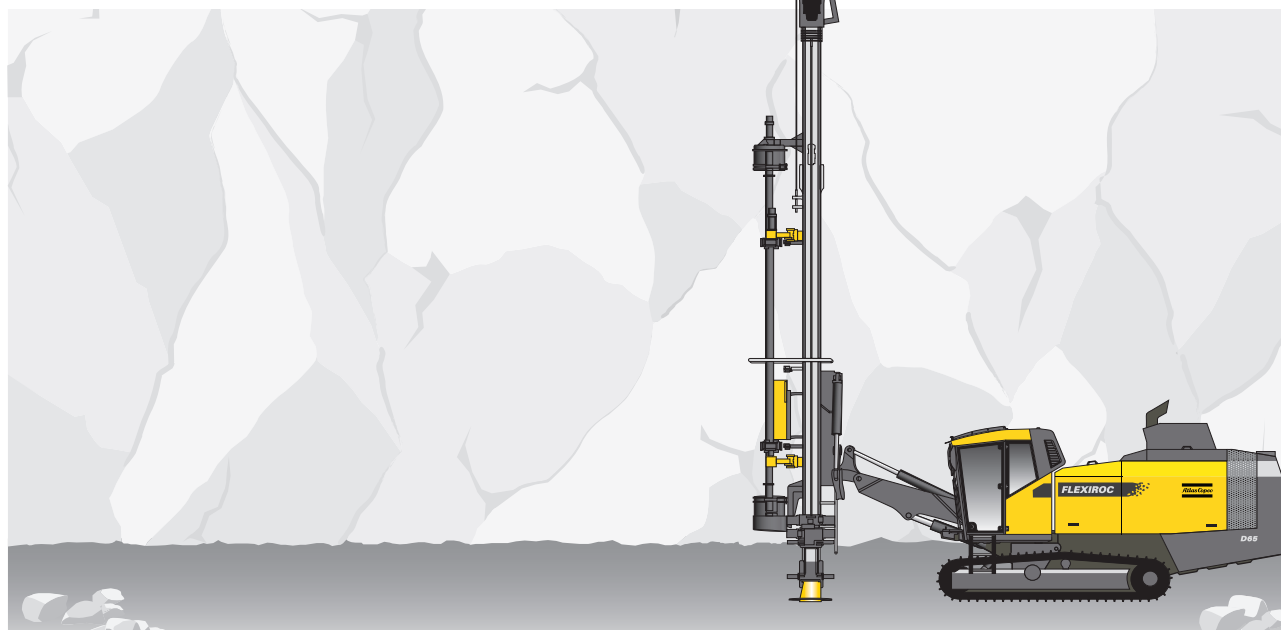


## Atlas Copco Surface drill rigs

# FlexiROC D60 and D65

## Technical specification



FlexiROC D60 and D65 series is intended for open pit mining, selective mining, in pit grade control with reverse circulation sampling, rock de-pressureisation and quarrying.

### Main components:

- Crawler type two speed undercarriage with track oscillation system
- Caterpillar turbo charged diesel engines with Tier IV technology
- Atlas Copco screw type high pressure compressors
- Operator's cabin, ROPS and FOPS approved with rubber vibration dampers
- Single section boom system
- Hydraulic cylinder operated feed system mounted in an aluminium box profile feed beam
- Toe hole drilling capability option, SF version
- Carousel type tube handling system
- Break-out table
- Hydraulic operated rotary head
- Built for use with 4", 5", and 6" down-the-hole hammers

Hole range			
<b>Recommended hole range</b>			
FlexiROC D60 & D65	COP 44 Gold, COP 54 Gold, COP 64 Gold	110-178 mm	4 5/16"-7"
FlexiROC D60 & D65	COP 44 Gold, COP 54 Gold, COP 64 Gold	110-203 mm	4 5/16"-8"
<b>Hydraulic tube handling system for max hole depth, with 5 m (16,4') tubes</b>			
FlexiROC D60 & D65	Ø 89-114 mm (3 1/2" - 4 1/2") drill tubes	45 m	148'
FlexiROC D60 & D65	Ø 127-140 mm (5" - 5 1/2") drill tubes	25 m	82'
<b>Hydraulic tube handling system for max hole depth, with 6 m (20') tubes and a 7.5 m starter tube</b>			
FlexiROC D60 & D65	Ø 89-114 mm (3 1/2" - 4 1/2") drill tubes	55.5 m	182'
FlexiROC D60 & D65	Ø 127-140 mm (5" - 5 1/2") drill tubes	31.5 m	103'
<b>Single pass drilling, max hole depth</b>			
FlexiROC D60 and D65 Short Feed		5,4 m	18'
FlexiROC D60 and D65 Long Feed		7,5 m	25'

