



MAO NAN
TECHNOLOGY

HARBIN MAONAN TECHNOLOGY CO., LTD.

PIPELINE FLOW IMPROVER SOLUTIONS





About us : Application of our products and services to oil pipelines and oilfields

Harbin Maonan Technology Co., Ltd. (HBMN) is a scientific and technological enterprise specializing in the production and sale of chemical oil additives for oil pipelines, oil and gas energy technology services and the development of new oil field equipment.

In order to solve various problems in the process of oil exploitation, storage and transportation, oil additives have been developed, and the types of additives are increasing. HBMN mainly sells and produces high-quality chemical additives for oil field development and pipeline transportation, including drag reducing agent, pour point depressant, demulsifier, wax dissolving agent, colloid inhibitor, corrosion inhibitor and so on.

THE EXCELLENT PIPELINE DRA PROVIDER

Harbin Maonan Technology. (HBMN) , is the Excellent Pipeline DRA Provider . HBMN specializes in maximizing the flow potential of pipelines, increasing operational flexibility and throughput capacity, and substantially increasing bottom-line profit.

HBMN offers a full service solution that encompasses industry-leading technology, quality manufacturing, technical support and consulting, reliable supply chain, injection equipment and field service. This approach ensures that pipeline operators receive best-in-class outcomes from their drag reducing agents (DRA) installations. With this comprehensive approach, customers can focus on pipeline operations, and depend on HBMN for reliable, high performance DRA products and services.



Unlock the Full Potential of Your Pipeline



Flow improvers, also known as DRA, are injected into pipeline fluids to reduce turbulence. The associated reduction in frictional pressure drop can provide significant benefits to pipeline operators by providing additional pipeline throughput, the ability to operate in reduced pressure-drop conditions, or a combination of these effects.



FLOW INCREASE

DRA lowers frictional pressure loss by reducing turbulence in the flow. This change allows operators to increase throughput and earn more tariff. Drag reduction agents from HBMN have doubled the throughput of many pipelines.



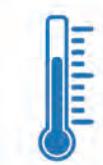
CONSTRAINT REMOVAL

Is there a bottleneck in your pipeline? A segment that restricts throughput of the entire line? DRA effectively alleviates the constraint of a bottleneck segment, thereby allowing the flow rate across the entire pipeline to be increased.



ENERGY MANAGEMENT

Reducing the frictional pressure in a pipeline also saves pumping energy. HBMN has supplied many applications where entire pump stations have been bypassed. By allowing shutdown of intermediate pump stations, energy and maintenance costs can be dramatically reduced.



PRESSURE REDUCTION

Sometimes operators need to reduce the operational pressure in a pipeline. DRA is a fast and effective tool to reduce and control pipeline pressure without compromising throughput.



RESULTS WITHOUT LARGE CAPITAL EXPENDITURES

Pipeline performance can often be improved without major capital investment. DRA is injected directly into pipeline products using skid-mounted injection pumps and tanks. Installation of a DRA skid enables pipeline operations to see reliable results, without any changes to existing pipeline steel.

TEMPERATURE MANAGEMENT

DRA can be used to reduce (heat generating) pump energy input. Pipeline operators have used DRA to reduce the arrival temperature of heavy crude oil. DRA treated liquids also have been shown to lower heat transfer properties, which at times will reduce heat loss to the surroundings, particularly in submerged pipelines.

Full Service Solutions



Injection Equipment & Field Service

Injection Equipment & Field Service

HBMN ensures reliable field operations by offering an integrated systems approach. Equipment is designed to optimize HBMN product injection reliability, while a network of field service representatives (FSRs) provides preventative maintenance at injection sites.



Global Supply Chain Reliability

HBMN's global distribution management team coordinates and executes product deliveries to customers on a worldwide basis. Inventories are managed and monitored, with deliveries scheduled to coordinate with customer needs. Logistics assets include multiple product warehouses and trans-loading facilities strategically located around the world, linked with a dedicated fleet of tanker trucks.



Leading Technology

HBMN has a research and development center dedicated to drag reduction technology. HBMN R&D team is composed of more than 20 professional and technical personnel, with many years of joint drag reduction experience.



Quality Production

HBMN is a very large pipeline DRA manufacturer with strict quality standards. With the increase of new factories, the production capacity of HBMN will meet the demand of major customers for drag reducers.



