

Fujian Aivyter Intelligent Equipment Co., Ltd.
Fuzhou Tuowei Mechanical & Electrical Equipment Co., Ltd.
Add: No. 15, Xiandong Road, Changle District, Fuzhou City, China
Tel: +86-591-83753886

Email: sale@aivyter.com www.aivyter.com

Fujian Aivyter Intelligent Equipment Co., Ltd



Fujian Aivyter Intelligent Equipment Co., Ltd





## **COMPANY PROFILE**

Aivyter, established in 2009, and located in Fuzhou China, is a professional enterprise engaged in the R&D, production, sales and service of screw air compressor, drill jumbo, shotcrete manipulator and relative equipment for the engineering construction and mining.

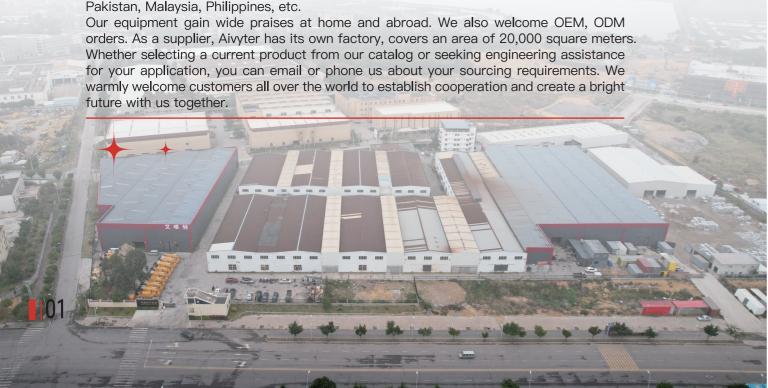
After more than ten years of development, the shareholders have established three factories during this period, namely Fujian Aivyter Intelligent Equipment Co., Ltd., Fuzhou Tuowei Mechanical & Electrical Equipment Co., Ltd and Fujian Aivyter Compressor Co., Ltd. The annual output value is 300 million yuan. There are nearly 200 employees. Among them, there are 20 technical R&D personnel and 70 technicians in after–sales service team. 7 sales personnel in international business department.

Dedicated to strict quality control and thoughtful customer service, our experienced staff members are always available to discuss clients' requirements and ensure full customer satisfaction by supplying high-quality equipment. Aivyter company not only has its own import and export right and stable distributors worldwide, but also has a team of professional after sales and service. In addition, we have obtained CE, TUV, SGS, ISO certificates

After long-term development, our company has established two well-known brands: Aivyter and TUOWEI.

In domestic market, our Aivyter brand of screw air compressors, drill jumbo and concrete spray manipulators are well-known in tunnel industry, textile industry and steel industry, with cooperation of China Railway Bureau Group Co., Ltd, and also formed a long-term strategic partnership with China Railway (the first) Bureau Group Co., Ltd to China Railway (the tenth) Bureau Group Co., Ltd.

In overseas market, our TUOWEI and Aivyter brand of equipment are widely used in various industries, like textile, steel, shipbuilding, mining, oil field, food, pharmacy, package, electronic, glasses, power, sand blasting, cement, tunnel, railway, municipal engineering. Selling well in all cities and provinces around China, our products are also exported to more than 70 countries and regions, such as, Russia, Thailand, Vietnam, Indonesia, South Africa, Tunisia, Saudi Arabia, Uzbekistan, Danmark, Poland, Mexico, Chile, Peru, India, Pakistan, Malaysia, Philippines, etc.



## CONTENTS \_

Face Drilling Rig AZK-125	03
Single Boom Drilling Jumbo AZT1-6500	05
Single Boom Drilling Jumbo AZT1-7200	08
Double Booms Drilling Jumbo AZT2-9700	09
Shotcrete Spraying Machine AWT20	13
Shotcrete Spraying Machine AWT3016F	15
Shotcrete Spraying Machine AWT4016N	17
Portable Diesel Engine Drive Screw Air Compressor	21

## **CERTIFICATE**









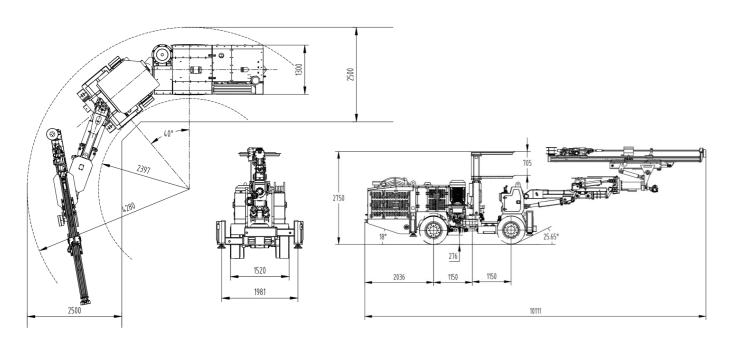


# Face Drilling Rig -- AZK-125

Adopt to cross section: 2.5\*2.5 - 5\*5m

## **Brief Introduction**

AZK-125 mining drilling rig is a compact and flexible drilling rig designed for narrow lanes and tunnels. It has a turning radius of 2397/4280 and is suitable for 2.5-meter lanes. The maximum operating area can reach 30m². The drilling rig can be widely used in various narrow lanes and tunnels in metal mines and other underground projects. It can greatly improve construction efficiency and quality and ensure mining safety.





