

Meihua Xanthan Gum

Premium drilling mud additive

Better Rheological Properties
Stronger Thermo Stability





Meihua Group & Xinjiang Meihua

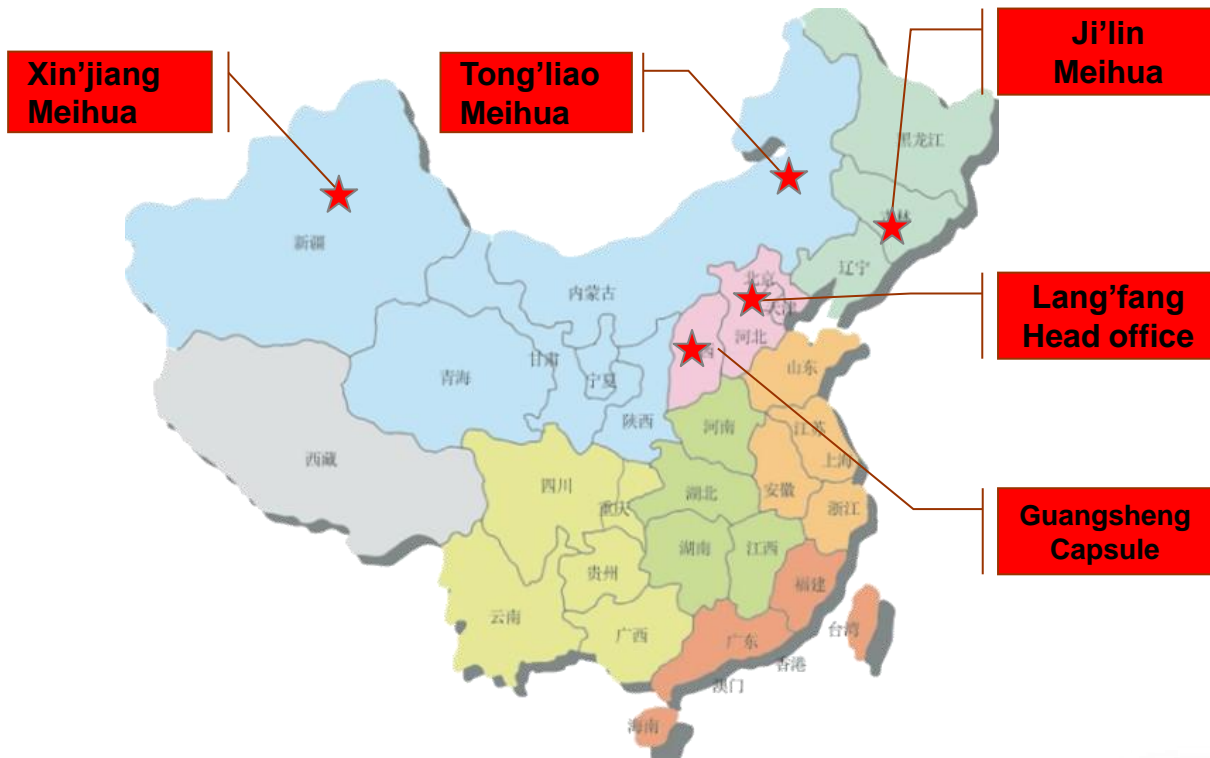
Meihua Xanthan Gum Growth History

Meihua Technology Advantage

Meihua Quality Advantage

Choose Meihua Xanthan Gum

Meihua Group



Corn-fermentation based amino acid manufacturer of food additives, feed additives, APIs and Polysaccharides

