cone

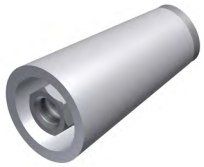
Article No.	For Cone [mm]	Length [mm]	Ø1/Ø2[1)] [mm]	Weight [kg/no.]
15 F 3034/K	15 F 3034	80	31/41	0.01
20 F 3034/K	20 F 3034	112	33/44	0.01
26 E 3034/K	26 E 3034	125	41/54	0.02

1) Ø1 = lower cone diameter;
Ø2 = upper cone diameter

To ensure an easy unscrewing of Steel Cones, the PE Sleeve is put on the cone before assembly

Unless noted, Working Loads of Cones for Lost Formties are as follows: 15 F...: 90 kN; 20 F...: 160 kN; 26 E...: 250 kN

Steel-Plastic Cone

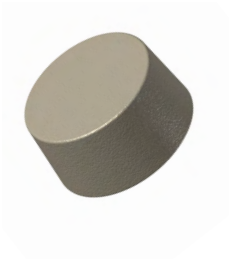


The Steel-Plastic Cone with steel core is an alternative to Steel Cones. Its field of application and its load bearing capacity are identical to those of Steel Cones.
The Steel-Plastic Cone can be removed from the formwork more easily due to its larger cone inclination and the plastic sheathing. Furthermore, the remaining hole can be closed much better and easier using the matching concrete plug.

Article No.	Bar Ø [mm]	Ø1/Ø2[1)] [mm]	Length [mm]	Hex [mm]	C[2)] [mm]	Weight [kg/no.]
15 F 3037	15	40/60	100	27	50	0.45
20 F 3037	20	43/71	125	32	65	0.80
26 E 3037	26.5	57/103	135	46	70	1.67

1) Ø1 = lower cone diameter; Ø2 = upper cone diameter
2) C = Concrete Cover
Consists of galvanized steel coupler with plastic cover For de-installation, please use hexagon wrench .. F 7044

Concrete Plug



Article No.	For Cone [mm]	Ø1/Ø2[1)] [mm]	Height [mm]	Weight [kg/no.]
15 F 3037/S	15 F 3037	52/58	30	0.15
20 F 3037/S	20 F 3037	59/69	40	0.27

1) Ø1 = lower cone diameter;
Ø2 = upper cone diameter
For relocking the cone holes of the Steel-Plastic Cone

Unless noted, Working Loads of Cones for Lost Formties are as follows: 15 F...: 90 kN; 20 F...: 160 kN; 26 E...: 250 kN

Cones for Climbing Formwork

Positioning Cone

Positioning Cones are used to create anchorage points for climbing formwork, brackets or similar structures. Since Positioning Cones can be nailed to any free space on the formwork skin from the inside thanks to the metal or plastic Nail Plate, the point is independent of existing anchor holes and the formwork skin does not have to be perforated. Anchors such as Wobble, Hook, Fix or Plate Anchors can be used for bracing Positioning Cones. After stripping the formwork and unscrewing the Nail Plate, the brackets can either be fixed using a metric screw, or the Positioning Cone can be exchanged for a Climbing Cone the brackets can be fixed to.
We offer matching PE Sleeves to facilitate the unscrewing of Positioning Cones.

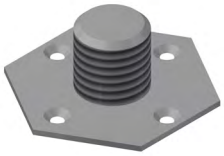
Positioning Cone

Article No.	Anchor [mm]	Ø1/Ø2[1)] [mm]	Length [mm]	□ [mm]	C[2)] [mm]	Weight [kg/no.]
15 F 3073	15F/M24	30/43	100	18	50	0.60
20 F 3073	20F/M27	33/46	130	20	65	0.78
26 E 3073	26E/M33	40/54	150	24	75	1.24

1) Ø1 = lower cone diameter;
Ø2 = upper cone diameter

2) C = Concrete Cover, all cones are galvanized
Positioning Cones are put in place before concreting For de-installation, please use square wrench F 7045

