



Groundwork

KR SERIES ROTARY DRILLING RIGS





KR SERIES ROTARY DRILLING RIGS

Groundwork supplies an extensive range of Challenger KR series Drilling Rigs. These powerful, high-performing drilling rigs are ideal for a range of civil construction projects. The KR Series come with reliable chassis and firm booms. Designed for dynamic and static reliability, these machines are also low noise and produce low emissions. Our various KR models are able to drill 24 to 62 metres deep with drill diameters ranging from 1000 to 2000 mm.

View our range of KR Series Rotary Drilling Rigs in this catalogue

AVAILABLE KR MODELS

MODEL	MAX.DRILLING DEPTH	MAX. DRILLING DIAMETER
KR220C	Detail	
KR125C	37m	1300mm
KR125M	37m	1300mm
KR90C	32m	1000mm
KR80A	22-28m	1000mm
KR40/50	10-24m	1200mm
KR60C	24m	1000mm
KR125ES	20m	1800mm
KR250ES	31.2m	2000mm
KR300ES	31.2m	2000mm

KR 60C

ROTARY DRILLING RIG

SPECIFICATIONS

Max. Torque:	60 kNm
Max. Drilling diameter:	1000 mm
Max. Drilling depth:	22m (4 node)/16m (3 node)
Speed of rotation:	8-30 rpm
Max. crowd pressure:	90 kN
Max. crowd pull:	100 kN
Main winch line pull:	80 kN
Main winch line speed:	70 m/min
Auxiliary winch line pull:	30 kN
Auxiliary winch line speed:	40 m/min
Stroke (crowd system):	3000 mm
Mast inclination (lateral):	±3°
Mast inclination (forward):	4°
Max. Hydraulic pressure:	35 MPa
Control hydraulic pressure:	4.1 MPa
Max. Travel speed:	3 km/h
Max. Traction force:	114 kN
Operating height:	11200 mm
Operating width:	2490 mm
Transport height:	3300 mm
Transport width:	2490 mm
Transport length:	9970 mm
Overall weight:	22t



SPECIFICATIONS - ENGINE

Model:	CAT3054CA
Form:	Water cooled Turbocharged
Cylinder number:	6(6 Cylinder in-line)
Cylinder diameter (mm):	6 x 102
Cylinder Stroke (mm):	130
Displacement:	4.4
Rated Power (Kw/rpm):	59/1800
Emission Standard:	EUII

