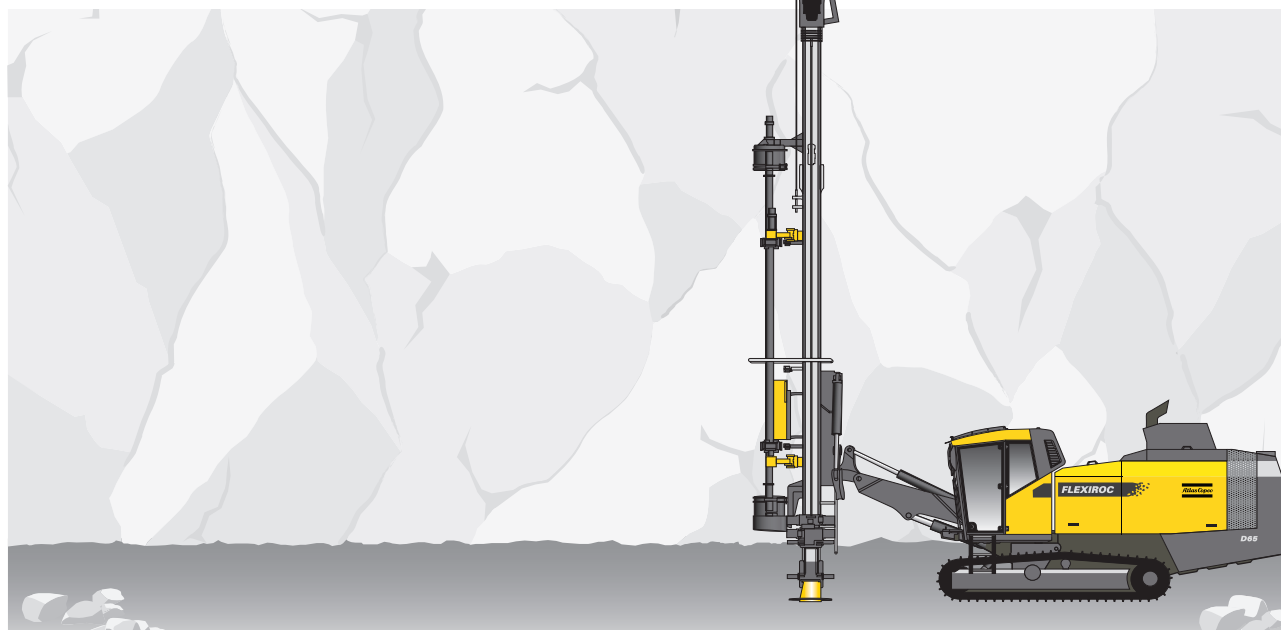


Atlas Copco Surface drill rigs

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			
Recommended hole range			
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"
Hydraulic tube handling system for max hole depth, with 5 m (16,4') tubes			
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'
Hydraulic tube handling system for max hole depth, with 6 m (20') tubes and a 7.5 m starter tube			
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'
Single pass drilling, max hole depth			
FlexiROC D60 and D65 Short Feed		5,4 m	18'
FlexiROC D60 and D65 Long Feed		7,5 m	25'

Atlas Copco

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 m² 344 ft²
- 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)

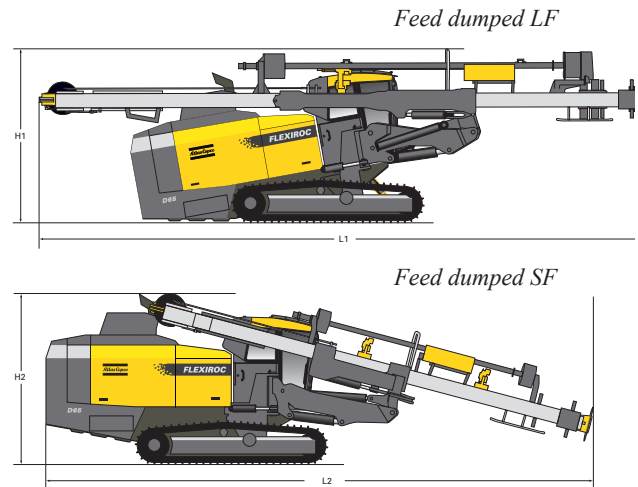
Down-the-hole hammer	Hole range		Top sub thread	Weight		Length excl thread	
	mm	in		kg	lbf	mm	in
COP 44	110-130	4 5/16 - 5 1/8	API 2 3/8" REG pin	38	84	958	37,72
COP 54 GE	134-152	5 1/4 - 6	API 2 7/8" REG pin	66	145	1119	44,1
			API 3 1/2" REG pin	76 HD	167 HD		
COP 64 Gold	156-178	6 1/8 - 7	API 3 1/2"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

