www.sanyglobal.com

Quality Changes the World

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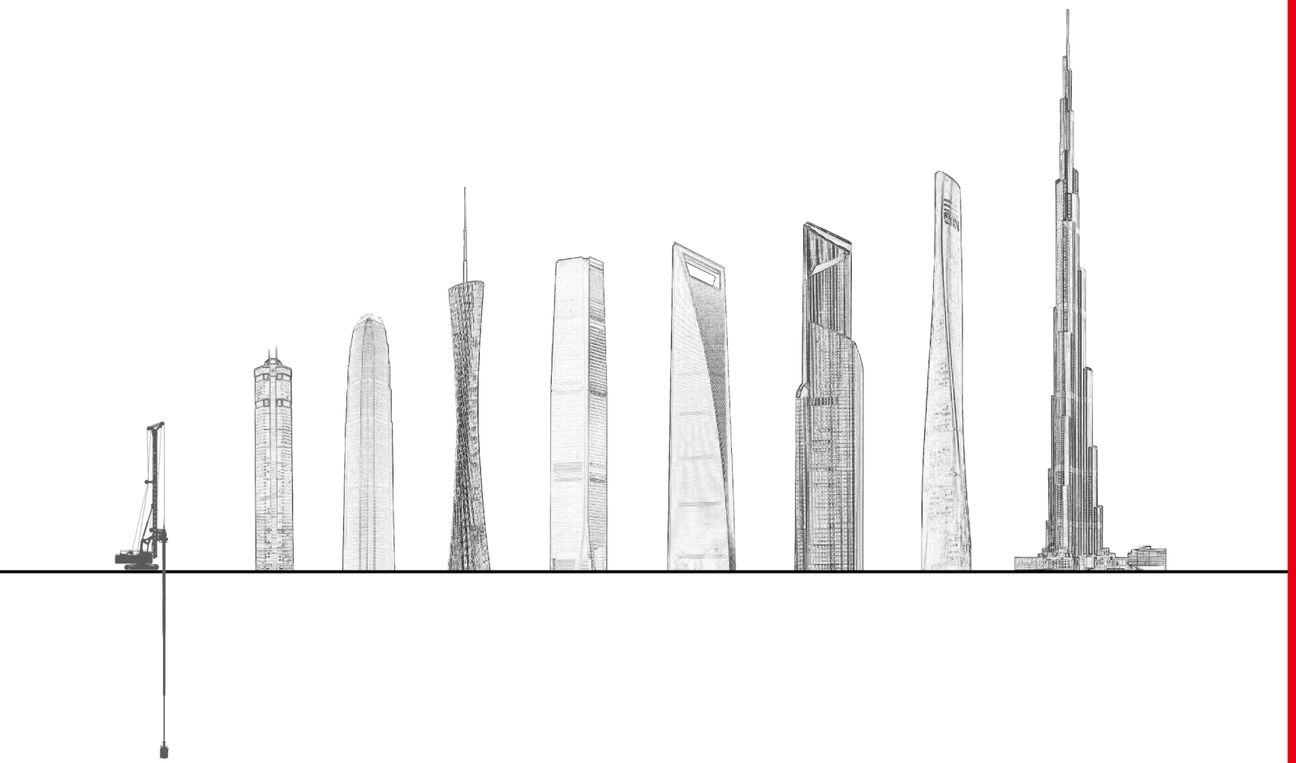
SANY

PILING MACHINERY PRODUCTS COLLECTION

CIO

SANY HEAVY INDUSTRY CO., LTD.

The world's height is determined by our drilling depth



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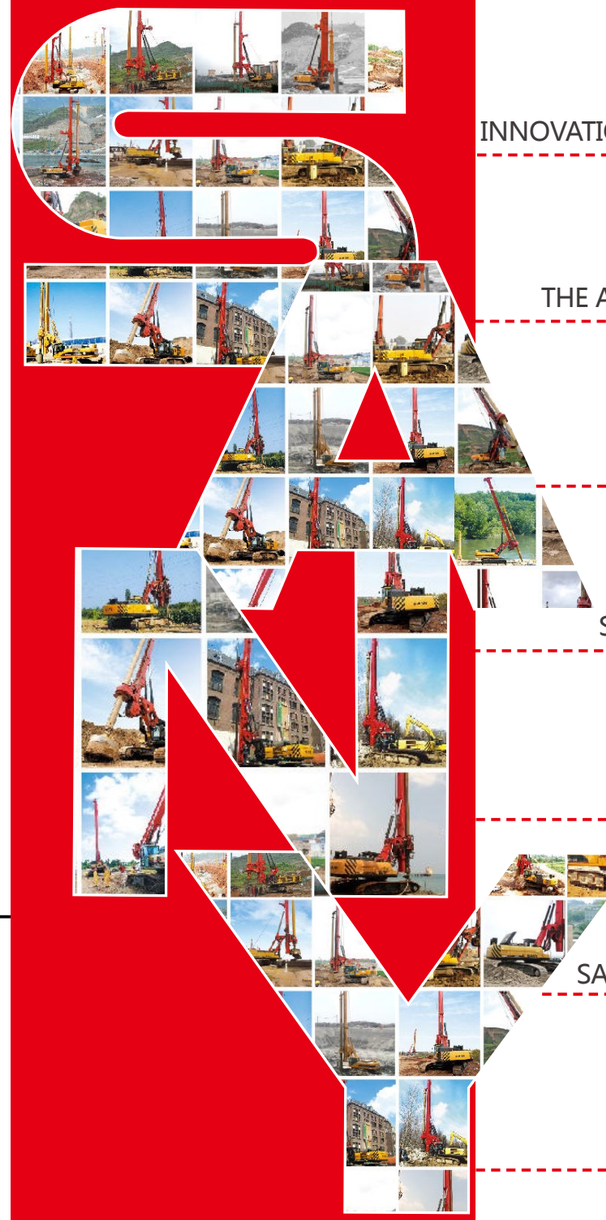


INNOVATION HISTORY OF SANY PILING MACHINERY

As a subsidiary corporation of Sany Group, Beijing Sany Heavy Machinery Co,. Ltd. has always been focusing on the design, manufacturing, sales and service of foundation construction equipment. The main products are rotary drilling rig, diaphragm wall grab, electro-hydraulic pile driver and tunnel boring equipment which cover the whole area of pile foundation, pit supporting and underground construction. With the principle of Quality Changes the World, Beijing Sany has always been dedicating to providing the professional total solution of foundation construction to global customers.

2003

The first Sany rotary drilling rig SYR220 was born.

2005

Beijing Sany passed ISO 9001 and CE certifications and became the first Chinese rotary drilling rig manufacturer to obtain such certifications.

2007

The first winch crowded rotary drilling rig in China SR220R was born.

2008

SR360 with the largest torque in Asia was developed by our own technology.

2009

The successful developing of SR420 rotary drilling rig manufacturing in China.

2011

The largest rotary drilling rig in Asia SR460 rolled off the production line. Sany was awarded Customer Satisfaction in the First by China Quality Association.

2012

SR280LHII broadened the new horizons.

2013

SANY kelly bar product line was awarded FOUR STARS by China Quality Association.

2014

C8 series comes to the market grandly and sets the new benchmark with its high quality and strong drilling ability.

2015

The Aisa biggst Rotary Drilling Rig SR630 was born in Beijing Sany Plant.

2016

Official launch new C10 series rotary drilling rig, led the industry with innovative technology, high quality, and create legends again

2017

Greater glories are to be created by C10....

★★★★★

THE WORLD MOST ADVANCED AND INTELLIGENT PRODUCTION LINE FOR PILING MACHINERY

No.1 workshop of Nankou Industrial Park is an important part of Beijing Sany Manufacturing Center. The production area is 80,000 square metres, and the total investment is 230 million USD. By the end of 2011, it had achieved the capacity of manufacturing 1500 rotary drilling rigs per year. It has a modern production line with greatest output and highest level of automation.

