



# PRODUCTS CATALOGUE

**Certified by American Petroleum Institute (API)**

**Certified by Lloyd's Register (LR)**

**Products conforming to international standards including ISO, BS, DIN, AS, JIS, RR-W-410....etc.**

**DNV and ISO Certified Factory**

**AGS-Industrial, Ph: +1-505-550-6501, Fx: +1-505-814-5778, Em: [sales@ags-industrial.com](mailto:sales@ags-industrial.com),  
Web: <http://www.ags-industrial.com>**

## C COMPANY PROFILE

Wire rope factory, established in 1966, is a professional manufacturer specializing in researching and producing various kinds of steel wire and wire rope in China. During the past 40 years, we have experienced rapid expansion and have accumulated strong technical force. Now the annual output has reached 300,000 metric tons with 100,000 metric tons wire rope, 100,000 metric tons steel wire and 100,000 metric tons PC wire strand. We are able to supply a variety of wire and wire rope complying with many international standards such as ISO, BS, DIN JIS, RR-W-410D, AS, LR and DNV ETC. we have the advantage to research, develop and produce special construction and special application wire rope.

Every employee in our company is working hard on different posts with our enterprise spirit of sincerity and honesty. We promise here that we will try our best to meet the requirement of our customers so as to develop together on the basis of mutual benefit.



## P RODUCTION LINE

Our company has been one of the main tempered bead wire manufacturers in China since year 1993, and its annual production capability of tempered bronze and copper coated wire is up to more than 30000 tons. The customers have approved it for its good quality and performance, so it became one of the most preferred brands among tyre manufacturers in China and got golden cup award of quality of steel wire products in 1999. In order to follow up advancement of international tyre wire producing technology, our company has improved tempered tyre wire and imported a bronze coated bead wire production line with high automatic degree and advanced technology from Italy, which can produce wire in range of 0.78mm-2.1mm according to many standards such as: GB1440, BEKAERT. Our company will try its best to go up to serve all customers.



