

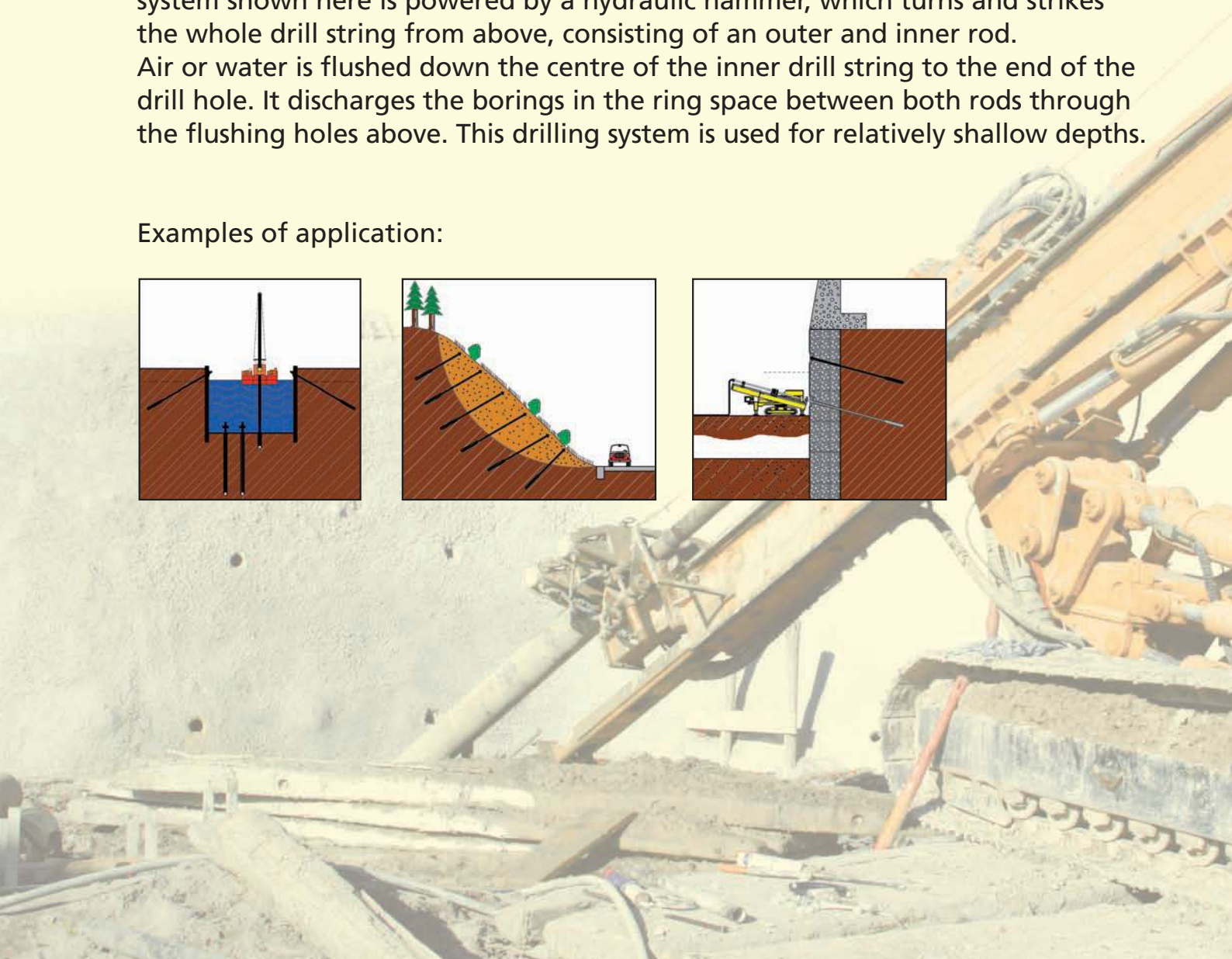
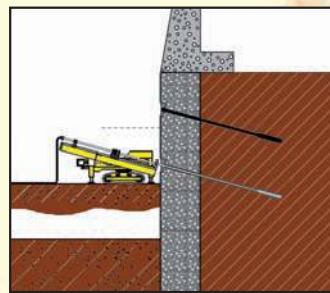
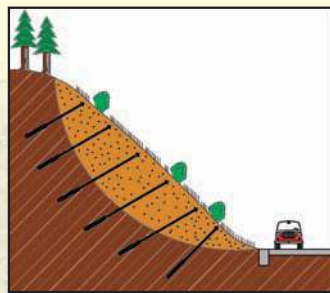
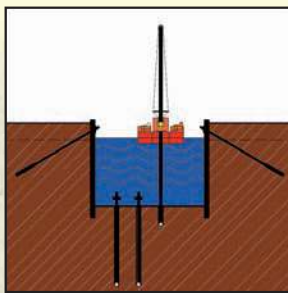
Specialists for Overburden Drilling Products

