

COMPANY & PRODUCTS PROFILE

SHENYANG CAMSI CHEMICAL CO., LTD.

CONTENTS

Address: No. 32-1, Dongxing Middle Road, Xinmin City, Liaoning Province, China.
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COMPANY PROFILE

Shenyang CAMSI Chemical Co., Ltd. (hereinafter referred to as CAMSI) is a technology-driven and application-orientated company. The company has devoted to development and manufacture of various specialty chemical additives for oil and gas pipelines over the world. The company has mainly engaged itself in research of drag reduction technologies and production of Drag Reducing Agents (also known as DRA) for pipeline throughput increase and pressure drop decrease (drag reduction). CAMSI's core value has always been to provide high performance, premium quality, and environmentally-harmonious chemical additives to help customers maximize efficiency and minimize cost.

Company's General Information

Business Type	Manufacturer R&D
Main Market	CIS Middle East Africa North America South America
Employees	50
Annual Sales	12 – 16 million USD
Export Rate	70% - 90%

Tank Farm

Production Workshop

R&D Center

Main Office

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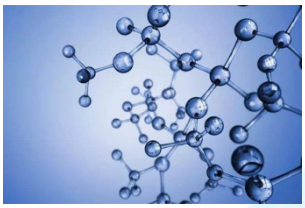
DRA PRODUCTS



Drag Reducing Agent (referred to as DRA) is a chemical additive containing high molecular weight polymer (polyalphaolefin) and is usually employed to increase throughput or to decrease the friction loss in hydrocarbon (crude oil and refined products) pipelines by suppressing the growth of turbulent eddies.

LIST OF PRODUCTS

QMAX-100H

A finished DRA product in the form of alcohol-based slurry with a high thermos-stability for use under high ambient temperature as in tropical regions

QMAX-100L

A finished DRA product in the form of alcohol-based slurry with a high tolerance for low ambient temperature for use in frigid zones.

QMAX-200

A finished DRA product in the form of oil-based slurry with higher safety and higher environmental friendliness

QMAX-300

A finished DRA product in the form of water-based slurry with higher safety and low cost

QMAX-POLY

The polyalphaolefin (PAO) cryo-pulverized into fine powder used as a semi-finished product to produce finished DRA products.

More detailed information such as SDS (Safety Data Sheet), PDS (Product Data Sheet) and COA (Certificate of Analysis) template can be provided on request.

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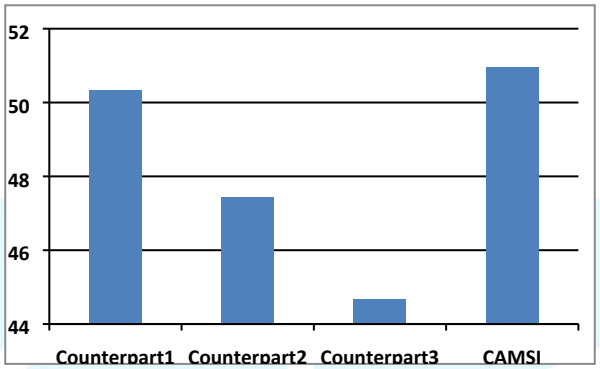
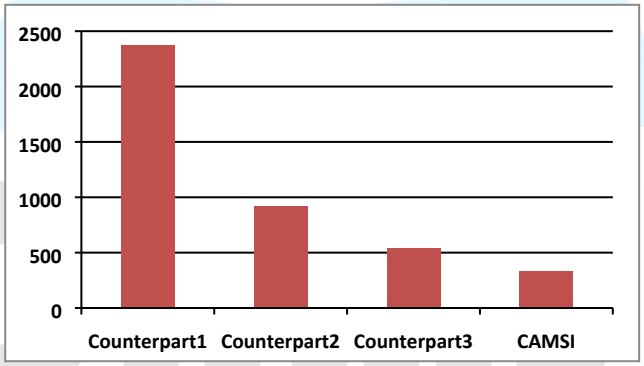
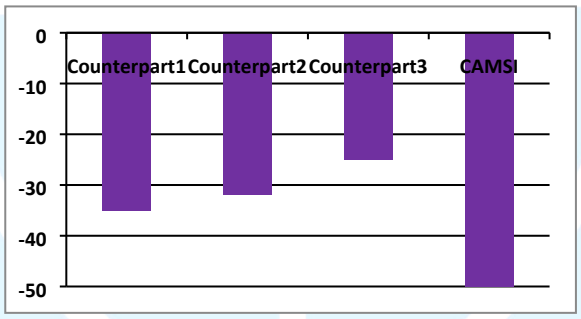
Compared with its counterparts from the competitors, CAMSI's DRA products feature higher drag reduction performance, low viscosity meaning easier handling, lower freezing point meaning higher adaptability to application environment and higher flash point meaning higher safety level.



