SANY

ZhongXing Hydraulic Cylinder Product Catalog

Transmit Value,
Drive the Future

SANY Mission:

QUALITY CHANGES THE WORLD

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01/ Company Introduction

Loudi Zhongxing Hydraulic Parts Co., Ltd. is a wholly-owned subsidiary of Sany Group. The company was established in 2005 with a registered capital of 318 million yuan and a total fixed asset investment of 4 billion yuan. The company currently operates 3 industrial parks spanning a total area of 400,000 square meters, with a workforce of over 1,000 employees. We specialize in the research and development, production, and sales of hydraulic cylinder products, providing comprehensive solutions for hydraulic systems.

After years of rapid development, our company has emerged as the largest and most diverse production base for hydraulic cylinders, both domestically and internationally, with an annual production capacity of 6 billion yuan.

Our company is committed to the mission of "creating the highest quality cylinders in the world", adhering to a service philosophy that exceeds industry standards and surpasses customer expectations. We strive to become the world leader in the cylinder industry.

1,000+
Employees

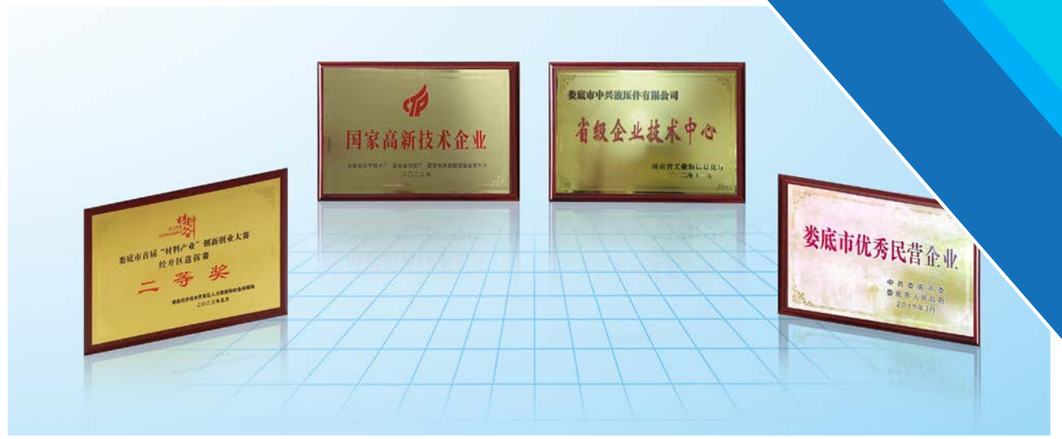
3
Industrial park

3billion
Annual output value

31
Business covers provinces and cities

Company honors

Our company remains steadfast in its mission to uphold social responsibility. Through years of remarkable development, we have earned numerous honors and titles, including recognition as a national high-tech enterprise, a provincial-level technology center in Hunan Province, and an outstanding private enterprise in Loudi City.



02/ Research and Development Capability

Adhering to our corporate mission of "Quality Changes the World", our company allocates 5%-7% of sales revenue towards research and development. We are dedicated to upgrading our products to world-class standards.

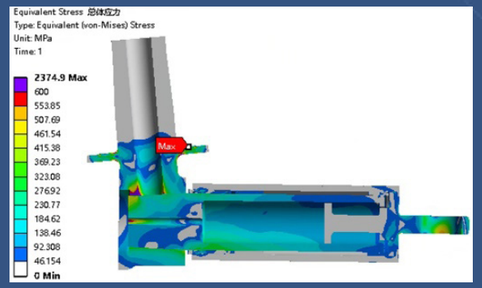
We boast a team of 40 industry experts and 50 mid to senior-level technical talents, forming an independent research and development system. While continuously introducing and assimilating advanced international technology, we also strive to enhance our internal research and development capabilities. Looking towards the future, we remain committed to independent innovation, aspiring for excellence.

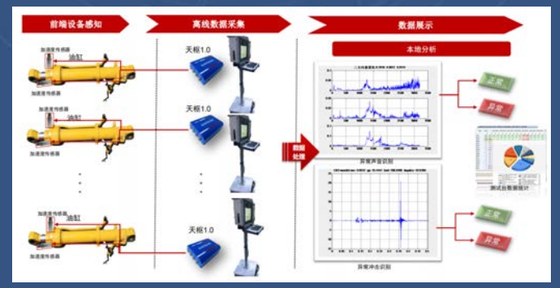
Our ongoing pursuit has been fast design, validation, and delivery. To accomplish this, we have introduced various design analysis software such as the IDEA parametric design platform, simulation analysis, and load spectrum acquisition.