Overburden Drilling Systems D 88.9 – D 152.4 with hydraulic drifter

The name „Overburden Drilling“ results from the composition of the earth crust. The bedrock is covered with loose layers of earth consisting of sand, gravel, boulders combined with loose soil and other deposits. All these formations are grouped together under the umbrella term “Overburden”, which overlies the bedrock.

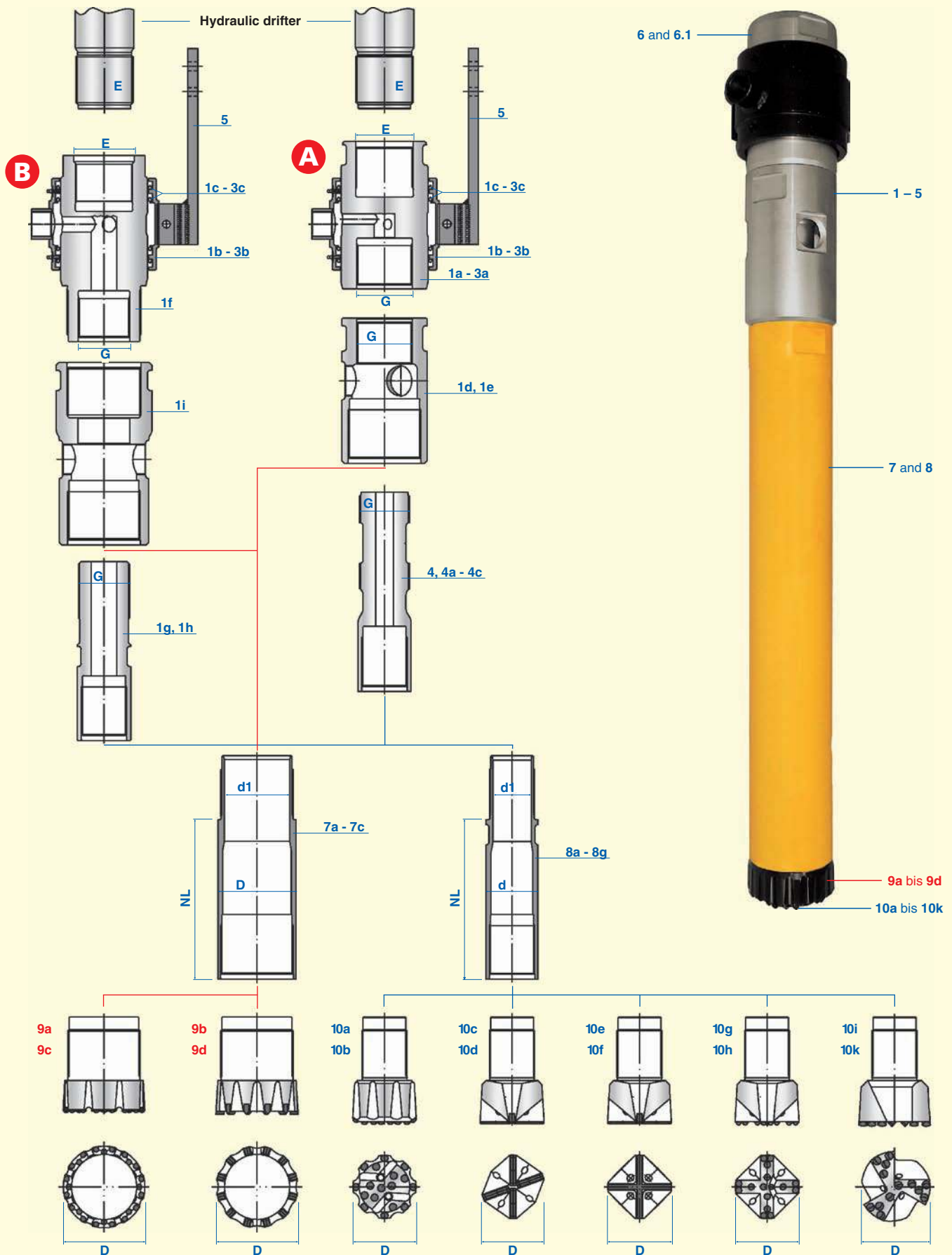
Certain drilling processes make it necessary to support the wall with tubes. The system shown here is powered by a hydraulic hammer, which turns and strikes the whole drill string from above, consisting of an outer and inner rod. Air or water is flushed down the centre of the inner drill string to the end of the drill hole. It discharges the borings in the ring space between both rods through the flushing holes above. This drilling system is used for relatively shallow depths.