# Main Technical Parameters of AZK-125 Face Drilling Rig

Item		C	ategory	Technical parameters
1			parameters	
1.1		Equipme	ent weight (kg)	10000
1.2		Dimensions	10111×1520/1320×2750 (2045)	
1.3	Maxi	mum operating	range (width x height, mm)	5697×5400 (6092 maximum height)
1.4			g radius (mm)	2397/4280
1.5		Maximum o	coverage area (m²)	30
1.6		Aisle	e width (m)	2.5X2.5
2		Equipme	nt configuration	
			Model	Standard PD380 (optional)
			Brand	Well-known manufacturer
			System pressure (bar)	200
			Impact power (kW)	20
2.1	Rock drill		Impact energy (Hz)	380
2.1	TIOOK GIIII		Maximum rotation torque (N⋅m)	820
			Rotation speed (r/min)	220
		Lubr	ication air consumption (at 3bar) (L/s)	3.3
			Water consumption (L/min)	30–50
			Drilling diameter (mm)	ф45-ф115
		Т	Thruster compensation stroke (mm)	1500
			Maintain parallelism throughout	
			the process	Yes
2.2	Drill arm		Coverage area (m²)	24
	Drill drill		Coverage width/height (mm)	5025/5000
			Boom lifting angle	-43° ~ +52°
			Boom swing angle	±30°
		To	otal length of propulsion beam (mm)	
		10	Maximum propulsion force (kN)	4740 (standard)/5400
			Drill rod length (mm)	15
2.3	Propulsion beam		Drilling depth per push (mm)	3090 (standard)/3700
			Flip angle	2830 (standard)/3440
			Pitch angle	±180°
				-3°~ +90°
			Gradeability (°)	20
			Manufacturer	Yuchai
		Engine	Power (kW)	55.8
		_	Maximum torque	310Nm/1600rpm
2.4	Chassis		Emission and noise standards	National IV (EURO IV)
	Oridoolo		Transmission system	Four-wheel drive
			Travel speed (km/h)	0~15
			Ground clearance (mm)	220
			Steering system	Articulated steering
			Steering angle (°)	±40
			Wheelbase (mm)	2300
			Hydraulic control method	Manual valve control
	Drilling hydraulic		Motor power (kW)	55
2.5			Hydraulic oil tank capacity (L)	180
	system		Pressure oil and return	10
			oil accuracy (μm)	10
			Water pump power (kW)	3
2.6	Water system		Rated displacement (L/min)	52 (12bar)
2.0			Water outlet pressure (bar)	12
		l l	Minimum water inlet pressure (bar)	2
		Mai	in electrical component manufacturer	ABB
	Voltage (V)/frequency (Hz)		Voltage (V)/frequency (Hz)	380/50
2.7	Electrical system		Starting method	Star delta
	I		<del>-</del>	
			Safety protection system function	Leakage protection, overload protection,





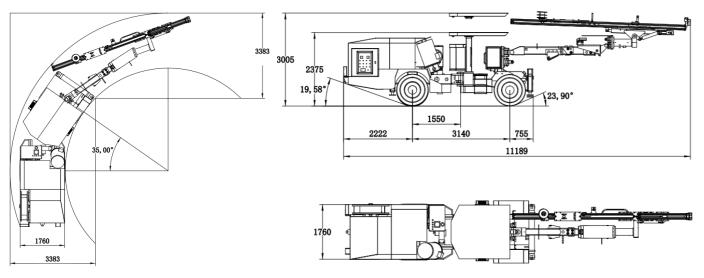
# Single Boom Drilling Jumbo -- AZT1-6500

Adapt to cross-section: 3\*3-5\*6.5 m

## **Brief Introduction**

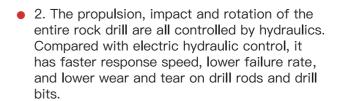
AZT1-6500 mining hydraulic drilling jumbo is widely used in small and medium-sized underground metal mines, water conservancy and hydropower, highway and railway tunnels, chemical industry, etc. It is suitable for a wide range of rocks with a Pugh hardness of f=6-16 or higher. It can work and turn in tunnels with a width of only 3.3 meters; the thruster can rotate 360° horizontally and vertically in both directions, and has the functions of opening stone doors and drilling anchor holes.