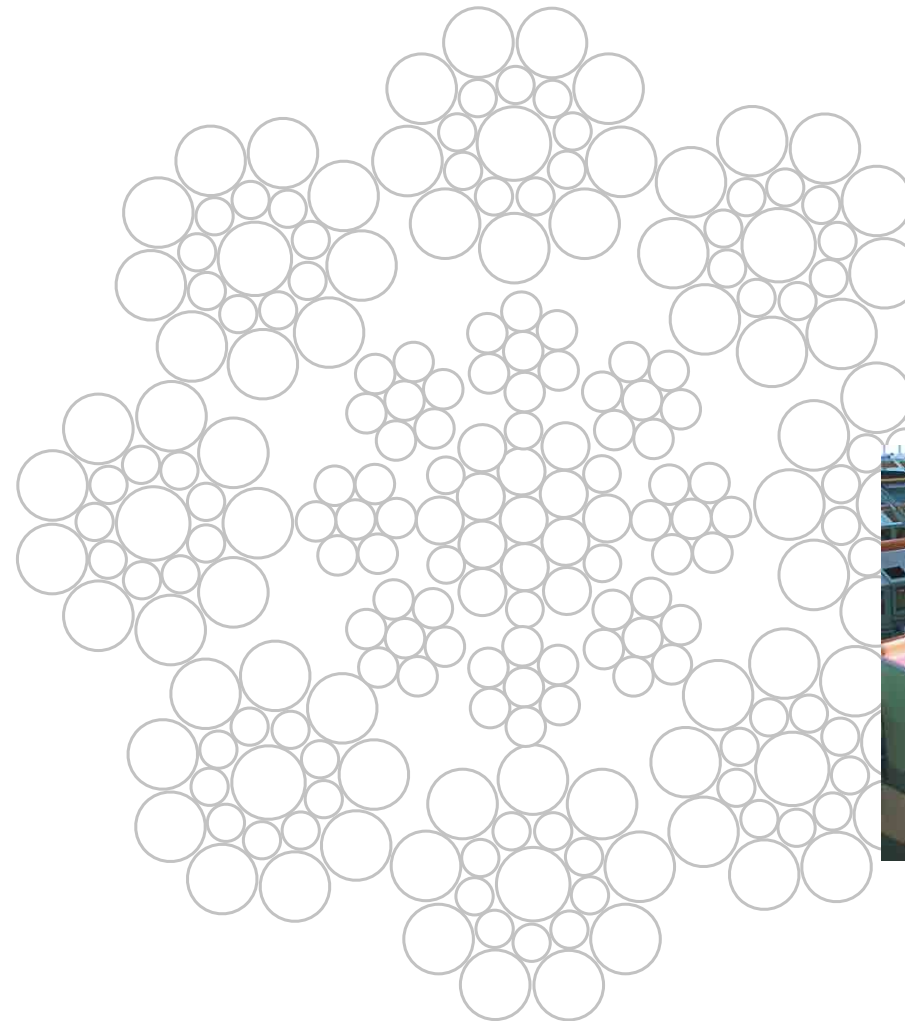
Drawing Machine



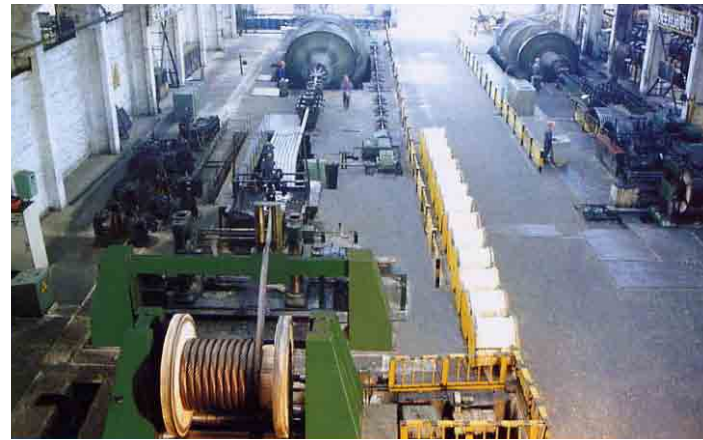
Wire Drawing



Bronze Coating Line



Factory imported full set of machines to produce and test the high strength low relaxation PC wires and strand. The annual productive capacity of PC wires is 6000MT, and PC strand is 80000 MT. The equipments are TD1270/9, TD900/9 wire drawing machine from TEAM, 1X50 1+6/1250 PC strand production line and SK-2300-1+6/1120 PC strand production line from LMARIO FRIGERIO S.P.A. and CONTINUUS. The machines are equipped with speed adjustment by AC frequency, controlled by computer and PLC automatically and equipped with advanced software. Narrow gap water cooling technology for full block, the main control desktop is liquid crystal screen, it can display the running condition and alarm. These functions can guarantee the quality of PC wires and PC strand to meet GB/t5223, GB/T5224 and ASTM A421, ASTM416, JIS G 3536 BS5896. Standards



Closing Machine



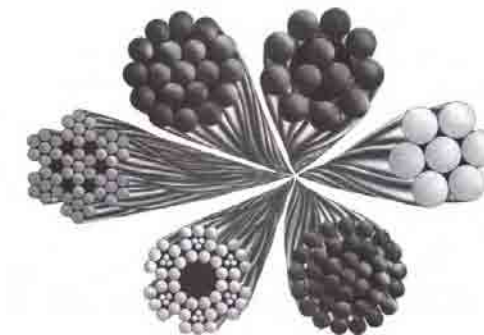
Closing Machine



Stranding Line

## P RODUCTS

- I . PC STRAND
- II . BRIGHT STEEL WIRE
- III . GALVANIZED STEEL WIRE
- IV . TYRE BEAD WIRE
- V . CO2 WELDING WIRE
- VI . STEEL WIRE FOR PLASTIC TUB
- VII . WIRE ROPE



# I.PC STRAND

## 1. Production Features

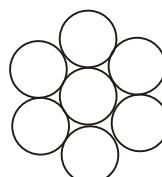
PC wire and PC strand have following features: high strength, low stress, stable construction, good combination with concrete, material saving, reducing distortion and construction weight, increasing the abrasion resistance and fatigue resistance, water resistance, stiffness.

## 2. Range of Application

The products are applied widely as follows: bridges, buildings, pressure pipes, rails, storages, poles and water towers etc concrete structures and components. They are also used tall, wide span, heavy load, and anti-seismic structures, civil engineering, oceaning, nuclear power station etc.

