



**Sharda Minerals &
chemicals (P) Ltd.**

Unlocking the Power of Oil Polishing Machine

Advanced Color & Odour Removal Technology
for Used Oil Re-refining

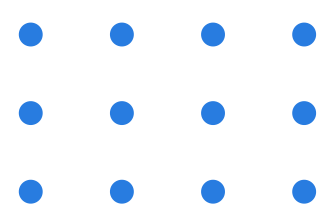
Powered by Sharda Catalyst 300.





About Sharda Minerals and Chemicals Pvt. Ltd.

What Makes Us Different



Sharda Minerals & Chemicals Pvt. Ltd. (SMC) is one of India's leading manufacturers of **Activated Bauxite, Activated Bleaching Earth, Activated Carbon, Zeolites, Activated Alumina (99%)** and **advanced Oil Polishing Systems** for the **used oil re-refining industry**.

With nearly two decades of expertise in adsorption technology, SMC provides complete solutions for improving the colour, odour, and overall quality of re-refined base oils. From manufacturing premium adsorbents to designing customized oil polishing machines, we help customers achieve superior product quality with cost-effective and reliable technology.

Today, SMC serves lubricant manufacturers, oil re-refiners, and industrial clients with innovative solutions that enhance process efficiency and maximize product value.

THE OIL POLISHING JOURNEY

From Used Oil to Premium Quality

1 USED LUBE OIL/
USED TRANSFORMER OIL/
LDO/ MHO/ DIESEL/
KEROSENE



Waste Oil

Dark in color, contains impurities, odour and oxidation products.

2 DISTILLATION /
RE-REFINING



Distillation Process

Removes water, lighter fractions and major contaminants.

3 SMC OIL POLISHING
MACHINE



Polishing with SMC Activated Bauxite

Removes colour bodies, odour, oxidation products, sulphur compounds and polar impurities.

4 PREMIUM
BASE OIL



Polished Base Oil

Very light in color (below 1), no odour, clean and ready for blending or further use.



BETTER QUALITY

Improved color, odour & clarity



HIGHER VALUE

Better market acceptance & customer trust



RELIABLE PROCESS

Consistent performance with low operational cost



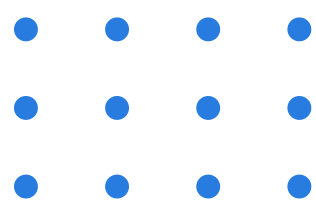
SUSTAINABLE

Supports circular economy & environment conservation



Sharda Minerals &
chemicals (P) Ltd.

Why Does Re-refined Oil Still Need Polishing?



01

Residual Colour Bodies

Darkens the oil and reduces visual appeal.

02

Unpleasant Odour

Caused by oxidation by-products and sulphur compounds.

03

Sulphur Compounds

Contribute to foul smell and lower product quality.

04

Oxidation Products

Affect oil stability and shorten service life.

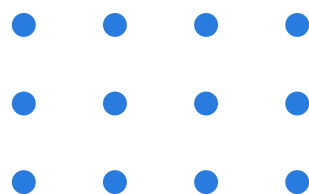
Impact on Product Quality

- ✗ Lower market value
- ✗ Poor customer acceptance
- ✗ Inferior appearance
- ✗ Unpleasant smell
- ✗ Reduced blending quality
- ✗ Lower commercial competitiveness



SMC Oil Polishing System - The Solution

The SMC Oil Polishing System is an advanced adsorption-based polishing technology that enhances the appearance and quality of re-refined oils by removing color bodies, odour-causing compounds and residual contaminants using specially developed Sharda Catalyst 300.