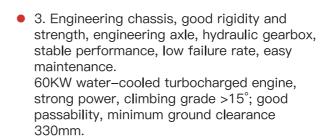




## Main features

1. Boom system: Fully hydraulic double triangle telescopic boom, single-stage telescopic, telescopic stroke single arm 1400mm, big arm lifting 60° and lowering 30°, big and small arms can be automatically leveled. Large working surface range: single arm excavation height 6500mm.

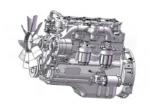




- 4. Different drill rods such as 3700/4300 can be selected according to customer needs. The propulsion beam adopts an aluminum alloy frame with strong bending and torsion resistance.
- 5. Using well-known domestic brands of high-power rock drills.











Impact performance		Rotation performance	
Impact power	18KW	Rotary system	Independent rotation
Pressure	200bar	Rotation speed	0-275 r/min
Impact frequency	62HZ	Rotation torque(max)	980 Nm





# Basic Parameters of Drilling Jumbo -- AZT1-6500

Applicable section	3000x3000–5050x6500 mm
Dimensions L*W*H	11189x1760x2375(3005)mm
Ground clearance	330 mm
Weight	12000 KGS
Minimum turning radius	Inside: 3450/0utside: 5510mm
Climbing ability	15°
Running speed	≤7.2 kM/h
Cable length	90 m
Specifications of rock drill	
Rock drill	DZ622
Impact power	18 kw
Impact frequency	62 Hz
Impact pressure	130–200 bar
Rotary system	Independent rotation
Rotation speed	0–275 r/min
Rotation torque(max)	980 Nm
Thruster	
Total length	5800 mm
Drill rod length	4300/3700 mm
Depth of hole	4000/3400 mm
Propulsion force	15 KN
Drilling arm	
Compensation stroke	1400 mm
Horizontal hole	Complete coverage
Sliding frame rotation	+180°
Pitch angle	+60°/-30°
Swing angle	+35°
Drilling arm weight	2000 kg
Hydro-pneumatic system	
Maximum displacement of water pump (12 bar)	4 m³/h
	0.55 m³/min
Air flow  Electrical system	0.95 H1-7/Hillh
Total installed power	65 kW
Main motor power	55 kW
Voltage	380V(Customizable)
Hydraulic system	
Closed hydrostatic drive walking system	
Hydraulic direct control operating system	
Equipped with anti-stuck function	
Chassis	
Diesel engine	Cummins
Rated output power (2200r/min)	60 kW

# Basic Parameters of Drilling Jumbo -- AZT1-7200

Main parameter	
Size	11000*2050*2800/3650mm
Maximum excavation height	7200mm
Drilling diameter	ф43mm-ф102mm
Drilling pipe length	4305mm
Drilling depth	3900mm
Drilling speed	0.8–2m/min
Motor power	55KW
Fuel tank capacity	250L
Overall weight	12000kg
Rock drilling power head model	DZ600
Rotation	Positive 135° Reverse 225°
Swing arm	45 ° left and right
Travel compensation	1600mm
Main arm stroke	1300mm
Sliding rail swing angle	2°elevation and 90 °elevation
Diesel engine power	60kw
Turn	±40
Tires	9.00–20
Climbing ability	≤15°
Rear axle swing angle	±10°
Approach angle/departure angle	17°/14°
Inside turning radius	Inner side 3.3m/outer side 6.95m
Walking speed	12km/h
Ground clearance	350mm
Fuel tank capacity	70L
Air compressor flow rate	0.55m³/min
Pressure of air compressor	0.3-0.6MPa
Air compressor motor power	4KW
Water pump flow rate	5m³/h
Pressure of water	0.2-0.8MPa
Pump motor power	3kw
Battery rate	2x12v
Driving lighting	24v
Work lighting	220v

Product technical parameters are constantly being improved and are subject to change without prior notice.

||07



## **人**艾唯特® IVULE

# Double Booms Drilling Jumbo -- AZT2-9700



## Main functional features of AZT2-9700

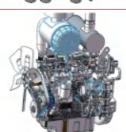
High cost-effectiveness, stable and reliable.

Hydraulic control: the propulsion, impact and rotation of the entire rock drill are all controlled by hydraulic, which has a faster reaction speed, lower failure rate, and lower drill pipe and bit loss compared to electronic hydraulic control.



Engineering chassis, with good rigidity and high strength, engineering axle, hydraulic transmission, stable performance, low failure rate, and easy maintenance.

129KW water-cooled turbocharged engine, powerful, with a climbing grade > 18°; Good passability, with a minimum ground clearance of 400mm:



According to customer needs, different drill rods such as 3700/4300/4915/5525/6400 can be selected.