Examples of application:



Overburden Drilling Systems

with hydraulic drifter



Overburden Drilling System D 88.9

with hydraulic drifter

Pos.	Description
FLUSHING HEAD A	
1	Flushing head D 88.9, 1 start, cyl. LHT female x H 55 LHT female (E) x d 1 1/2" T 38 LHT female, complete with flushing ring, without holder (component parts see pos. 1a, 1b, 1c and 1d) alternatively:
2	Flushing head D 88.9, 1 start, cyl. LHT female x H 64 LHT female (E) x d 1 1/2" T 38 LHT female, complete with flushing ring, without holder (component parts see pos 2a, 2b, 2c and 1d) alternatively:
3	Flushing head D 88.9, 1 start, cyl. LHT female x H 112 (C 112) LHT female (E) x d 1 1/2" T38 LHT female, complete with flushing ring, without holder (component parts see pos. 3a, 3b, 3c and 1d)
1a	flushing body D 100 x H 55 LHT female (E) x S 68 LHT female (G)
2a	flushing body D 120 x H 64 LHT female (E) x S 68 LHT female (G)
3a	flushing body D 170 x H 112 (C 112) LHT female (E) x S 68 LHT female (G)
1b	Flushing ring D 100 x connection G 1 1/4" female
2b	Flushing ring D 120 x connection G 1 1/4" female
3b	Flushing ring D 170 x connection G 1 1/4" female
1c	Seal D 100
2c	Seal D 120
3c	Seal D 170
1d	Ejection bell D 88.9, 1 start, cyl. LHT female x S 68 LHT female (G) with 2 ejection holes G 2"
4	Adaptor d 1 1/2", T 38 LHT female x S 68 LHT male (G)
5	Flushing ring holder suitable for hydraulic drifter and corresponding flushing ring (indicated with order)
FLUSHING HEAD B (option with respect to items 1-3)	
6	Flushing head D 88.9, 1 start, cyl. LHT female x H 112 (C 112) LHT female (E) x 1 1/2" T 38 LHT female, complete with flushing ring without holder (component parts see pos. 1f, 1g, 1h, 3b and 3 c)
1f	Flushing body D 170 x H 112 (C 112) LHT female (E) x D 152.4, 2 starts, cyl. LHT male (G) x H 55 LHT female (G)
1g	Adaptor d 1 1/2", T 38 LHT female x H 55 LHT male (G)
1i	Ejection bell D 88.9, 1 start, cyl. LHT female x D 152.4, 2 starts, cyl. LHT female, with 2 ejection holes G 2"
Casings	
7	Rotary percussion tubes D 88.9, 1 start, cyl. LHT x 8.8mm wth x 64.5mm (d1), Quality: high tempered steel, only male side friction welded, without spanner flats
7a	3000mm length
7b	2000mm length
7c	1000mm length
9	Casing bit D 88.9, 1 start, cyl. LHT male x D 95mm
9a	Button type
9b	Plate type

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 88.9

with hydraulic drifter

Pos.	Description
Inner rods	
8	Extension rods d 1 1/2", T 38 LHT
8a	3000mm length
8b	2000mm length
8c	1000mm length
8d	Sleeve d 1 1/2", T 38 LHT female/female
10	Percussion bit d 1 1/2", T 38 LHT female x D 62mm with flushing holes
10a	Button type
10c	Plate type, X-version
10e	Plate type, cross version
10g	Cross blade with special TC inserts
10i	3-wing-bit with special TC inserts