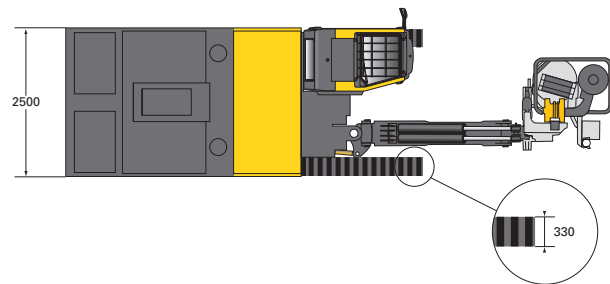
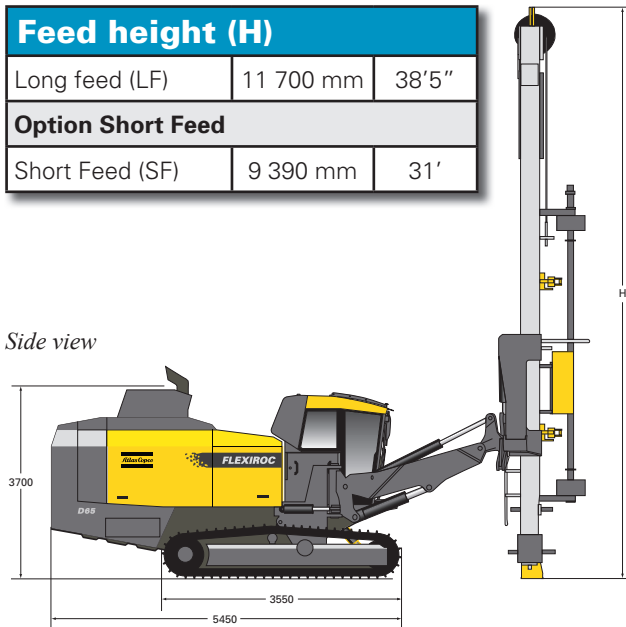


Dimensions and weight

Feed height (H)		
Long feed (LF)	11 700 mm	38'5"
Option Short Feed		
Short Feed (SF)	9 390 mm	31'

Weight		
<i>Standard unit excluding all options and drill steel</i>		
Long feed (LF)	22 600 kg	49 800 lb
Short Feed (SF)	22 200 kg	48 950 lb

Side view



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

lic 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

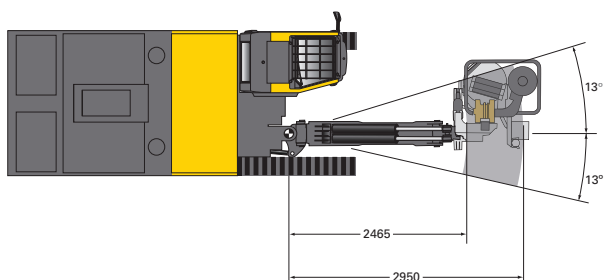
- Central lubrication system, type Lincoln

- 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

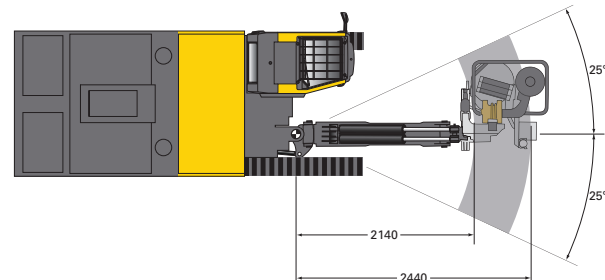
Delivered equipment, not mounted

- 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

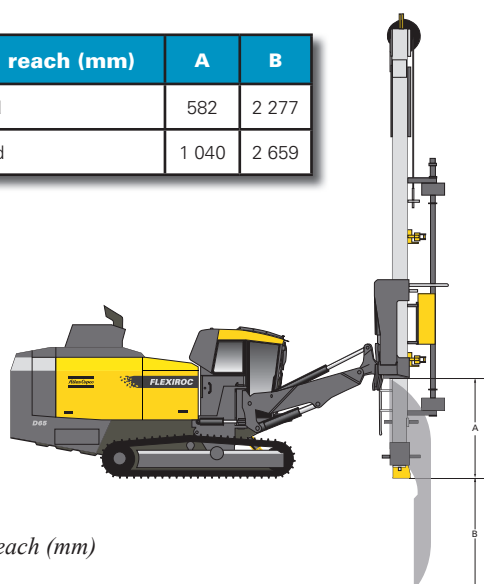


Horizontal reach (mm) with long feed



Horizontal reach (mm) with short feed

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

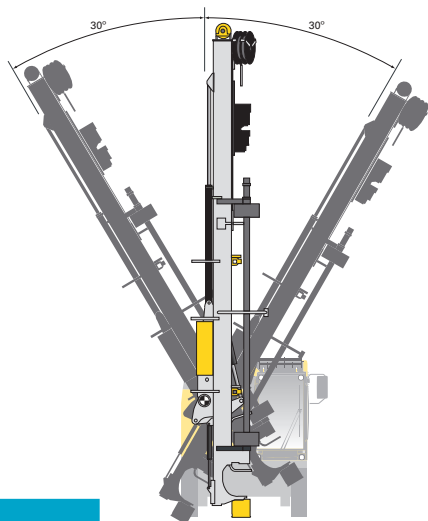


Vertical reach (mm)

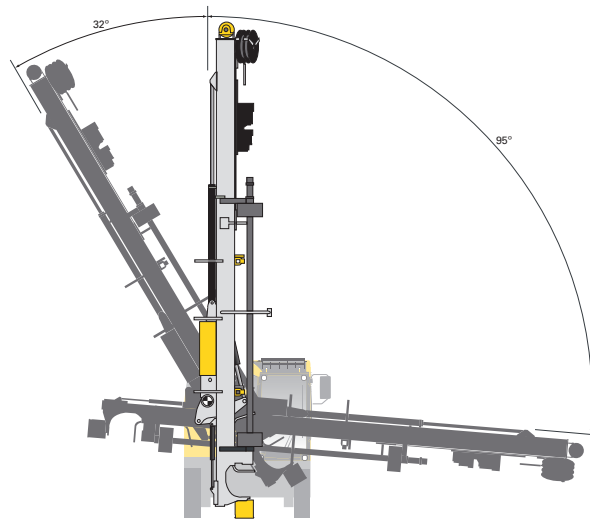


Toe-hole drilling reach for short feed

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 denominations, 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