



GALAXY DRILLING FLUIDS
PRIVATE LIMITED

CAPABILITY & PRODUCT CATALOGUE · 2026

Drilling Fluids & Oilfield Chemicals

Water Based · Oil Based · Polvo Series

A supplied additive range for drilling, drill-in, completion and workover programmes — manufactured to order in the producer's own plants, supplied into Iraq by Galaxy Drilling Fluids, and matched here against the drilling conditions documented for Iraqi wells in the published field literature.

MANUFACTURER'S CAPABILITY

107

MANUFACTURED
PRODUCT LINES

42+

YEARS OF
MANUFACTURE

4

COUNTRIES WITH
PRODUCTION

36

COUNTRIES
SUPPLIED



01 The Supply Partnership

WHO DOES WHAT

1983MANUFACTURING
SINCE**107**PRODUCT LINES
IN THIS CATALOGUE**4**COUNTRIES WITH
PRODUCTION**36**COUNTRIES
SUPPLIED

What Underpins the Range — the Manufacturer

Own manufacture

Manufacturing in four countries across South Asia and the Middle East, with warehousing extending to North America. Plants are SCADA-controlled with automated dosing and batching, giving batch-to-batch consistency.

In-house research

Synthesis and performance laboratories covering API compliance testing, HTHP evaluation, reservoir damage analysis, shale inhibition studies and laser particle sizing. The research centre is recognised by the Government of India's Department of Scientific and Industrial Research.

Certified systems

ISO 9001 (quality) certification held at the Indian manufacturing sites, with ISO 14001 (environment) and ISO 45001 (occupational health and safety) held at the principal plant, under national accreditation. Certificates are available for review.

Patented technology

Five patents held, including the Polvo powdered series — liquid additive chemistry supplied in dry form. Registered marks within the range include Gel PA® and Gel EP Torque Reducer®.

Environmental standard

Zero-liquid-discharge manufacturing, in which effluent from one product line is recycled as input to another. A substantial part of the range is formulated chrome-free, low-toxicity and biodegradable.

Custom formulation

Laboratory pilot testing against the operator's own make-up water, field brine and formation samples, and blends formulated against a specific well programme rather than supplied from a fixed list.

Certifications and recognitions

ISO 9001	Quality management — certified at the Indian manufacturing sites
ISO 14001	Environmental management — principal manufacturing plant
ISO 45001	Occupational health and safety — principal manufacturing plant
NABCB	National accreditation body under which the above are certified
DSIR	Government of India recognition of the in-house research centre
Patents	Five held, including the powdered dry-form additive series
Registered marks	Gel PA® and Gel EP Torque Reducer® within the range
API testing	In-house laboratory capability for API compliance testing
Zero liquid discharge	Effluent from one product line recycled into another



02 Range Architecture

THREE DIVISIONS

The catalogue is organised into three manufacturing divisions. Together they cover every additive function required by a conventional or high-specification well — from spud through the reservoir section to completion and workover.

DIVISION 01	DIVISION 02 · INVERT EMULSION	DIVISION 03
Water Based	Oil Based	Polvo Series
68	30	9
PRODUCT LINES	PRODUCT LINES	PRODUCT LINES
Viscosifier · Fluid Loss Control · Dispersants · Shale Inhibitors · LCM · Loss Circulation · Well Bore Strengthening · Lubricants · Surfactants · Emulsifiers · Spotting Fluids · Filter Cake Breaker · Well Bore Clean Up · Specialities	Emulsifiers · Wetting Agents · Viscosifier · Fluid Loss Control · Dispersants · Thinners · LCM · Spotting Fluids · Lubricants · Well Bore Clean Up · Specialities	Dry-form emulsifiers · Viscosifiers · Rheology modifiers · Fluid loss control · Wetting agents

