

# ROBOLT 7-3 Cabin



## APPLICATION

The Robolt 7-3 Cabin is a fully mechanized one-man operated electrohydraulic bolting jumbo for rock re-inforcement in underground mines and tunnels with small and medium cross sections.

The Robolt 7-3 Cabin can install the longest bolts in the space available in the cross section thus resulting in increased safety in mechanized rock bolting.

The versatile bolting head BH 30 construction allows the use of bolt lengths 1.5 to 3.0 meters just by adjusting the bolt magazine to the desired bolt length, no other hydraulic or mechanical modifications are needed. Other bolting head alternatives are BH 15, BH 18, BH 22, BH 24 and BH 27.

All the most common bolt types or combinations can be installed with the Robolt 7 Cabin. Recommended bolt types and bolt combinations are: C, P, S, SW, M, CT, C+P, C+S, C+SW, C+M, P+S, P+SW, P+M,

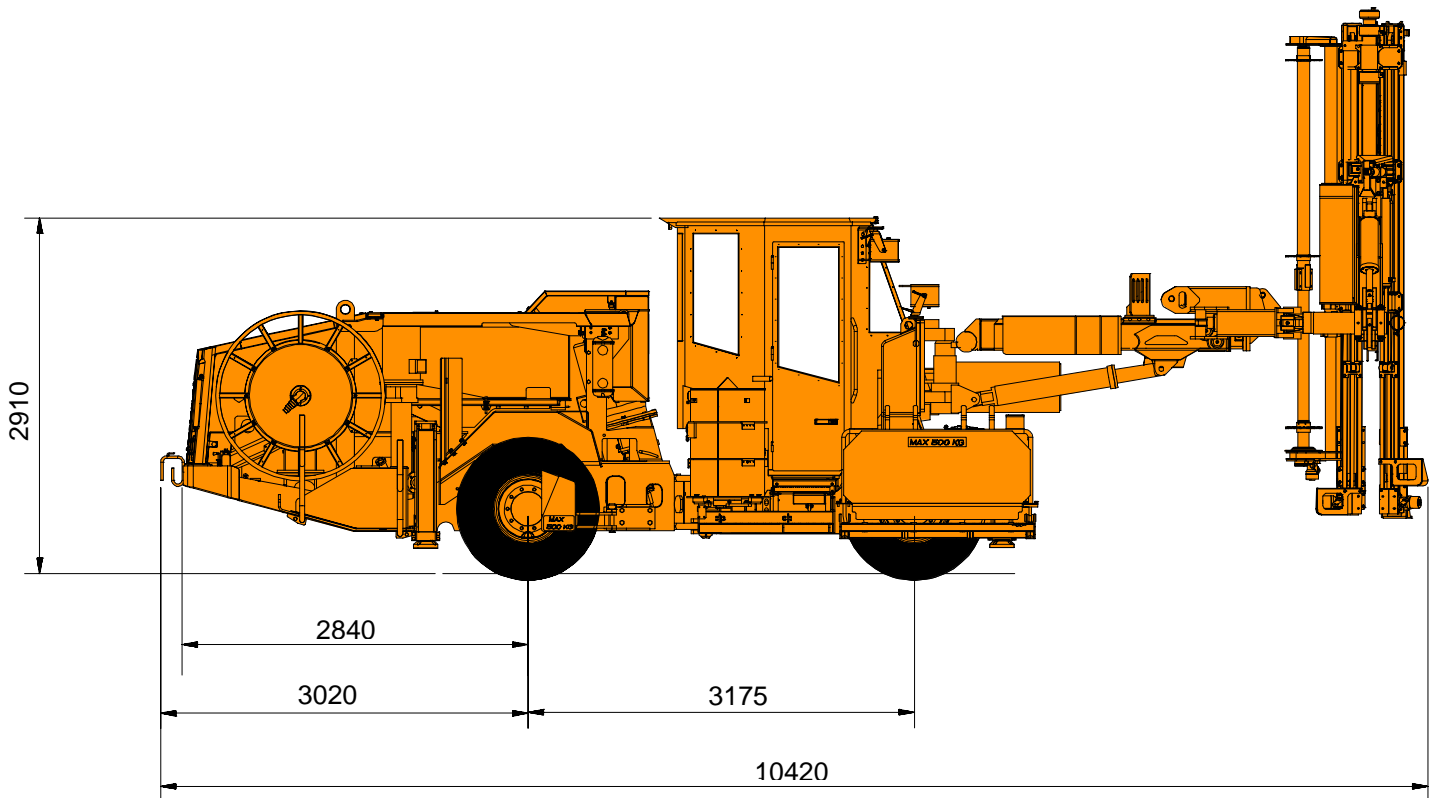
where C is resin grouted and P cement grouted re-bar bolt, S is Split-set, SW is Swellex bolt, M is mechanical bolt and CT is CT bolt.