01

Better Colour



02

No Odour



03

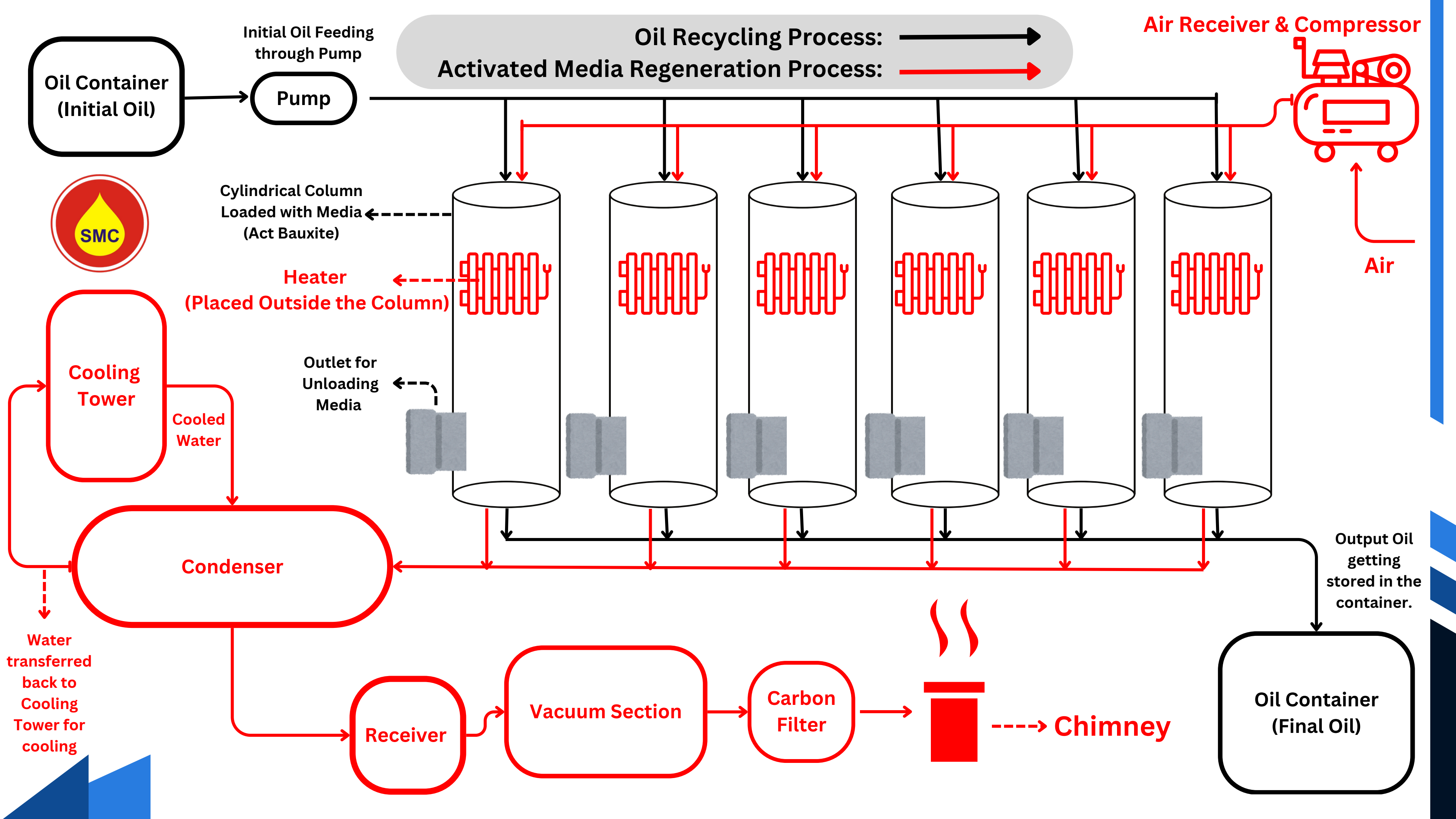
Better Market Value



04

Higher Customer Satisfaction







PROJECT GALLERY





Lube Oil

Parameter	Input Oil	Output Base Oil
Colour (ASTM D1500)	3.5	1.5
Colour (ASTM D1500)	5	2
Odour	Strong Odour	No Odour
Sulphur	High	Reduced by 20% to 60%
Oxidation Stability	Low	High <small>(Stable colour over long period)</small>

Transformer Oil

Parameter	Input Oil	Output Oil
Colour (ASTM D1500)	2-3	0.5-0.1
Odour	Strong Odour	No Odour
Oxidation Stability	Low	High <small>(Stable colour over long period)</small>



Light Diesel Oil (LDO)