Nail Plate



Article No.	Material	Anchor [mm]	S/E[1)] [mm]	Length [mm]	Hex[2)] [mm]	Weight [kg/no.]
15 F 3073/N	Steel	M 24	60/60.3	25	12	0.13
20 F 3073/N	Steel	M 27	65/75.1	25	12	0.20
26 E 3073/N	Steel	M 33	75/86.6	25	12	0.30

1) S = Distance flat sites / E = Distance corners
2) Hexagon socket

Galvanized, for fixing Positioning Cones to the formwork For de-installation, please use hexagon wrench 15 F 7043

PE Sleeve

Article No.	For Cone [mm]	Length [mm]	Ø1/Ø2[1)] [mm]	Weight [kg/no.]
15 F 3073/K	15 F 3073	97	31/43	0.01
20 F 3073/K	20 F 3073	130	33/46	0.01

1) Ø1 = lower cone diameter;
Ø2 = upper cone diameter

To ensure easy unscrewing of Positioning Cones, the PE Sleeve is put on the cone before assembly

Different systems can be used for anchoring climbing formwork (shear loads).
Upon request, we also develop and manufacture special solutions and products with individual design.

Climbing Cone

Since neither Threadbars nor concrete can absorb special shear forces/lateral forces that can for example occur when using climbing formwork, these forces must be deviated via Climbing Cones. Climbing Cones are used to replace Positioning Cones after formwork stripping.

Alternatively, Positioning cones can be used in combination with metrical screws matching in terms of length and grade.

Climbing Cone

Article No.	Ø1/Ø2[1)] [mm]	Length[2)] [mm]	Hex [mm]	Height[3)] [mm]	Shear Load[4)] [mm]	Weight [kg/no.]
15 F 3038	30/43	155	55	35	30	1.28
20 F 3038	33/46	185	55	35	40	1.50
26 E 3038	40/54	210	55	35	50	2.50

1) Ø1 = lower cone diameter; Ø2 = upper cone diameter
2) Length = Length = total length, cone length corresponds to the length of the Positioning Cone
4) At a concrete strength of minimum 10 N/ mm²

Installation/removal:
15 = 10 mm hexagon socket
20 = 13 mm square drive
26 = 13 mm square drive
Galvanized, cone for shear load, Positioning Cone must be removed

Hex Screw

Article No.	Anchor [mm]	Length [mm]	Hex [mm]	Material [mm]	Weight [kg/no.]
15 F 3073/S	M 24	1)	36	10.9	1)
20 F 3073/S	M 27	1)	41	10.9	1)
26 E 3073/S	M 33	1)	50	10.9	1)

1) Length according to customer requirements, standard lengths:
M 24 = 60/80 mm, M 27 = 60/80 mm, M 33 = 100 mm

The Hex Screw is screwed into the Positioning Cone, which remains in the concrete and absorbs the shear load (alternative solution to Climbing Cones).

Special Accessories

Shebolt (Anchor Head)

Shebolts consist of a Threadbar with a tightly pressed-on conical coupler. Shebolts are primarily used in combination with Loop or Hook Anchors that are embedded into the base plate. The conical anchor head is screwed onto both ends so that both anchors can be embedded without any protruding ends and is used for fixing single-sided shuttering or for similar applications.
Following formwork stripping, the shebolt can be unscrewed from the base plate at the hex screw that is pressed on behind the cone. We reco mmend the matching PE Sleeves to facilitate unscrewing. After removal of the shebolt, the ends of the Loop or Hook Anchors do not have to be cut off with a circular saw. The ends are located approx. 5cm below the concrete edge.
The conical hole simply has to be filled.