To ensure the reliability and longevity of our hydraulic cylinders, we have introduced 14 advanced hydraulic cylinder test equipment to effectively verify the impact strength, weld strength, stability, and fatigue strength of hydraulic cylinders, as well as the durability of seals.

Innovation is the primary force driving development. As of now, we have secured 167 authorized patents, alongside prestigious accolades including a "National Second Prize for Technological Invention", and first-class awards at the provincial and ministerial levels.

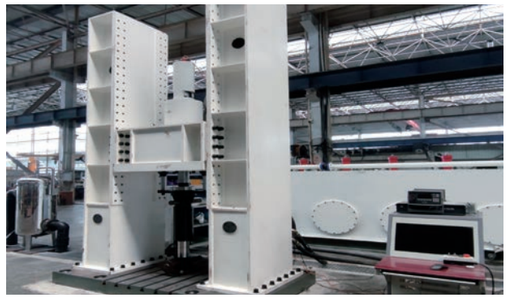
Stress analysis





Sany cylinder assisted Sany truck-mounted concrete pump won three Guinness World Records

Multi-functional environmental test chamber



Pneumatic suspension test bench

2P impact test

2F impact test

Unbalanced load test

Durability test

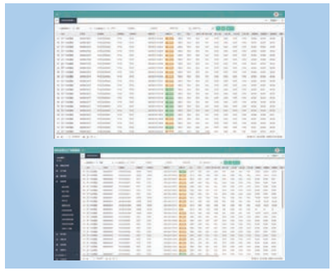
03 / Quality Assurance

Ensuring product quality is our foremost priority. We have introduced a range of equipment including on-line coordinate measuring machine (CMM), on-line flaw detectors, mechanical performance testing machines, metalloscopes, roughness testers, physical and chemical testing equipment, flaw detection devices. These enable comprehensive monitoring of the production process to maintain quality standards.

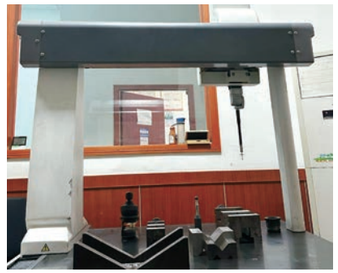
Building upon the ISO3834, ISO9001 and IATF16949 quality systems, we have upgraded our quality management system to establish our own quality system standards. This system encompasses 5 major modules and 38 key quality control points, driving comprehensive quality management across our operations.

On-line flaw detector


On-line coordinate measuring machine (CMM)

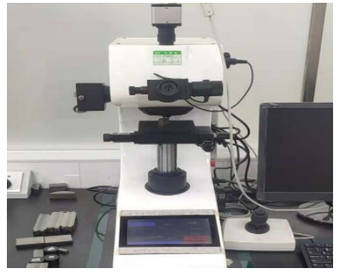

Data on-line


Energy dispersive spectrometer (EDS)

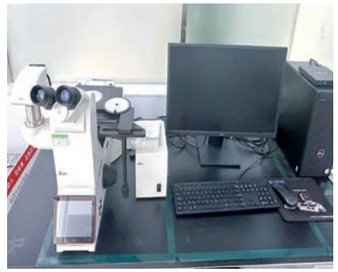

Coordinate measuring machine (CMM)

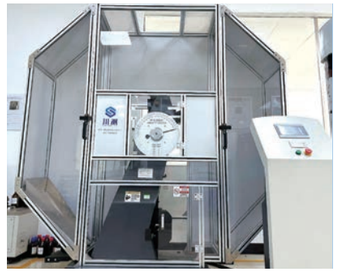

Articulated arm coordinate measuring machine


Spectroscope


Fully automatic hardness tester


Salt spray test chamber


Metalloscope


Impact testing machine


Tensile testing machine

04/ High-end Manufacturing

The company's products cover diameters ranging from **20-1,000**mm, lengths from **80-17,000**mm, with a maximum extension length of **30,000**mm. The company has a production capacity of **1.8** million units per year, with an annual output value of **6** billion.