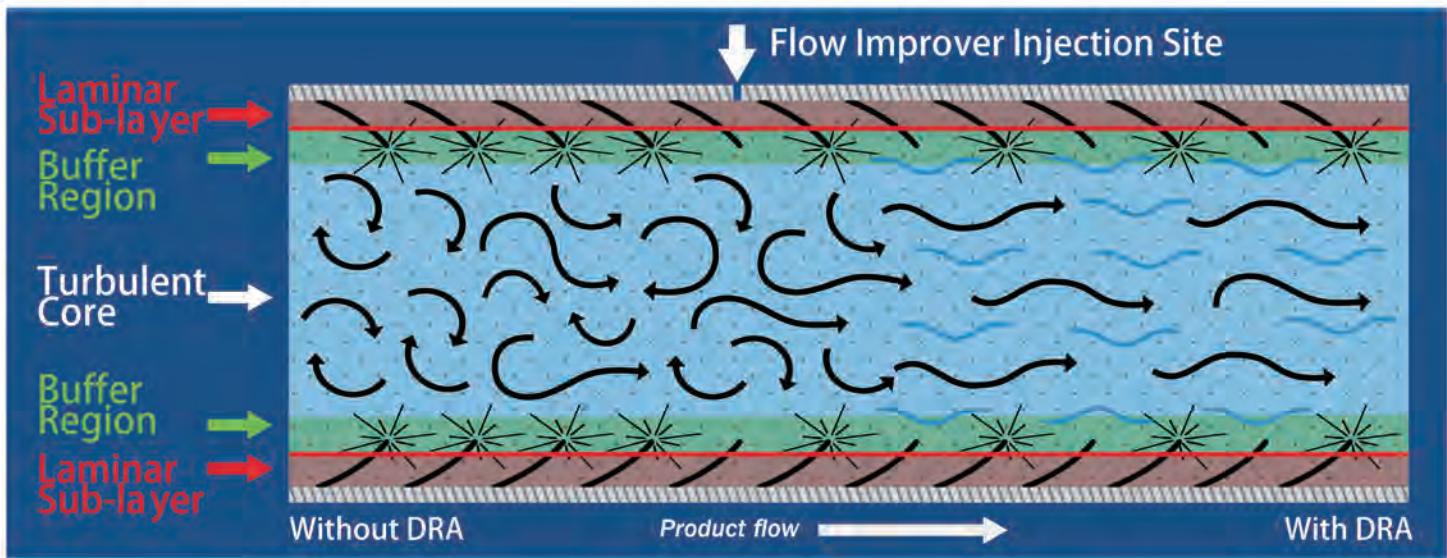
Technical Support & Consulting

HBMN personnel have the ability to evaluate, implement and maintain DRA product field applications. HBMN experts interact with all levels of customer organization, from business development pipeline modeling (SPS) to site operation optimization.

Leading Technology

HOW DO FLOW IMPROVERS WORK?

Flow Improvers are injected into pipeline fluids to reduce turbulence. Flow Improvers, such as HBMN DRA, contain long-chain hydrocarbon polymers that suppress the growth of turbulent bursts. Flow in the core becomes less turbulent, and the frictional pressure drop along the pipeline is reduced.



Other products

Pour Point Depressant

Pour Point Depressant, hereinafter referred to as PPD, is a chemical additive consisting of high molecular-weight polymer and generally used to improve the fluidity (flow property) of waxy oils by reducing its pour point and viscosity, which can improve the oil's fluidity in low temperature.

Demulsifier/Water-based Demulsifier

Used for "breaking" emulsions of water-soluble crude oil in oilfield.

Reverse Demulsifier

Used for breaking the stability of o/w emulsion and to remove the oil from treated water and used to coagulate and flocculate oil from water in the oil production.

Asphaltene Precipitation Dispersant

Used for inhibiting asphaltene precipitation and to dispersing already flocculated asphaltenes.

Biocide with Slime Dispersant

Used for effectively cleaning and against aerobic bacteria and slime forming bacteria.

Series Crude Oil Defoamers

The products are suitable for restraining and eliminating the foam in high foam-containing crude oil, as they can play a supplementary role in the demulsification and the dehydration of the oil.

Series Corrosion Inhibitors

The products is suitable for using in the water-blended and water-injection systems, as well as other industrial water circulated systems, in which the products can effectively prevent corrosion occurring and depositing on pipes and equipment.

Series Barium & Strontium Scale Inhibitors

The products are neutral and have no corrosion to chemical injection device and injection pipelines, suitable for Barium & Strontium scale inhibiting in the water-blended and water-injection systems, as well as other industrial water systems.

Lubricant Base Oil (PAO)

By improving the production technology of poly (alpha-olefin) synthetic base oil (PAO), the total synthetic lube base oil is produced, which covers medium and low viscosity series PAO 2, 3, 4, 6, 8, 10, medium and high viscosity series PAO 20, 40 synthetic base oil and PAO 100, 70, 60 and 50 super high viscosity products. Specifically applied to refrigerant lubricant base oil and military aviation lubricant.

Procurement of petrochemical pipeline equipment Provide you with "one-stop" service HBMN has the capability to purchase pipeline project materials and equipment, and can provide a "one-stop" material supply service for customers at home and abroad, such as the services from the preliminary planning of procurement, the implementation of electronic procurement, the supervising of manufacture in factory to the intelligent logistics, storage, material import and export trade, customs clearance, later service guarantee, etc.

For additional details on what the HBMN Flow Improver product would be right for your pipeline, we encourage you to call us at +8615932620513/+79221412470 to discuss your specific application.



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