Fluid Systems the Range Supports

SYSTEM	APPLICATION
Dispersed water-based	Conventional and weighted intermediate sections
KCl polymer & polyamine inhibitive	Water-sensitive and reactive shale intervals
Glycol / cloud-point systems	Enhanced inhibition and filter-cake quality
Sodium silicate	Severely unstable and micro-fractured shales
Saturated salt	Evaporite and salt sequences
Reservoir drill-in (sized bridging)	Pay sections requiring removable, acid-soluble filter cake
Invert emulsion — oil and synthetic based	Maximum inhibition, lubricity and hole stability
Clay-free flat-rheology invert	Narrow pressure-window sections where ECD must stay flat
Clear brine completion and workover	Solids-free completion fluids and displacement

The powdered division. Dry-form equivalents of liquid additives deliver the same function without the carrier fluid — and therefore without its shipping weight, its cube, or the empty-drum disposal burden at the wellsite. Because the powders carry no mutual solvents, the emulsifier grades are not subject to the emulsion destabilisation associated with solvent-carried liquids, and they are unaffected by freezing. On long inland supply routes this materially changes the delivered cost and the site HSE footprint.



03 Product Range

107 MANUFACTURED LINES

Reading this catalogue. Descriptions are the manufacturer's own published product classifications. Grade suffixes **(C/M/F)** denote coarse, medium and fine particle sizes of the same base material, blended to a designed distribution. **HT** denotes a high-temperature variant. **Series** denotes a family of grades under one designation.

▲ **Regional marker.** Marks the lines that correspond to the drilling conditions and remediation materials documented for Iraqi wells in the published field literature summarised in Section 04. It is a technical match, not a sales forecast.

Division 01 — Water Based

68 PRODUCTS

VISCOSIFIER

Gel Starch Modified API starch**GS Starch CM** ▲ Carboxymethyl starch**GS Starch HT** ▲ High-temperature starch**GS Drill Series** PHPA — liquid, powder and cationic grades**GS Temp HTL** High-temperature polymer**GS Vis WHT** High-temperature polymer**GS Viscal HTR** High-temperature polymer

FLUID LOSS CONTROL

Gel Asphatex Sulphonated asphalt**GS Aqua Gil** Liquid gilsonite**GS Hexaplex** Aluminium complex**GS RX** Resinated lignite

DISPERSANTS

GS Lig Lignite**GS C Lig** Causticized lignite**GS K Lig** Potassium lignite**GS CR** Chrome lignite**GS CFLS** Chrome-free lignosulphonate**GS CFD** Chrome-free deflocculant**GS Thin W** Polymeric dispersant

SHALE INHIBITORS

Gel PA Series Polyamine — PA, PA P, PA D, PA E, PA A grades**GS Guard C** Quaternary amine derivative**GT Salt Hib** ▲ Salt crystallization inhibitor

LCM

GS Carb (C/M/F) ▲ Sized calcium carbonate**Gel Flake (C/M/F)** ▲ Sized acid-soluble calcium carbonate flakes**GS White (C/M/F)** ▲ Sized ground marble**GS Nut Plug (C/M/F)** ▲ Sized walnut shells**GS Mica (C/M/F)** ▲ Sized mica**GS Graphite (C/M/F)** ▲ Sized resilient graphite**GS K Seal (C/M/F)** ▲ Sized blended fibres, granules and flakes**GS LC Seal (C/M/F)** ▲ Sized LCM fibres**GS LCM P** ▲ Shredded cellulose fibres

LOSS CIRCULATION

GS Lox ▲ High fluid-loss plug formation**GS Seal M** ▲ High fluid-loss plug

WELL BORE STRENGTHENING BOTH FOR WBM & OBM

GS MMO ▲ Mixed metal oxide

LUBRICANTS

GS Lube Eco-friendly, universal application**GS Lube NV** Low pour-point lubricant**Gel EB Lube** Ester based**Gel EP Torque Reducer®** Vegetable based**GS EM Lube** Lubricant for clear brines and completion fluids**GS Sal Lube** Clear brine**POLVO LUBE** Powdered lubricant**POLVO EB LUBE** Powdered ester-based lubricant**POLVO EPTR** Powdered extreme-pressure torque reducer