0.1 CLOOS robot

Repositioning and flip precision reaches 0.1mm Arc automatic tracking system≤1mm

±0.2 Open groove robot

Steel laser cutting precision:±0.2mm

1 The first Kelly bar robot automatic production line

CONSTRUCTION METHOD

We provide not only a machine, but also the unique technical support on construction method

Technical support of construction method

According to geological report and construction requirements, we provide customers with total solution which includes equipment configuration, cost analysis and construction management. In the respects of construction plan design, on-site technical guidance and customers' special requirements, etc, customers who buy our products will buy the rest assured and will be free from worry in future use.

Solving various problems

If you have encountered such problems as hard rock unable to drill, hole collapse on soft ground, oversized hole, eccentric hole-drilling, sediment too thick?
Sany technical support team on construction method will provide you with technical support and on-site guidance for free.

New standard, new construction method and new equipment research

Participate in making GB Rotary Drilling Rig, GB General Regulations of Rotary Drilling Rig Construction and Rotary Drilling Rig Telescopic Kelly Bar; Research on all-casing construction method, secant piling construction method, mud purification, developing special drilling tool, etc. All these will help you on construction, expanding construction range, increasing construction efficiency and profits.

C10

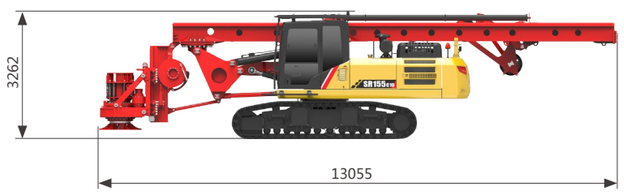
Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	1,500	
Max. pile depth	m	56/44	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	155	
Speed of rotation	rpm	5~35	
Crowd system			
Crowd force	kN	155	
Line pull	kN	160	
Stroke	mm	4,200	
Main winch			
Line pull	kN	160	
Rope diameter	mm	26	
Max. line speed	m/min	80	
Auxiliary winch			
Line pull	kN	60	
Rope diameter	mm	14	
Max. line speed	m/min	75	
Mast inclination			
Forward/backward	°	5/90	
Lateral	°	±3	
Main Chassis			
Base engine		Mitsubishi D06FRC-TAA	
Engine power	kW/rpm	144/2,000	
Emission regulation		COM Ⅲ/R96	
Engine displacement	L	6.373	
Chassis length	mm	5,972	
Extended width	mm	4,100	
Track shoe width	mm	700	
Swing radius	mm	3,717	backside
Overall machine			
Overall height	mm	18,592	
Operating weight	t	46	with a standard kelly and the largest bucket
Transport width	mm	3,140	
Transport height	mm	3,262	

Configuration table	Option		Option		Option
MAST SYSTEM :		Crowd force measuring	●	Radio	●
Mast verticality measuring	●	**ROTARY DRIVE :**		Gradienter	●
Mast sideward limits	●	Rotating speed measuring	●	Anemometer	○
Boom working range measuring	●	Torque measuring	●	Caution light	○
Cab anticollision protection	●	Multi-gear control system	●	**OPERATION SYSTEM :**	
MAIN WINCH :		**MAIN CHASSIS :**		10-inch touch screen	●
Overload measuring	●	Oil pressure measuring device	●	SANY-ADMS control system	●
Ground touching protection	●	All-directional lighting system	●	E-Pad	●
Freewheel control	●	Slew angle measuring	●	Central test point	●
Fast lowering	●	Emergency stop switch	●	Fault self-diagnosis system	●
Camera monitoring system	●	Slew siren	●	Intelligent construction manag-	
Speed measuring	●	Diesel-electric pump	●	ement system	●
Depth measuring	●	Auto idle model	●	All-directional camera monitor-	
Upper limit protection function	●	Low temperature preheat unit	○	ing system	●
AUXILIARY WINCH :		Integrated overload protection	●	Digital simulation animation	●
Upper limit protection function	●	Casing driver	○	Auto/manual mast verticality-	
CROWD SYSTEM :		Air-conditioner	●	adjusting	●
Cylinder crowd system	●				

● Standard ○ Optional

■ Working dimensions

■ Lowering the mast dimensions



■ Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ377×4×12		6,000	44
Φ377×5×12	★	5,700	56

Inter-locking kelly		Weight(kg)	Depth(m)
Φ377×4×10		5,900	36
Φ377×4×11		6,000	40
Φ377×4×12	●	6,500	44

● Standard ★ Recommended equipment

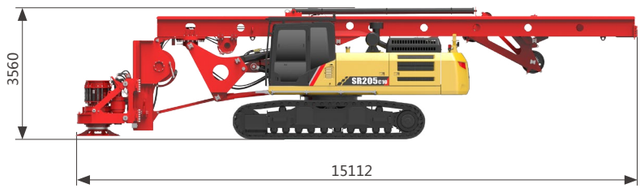
Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	1800	
Max. pile depth	m	64/51	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	205	
Speed of rotation	rpm	5~30	
Crowd system			
Crowd force	kN	165	
Line pull	kN	160	
Stroke	mm	4,200	
Main winch			
Line pull	kN	185	
Rope diameter	mm	28	
Max. line speed	m/min	75	
Auxiliary winch			
Line pull	kN	60	
Rope diameter	mm	14	
Max. line speed	m/min	75	
Mast inclination			
Forward/backward	°	5/90	
Lateral	°	±3	
Main Chassis			
Base engine		ISUZU AH-6HK1X	
Engine power	kW/rpm	212/2,000	
Emission regulation		COM Ⅲ/R96	
Engine displacement	L	7.79	
Chassis length	mm	6,377	
Extended width	mm	4,180	
Track shoe width	mm	700	
Swing radius	mm	3,805	backside
Overall machine			
Overall height	mm	21,042	
Operating weight	t	63	with a standard kelly and the largest bucket
Transport width	mm	3,212	
Transport height	mm	3,560	

Configuration table	Option		Option		Option
MAST SYSTEM :		Crowd force measuring	●	Gradienter	●
Mast verticality measuring	●	**ROTARY DRIVE :**		Anemometer	○
Mast sideward limits	●	Rotating speed measuring	●	Caution light	○
Boom working range measuring	●	Torque measuring	●	**OPERATION SYSTEM :**	
Cab anticollision protection	●	Multi-gear control system	●	10-inch touch screen	●
MAIN WINCH :		**MAIN CHASSIS :**		SANY-ADMS control system	●
Overload measuring	●	Oil pressure measuring device	●	E-Pad	●
Ground touching protection	●	All-directional lighting system	●	Central test point	●
Freewheel control	●	Slew angle measuring	●	Fault self-diagnosis system	●
Fast lowering	●	Emergency stop switch	●	Intelligent construction manag-	
Camera monitoring system	●	Slew siren	●	ement system	●
Speed measuring	●	Diesel-electric pump	●	All-directional camera monitor-	
Depth measuring	●	Auto idle model	●	ing system	●
Upper limit protection function	●	Low temperature preheat unit	○	Digital simulation animation	●
AUXILIARY WINCH :		Integrated overload protection	●	Auto/manual mast verticality-	
Upper limit protection function	●	Casing driver	○	adjusting	●
CROWD SYSTEM :		Air-conditioner	●		
Cylinder crowd system	●	Radio	●		

● Standard ○ Optional

Working dimensions

Lowering the mast dimensions



Type of kelly bar

Friction kelly	Weight(kg)	Depth(m)
Φ406×5×14	8,600	64

Inter-locking kelly		Weight(kg)	Depth(m)
Φ406×4×13		8,300	47
Φ406×4×14	● ★	8,900	51

● Standard ★ Recommended equipment

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,000	2,300(specific)①
Max. pile depth	m	68/54	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	235	
Speed of rotation	rpm	5~26	
Crowd system			
Crowd force	kN	210	
Line pull	kN	215	
Stroke	mm	5,000	
Main winch			
Line pull	kN	235	
Rope diameter	mm	32	
Max. line speed	m/min	70	
Auxiliary winch			
Line pull	kN	80	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	5/90	
Lateral	°	±3	
Main Chassis			
Base engine		ISUZU AH-6UZ1X	
Engine power	kW/rpm	257/2,000	
Emission regulation		COM Ⅲ/R96	
Engine displacement	L	9.84	
Chassis length	mm	7,265	
Extended width	mm	4,500	
Track shoe width	mm	800	
Swing radius	mm	4,360	backside
Overall machine			
Overall height	mm	22,872	
Operating weight	t	81	with a standard kelly and the largest bucket
Transport width	mm	3,542	
Transport height	mm	3,661	

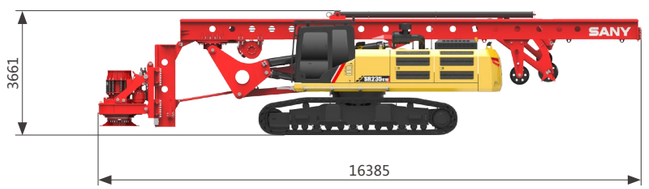
Note： ①remove the lower mast, please contact Sany for kelly model.