Drag Reduction Performance Comparison (%)



Viscosity Comparison (mPa.s@25℃, $10s^{-1}$)



Freezing Point Comparison (℃)

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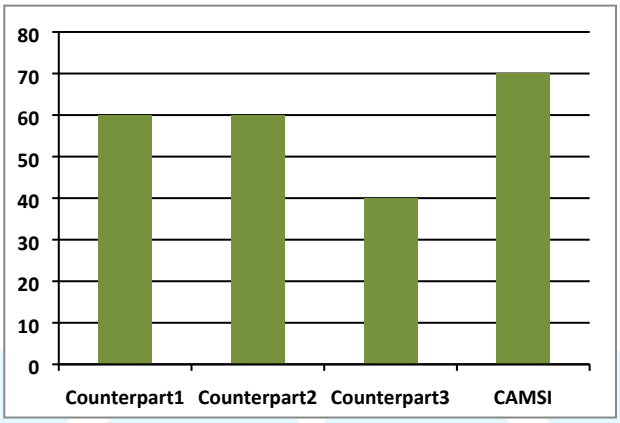

Flash Point Comparison (℃)

PRODUCT APPLICATION

The DRA products manufactured by CAMSI have enjoyed wide applications in various pipelines and harvested recognitions from customers by virtue of their remarkable performance and premium quality. The applications enumerated below are just a portion of these successful pipeline tests or applications.

Case History No.1 (8" 52 KM pipeline)

Before DRA Injection			After DRA Injection			
Flow Rate (BPD)	Discharge Pressure (PSI)	Number of electro pumps	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)	Number of electro pumps
21500	430	3	34500	290	12	2

Customer objective was to decrease discharge pressure from 430 PSI to 370 PSI, in order to shut off one of the electro pumps. Meanwhile they intended to increase the flow rate to 33,000 BPD more.

Result: After injecting DRA at a dosage of 12 Lit/hr, the discharge pressure decreased from 430 PSI to 290 PSI and one of the electro pumps was shut off. Also the flow rate was increased from 21500 BPD to 34500 BPD and increase of 60%.

Case History No.2 (8" 26 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
34000	560	47000	400	10

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Customer objective was to decrease discharge pressure from 560 PSI to 460 PSI. Meanwhile they intended to increase the flow rate to 44000 BPD.
Result: after injecting DRA at a dosage of 10 Lit/hr, the discharge pressure was decreased from 560 PSI to 400 PSI and the flow rate was increased from 34000 BPD to 47000 BPD equivalent to a flow increase rate of 38%.

Case History No. 3 (8" 63 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
13385	490	15398	400	7

Customer objective was to increase flow rate from12800 BPD to 15000 BPD.
Result: after injecting DRA at a dosage of 7 lit/hr, the flow rate was increased from 13385 BPD to 15398 BPD, an increase of 18.3%, and at the same time the discharge pressure was decreased from 490 PSI to 400 PSI.

Case History No.4 (8" 97 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
18000	1030	25000	850	6

Customer objective was to increase flow rate from18000 BPD to 25000 BPD and to decrease the discharge pressure at the same time.
Result: after injecting DRA at a dosage of 7 lit/hr, the flow rate was increased from 18000 BPD to 25000 BPD, an increase of 35.9%, and at the same time the discharge pressure was decreased from 1030 PSI to 850 PSI.

Case History No.5 (8" 42 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
18000	800	23040	740	5

Customer objective was to increase flow rate from18000 BPD to 21000 BPD.
Result: after injecting DRA at a dosage of 5 lit/hr, the flow rate was increased from 18000 BPD to 23040 BPD equivalent to an increase rate of 28%, and at the same time the discharge pressure was decreased from 800 PSI to 740 PSI.

Case History No.6 (8" 30 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
18500	930	18500	650	4

Due to severe corrosion and extended service of the pipeline, for safe operation, customer intended to decrease the discharge pressure from 930 PSI to 700 PSI.
Result: after injecting DRA at a dosage of 4 lit/hr, the discharge pressure was decreased from 930 PSI to 650 PSI.

Case History No.7 (10" 40 KM pipeline)

Before DRA Injection	After DRA Injection

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Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
13000	700	24000	700	7

Customer objective was to increase flow rate from 13000 BPD to 23000 BPD while keep the discharge pressure constant.
Result: after injecting DRA at a dosage of 7 Lit/hr, the flow rate was increased from 13000 PSI to 24000 PSI with an increase rate of 84% while the discharge pressure was held at 700 PSI as intended.

Case History No.8 (10" 231 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
46000	1647	64000	1580	8

Customer objective to increase flow rate from 46000 BPD to 60000 BPD.
Result: after injecting DRA at a dosage of 8 lit/hr, the flow rate was increased from 46000 BPD to 64000 BPD with an increase rate of 39.1%.