2018 Total sales **\$2,000,000,000**
Staffs **12,000**

Head office **Langfang, China**

3 Production bases **Inner Mongolia**
Xinjiang
Jilin

Purchased Guangsheng Capsule in 2014

Stock 600873.SH



Production Base Xinjiang Meihua



Establishment 2012

Investment US\$1 billion

Area 300 acres

Staff 3,120

Main Products MSG, I+G, L-Lysine
Xanthan gum

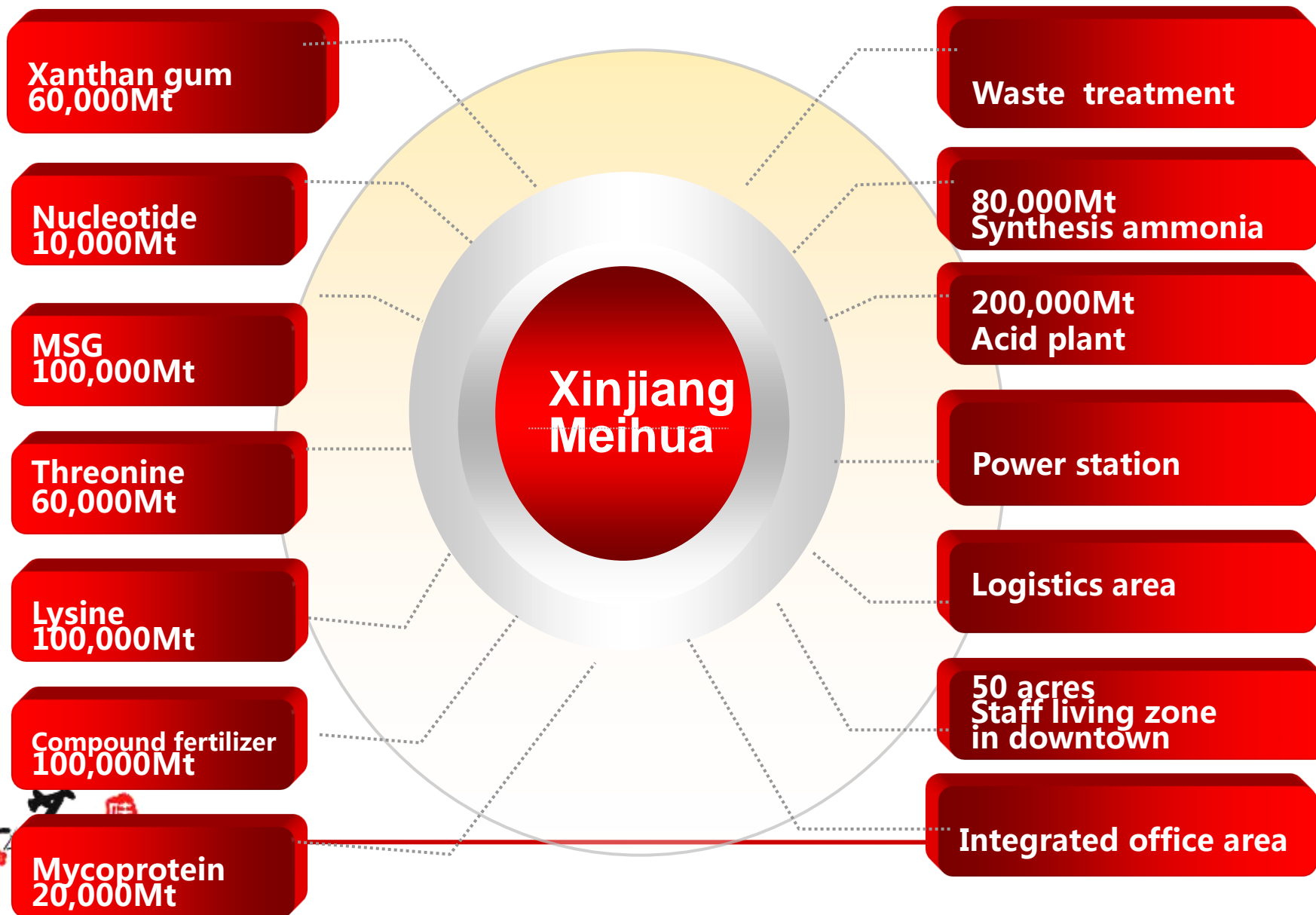
Corn Processing 1 million tons/year



Production Base Xinjiang Meihua

Main products & supporting facilities

18



Production Base Xinjiang Meihua



Environmental protection



imported **Netherland PAQUES** wastewater treatment technology and adopted the most advanced biological nitrogen removal technology.



**Waste gas –
before treatment**



**Waste gas –
after treatment**

Meihua invested more than **USD40 million** at waste gas treatment facilities and is the first manufacturer who solved this problem in China fermentation industry.

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Xanthan Gum Introduction

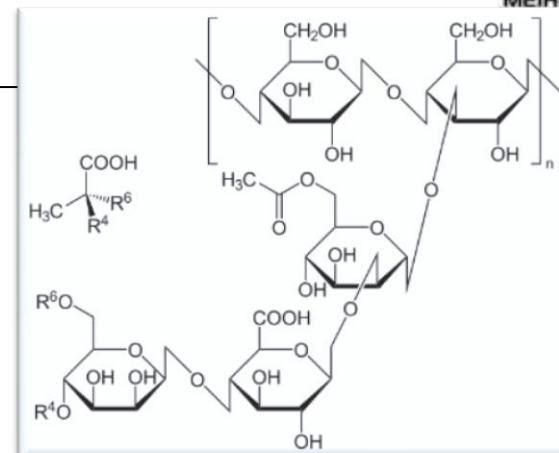


Basic info

Name: Xanthan Gum

CAS: 11138-66-2 Chemical formula: $(C_{35}H_{49}O_{29})_n$

Appearance: off-white or light yellow free flowing powder



Applications

Application	Usage (%)	Function
Oil drilling	0.1-0.4	Provides stability against salt & high temp, viscosifier, rheology modification
Oil recovery	0.05-0.2	Acts as mobility control agent
Meat products	0.1-0.2	Binds water, tenderizing
Frozen food	0.1-0.2	Contributes smooth texture
Condiments	0.1-0.3	Emulsifies, thickenings, stabilizes
Food fillings	0.5-1.5	Improves shape and taste
Flour products	0.03-0.08	Improves toughness, binds water, extends shelf life
Cosmetics	0.3-1.2	Improves adhesive & lubricious stability, thickening, fixes forms
Toothpaste	0.4-0.6	Improves stand on the toothbrush, suspension and taste
Feed products	0.5-2.0	Acts as adhesive agent
Textile printing	0.4-0.6	Improves color adhesion and color degree