KR 40

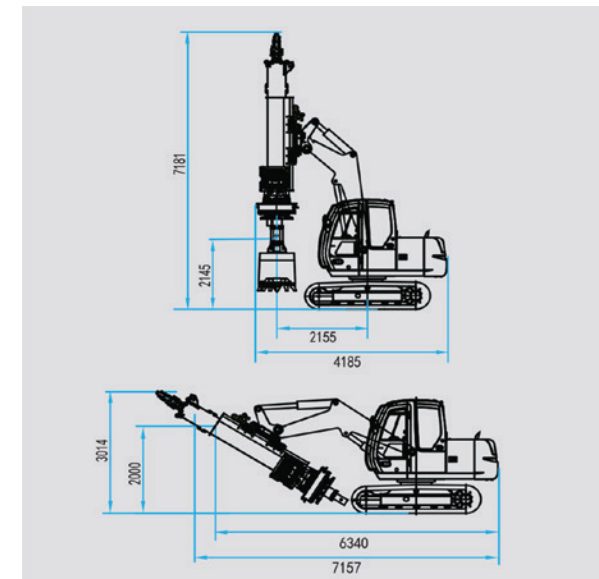
ROTARY DRILLING RIG

SPECIFICATIONS

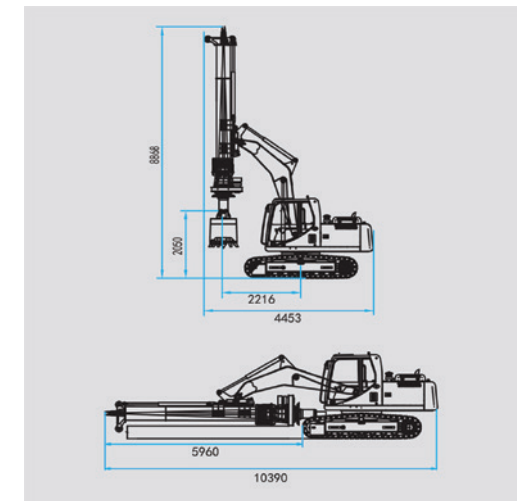
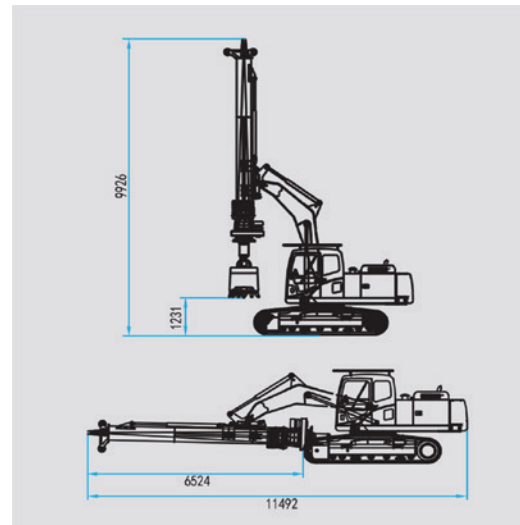
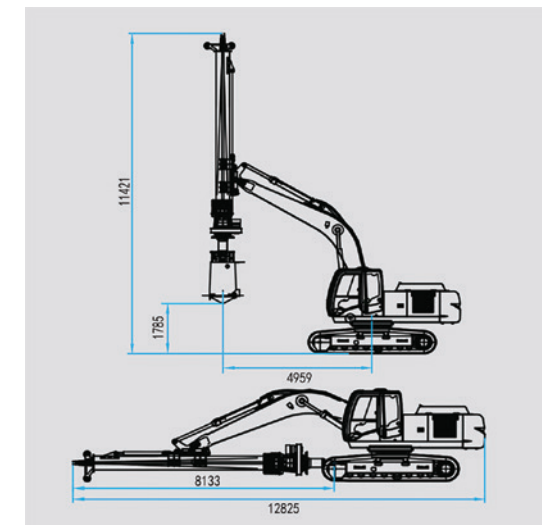
Excavator Size:	8-13 tonne
Max. Torque:	32/42 kNm
Max. Drilling Diameter:	1200 mm
Max. Drilling Depth:	12 m
Max Cylinder Thrust:	70 KN
Max Cylinder Trip:	900 mm
Main Winch Pull Force:	45kN
Main Winch Speed:	30 m/min
Mast inclination (lateral):	±6°
Mast inclination (forward):	-30° ~ +60°
Working Speed	7 - 40 rpm
Min Radius of Gyration:	2750mm
Max Pilot Pressure:	31.5 MPa
Operating height:	7181 mm
Operating width:	2300 mm
Transport height:	3014 mm
Transport width:	2300mm
Transport length:	7157 mm
Transport weight:	5.4 tonne
Remark:	Restructured big arm



KR40 DIMENSIONS



KR 50 ROTARY DRILLING RIG


KR50 DIMENSIONS (16T)

KR50 DIMENSIONS (21T)

KR50 DIMENSIONS (30T)


