

Robit® RoX GFRP in Brief: system parts

Single-use system for top hammer fiberglass casing

Robit® has developed a system for fiberglass casings. A unique casing shoe works as a shock-absorber protecting the casing from the drilling forces. Fiberglass casing brings several benefits:

- Lighter casings – easier to handle
- Lower material cost – more economic drilling
- Easy to excavate – drill and blast in overburden conditions
- Can be used as face bolts to stabilize the tunnel face

Robit® Fiberglass system is available for top hammer applications.

Geometrical characteristics

Technical characteristics

Section	1700 mmq.	Glass content in weight	50%
External diameter	ø 76 mm	Specific weight	1.8 g/cc
Internal diameter	ø 60 mm	Tensile strength	600 MPa
Thickness	8 mm	Flexural strength	600 MPa
Weight/m	3,2 kg	Elastic modulus	20000 MPa

NOTE

Parameters may vary depending on ground / rock conditions, application and machinery

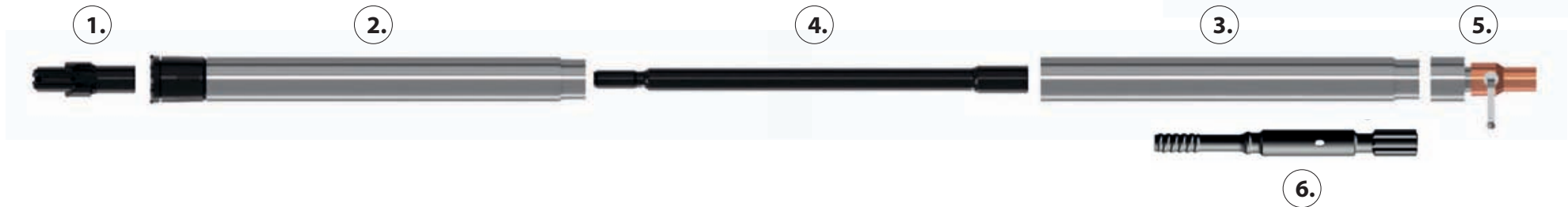


Forepoling Drilling Systems - RoX+ 88,9/8

1. **RoX+ 88,9/8 (02-238-088-0024) pilot bit C38**
2. **RoX+ 88,9/8 ring bit assembly & starter casing**
 - Steel casing Ø88,9/8 including RoX+ 88,9/8 ring bit assembly
 - 1 side male threaded, L=3000 mm with grouting holes + valves
3. **Extension Casing**
 - Steel casing Ø88,9/8, L=3000 mm with grouting holes + valves
 - 2 side male-female threaded, L=3000 mm
4. **Extension M/F Rod C38 - round 39 - C38, L=3050 mm (06A-07-0492) or 3660 mm (06A-07-0491)**

Optional

5. **Grouting plug (end cap)**
 - 1 side female threaded with valve
6. **Shank adapter** for needed rig/drifter



Forepoling Drilling Systems - RoX+ 101.6

1. **RoX+ 101,6/10 (02-238-101-0026) pilot bit C38**
2. **RoX+ 101,6/10 ring bit assembly & starter casing**
 - Steel casing Ø101,6/10 including RoX+ 101,6/10 ring bit assembly
 - 1 side male threaded, L=3000 mm with grouting holes + valves
3. **Extension Casing**
 - Steel casing Ø101,6/10, L=3000 mm with grouting holes + valves
 - 2 side male-female threaded, L=3000 mm
4. **Extension M/F Rod C38 - round 39 - C38, L=3050 mm (06A-07-0492) or 3660 mm (06A-07-0491)**

Optional

5. **Grouting plug (end cap)**
 - 1 side female threaded with valve
6. **Shank adapter** for needed rig/drifter



Forepoling Drilling Systems - RoX+ 114,3/10

1. **RoX+ 114,3/10 (02-238-114-0028) pilot bit C38**
2. **RoX+ 114,3/10 ring bit assembly & starter casing**
 - Steel casing Ø114,3/10 including RoX+ 114,3/10 ring bit assembly
 - 1 side male threaded, L=3000 mm with grouting holes + valves
3. **Extension Casing**
 - Steel casing Ø114,3/10, L=3000 mm with grouting holes + valves
 - 2 side male-female threaded, L=3000 mm
4. **Extension M/F Rod C38 - round 39 - C38, L=3050 mm (06A-07-0492) or 3660 mm (06A-07-0491)**