Case History No.9 (14" 79 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
55100	680	77500	530	13

Due to severe corrosion and extended service and for the safe operation, customer was to decrease discharge pressure to 550 PSI.
Result: after injecting DRA at a dosage of 13 Lit/hr, the discharge pressure was decreased from 680 PSI to 530 PSI, and at the same time the flow rate was increased from 55100 BPD to 77500 BPD with an increase rate of 40%.

Case History No.10 (18" 152 KM pipeline)

Before DRA Injection			After DRA Injection			
Flow Rate (BPD)	Discharge Pressure (PSI)	Number of electro pumps	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)	Number of electro pumps
108000	660	3	140000	300	20	2

Customer objective was to decrease discharge pressure from 660 PSI to 400 PSI to shut off one of the electro pumps and to increase flow rate from 108000 BPD to 125000 BPD.
Result: after injecting DRA at a dosage of 20 lit/hr, the discharge pressure was decreased from 660 PSI to 300 PSI, and at the same time the flow rate was increased from 108000 BPD to 140000 BPD with an increase rate of 30%.

Case History No. 11 (20" 35 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
190000	440	244000	400	11

Customer objective was to decrease discharge pressure from 440 PSI to 400 PS for the safety of the pipeline and to increase flow rate from 190000 BPD to 230000 BPD.
Result: after injecting DRA at a dosage of 11 lit/hr, the discharge pressure was decreased from 440 PSI to 400 PSI, and at the

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same time the flow rate was increased from 190000 BPD to 244000 BPD with an increase rate of 28%.

Case History No. 12 (24" 150 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
105800	230	179000	180	28

Customer objective was to decrease discharge pressure from 230 PSI to 180 PSI for the safe operation and to increase flow rate from 105800 BPD to 150000 BPD.
Result: after injecting DRA at a dosage of 28 lit/hr, the discharge pressure was decreased from 230 PSI to 180 PSI, and at the same time the flow rate was increased from 105800 BPD to 179000 BPD with an increase rate of 69%.

Case History No. 13 (24" 81 KM Subsea pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
205000	650	245000	550	35

Due to severe corrosion and extended service of the pipeline, for the safety of pipeline customer objective was to decrease discharge pressure from 650 PSI to 550 PSI.
Result: after injecting DRA at a dosage of 35 Lit/hr, the discharge pressure was decreased from 650 PSI to 550 PSI, and at the same time the flow rate was increased from 205000 BPD to 245000 BPD with an increase rate of 20%.

Case History No. 14 (30" 124 KM pipeline)

Before DRA Injection		After DRA Injection		
Flow Rate (BPD)	Discharge Pressure (PSI)	Flow Rate (BPD)	Discharge Pressure (PSI)	Rate of DRA Injection (Lit/Hr)
427000	770	508800	660	40

Customer objective was to decrease discharge pressure from 770 PSI to 670 PSI for the safety of the pipeline and to increase flow rate from 427000 BPD to 490000 BPD.
Result: after injecting DRA at a dosage of 40 lit/hr, the discharge pressure was decreased from 770 PSI to 660 PSI, and at the same time the flow rate was increased from 427000 BPD to 508800 BPD with an increase rate of 20%.

To date, CAMSI has been expanding its global market for DRA, such as USA, Canada, CIS, Norway, Indonesia, Libya, Algeria, Iran, Egypt, Argentina, and Oman. Tabulated below are our main customers which we have ever served or are serving now.

No	Customer Name	Location	Supply Quantity Metric Ton
1	Marathon Oil Company	USA	1200

2	Pembina Pipeline	Canada	3800
3	Libyan National Oil Corporation	Libya	600
4	Greater Nile Petroleum Operating Company	Sudan	2000
5	Oman Oil	Oman	200
6	CIS Countries		4300
7	Statoil	Norway	1000
8	PERTAMINA	Indonesia	800
9	SONATRACH	Algeria	300
10	YPF	Argentina	600

PRODUCTION FACILITY AND CAPACITY

At present, CAMSI has two production lines for DRA with annual capacity of 6000 metric tons and one production line for PPD (Pour Point Depressant) with annual capacity of 4000 metric tons. By the time of facility extension completed, there will be four production lines totally and annual output for DRA will be 20000 metric tons. Furthermore, two production lines for PPD outputs 10000 metric tons annually.

DRA complete production line is comprised of three main parts. They are polymerization workshop, cryo-pulverizing workshop and slurry-making workshop. The three workshops are ostensibly independent and functionally integrated as one synchronized entirely to constitute a stable continuous and efficient production flow.

RESEARCH & DEVELOPMENT CENTER

As a technology-motivated company, CAMSI has fully understood and recognized **"INNOVATION CONSTITUTES A PRIMARY PRODUCTIVE FORCE"** which is not just our creed but our practice. In relentless pursuit of the innovation and improvement, CAMSI has invested heavily to establish the R&D Center constituted by talented people and sophisticated equipment. Our elite research team boasts a brilliant lineup made up of first-rate scholars and experts as presented below with our respect and honor.