Parameter	Input Oil	Output Base Oil
Colour (ASTM D1500)	> 4	1
Odour	Strong Odour	Petroleum Odour
Sulphur	High	Reduced by 30% to 80%
Oxidation Stability	Low	High (Stable colour over long period)

MHO/Diesel/Kerosene

Parameter	Input Oil	Output Oil
Colour (ASTM D1500)	2-3	0-0.5
Odour	Strong Odour	Petroleum Odour
Oxidation Stability	Low	High (Stable colour over long period)
Sulphur	High	Reduced by 20% to 80%

Clay Treatment VS Oil Polishing Machine

Parameters	Clay Treatment (Filter Press)	SMC Oil Polishing Machine
Colour (ASTM D1500)	Typically 2.0 – 4.0	Typically 1.0 – 3.0
Odour	Residual odour caused by aromatic compounds, sulphur impurities, volatile organics and oxidation by-products	Odour-free finished oil
Oxidation Stability	Colour tends to deteriorate within hours or a few weeks after processing.	Maintains colour stability for extended storage periods.
Oil Recovery	Oil loss exceeds 50L to 70L per 1,000 L processed.	Oil loss remains below 20 L per 1,000 L processed.
Operating Cost	Generally above USD 150 per MT.	Approximately USD 25–35 per MT.
Environmental Impact	Generates hazardous spent clay requiring special disposal.	Clean operation with dry, non-hazardous spent media

Clay Treatment VS Oil Polishing Machine

Parameters	Clay Treatment (Filter Press)	SMC Oil Polishing Machine
Regulatory Compliance	Increasingly restricted or prohibited in many regions.	Easier compliance with environmental regulations.
Return on Investment	Longer payback period	Typical payback within 1–1.5 years
Ease of Operation	Complex process requiring experienced operators.	User-friendly system; operators can be trained quickly.
Adsorbent Usage	Single-use clay requiring replacement after every cycle.	Regenerative media with 300+ reuse cycles.
Spent Media Disposal	Disposal is difficult and no buy-back option is generally available.	Easy disposal of non-hazardous media with buy-back support available

Available Models & Specifications



Specifications	SMC-06	SMC-12	SMC-20	SMC-40	SMC-80
Total Adsorption Columns	6	12	20	40	80
Operating Columns (Polishing / Regeneration)	3/3	6/6	10/10	20/20	40/40
Column Size	0.3 m * 2 m	0.3 m * 2 m	0.3 m * 2 m	0.3 m * 2 m	0.3 m * 2 m
Activated Media Capacity (Grade: Sharda Catalyst 300)	0.9 MT	1.8 MT	3.5 MT	7 MT	14 MT
Typical Batch Processing Capacity (Distilled Oil)	≥ 0.8 KL	≥ 1.5 KL	≥ 3.2 KL	≥ 07 KL	≥ 14 KL
Typical Batch Processing Capacity (RRBO - IS 18722)	≥ 1.6 KL	≥ 3.0 KL	≥ 6.4 KL	≥ 14 KL	≥ 28 KL
Space Required	3 x 10 m	3 x 15 m	5 x 12 m	5 x 15 m	7 x 20 m
Required Electrical Load	35 kW	60 kW	90 kW	180 kW	280 kW
Operating Personnel Required	1 Operator + 1 Helper	1 Operator + 1 Helper	1 Operator + 1 Helper	1 Operator + 1 Helper	1 Operator + 1 Helper
Average Cycle Duration	30 - 35 Hours	30 - 35 Hours	30 - 35 Hours	30 - 35 Hours	30 - 35 Hours

Customized Solutions: Machines can be designed and built to match your required production capacity and process requirements.

Consultancy: We also provide complete design, engineering, and technical consultancy for customers who wish to manufacture the machine using their own sourced materials.

Pilot Plant Demonstration: A fully operational pilot plant is available for live demonstrations. Customers can evaluate the complete process by paying a nominal demonstration fee.



**Sharda Minerals &
chemicals (P) Ltd.**

Get in Touch

**Let's Build
Together**

Ready to bring Oil Polishing Machine into
your business? Reach out today.

Contact Information



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