Arm system: Fully hydraulic double triangle telescopic arm, single stage telescopic, with a telescopic stroke of 1600mm for a single arm; Raise the upper arm by  $70^\circ$  and lower it by  $30^\circ$ , and the upper and lower arms can be automatically leveled.



Adopting a 10 inch large screen reverse camera can greatly reduce blind spots in the feld of vision.



Adopting high-power rock drills from well-known domestic brands makes drilling faster and after-sales more convenient.

Impact frequency	60Hz
Impact power	18kW
Impact pressure	Max 230bar
Rotary motor model	OMS 160
Impact flow rate	71-92L/mir
Empty buffer pressure	3-3.5Mpa
Buffering flow	8-10L/min
Adapt to drill pipes	R38、T38
Rotary pressure	210bar
Maximum torque	1000Nm
Rotating speed	0-215rpm
Lubricating oil and gas pressure	2-3bar
Flushing water pressure	Max 2.5Mpa
Rock drilling buffer pressure	5-12Mpa
Buffer accumulator nitrogen charging pressure	2–2.5Mpa
Nitrogen charging pressure of the oil inlet accumulator	9-11Mpa



**■**|09



## Main Parts of Drilling Jumbo





#### Hydraulic system

The entire hydraulic system is independently developed by Aivyter company, which has been tested to maximize the ability of the rock drill and has an extremely low loss rate of drill pipes and tools.



#### Series pump

The series pump adopts a well-known domestic brand, with stable quality, stable pressure output, and the ability to provide stable pressure and flow for the rock drill and boom.



#### Hydraulic oil tank

Made of carbon steel, with internal spray coating and hydraulic oil filter, it can ensure the cleanliness of the hydraulic system, and the oil tank is equipped with a maintenance port for easy maintenance.



#### Mechanical arm

The mechanical arm has undergone multiple practical tests and has excellent resistance to impact and bending. Easy to operate and high sensitivity. Adopting a double triangle structure for more accurate positioning and better stiffness.



#### Electrical control cabinet

All internal components are made of imported electrical components such as Schneider and ABB.



Engine, torque converter

Adopting famous brand of engine and well-known brand torque converter, with stable quality and sufficient power output.



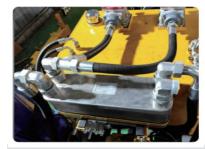
#### Water pump

Adopting multi-stage centrifugal pumps from Southern Pump Industry, with large water volume, high head, and stable quality.



#### Tire

Adopting 14.00–24 rubber inflatable tires, with strong load-bearing capacity and stable quality.



#### Radiator

Adopting water-cooled radiators with high heat dissipation efficiency to ensure stable oil temperature.

# Basic Parameters of Double Booms Drilling Jumbo -- AZT2-9700

Main parameter	
Size	17000*2800*2900/3750mm
Maximum excavation height	9700mm
Drilling diameter	ф45mm-ф76mm
Drill pipe length	5525mm
Drilling depth	5300mm
Drilling speed	0.8–2m/min
Motor power	55*2KW
Fuel tank capacity	600L
Overall weight	33000kg
Rock drilling power head model	1838ME
Rotation	Positive 135° Reverse 225°
Swing arm	45° left and right
Travel compensation	1800mm
Main arm stroke	1600mm
Sliding rail swing angle	2°elevation and 90°elevation
Diesel engine power	129kw
Turn	±40°
Tires	14.00–24.00
Climbing ability	18°
Rear axle swing angle	±10°
Approach angle/departure angle	20°/17°
Inside turning radius	Inner side 3.3m/outer side 6.95m
Walking speed	15km/h
Ground clearance	350mm
Fuel tank capacity	120L
Air compressor flow rate	1m³/min
Pressure	0.3-0.6MPa
Air compressor motor power	7.5KW
Water pump flow rate	10m³/h
Pressure	0.2-0.8MPa
Pump motor power	4.5kw
Battery rate	2x12v
Driving lighting	24v
Work lighting	220v

Product technical parameters are constantly being improved and are subject to change without prior notice.

**■**|11





# Shotcrete Spraying Machine -- AWT20

#### Product Overview of Shotcrete Machine for Underground Mining

AWT20 shotcrete spraying machine is special designed for the spraying support operation of underground mining, water diversion tunnels, inclined shafts, etc. The maximum spraying volume can reach 20m<sup>3</sup>/h.