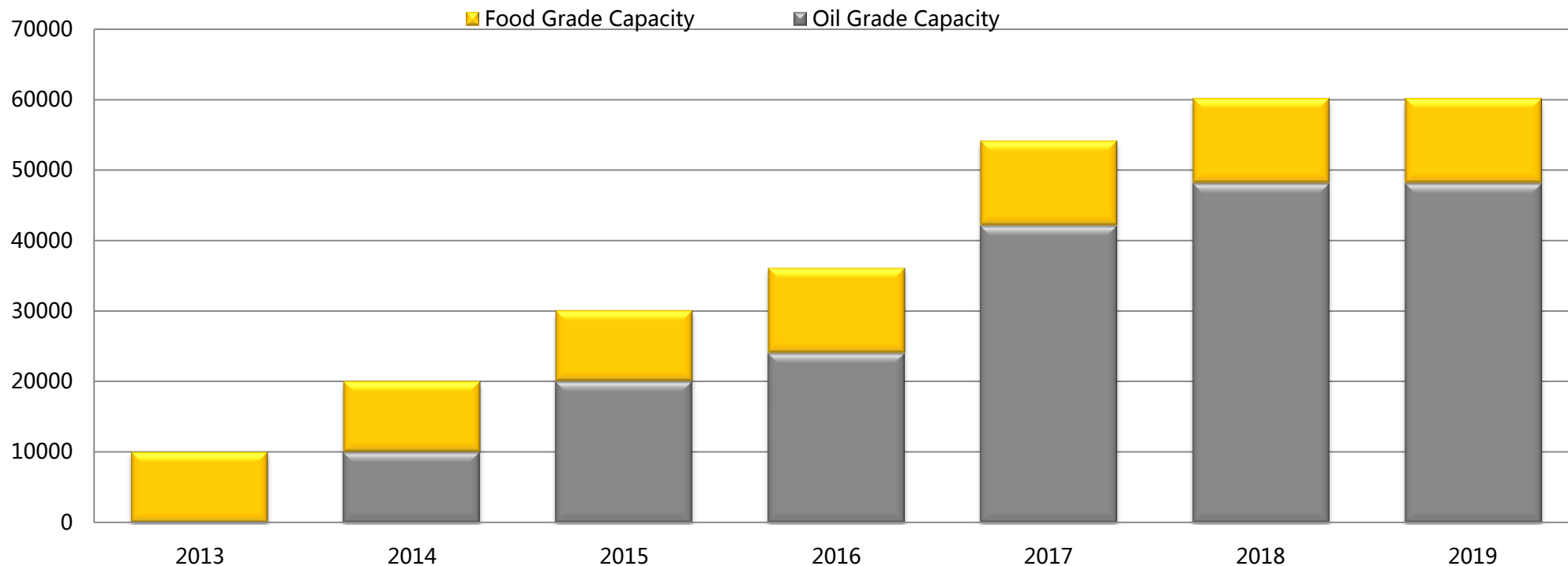


Meihua Xanthan Growth



Capacity, Ton

Meihua Capacity Growth



Global Capacity Breakdown

Capacity	World	China	Meihua	Meihua global share, %
Total	170,000	140,000	60,000	35%
Food grade	90,000	65,000	12,000	14%
Oil grade	80,000	75,000	48,000	60%



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Meihua Technology Advantage

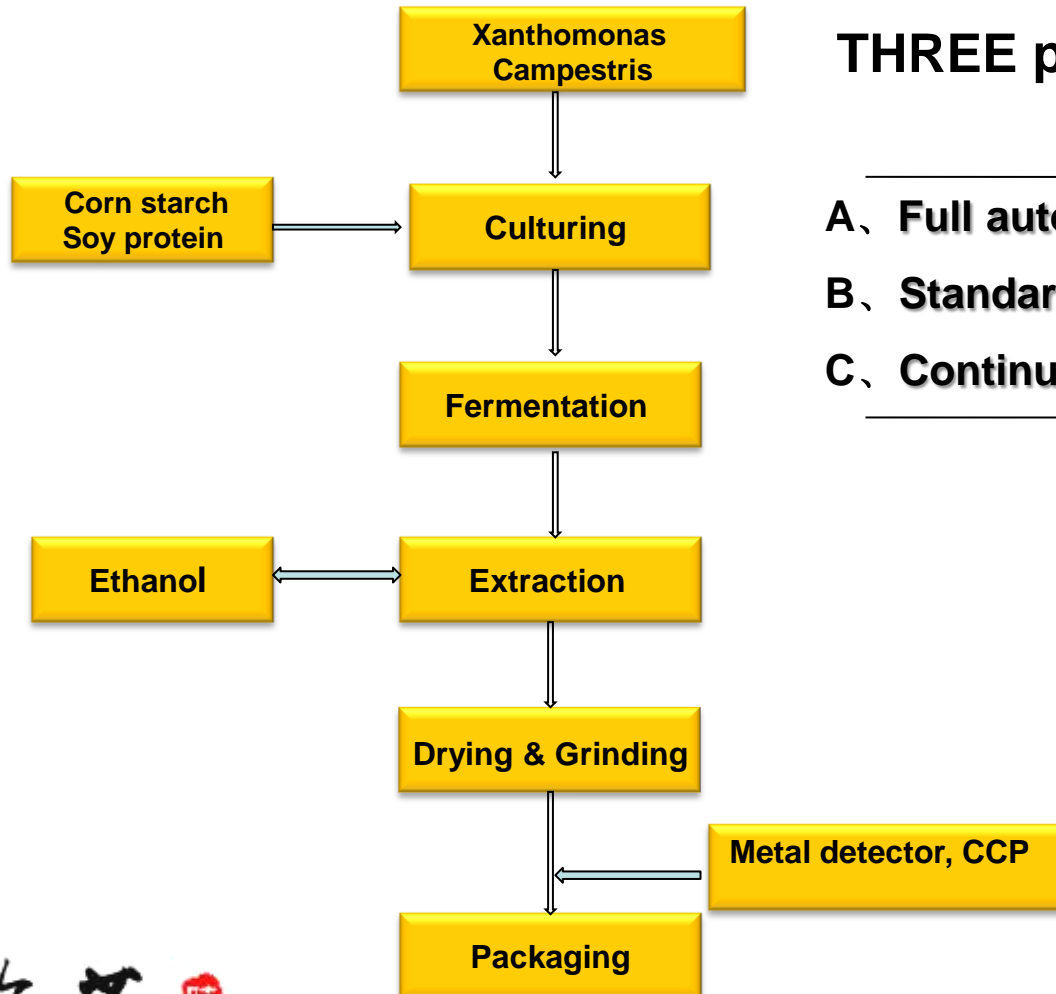
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Meihua Technology Advantage