Tools

Fishing tap D 88.9, 1 start, cyl. LHT, male

Fishing bell D 88.9, 1 start, cyl. LHT, male

Accessories

Grouting cap D 88.9, 1 start, cyl. LHT female x G 1 1/4" connection

Grouting nipple D 88.9, 1 start, cyl. LHT female x G 1 1/4" connection

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 101.6

with hydraulic drifter

Pos.	Description
FLUSHING HEAD A	
1	Flushing head D 101.6, 3 starts cyl. LHT female x H 55 LHT female (E) x 1 1/2" T 38 LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4) alternatively:
1.1	Flushing head D 101.6, 3 starts cyl. LHT female x H 55 LHT female (E) x d 63.5, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4b) alternatively:
2	Flushing head D 101.6, 3 starts cyl. LHT female x H 64 LHT female (E) x 1 1/2" T 38 LHT female, complete with flushing ring without holder (component parts see pos 2a, 2b, 2c, 1e and 4a) alternatively:
2.1	Flushing head D 101.6, 3 starts, cyl. LHT female x H 64 LHT female (E) x d 63.5, 1 start, cyl. LHT female, complete version with flushing ring without holder (component parts see pos. 2a, 2b, 2c, 1e and 4c) alternatively:
3	Flushing head D 101.6, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 1 1/2" T 38 LHT female, complete version with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1e and 4a) alternatively:
3.1	Flushing head D 101.6, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 63.5, 1 start, cyl. LHT female, complete version with flushing ring without holder (component parts see pos.3a, 3b, 3c, 1e and 4c)
1a	Flushing body D 100 x H 55 LHT female (E) x S 68 LHT female (G)
2a	Flushing body D 120 x H 64 LHT female (E) x S 78 LHT female (G)
3a	Flushing body D 170 x H 112 (C 112) LHT female (E) x S 78 LHT female (G)
1b	Flushing ring D 100 x connection G 1 1/4" female
2b	Flushing ring D 120 x connection G 1 1/4" female
3b	Flushing ring D 170 x connection G 1 1/4" female
1c	Seal D 100
2c	Seal D 120
3c	Seal D 170
1d	Ejection bell D 101.6, 3 starts, cyl. LHT female x S 68 LHT female (G) with 2 ejection holes G 2"
1e	Ejection bell D 101.6, 3 starts, cyl. LHT female x S 78 LHT female (G) with 2 ejection holes G 2"
4	Adaptor d 1 1/2", T 38 LHT female x S 68 LHT male (G) alternatively:
4a	Adaptor d 1 1/2", T 38 LHT female x S 78 LHT male (G) alternatively:
4b	Adaptor d 63.5, 1 start, cyl. LHT female x S 68 LHT male (G) alternatively:
4c	Adaptor d 63.5, 1 start, cyl. LHT female x S 78 LHT male (G)
5	Flushing ring holder suitable for hydraulic drifter and corresponding flushing ring (indicated with order)
FLUSHING HEAD B (option with respect to items 1-3)	
6	Flushing head D 101.6, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 1 1/2" T 38 LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1f, 1g and 1i) alternatively:
6.1	Flushing head D 101.6, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 63.5, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1f, 1h and 1i)
1f	Flushing body D 170 x H 112 (C 112) LHT female (E) x H 80 LHT female (G)
1g	Adaptor d 1 1/2", T 38 LHT female x H 80 LHT male (G)
1h	Adaptor d 63.5, 1 start, cyl. LHT female x H 80 LHT male (G)
1i	Ejection bell D 101.6, 3 starts, cyl. LHT female x D 152.4, 2 starts, cyl. LHT female with 2 ejection holes G 2".

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 101.6

with hydraulic drifter

Pos.	Description
Casings	
7	Rotary percussion tubes D 101.6, 3 starts, cyl. LHT x 10mm wth x 75mm (d1), Quality: high tempered steel, only male side friction welded, without spanner flats
7a	3000mm length
7b	2000mm length
7c	1000mm length
9	Casing bit D 101.6, 3 starts, cyl. LHT male x D 107mm
9a	Button type
9b	Plate type
alternatively D 115mm:	
9c	Casing bit D 101.6, 3 starts, cyl. LHT male x D 115mm, button type
9d	Casing bit D 101.6, 3 starts, cyl. LHT male x D 115mm, blade type
Inner rods	
8	Rotary Percussion tubes d 63.5, 1 start, cyl. LHT x 8.8mm Wth x 30mm (d1). Quality: high tempered steel, thread ends friction welded, with spanner flats
8a	3000mm length
8b	2000mm length
8c	1000mm length
alternatively:	
8	Extension rod d 1 1/2", T 38 LHT
8d	3000mm length
8e	2000mm length
8f	1000mm length
8g	Sleeve d 1 1/2", T 38 LHT female/female
10a	Percussion bit d 1 1/2", T38 LHT female x D 72mm, button type, flushing holes
10b	Percussion bit d 63.5, 1 start, cyl. LHT male x D 72mm, button type, flushing holes
10c	Percussion bit d 1 1/2" x T 38 LHT female x D 72mm, X-version, flushing holes
10d	Percussion bit d 63.5, 1 start, cyl. LHT male x D 72mm, X-version, flushing holes
10e	Percussion bit d 1 1/2" x T 38 LHT female x D 72mm, cross version, flushing holes
10f	Percussion bit d 63.5, 1 start, cyl. LHT male x D 72mm, cross version, flushing holes
10g	Percussion bit d 1 1/2" x T 38 LHT female x D 72mm, 4 wings, button type, flushing holes
10h	Percussion bit d 63.5, 1 start, cyl. LHT male x D 72mm, 4 wings, button type, flushing holes
10i	Percussion bit d 1 1/2" x T 38 LHT female x D 72mm, 3 wings, special TC inserts, flushing holes
10k	Percussion bit d 63.5, 1 start, cyl. LHT male x D 72mm, 3 wings, special TC inserts, flushing holes