SURFACTANTS
Gel Det Detergent
GS Rig Wash Surface-active agent
EMULSIFIERS
GS Oil-Merge Oil-in-water emulsifier (direct emulsion)
SPOTTING FLUIDS
GS Free NW Eco-friendly, non-weighted
GS Free W Eco-friendly, weighted
Polvo Spot Powder spotting fluid
FILTER CAKE BREAKER
Filter Cake Breaker ▲Enzyme for WBM filter-cake breakage
GS Break FG ▲Liquid acid precursor
WELL BORE CLEAN UP
GT Bottoms Up Fibres for hole cleaning

SPECIALITIES
Kure Pill Crosslinked polymer pill
Sure Pill Series ▲In-situ cross-link polymer pill package — with retarder and accelerator
GT Lati Seal ▲Sealing nano-emulsion
GT Scav Triazine-based H ₂ S scavenger
GS Scav Zi Zinc-based H ₂ S scavenger
GS NOX Series Oxygen scavenger — NOX, P, SF, EB grades
GS CI / GT CI Series Corrosion inhibitor
GS Bio AM / AL / TZ / GS Cide Biocide
GS Col L / M / H Clouding glycol — low, medium and high cloud point
GS Stab Series Polymer temperature extender / polymer stabilizer
GS Defoamer Series Defoamer — S, A, G, P grades
GS Foam CB Additive for foam drilling
GS RAA ROP enhancer
GS ACIP ▲Acid precursor
GS NE 615 Non-emulsifier / demulsifier for acidization
Gel Sil EPL Eco-friendly, for sodium silicate mud
Gel SS 20 Non-invasive fluids

Division 02 — Oil Based

30 PRODUCTS

EMULSIFIERS
GS Mul P Primary emulsifier
GS Mul PAM Primary emulsifier, winterized
Gel Mul S Secondary emulsifier
Gel Mul SAM Secondary emulsifier, winterized
GS Mul Pro Premium secondary emulsifier
GS Mul HP High-performance emulsifier
GS Mul Ai1 / Ai1 HT Single-component OBM emulsifier
Puro Mul Pure invert emulsifier
WETTING AGENTS
Gel Wet / GS Wet HP Wetting agent
GS Sup Wet Oil mud conditioner
Puro Wet Pure wetting agent for invert emulsion
VISCOSIFIER
GS Vis SF Viscosifier for flat rheology and clay-free mud
GS Vis-FLT OBM / SOBM viscosifier
GS Vis IS Barite suspender (HRP equivalent)

FLUID LOSS CONTROL
GS Trol L High-temperature liquid fluid-loss controller
GS Trol PD 700 Polymeric HPHT fluid-loss control application
GS Trol / GS Trol HT Natural asphalt
DISPERSANTS
GS Trol AL Aminated lignite
THINNERS
GS Thin O Thinner
LCM
GS LC Seal T ▲Treated LCM fibres
SPOTTING FLUIDS
GS Free OBM NW / W Spotting fluid for oil-based mud
LUBRICANTS
GS Lube OBM Lubricant for oil-based mud

WELL BORE CLEAN UP	
GS Sol	Solvent, OBM clean up
GS Surf	Surfactant, OBM clean up
GS Clean ENV	Asphaltene / paraffin / sludge dissolver
GS Wax Solv / Wax Solv-1	Wax dissolver

SPECIALITIES	
GS Clay DP	Organoclay, dry processed
GS Micro-Clean	Micro emulsion for OBM
GS Mod	Rheology modifier
GS Thermo Chem	Thermal chemical well remediation system

Division 03 — Polvo Series

9 PRODUCTS

DRY-FORM EQUIVALENTS OF LIQUID ADDITIVES	
POLVO MUL P	Primary emulsifier
POLVO MUL S	Secondary emulsifier
POLVO MUL Pro	Premium secondary emulsifier
POLVO MUL HP	High-performance emulsifier
POLVO MUL Ai1	All-in-one emulsifier
POLVO Vis SF	Viscosifier for flat rheology and clay-free mud
POLVO MOD	Rheology modifier
POLVO TROL	Resin-based fluid-loss additive
POLVO WET	Wetting agent



04 Application to Iraqi Operations

DOCUMENTED CONDITIONS

This section supports technical evaluation. Every statement is drawn from published field literature or public announcements and is referenced below. It summarises documented drilling conditions and the materials reported in use against them — it is not a sales forecast.