Configuration table	Option		Option		Option
MAST SYSTEM：		Cylinder crowd system	●	Radio	●
Mast verticality measuring	●	Crowd force measuring	●	Gradienter	●
Mast sideward limits	●	**ROTARY DRIVE ：**		Anemometer	○
Boom working range measuring	●	Torque measuring	●	Caution light	○
Cab anticollision protection	●	Multi-gear control system	●	**OPERATION SYSTEM：**	
MAIN WINCH：		**MAIN CHASSIS：**		10-inch touch screen	●
Overload measuring	●	Oil pressure measuring device	●	SANY-ADMS control system	●
Ground touching protection	●	All-directional lighting system	●	E-Pad	●
Freewheel control	●	Slew angle measuring	●	Central test point	●
Fast lowering	●	Emergency stop switch	●	Fault self-diagnosis system	●
Camera monitoring system	●	Slew siren	●	Intelligent construction manag-	
Speed measuring	●	Diesel-electric pump	●	ement system	●
Depth measuring	●	Auto idle model	●	All-directional camera monitor-	
Upper limit protection function	●	Low temperature preheat unit	○	ing system	●
AUXILIARY WINCH：		Integrated overload protection	●	Digital simulation animation	●
Upper limit protection function	●	Casing driver	○	Auto/manual mast verticality-	
CROWD SYSTEM：		Air-conditioner	●	adjusting	●

● Standard ○ Optional

■ Working dimensions

■ Lowering the mast dimensions



■ Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ445×5×13	★	9,600	58
Φ445×5×14		10,300	63
Φ445×5×15		10,900	68

Inter-locking kelly		Weight(kg)	Depth(m)
Φ445×3×15		10,300	40
Φ445×4×12		9,300	42
Φ445×4×13	★	8,100	46
Φ445×4×14	★	10,600	50
Φ445×4×15	●	11,300	54

● Standard ★ Recommended equipment
★ Equipped with the maximum length kelly bar for 4m casing

C10

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,200	2,500(specific)①
Max. pile depth	m	73/58	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	265	
Speed of rotation	rpm	5~25	
Crowd system			
Crowd force	kN	230	
Line pull	kN	210	
Stroke	mm	5,000	
Main winch			
Line pull	kN	275	
Rope diameter	mm	32	
Max. line speed	m/min	80	
Auxiliary winch			
Line pull	kN	80	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	5/90	
Lateral	°	±3	
Main Chassis			
Base engine		ISUZU AH-6UZ1X	
Engine power	kW/rpm	257/2,000	
Emission regulation		COMⅢ/R96	
Engine displacement	L	9.84	
Chassis length	mm	7,265	
Extended width	mm	4,500	
Track shoe width	mm	800	
Swing radius	mm	4,360	backside
Overall machine			
Overall height	mm	23,870	
Operating weight	t	85	with a standard kelly and the largest bucket
Transport width	mm	3,542	
Transport height	mm	3,686	

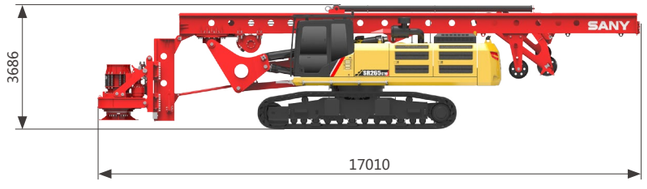
Note： ①remove the lower mast, please contact Sany for kelly model.

Configuration table	Option		Option		Option
MAST SYSTEM：		Cylinder crowd system	●	Radio	●
Mast verticality measuring	●	Crowd force measuring	●	Gradienter	●
Mast sideward limits	●	ROTARY DRIVE：		Anemometer	○
Boom working range measuring	●	Torque measuring	●	Caution light	○
Cab anticollision protection	●	Multi-gear control system	●	OPERATION SYSTEM：	
MAIN WINCH：		MAIN CHASSIS：		10-inch touch screen	●
Overload measuring	●	Oil pressure measuring device	●	SANY-ADMS control system	●
Ground touching protection	●	All-directional lighting system	●	E-Pad	●
Freewheel control	●	Slew angle measuring	●	Central test point	●
Fast lowering	●	Emergency stop switch	●	Fault self-diagnosis system	●
Camera monitoring system	●	Slew siren	●	Intelligent construction manag-	
Speed measuring	●	Diesel-electric pump	●	ement system	●
Depth measuring	●	Auto idle model	●	All-directional camera monitor-	
Upper limit protection function	●	Low temperature preheat unit	○	ing system	●
AUXILIARY WINCH：		Integrated overload protection	●	Digital simulation animation	●
Upper limit protection function	●	Casing driver	○	Auto/manual mast verticality-	
CROWD SYSTEM：		Air-conditioner	●	adjusting	●

● Standard ○ Optional

■ Working dimensions

■ Lowering the mast dimensions



■ Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ445×5×13		9,600	58
Φ445×5×14	★	10,300	63
Φ445×5×15		10,900	68
Φ445×5×16		11,700	73

Inter-locking kelly		Weight(kg)	Depth(m)
Φ445×3×15		10,300	40
Φ445×4×13		8,100	46
Φ445×4×14	★	10,600	50
Φ445×4×15	★	11,300	54
Φ445×4×16	●	12,000	58

● Standard ★ Recommended equipment
★ Equipped with the maximum length kelly bar for 4m casing

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,300	2,500(specific)①
Max. pile depth	m	94/61	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	285	
Speed of rotation	rpm	5~23	
Crowd system			
Crowd force	kN	260	
Line pull	kN	253	
Stroke	mm	6000	
Main winch			
Line pull	kN	330	
Rope diameter	mm	36	
Max. line speed	m/min	72	
Auxiliary winch			
Line pull	kN	90	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	5/90	
Lateral	°	±4	
Main Chassis			
Base engine		ISUZU AH-6WG1X	
Engine power	kW/rpm	300/1,800	
Emission regulation		COMⅢ/R96	
Engine displacement	L	15.68	
Chassis length	mm	7,473	
Extended width	mm	4,700	
Track shoe width	mm	800	
Swing radius	mm	4,530	backside
Overall machine			
Overall height	mm	25,423	
Operating weight	t	100	with a standard kelly and the largest bucket
Transport width	mm	3,542	
Transport height	mm	3,706	

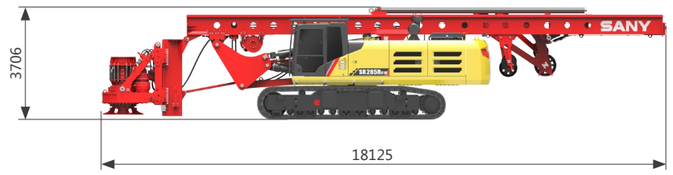
Note： ① remove the lower mast, please contact Sany for kelly model.

