ICDP–OSG Logging Winches

MW2000 Winch for slimhole applications

The GFZ owned MW2000 mini winch is especially designed for logging with our slimhole sondes. It holds a 2200 m long 4-conductor logging cable (Rochester 4–H–181A, 3/16”, 150 °C, breaking strength = 14 kN, insulator: 0.97 mm). The entire winch is mounted on a palette with a protecting cage and all accessories (weight = 600 kg). Electric motor = 220 V/2 kW (7 kW w/ generator), max. pulling force = 3 kN. Depth wheel Ø = 133,73 mm, 40 000 imp, 49 945 mm, 400 imp/rev. Its size and weight allow airfreight transport to all worldwide ICDP locations for low costs. The winch requires a footprint of 2.5 x 2.5 m.

Although it is very rugged it allows very slow and steady logging speed (1 m/min), like for televiewer runs, and a maximum speed of 50 m/min. It features an integrated depth/tension system. The cable is equipped with a Gearhardt-Owen type cable head GO4. A crossover GO4–GO7 is available to connect tools with GO7 tool head.
MW2000 winch unit alone without the protective cage and palette and all other accessories.

GO4 cable head
MW600 GFZ Winch for slimhole applications

The GFZ owned MW600 mini winch is especially designed for logging with our slimhole sondes. It holds a 600 m long 4-conductor logging cable (Rochester 4–H–181A, 3/16", 150 °C, breaking strength = 14 kN, insulator: 0.97 mm). The entire winch mounted on a palette with a protecting cage and all accessories (weight = 300 kg). Electric motor = 220 V/1.1 kW (3.5 kW w/ generator), max. pulling force = 2.3 kN. Depth wheel Ø = 133,73 mm, 40 000 imp, 42 012 mm, 400 imp/rev. Its size and weight allow airfreight transport to all worldwide ICDP locations for minimum costs. The winch requires a foot-print of 1.5 x 1.5 m.

Although it is very rugged it allows very slow and steady logging speed (1 m/min), like for televiwer runs, and a maximum speed of 50 m/min. The cable is equipped with a Gearhardt–Owen type cable head GO4. A crossover GO4–GO7 is available to connect tools with GO7 tool head.
GO4 cable head
MW250 – Winch for shallow slimhole applications

The ICDP owned super-light MW250 mini winch is especially designed for logging in shallow holes (< 200 m) at difficultly accessible locations and only for lightweight sondes. It holds a 250 m long 4-conductor logging cable (Rochester 4–H–181A, 3/16”, 150 °C, breaking strength = 14 kN, insulator: 0.97 mm). The entire winch is mounted in a small rugged shipping case (weight = 100 kg). Electric motor = 220 V/0.19 kW, max. pulling force = 1.1 kN. Depth wheel Ø = 106 mm., 600 imp, 1000 mm, 200 imp/rev, 333 mm/rev. The winch requires a foot-print of 1.0 x 1.0 m. The small size and weight allows manual transport to locations that are inaccessible for vehicles.

The winch allows very slow and steady logging speed (<1 m/min), like for televiwer runs, and a maximum speed of 10 m/min. The cable is equipped with a Gearhardt–Owen type cable head GO4. A crossover GO4–GO7 is available to allow mounting of a tool with GO7 tool head.
CW7000 – GFZ Container Winch

The GFZ owned CW7000 container winch is a powerful heavy duty winch for deep applications. We use it mostly for logging operations of projects within Europe. It is based at the KTB Deep Lab, Germany. As a containerized winch it cannot drive by itself on roads but has to be transported on a flat-bed trailer or on a truck with container-bridge. It has a 220V/50 Hz generator but can alternatively be connected to the power grid (5 kW consumption). Geosys depth system: 100 000 imp, 441 186 mm, 0.44186 mm/imp or 2263.16 imp/mm.

The cable can be equipped with a Gearhardt–Owen type cable head GO7 or a SLB LEH head. Weak point calculation for GO7: outer/inner armor = 45/35 kN or 1.9/1.5 kN/wire.

Geosys 20ft Container Winch

14 t, 4 cylinder Diesel, 2900 cm³, 55.4 kW/74 hp, L = 6.1 m, W = 2.45 m, H = 2.6 m

max. run time (fully fueled and at full speed): 48 h

speed: 1–100 m/min

cable currently: 7300 m, Rochester 7–H–464D, 7-conductor cable, 204 °C, Ø = 11.73 mm,
on drum 493/397 kg/km (air/water), breaking strength = 81 kN,
insulators: Ø = 0.74 mm, 15000 MΩ/km @ 500 VDC, GO7 cable head

This winch is the successor to the GFZ logging truck, which was decommissioned in 2017.
CW6000 – GFZ Container Winch

This rugged standard off-shore unit is small enough to be deployed at worldwide scientific drilling locations but fully capable for logging activities also with heavy logging tools to 6000 m. The hydraulic motor is diesel engine powered. SLB depth system: 300 imp/rev, circumf. = 762 mm, 393.7 imp/m.

The cable can be equipped with a Gearhardt–Owen type cable head GO7 or a SLB LEH head. Weak point calculation for GO7: outer/inner armor= 45/35 kN or 1.9/1.5 kN/wire.

Schlumberger OFU off shore logging unit

13.6 t, 4500 cm³, 82 kW/110 hp, L = 6 m, W = 2.5 m, H = 2.9 m
external electric power required: 220 V/1.5 kW
max. run time (fully fueled and at full force): 40 h
speed: 2–50 m/min
cable currently: 4500 m, Camesa 7j46RP, 7-conductor cable, 135 °C, Ø = 11.79 mm
on drum 478/395 kg/km (air/water), breaking strength = 85 kN,
insulators: 0.737 mm, 457 MΩ/km @ 500 VDC
cable capacity: 6000 m (7–46)
other drum type: split drum is possible for tapered cable mode