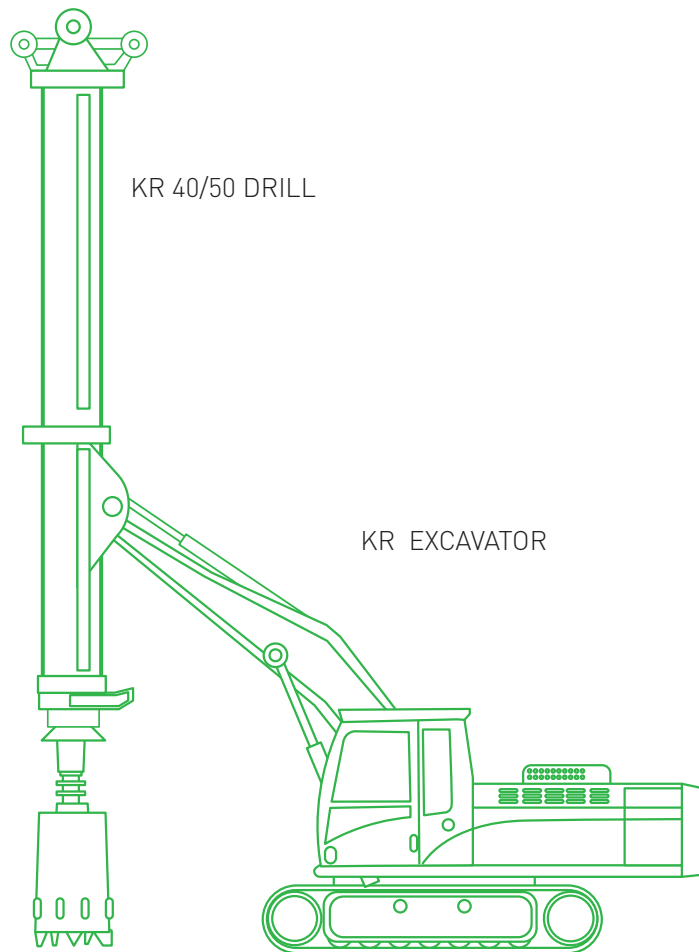
KR 50

ROTARY DRILLING RIG

SPECIFICATIONS

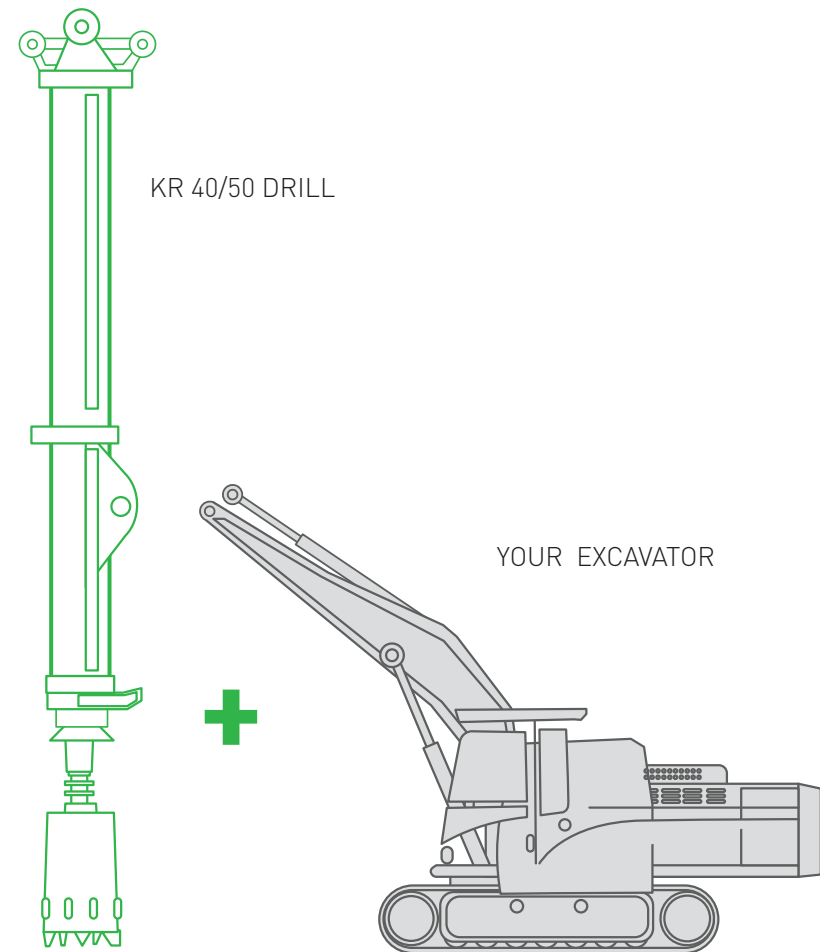
MODEL	KR50 (16)	KR50 (20)	KR50 (24)
Excavator Size:	14 - 16 tonne	20 - 23 tonne	24+ tonne
Max Torque:	50 kNm	50 kNm	50 kNm
Max Drilling Diameter:	1200 mm	1200 mm	1200 mm
Max Drilling Depth:	16 m	20 m	24 m
Max Cylinder Thrust:	70 kN	75 kN	75 kN
Max Cylinder Trip:	1100 mm	1100 mm	1100 mm
Main Winch Pull Force:	65 kN	65 kN	65 kN
Main Winch Speed:	48 m/min	48 m/min	48 m/min
Mast Inclination (Lateral):	±6 degrees	±6 degrees	±6 degrees
Mast Inclination (Forward):	-30° ~ +90°	-30° ~ +90°	-30° ~ +90°
Working Speed:	7 - 40 r/min	7 - 40 r/min	7 - 40 r/min
Min Radius of Gyration:	2800 mm	2950 mm	5360 mm
Max Pilot Pressure:	31.5 MPa	31.5 MPa	31.5 MPa
Operating Height:	8868 mm	9926 mm	11,421 mm
Operating Width:	2600 mm	2800 mm	3300 mm
Transport Height:	2731 mm	3150 mm	3311 mm
Transport Width:	2600 mm	2800 mm	3300 mm
Transport Length:	10,390 mm	11,492 mm	12,825 mm
Transport Weight:	6.1 tonne	6.5 tonne	7 tonne
Remark:	Restructured big arm	Restructured big arm	Original arm

