



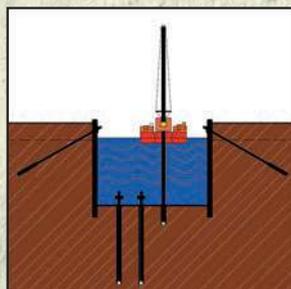
**Specialists for Overburden Drilling Products**

## **Micropile-Drilling Systems D 244.5 – D 508** with double head drilling units (rotary/rotary)

Piles of small diameter are designed for various applications. They pass their loads into the adjacent ground by skin friction. They can be installed with small drilling units even in constricted areas.

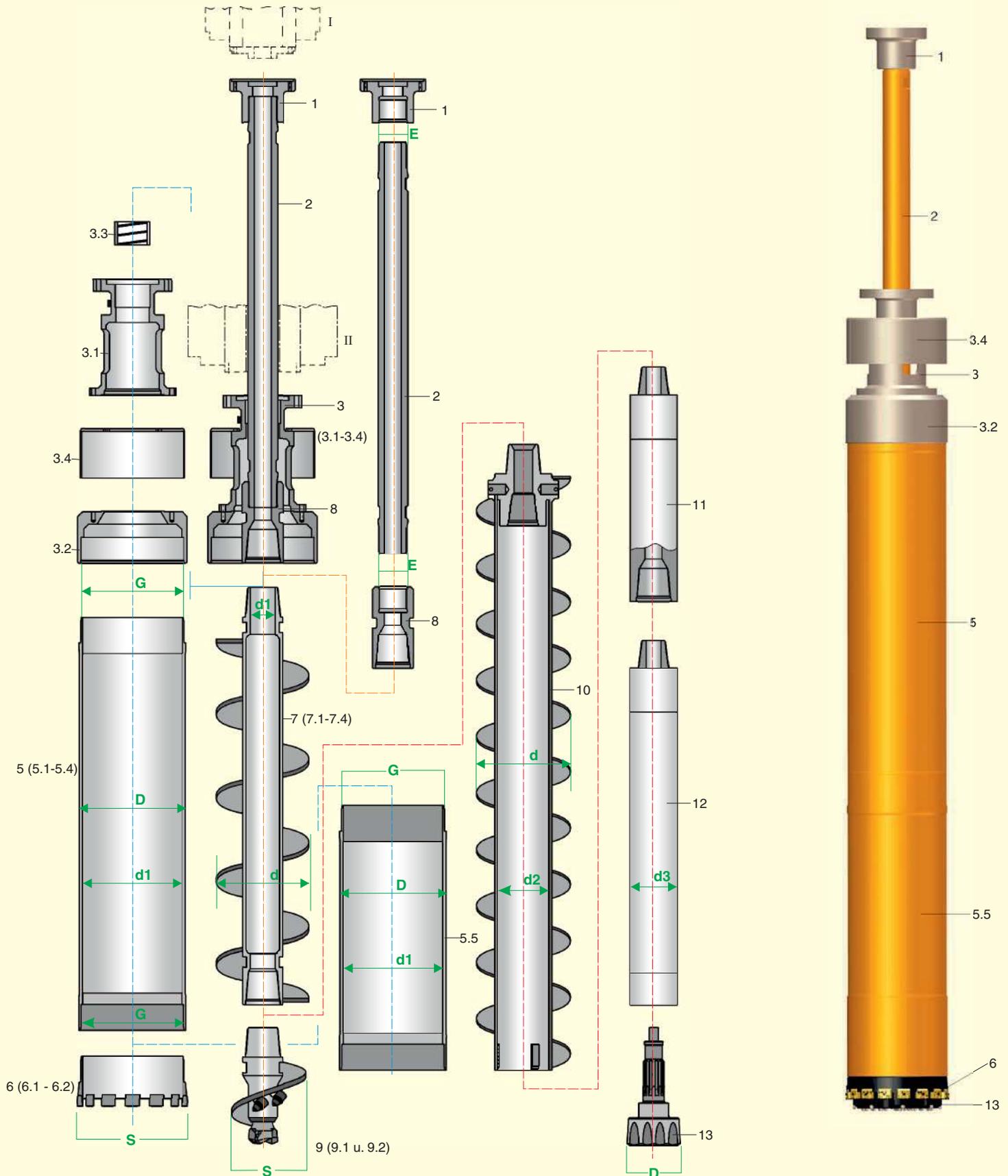
In many cases double head drilling units with Duplex systems are chosen for this purpose. When drilling in ground without boulders and rock bands augers are often used as the inner rod for better discharge of the cuttings. If possible, the drilling is done with auger and casing bit only.