Quan Shi

Professor at Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Ph.D. supervisor, 100 Talents Program of Chinese Academy of Sciences.
Head of Thermochemistry Research Group, Dalian Institute of Chemical Physics, Director of Liaoning Key Laboratory of Thermochemistry of Energy Materials, Member of Professional Committee of China Metrology and Testing Society.

Zhi-Cheng Tan

Professor at Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Ph.D. Supervisor. He enjoyed the special government allowance awarded by the State Council, won the prize of the Chinese Science Congress, the second prize of national science and technology progress, and the second prize of national defense science and technology, the world Chinese major academic achievement award. Editorial Board of the International Journal of Thermochemistry (Thermochimica Acta).

Jia-Zhen Yang

Professor, Ph.D. supervisor at College of Chemistry, Liaoning University. Enjoying the special government allowance awarded by the State Council, and won five national and provincial awards for major scientific and technological achievements, such as the second prize of the State Education Commission for scientific and technological progress. Member of China Thermochemistry Professional Committee.

Da-Wei Fang

Dean and Professor at Institute of Scattering Elements, Liaoning University, Ph.D. supervisor. Deputy Director of China Academic Committee of Metallurgy, Vice Director of China Nonferrous Metals Society, Member of China Academic Committee of Rare Metals Metallurgy, Member of Expert Committee of National Composite Industry Alliance, Director of Liaoning Key Laboratory of Scattering Elements.

Guo-Ping Li

Professor at Shandong University, Ph.D. supervisor. Enjoy the special government allowance awarded by the State Council, and selected into the national project for millions of talents. In 2008, he won the second prize for scientific and technological inventions, the 10th, 12th and 13th Chinese Patent Excellence Awards, and the National Prize for Key New Products.

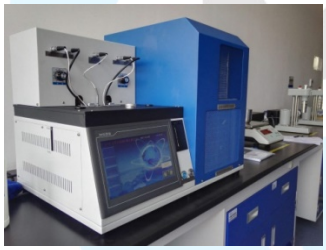
Jian-Guo Liu

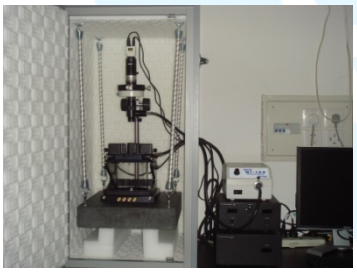
Associate Research Fellow at Institute of Metal Research, Chinese Academy of Sciences, Member of Expert Committee of China Industrial Association of Power Sources, Examination Representative of Energy Industry Standard Committee, Member of Liaoning Chemical Society, Head of Electrochemistry Group of Corrosion and Protection Testing Department at Institute of Metal Research, Chinese Academy of Sciences, Deputy Director of Liaoning Advanced Battery Materials Engineering Center.

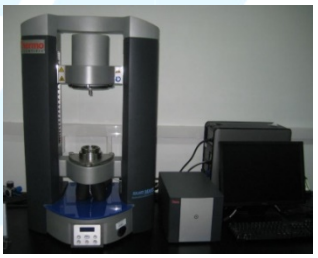
Wei-Guo Xu

Associate Professor at College of Chemistry, Liaoning University. He has already published many papers on international journals mostly in chemical thermodynamics. Because of the outstanding achievements in green chemistry research, the International Association of Chemical Thermodynamics (IACT) awarded the Doctorate Award for Excellence in Chemical Thermodynamics. Only three scholars all over the world won the award.

Our R&D Center, being operated by an exceptional team as aforementioned, is also well-equipped with sophisticated instruments.







In addition, CAMSI's R&D Center has closely cooperated with a number of prominent institutions and universities such as Dalian Institute of Chemical Physics Chinese Academy of Sciences, Institute of Process Engineering Chinese Academy of Sciences, Institute of Metal Research Chinese Academy of Sciences, Polymer College of Tsinghua University, Shandong University, Liaoning University and other research institutes. With these elite organizations, we have been making a concerted effort to incessant innovation and improvement.

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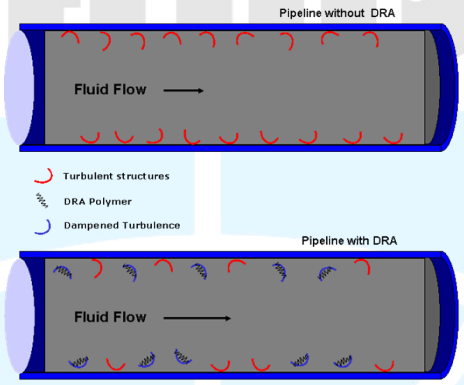
APPENDIX I FUNDAMENTAL KNOWLEDGE ABOUT DRA