# Specifications

FlexiROC D60 and D65

## Engine

### FlexiROC D60

Caterpillar turbo charged, diesel engine, CAT C13, Tier IV/Stage IIIB

- Power rating at 1800 rpm ..... 328 kW 440 HP

### FlexiROC D65

Caterpillar turbo charged, diesel engine, CAT C15, Tier IV/Stage IIIB

- Power rating at 1800 rpm ..... 402 kW 539 HP

## Carrier

- Trimming speed, max ..... 3.5 km/h 2.2 mph
- Traction force, max ..... 166 kN 37 310 lbf
- Track oscillation ..... ±10°
- Ground clearance ..... 405 mm 16"

## Aluminium feed

Hydraulic cylinder feed with hose guide and double drill tube support with break-out table and movable lower guide/dust hood

- Feed rate, max ..... 0.9 m/s 177 ft/min
- Feed force, max ..... 40 kN 8 992 lbf
- Tractive pull, max ..... 50 kN 11 240 lbf

### Long Feed (LF)

- Feed extension ..... 1 150 mm 3' 9"
- Travel length ..... 7 540 mm 25'

### Short Feed (SF)

- Feed extension ..... 1 900 mm 6' 3"
- Travel length ..... 5 400 mm 17' 7"

## Dust collector DCT 320F including pre-separator

- Filter area ..... 32 m<sup>2</sup> 344 ft<sup>2</sup>
- Number of filter elements ..... 32 pcs
- Suction capacity at 500 mm wg ..... 1270 l/s 2 690 cfm
- Suction hose diam ..... 203 mm 8"
- Cleaning air pressure, max ..... 8 bar 116 psi
- Cleaning air consumption ..... 2-4 l/pulse 0,06-0,12 cf/pulse

## Safety cabin

- ROPS and FOPS approved with rubber vibration dampers
- 2 x wipers with washer
- Clear laminated glass (front and roof windows)
- Clear toughened glass (side and rear windows)
- Fully adjustable operator's seat
- Adjustable foot rest, rear view mirror, cabin light
- Rig inclination indicator
- Fire extinguisher, 6 kg (13 lbs) dry chemical type ABE class III type
- Outlet socket, 24 V
- Prepared for radio/speakers for CD radio or DVD radio
- Electric combined engine/inclination/hole depth instrument

## Compressor

### FlexiROC D60

Atlas Copco XRX 10, two stage screw type compressor

- Working pressure, max ..... 25 bar 363 psi
- FAD, at normal working pressure ..... 405 l/s 858 cfm

### FlexiROC D65

Atlas Copco XRX 10, two stage screw type compressor

- Working pressure, max ..... 30 bar 435 psi
- FAD, at normal working pressure ..... 470 l/s 995 cfm

## Hydraulic system

Hydraulic oil cooler

- Max ambient temperature ..... 50°C 122°F

Pumps

- Axial piston pump (1) ..... 248 l/min 50 US gal/min
- Gear pump (2) ..... 117 l/min 32 US gal/min
- Gear pump (3) ..... 63 l/min 16.6 US gal/min
- Gear pump (4) ..... 39 l/min 10.3 US gal/min
- Gear pump (5) ..... 37 l/min 9.8 US gal/min
- Gear pump (6) ..... 37 l/min 9.8 US gal/min

Return and drainage filters (2 x 3 filters)

- Filtration rate ..... 20 µm absolute

## Electrical system

- Voltage ..... 24 V
- Batteries ..... 2 x 12 V, 235 Ah
- Alternator ..... 28 V, 95 Ah
- Work lights, front ..... 4 x 70 W
- Work lights, rear ..... 2 x 70 W
- Warning lamp and reverse buzzer
- Work lights, feed ..... 2 x 70 W

## Volumes

- Hydraulic oil tank ..... 380 l 100 US gal
- Hydraulic system, total ..... 470 l 124 US gal
- Compressor oil ..... 63 l 12 US gal
- Diesel engine oil ..... 42 l 11 US gal
- Diesel engine, cooling water ..... 68 l 18 US gal
- Diesel engine, fuel tank ..... 760/1050 l 201/277 US gal
- Traction gear ..... 3 l 0.8 US gal
- Lubrication tank (HECL) ..... 20 l 5.3 US gal