Shebolt (Anchor Head)

Article No.	Bar Ø [mm]	Ø1/Ø2[1)] [mm]	Hex [mm]	Length[2)] [mm]	Weight [kg/no.]
15 F 3045/28	15	28/32	24	200/750	1.75
20 F 3045	20	33/46	30	200/650	2.50
26 ES 3045	26.5	40/54	46	210/650	4.70

1) Ø1 = lower cone diameter; Ø2 = upper cone diameter
2) Coupler length including pressed-on hex/total length Galvanized

Note:
This article will be revised technically in all three dimensions.

V-Fix

Article No.	Bar Ø [mm]	Length [mm]	PE Adaptor Ø [mm]	Inclination	Weight [kg/no.]
15 F 5120	15	300	22	45°	0.42
20 F 5120	20	300	22	45°	0.44
26 E 5120	26.5	300	36	45°	0.38

Ensures the accurate keeping of a 45° angle for anchoring single-sided walls.

Clamps for Reinforcement Bars or Smooth Bars

Cam Clamp 4 - 10 mm

Article No.	Plate [mm]	Weight [kg/no.]
000 5114	105 x 40	0.44

For diameter 4 to 10 mm bars

Cam Clamp 7 - 12 mm

Article No.	Plate [mm]	Weight [kg/no.]
000 5115	120 x 50	0.51

For diameter 7 to 12 mm bars

Cam Clamp < 8 mm

Article No.	Plate [mm]	Weight [kg/no.]
000 5116	90 x 60	0.35

For bars up to diameter 8 mm. Coated

Spindle Spanner for Cam Clamps

Article No.	Weight [kg/no.]	for Cam Clamps Article No.
000 5117	1.23	000 5116
000 5118	1.23	000 5114 and 000 5115

Tool for tensioning Cam Clamps

Spring Clamp 4 -10 mm

Article No.	Plate [mm]	Weight [kg/no.]
000 5112	110 x 75	0.43

For round diameter 4 to 10 mm bars. Coated

Spanner for Spring Clamps

Article No.	Weight [kg/no.]
000 5113	3.60

Tool for tensioning Spring Clamps

Special Accessories

Square Wrench

Article No.	[mm]	Description	Weight [kg/no.]
15 F 7045/18	18	for Positioning Cones 15 F 3073	1.84
20 F 7045/13	13	for Climbing Cones 20 F and 26 E	0.47
20 F 7045/20	20	for Positioning Cones 20 F 3073	1.88
26 E 7045/24	24	for Positioning Cones 26 E 3073	1.10

Hexagon Wrench

Article No.	Hex size [mm]	Fits ... (examples)	Weight [kg/no.]
12 F 7044/24	24	12 F 2071. 12 F 2072	0.94
15 F 7044/27	27	15 F 3037 – Steel-Plastic Cone	1.16
15 F 7044/30	30	15 F 3034 – Steel Cone	1.58
20 F 7044/32	32	20 F 3037 – Steel-Plastic Cone	1.90
20 F 7044/36	36	20 F 3034 – Steel Cone	2.36
26 E 7044/41	41	26 E 3034 – Steel Cone	3.00
26 E 7044/46	46	26 E 2002 – Hex Nut	3.58

Wrench for Threadbars

Article No.	Weight [kg/no.]
15 F 5121	0.25

For diameter 4 to 10 mm bars

Wrench for DYWIDAG Threadbars

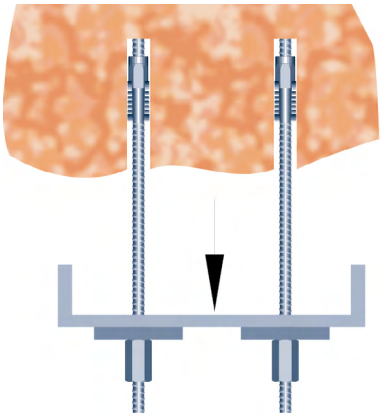
Article No.	Description	Weight
15 F 5122	For 15 and 20 mm DYWIDAG Threadbars	2.00
26 E 5122	For 20 and 26.5 mm DYWIDAG Threadbars	2.00