1. WHAT IS DRA

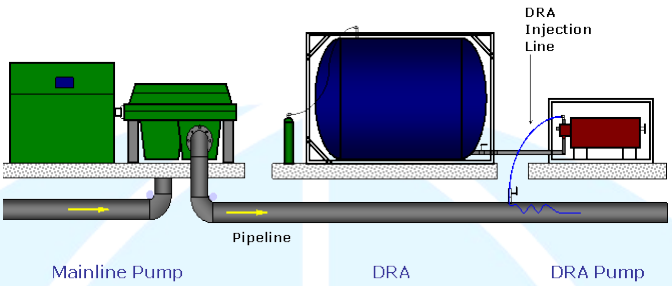
Drag Reducing Agent (referred to as DRA) is a chemical product designed to increase flow rate or to reduce energy consumption (pressure drop) in crude oil and refined product pipelines by dampening the turbulent bursts. This product can be described as an ultra-high molecular weight polyalphaolefin suspended in a non-aqueous base. Pipeline throughput can instantly be increased, or pumping energy consumption (pressure drop) can instantly be reduced by as much as 50% depending on pipeline and crude conditions by adding a ppm (parts per million) level of DRA into oil being transport in pipelines.

When DRA dissolves in crude oil the polymer molecules begin to uncoil and outspread as they interact with the pipeline flow. This interaction is complex and not fully understood; however, in simple terms, the long chain molecules dampen turbulent bursts near the pipe wall as if they were acting as tiny shock buffers. This dampening effect reduces frictional pressure loss resulting in a decrease in energy consumption or an increase in flow rate. The effect is illustrated in the figure below.



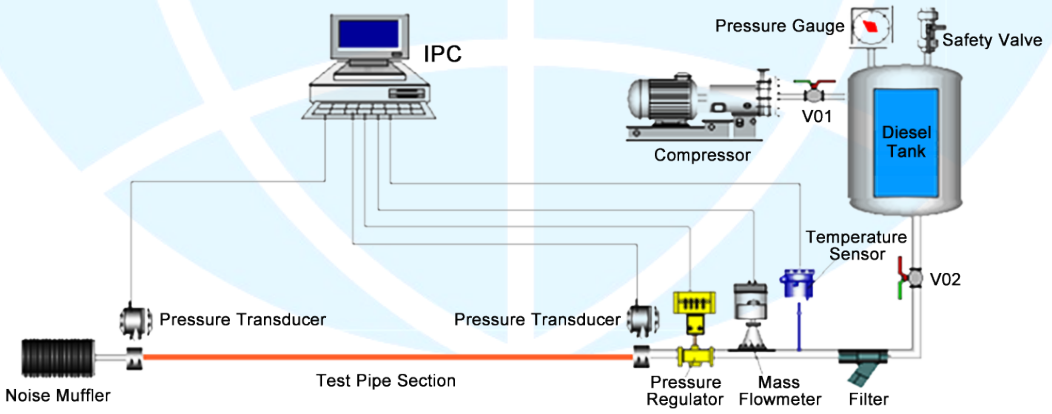
DRA is usually injected into a pipeline just at the discharge side of the mainline pump (see figure below). A positive displacement pump capable of surpassing the line pressure is used to inject DRA into the pipeline. Drag reduction begins as soon as polymer starts to dissolve in the oil. Total dissolution of the polymer may not occur until the DRA product has traveled several miles downstream the pipeline. When dissolved polymer passes through a mainline pump the polymer is broken down, or sheared. Sheared DRA polymer will exhibit little or no drag reduction. Polymer shear also occurs, to a much lesser extent, as the dissolved polymer is subjected to the natural

shear forces in turbulent pipeline flow. A multi-station pipeline may need DRA injection points after each mainline pump in order to achieve overall throughput increase all along the whole pipeline length.



2. WHAT TO EVALUATE THE PERFORMANCE OF DRA IN LABS

As a reliable and recognized means, a test loop (see the chart below) is usually employed to evaluate the drag reduction performance in labs. DRA under evaluation is usually dissolved in diesel which is referred to as treated or dosed diesel and then the treated diesel flows through the test section of the loop by the pressure provided by compressed air while parameters like pressure, flow rate, temperature are recorded. Subsequently, the diesel without DRA referred to as blank diesel runs through the test section in a same manner with these parameters recorded either. With all parameters collected for treated and blank diesel respectively, the drag reduction performance can be easily worked out by comparative calculations for both pressure drops (drags) of treated and blank diesels run through the loop.