## Air conditioner

- Refrigerant ..... R134a
- Cooling capacity ..... 5,5 kW
- Fan suction capacity ..... 125 l/s 265 cfm

## Rotary head

Rotary head	Connection thread	Max rpm	Max torque, drilling		Max torque, breaking		Suitable for DTH-hammer
			Nm	lbf	Nm	lbf	
DHR6 H 45	API 2 3/8" REG, box	137	1839	1356	1916	1413	COP 44 (COP 54)
DHR6 H 56	API 3 1/2" REG, box	107	2353	1735	2452	1809	COP 54, COP 64
DHR6 H 68	API 3 1/2" REG, box	68	3677	2712	3831	2818	COP 64
DHR6 H 78	API 3 1/2" REG, box	42	4633	3417	6034	4450	COP 64
DHR6 H68 RC	Metzke long pin, male	68	3677	2712	3831	2818	RC hammers
DHR6 H78 RC	Metzke long pin, male	42	4633	3417	6034	4450	RC hammers

## Down-the-hole hammer (to be ordered separately)

Down-the-hole hammer	Hole range		Top sub thread	Weight		Length excl thread	
	mm	in		kg	lbf	mm	in
COP 44	110-130	4 5/16 - 5 1/8	API 2 3/8" REG pin	38	84	958	37,72
COP 54 GE	134-152	5 1/4 - 6	API 2 7/8" REG pin	66	145	1119	44,1
			API 3 1/2" REG pin	76 HD	167 HD		
COP 64 Gold	156-178	6 1/8 - 7	API 3 1/2" REG pin	96	212	1163	45,78
	165-203	6 1/2 - 8		109 HD	241 HD		

HD = Heavy duty

# Transport dimensions

FlexiROC D60 and D65

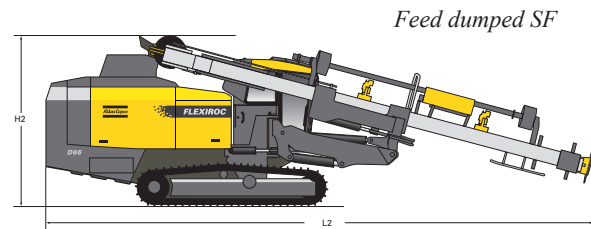
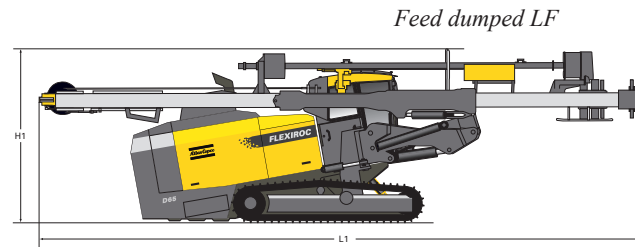
## Height and length

### Long Feed (LF) dumped

Height (H1)	3 500 mm	11' 6"
Length (L1)	11 700 mm	38' 5"

### Short Feed (SF) dumped

Height (H2)	3 350 mm	11'
Length (L2)	10 700 mm	35' 1"

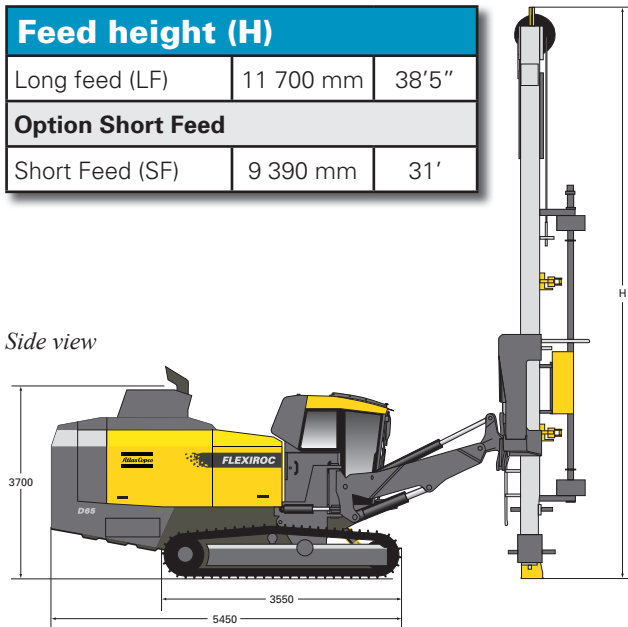


# Dimensions and weight

## Feed height (H)

Long feed (LF)	11 700 mm	38'5"
<b>Option Short Feed</b>		
Short Feed (SF)	9 390 mm	31'