Production flow chart



THREE production technology advantages

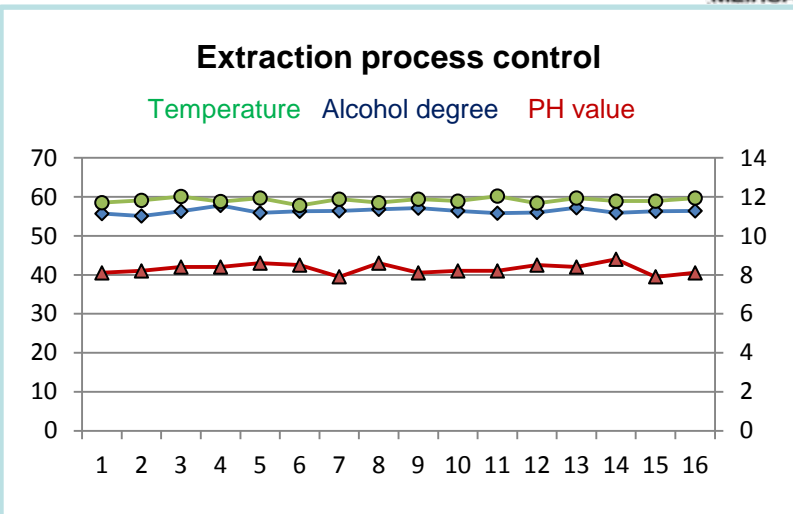
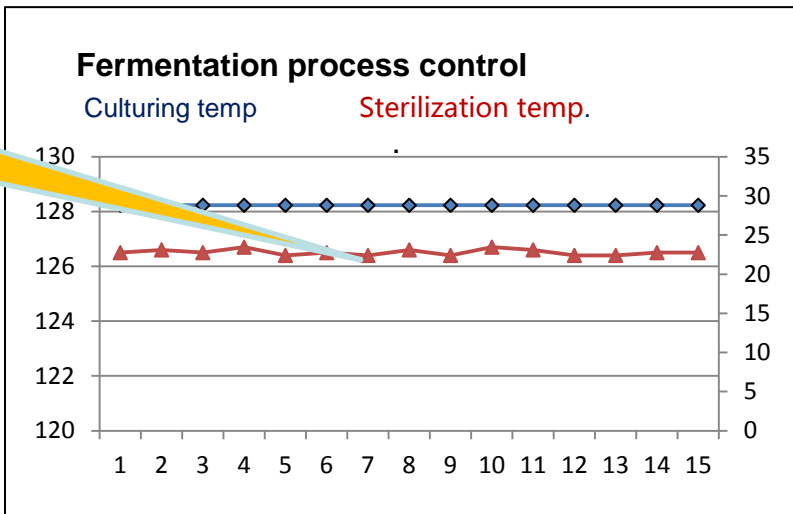
- A、 Full automatic production
- B、 Standardized & Directed production
- C、 Continuous production