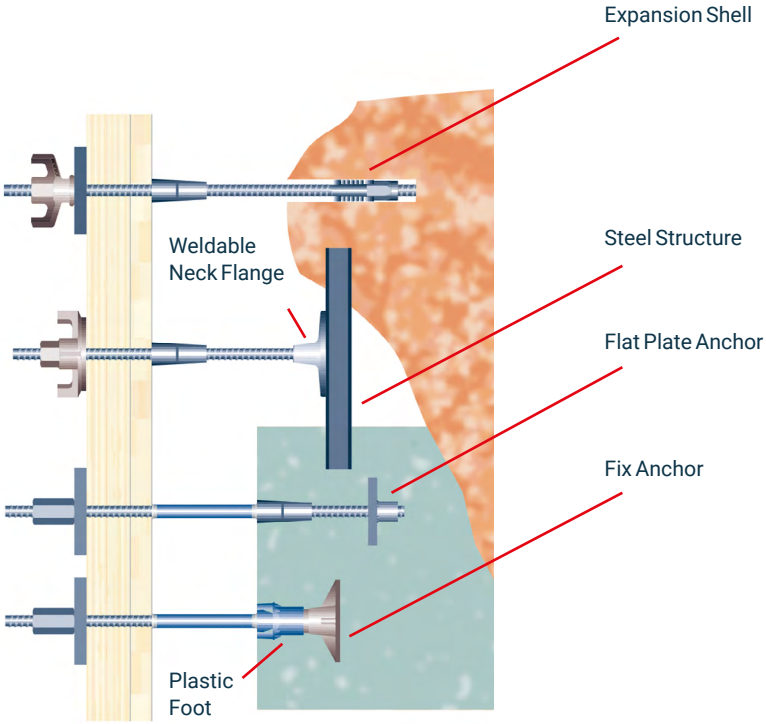
Tool for all diameters 15, 20 and 26.5 mm DYWIDAG Threadbars

Additional Tools are available on request.