Sample of application:



# Micropile-Drilling Systems

with double head drilling units (rotary/rotary)



# Micropile-Drilling Systems D 244.5

with double head drilling units (rotary/rotary)

Pos.	Bezeichnung
1	Flange d 108 x S 108 RHT female (E), suitable for rotary head I (indicated with order)
2	Balance rod d 115 x S 108 RHT male (E) x 60mm (d1) x S 108 RHT male x 2000mm length (other lengths on request according to double head drilling unit)
3	Ejection bell fitted with connecting flange suitable for rotary head II, complete, consisting of:
3.1	Ejection bell fitted with connecting flange suitable for rotary head II and bolt circle suitable for flange pos. 3.2
3.2	Flange D 244.5, 2 starts cyl. LHT female (G) x bolt circle suitable for pos. 3.1
3.3	Bushing D 115, suitable for pos. 2
3.4	splash guard D 400mm, suitable for pos. 3.1
5	Casings D 244.5, 2 starts cyl. LHT (G) x 10mm wth x 222mm (d1). Quality tubes: S355J2H; Welding ends: high tempered steel. Welding ends friction welded
5.1	3000 mm length
5.2	2000 mm length
5.3	1500 mm length
5.4	1000 mm length
5.5	Balance rod, length according to DTH-hammer casing
6	Casing bit D 244.5, 2 starts cyl. LHT male x D250mm (S), hexagon type, lateral wear protection
6.1	Casing bit D 244.5, 2 starts cyl. LHT male x D255mm (S), with special TC inserts and lateral wear protection
6.2	Casing bit D 244.5, 2 starts cyl. LHT male x D255mm (S), with welding fingers and lateral wear protection
7	Rotary rods d 152.4, thread 4 1/2" API IF x 12.5mm wall thickness x 65mm (d1) x d 215mm (auger diameter) x 15mm (auger thickness) x 250mm (auger pitch), with square spanner flat SW 120mm, augers hard armored. Quality: rods and augers: S355J2H; Welding ends: high tempered steel quality, nitrated surface. Welding ends friction-welded
7.1	3000 mm length
7.2	2000 mm length
7.3	1500 mm length
7.4	1000 mm length
8	Adaptor d 152.4 x 4 1/2" API IF female thread x S 108 RHT female, suitable for pos. 2 and 7.
9	Rotary bit d 152.4 x 4 1/2" API IF male thread x D 220mm (S), 3 wings, stepped form, TC fitted, with pilot
9.1	Rotary bit d 152.4 x 4 1/2" API IF male thread x D 220mm (S), with round picks and pilot
9.2	Roller bit d 152.4 x 4 1/2" API IF male thread on request
10	DTH-hammer casing 157mm (d2) x 215mm (d) x 4 1/2" API IF male thread x length suitable to DTH hammer and shock absorber
11	Shock absorber for DTH-hammer
12	DTH-hammer d = 6" x connecting thread 3 1/2" API Reg. male
13	DTH-hammer casing bit D = 220mm, button type, shaft suitable to DTH-hammer