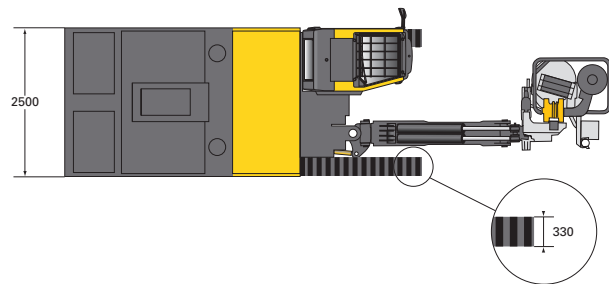
Side view



## Weight

Standard unit excluding all options and drill steel

Long feed (LF)	22 600 kg	49 800 lb
Short Feed (SF)	22 200 kg	48 950 lb



# Selection of optional equipment

## Carrier

- Hydraulic support leg
- Service hand lights inside canopy
- Protection hand rails on top of canopy
- Halogen work light pointing to feed support, transport position
- Xenon work lights, 2 pcs on top of canopy pointing forward and 2 pcs on top of canopy pointing to the rear
- Combined warning sound and warning light, beacon type
- Reverse camera
- Automatic fire extinguisher, P21M, type Ansul, manually activated
- Automatic fire extinguisher, P21EAM, type Ansul, automatically activated
- Tropical ambient kit for 55° ambient temperature
- Electric pump for filling hydraulic oil

- Electric fuel filling pump
- Fast fuel filling system
- Cold weather kit +5° C to -25° C, including diesel engine heater
- Cold weather kit -25° C and below, including diesel engine heater and ether start
- ProCom satellite based drill rig monitoring system (only in combination with a written service agreement)

## Safety cabin

- Clear laminated glass (front and roof windows)
- Tinted toughened glass (side and rear windows)
- Sun shade kit
- Cab heating
- Electric heated operator's seat
- Radio/CD or Radio/DVD
- Reverse camera with cab mounted monitor. May also be

used for monitoring DVD

## Feed

- Toe hole drilling kit (FlexiROC D60 and FlexiROC D65 short feed)
- Service winch with jib boom mounted on the feed
- Wide feed foot
- Break out table pressure regulating kit

## Hole measuring systems

- Adding aiming unit function to standard instrument
- Adding aiming unit-, and laser receiver function to standard instrument
- GPS compass

## Lubrication and water mist system

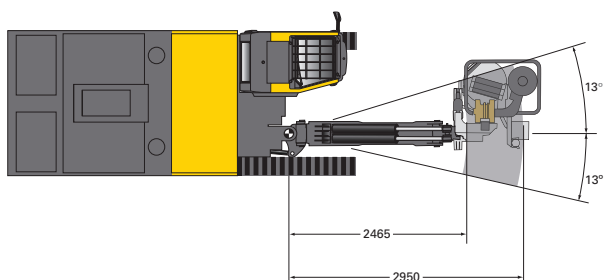
- Central lubrication system, type Lincoln

- Thread lubrication, spray system
- Artic hydraulic oil, VG 32
- Tropical hydraulic oil, VG 68
- Biological hydraulic oil, VG 46
- Water mist system, preplumbed for local mounted water tank
- Water mist system with water pump and 400 l water tank
- Water mist system, pressurized and with a 200 l water tank
- Water mist system, insulated for arctic conditions, with water pump and 400 l water tank

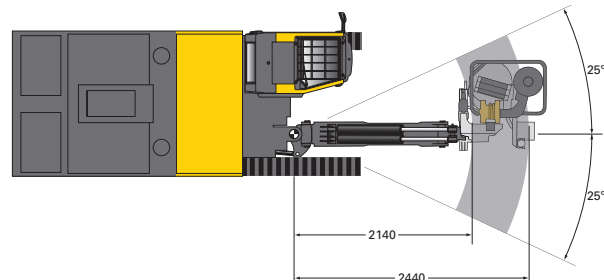
## Delivered equipment, not mounted

- First 50 hours service kit for compressor
- Tool kit for rotary head with fixed spindle sub
- Tool kit for rotary head with floating spindle sub