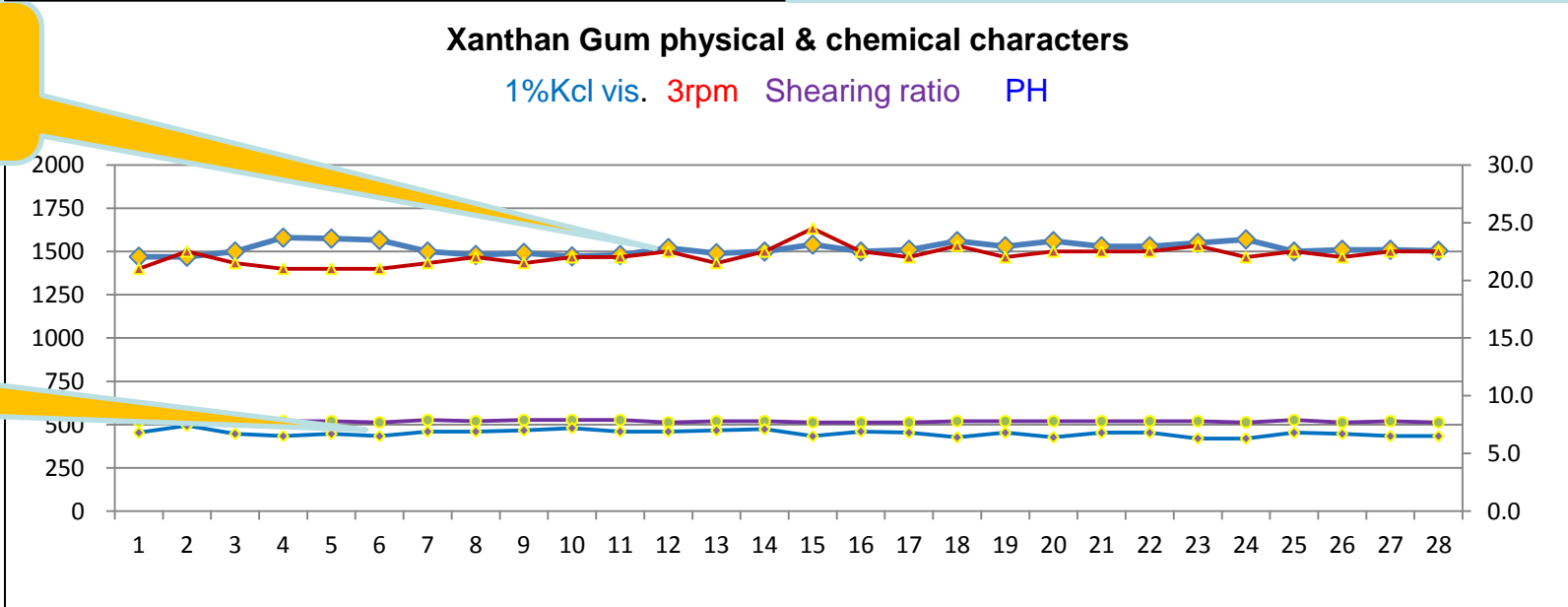
Meihua Technology Advantage



Stable Production Conditions



Stable & High Rheology measurement



Shearing ratio and PH fluctuate within ± 0.5



Workshop Quick View



Full automatic production system and strict in-process control

Meihua is the first and ONLY Chinese Xanthan producer who runs full automatic production and “push-button start” on fermentation, extraction and GMP packaging process, and therefore product stability and homogeneity is under good control.



**Fermentation tank
(body)**



**Fermentation tank
(top)**



Meihua Technology Advantage



Extraction tank



Distilling tower



Separator



Drying machine



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Grinding machine



Sieving room



Mixing tank



Packaging machine



Meihua Technology Advantage



GMP standard packaging line and durable package



Metal detector



Warehouse



Stretch-wrapped package



Shrink-wrapped with caps



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Meihua Quality Advantage



- **BETTER** rheological properties
- **STRONGER** thermo stability

Product code	Description
MHO-80	Oil drilling grade 80mesh (API standard)
MHO-80PLUS	High viscosity oil drilling grade 80mesh
MHO-80D	Dispersible oil drilling grade 80mesh
MHO-80D PLUS	High viscosity dispersible oil drilling grade 80mesh
MHO-80R	Thermo-stable oil drilling grade 80mesh
MHO-80T	Transparent oil drilling grade 80mesh
MHO-80TD	Transparent dispersible oil drilling grade 80mesh