The piston rod undergoes advanced processes such as friction welding, high-frequency quenching, and nickel-chromium composite plating/laser cladding. These techniques enhance wear resistance, impact resistance, fatigue resistance, and corrosion resistance, thereby extending the product's lifespan.

| Friction welding | Reliable weld seam quality, high efficiency

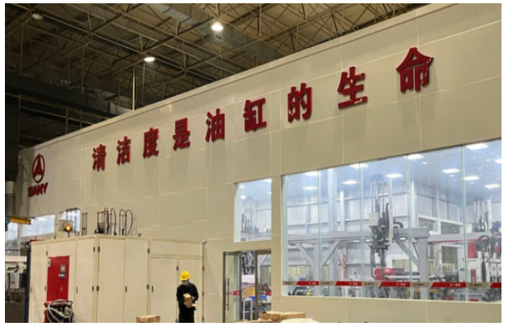
| Surface quenching | High surface hardness, long lifespan

| Laser cladding | Green manufacturing, high corrosion resistance

| Nickel-chromium composite plating | Automatic production, high corrosion resistance

The cylinder barrel is made of high-strength materials jointly developed with steel mills, meeting both low temperature and fatigue requirements. Developed through boring and rolling technology to ensure the roughness and dimensional accuracy of the cylinder barrel surface, improving the product's resistance to low temperatures, reliability, and low-speed stability.

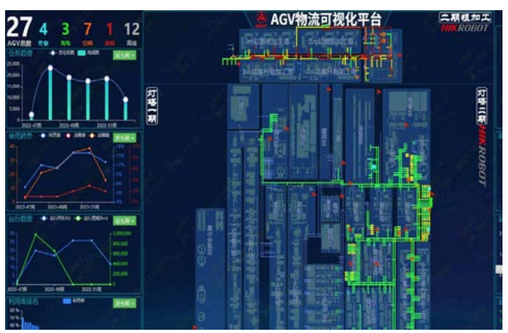
| Welding cylinder base | Automatic pairing, high welding accuracy



| Assembly pressure testing | Clean workshop, automatic assembly

We strive for enhanced agility in manufacturing, transparency in processes, more effective decision-making, and smarter user experiences. Our goal is to address production bottlenecks and establish a well-functioning decision-making platform that ensures a smooth cycle from order placement to delivery.

| Automated production line | Assembly line production



| Intelligent decision-making | Agile manufacturing, fast delivery

Creating the highest quality cylinders
Leading the industry standard of cylinders

05 / Application Field

Our products, services, and solutions have withstood the test of time, proving their capability to meet the demands of numerous rigorous application fields.

- Excavating machinery
- Mining equipment
- Hoisting Machinery
- Concrete machinery
- Port machinery
- Road machinery
- Piling machinery
- Coal machinery
- Oil equipment
- Wind power equipment
- Tunnel machinery
- Aerial work machinery
- Robots
- Metallurgical machinery
- Aviation equipment

06 / Product spectrum

Application of excavator machinery products

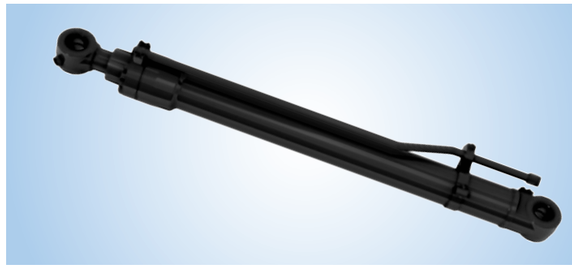
Performance characteristics

We offer a complete set of cylinders covering mainstream excavator models ranging from 1.6 to 125 tons. These cylinders boast high reliability, long lifespan, and are backed by proprietary intellectual property rights, customizable to fit other models.

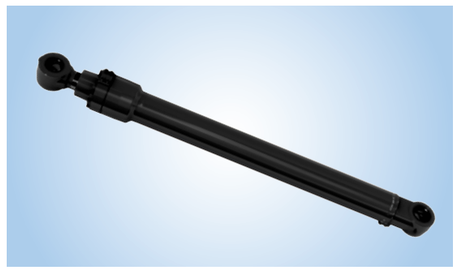
Excavator cylinder

- Independently developed patented buffering structure, with efficient and reliable buffering performance;
- Imported sealing system and guide support, low friction resistance and quick response;
- Nickel-chromium composite plating process, with a hardness value (HV) greater than 850, ensuring wear and corrosion resistance;
- Piston rod high-frequency quenching process, with a hardness value (HRC) greater than 52, ensuring wear resistance and impact resistance.

Bucket cylinder



Boom cylinder



Arm cylinder

Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
	Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Boom cylinder	55-200	30-140	387-1790	24.5-34.3	52-700	74-1372	-40-120
Arm cylinder	55-215	30-150	405-2140	24.5-34.3	52-814	74-1586	-40-120
Bucket cylinder	50-210	35-145	355-1455	24.5-34.3	31-791	61-1513	-40-120
Dozer blade cylinder	75-130	40-70	120-180	24.5-34.3	99-412	138-580	-40-120
Angle blade cylinder	63-70	35-40	360-430	24.5-34.3	67-113	97-168	-40-120
Deflection swing cylinder	55-110	35-60	355-618	24.5-34.3	44-292	74-415	-40-120
Deflection steer cylinder	63-100	35-60	265-355	24.5-34.3	67-220	97-343	-40-120