Configuration table	Option		Option		Option
MAST SYSTEM：		Cylinder crowd system	●	Air-conditioner	●
Mast verticality measuring	●	Crowd force measuring	●	Radio	●
Mast sideward limits	●	**ROTARY DRIVE：**		Gradienter	●
Masthead cylinder	●	Torque measuring	●	Anemometer	○
Boom working range measuring	●	Multi-gear control system	●	Caution light	○
Cab anticollision protection	●	**MAIN CHASSIS：**		**OPERATION SYSTEM：**	
MAIN WINCH：		Oil pressure measuring device	●	10-inch touch screen	●
Overload measuring	●	All-directional lighting system	●	SANY-ADMS control system	●
Ground touching protection	●	Slew angle measuring	●	E-Pad	●
Freewheel control	●	Emergency stop switch	●	Central test point	●
Fast lowering	●	Slew siren	●	Fault self-diagnosis system	●
Camera monitoring system	●	Diesel-electric pump	●	Intelligent construction manag-	
Speed measuring	●	Auto centralized lubricating-		ement system	●
Depth measuring	●	system	●	All-directional camera monitor-	
Upper limit protection function	●	Auto idle model	●	ing system	●
AUXILIARY WINCH：		Low temperature preheat unit	○	Digital simulation animation	●
Upper limit protection function	●	Integrated overload protection	●	Auto/manual mast verticality-	
CROWD SYSTEM：		Casing driver	○	adjusting	●

● Standard ○ Optional

■ Working dimensions

■ Lowering the mast dimensions



■ Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ508×6×12	★	12,000	61.5
Φ508×6×14		13,700	75.5
Φ508×6×15		14,600	81.5
Φ508×6×16		15,300	87.5
Φ508×6×17		15,900	94

Inter-locking kelly		Weight(kg)	Depth(m)
Φ508×3×15		13,900	40
Φ508×4×13	★	10,900	45
Φ508×4×14		11,700	49
Φ508×4×15		12,500	53
Φ508×4×16	★	13,100	57
Φ508×4×17	●	13,700	61

● Standard ★ Recommended equipment
★ Equipped with the maximum length kelly bar for 6m casing

C10

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,500	3,000(specific)①
Max. pile depth	m	106/69	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	360	
Speed of rotation	rpm	5~25	
Crowd system			
Crowd force	kN	290	
Line pull	kN	250	
Stroke	mm	6,000	
Main winch			
Line pull	kN	360	
Rope diameter	mm	36	
Max. line speed	m/min	75	
Auxiliary winch			
Line pull	kN	90	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	4/90	
Lateral	°	±4	
Main Chassis			
Base engine		ISUZU AH-6WG1X	
Engine power	kW/rpm	300/1,800	
Emission regulation		COMⅢ/R96	
Engine displacement	L	15.68	
Chassis length	mm	7,850	
Extended width	mm	4,840	
Track shoe width	mm	800	
Swing radius	mm	4,705	backside
Overall machine			
Overall height	mm	27,314	
Operating weight	t	114	with a standard kelly and the largest bucket
Transport width	mm	3,532	
Transport height	mm	3,744	

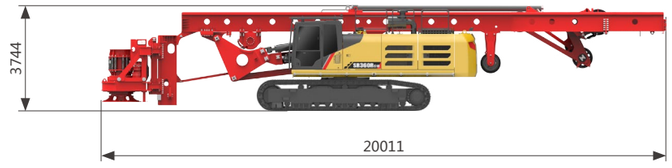
Note： ①remove the lower mast, please contact Sany for kelly model.

Configuration table	Option		Option		Option
MAST SYSTEM：		Crowd force measuring	●	Air-conditioner	●
Mast verticality measuring	●	ROTARY DRIVE：		Radio	●
Mast sideward limits	●	Rotating speed measuring	●	Gradienter	●
Masthead cylinder	●	Torque measuring	●	Anemometer	○
Boom working range measuring	●	Multi-gear control system	●	Caution light	○
Cab anticollision protection	●	MAIN CHASSIS：		OPERATION SYSTEM：	
MAIN WINCH：		Oil pressure measuring device	●	10-inch touch screen	●
Overload measuring	●	All-directional lighting system	●	SANY-ADMS control system	●
Ground touching protection	●	Slew angle measuring	●	E-Pad	●
Freewheel control	●	Emergency stop switch	●	Central test point	●
Fast lowering	●	Slew siren	●	Fault self-diagnosis system	●
Camera monitoring system	●	Diesel-electric pump	●	Intelligent construction manag-	
Speed measuring	●	Auto centralized lubricating-		ement system	●
Depth measuring	●	system	●	All-directional camera monitor-	
Upper limit protection function	●	Auto idle model	●	ing system	●
AUXILIARY WINCH：		Low temperature preheat unit	○	Digital simulation animation	●
Upper limit protection function	●	Integrated overload protection	●	Auto/manual mast verticality-	
CROWD SYSTEM：		Casing driver	○	adjusting	●
Cylinder crowd system	●				

● Standard ○ Optional

Working dimensions

Lowering the mast dimensions



Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ508×6×14		13,700	75.5
Φ508×6×15	★	14,600	81.5
Φ508×6×16		15,300	87.5
Φ508×6×17		15,900	94
Φ508×6×18		16,800	100
Φ508×6×19	Ⓢ	17,300	106

Inter-locking kelly		Weight(kg)	Depth(m)
Φ508×4×14		11,700	49
Φ508×4×15	★	12,500	53
Φ508×4×16		13,100	57
Φ508×4×17	★	13,700	61
Φ508×4×18	●	14,600	65
Φ508×4×19	Ⓢ	15,500	69

● Standard ★ Recommended equipment Ⓢ Please contact with Sany for special advice
★ Equipped with the maximum length kelly bar for 6m casing

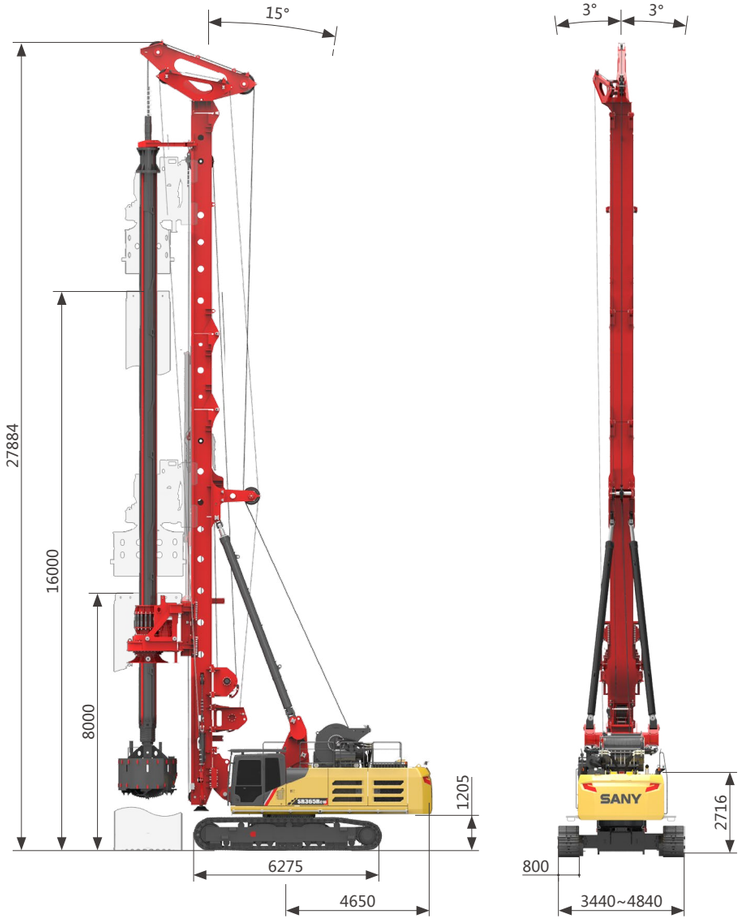
C10

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,500/2,100	winch crowd: none casing/casing
	mm	2,700/2,400	cylinder crowd: none casing/casing
Max. pile depth	m	106/69	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	365	
Speed of rotation	rpm	4~23	
Crowd system			
Crowd force	kN	320	
Line pull	kN	325	
Stroke	mm	9,000-18,000/6,000	half-full stroke/cylinder crowd
Main winch			
Line pull	kN	410	
Rope diameter	mm	36	
Max. line speed	m/min	75	
Auxiliary winch			
Line pull	kN	90	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	90/15	
Lateral	°	±3	
Main Chassis			
Base engine		ISUZU AH-6WG1X	
Engine power	kW/rpm	300/1,800	
Emission regulation		COM Ⅲ/R96	
Engine displacement	L	15.68	
Chassis length	mm	7,850	
Extended width	mm	4,840	
Track shoe width	mm	800	
Swing radius	mm	4,705	backside
Overall machine			
Overall height	mm	27,884	
Operating weight	t	127	with a standard kelly and the largest bucket
Transport width	mm	3,500	
Transport height	mm	3,576	

