

NX SulphuRec™

Our solution for the
purification of crude
oil and gas

About NEXTCHEM

NEXTCHEM is MAIRE's company dedicated to Sustainable Technology Solutions. Leveraging our profound expertise in nitrogen, hydrogen, carbon capture, fuels, chemicals, and polymers, we deliver groundbreaking solutions and processes that fully enable the energy transition.

Building on the rich legacy of our group for over 70 years, we are dedicated to developing and offering technology solutions, processes, basic engineering designs, as well as proprietary equipment and catalysts, to drive global decarbonization efforts forward.

Committed to environmental excellence

To reduce the environmental impact of crude oil refining and sour natural gas, industries need sulfur purification technologies. NX SulphuRec™ and NX SulphuRec S.O.A.P.™ represent best-in-class sulphur treatment technologies. NX SulphuRec™ is a comprehensive portfolio of Sulphur Recovery Technologies (SRT), based on Modified Claus and Tail Gas Treatment, constituting the most widely sulphur recovery processes worldwide. These solutions are aimed at reducing the environmental impact of sour gases and, in some applications, they can be properly upgraded for decarbonization.

1. Reduction, Absorption & Recycle (RAR)
2. Executed as Licensor among FS, PDP, BEDP, FEED
3. Sulphur Recovery Technologies;

Our solution to reduce your environmental emissions

NEXTCHEM offers license, feasibility studies (FS), process design package (PDP), basic engineering design package (BEDP), front-end engineering design (FEED), digital & post-PDP services such as Digital Process Monitoring (DPM) and Operator Training Simulator (OTS).

NEXTCHEM SRT³ is the right solution to tackle the higher demand in Oil & Gas desulphurization and the more stringent regulations in terms of sulphur emissions to the atmosphere. With RAR¹ and RAR¹ Multipurpose technologies, the SO₂ emissions can be easily lowered below 150 mg/Nm³.

NX SulphuRec™

Reducing
the environmental
emissions associated to
petroleum refinery and
natural gas processing

Applications



Gas fields
purification of sour gases
from gas & oil reservoir



Petroleum refining
purification of sour gases
and liquid effluent from
refining of crude oil

Your benefits

- 1 Flexibility:**
 Low level oxygen enrichment,
 RAR¹ Process and RAR¹
 Multipurpose allow treating
 different type of sour gas
 feedstocks
- 2 Efficiency:**
 RAR¹ tail gas treatment
 Technology able to achieve
 99.9%+ sulphur recovery
 efficiency with less than 150
 mg/Nm³ SO₂ emitted to the
 atmosphere.
- 3 Robustness:**
 Established track records with
 more than 90 projects for
 sulphur recovery units in gas
 fields and refineries².

1. Reduction, Absorption & Recycle (RAR)
 2. Executed as Licensor among FS, PDP, BEDP, FEED

Technical overview

a

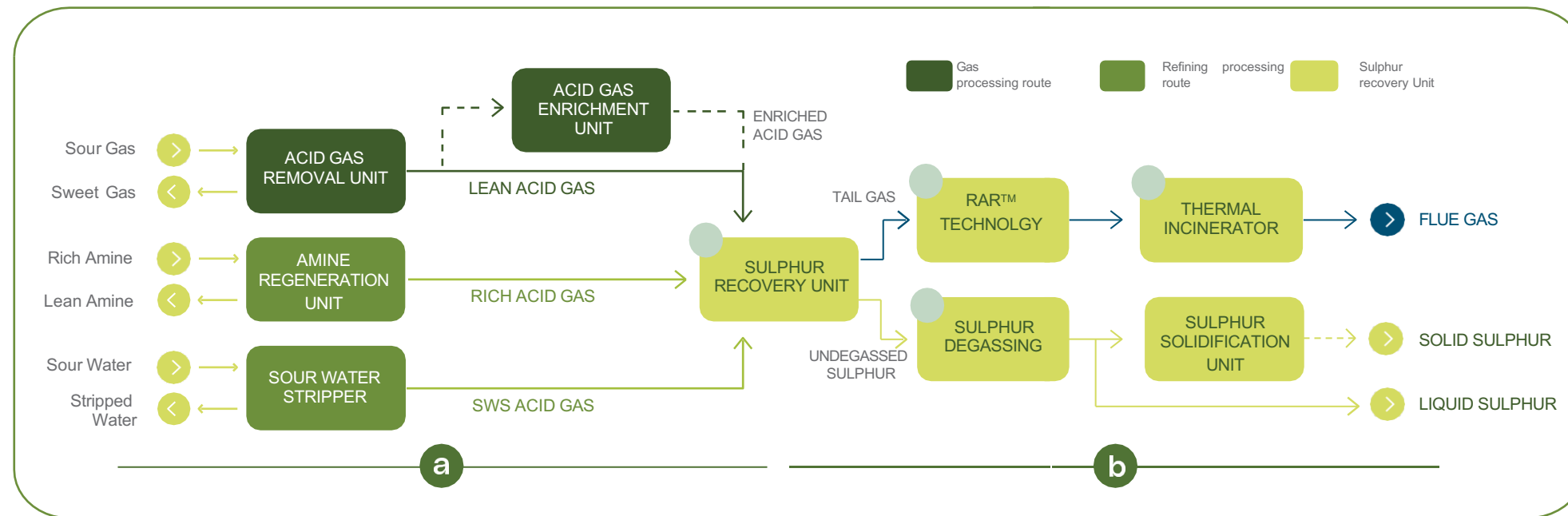
Sour gas streams containing H₂S and other sulphur compounds are captured from gas fields, petroleum refineries, coal power plant processes and fed to SRU.

b

Sulphur Recovery & Tail Gas Treatment recover Sulphur from sour gas streams to reduce harmful emissions and to produce marketable sulphur as byproduct.

NEXTCHEM

Know-how and proprietary technology



NEXTCHEM sulphur recovery portfolio

- Modified Claus Process
- Oxygen Enrichment
- RARTM Technology
- RAR Multipurpose™
- Liquid Sulphur Degassing
- Sub-Dewpoint CBA Process
- Acid Gas Removal
- Acid Gas Enrichment
- Amine Regeneration Unit
- Sour Water Stripping Unit
- S.O.A.P.™

Key Figures for NEXTCHEM SRT References

- > 50 years experience in Sulphur Recovery
- ~90 projects executed as Licensor among: FS, PDP, BEDP, FEED
- Largest license¹: 1100 t/d
- Smallest license¹: 8 t/d

1. Single train capacity