3. WHAT FACTORS AFFECT THE PERFORMANCE

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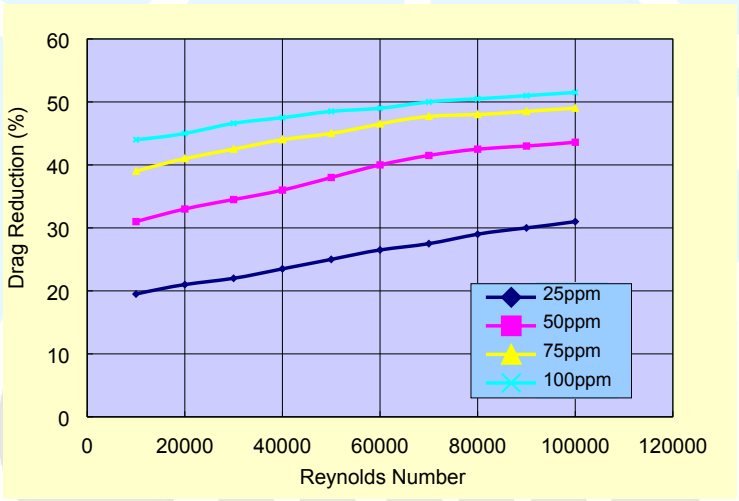
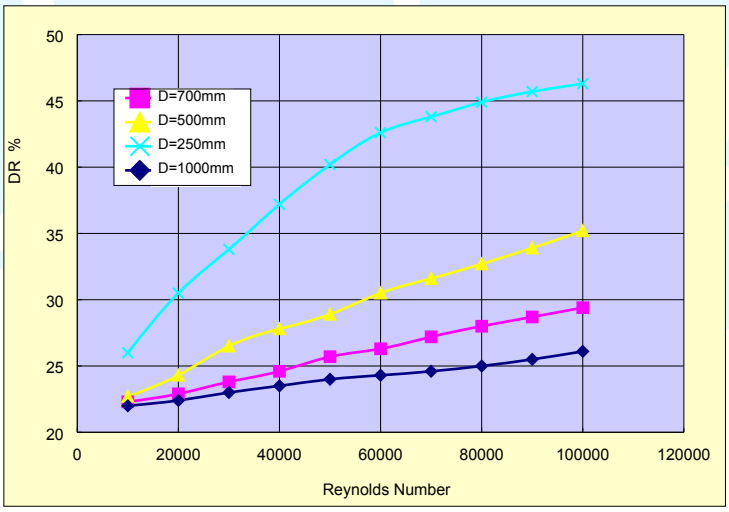
The drag reduction performance of DRA is dependable on many variables and the Reynolds Number might be the most significant one. However, besides that, there are so many factors which may also affect the performance though they are not as remarkable as Reynolds Number. The charts below just serve to illustrate correlation of some of these variables in general and principle. But for one specific pipeline (with all necessary pipeline date and oil properties provided), the curves as expected can be generated by numerical simulation or more preferably and reliably the curves could be obtained via pipeline tests.





4. HIGHER DOSAGE HIGHER PERFORMANCE?

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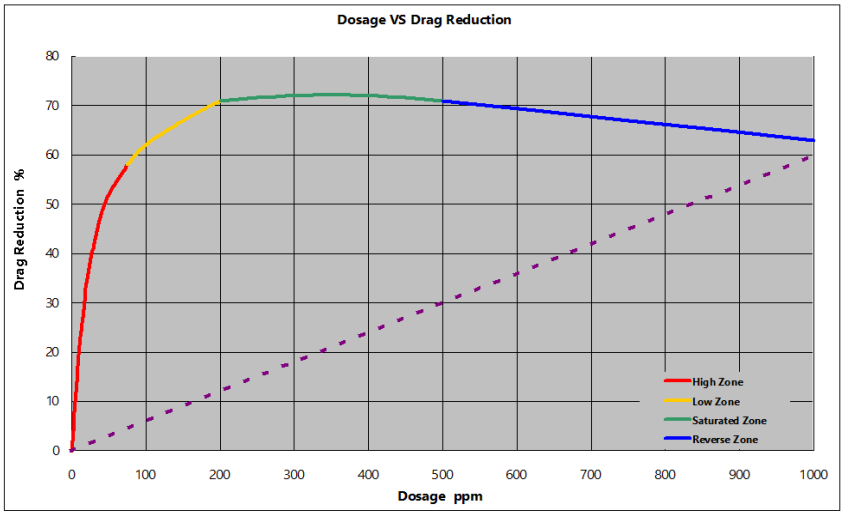
No or not always YES. As can be observed from the performance curve chart presented below, the performance (drag reduction) versus dosage is not going in a linear manner as presented by the dashed line and assumed by the conventional concept. Instead, the actual performance vs dosage can be demonstrated by the full curve constituted by 4 colors representing 4 zones in which performance vs dosage behaves quite differently. In high zone (red color) performance goes up drastically with increase of dosage in almost a linear way; in zone (yellow color), the increase of the performance slow down with the increase of dosage; in saturated zone (green color), the performance ascends no further with the further increase of dosage; and in reverse zone (blue color) the performance even descends as dosage further increases. Conclusion can be made from the performance, the most preferable dosage would be within 5 – 60 ppm and 60 – 200 ppm could be still acceptable but neither economic nor recommended unless special circumstances require such a high dosage.