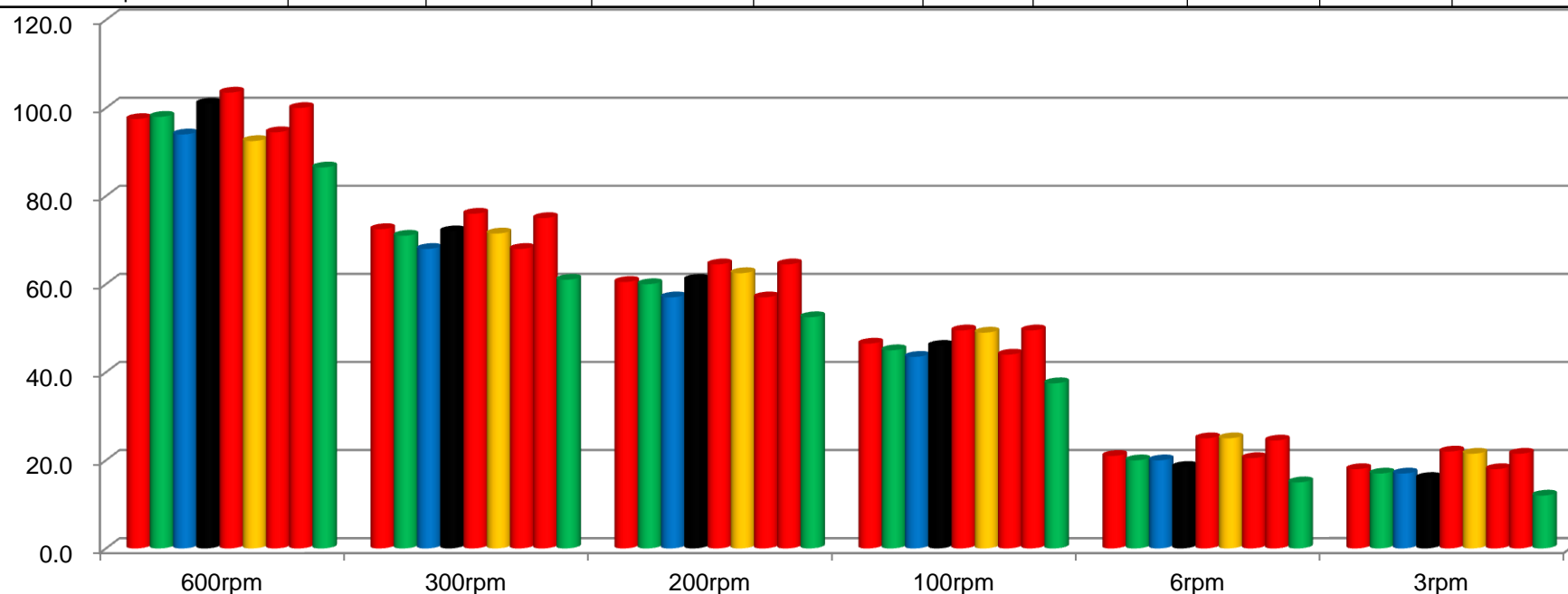


Meihua Quality Advantage



BETTER rheological properties

0.28% in ASTM sea water, FANN 35A, 0.2 spring	MHO-80	Competition #1	Competition #2	Competition #3	MHO-80PLUS	Competition #4	MHO-80D	MHO-80D PLUS	Competition #1 dispersible
600rpm	97.5	98.0	94.0	101.0	103.5	92.5	94.5	100.0	86.5
300rpm	72.5	71	68	72	76	71.5	68	75	61
200rpm	60.5	60	57	61	64.5	62.5	57	64.5	52.5
100rpm	46.5	45	43.5	46	49.5	49	44	49.5	37.5
6rpm	21	20	20	18.5	25	25	20.5	24.5	15
3rpm	18	17	17	16	22	21.5	18	21.5	12



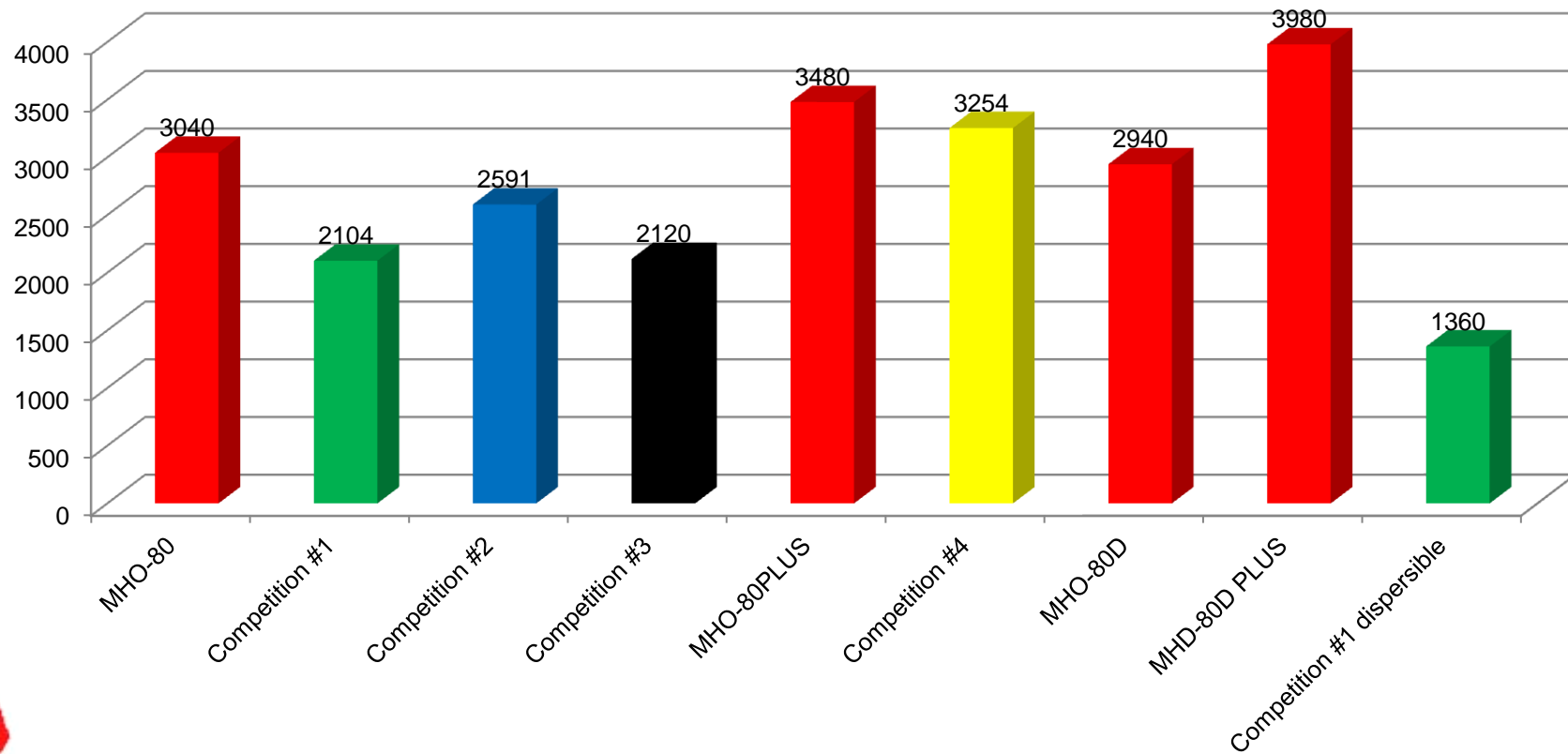
- MHO-80
- Competition #1
- Competition #2
- Competition #3
- MHO-80PLUS
- Competition #4
- MHO-80D
- MHO-80D PLUS
- Competition #1 dispersible