#### Main Features

- ◆ With robust and compact chassis, reduced turning radius and crab-mode that allow a major range of movements.
- ◆ Applying homogeneous shotcrete technique, ensures the required quality and layer thickness of concrete, as well as reducing rebound.
- ◆ The maximum vertical reach of the spraying arm is 8 meters.
- ◆ Automatic additive dosage: equipped with an automatic dosing device proportional to the concrete flow, ensuring spraying accuracy and quality.
- Easy to operate: thanks to the wireless proportional remote control, the spraying arm can achieve smooth movement.
- ◆ Easy maintenance and repair.
- ◆ On-board electric air compressor.

## Main Parameters of AWT20 Shotcrete Spraying Machine

#### Chassis system

	I
Engine	Diesel engine
Engine power	60 kW, Cummins
Driving speed	Low speed 0-5KW/h, high speed 0-15KW/h
Climbing ability	25°
Suspension swing angle	±8°, to make sure the chassis better adapt to uneven roads
Approach Angle	15°
Departure angle	15°
Steering	±40° (articulated steering)
Ground Clearance	300 mm
Whole machine weight	12.0 T
Overall dimensions	8000*2000*2450 mm (L*W*H)
Brake	Wet brake

#### Concrete pump

AWT-SPJ20 hydraulically driven piston concrete pump, automatic fast switching S-type pendulum valve, hopper equipped with vibrating screen and bottom-opening discharge gate		
Pumping capacity	4–20 m3/h	
Maximum delivery pressure	8.0 Mpa	
Maximum particle size of aggregate	20 mm	
Diameter of concrete cylinder	160 mm	
Master cylinder diameter × rod diameter × stroke	ф90×ф55×580	
Feeding height	1290 mm	

#### Electro-hydraulic power pack

Electric motor	37KW/1480rpm; Protection class: IP55
Hydraulic pump set	The latest optimized pumping system has stable and reliable performance. The main pump and
	valve group adopt international and domestic famous brand.

#### Shotcrete robotic arm

Maximum spray vertical height	8 m
Maximum horizontal spray width	13 m
Spray depth	2.5 m
Maximum arm angle	+65/-40°
Telescopic stroke	4 m

#### Air compressor

Maximum air flow	9.3 m3/min
Power of electric motor	45 kW
Pressure	0.6 Mpa

#### Cable reel

Cable length	80 m
Diameter	900 m

#### Accelerator

Accelerator tank	1×300L
Accelerator delivery pump	Hydraulic motor drive, electric proportional valve control



Maximum working range



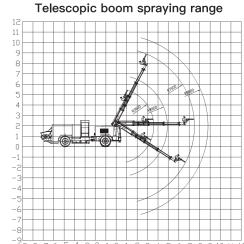
Best working range



Minimum working range



Inverted arch working range









# Concrete Spraying Machine -- AWT3016F

#### Main Features

- ◆ Highly cost-effective, stable and reliable.
- ◆ Advantage of boom: two-stage telescopic and two-stage slewing, with no blind spots in operation.

Particularly competent for: small-scale working surfaces on single and double side walls, working surfaces with large invert volumes (without moving the vehicle), working surfaces on central deep ditch, working surfaces on foundation pit slope support, working surfaces on the side holes of civil air defense tunnel walls (can be turned back without moving the vehicle), working surfaces on the top support of horizontal tunnels/inclined shafts, and working surfaces on reverse tunnel portals.

- ◆ Hydraulic control: Electric load-sensitive proportional control multi-way valve, compared with other brands of switch valves, the action is more sensitive and smooth, without delay, the operation center point is stable, the spraying quality is more controllable, and the flatness is high. The speed of each arm movement can be steplessly adjusted and wirelessly remote controlled.
- ◆ Engineering chassis: four-wheel drive, four-wheel steering, with inclined and eight-way walking function, good passability.
- ◆ Upgrade the pumping system, optimize the pipeline combination, low pumping pressure, and wider adaptability to materials.
- ♦ The 1000L+500L dual accelerator barrel design is adopted to meet the needs of large-scale spraying construction at one time.

#### Main technical parameters

Chassis system	Internal combustion-hydraulic torque converter transmission, four-wheel drive, four-wheel steering						
Engine	YUNNEI brand output power: 92KW/2400rpm						
Transmission system	Hydraulic transmission system						
Travel speed	Low speed gear 0-5km/h, high speed gear 0-15km/h						
Climbing ability	40%(22°)						
Minimum Ground Clearance	400mm						
Suspension Swing Angle	±10°enables the chassis better adapt to uneven road surfaces						
Steering	Hydraulic four-wheel steering, with diagonal and figure eight travel functions						
Minimum Turning Radius	Inside 3500mm, outside 7300mm						
Weight	17t						
Overall Dimension	8970x2500x3500mm(LxWxH)						

Concrete transfer pump	AWT-SPJ30 hydraulically driven piston concrete pump, automatic fast switching S-type pendulun						
	valve, hopper equipped with vibrating screen and bottom-opening discharge gate						
Pumping transfer capacity	30m3/h, 4–30m3, adjustable						
Maximum conveying pressure	8MPa						
Aggregate size	16mm						

Electro-hydraulic power packs				
Electric motors	55KW/1480rpm; protection grade:IP54			
Hydraulic pumps	Latest optimized pumping system, stable and reliable performance. Main pumps and valves adopt			
	international and domestic famous brand.			