## Tools

Fishing tap d 152.4 x 4 1/2" API IF male thread  
 Fishing bell d 152.4 x 4 1/2" API IF female thread  
 spanner SW 120mm x 600mm length  
 Lifting cap d 152.4 x 4 1/2" API IF female thread  
 Lifting nipple D244.5 x 2 starts cyl. LHT female

## Sign & Symbols

LHT = left hand thread; RHT = right hand thread; D = outer diameter, d = inner diameter; cyl. = cylindrical; con. = conical  
 SF = spannerflat, L = length, wth = wall thickness, G = thread connection

The following threads are on offer: right hand, left hand, cylindrical or conical. All casings can be made friction-welded or with nipples.

Please note that this production sheet shows only standard versions due to the many possible tool variations. Special designs on request.

# Micropile-Drilling Systems D 323.9

with double head drilling units (rotary/rotary)

Pos.	Bezeichnung
1	Flange d 108 x S 108 RHT female (E), suitable for rotary head I (indicated with order)
2	Balance rod d 115 x S 108 RHT male (E) x 60mm (d1) x S 108 RHT male x 2000mm length (other lengths on request according to double head drilling unit)
3	Ejection bell fitted with connecting flange suitable for rotary head II, complete, consisting of:
3.1	Ejection bell fitted with connecting flange suitable for rotary head II and bolt circle suitable for flange pos. 3.2
3.2	Flange D 323.9, 3 starts cyl. LHT female (G) x bolt circle suitable for pos. 3.1
3.3	Bushing D 115, suitable for pos. 2
3.4	splash guard D 400mm, suitable for pos. 3.1
5	Casings D 323.9, 3 starts cyl. LHT (G) x 12,5mm wth x 295mm (d1). Quality tubes: S355J2H; Welding ends: high tempered steel. Welding ends friction welded
5.1	3000 mm length
5.2	2000 mm length
5.3	1500 mm length
5.4	1000 mm length
5.5	Balance rod, length according to DTH-hammer casing
6	Casing bit D 323.9, 3 starts cyl. LHT male x D330mm (S), hexagon type, lateral wear protection
6.1	Casing bit D 323.9, 3 starts cyl. LHT male x D330mm (S), with special TC inserts and lateral wear protection
6.2	Casing bit D 323.9, 3 starts cyl. LHT male x D355mm (S), with welding fingers and lateral wear protection
7	Rotary rods d 152.4, thread 4 1/2" API IF x 12,5mm wall thickness x 65mm (d1) x d 215mm (auger diameter) x 15mm (auger thickness) x 250mm (auger pitch), with square spanner flat SW 120mm, augers hard armored. Quality: rods and augers: S355J2H; Welding ends: high tempered steel quality, nitrated surface. Welding ends friction-welded
7.1	3000 mm length
7.2	2000 mm length
7.3	1500 mm length
7.4	1000 mm length
8	Adaptor d 152.4 x 4 1/2" API IF female thread x S 108 RHT female, suitable for pos. 2 and 7.
9	Rotary bit d 152.4 x 4 1/2" API IF male thread x D 295mm (S), 3 wings, stepped form, TC fitted, with pilot
9.1	Rotary bit d 152.4 x 4 1/2" API IF male thread x D 295mm (S), with round picks and pilot
9.2	Roller bit d 152.4 x 4 1/2" API IF male thread on request
10	DTH-hammer casing 195mm (d2) x 290mm (d) x 4 1/2" API IF male thread x length suitable to DTH hammer and shock absorber
11	Shock absorber for DTH-hammer
12	DTH-hammer d = 8" x connecting thread 3 1/2" API Reg. male
13	DTH-hammer casing bit D = 290mm, button type, shaft suitable to DTH-hammer

## Tools

Fishing tap d 152.4 x 4 1/2" API IF male thread

Fishing bell d 152.4 x 4 1/2" API IF female thread

spanner SW 120mm x 600mm length

Lifting cap d 152.4 x 4 1/2" API IF female thread

Lifting nipple D323.9 x 3 starts cyl. LHT female

## Signs & Symbols

LHT = left hand thread; RHT = right hand thread; D = outer diameter, d = inner diameter; cyl. = cylindrical; con. = conical

SF = spannerflat, L = length, wth = wall thickness, G = thread connection

The following threads are on offer: right hand, left hand, cylindrical or conical. All casings can be made friction-welded or with nipples.