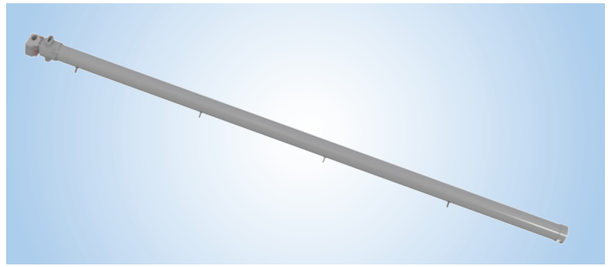
Application of crane machinery products

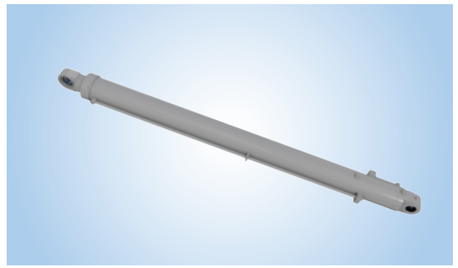
Performance characteristics

We offer a complete set of cylinders covering mainstream crane models ranging from 3 to 3600 tons. These cylinders boast high strength, lightweight design, and superior stability, customizable to fit other models.

Luffing cylinder

High-strength, thin-walled, low-temperature materials, lightweight, providing smooth operation during long stroke, with a high pressure resistance of up to 40MPa and can withstand temperatures ranging from -40°C to 120°C.

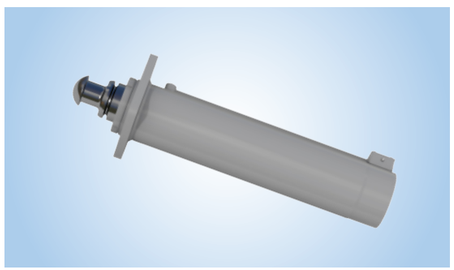




Telescopic cylinder

High-strength, thin-walled, low-temperature materials, lightweight, providing smooth operation during long stroke, with a high pressure resistance of up to 40MPa and can withstand temperatures ranging from -40°C to 120°C.

Outrigger cylinder



Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
	Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Luffing cylinder	80-790	70-700	680-4790	40	60-5364	256-24964	-40-120
Telescopic cylinder	75-400	60-320	400-1440	32	65-1843	180-5120	-40-120
Suspension cylinder	90-150	45-110	95-300	25	152-260	203-563	-40-120
Centering cylinder	90	50	82-140	18	101-101	146-146	-40-120
Outrigger jack cylinder	125-360	100-320	545-1295	40	225-1088	625-5184	-40-120
Superlift pre-tightening cylinder	150-220	70-110	640-1400	35	616-1271	788-1694	-40-120

Application of concrete machinery products

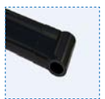
Performance characteristics

We offer a complete set of cylinders for truck-mounted concrete pumps ranging from 21 to 86 meters, meeting the requirements of high pressure, lightweight, and high reliability, customizable to fit other models.

Master cylinder

Featuring high pressure, reliable sealing, extended lifespan; equipped with digital displacement sensing technology to precisely control the cylinder stroke and enhance pumping efficiency.

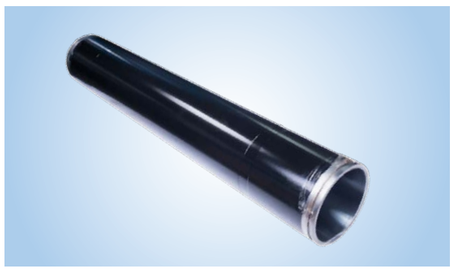
Boom frame cylinder



86-meter all-steel Guinness record boom frame cylinder for truck-mounted concrete pump, using high-strength material, aluminum alloy components and low-friction seals for smooth operation. It reduces the overturning moment and assists the main machine in operating.

Conveying cylinder

Using high-strength material heat treatment to enhance base hardness, with a coating thickness of 0.25mm and a hardness above 850HV, comprehensively improving the wear resistance and service life of the conveying cylinder.



Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
	Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Boom frame cylinder	50-450	32-280	300-3435	35	52-4344	88-7088	-40-120
Master cylinder	63-360	40-220	500-2800	42	99-3410	167-5443	-40-120
Outrigger cylinder	60-170	40-140	365-750	25	50-233	90-723	-40-120
Bundling cylinder	63-75	45-55	2100-2800	25	49-65	99-141	-40-120
Extension cylinder	75-130	55-80	220-2400	25	65-263	141-423	-40-120
Swing valve cylinder	100	70	200	25	128	250	-40-120
Conveying cylinder	100-460	/	/	/	/	/	-40-120

Application of port machinery products

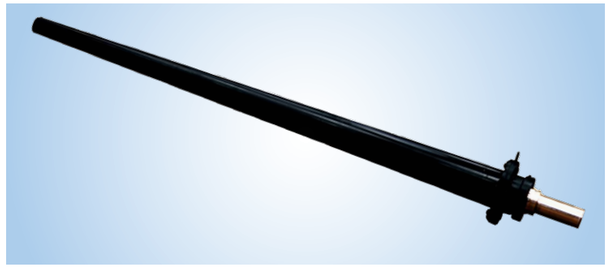
Performance characteristics

We offer a complete set of cylinders covering mainstream models including gantry cranes, quayside cranes, overhead cranes, reach stackers, telehandlers, container handlers, material handlers, heavy-duty forklifts, container lorries, and others. These cylinders boast high corrosion-resistance, high reliability, long lifespan, customizable to fit other models.

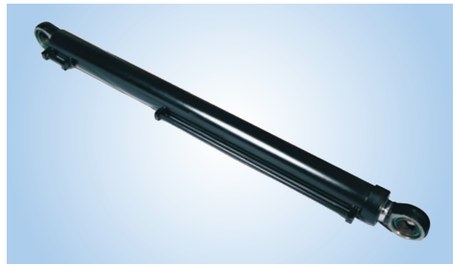
Lifting cylinder /Tilting cylinder

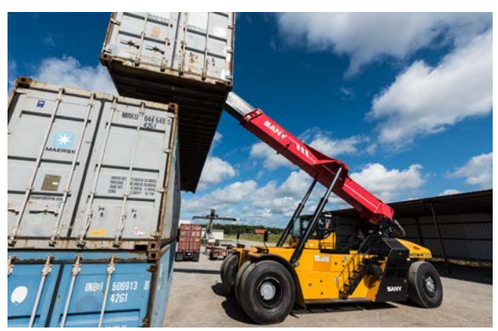
- A complete set of imported high-temperature seals, working for 10,000 hours without leakage;
- Copper piston and copper guide bushing, ensuring no scratches on the cylinder and piston rod, with a structural component lifespan of up to 20,000 hours;
- The piston rod coating exhibits strong corrosion resistance, meeting the standard of NSS salt spray test Grade 10, with a duration of 320-1000 hours.

Lifting cylinder



Tilting cylinder





Application main engine	Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
		Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Reach stacker Cylinder	Tilting cylinder	160-250	140-200	538-3250	25	150-563	640-1563	-40-120
	Telescopic cylinder	63-200	45-180	500-7504	25	49-190	99-1000	-40-120
	Damping cylinder	75-110	40-75	650-695	25	101-109	141-250	-40-120
	Steering cylinder	150-250	110-160	213-388	25	260-923		-40-120
Telescopic arm Forklift cylinder	Luffing cylinder	125-200	70-125	962-1380	28	300-683	438-1120	-40-120
	Telescopic cylinder	63-125	50-75	2485-3802	28	41-280	111-438	-40-120
	Fork leveling cylinder	110-120	60-95	289-425	28	238-221	339-473	-40-120
	Outrigger cylinder	110-180	75-110	310-508	28	181-568	339-907	-40-120
	Fork following cylinder	63-125	50-75	330-780	28	41-280	111-438	-40-120
	Frame leveling cylinder	110-125	60-75	165-175	28	238-280	339-438	-40-120
Container handlers Cylinder	Lifting cylinder	125-180	100-160	3480-8250	25	/	391-810	-40-120
	Swaying cylinder	80-180	55-100	230-525	25	84-560	160-810	-40-120
	Rotary lock cylinder	32	20	70-99	25	16	26	-40-120
	Steering cylinder	140-150	100-110	380-386	25	240-260		-40-120
Heavy-duty forklift Cylinder	Lifting cylinder	100-170	90-150	1843-1950	30	/	300-867	-40-120
	Swaying cylinder	120-160	75-90	265-710	25	219-438	360-640	-40-120
	Mobile cylinder	63-100	45-75	800-995	25	49-109	99-250	-40-120
	Steering cylinder	110-170	75-110	320-380	25	162-420		-40-120
Material handler Cylinder	Boom cylinder	170-200	120-140	1320-1325	34.5	500-704	997-1380	-40-120
	Arm cylinder	140-215	100-180	1352-1400	34.5	331-477	676-1595	-40-120
	Outrigger cylinder	160-180	90-110	513-567	31.5	551-639	806-1021	-40-120
	Steering cylinder	100	63	185	25	151	250	-40-120
	Energy-saving cylinder	220-260	180-240	1400-2335	34.5-37	/	1670-1791	-40-120
Gantry crane Cylinder	Jacking cylinder	140-220	120-160	850-983.5	25	130-570	490-1210	-40-120
	Locking pin cylinder	63	28	120	16	51	64	-40-120
	Steering cylinder	90-160	63-80	870-870	16	66-307	130-410	-40-120
Quayside crane Cylinder	Hanging cabin cylinder	170-200	110-160	1000-1400	25	420-360	723-1000	-40-120
	Lattice tensioning cylinder	100-125	55-70	847-1460	25	174-268	250-391	-40-120
	Trolley tensioning cylinder	125-140	70-100	1200-1600	25	268-240	391-490	-40-120
Overhead crane Cylinder	Luffing cylinder	400-450	220-360	8000-9000	31.5	3780-2296	5040-6379	-40-120
	Outrigger jack cylinder	180-250	160-220	480-668	40	272-564	1296-2500	-40-120
	Outrigger telescopic cylinder	63-75	40-55	1900-1735	20	47-52	79-113	-40-120
	Steering cylinder	90-160	50-90	553-1621	20	112-350	162-512	-40-120