DOCUMENTED CONDITION	WHAT THE LITERATURE REPORTS	CORRESPONDING LINES
Lost circulation — southern fields	Lost circulation is reported to account for 46% of non-productive time in the Rumaila field [1]. A study of 75 wells in the same field identifies the Dibdibba, Dammam, Umm Er Radhuma, Tayarat and Hartha formations as the principal risk intervals, and finds equivalent circulating density (ECD) to be the single most influential parameter in predicting losses [2].	GS Carb · Gel Flake · GS White · GS Nut Plug · GS Mica · GS Graphite · GS LC Seal · GS LCM P · GS K Seal
Lost circulation — fractured carbonates	A 2026 review of the Kurdistan Region reports the same problem in the Avanah Formation, where natural fractures, vugular porosity and partial depletion narrow the margin between pore pressure and fracture gradient. Field cases record losses of 130–210 bbl/hr near the top of the Avanah; partial losses were controlled with LCM pills alone, while total losses required cement or composite plugs [3].	GS K Seal · GS Nut Plug · GS Lox · GS Seal M · Sure Pill Series
Materials documented in use	The same review records calcium carbonate, cellulosic fibre, walnut shell, mica and resilient graphite as the conventional bridging materials applied to seepage and partial losses. It also notes that mica, fibres and cross-linked systems are not readily removable from reservoir sections, and that acid-soluble grades with a removable filter cake are preferred where the pay zone is exposed [3].	Non-pay: the full sized-bridging range. Pay: GS Carb · Gel Flake · GS White, with Filter Cake Breaker · GS Break FG · GS ACIP
Prevention before remediation	The review sets out a hierarchy for loss management: drilling practice first, then drilling fluid selection, then wellbore strengthening materials applied proactively, with LCM as remedial treatment once losses have occurred [3]. The Rumaila study points the same way, identifying ECD as the controlling parameter [2].	GS Graphite · GS K Seal · GS MMO · GT Lati Seal
Evaporite sequences	The Fatha (Lower Fars) Formation is a Middle Miocene evaporite sequence of alternating mudrocks, limestones, gypsum, anhydrite and halite [4], and is recorded in southern Iraqi oilfields [5]. Wells penetrating it are drilled with saturated-salt systems, in which crystallisation must be controlled as the fluid cools.	GT Salt Hib · GS Starch CM · GS Starch HT

04 Application to Iraqi Operations — Commercial Context

COST AND
ACTIVITY

DOCUMENTED CONDITION	WHAT THE LITERATURE REPORTS	CORRESPONDING LINES
What losses cost	Published Iraqi field costings put a cement plug at approximately 18 hours and US\$27,000, a diesel-oil-bentonite plug at 10 hours and US\$15,000, and a diesel-oil-bentonite-cement plug at 12 hours and US\$18,000 [2]. Lost circulation is estimated to cost the industry US\$2 billion a year [2].	—
Activity level	Field development continued through 2026. Basra Oil Company awarded Halliburton a five-year integrated field management and EPCM contract for the Nahr Bin Umar and Sindbad fields in July 2026, and North Oil Company contracted HKN Energy for the Hamrin field, each with stated production-increase targets [6].	—

Practical conclusion. On the evidence above, an initial supply programme is best weighted towards the sized bridging grades and the salt-section chemistry — held as a blended coarse/medium/fine distribution rather than a single grade, since the literature reports loss severity varying within a single hole section. Where the pay zone is exposed, the acid-soluble grades and the filter-cake breakers should be specified in preference to fibre and mica.