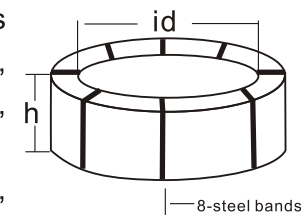


## Physical Characteristic of construction 1X7 strand (ASTM A416/A416M-2002)

Construction	Nominal Diameter (mm)	Nominal section (mm <sup>2</sup> )	Nominal weight (kg/1000m)	The minimum breaking Load (kn)	Requirement of fatigue Strength		
					Initial load (kn)	Minimum load for elongation of 1% kn pour 1% (kn)	
						Normal relaxation	Low relaxation
 1X7	1725 Grade						
	6.35	23.22	182	40.0	4.0	34.0	36.0
	7.94	37.42	294	64.5	6.5	54.7	58.1
	9.53	51.61	405	89.0	8.9	75.6	80.1
	11.11	69.68	548	120.1	12.0	102.3	108.1
	12.70	92.90	730	160.1	16.0	136.2	144.0
	15.24	139.35	1094	240.2	24	204.2	216.2
	1860 Grade						
	9.53	54.84	432	102.3	10.2	87.0	92.1
	11.11	74.19	582	137.9	13.8	117.2	124.1
	12.70	98.71	775	183.7	18.4	156.1	165.3
	15.24	140.00	1102	260.7	26.1	221.5	234.6





- (1) Characteristics of relaxation -1000 hours after commencing low relaxation test, when initial load is 70% of specified load, the relaxation loss is not 2.5%, or when initial load is 80% of specified load, the relaxation loss is not more than 3.5%
- (2) Elongation when the loaded test length is not less than 610mm, the total elongation of strand should be not less than 3.5%.



h : 750MM  
 id : 800MM  
 weight: 2.2-3.0tons/reel  
 length: 2100M-2600M  
 PC STRAND PACKAGE



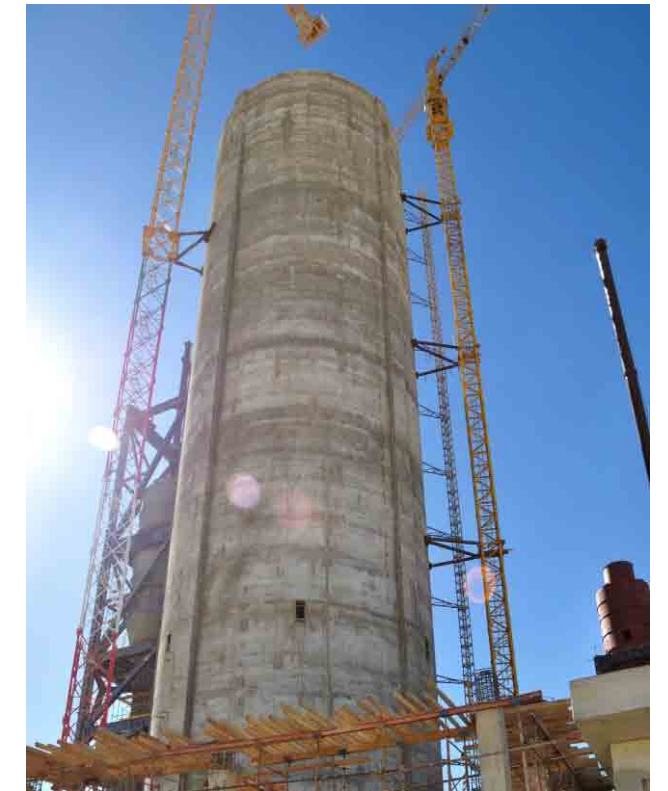
**(BS 5896-1980)**

Classification		 1×7				 1×7 Excellent strand:				
Nominal Dia.(mm)		15.2	12.5	11.0	9.3	15.7	12.9	11.3	9.6	8.0
Nominal Tensile strength(N/mm <sup>2</sup> )		1670	1770	1770	1770	1770	1860	1860	1860	1860
Nominal Section (mm <sup>2</sup> )		139	93	71	52	150	100	75	55	38
Nominal mass (g/m)		1090	730	557	408	1180	785	590	432	298
Tolerance	Dia. (mm)	+0.4/-0.2		+0.3/-0.15		+0.4/-0.2		+0.3/-0.15		
	Section(mm <sup>2</sup> )	For all strands + 4%/- 2%								
	Mass (g/m)	For all strands + 4%/- 2%								
Specified characteristic breaking force kN		232	164	125	92	265	186	139	102	70
Specified characteristic 1% test load kN		197	139	106	78	225	158	118	87	59
1% longation load kN		204	144	110	81	233	163	122	90	61
Minimum elongation at max. load (L0=500mm)		For all strands 3.5%								
Constriction at break		For all strands ductile wire breaks visible to the naked eye								
Relaxation	Initial Load (% of factual load)		For all strands 60% 70% 80%							
	Max. Relaxation after 1000h	I class Relaxation	For all strands 4.5% 8% 12%							
		II class Relaxation	For all strands 1.0% 2.5% 4.5%							