Shotcrete robotic arm	The two-stage telescopic and two-stage rotating spraying arm is fully hydraulically controlled and the small arm is folded, so there is no blind spot in operation. It can be operated by both wired and wireless remote control, and the speed of each movement of the arm can be adjusted, with stepless speed regulation.
Maximum shotcrete height	16m
Maximum shotcrete width	30m
The farthest shotcrete distance	15m (front)
Minimum shotcrete tunnel height	4m
Maximum shotcrete depth	8m (below parking surface)
Pitch angle of small boom	-90° ~ +90°
Pitch angle of large boom	-30° ~ +65°
Two-stage telescoping	Two-stage telescopic boom
Large arm rotation	270°rotation
Small arm rotation	360°rotation, large and small arms can be folded by 0°

#### Double speed coagulant barrel

#### 1000L+500L

#### Cable reel

- Hydraulic motor driven rewinding
- Cable specification 3x35+1\*16

#### Shotcrete piping and accessories

• Concrete pump outlet hinged pipe, DN125-100 reducer and DN90 delivery pipe, additive and compressed air injection device, and flow changer, etc.

#### Accelerating coagulant transfer pump Hydraulic motor drive, electro-hydraulic proportional control Output capacity 30-1000L/h Control Realization of remote control and human-machine interface (display), both can control the specific flow

#### (Standard configuration)

High-pressure cleaning system, reversing camera, self suction pump for accelerator

- (1) High-pressure cleaning system: plunger-type high-pressure water pump, hydraulic motor drive, with cleaning hose and water gun
- (2) Reversing camera
- (3) Self suction pump for accelerator



# Telescopic boom spraying range





Maximum working range

Best working range





Minimum working range

Inverted arch working range

**I**|15





# Concrete Spraying Machine -- AWT4016N

#### Main Features

- ◆ Highly cost-effective, stable and reliable.
- ◆ Advantage of boom: two-stage telescopic and two-stage slewing, with no blind spots in operation.

Particularly competent for: small-scale working surfaces on single and double side walls, working surfaces with large invert volumes (without moving the vehicle), working surfaces on central deep ditch, working surfaces on foundation pit slope support, working surfaces on the side holes of civil air defense tunnel walls (can be turned back without moving the vehicle), working surfaces on the top support of horizontal tunnels/inclined shafts, and working surfaces on reverse tunnel portals.

- ◆ Hydraulic control: electric load-sensitive proportional control multi-way valve, compared with other brands of switch valves, the action is more sensitive and smooth, without delay, the operation center point is stable, the spraying quality is more controllable, and the flatness is high. The speed of each arm movement can be steplessly adjusted and wirelessly remote controlled.
- ◆ Engineering chassis: four-wheel drive, four-wheel steering, with inclined and eight-way walking function, good passability.
- ◆ Upgrade the pumping system, optimize the pipeline combination, low pumping pressure, and wider adaptability to materials.
- ◆ The 1000L+500L dual accelerator barrel design is adopted to meet the needs of large-scale spraying construction at one time.

## Main technical parameters

Chassis system	Internal combustion-hydraulic torque converter transmission, four-wheel drive, four-wheel steering						
Engine	YUNNEI brand output power: 92KW/2400rpm						
Transmission system	Hydraulic transmission system						
Travel speed	Low speed gear 0-5km/h, high speed gear 0-15km/h						
Climbing ability	40%(22°)						
Minimum Ground Clearance	400mm						
Suspension Swing Angle	±10°enables the chassis better adapt to uneven road surfaces						
Steering	Hydraulic four-wheel steering, with diagonal and figure eight travel functions						
Minimum Turning Radius	Inside 3500mm, outside 7300mm						
Weight	17t						
Overall Dimension	8970x2500x3500mm(LxWxH)						

Concrete transfer pump	AWT-SPJ30 hydraulically driven piston concrete pump, automatic fast switching S-type pendulum					
	valve, hopper equipped with vibrating screen and bottom-opening discharge gate					
Pumping transfer capacity	40m3/h, 4-40m3, adjustable					
Maximum conveying pressure	8MPa					
Aggregate size	16mm					

Electro-hydraulic power packs				
Electric motors	75KW/1480rpm; protection grade:IP54			
Hydraulic pumps	Latest optimized pumping system, stable and reliable performance. Main pumps and valves adopt			
	international and domestic famous brand.			