Optional

5. **Grouting plug (end cap)**
 - 1 side female threaded with valve
6. **Shank adapter** for needed rig/drifter



Forepoling Drilling Systems - RoX 139,7

1. **RoX 139,7/10 (02-245-139-0032) pilot bit C45**
2. **RoX 139,7/10 ring bit assembly & starter casing**
 - Steel casing Ø139,7/10 including RoX 139,7/10 ring bit assembly
 - 1 side male threaded, L=3000 mm with grouting holes + valves
3. **Extension Casing**
 - Steel casing Ø139,7/10, L=3000 mm with grouting holes + valves
 - 2 side male-female threaded, L=3000 mm
4. **Extension M/F Rod C45 - round 46 - C45, L=3050 mm (06B-07-2882) or 3660 mm (06B-07-0501)**

Optional

5. **Grouting plug (end cap)**
 - 1 side female threaded with valve
6. **Shank adapter** for needed rig/drifter



Forepoling Drilling Systems - RoX+ 168.3

1. **RoX+ 168,3/10 (02-251-168-0038) pilot bit C45**
2. **RoX+ 168,3/10 ring bit assembly & starter casing**
 - Steel casing Ø168,3/10 including RoX+ 168,3/10 ring bit assembly
 - 1 side male threaded, L=3000 mm with grouting holes + valves
3. **Extension Casing**
 - Steel casing Ø168,3/10, L=3000 mm with grouting holes + valves
 - 2 side male-female threaded, L=3000 mm
4. **Extension M/F Rod C45 - round 46 - C45, L=3050 mm (06B-07-2882) or 3660 mm (06B-07-0501)**

Optional

5. **Grouting plug (end cap)**
 - 1 side female threaded with valve
6. **Shank adapter** for needed rig/drifter

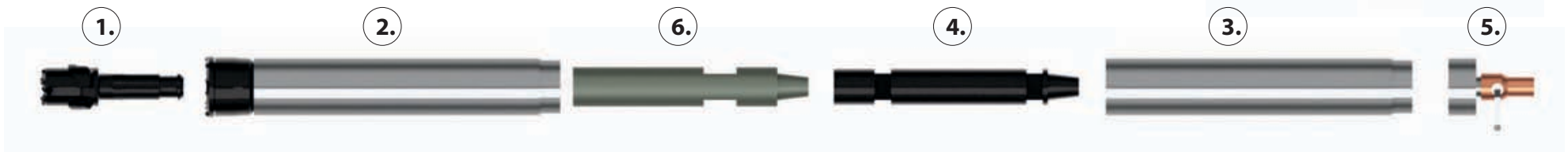


Forepoling Drilling Systems - DTH-RoX+ 139,7

1. **DTH-RoX+ 139,7/10** (03-541-139-0164) **pilot bit, shank IR340**
2. **DTH-RoX+ 139,7/10 ring bit assembly & starter casing**
 - Steel casing Ø139,7/10 including DTH-RoX+ 139,7/10 ring bit assembly
 - 1 side male threaded, L=3000 mm with grouting holes + valves
3. **Extension Casing**
 - Steel casing Ø139,7/10, L=3000 mm with grouting holes + valves
 - 2 side male-female threaded, L=3000 mm
4. **Drill pipe** Ø76 or Ø89, 2³/₈ A.P.I. , L=3000 mm

Optional

5. **Grouting plug** (end cap)
 - 1 side female threaded with valve
6. **DTH hammer 4"**, 2³/₈ A.P.I., shank IR340



Forepoling Drilling Systems - RoX+ GFRP 76,1

1. **RoX+ GFRP 76,1/8 (02-132-076-0021) pilot bit R32**
2. **RoX+ GFRP 76,1/8 ring bit assembly & starter casing**
 - Fiberglass casing Ø76,1/8 including RoX+ GFRP 76,1/8 ring bit assembly
 - 1 side male threaded, L=2700 mm with grouting holes + valves
3. **Extension Casing**
 - Fiberglass casing Ø76,1/8 including steel coupling, L=3000 mm with grouting holes + valves
 - 2 side male-male threaded, L=3000 mm
4. **Extension M/F Rod R32 - round 32 - R32, L=3050 mm (06B-07-2877) or 3660 mm (06B-07-2492)**

Optional

5. **Grouting plug (end cap)**
 - 1 side female threaded with valve
6. **Shank adapter** for needed rig