Sources. [1] Arshad, U., Jain, B., Ramzan, M., Alward, W., Diaz, L., Hasan, I., Aliyev, A. and Riji, C., 2015. Engineered solution to reduce the impact of lost circulation during drilling and cementing in Rumaila Field, Iraq. International Petroleum Technology Conference (IPTC), OnePetro. [2] Salih, A.K. and Abdul Hussein, H.A., 2022. Lost Circulation Prediction Using Decision Tree, Random Forest, and Extra Trees Algorithms for an Iraqi Oil Field. Iraqi Geological Journal, 55(2E), pp. 111-127. DOI: 10.46717/igj.55.2E.7ms-2022-11-21. Treatment costings therein after Al-Hameedi et al., 2018. [3] Ali, J.A., Khalid, A., Issa, A. and Abdalqadir, M., 2026. Lost circulation in fractured carbonate formations: mechanisms, treatment strategies and field evidence from Kurdistan Region of Iraq. Journal of Engineering and Applied Science, 73, article 264. DOI: 10.1186/s44147-026-01097-1. [4] Al-Juboury, A.I. and McCann, T., 2008. The Middle Miocene Fatha (Lower Fars) Formation, Iraq. GeoArabia, 13(3), pp. 141-174. [5] Shareef, N.F., Mahdi, M.M. and Mohamed, A.H., 2023. Combined Ostracoda and Foraminiferal Biozonation with Environment of Fatha Formation (Middle Miocene) in Different Oilfields, Southern Iraq. Iraqi Geological Journal, 56(1D). [6] Halliburton press release, 20 July 2026; Basra Oil Company and North Oil Company announcements, July 2026.

05 Product Forms and Packaging

AS DELIVERED

The range is supplied in printed woven sacks for dry products, and in drums and palletised totes for liquids. Sized bridging materials are supplied as a designed coarse, medium and fine distribution rather than a single grade.



Powdered range in sacks

22.67 kg (50 lb) printed woven sacks — Polvo Mul P, Polvo Mul S, Polvo Wet and Polvo Trol.



Single sack — face detail

Polvo Mul P, powdered oil based mud primary emulsifier, 50 lb net, product of India.



Product sample library

The water-based and oil-based range in sample form — GS Nut Plug, GS K Seal and GS Mica each in coarse, medium and fine, with Gel Starch, GS Surf, GT Lati Seal, ASAP Link and the Gel PA polyamine grades.



Warehouse and despatch

Finished goods staged for shipment — racked drums, strapped and shrink-wrapped palletised totes.



05 Product Forms and Packaging — Pack Formats

AS DELIVERED



Woven sack

22.67 kg (50 lb) net

Printed woven sack, the standard unit for dry additives.



Drum

Liquid additives

Drummed liquids, racked and staged for despatch.



Palletised tote

Bulk liquids

Totes strapped and shrink-wrapped on a pallet for transit.



C M F
coarse · medium · fine

Graded sizing

Coarse · medium · fine

Sized bridging materials supplied as a designed distribution, not a single grade.

Pack capacities. The 50 lb sack is the confirmed standard unit for dry additives. Capacities for drums and totes are confirmed in writing at quotation against the specific order.

06 The Range in Material Form

AS MANUFACTURED

The products as they appear before packing — graded solids, milled powders, polymers and liquid additives. Sized bridging materials are shown in the form supplied; colour and grain vary by grade.



Sized calcium carbonate



Mica flakes



Resilient graphite



Acid-soluble carbonate
flakes



Barite



Blended lost-circulation
material



Causticized lignite



Sulphonated asphalt



Chrome-free
lignosulphonate



Potassium lignite



Resinated lignite



Lignite



Xanthan gum



Bentonite



Organophilic clay



06 The Range in Material Form — continued

AS MANUFACTURED



Carboxymethyl cellulose



Polyanionic cellulose



Carboxymethyl starch



Modified starch



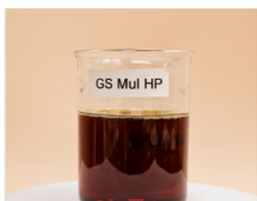
Ground marble



PHPA



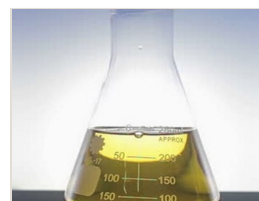
Polyamine shale inhibitor



Primary emulsifier



Natural asphalt



Triazine H₂S scavenger



07 Manufacturing and Testing

PROCESS PLANT

Manufacture runs from reaction and blending through size reduction and classification to automated filling, under supervisory control throughout. The laboratory releases each batch against the controlled formulation before it is packed.