Shotcrete robotic arm	The two-stage telescopic and two-stage rotating spraying arm is fully hydraulically controlled and the small arm is folded, so there is no blind spot in operation. It can be operated by both wired and wireless remote control, and the speed of each movement of the arm can be adjusted, with stepless speed regulation.
Maximum shotcrete height	16m
Maximum shotcrete width	30m
The farthest shotcrete distance	15m (front)
Minimum shotcrete tunnel height	4m
Maximum shotcrete depth	8m (below parking surface)
Pitch angle of small boom	-90° ~ +90°
Pitch angle of large boom	-30° ~ +65°
Two-stage telescoping	Two-stage telescopic boom
Large arm rotation	270°rotation
Small arm rotation	360°rotation, large and small arms can be folded by 0°

Double speed coagulant barrel

1000L+500L

#### Cable reel

- Hydraulic motor driven rewinding
- Cable specification 3x50+1\*16/25

#### Shotcrete piping and accessories

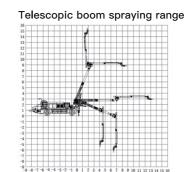
• Concrete pump outlet hinged pipe, DN125-100 reducer and DN90 delivery pipe, additive and compressed air injection device, and flow changer, etc.

Accelerating coagulant transfer pump						
Hydraulic motor drive, electro-hydraulic proportional control						
Output capacity 30–1000L/h						
Control	Realization of remote control and human-machine interface (display), both can control the specific flow					

High-pressure cleaning system, reversing camera, self suction pump for accelerator

- (1) High-pressure cleaning system: plunger-type high-pressure water pump, hydraulic motor drive, with cleaning hose and water gun
- (2) Reversing camera
- (3) Self suction pump for accelerator







Maximum working range



Best working range



Minimum working range



Inverted arch working range

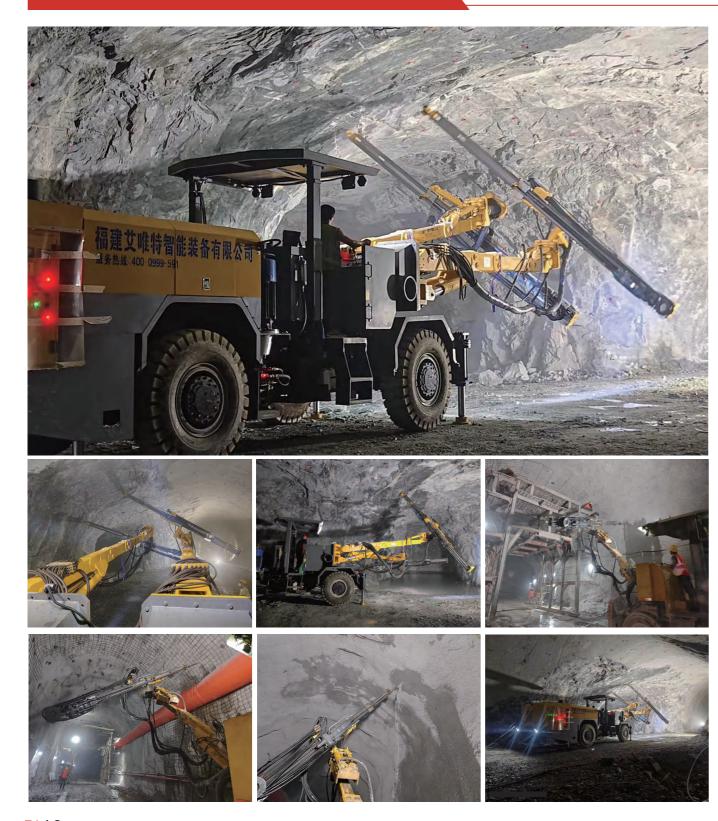
117



# **Drilling Jumbo Application Scenarios**

## **人,艾唯特® 人ivyter**

# **Concrete Spraying Machine Application Scenarios**









22

# Portable Diesel Engine Drive Screw Air Compressor



#### Advantage

- Adopt two-stage compression air end
- Vibration isolation installation technology is adopted, which ensures stable operation.
- Equipped with brand diesel engines, such as Cummins, Yuchai, etc.
- Equipped with multiple automatic alarm systems, alarm and shutdown when high temperature occurs.
- Simple operation and easy maintenance.

01

 A lifting ring is installed on the top for safe lifting and transportation.





03

The air control system is simple and reliable. Inlet rate can be adjusted depending on the air consumption. The engine throttle can also be adjusted to save diesel fuel.

**1**|21

Intelligent microcomputer controls air compressor discharge pressure, exhaust gas temperature, engine speed, oil pressure, water temperature and fuel tank level. With auto alarm and shutdown protection. Parts and components can be maintained within the accessible range which is convenient and easy.