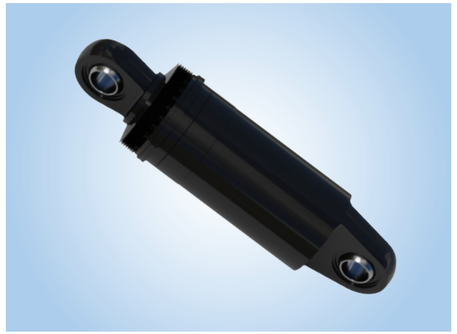
Application of mining machinery products

Performance characteristics

We offer a complete set of cylinders for wide-body trucks and mining trucks, covering mainstream models in the market. These cylinders boast excellent damping characteristics, sound driving comfort, high air tightness, and long service life, customizable to fit other models. It also covers roadheaders with high reliability, safety, and corrosion resistance, customizable to fit other models.

Suspension cylinder

- Full pneumatic suspension buffering technology;
- Adopting oil and gas separation sealing system, the suspension cylinder boasts good buffering performance and fast response time;
- The piston rod is made of high-strength and tough material, providing strong impact resistance.
- Using imported inflation valve and intersecting exhaust structure, ensuring excellent airtight sealing performance of the enclosed chamber.



Cutting head telescopic cylinder

- The pin hole is equipped with a skeleton dust seal, providing strong dust-proof performance;
- Double-layer chrome plating process, with a hardness value (HV) greater than 850, ensuring wear and corrosion resistance;
- Piston rod high-frequency quenching process, with a hardness value (HRC) greater than 52, ensuring wear resistance and impact resistance.

Application main engine	Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
		Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Wide-body truck Cylinder	Rear suspension cylinder	180-220	150-180	115-140	27.5	272-440	891-1331	-40-120
	Lifting cylinder	140-180	135-175	786-2740	20	/	392-648	-40-120
	Front suspension cylinder	160-170	120-130	140-200	27.5	308-330	704-795	-40-120
	Accumulator cylinder	140	0	0	27.5	/	/	-40-120
	Steering cylinder	70-80	40-45	365-415	18	59-79	88-115	-40-120
Roadheader Cylinder	Blade lifting cylinder	180-300	110-180	120-1060	25	508-1440	810-2250	-40-120
	Rear support cylinder	160-250	100-180	192-310	25	390-753	640-1563	-40-120
	Cutting head rotary cylinder	160-250	100-160	608-1060	31.5	491-1162	806-1969	-40-120
	Cutting head telescopic cylinder	100-125	63-80	500-650	31.5	190-291	315-492	-40-120
	Cutting head lifting cylinder	180-250	110-150	434-1130	31.5	639-1260	1021-1969	-40-120
Mining vehicles Cylinder	Rear suspension cylinder	240-330	180-290	158-200	20	/	1152-2178	-40-120
	Lifting cylinder	150-260	120-240	815-2702	25	/	563-1690	-40-120
	Front suspension cylinder	210-280	180-240	250-320	20	234-416	882-1568	-40-120
	Steering cylinder	80-120	45-75	470-606	18	79-158	115-259	-40-120
Anchor drilling rig Cylinder	Blade lifting cylinder	220-250	160-180	200-210	21	479-632	1016-1313	-40-120
	Roof support telescopic cylinder	40	25	580-900	16	16	26	-40-120
	Rear support cylinder	250	180	242	25	753	1563	-40-120
	Sliding frame cylinder	50	40	980-1130	16	14	40	-40-120
	Cutting head lifting cylinder	180-220	110-140	436-585	25	508-720	810-1210	-40-120
	Chain-driven cylinder	50	35	670-750	25	32	63	-40-120
	Primary telescopic cylinder	100	75	1600-2230	25	109	250	-40-120
	Support turnover cylinder	63-90	40-55	560-788	25	59-127	99-203	-40-120
	Boom extension cylinder	63-80	40-55	1000-1250	21	50-71	83-134	-40-120
	Left blade lifting cylinder	220-250	160-180	200-210	25	570-753	1210-1563	-40-120
Tunnel repair machine Cylinder	Bucket cylinder	80	55	430	25	84	160	-40-120
	Boom tilting cylinder	110	70	101	20	144	242	-40-120
	Boom cylinder	100	65	445	25	144	250	-40-120
	Arm cylinder	90	60	460	25	113	203	-40-120
	Jib cylinder	85	45	85	20	104	145	-40-120
	Dozer blade cylinder	85	45	110	20	104	145	-40-120