Tools

Fishing tap D 101.6, 3 starts, cyl. LHT, male

Fishing bell D 101.6, 3 starts, cyl. LHT male

Accessories

Grouting cap D 101.6, 3 starts, cyl. LHT female x G 1 1/4" connection

Grouting nipple D 101.6, 3 starts, cyl. LHT female x G 1 1/4" connection

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 114.3

with hydraulic drifter

Pos.	Description
FLUSHING HEAD A	
1	Flushing head D 114.3, 3 starts, cyl. LHT female x H 55 LHT female (E) x 1 3/4" T 45 LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4) alternatively:
1.1	Flushing head D 114.3, 3 starts, cyl. LHT female x H 55 LHT female (E) x d 76.1, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4b) alternatively:
2	Flushing head D 114.3, 3 starts, cyl. LHT female x H 64 LHT female (E) x 1 3/4" T 45 LHT female, complete with flushing ring without holder (component parts see pos 2a, 2b, 2c, 1e and 4a) alternatively:
2.1	Flushing head D 114.3, 3 starts, cyl. LHT female x H 64 LHT female (E) x d 76.1, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 2a, 2b, 2c, 1e and 4c) alternatively:
3	Flushing head D 114.3, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 1 3/4" T 45 LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1e and 4a) alternatively:
3.1	Flushing head D 114.3, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 76.1, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1e and 4c)
1a	Flushing body D 100 x H 55 LHT female (E) x S 68 LHT female (G)
2a	Flushing body D 120 x H 64 LHT female (E) x S 78 LHT female (G)
3a	Flushing body D 170 x H 112 (C112) LHT female (E) x S 78 LHT female (G)
1b	Flushing ring D 100 x connection G 1 1/4" female
2b	Flushing ring D 120 x connection G 1 1/4" female
3b	Flushing ring D 170 x connection G 1 1/4" female
1c	Seal D 100
2c	Seal D 120
3c	Seal D 170
1d	Ejection bell D 114.3, 3 starts, cyl. LHT female x S 68 LHT female (G) with 2 ejection holes G 2"
1e	Ejection bell D 114.3, 3 starts, cyl. LHT female x S 78 LHT female (G) with 2 ejection holes G 2"
4	Adaptor d 1 3/4", T 45 LHT female x S 68 LHT male (G) alternatively:
4a	Adaptor d 1 3/4", T 38 LHT female x S 78 LHT male (G) alternatively:
4b	Adaptor d 76.1, 1 start, cyl. LHT female x S 68 LHT male (G) alternatively:
4c	Adaptor d 76.1, 1 start, cyl. LHT female x S 78 LHT male (G)
5	Flushing ring holder suitable for hydraulic drifter and corresponding flushing ring (indicated with order)
FLUSHING HEAD B (option with respect to items 1-3)	
6	Flushing head D 114.3, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 1 3/4" T 38 LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1f, 1g and 1i) alternatively:
6.1	Flushing head D 114.3, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 76.1, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1f, 1h and 1i)
1f	Flushing body D 170 x H 112 (C 112) LHT female (E) x H 80 LHT female (G)
1g	Adaptor d 1 3/4", T 45 LHT female x H 80 LHT male (G)
1h	Adaptor d 76.1, 1 start, cyl. LHT female x H 80 LHT male (G)
1i	Ejection bell D 114.3, 3 starts, cyl. LHT female x D 152.4, 2 starts, cyl. LHT female with 2 ejection holes G 2"