Easy to move in rough terrain.
Each compressor has lifting rings on the top for safe hoisting and transportation.

04

02

## **Basic Parameters**

#### Single Stage Compression Portable Diesel Engine Drive Screw Air Compressor

	acity	Pressure				Weight	Dimensions	
Model	m3/min	cfm	bar	psi	Diesel Brand	Diesel engine type	KGS	L*W*H mm
SYC-5/7	5	177	7	102	YUNNEI	42kW	1400	2200*1800*1800
SYC-6/7	6	212	7		CUMMINS	60kW	1400	2200*1800*1800
SYC-6/8	6	212	8	102		60kW	1400	2200*1800*1800
SYC-7/7	7	247	7	117	CUMMINS	60kW	1400	2200*1800*1800
SYC-7/8	7	247	8	102	CUMMINS	60kW	1400	2700*1700*1800
SYC-7.5/7	7.5	265	7	117	CUMMINS	60kW	1400	2700*1700*1800
SYC-8/7	8	282	7	102	CUMMINS			2700*1700*1800
SYC-8/8	8	282	-	102	CUMMINS	74kW	1400	
	9		8	117	CUMMINS	74kW	1400	2300*1800*1850
SYC-9/8	-	318	8	117	CUMMINS	74kW	1400	2300*1800*1850
SYC-10/7	10	353	7	102	CUMMINS	74kW	1400	2300*1800*1850
SYC-8.5/14	8.5	300	14	204	CUMMINS	119kW	1600	2500*1800*1850
SYC-10/10	10	353	10	146	CUMMINS	119kW	1600	2500*1800*1850
SYC-10/13	10	353	13	189	CUMMINS	119kW	1600	2500*1800*1850
SYC-13/10	13	459	10	146	CUMMINS	119kW	1600	2600*1800*2050
SYC-12/7	12	424	7	102	CUMMINS	119KW	1600	2600*1800*2050
SYC-12/10	12	424	10	146	CUMMINS	119kW	1600	2600*1800*2050
SYC-12/12	12	424	12	175	CUMMINS	119kW	1600	2600*1800*2050
SYC-12/13	12	424	13	189	CUMMINS	119kW	1600	2600*1800*2050
SYC-13/13	13	459	13	189	CUMMINS	119kW	1600	2600*1800*2050
SYC-17/7	17	600	7	102	CUMMINS	119kW	1600	2600*1800*2050
SYC-22/8	22	777	8	117	CUMMINS	179kW	1700	3500*2000*2050
SYC-15/13	15	530	13	189	CUMMINS	194kW	1600	2600*1760*2050
SYC-16/13	16	565	13	189	CUMMINS	194KW	1600	2600*1760*2050
SYC-13/17	13	459	17	248	CUMMINS	194kW	1600	2600*1760*2050
SYC-17/14.5	17	600	14.5	211	CUMMINS	194kW	1600	2600*1760*2050
SYC-20/13	20	706	13	189	CUMMINS	194kW	1700	3500*2000*2050
SYC-26/8	26	918	8	117	CUMMINS	194kW	4600	3300*2000*2250

## Two Stage Compression Portable Diesel Engine Drive Screw Air Compressor

Model	Capacity		Pressure		Diesel Brand	Diesel engine type	Weight	Dimensions
	m3/min	cfm	bar	psi	Diesei Brand	Diesei erigine type	KGS	L*W*H mm
SYC-17/17	17	600	17	248	CUMMINS	239kW	1700	3500*2000*2050
SYC-19/14.5	19	671	14.5	211	CUMMINS	239kW	1700	3500*2000*2050
SYC-18/17	18	636	17	248	CUMMINS	239kW	1700	3500*2000*2050
SYC-22/14	22	777	14	204	CUMMINS	239kW	4600	3300*2000*2250
SYC-26/10	26	918	10	146	CUMMINS	239kW	4600	3300*2000*2250
SYC-27/10	27	953	10	146	CUMMINS	239kW	4600	3300*2000*2250
SYC-30/10	30	1059	10	146	CUMMINS	264kW	5300	3350*2100*2250
SYC-19.5/19	19.5	689	19	277	CUMMINS	264kW	5300	3350*2100*2250
SYC-22/20	22	777	20	291	CUMMINS	264kW	3200	3500*2040*2200
SYC-26/20	26	918	20	291	CUMMINS	298kW	4900	4200*2100*1950
SYC-27/22	27	953	22	321	CUMMINS	335kW	4500	3600*2140*2100
SYC-26/25	26	918	35	364	CUMMINS	335kW	4500	3600*2140*2100
SYC-33/25	33	1165	25	364	CUMMINS	410kW	6700	3800*2200*2300
SYC-26/35	26	918	35	510	CUMMINS	410KW	5200	3800*2200*2300