Air classifier mill plant

Multi-level grinding installation with integrated classification and access platforms.



Automated powder handling plant

Cyclone separation, conveying ductwork, dosing stations and multi-level access.



Jet mud mixing skid

Venturi hopper with centrifugal pump, shearing additives into the active system.



Dynamic roller oven

Heated cabinet with driven rollers and pressurised ageing cells for HTHP testing.

07 Manufacturing and Testing — Process Equipment

PROCESS PLANT



Jacketed reactor

Reaction

Agitated, temperature-controlled vessels for emulsifier, lignosulphonate and amine chemistry.



Ribbon blender

Dry blending

Blending of powder products, fed by screw conveyor and bucket elevator.



Impact mill

Size reduction

Hammer and pin milling of bridging materials to the target fraction.



Air classifier

Classification

Cuts the milled feed into coarse, medium and fine fractions to a designed distribution.



Weigh-filling line

Packing

Automated weigh-fillers and bagging for sacks; drum and tote filling for liquids.



SCADA control

Supervision

Automated dosing and batching under supervisory control, for batch-to-batch consistency.

Process flow — raw material to despatch

01

Raw material

02

Reaction / blend

03

Milling / sizing

04

QC laboratory

05

Filling / packing

06

Despatch

08 Laboratory and Facilities

RESEARCH AND PRODUCTION

The manufacturer's research, application and instrumentation laboratories, and the production sites where the range is made.



Research laboratory



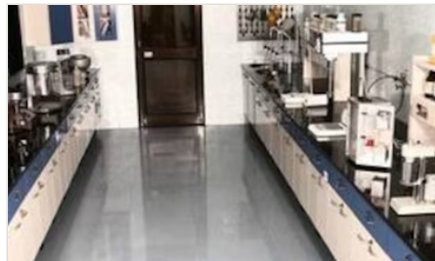
Instrumentation laboratory



Applications laboratory



Testing bench



Laboratory block



Laboratory team



Manufacturing site



Production facility



Plant buildings

09 Quality, Supply and Next Steps

ASSURANCE

The manufacturer operates a certified quality system and releases each batch against a controlled formulation following laboratory verification. Commercial and documentation terms are confirmed in writing at quotation for the specific order.

Certified quality system

ISO 9001	Quality management system, certified under national accreditation
ISO 14001	Environmental management system, principal manufacturing plant
ISO 45001	Occupational health and safety management system, principal plant
Automated batching	SCADA-controlled plants, for consistent product batch after batch
In-house testing	API compliance, HTHP, reservoir damage, shale inhibition, particle sizing

Supply terms — confirmed at quotation

Safety Data Sheet	GHS format, issued per product line supplied
Technical Data Sheet	Issued per product line together with the quotation
Batch documentation	Certificate of Analysis and inspection arrangements agreed per order
Packaging	Pack formats for powders, granulars and liquids confirmed per line
Incoterms	EXW, FOB, CFR, CIF or DAP, as agreed
Export documentation	Chamber of Commerce and consular legalisation as Iraq requires
Lead time	Quoted against the specific volume and pack format

Next steps

01 Mark the lines required Indicate the products and indicative annual volumes of interest.	02 Formal quotation Priced against volume, pack format, Incoterm and destination.	03 Technical review Product documentation and certifications reviewed against your well programme.	04 Trial supply A first consignment weighted to the bridging and salt-section grades.
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SUPPLY AND ENQUIRIES

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