**EXAMPLE PROJECTS**

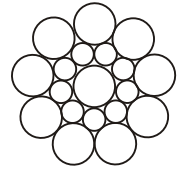
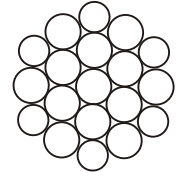


Luzhou Taian Yangzi River Bridge



Wadi El Nile Cement Plant

**Physical Characteristic of construction 1X19 strand (Jis G 3536-1999)**

Reference	Diameter (mm)	0.2% load of ermanent elongation (kN)	Tensile Force (kN)	Elongation (%)	Relaxation (%)	
					N	L
 1X19S	17,8	>330	>387	>3,5	<8,0	<2,5
	19,3	>422	>451	>3,5	<8,0	<2,5
	20,3	>387	>495	>3,5	<8,0	<2,5
	21,8	>495	>573	>3,5	<8,0	<2,5
 1x19W	28,6	>807	>949	>3,5	<8,0	<2,5



Chongqing Zhongxian Yangzi River Bridge

Note: N indicate normal relaxation L indicate low relaxation

## II. Bright steel wire

Standard DIN2078, DIN17223, EN10264, GB/T8919, GB4357-89, YB/T5220-93, etc.

### 1. Soft coil and steel bobbin

Wire Diameter (mm)	Tolerance+/-	Tensile Strength (Mpa)	Minimum Torsion (N)	Packing Weight (Kg/Cl)	Packing	Reference Standard
0.2-0.35	0.01	1980-2980		20	steel bobbin	YB/T5220-93
0.4-0.6	0.01	1870-2580		25-50	soft coil	YB/T5220-93
0.6-1.0	0.01	1670-2180	31-26	50-100	soft coil	YB/T5220-93
1.0-1.8	0.015	1570-2070	27-22	50-100	soft coil	YB/T5220-93
1.8-2.3	0.02	1470-1960	26-20	100-200	soft coil	YB/T5220-93
2.3-3.5	0.02	1470-1870	23-17	100-200	soft coil	YB/T5220-93
3.5-4.0	0.025	1470-1770	21-18	200-300	soft coil	YB/T5220-93
4.0-5.0	0.03	1370-1670	13--6	200-300	soft coil	YB/T5220-93
5.0-6.0	0.03	1270-1570	6--4	200-300	soft coil	YB/T5220-93



### 2. Grail with cardboard and steel column

Wire Diameter (mm)	Tolerance	Tensile Strength (Mpa)	Minimum Torsion Number (N)	Packing Weight (Kg/Cl)	Reference Standard	Spiral Pitch (mm)	Coil Diameter (mm)
1.3-1.8	0.02	1470-1960	27-22	400-600	GB4357-89	0-75	533-635
1.8-2.3	0.02	1470-1960	26-20	600-800	GB4357-89	0-75	635-737
2.3-3.5	0.02	1470-1870	23-17	600-800	GB4357-89	0-75	635-737
3.5-4.0	0.025	1470-1770	21-18	600-800	GB4357-89	0-75	737-838
4.0-5.0	0.03	1370-1670	13--6	600-800	GB4357-89	0-100	737-838
5.0-6.0	0.03	1270-1570	6--4	400-600	GB4357-89	0-100	900-1100

### 3. High tensile strength spring wire

Wire Diameter (mm)	Tolerance+/-	Tensile Strength (Mpa)	Packing Weight (Kg/Cl)	Reference Standard	Vector Height (mm)	Coil Diameter (mm)
0.60-1.50	0.02	2100-2800	50-100	Company Standard	≤50	350-500
0.60-1.50	0.02	2100-2800	400-500	Company Standard	≤50	350-500



### 4. Z2 coil

Tolerance	Tensile Strength (Mpa)	Minimum Torsion Number (N)	Packing Weight (Kg/Cl)	Reference Standard	Spiral Pitch (mm)	Coil Diameter (mm)	Tolerance
0.02	1470-1960	31-26	350-450	GB4357-89	0-75	430-550	0.02
0.02	1470-1960	27-22	350-450	GB4357-89	0-100	450-570	0.02