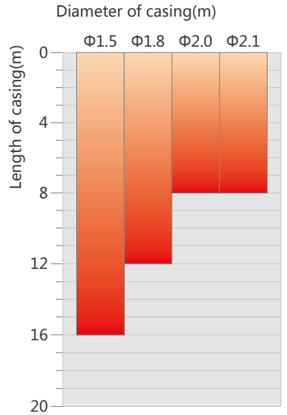
Configuration table	Option		Option		Option
MAST SYSTEM :		Crowd upper limit protection	●	Casing driver	○
Mast verticality measuring	●	Crowd force measuring	●	Air-conditioner	●
Mast sideward limits	●	**ROTARY DRIVE :**		Radio	●
Outrigger cylinder	●	Rotating speed measuring	●	Gradienter	●
Boom working range measuring	●	Torque measuring	●	Anemometer	○
Rigging & derigging mode	●	Crowd self-adaption function	●	Caution light	○
MAIN WINCH :		Multi-gear control system	●	**OPERATION SYSTEM :**	
Overload measuring	●	**MAIN CHASSIS :**		10-inch touch screen	●
Ground touching protection	●	Oil pressure measuring device	●	SANY-ADMS control system	●
Freewheel control	●	All-directional lighting system	●	E-Pad	●
Fast lowering	●	Slew angle measuring	●	Central test point	●
Camera monitoring system	●	Emergency stop switch	●	Fault self-diagnosis system	●
Speed measuring	●	Slew siren	●	Intelligent construction manag-	
Depth measuring	●	Diesel-electric pump	●	ement system	●
Upper limit protection function	●	Auto centralized lubricating-		All-directional camera monitor-	
AUXILIARY WINCH :		system	●	ing system	●
Upper limit protection function	●	Auto idle model	●	Digital simulation animation	●
CROWD SYSTEM :		Low temperature preheat unit	○	Auto/manual mast verticality-	
Crowd winch system	●	Integrated overload protection	●	adjusting	●
Tensioning cylinder	●				

● Standard ○ Optional

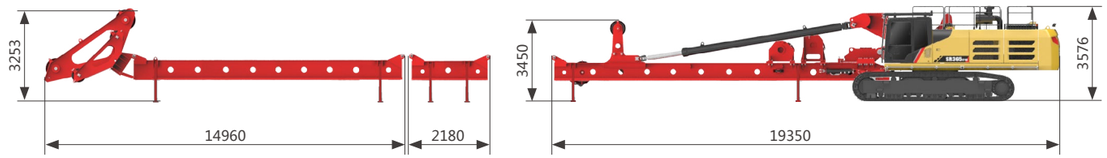
Working dimensions



Casing Parts



Unassembled state dimensions



Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ530×6×14		13,700	76
Φ530×6×15	★2	16,200	82
Φ530×6×16		16,900	88
Φ530×6×17		17,700	94
Φ530×6×18		18,400	100
Φ530×6×19	Ⓢ	19,100	106

Inter-locking kelly		重量kg	钻深m
Φ530×4×13	★1	12,800	49
Φ530×4×15	★2	14,400	53
Φ530×4×16		15,200	57
Φ530×4×17	★	16,100	61
Φ530×4×18	●	16,900	65
Φ530×4×19	Ⓢ	17,700	69

● Standard ★ Recommended equipment ★1 Equipped with the maximum length kelly bar for 6m casing
Ⓢ Please contact with Sany for special advice ★2 Equipped with the maximum length kelly bar for 8m casing

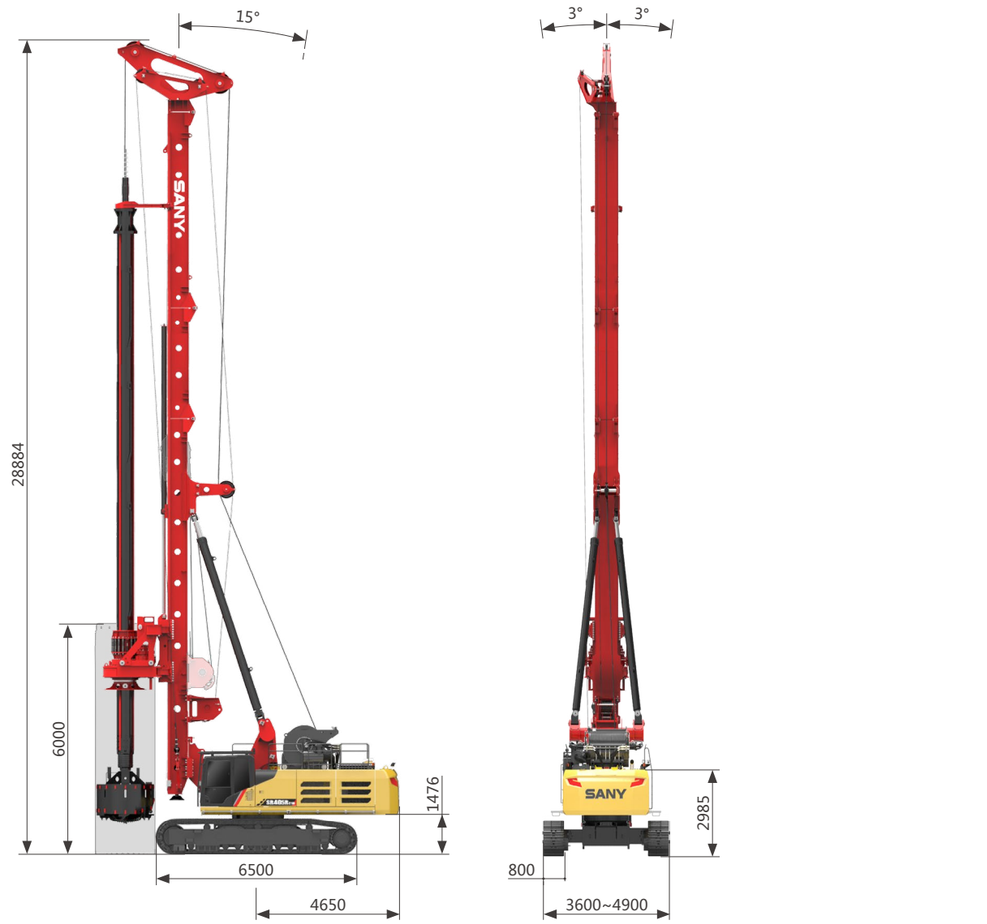
C10

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,500/2,800	winch crowd/cylinder crowd
Max. pile depth	m	112/73	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	405	
Speed of rotation	rpm	4~23	
Crowd system			
Crowd force	kN	350	
Line pull	kN	325	
Stroke	mm	9,000/6,000	winch crowd/cylinder crowd
Main winch			
Line pull	kN	437	
Rope diameter	mm	36	
Max. line speed	m/min	50	
Auxiliary winch			
Line pull	kN	90	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	90/15	
Lateral	°	±3	
Main Chassis			
Base engine		ISUZU AH-6WG1X	
Engine power	kW/rpm	377/1,800	
Emission regulation		COM Ⅲ/R96	
Engine displacement	L	15.68	
Chassis length	mm	7,908	
Extended width	mm	4,900	
Track shoe width	mm	800	
Swing radius	mm	4,650	backside
Overall machine			
Overall height	mm	28,884	
Operating weight	t	141	with a standard kelly and the largest bucket
Transport width	mm	3,600	
Transport height	mm	3,844	