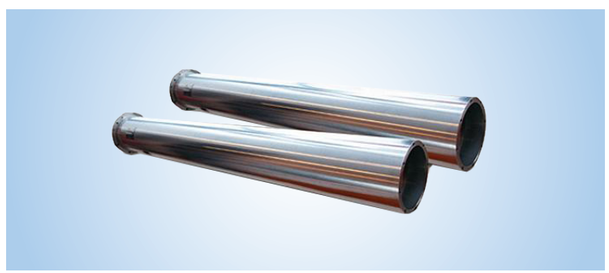
Application of road machinery products

Performance characteristics

We offer a complete set of cylinders covering mainstream models including pavers, graders, milling machines and rollers. These cylinders boast high reliability and anti-crush protection, customizable to fit other models.

Telescopic sliding pipe

- Three-stage telescoping, can be installed in a smaller space at both ends;
- Long stroke operation, excellent axial support performance, smooth operation without abnormal noise;
- Chrome-plated inner and outer surfaces, with excellent corrosion resistance.

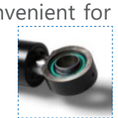


Shovel extension cylinder

- Piston rod high-frequency quenching process, with a hardness value (HRC) greater than 52, ensuring wear and impact resistance;
- The oil inlet adopts a bent pipe joint, which is aesthetically pleasing and reliable.

Blade lifting cylinder

- Using split-type spherical hinge seat, allowing for a greater swing angle;
- Shims are placed between the hinged supports to enhance the tightening strength of the ball heads;
- The rod head's split structure makes it convenient for disassembly and installation.



Application main engine	Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
		Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Grader Cylinder	Shovel swinging cylinder	80-90	50-55	420-610	20	78-102	128-162	-40-120
	Shovel lifting cylinder	80-90	50-55	1020-1242	18	70-91	115-146	-40-120
	Shovel extension cylinder	80-90	45-55	1184-1284	20	88-102	128-162	-40-120
	Front wheel tilting cylinder	90	50-55	142-173	18	91-101	146-146	-40-120
	Steering cylinder	50-100	35-55	285-295	16	20-112	40-160	-40-120
Paver Cylinder	Boom cylinder	75-120	40-60	350-530	20	81-216	113-288	-40-120
	Screw lifting cylinder	50-75	25-40	200-210	20	38-81	50-113	-40-120
	Telescopic cylinder	63-75	32-70	548-1850	20	59-15	79-113	-40-120
	Tensioning cylinder	125	70-100	130-130	16	172-90	250-250	-40-120
	Leveling cylinder	50-80	25-40	350-520	16	30-77	40-102	-40-120
Milling machine Cylinder	Swing cylinder	75-90	40-55	140-790	22	89-112	124-178	-40-120
	Side plate cylinder	32-50	20-35	370-490	16	10-20	16-40	-40-120
	Side slip plate cylinder	32-50	20-35	210-730	8	5-10	8-20	-40-120
	Material feeding folding cylinder	75-80	40	470-680	20	81-96	113-128	-40-120
	Material feeding master cylinder	63	32	660-960	20	59-59	79-79	-40-120
	Outrigger lifting cylinder	110	75	600-1175	20	130-130	242-242	-40-120
	Outrigger cylinder	63-90	40-63	400-650	20	47-83	79-162	-40-120
	Steering cylinder	63-90	32-55	242-1080	18	53-91	71-146	-40-120
Road Roller Cylinder	Steering cylinder	63-130	32-70	125-414	20	59-240	79-338	-40-120

Application of piling machinery products

Performance characteristics

Covering a full range of oil cylinders for mainstream models in the market of pile machinery such as rotary drilling rigs, diaphragm wall cutters, horizontal directional drills, with high reliability and long service life, customizable to fit other models.