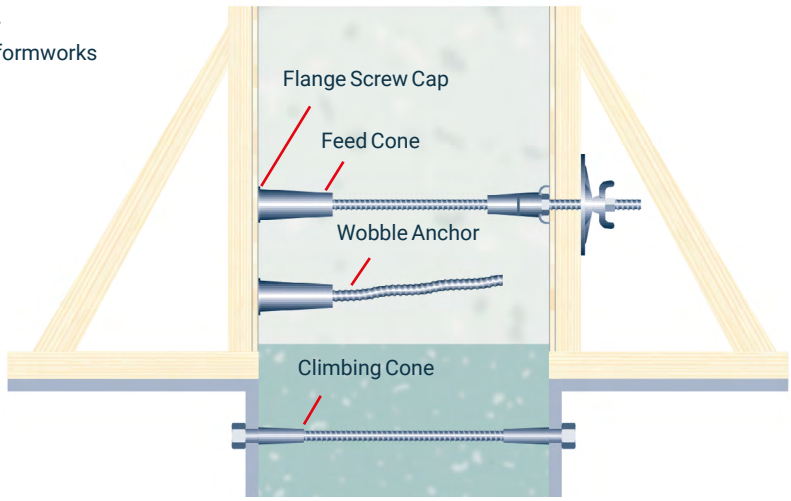
Application Examples

Anchoring in rock or concrete
using expansion shells





Cones for
climbing formworks

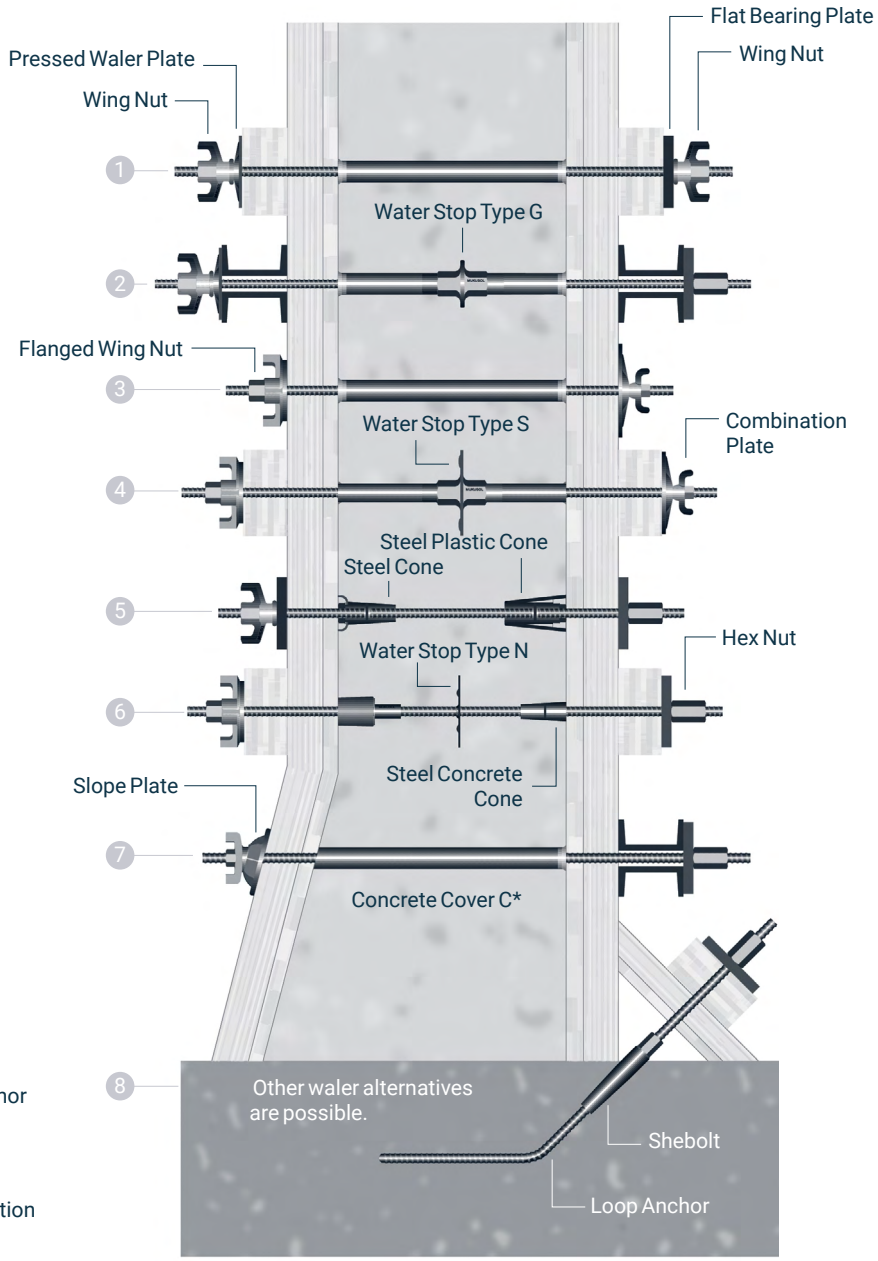


Subject to technical alterations.

Application Examples

We are the specialist for the DYWIDAG Form Ties. We manufacture, assemble and supply anchor bars and the complete range of accessories for bar diameters 12.5, 15, 20 and 26.5 mm.
All products are designed according to international standards and building codes.

Our own in-house testing laboratory and permanent external monitoring guarantee the continuous high quality of our products.



1 4 Recoverable Anchor

5 6 Lost Anchor

7 8 Angle Compensation

* Length of Lost Anchor = Wall Thickness - 2 x Concrete Cover C

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