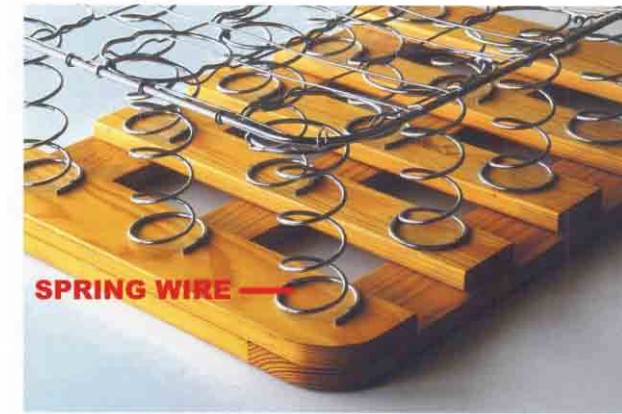
### III. Galvanized steel wire (Z2 coil for below 1.60mm)

Wire Diameter (mm)	Tolerance+/-	Tensile Strength (Mpa)	Zinc Coating (G/M <sup>2</sup> )	Packing Weight (Kg/Cl)	Reference Standard
0.60-1.50		1800-2400	60-120 (Bigger Diameter, More Zinc Coating)	50-100 Ou400-500	GB8919
1.60-4.80		1200-1400	150-300 (Bigger Diameter, More Zinc Coating)	≤280	ASTM B498

**Note :**

1. packing: soft coil, grail with steel bobbin, grail with cardboard, Z2coil,etc., bright wire below 1.3mm only can packed in soft coil or Z2 coil; galvanized wire below 1.60mm only can packed in soft coil or Z2 coil, above 1.60mm only can packed in soft coil.
2. Dimension for grail with steel column can be negotiated; four kinds of dimension for grail with cardboard: 420mm,440mm,470mm and 490mm. Outer diameter after packing can not be over 750mm in order to meet the requirements of the container.
3. Z2 coil dimension: core diameter of cardboard: 355mm; height of cardboard: 280mm;width of the coil rising height of the coil: ≤295mm), wire outer diameter after packing ≤740mm.
4. pallet dimension: required ≤740mmx740mm.

### The purpose of steel wire



## IV. Bronze Coated Bead Wire

### Bead Wire Mechanical Performance and coating (GB14450)

Diameter (mm)	Tensile Strength (Mpa)		Number of Twists Time/360 °			
	Normal Strength	High Strength	General Diameter (mm)	Normal Strength (gauge length)	Diameter (mm)	High Strength (gauge length)
0.78≤d<0.96	1900-2300	2150-2500	d<1.00	≥50(L=200d)	d<1.00	≥50(L=200d)
0.96≤d<1.25	1850-2250	2050-2400	1.00≤d<1.30	≥25(L=100d)	1.00≤d<1.83	≥20(L=100d)
1.25≤d<1.70	1750-2150		1.30≤d<1.42	≥22(L=100d)	1.83≤d	≥15(L=100d)
1.70≤d<2.10	1500-1800		1.42≤d	≥20(L=100d)		
Chemical Composition of The Coating	Red Copper		Low Tin Bronze	High Tin Bronze	Minimum Rate of Elongation When Broken	
Cu %	≥99.9		≥97	8094		
Sn %	—		0.33	620		
Thickness of The Coating (μm)	0.12±0.05		0.10±0.05 Or 0.17±0.05		5%	
Yield strength degrees: the load corresponding to 0.2% yield strength is greater than or equal to 80% of the minimum breaking force of the wire.						
1. The technology status and the grade of the tensile strength of the goods should be specified in the contract.						
2. At the request of the users, after making agreement by both parties (and specified in the contract), we can make the bond test						

## V. Copper Coated Steel Wire For Plastic Tub

### Standard:

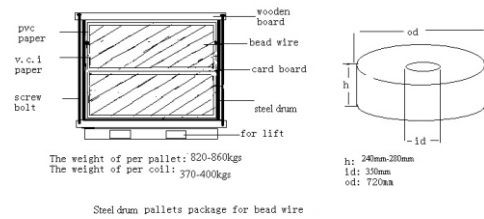
Q/GS07-2005 according to National recommended standard and Customer's requirements.