Pressurized oil cylinder

- Adopting anti-seismic design to enable the cylinders to withstand high impact and vibration conditions during drilling;
- Selecting high-strength hot-rolled tube quenched and tempered cylinder, ensuring excellent safety and reliability of the cylinder.



Mast cylinder

- Selecting high-performance dust seals, which can effectively scrape off mud and dirt splashing onto the piston rod during machine operation;
- The piston rod is double chrome plated, with a surface hardness of HV≥850, providing both corrosion resistance and impact resistance;
- Simple structure, featuring a modular oil pipe design, easy to disassemble, maintain and replace.



Application main engine	Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
		Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Rotary Drilling Rig Cylinder	Pressurized oil cylinder	100-180	65-125	2600-6050	25	144-419	106-391	-40-120
	Mast cylinder	125-320	90-200	1336-5550	31.5	237-1966	255-1260	-40-120
	Luffing cylinder	125-280	90-160	468-1461	31.5	237-1663	255-806	-40-120
	Support cylinder	150-200	100-180	1000-1900	31.5	394-239	315-1021	-40-120
	Telescopic cylinder	120-140	60	510-710	31.5	340-504	113-113	-40-120
	Pin removal cylinder	100-200	63-120	190-320	20	121-512	79-288	-40-120
Diaphragm wall cutter Cylinder	Grapple cylinder	220-300	160-200	800-2285	34	775-1700	870-1360	-40-120
	Mast cylinder	220-250	160-170	2600-2720	34	775-1142	870-983	-40-120
	Push plate alignment cylinder	100	75	100-205	34	149	191	-40-120
	Telescopic cylinder	120	60	660	30	324	108	-40-120
Horizontal directional drill Cylinder	Clamping cylinder	32-170	20-125	48-75	35	22-465	14-547	-40-120
	Unhooking cylinder	63-90	32-55	153-277	35	103-178	36-106	-40-120
	Outrigger cylinder	90-130	55-90	170-650	25	127-220	76-203	-40-120
	Luffing cylinder	90-150	55-90	180-857	35	178-504	106-284	-40-120
Dual-wheel milling Cylinder	Mast cylinder	250	140	3780	28	1201	549	-40-120
	Push plate alignment cylinder	100	70	116-164	26	133	127	-40-120
Deep hole drill Cylinder	Clamping cylinder	63	32	110	25	74	26	-40-120
	Clamping cylinder	125	70	65	25	268	123	-40-120
	Swing cylinder	125	63	220	25	291	99	-40-120
	Compensating cylinder	75	63	1900	25	0-41	99	-40-120
	Disassembly cylinder	63	32	60	25	74	26	-40-120
	Overturn cylinder	32-125	20-63	80-605	25	16-291	10-99	-40-120
	Tilting cylinder	125	75	196	25	0-250	0-141	-40-120
	Lifting cylinder	160	100	710	25	0-390	0-250	-40-120
	Telescopic cylinder	50	32	220	25	0-37	0-26	-40-120
	Thrust-pull cylinder	140	70	855	25	0-368	0-123	-40-120

Energy and mineral applications

Performance characteristics

Applied in the energy and mineral industries such as photovoltaics, hydrogen energy, and lithium energy, with excellent performance and patented technology, customizable to fit other models.

Silicon energy cylinder

- High-performance seals meet long-term pressure-holding conditions;
- Split-type piston rod assembly, high processing efficiency.

Hydrogen energy cylinder

- Special piston seals, resistant to temperatures up to 130°C;
- Patented piston structure improves assembly efficiency and product lifespan;
- Circulating water cooling system reduces failure rate.

Application main engine	Product Model	Specifications (mm)			Working pressure (MPa)	Thrust/Pull force (kN)		Working temperature (°C)
		Bore diameter	Rod diameter	Stroke		Pull force	Thrust force	
Hydrogen compressor Cylinder	Loading cylinder	150-160	55-75	304-404	30	584-599	675-768	-20-130
	Compressor cylinder	90-150	55-75	304-404	30	152-506	243-675	-20-130
Battery swapping vehicle Cylinder	Telescopic cylinder	75	55	1860	20	51	110	-20-120
	Outrigger cylinder	140	120	1950	25	102	385	-20-120
Monocrystalline furnace Cylinder	Auxiliary chamber cylinder	150	100	1000	8	245	442	-40-120
	Main chamber cylinder	150	100	1450	8	245	442	-40-120

Dedicated to providing outstanding component products and comprehensive solutions for global mechanical transmission systems.

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