Please note that this production sheet shows only standard versions due to the many possible tool variations. Special designs on request.

# Micropile-Drilling Systems D 406.4

with double head drilling units (rotary/rotary)

Pos.	Bezeichnung
1	Flange d 108 x S 108 RHT female (E), suitable for rotary head I (indicated with order)
2	Balance rod d 115 x S 108 RHT male (E) x 60mm (d1) x S 108 RHT male x 2000mm length (other lengths on request according to double head drilling unit)
3	Ejection bell fitted with connecting flange suitable for rotary head II, complete, consisting of:
3.1	Ejection bell fitted with connecting flange suitable for rotary head II and bolt circle suitable for flange pos. 3.2
3.2	Flange D 406.4, 4 starts cyl. LHT female (G) x bolt circle suitable for pos. 3.1
3.3	Bushing D 115, suitable for pos. 2
3.4	splash guard D 450mm, suitable for pos. 3.1
5	Casings D 406.4, 4 starts cyl. LHT (G) x 12.5mm wth x 375mm (d1). Quality tubes: S355J2H; Welding ends: high tempered steel. Welding ends friction welded
5.1	3000 mm length
5.2	2000 mm length
5.3	1500 mm length
5.4	1000 mm length
5.5	Balance rod, length according to DTH-hammer casing
6	Casing bit D 406.4, 4 starts cyl. LHT male x D425mm (S), hexagon type, lateral wear protection
6.1	Casing bit D 406.4, 4 starts cyl. LHT male x D425mm (S), with special TC inserts and lateral wear protection
6.2	Casing bit D 406.4, 4 starts cyl. LHT male x D430mm (S), with welding fingers and lateral wear protection
7	Rotary rods d 152.4, thread 4 1/2" API IF x 12.5mm wall thickness x 65mm (d1) x d 215mm (auger diameter) x 15mm (auger thickness) x 250mm (auger pitch), with square spanner flat SW 120mm, augers hard armored. Quality: rods and augers: S355J2H; Welding ends: high tempered steel quality, nitrated surface. Welding ends friction-welded
7.1	3000 mm length
7.2	2000 mm length
7.3	1500 mm length
7.4	1000 mm length
8	Adaptor d 152.4 x 4 1/2" API IF female thread x S 108 RHT female, suitable for pos. 2 and 7.
9	Rotary bit d 152.4 x 4 1/2" API IF male thread x D 370mm (S), 3 wings, stepped form, TC fitted, with pilot
9.1	Rotary bit d 152.4 x 4 1/2" API IF male thread x D 370mm (S), with round picks and pilot
9.2	Roller bit d 152.4 x 4 1/2" API IF male thread on request
10	DTH-hammer casing 190mm (d2) x 370mm (d) x 4 1/2" API IF male thread x length suitable to DTH hammer and shock absorber
11	Shock absorber for DTH-hammer
12	DTH-hammer d = 8" x connecting thread 3 1/2" API Reg. male
13	DTH-hammer casing bit D = 370mm, button type, shaft suitable to DTH-hammer

## Tools

Fishing tap d 152.4 x 4 1/2" API IF male thread

Fishing bell d 152.4 x 4 1/2" API IF female thread

spanner SW 120mm x 600mm length

Lifting cap d 152.4 x 4 1/2" API IF female thread

Lifting nipple D406.4 x 4 starts cyl. LHT female

## Signs & Symbols

LHT = left hand thread; RHT = right hand thread; D = outer diameter, d = inner diameter; cyl. = cylindrical; con. = conical

SF = spannerflat, L = length, wth = wall thickness, G = thread connection

The following threads are on offer: right hand, left hand, cylindrical or conical. All casings can be made friction-welded or with nipples.