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 114.3

with hydraulic drifter

Pos.	Description
Casings	
7	Rotary percussion tubes D 114.3, 3 starts, cyl. LHT x 8.8mm wth x 88mm (d1), Quality: high tempered steel, only male side friction welded, without spanner flats
7a	3000mm length
7b	2000mm length
7c	1000mm length
9	Casing bit D 114.3, 3 starts, cyl. LHT male x D 120mm
9a	Button type
9b	Plate type
alternatively D 125mm:	
9c	Casing bit D 114.3, 3 starts, cyl. LHT male x D 125mm, button type
9d	Casing bit D 114.3, 3 starts, cyl. LHT male x D 125mm, blade type
Inner rods	
8	Rotary Percussion tubes d 76.1, 1 start, cyl. LHT x 8.8mm wth x 50mm (d1), Quality: high tempered steel, thread ends friction welded, with spanner flats
8a	3000mm length
8b	2000mm length
8c	1000mm length
alternativ:	
8	Extension rod d 1 3/4", thread T 45
8d	3000mm length
8e	2000mm length
8f	1000mm length
8g	Sleeve d 1 3/4", thread T 45
10a	Percussion bit d 1 3/4", T38 LHT female x D 85mm, button type, flushing holes
10b	Percussion bit d 76.1, 1 start, cyl. LHT male x D 85mm, button type, flushing holes
10c	Percussion bit d 1 3/4" x T 38 LHT female x D 85mm, X-version, flushing holes
10d	Percussion bit d 76.1, 1 start, cyl. LHT male x D 85mm, X-version, flushing holes
10e	Percussion bit d 1 3/4" x T 38 LHT female x D 85mm, cross version, flushing holes
10f	Percussion bit d 76.1, 1 start, cyl. LHT male x D 85mm, cross version, flushing holes
10g	Percussion bit d 1 3/4" x T 38 LHT female x D 85mm, 4 wings, button type, flushing holes
10h	Percussion bit d 76.1, 1 start, cyl. LHT male x D 85mm, 4 wings, button type, flushing holes
10i	Percussion bit d 1 3/4" x T 38 LHT female x D 85mm, 3 wings, special TC insert, flushing holes
10k	Percussion bit d 76.1, 1 start, cyl. LHT male D 85mm. 3 wings, special TC insert, flushing holes

Tools

Fishing tap D 114.3, 3 starts, cyl. LHT, male

Fishing bell D 114.3, 3 starts, cyl. LHT male

Accessories

Grouting cap D 114.3, 3 starts, cyl. LHT female x G 1 1/4" connection

Grouting nipple D 114.3, 3 starts, cyl. LHT female x G 1 1/4" connection

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 133

with hydraulic drifter

Pos.	Description
FLUSHING HEAD A	
1	Flushing head D 133, 3 starts, cyl. LHT female x H 55 LHT female (E) x 1 3/4" T 45 LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4) alternatively:
1.1	Flushing head D 133, 3 starts, cyl. LHT female x H 55 LHT female (E) x d 88.9, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4b) alternatively:
2	Flushing head D 133, 3 starts, cyl. LHT female x H 64 LHT female (E) x 1 3/4" T 45 LHT female, complete with flushing ring without holder (component parts see pos 2a, 2b, 2c, 1e and 4a) alternatively:
2.1	Flushing head D 133, 3 starts, cyl. LHT female x H 64 LHT female (E) x d 88.9, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 2a, 2b, 2c, 1e and 4c) alternatively:
3	Flushing head D 133, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 1 3/4" T 45 LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1e and 4a) alternatively:
3.1	Flushing head D 133, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 88.9, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1e and 4c)
1a	Flushing body D 100 x H 55 LHT female (E) x S 68 LHT female (G)
2a	Flushing body D 120 x H 64 LHT female (E) x S 78 LHT female (G)
3a	Flushing body D 170 x H 112 (C 112) LHT female (E) x S 78 LHT female (G)
1b	Flushing ring D 100 x connection G 1 1/4" female
2b	Flushing ring D 120 x connection G 1 1/4" female
3b	Flushing ring D 170 x connection G 1 1/4" female
1c	Seal D 100
2c	Seal D 120
3c	Seal D 170
1d	Ejection bell D 133, 3 starts, cyl. LHT female x S 68 LHT female (G) with 2 ejection holes G 2"
1e	Ejection bell D 133, 3 starts, cyl. LHT female x S 78 LHT female (G) with 2 ejection holes G 2"
4	Adaptor d 1 3/4", T 45 LHT female x S 68 LHT male (G) alternatively:
4a	Adaptor d 1 3/4", T 38 LHT female x S 78 LHT male (G) alternatively:
4b	Adaptor d 88.9, 1 start, cyl. LHT female x S 68 LHT male (G) alternatively:
4c	Adaptor d 88.9, 1 start, cyl. LHT female x S 78 LHT male (G)
5	Flushing ring holder suitable for hydraulic drifter and corresponding flushing ring (indicated with order)
FLUSHING HEAD B (option with respect to items 1-3)	
6	Flushing head D 133, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 1 3/4" T 45 LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1f, 1g and 1i) alternatively:
6.1	Flushing head D 133, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 88.9, 1 start, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1f, 1h and 1i)
1f	Flushing body D 170 x H 112 (C 112) LHT female (E) x H 80 LHT female (G)
1g	Adaptor d 1 3/4", T 45 LHT female x H 80 LHT male (G)
1h	Adaptor d 88.9, 1 start, cyl. LHT female x H 80 LHT male (G)
1i	Ejection bell D 133, 3 starts, cyl. LHT female x D 152.4, 2 starts, cyl. LHT female with 2 ejection holes G 2".