Meihua Quality Advantage



BETTER rheological properties ---LSRV comparison

0.28% in ASTMsea water Brookfield LVDV-II+, #1 spindle,1.5rpm,25±1℃	MHO-80	Competition #1	Competition #2	Competition #3	MHO-80PLUS	Competition #4	MHO-80D	MHD-80D PLUS	Competition #1 dispersible
	3040	2104	2591	2120	3480	3254	2940	3980	1360

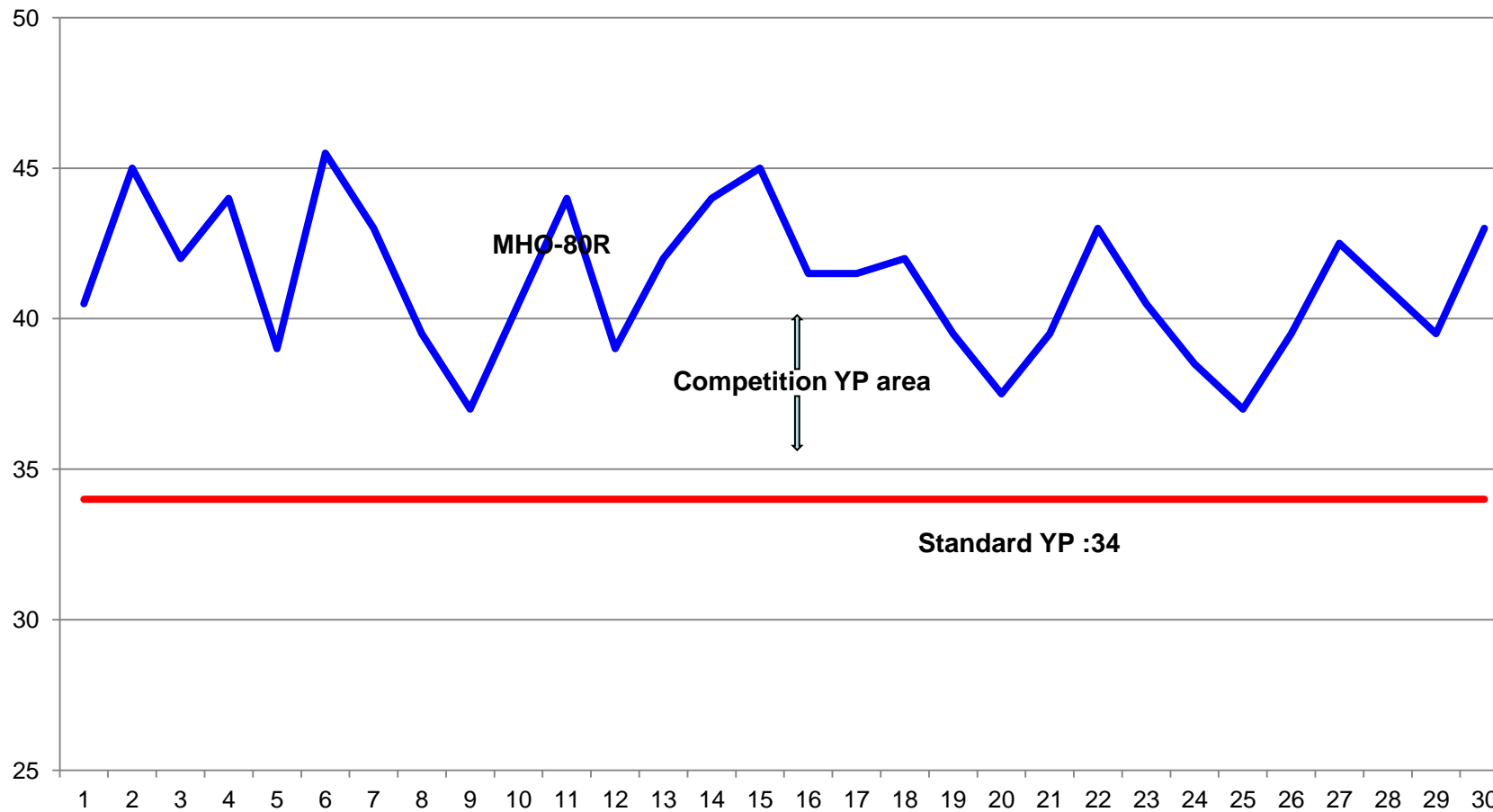


Meihua Quality Advantage



STRONGER thermo-stability----YP value

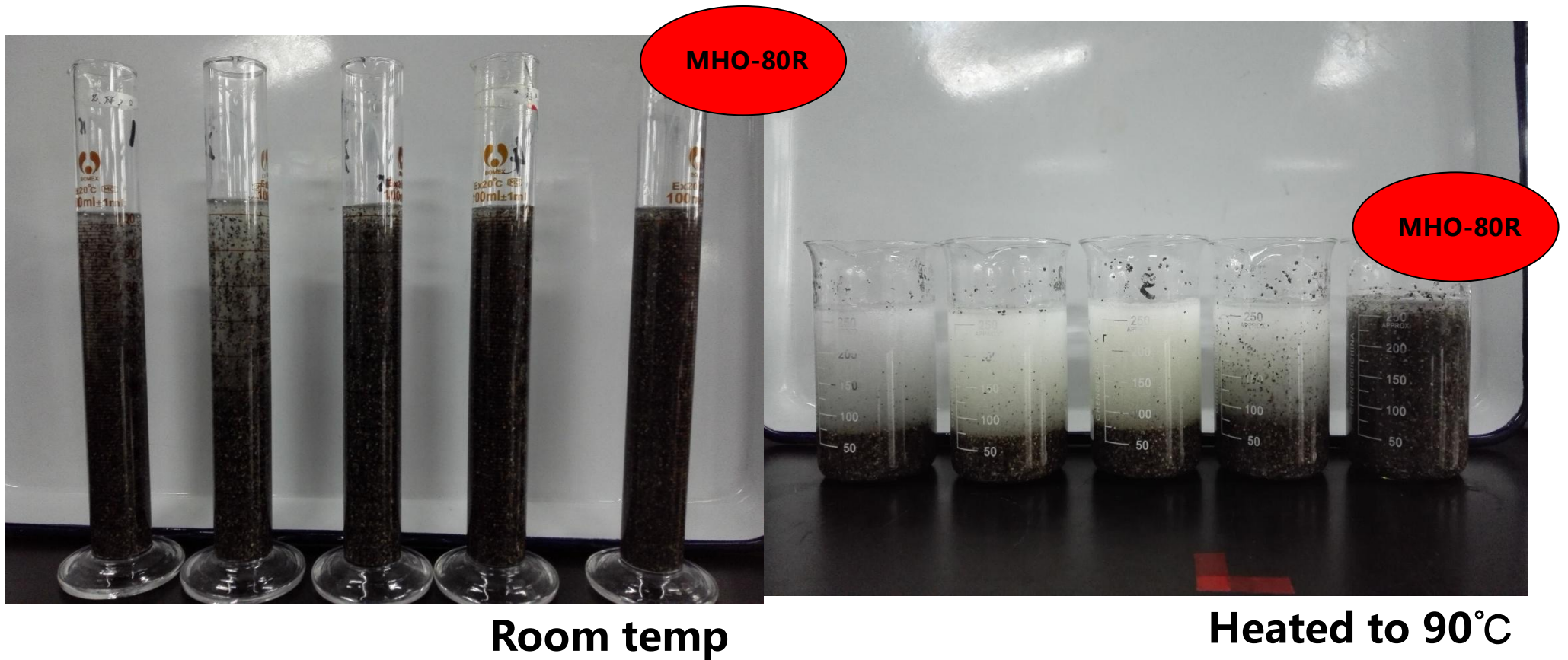
(16hours@121°C, mixed brine of CaCl₂ , NaCl, and MgCl₂ with high concentration of 23%)



Meihua Quality Standard



STRONGER thermo-stability(sediment suspension)



Meihua Quality Advantage



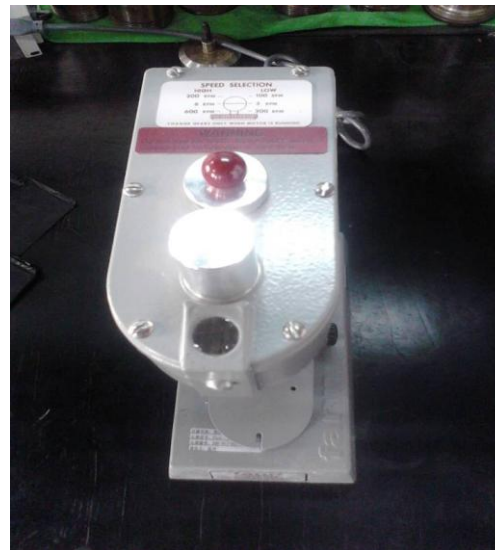
Strict Quality Control



Lab view



Hot rolling room



FANN 35 viscometer