KR 40 & KR 50 - OPTIONS ROTARY DRILLING RIG



KR 40/50 DRILL ATTACHMENT

GROUNDWORK can supply the KR drill with an excavator or supply a drill which can be attached to your existing excavator



KR90A

ROTARY DRILLING RIG

SPECIFICATIONS

Max. torque:	90 kN.m
Max. drilling diameter:	1000 mm
Max. drilling depth:	28 m(standard)/ 28m (optional)
Working speed:	6-30 rpm
Max. cylinder thrust:	90 kN
Max. hoist capacity:	120 kN
Main winch pull force:	80 kN
Main winch speed:	75 m/min
Auxiliary winch pull force:	50 kN
Auxiliary winch speed:	40 m/min
Max. cylinder stroke:	3500 mm
Mast side rakin:	±3°
Mast raking forward:	3°
Max. operating pressure:	34.3 MPa
Max. pilot pressure:	3.9 MPa
Max. moving speed:	2.8 km/h
Max. tractive force:	122 kN
Operating height:	12705 mm
Operating width:	2890 mm
Transport height:	3465 mm
Transport width:	2770 mm
Transport length:	11385 mm
Total weight:	24t



KELLY BAR

Type:	Interlocking
External diameter:	299mm
Layers*Length of each section	3 x 8
Depth:	28m

KR90A

ROTARY DRILLING RIG

SPECIFICATIONS - ENGINE

Model:	Cummins QSF3.8
Form:	High pressure common rail, electronic control direct injection
Cylinder number*cylinder diameter*stroke	4 x 107 x 124
Displacement (L)	3.8
Rated Power (kW/rpm)	84.3/2200
Max. Torque (Nm/rpm)	470
Emission standard	Tier 3

SPECIFICATIONS - ROTARY SYSTEM

Rotary Speed:	5hr/min
Brake Style	Pressure release, Machinery braking
Rotary Test Facility:	The patent technology of linkage type angular displacement output mechanism.