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 133

with hydraulic drifter

Pos.	Description
Casings	
7	Rotary percussion tubes D 133, 3 starts, cyl. LHT x 8.8mm wth x 108mm (d1), Quality: high tempered steel, only male side friction welded, without spanner flats
7a	3000mm length
7b	2000mm length
7c	1000mm length
9	Casing bit D 133, 3 starts, cyl. LHT male x D 120mm
9a	Button type
9b	Plate type
alternatively D 150mm:	
9c	Button type
9d	Plate type
Inner rods	
8	Rotary Percussion tube d 88.9, 1 start, cyl. LHT x 8.8mm wth x 64,5mm (d1), Quality: high tempered steel, thread ends friction welded, with spanner flats
8a	3000mm length
8b	2000mm length
8c	1000mm length
alternatively:	
8	Extension rod d 1 3/4", thread T 45
8d	3000mm length
8e	2000mm length
8f	1000mm length
8g	Sleeve d 1 3/4", T 45 LHT female/female
10a	Percussion bit d 1 3/4", T45 LHT female x D 105mm, button type, flushing holes
10b	Percussion bit d 88,9, 1 start, cyl. LHT male x D 105mm, button type, flushing holes
10c	Percussion bit d 1 3/4" x T 38 LHT female x D 105mm, X-version, flushing holes
10d	Percussion bit d 88,9, 1 start, cyl. LHT male x D 105mm, X-version, flushing holes
10e	Percussion bit d 1 3/4" x T 38 LHT female x D 105mm, cross version, flushing holes
10f	Percussion bit d 88,9, 1 start, cyl. LHT male x D 105mm, cross version, flushing holes
10g	Percussion bit d 1 3/4" x T 38 LHT female x D 105mm, 4 wings, button type, flushing holes
10h	Percussion bit d 88,9, 1 start, cyl. LHT male x D 105mm, 4 wings, button type, flushing holes
10i	Percussion bit d 1 3/4" x T 38 LHT female x D 105mm, 3 wings, special TC insert, flushing holes
10k	Percussion bit d 88,9, 1 start, cyl. LHT male x D 105mm. 3 wings, special TC insert, flushing holes

Tools

Fishing tap D 133, 3 starts, cyl. LHT, male

Fishing bell D 133, 3 starts, cyl. LHT male

Accessories

Grouting cap D 133, 3 starts, cyl. LHT female x G 1 1/4" connection

Grouting nipple D 133, 3 starts, cyl. LHT female x G 1 1/4" connection

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; E = shank 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 lot of possible tool variations. Special designs on request.