# Coverage areas

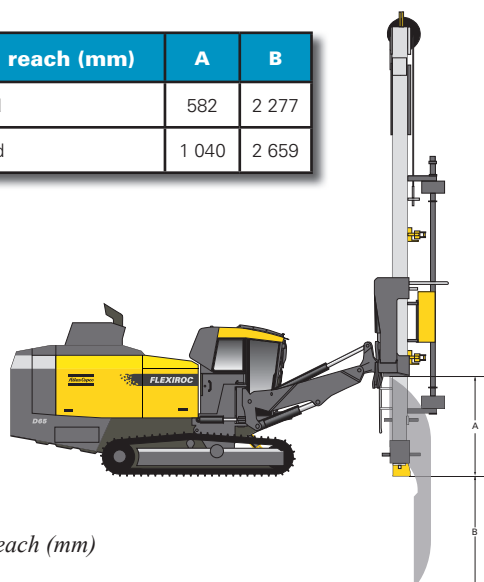


Horizontal reach (mm) with long feed

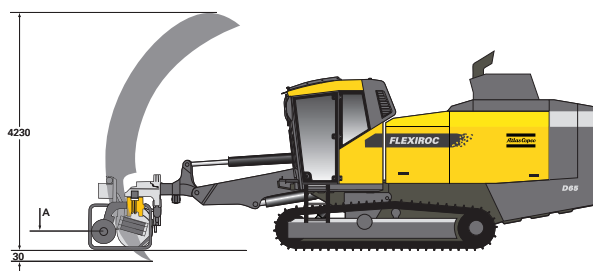


Horizontal reach (mm) with short feed

Vertical reach (mm)	A	B
Long Feed	582	2 277
Short Feed	1 040	2 659

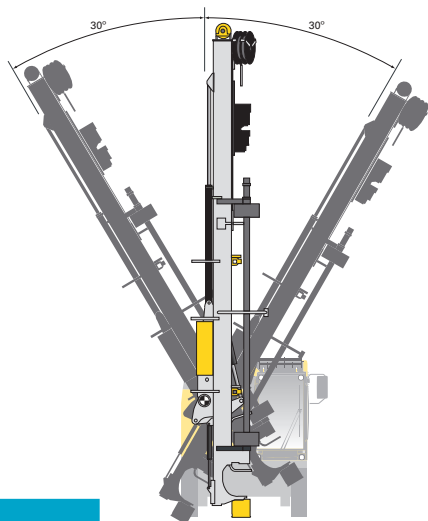


Vertical reach (mm)

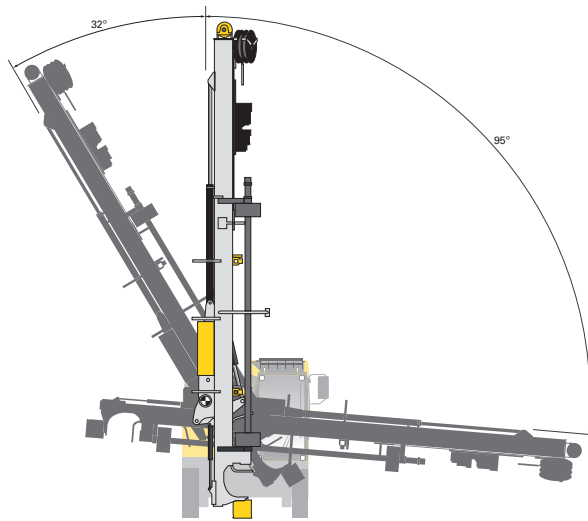


Toe-hole drilling reach for short feed

# Feed swing angles



Feed swing angles long feed



Feed with Toe-hole drilling kit for short feed



FlexiROC D60 and D65

© Copyright 2011, Atlas Copco Rock Drills AB, Örebro, Sweden. All product names in this publication are trademarks of Atlas Copco. Any unauthorised use or copying of the contents or any part thereof is prohibited. This applies in particular to trademarks, model designations, part numbers and drawings. Illustrations and photos in this brochure may show equipment with optional extras. Specifications and equipment subject to change without notice. Consult your Atlas Copco Customer Center for specific information.

9851 2851 01  
Printed in Sweden 2011-10