KR90C

ROTARY DRILLING RIG

SPECIFICATIONS

Max. Torque:	90kN.m
Max. Drilling diameter:	1000mm
Max. Drilling depth:	32m
Speed of rotation:	8-30rpm
Max. crowd pressure:	90kN
Max. crowd pull:	120kN
Main winch line pull:	90kN
Main winch line speed:	72m/min
Auxiliary winch line pull:	20kN
Auxiliary winch line speed:	40m/min
Stroke (crowd system):	3200mm
Mast inclination (lateral):	±3°
Mast inclination (forward):	3°
Max. Hydraulic pressure:	34.3MPa
Control hydraulic pressure:	3.9MPa
Max. Travel speed:	2.8km/h
Max. Traction force:	98kN
Operating height:	14660mm
Operating width:	2700mm
Transport height:	3355mm
Transport width:	2700mm
Transport length:	12270mm
Overall weight:	28t



SPECIFICATIONS - ENGINE

Model:	CAT C4.4
Form:	Water Cooled, 4 cylinder, turbocharged
Cylinder number*cylinder diameter * stroke	4 x 105 x 127
Displacement (L)	4.4
Rated Power (kW/rpm)	93/2200
Emission Standard	Tier 3

KR125M

ROTARY DRILLING RIG

SPECIFICATIONS

Max. Diameter:	1300 mm
Max. Drilling Depth:	37 m
Main Winch Line Pull:	120 kN
Main Winch Line Speed:	78 m/min
Max. Torque:	125 kN.m
Auxiliary Winch Line Pull:	60 kN
Auxiliary Winch Line Speed:	60 m/min
Mast Inclination (Lateral):	±3°
Mast Inclination (Forward):	3°
Max. Operating Pressure:	34.3 MPa
Pilot Pressure:	3.9 MPa
Travel Speed:	2.8 km/h
Traction Force:	204 kN
Operating Height:	14800 mm Rotary Drilling
Operating Width:	2990 mm
Transport Height:	3500 mm
Transport Width:	2990 mm
Transport Length:	13960 mm
Overall Weight:	35 t



SPECIFICATIONS - ENGINE

Max. Diameter:	CAT 3054CA
Max. Drilling Depth:	700 mm
Main Winch Line Pull:	15 m

KR125C

ROTARY DRILLING RIG

SPECIFICATIONS

Max Torque:	125 kN.m
Max Drilling Diameter:	1300 mm
Max Drilling Depth:	37 m (standard)/ 43 m (optional)
Speed of Rotation:	8 - 30 rpm
Max Crowd Pressure:	100 kN
Max Crowd Pull:	150 kN
Main Winch Line Pull:	110 kN
Main Winch Line Speed:	78 m/min
Auxilliary Winch Line Pull:	60 kN
Auxilliary Winch Line Speed:	60 m/min
Stroke (Crowd System):	3200 mm
Mast Inclination (Lateral):	± 3°
Mast Inclination (Forward):	3°
Max Hydraulic Pressure:	35 MPa
Control Hydraulic Pressure:	3.9 MPa
Max Travel Speed:	2.8 km/h
Max Traction Force:	205 kN
Operating Height:	15262 mm
Operating Width:	2980 mm
Transport Height:	3500 mm
Transport Width:	2980 mm
Transport Length:	13970 mm
Overall Weight:	36 t



SPECIFICATIONS - ENGINE

Model:	CAT - C6.4
Form:	Water Cooling, Turbocharger
Cylinder number:	6 (6 Cylinders in-line)
Cylinder Diameter x Stoke (mm)	102 x 130
Displacement (L)	6.4
Emission Standard	EUII

KR220C

ROTARY DRILLING RIG

SPECIFICATIONS

Max Torque:	220 kN.m
Max Drilling Diameter:	1800/2000 mm
Max Drilling Depth:	64m/51m
Working Speed:	6-28rpm
Max. hoist capacity:	220KN
Main Winch Pull Force:	230 kN
Main Winch Speed:	60 m/min
Auxilliary Winch Pull Force:	90kN
Auxilliary Winch Speed:	60 m/min
Max cylinder stroke:	5000 mm
Mast side raking:	± 5°
Mast raking forward:	5°
System Pressure:	35 MPa
Pilot Pressure:	4 MPa
Max Walking Speed:	2.2 km/h
Max Pull Force:	430 kN
Operating Height:	21082 mm
Operating Width:	4300 mm
Transport Height:	3360 mm
Transport Width:	3000 mm
Transport Length:	15300 mm
Overall Weight:	66 t