The unit is based on a proven jumbo carrier for high mobility. Operator comfort is achieved by enclosed sound proof cabin with easy-to-use electric controls. The Robolt 7 allows the operator to concentrate on safe, fast and efficient rock re-inforcement.

## MAIN SPECIFICATIONS

Carrier	1 x TC 7 W
Safety cabin	1 x FOPS ISO 3449 ROPS ISO 3471
Rock drill	1 x HL 300 S
Boom	1 x ZRU 707
Bolting head	1 x BH x
Control system	1 x TPC 301 EW
Powerpack	1 x HPP 345 (45 kW)
Shank lubricating device	1 x SLU 10-1
Air compressor	1 x CT 10
Water pump	1 x WBP 1
Main switch	1 x MSE-10
Cable reel	1 x TCR 2.5E
Length	11 000 mm
Width	2 250 mm
Height	2 910 mm
Weight	17 500 - 18 000 kg
Tramming speed:	
- Horizontal	18 km/h
- 14% = 1:7 = 8°	7.5 km/h
Gradeability	28% = 1:3.5 = 15°
Noise level (EN791, free field condition):	
- In cabin	LpA = 76 dB
- Emitted	LwA = 124 dB

## GENERAL DIMENSIONS



### TC 7 W CARRIER

Diesel engine	MB OM 904 LA, 110 kW (149 hp)
Transmission	Clark 20000 Hydrodynamic
Axles	Clark-Hurth, wide front axle
Brakes:	
- Service	Hydraulically operated wet disc brakes
- Parking and emergency	SAHR type, fail safe wet disc brakes
Tyres	12.00 - 20 PR 20
Steering	Frame steering, Orbitrol
Articulation	±35°
Rear oscillation	±10°
Ground clearance	300 mm
Fuel tank	150 l
Hydraulic jacks	2 x TJ 40 front 2 x TJ 60 rear
Safety cabin	Cabin 7, pressurized

### HL 300 S ROCK DRILL

Weight	92 kg
Length	750 mm
Height	207 mm
Profile height	72 mm
Percussion power	8 kW
Max working pressure:	
- Percussion	160 bar
- Rotation	165 bar
Max torque	230 Nm
Flushing water pressure	5 - 15 bar
Hole size	32 - 43 mm

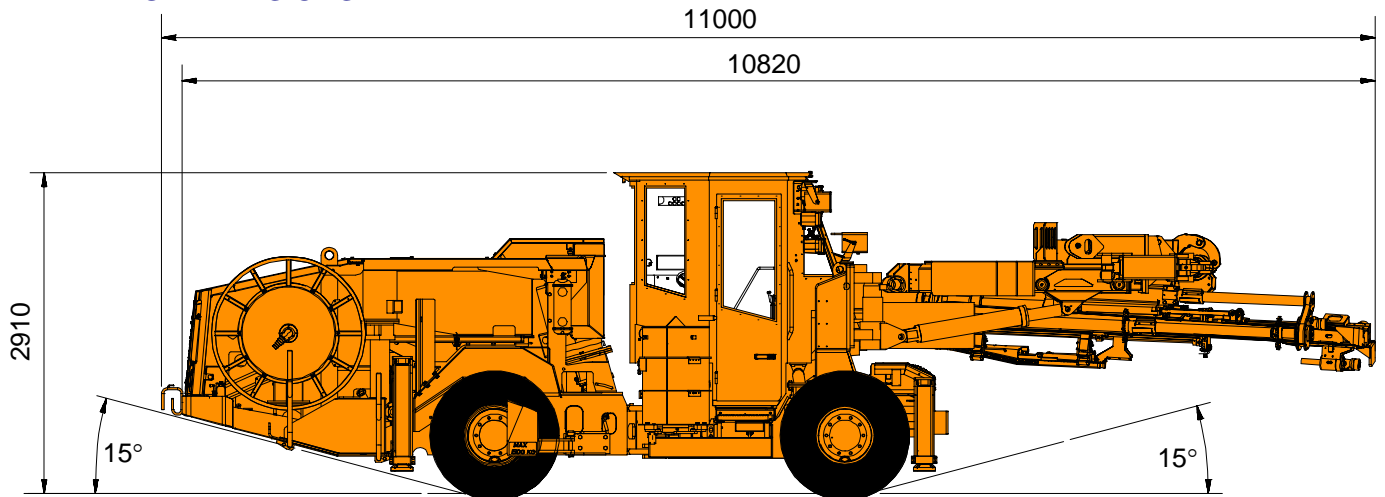
### ZRU 707 BOOM

Length, min	3 150 mm
Telescopic extension	1 200 mm
Boom weight, net	1 500 kg
Rotation angle	180° (±90°)