Please note that this production sheet shows only standard versions due to the many possible tool variations. Special designs on request.

# Micropile-Drilling Systems D 508

with double head drilling units (rotary/rotary)

Pos.	Bezeichnung
1	Flange d 108 x S 108 RHT female (E), suitable for rotary head I (indicated with order)
2	Balance rod d 115 x S 108 RHT male (E) x 60mm (d1) x S 108 RHT male x 2000mm length (other lengths on request according to double head drilling unit)
3	Ejection bell fitted with connecting flange suitable for rotary head II, complete, consisting of:
3.1	Ejection bell fitted with connecting flange suitable for rotary head II and bolt circle suitable for flange pos. 3.2
3.2	Flange D 508, 4 starts cyl. LHT female (G) x bolt circle suitable for pos. 3.1
3.3	Bushing D 115, suitable for pos. 2
3.4	splash guard D 500mm, suitable for pos. 3
5	Casings D 508, 4 starts cyl. LHT (G) x 12.5mm wth x 475mm (d1). Quality tubes: S355J2H; Welding ends: high tempered steel. Welding ends friction welded
5.1	3000 mm length
5.2	2000 mm length
5.3	1500 mm length
5.4	1000 mm length
5.5	Balance rod, length according to DTH-hammer casing
6	Casing bit D 508, 4 starts cyl. LHT male x D515mm (S), hexagon type, lateral wear protection
6.1	Casing bit D 508, 4 starts cyl. LHT male x D515mm (S), with special TC inserts and lateral wear protection
6.2	Casing bit D 406.4, 4 starts cyl. LHT male x D530mm (S), with welding fingers and lateral wear protection
7	Rotary rods d 152.4, thread 4 1/2" API IF x 12.5mm wall thickness x 65mm (d1) x d 215mm (auger diameter) x 15mm (auger thickness) x 250mm (auger pitch), with square spanner flat SW 120mm, augers hard armored. Quality: rods and augers: S355J2H; Welding ends: high tempered steel quality, nitrated surface. Welding ends friction-welded
7.1	3000 mm length
7.2	2000 mm length
7.3	1500 mm length
7.4	1000 mm length
8	Adaptor d 177.8 x 4 1/2" API IF female thread x S 108 RHT female, suitable for pos. 2 and 7.
9	Rotary bit d 177.8 x 4 1/2" API IF male thread x D 470mm (S), 3 wings, stepped form, TC fitted, with pilot
9.1	Rotary bit d 177.8 x 4 1/2" API IF male thread x D 470mm (S), with round picks and pilot
9.2	Roller bit d 177.8 x 4 1/2" API IF male thread on request
10	DTH-hammer casing 300mm (d2) x 470mm (d) x 4 1/2" API IF male thread x length suitable to DTH hammer and shock absorber
11	Shock absorber for DTH-hammer
12	DTH-hammer d = 12" x connecting thread 6 5/8" API Reg. male
13	DTH-hammer casing bit D = 470mm, button type, shaft suitable to DTH-hammer

## Tools

Fishing tap d 152.4 x 4 1/2" API IF male thread

Fishing bell d 152.4 x 4 1/2" API IF female thread

spanner SW 120mm x 600mm length

Lifting cap d 152.4 x 4 1/2" API IF female thread

Lifting nipple D508 x 4 starts cyl. LHT female

## Signs & Symbols

LHT = left hand thread; RHT = right hand thread; D = outer diameter, d = inner diameter; cyl. = cylindrical; con. = conical

SF = spannerflat, L = length, wth = wall thickness, G = thread connection

The following threads are on offer: right hand, left hand, cylindrical or conical. All casings can be made friction-welded or with nipples.

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