SPECIFICATIONS - ENGINE

Model:	CAT - 7.1
Form:	Water Cooled, 6 cylinder line, Turbocharged
Cylinder number *cylinder diameter * stroke:	6 x 112 x 140 mm
Displacement (L)	7.2
Emission Standard	EUIII

KR125ES (LOW HEADROOM) ROTARY DRILLING RIG

SPECIFICATIONS

Model:

Max Torque:	125 kN.m
Max Drilling Diameter:	1800mm
Max Drilling Depth:	20m
Working Speed:	8-30rpm
Max. cylinder pressure:	100 kN
Max. hoist capacity:	110 kN
Main Winch Pull Force:	110 kN
Main Winch Speed:	80 m/min
Auxilliary Winch Pull Force:	60kN
Auxilliary Winch Speed:	60 m/min
Max cylinder stroke:	2000 mm
Mast side raking:	± 3°
Mast raking forward:	3°
System Pressure:	34.3 MPa
Pilot Pressure:	3.9 MPa
Max Walking Speed:	3 km/h
Max Pull Force:	220 kN
Operating Height:	8000 mm
Operating Width:	3000 mm
Transport Height:	3425 mm
Transport Width:	3000 mm
Transport Length:	9761 mm
Overall Weight:	32 t



SPECIFICATIONS - ENGINE

Model:	Cummins QSB7
Form:	6 cylinder line, Turbocharged, air-to-air cooled, high-pressure common rail, electronic control direct injection
Cylinder number *cylinder diameter * stroke:	6 x 107 x 124 mm
Displacement (L)	6.7
Emission Standard	Tier 3

KR250ES (LOW HEADROOM) ROTARY DRILLING RIG

SPECIFICATIONS

Model:

Max Torque:	250 kN.m
Max Drilling Diameter:	2000mm
Max Drilling Depth:	31.2m
Working Speed:	6-26rpm
Max. cylinder pressure:	220 kN
Max. hoist capacity:	220 kN
Main Winch Pull Force:	230 kN
Main Winch Speed:	80 m/min
Auxilliary Winch Pull Force:	110kN
Auxilliary Winch Speed:	75 m/min
Max cylinder stroke:	2000 mm
Mast side raking:	± 5°
Mast raking forward:	5°
System Pressure:	35 MPa
Pilot Pressure:	3.9 MPa
Max Walking Speed:	1.5 km/h
Max Pull Force:	510 kN
Operating Height:	10915 mm
Operating Width:	4300 mm
Transport Height:	3395 mm
Transport Width:	3000 mm
Transport Length:	10645 mm
Overall Weight:	69 t



SPECIFICATIONS - ENGINE

Model:	QSL9
Form:	6 cylinder line, Turbocharged, water cooled
Cylinder number *cylinder diameter * stroke:	6 x 114 x 145 mm
Displacement (L)	8.9
Emission Standard	EUIII

KR300ES (LOW HEADROOM) ROTARY DRILLING RIG

SPECIFICATIONS

Model:

Max Torque:	320 kN.m
Max Drilling Diameter:	2000mm
Max Drilling Depth:	31.2m
Working Speed:	6-26rpm
Max. cylinder pressure:	220 kN
Max. hoist capacity:	220 kN
Main Winch Pull Force:	230 kN
Main Winch Speed:	66 m/min
Auxilliary Winch Pull Force:	110kN
Auxilliary Winch Speed:	70 m/min
Max cylinder stroke:	2000 mm
Mast side raking:	± 5°
Mast raking forward:	5°
System Pressure:	34.3 MPa
Pilot Pressure:	3.9 MPa
Rotatiing Speed:	5rpm
Max Walking Speed:	1.5 km/h
Max Pull Force:	560 kN
Operating Height:	11087 mm
Operating Width:	4300 mm
Transport Height:	3590 mm
Transport Width:	3000 mm
Transport Length:	10651 mm
Overall Weight:	76 t



SPECIFICATIONS - ENGINE

Model:	Cummins
Form:	6 cylinder line, Turbocharged, water cooled, air to air cooled
Cylinder number *cylinder diameter * stroke:	6 x 125 x 147mm
Rated Power	10.8L
Emission Standard	EUIII