### Chemical Component

C	Si	Mn	P	S	Cu
0.60-0.80	0.17-0.37	0.50-0.80	≤0.030	≤0.030	≤0.25

### Actual wire specification

Diameter (mm)	Tensile strength (Mpa)	Number of torsion (n)	Elongation (%)	Standard	Class of tensile strength
0.60	1800-2000	≥25	-----	Q/GS07	A
	≥2000	≥25	-----	Q/GS07	B
0.80	1800-2000	≥27	-----	Q/GS07	A
	≥2000	≥30	5	Q/GS07	B
0.96	1800-2000	≥27	-----	Q/GS07	A
	≥2000	≥30	5	Q/GS07	B
1.00	1800-2000	≥27	-----	Q/GS07	A
	≥2000	≥30	5	Q/GS07	B
1.10	≥1815	≥25	5	Q/GS07	NT
1.20	1800-2000	≥27	-----	Q/GS07	A
	≥2000	≥30	5	Q/GS07	B
1.50	≥1815	≥25	5	Q/GS07	NT



Copper Coated Steel Wire For Plastic Tub (Cardboard Packing)



Copper Coated Steel Wire For Plastic Tub (Yellow Pe Board Packing)

### Technology performance specification

- A. main diameter scope:  $\phi$  0.60mm- $\phi$  1.60mm
- B. tensile strength:  $\geq$ 1800MPa
- C. number of torsion:  $\geq$ 25/360°
- D. number of bend:  $\geq$ 12
- E. copper coating:  $\geq$ 0.30g/Kg
- F. elongation:  $\geq$ 3%



## VI. CO2 welding wire



### CO2 WELDING WIRE

TYPE: TYPE : ER50-6

EQUAL TO: AWS NORMES EQUIVALENTES : ER70S-6

DIN SG2

BS A18

JIS YGW12

### 1. Chemical Component ( % )

C	Si	Mn	P	S	Cu	Other
0.06-0.15	0.8-1.15	1.4-1.85	≤0.025	≤0.035	≤0.50	≤0.50

### 2. Metallurgy Chemical Performance

Tensile Strength Mpa	Yield Strength Mpa	Elongation (%)	V-ImpactionAbsorbing power (-29℃) J
≥500	≥420	≥22	≥27

### 3. Wire Diameter And Referance Electric Current

Wire diameter (mm)	0.80	1.00	1.20	1.60
Welding current (A)	40-140	50-220	80-350	120-550

## VII. WIRE ROPE

Ungalvanized and galvanized wire, round strand, triangular strand, multi-layer strand, linear contact, facial contact, ungalvanized and galvanized wire rope which are produced in the manufacturing plant and tested rigorously, have a good reputation in domestic and overseas markets. Its superiority is to produce extra large, extra long, extra weight and special structure of wire rope. The wire diameter ranges from 0.15mm to 7.0mm, and the wire rope diameter range is up to 107mm. These wire ropes are widely used in petroleum industry, mining, transportation, aviation, electric power, irrigation works, post and telecommunication, marine engineering and forestry and in various other departments of national construction.

A large amount of very sophisticated wire ropes were used in various important national engineering projects such as Santou Bay Bridge, Guangzhou Humen Bridge, Three-gorge Xilin Yangts River Bridge, Gezhouba engineering, offshore drilling and manned ropeways for lifting persons in some famous tourism scenic spots etc.

Wire Rope manufacturing factory insists on quality for existence, increased variety for growth, and good management for benefit. Factory was approved and certified by Lloyd's Register(LR) and Chinese Classification Society (CCS) in 1997, it has obtained the certification of ISO 9002 Quality Management System Assessment issued by CCS and also obtained the certification of American Petroleum Institute (API). Recently, our company has promoted science and technology progress and has developed tempered tyre bead wire, four-strand, three-layer, high character plastic coated wire rope one after another, which are used for lifting, excavating mud through ships etc. Now they have been put into markets and highly praised by all customers.

Our products are exported to all over the world including USA, Canada, EU, Australia, Africa and Asia. The exported products can be manufactured completely conforming to many standards such as ISO, BS, DIN, AS, JIS, RR-W-410.



## OUR GOODS & PROJECTS



Rope for excavators and construction machines



Rope for petroleum wells



Rope for highways and bridges



Rope for ships and marine



Rope for construction



Rope for cable car



**AGS-Industrial, Ph: +1-505-550-6501, Fx: +1-505-814-5778, Em: [sales@ags-industrial.com](mailto:sales@ags-industrial.com),  
Web: <http://www.ags-industrial.com>**