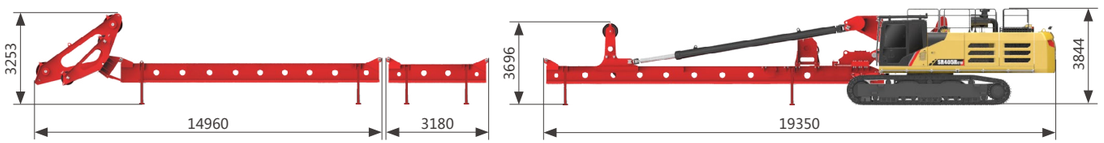
Configuration table	Option		Option		Option
MAST SYSTEM :		Crowd upper limit protection	●	Casing driver	○
Mast verticality measuring	●	Crowd force measuring	●	Air-conditioner	●
Mast sideward limits	●	**ROTARY DRIVE :**		Radio	●
Outrigger cylinder	●	Rotating speed measuring	●	Gradienter	●
Boom working range measuring	●	Torque measuring	●	Anemometer	○
Rigging & derigging mode	●	Crowd self-adaption function	●	Caution light	○
MAIN WINCH :		Multi-gear control system	●	**OPERATION SYSTEM :**	●
Overload measuring	●	**MAIN CHASSIS :**		10-inch touch screen	●
Ground touching protection	●	Oil pressure measuring device	●	SANY-ADMS control system	●
Freewheel control	●	All-directional lighting system	●	E-Pad	●
Fast lowering	●	Slew angle measuring	●	Central test point	●
Camera monitoring system	●	Emergency stop switch	●	Fault self-diagnosis system	
Speed measuring	●	Slew siren	●	Intelligent construction manag-	●
Depth measuring	●	Diesel-electric pump	●	ement system	
Upper limit protection function	●	Auto centralized lubricating-		All-directional camera monitor-	●
AUXILIARY WINCH :		system	●	ing system	●
Upper limit protection function	●	Auto idle model	●	Digital simulation animation	●
CROWD SYSTEM :		Low temperature preheat unit	○	Auto/manual mast verticality-	
Crowd winch system	●	Integrated overload protection	●	adjusting	●
Tensioning cylinder	●				

● Standard ○ Optional

Working dimensions



Unassembled state dimensions



Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ530×6×15	✶	16,200	82
Φ530×6×16		16,900	88
Φ530×6×17		17,700	94
Φ530×6×18		18,400	100
Φ530×6×19		19,100	106
Φ530×6×20		19,700	112

Inter-locking kelly		Weight(kg)	Depth(m)
Φ530×4×15	✶	14,400	53
Φ530×4×16		15,200	57
Φ530×4×17		16,100	61
Φ530×4×18		16,900	65
Φ530×4×19	★	17,700	69
Φ530×4×20	●	18,500	73

● Standard ★ Recommended equipment
✶ Equipped with the maximum length kelly bar for 6m casing

W10

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,000	
Max. pile depth	m	68/54	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	235	
Speed of rotation	rpm	5~27	
Crowd system			
Crowd force	kN	210	
Line pull	kN	210	
Stroke	mm	15,000	
Main winch			
Line pull	kN	250	
Rope diameter	mm	32	
Max. line speed	m/min	70	
Auxiliary winch			
Line pull	kN	80	
Rope diameter	mm	20	
Max. line speed	m/min	80	
Mast inclination			
Forward/backward	°	5/90	
Lateral	°	±3	
Main Chassis			
Base engine		ISUZU AH-6UZ1X	
Engine power	kW/rpm	257/2,000	
Emission regulation		COMⅢ/R96	
Engine displacement	L	9.84	
Chassis length	mm	7,265	
Extended width	mm	4,500	
Track shoe width	mm	800	
Swing radius	mm	4,360	backside
Overall machine			
Overall height	mm	22,870	
Operating weight	t	85	with a standard kelly and the largest bucket
Transport width	mm	3,542	
Transport height	mm	3,576	

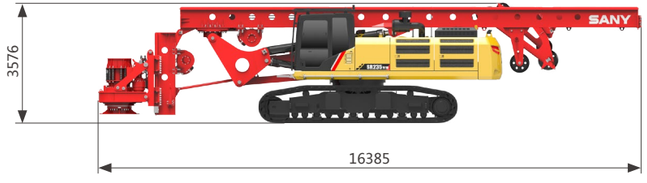
Note : ① remove the lower mast, please contact Sany for kelly model.

Configuration table	Option		Option		Option
MAST SYSTEM :		Cylinder crowd system	●	Radio	●
Mast verticality measuring	●	Crowd force measuring	●	Gradienter	●
Mast sideward limits	●	ROTARY DRIVE :		Anemometer	○
Boom working range measuring	●	Torque measuring	●	Caution light	○
Cab anticollision protection	●	Multi-gear control system	●	OPERATION SYSTEM :	
MAIN WINCH :		MAIN CHASSIS :		10-inch touch screen	●
Overload measuring	●	Oil pressure measuring device	●	SANY-ADMS control system	●
Ground touching protection	●	All-directional lighting system	●	E-Pad	●
Freewheel control	●	Slew angle measuring	●	Central test point	●
Fast lowering	●	Emergency stop switch	●	Fault self-diagnosis system	●
Camera monitoring system	●	Slew siren	●	Intelligent construction manag-	
Speed measuring	●	Diesel-electric pump	●	ement system	●
Depth measuring	●	Auto idle model	●	All-directional camera monitor-	
Upper limit protection function	●	Low temperature preheat unit	○	ing system	●
AUXILIARY WINCH :		Integrated overload protection	●	Digital simulation animation	●
Upper limit protection function	●	Casing driver	○	Auto/manual mast verticality-	
CROWD SYSTEM :		Air-conditioner	●	adjusting	●

● Standard ○ Optional

Working dimensions

Lowering the mast dimensions



Type of kelly bar

Friction kelly		Weight(kg)	Depth(m)
Φ445×5×13	✶	9,600	58
Φ445×5×14		10,300	63
Φ445×5×15		10,900	68

Inter-locking kelly		Weight(kg)	Depth(m)
Φ445×3×15		10,300	40
Φ445×4×12		9,300	42
Φ445×4×13	✶	8,100	46
Φ445×4×14	★	10,600	50
Φ445×4×15	●	11,300	54

● Standard ★ Recommended equipment
✶ Equipped with the maximum length kelly bar for 4m casing

Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,200/1,900	none casing/casing
Max. pile depth	m	93.5/61	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	285	
Speed of rotation	rpm	5~24	
Crowd system			
Crowd force	kN	260	
Line pull	kN	280	
Stroke	mm	17,100	
Main winch			
Line pull	kN	330	
Rope diameter	mm	36	
Max. line speed	m/min	70	
Auxiliary winch			
Line pull	kN	90	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	5/90	
Lateral	°	±4	
Main Chassis			
Base engine		ISUZU AH-6WG1X	
Engine power	kW/rpm	300/1,800	
Emission regulation		COM Ⅲ/R96	
Engine displacement	L	15.68	
Chassis length	mm	7,473	
Extended width	mm	4,700	
Track shoe width	mm	800	
Swing radius	mm	4,530	backside
Overall machine			
Overall height	mm	25,408	
Operating weight	t	105	with a standard kelly and the largest bucket
Transport width	mm	3,473	
Transport height	mm	3,611	