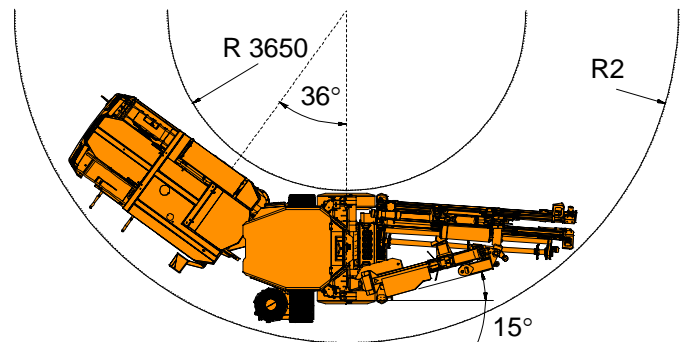
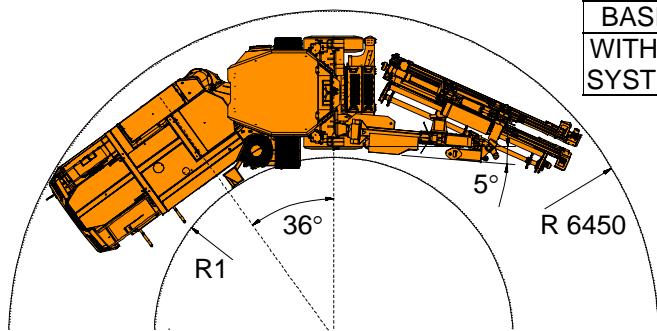
### BH BOLTING HEAD

BH x	x = 15,18,22,24,27 or 30
Bolt length	1.2 - 3.0 m
Feed	KS 140-3
Drill steel	R32-H25-R25
Bolt carousel capacity	8 bolts

## TRAMMING DIMENSIONS



	R1	R2
BASIC	3560	6670
WITH P-SYSTEM	3280	6750



## TPC 301 EW CONTROL SYSTEM

Power control	adjustable full power adjustable collaring power
Anti-jamming control	Adjustable anti-jamming pressure
Rotation control	adjustable rotation speed reversible rotation
Flushing control	water flushing pressure control
Return automatics	air-mist flushing, option Rock drill and feed

## AIR AND WATER CIRCUIT

Compressor type:	1 x CT 10 (7.5 kW)
- Capacity	1.0 m <sup>3</sup> /min (7 bar)
Air cleaner	1 x IP5
Shank lubricating device:	1 x SLU 10-1
- Air consumption	150-200 l/min
- Oil consumption	100-150 g/h
Water pump type:	1 x WBP 1 (3.0 kW)
- Capacity	50 l/min (10 bar)
Water pressure valve:	1 x WP 42
- Max intake pressure	42 bar
- Max flow	200 l/min with 1 bar pressure drop

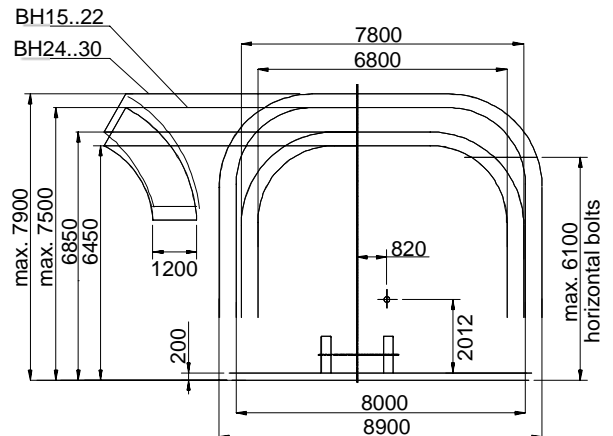
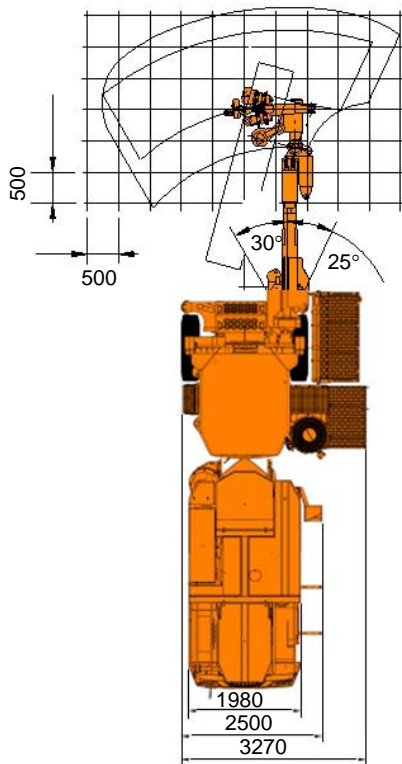
## HPP 345 POWERPACK