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APPENDIX II USER'S TESTIMONIALS

энергосберегающие технологии

Общество с ограниченной ответственностью ТК "Энергосберегающие технологии"
Адрес: 625051, г. Тюмень, ул. Василия Гольцова 24, оф. 505
E-mail: tk_est@mail.ru

Address: Russian Federation, Tyumen region, Tyumen city, st. V. Golcova 24

Telephone: +7-958-151-90-09

Application of OD-L drag reducing agent in Yurkharovskoye Oilfield (behind polar circle)

Our company purchased **2280** tons of OD-Ldrag reducing agent from Shenyang Camsi Chemical Co., Ltd. for drag reduction and increase transportation in Yurkharovskoye oilfield.

As users of OD-L drag reducing agent, we believe that:

1) Through the application of OD-L drag reducing agent, the problem of insufficient pipeline transportation capacity was solved.

2) OD-L drag reducing agent have good low temperature resistance and can be used normally in low temperature environment.

3) Through quality testing and analysis, the use of OD-L drag reducing agent has no effect on oil quality, and the product quality is stable and environmentally friendly.

Director Leontyev A.

1

Pembina Pipeline Corporation

Address: 3800, 525-8th Avenue S.W. Calgary, Alberta T2P 1G1
Tel: (403) 231-7500

Date: December 05, 2013

Report on DRA OD-L Trial Test on Pembina on Pembina Judy Creek Pipeline

This is to certify that the Drag Reducing agent OD-L, provided by Shenyang Camsi Chemical Co., Ltd, Shenyang, P.R. China has been applied from November 26 through November 29 of 2013 on our Judy Creek oil pipelines in length of 178 km, started form Judy Creek Swan Hills to Edmonton, Alberta, Canada.

Throughout the trial period, the following was observed:

1) By using DRA OD-L, the back pressure and low-flow problem on the pipeline segment form Judy Creek to Edmonton via Fort Saskatchewan, AB, was remarkably mitigated.
2) As a confirmed consequence of the DRA injection rate of 35-38 ppm into the oil, the oil flow rate was observed to increase form 342 cubic meters per hour to 515 cubic meters per hour, We confirm that this increase, after deducting all systematic errors and influenced, can be translated to a 50% flow increase thanks to the application of DRA OD-L.
3) With our upstream production in an increasing trend, we are confident DRA application would be able to solve high-pressure and low-flow issues in the future.
4) DRA OD-L was proven suitable for low temperature environment (-50℃).
5) DRA OD-L was found environmentally, easy and safety to in our fields.
6) Through the DRA OD-L application and the related training courses offered by Pembina Pipeline Corporation, Pembina operations and management teams have achieves full know and recognition of the benefits DRA OD-L can offer.

Signature:

Nyle Clemmer

Signature:

Bill Sui

Dr. Zang

We have tested your product and result was good. We also performed a comparison test between products from [redacted] and your product.

The result is as follows:

Performance	Flash point	Drag reduction	Stratified or not
[redacted]	62℃	62%	Not stratified
[redacted]	58℃	53%	stratified
Camsi of china	70℃	61%	Not stratified

Please do not hesitate to contact me if you have any further question.

Abootorabi

A. ABOOTORABI

Address: No. 32-1, Dongxing Middle Road, Xinmin City, Liaoning Province, China.
Phone: +86 15832623116 +86 24 62276219
Email: 398085999@qq.com

APPENDIX III AWARD CERTIFICATES

中安认证

QUALITY MANAGEMENT SYSTEM
CERTIFICATE OF CONFORMITY

This is to certify that Quality Management System of

Shenyang Camsi Chemical Co.,Ltd.

Consolidated Social Credit Code:91210181313145008R

(Register ADD:No. 31-1, East Zhongxin Road, Xinmin City, Liaoning Province postcode:110300)

has been found to conform to Quality Management System Standard:

GB/T 19001—2016/ISO 9001:2015

This quality management system covers following product(s):

Sales and Service of

OD Series Drag Reducing Agents for Oil Pipeline

ADD:No. 31-1, East Zhongxin Road, Xinmin City, Liaoning Province.

The No. of this certificate is: 02819Q10488R0S

This certificate is valid from:May.16.2019 to May.15.2022

Date of issue:May.16.2019

Beijing Zhong-An-Zhi-Huan Certification Center
(Former 8 • 1 Certification Center of Quality System)
(ADD: A 22th floor,Free Town,No.58,South Road,East 3rd,ring Road Chaoyang District,Beijing Postcode: 100022)

Issued by:

任磊

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

CNAS

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C028-M

证书信息查询方式：
The website of inquiry certificate: http://www.cnca.gov.cn

Certificate Status

Contact Info

Address: No. 32-1, Dongxing Middle Road, Xinmin City, Liaoning Province, China.
Phone: +86 15832623116 +86 24 62276219
Email: 398085999@qq.com

Quality Management System Certificate of Conformity

China Patent Award of Excellence (Anti-Explosive Reactor for Bulk Polymerization)