Configuration table	Option		Option		Option
MAST SYSTEM :		The last three circles limit pro-		Low temperature preheat unit	●
Mast verticality measuring	●	tection function	○	Integrated overload protection	●
Mast sideward limits	●	CROWD SYSTEM :		Casing driver	○
Masthead cylinder	●	Winch crowd system	●	Air-conditioner	●
Boom working range measuring	●	Tensioning cylinder	●	Radio	●
Cab anticollision protection	●	Upper limit protection function	●	Gradienter	●
MAIN WINCH :		Crowd force measuring	●	Anemometer	○
Overload measuring	●	ROTARY DRIVE :		Caution light	○
Ground touching protection	●	Torque measuring	●	OPERATION SYSTEM :	
Freewheel control	●	Speed mesuring	●	10-inch touch screen	●
Fast lowering	●	Multi-gear control system	●	SANY-ADMS control system	●
Camera monitoring system	●	MAIN CHASSIS :		E-Pad	●
Speed measuring	●	Oil pressure measuring device	●	Central test point	●
Depth measuring	●	All-directional lighting system	●	Fault self-diagnosis system	●
Upper limit protection function	●	Slew angle measuring	●	Intelligent construction manag-	
The last three circles limit -		Emergency stop switch	●	ement system	●
protection function	○	Slew siren	●	All-directional camera monitor-	
AUXILIARY WINCH :		Diesel-electric pump	●	ing system	●
Overload measuring	●	Auto centralized lubricating-		Digital simulation animation	●
Upper limit protection function	●	system	●	Auto/manual mast verticality-	
		Auto idle model	●	adjusting	●

● Standard ○ Optional

Working dimensions

Lowering the mast dimensions

Type of kelly bar

Friction kelly	Weight(kg)	Depth(m)
Φ508×6×12	12,000	61.5
Φ508×6×14	13,700	75.5
Φ508×6×15	14,600	81.5
Φ508×6×16	15,300	87.5
Φ508×6×17	15,900	93.5

Inter-locking kelly		Weight(kg)	Depth(m)
Φ508×3×15		13,900	40
Φ508×4×13	★	10,900	45
Φ508×4×14		11,700	49
Φ508×4×15	★	12,500	53
Φ508×4×16		13,100	57
Φ508×4×17	●	13,700	61

● Standard ★ Recommended equipment
★ Equipped with the maximum length kelly bar for 6.5m casing

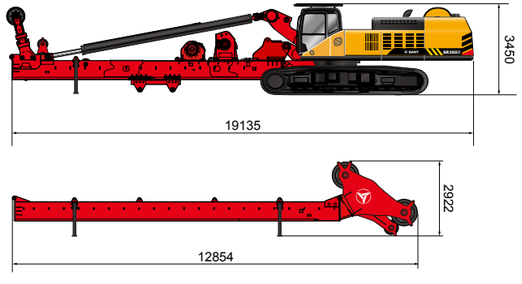
Main performances	Unit	Parameter	Remark
Pile			
Max. pile diameter	mm	2,500	
Max. pile depth	m	94/63	friction kelly/inter-locking kelly
Rotary Drive			
Max. output torque	kN·m	360	
Speed of rotation	rpm	5~20	
Crowd system			
Crowd force	kN	320	
Line pull	kN	320	
Stroke	mm	8,000	
Main winch			
Line pull	kN	390	
Rope diameter	mm	36	
Max. line speed	m/min	60	
Auxiliary winch			
Line pull	kN	90	
Rope diameter	mm	20	
Max. line speed	m/min	70	
Mast inclination			
Forward/backward	°	90/15	
Lateral	°	±3	
Main Chassis			
Base engine		CAT C-13	
Engine power	kW/rpm	305/1,800	
Emission regulation		EU stage Ⅲ/EPA Tier3	
Engine displacement	L	12.5	
Chassis length	mm	8,093	
Extended width	mm	4,400	
Track shoe width	mm	800	
Swing radius	mm	5,100	backside
Overall machine			
Overall height	mm	26,970	
Operating weight	t	120	with a standard kelly and the largest bucket
Transport width	mm	3,000	
Transport height	mm	3,450	

Configuration table	Option		Option		Option
MAST SYSTEM :		Crowd winch system	●	Auto idle model	●
Mast verticality measuring	●	Tensioning cylinder	●	Low temperature preheat unit	○
Mast sideward limits	●	Crowd upper limit protection	●	Integrated overload protection	●
Outrigger cylinder	●	Crowd force measuring	○	Casing driver	○
Rigging & derigging mode	●	**ROTARY DRIVE**		Air-conditioner	●
MAIN WINCH :		Rotating speed measuring	●	Radio	●
Overload measuring	●	Multi-gear control system	●	Gradienter	●
Ground touching protection	●	**MAIN CHASSIS :**		Anemometer	○
Freewheel control	●	Oil pressure measuring device	●	Caution light	○
Camera monitoring system	●	lighting	●	**OPERATION SYSTEM :**	
Speed measuring	●	Slew angle measuring	●	Display monitor	●
Depth measuring	●	Emergency stop switch	●	EPEC control module	●
Upper limit protection function	●	Slew siren	●	Fault self-diagnosis system	○
AUXILIARY WINCH :		Diesel-electric pump	●	Rear monitoring system	●
Upper limit protection function	●	Auto centralized lubricating		Auto/manual mast verticality-	
CROWD SYSTEM :		system	●	adjusting	●

● Standard ○ Optional

■ Working dimensions

■ Unassembled state dimensions



■ Type of kelly bar

Friction kelly	Weight(kg)	Depth(m)
Φ580×6×14	16,000	73
Φ580×6×16	18,300	85
Φ580×6×17	19,400	91
Φ580×6×17.5	20,000	94

● Standard ★ Recommended equipment

Inter-locking kelly		Weight(kg)	Depth(m)
Φ580×4×13		14,800	45
Φ580×4×14		15,800	49
Φ580×4×16	★	17,700	57
Φ580×4×17		18,700	61
Φ580×4×17.5	●	19,200	63

Casing oscillator SCG150E8

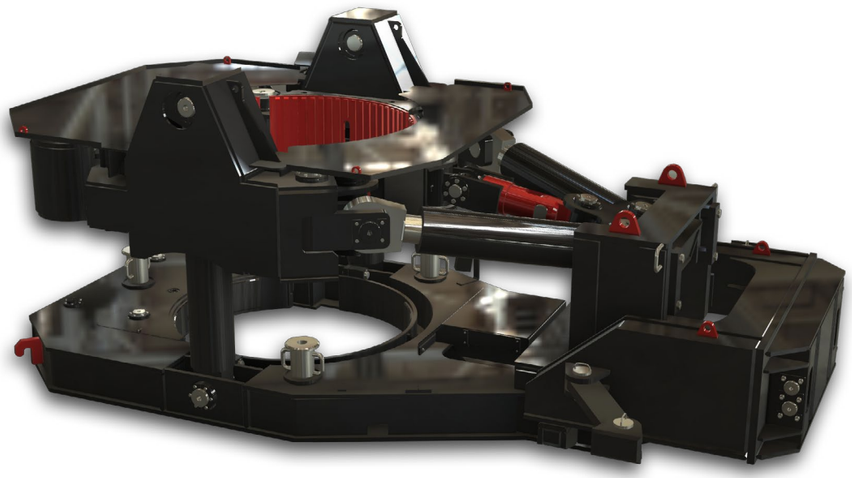
Sany SCG150E8 casing oscillator is suitable for various models of rotary drilling rigs (please contact with sany for the using way).

Greater embedding pressure can be achieved by Casing oscillator instead of Casing Drive Adapter, casing can be embedded evenin hard layers.

Casing oscillator owns such merits as strong adaptability to geology, high quality of completed pile, low noise, no mud contamination, slight influence to former foundation, easy control, low cost, etc.

It owns advantages in following geological conditions: instable layer, underground slip layer, underground river, rock formation,old pile, erratic boulder, quicksand, foundation of emergency and temporary building.