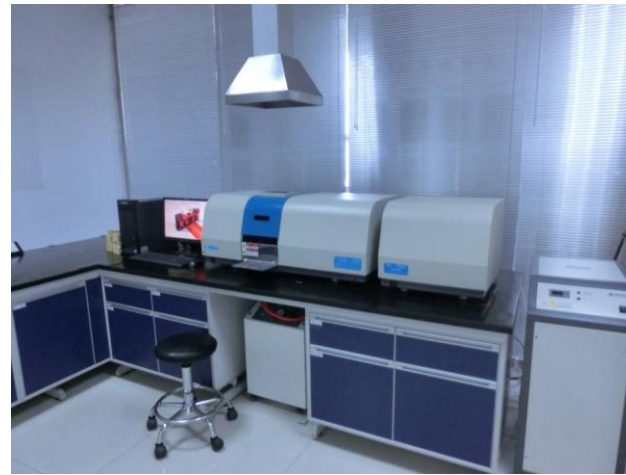


Brookfield viscometer

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Gas chromatograph(GC)
Ethanol test



Atomic absorption spectroscopy(AAS)
Heavy metal test



Incubator **Bacteria test**



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- **Reliable supplier** *60,000t/a, financial health , good reputation*
- **Stable quality** *full automatic ,standardized and continuous production*
- **Excellent performance** *better rheological properties; stronger thermo-stability*
- **Competitive price** *10% lower than industry average*
- **Efficient supply chain** *safety stock in Tianjin warehouse*



Focusing on Bio-fermentation

Building & Sharing Better Future

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