Overburden Drilling System D 152.4

with hydraulic drifter

Pos.	Description
FLUSHING HEAD A	
1	Flushing head D 152.4, 3 starts, cyl. LHT female x H 64 LHT female (E) x 2" T 51 LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4)
alternatively:	
2	Flushing head D 152.4, 3 starts, cyl. LHT female x H 112 LHT female (E) x d 101.6, 3 starts, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 1a, 1b, 1c, 1d and 4 b)
alternatively:	
3	Flushing head D 152.4, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 2" T 51 LHT female, complete with flushing ring without holder (component parts see pos. 2a, 2b, 2c, 1e and 4a)
alternatively:	
3.1	Flushing head D 152.4, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 101.6, 3 starts, cyl. LHT female, complete with flushing ring without holder (component parts see pos. 2a, 2b, 2c, 1e and 4c)
1a	Flushing body D 120 x H 64 LHT female (E) x S 78 LHT female (G)
2a	Flushing body D 170 x H 112 (C 112) LHT female (E) x S 108 LHT female (G)
1b	Flushing ring D 120 x connection G 1 1/2" female
2b	Flushing ring D 170 x connection G 1 1/2" female
1c	Seal D 120
2c	Seal D 170
1d	Ejection bell D 152.4, 3 starts, cyl. LHT female x S 78 LHT female (G) with 2 ejection holes G 2".
1e	Ejection bell D 152.4, 3 starts, cyl. LHT female x S 108 LHT female (G) with 2 ejection holes G 2".
4	Adaptor d 2", T 51 LHT female x S 78 LHT male (G)
alternatively:	
4a	Adaptor d 2", T 51 LHT female x S 108 LHT male (G)
alternatively:	
4b	Adaptor d 101.6, 1 start, cyl. LHT female x S 78 LHT male (G)
alternatively:	
4c	Adaptor d 101.6, 1 start, cyl. LHT female x S 108 LHT male (G)
5	Flushing ring holder suitable for hydraulic drifter and corresponding flushing ring (indicated with order)
FLUSHING HEAD B (option with respect to items 1-3)	
6	Flushing head D 152.4, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x 2" T 51 LHT female, complete with flushing ring without holder (component parts see pos. 3a, 3b, 3c, 1f, 1g and 1i)
alternatively:	
6.1	Flushing head D 152.4, 3 starts, cyl. LHT female x H 112 (C 112) LHT female (E) x d 101.6, 3 starts, cyl. LHT female, complete with flushing ring without holder, consisting of (pos. 3a, 3b, 3c, 1f, 1g and 1i)
1f	Flushing body D 170 x H 112 (C 112) LHT female (E) x H 80 LHT female (G)
1g	Adaptor d 2", T 51 LHT female x H 80 LHT male (G)
1h	Adaptor d 101.6, 3 starts, cyl. LHT female x H 80 LHT male (G)
1i	Ejection bell D 152.4, 4 starts, cyl. LHT female x D 152.4, 2 starts, cyl. LHT female with 2 ejection holes G 2".

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; E = shank 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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Overburden Drilling System D 152.4

with hydraulic drifter

Pos.	Description
Casings	
7	Rotary percussion tube D 152.4, 3 starts, cyl. LHT x 8.8mm wth x 128mm (d1), Quality: high tempered steel, only male side friction welded, without spanner flats
7a	3000mm length
7b	2000mm length
7c	1000mm length
9	Casing bit D 152.4, 3 starts, cyl. LHT male x D 160mm
9a	Button type
9b	Plate type
alternatively D 165mm:	
9c	Button type
9d	Plate type
Inner rods	
8	Rotary Percussion tube d 101.6, 1 start, cyl. LHT x 8.8mm wth x 75mm (d1), Quality: high tempered steel, thread ends friction welded, with spanner flats
8a	3000mm length
8b	2000mm length
8c	1000mm length
alternatively:	
8	Extension rod d 2", thread T 51
8d	3000mm length
8e	2000mm length
8f	1000mm length
8g	Sleeve d 2", T 51 LHT female/female
10a	Percussion bit d 1 3/4" x T45 LHT female x D 125mm, button type, flushing holes
10b	Percussion bit d 101.6, 1 start, cyl. LHT male x D 125mm, button type, flushing holes
10c	Percussion bit d 1 3/4" x T 38 LHT female x D 125mm, X-version, flushing holes
10d	Percussion bit d 101.6, 1 start, cyl. LHT male x D 125mm, X-version, flushing holes
10e	Percussion bit d 1 3/4" x T 38 LHT female x D 125mm, cross version, flushing holes
10f	Percussion bit d 101.6, 1 start, cyl. LHT male x D 125mm, cross version, flushing holes
10g	Percussion bit d 1 3/4" x T 38 LHT female x D 125mm, 4 wings, button type, flushing holes
10h	Percussion bit d 101.6, 1 start, cyl. LHT male x D 125mm, 4 wings, button type, flushing holes
10i	Percussion bit d 1 3/4" x T 38 LHT female x D 125mm, 3 wings, special TC insert, flushing holes
10k	Percussion bit d 101.6, 1 start, cyl. LHT male x D 125mm. 3 wings, special TC insert, flushing holes

Tools

Fishing tap D 152.4, 3 starts, cyl. LHT, male

Fishing bell D 152.4, 3 starts, cyl. LHT male

Accessories

Grouting cap D 152.4, 3 starts, cyl. LHT female x G 1 1/4" connection

Grouting nipple D 152.4, 3 starts, cyl. LHT female x G 1 1/4" connection

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; E = shank 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 lot of possible tool variations. Special designs on request.