Main performances	Unit	Parameter	Remark
Overall parameters			
Overall length	mm	4,965	
Overall width	mm	2,680	
Overall height	mm	1,635	
weight	t	15	
Working parameters			
Casing diameter	mm	1,500	
Operating pressure	MPa	32	
Max. torque	kN·m	2,400	
Stroke	mm	500	
Max. lifting force	kN	1,950	
Clamping force	kN	1,600	
Rotation angle	°	25	
Travel of casing	mm	327	
Height of calmping collar	mm	550	



SRF series desander

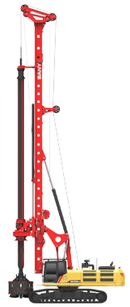
SANY SRF series desander used to clean and purify slurry in piling construction carried out in sandy stratum has the properties of simple operation, easy maintenance, environmental protection. Double screen mesh was adopted in filter system to improve working efficiency by 50% compared with the traditional single mesh one. It is characterized of outstanding cleaning and purifying ability, long service life and high reliability.

Main performances	Unit	SRF100	SRF250
Overall parameters			
Overall length	mm	3,000	3,500
Overall width	mm	2,000	2,200
Overall height	mm	2,400	2,800
weight	kg	3,500	5,200
Working parameters			
Slurry feed capacity	m^3/h	100	250
Cut point	μm	50	60
Solids feed capacity	T/h	25~50	25~80
Power	kW	24.2	58

■ C10 ROTARY DRILLING RIG

SR155C10
Max. Drilling Depth: 56m
Max. Drilling Dia. : 1,500mm

SR205C10
Max. Drilling Depth: 64m
Max. Drilling Dia. : 1,800mm

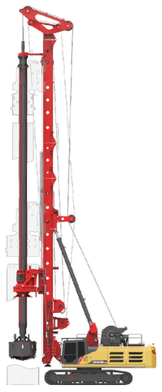


SR235C10
Max. Drilling Depth: 68m
Max. Drilling Dia. : 2,300mm(specific)

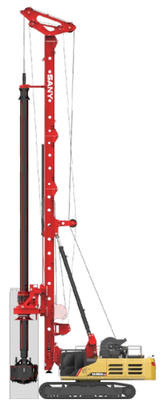
SR265C10
Max. Drilling Depth: 73m
Max. Drilling Dia. : 2,500mm(specific)

SR285RC10
Max. Drilling Depth: 94m
Max. Drilling Dia. : 2,500mm(specific)

SR360RC10
Max. Drilling Depth: 106m
Max. Drilling Dia. : 3,000mm(specific)

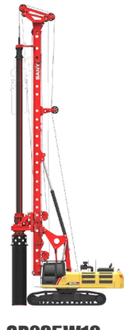


SR365RC10
Max. Drilling Depth: 106m
Max. Drilling Dia. : 2,700mm



SR405RC10
Max. Drilling Depth: 112m
Max. Drilling Dia. : 2,800mm

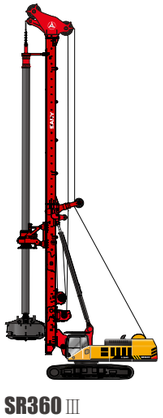
■ C10 ROTARY DRILLING RIG



SR235W10
Max. Drilling Depth: 68m
Max. Drilling Dia. : 2,000mm

SR285RW10
Max. Drilling Depth: 93.5m
Max. Drilling Dia. : 2,200mm

■ ROTARY DRILLING RIG(CAT)



SR360 III
Max. Drilling Depth: 94m
Max. Drilling Dia. : 2,500mm

■ Casing Oscillator

SCG150E8
Max. Casing diameter: 1,500mm
Max. Torque: 2,400kN.m

■ Desander

SRF50~SRF500
Slurry feed capacity: 50~500m³/h
Solids feed capacity: 26~240T/h

Advantages of Sany Kelly bar

1. Time verified
Verified by long time using, economic and high efficient, Sany Kelly bar has been widely used in the civil foundation construction.

2. More reliable
With the most advanced welding robots, CNC automatic cutting machines and other advanced equipments, high components precision and welding quality guarantee high reliability.

3. Longer service life
Specific debugging filed is established to simulate real Kelly bar working conditions to analyze and improve key parts, like the drive key service life is significantly increased with Sany self developed high strength anti-wearing steel.

4. Optimized structure
Static analysis, dynamic analysis and fatigue analysis are taken with the most advanced analysis software like ANSYS and ADAMS during the designing process, which optimize Kelly bar with lighter weight and better structure without any missing of the design requirements. Dozens of patents have been applied by Sany in this field which keeps Sany's leading position in China.

Drilling tools

SANY can supply with all kinds of standard drilling tools, including DBB-II, DBB-III,CB and so on. For special geological conditions, SANY can also provide special drilling tools accordingly to improve working efficiency. The latest special drilling tools developed by SANY are as follows:

◆ Pilot drilling bucket

Integrate bailing bucket and barrel;
The design of arc reinforcing plate, outside of reinforcing plate welded with transition bending plate;
Hinge is made of high tension steel;

Applicable layers: cave, occlusal pile.

◆ Underreaming bit

Driven by hydraulic cylinder, it can meet the requirements of different pile holes;
The whole process of lowering drilling tool, drilling and lifting drilling tool is visible; the design of pressure plate is convenient for dumping slag;

It is suitable for drilling soil, highly weathered hard rock and medium weathered rock soft.

◆ Core barrel with centralizer

Suitable for stage drilling of large diameter bore hole;
The cutting teeth and roller bits are interchangeable;
Centralizer supports the hole wall to avoid drilling an inclined hole;

Applicable layers: medium or slightly decomposed bedrock, hard or superhard bedrock.

◆ Cross-shaped core barrel

Core barrel with cross-typed guide plates in thecentre;
During annular cutting, guide plates mill down therocks;
The capacity of soil conveying and orientation is better than common barrels;

Applicable layers: backfill, pebble layer and highly ormedium decomposed dipping formation.

Sany drilling teeth

Compare with other drilling teeth, SANY drilling teeth features the following characteristics:
Better material. After many times of material testing, the wear resistance and the strength of SANY teeth are more than 30% higher than the general products in the market.
Construction based designing. SANY V20 drilling teeth has larger cutting angle and has higher working efficiency, SANY drilling bullet is more adaptive to pebble, gravel and soft rock geological formations.

V20 tooth

Bauer tooth

Long cutting tooth

short cutting tooth

Roller bits

CONSTRUCTION CASES

No matter what kind of terrain environment, Sany rotary drilling rig can work easily.

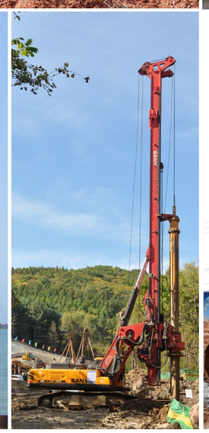
With characteristics of wide application, high construction efficiency, stable performance, excellent service, environmental protection and energy saving, Sany rotary drilling rigs are widely used in pile foundation of civil engineering, high-speed rail, highway, bridge, airport, water conservancy and hydropower engineering, etc.
No matter in city, desert, snow, mountain or river, with suitable drilling head and construction method, all construction issues can be resolved easily by Sany rotary drilling rigs.












Service Network/Parts Warehouses

- Parts Warehouses
- Service Network

SERVICE COMMITMENTS

One machine one parts manual.
Global service inspection patrolling is carried out every season.

One month's special service for new machine, including new machine assembling, commissioning, delivery inspection and operator training.

Professional training for oversea clients holds in China twice a year.

Provide service cards and service stickers, set up Global Customer Support Hotline and Global Customer Support Email.

At present, the sales and service system has been established in 30 countries.
280 overseas customer support engineers are working overseas.

Set up 22 oversea parts warehouses, with more than 3,000 kinds of spare parts can be selected by customers.

Global Customer Support Hotline :
0086-4006-09-8318
Global Customer Support Email :
crd@sany.com.cn

NOTE