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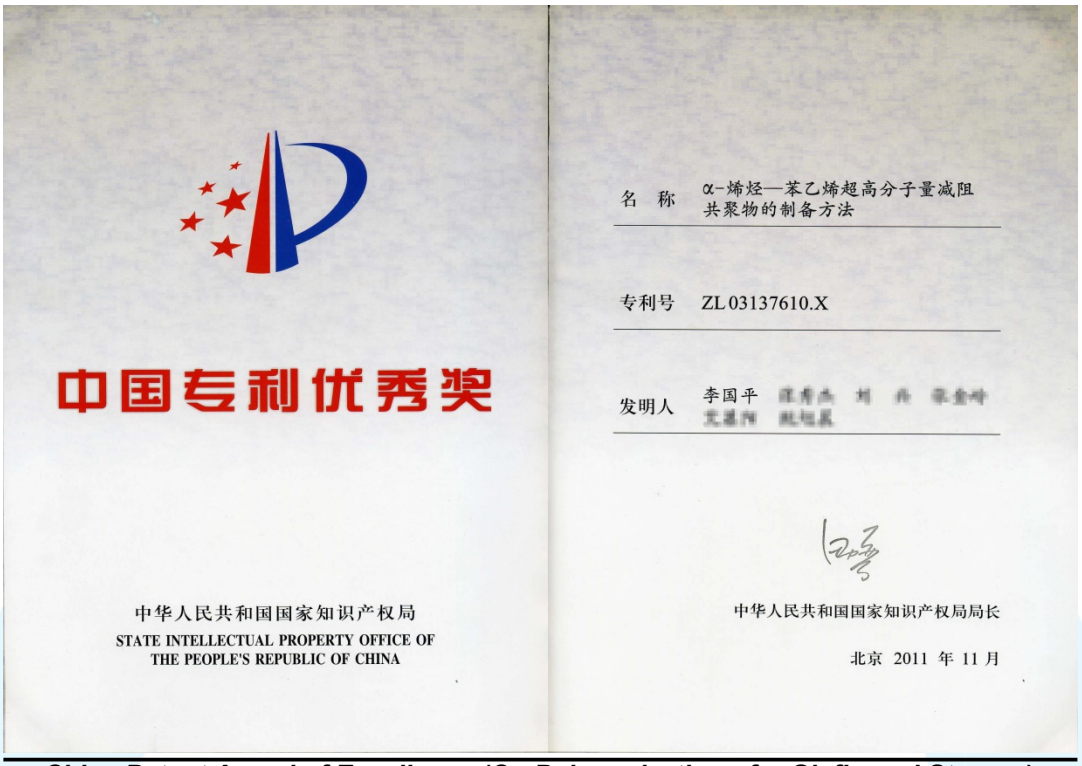
Phone: +86 15832623116 +86 24 62276219
Email: 398085999@qq.com



中国专利优秀奖

中华人民共和国国家知识产权局
STATE INTELLECTUAL PROPERTY OFFICE OF
THE PEOPLE'S REPUBLIC OF CHINA

名 称 α-烯烃—苯乙烯超高分子量减阻共聚物的制备方法

专利号 ZL 03137610.X

发明人 李国平 [illegible]

中华人民共和国国家知识产权局局长

北京 2011 年 11 月

China Patent Award of Excellence (Co-Polymerization of α-Olefin and Styrene)

国家百千万人才工程
有突出贡献中青年专家
证 书
中华人民共和国人力资源和社会保障部

证 书

李 国 平 同志：

经人力资源和社会保障部会同有关部门组织专家评审，您入选国家百千万人才工程，授予“有突出贡献中青年专家”荣誉称号。

特发此证。

国家百千万人才工程 第40351号

2014 年 12 月 31 日

Certificate of “Key Talent Program” and “Outstanding Contribution Expert”

Address: No. 32-1, Dongxing Middle Road, Xinmin City, Liaoning Province, China.
Phone: +86 15832623116 +86 24 62276219
Email: 398085999@qq.com

国家技术发明奖

证 书

为表彰国家技术发明奖获得者，特颁发此证书。

项目名称：输油管道α-烯烃系列减阻剂开发及其制备工艺

奖励等级：二等

获 奖 者：李国平([redacted])

2008年12月9日

证书号：2008-F-210-2-01-R01

National Technology Invention Award

政府特殊津贴

证 书

中华人民共和国国务院

证 书

李国平同志：

为了表彰您为发展我国工程技术事业做出的突出贡献，特决定发给您特殊津贴并颁发证书

国务院

二〇一一年三月二日

政府特殊津贴第2010-464-038号

Address: No. 32-1, Dongxing Middle Road, Xinmin City, Liaoning Province, China.
Phone: +86 15832623116 +86 24 62276219
Email: 398085999@qq.com

Certificate of Receiver for State Council Special Allowance

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