Electric motor	1 x 45 kW 3-phase motor
Pump types:	
- Percussion, feed and boom	Variable displacement axial piston pumps.
- Rotation	Gear pump
Capacities:	
- Percussion, feed and boom	1 x 130 l/min
- Rotation	1 x 45 l/min
Filtration:	
- Pressure	1 x 20 micron
- Return	1 x 12 micron
Oil tank vol.	max 200 l, min 115 l
Tank filling	1 x manual pump
Oil cooling	1 x OW 30 water cooler

## ELECTRICAL SYSTEM

Total input power	55 kW
Main switch	1 x MSE-10
Standard voltages	380...690 V/ 50 or 60 Hz
Voltage fluctuation	Max ±10%
Lighting:	
Working lights	
-Front	4 x 35 W, 24 V (H.I.D.)
-Rear	2 x 70 W, 24 V
-Search	1 x 70 W, 24 V
-Mixer	1 x 70 W, 24 V (if P- system)
Driving lights	
-Front	2 x 35 W, 24 V (H.I.D.)
-Rear	4 x 70 W, 24 V
Automatic cable reel	1 x TCR 2.5E

## BOLTING AREAS



## BOLTING COVERAGE

Bolting head	Bolt Length (m)	A (mm)	B (mm)	C (mm)
BH 15	1.2 - 1.5	2 850	6 450	7 500
BH 18	1.2 - 1.8	3 100	6 450	7 500
BH 22	1.5 - 2.2	3 550	6 450	7 500
BH 24	1.5 - 2.4	3 700	6 850	7 900
BH 27	1.5 - 2.7	4 000	6 850	7 900
BH 30	1.5 - 3.0	4 300	6 850	7 900

A = Minimum operating height (Note. +200 mm with Splitset bolt)  
B = Optimum roof bolting height  
C = Maximum height reached

## OPTIONAL EQUIPMENT

### BOLTING SYSTEM

Bolt type systems and combinations:  
- C, P, S, SW, M, CT, C+P, C+S, C+SW, C+M, P+S, P+SW, P+M C=RESIN, P=CEMENT, S=SPLITSET, SW=SWELLEX, M=MECHANICAL, CT=CT BOLT  
High pressure washing system (recommended with P-system)  
Bolting head oiler (recommended with P-system)  
Cement dust collector (above the mixer)  
Meshing arm with screen manipulator  
Drill angle instrument TMS D  
Automatic resin shooting system

### ELECTRICAL SYSTEM

Electric cable rubber or PUR  
Ground fault and over current unit, VYK 200  
Portable ground fault and over current unit, VYK P (max 440 V)  
\* 1 000 V electric system  
Star-Delta starting (380 ... 690 V only)  
230 V outlet max 4 500 VA  
3-phase outlet network voltage

### CARRIER

Exhaust scrubber  
Exhaust catalyzer  
12 V electric outlet and radio/CD-player readiness  
CD player / radio in cabin  
Cabin air conditioning, drilling and tramming  
Cabin heating, drilling and tramming  
FOPS stainless steel cabin  
Basket boom TBB 2 E  
FOPS safety canopy for basket boom TBB 2 E

### OTHER OPTIONAL EQUIPMENT

Fire extinguisher  
Manual fire suppression system (Ansul), 6 nozzles  
Automatic fire suppression system (Ansul), 6 nozzles  
Automatic water hose reel THR 2.5E  
Water hose 65 m, 1¼"  
\* Electric filling pump for hydraulic oil  
Greasing reel with pump and nozzle  
Centralized greasing system, boom and carrier  
Automatic greasing system, boom and carrier  
Biodegradable oils  
Fast filling and evacuation system (Wiggins); for fuel  
Fast filling and evacuation system (Wiggins); for fuel, transmission, engine and hydraulic oil  
\* HL 510 B drilling system  
Rod retainer (PITO 9H) for temporary long hole drilling  
\* Air-mist flushing with compressor CT 16  
Bolt storage  
\* EU, UL, CSA, AUS norms package

\*) replaces standard component

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