

# ReLubeX™

ReLubeX is **Enviroflex's** proven technology that re-refines used lubricants into high-quality base oils, fuels, and by-products.

**Products**

- Base-oil cuts (**API Group II / I+**) with stable color & low odor
- Light/heavy distillate fuels (naphtha, diesel) as by-products
- Residual asphaltic solids suitable for pavement/industry

**Process (step by step)**

1. Pre-filtration & heating – coarse -> fine
2. Alkaline treatment & water removal – neutralize acids/halides; dewatering by heat/vacuum
3. Vacuum batch distillation (tower) – staged cuts of light & heavy fuels and light base oil
4. Wiped-Film Evaporation (1–2 stages) – short-path finishing to separate heavier base oils
5. Post-treat (optional) – second alkaline neutralization and optional clay/contact treatment
6. Polishing – reactivable adsorbent **TURBOSORB™** for color, odor, sulfur & aromatics reduction; media reactivated **200–500 cycles** before replacement

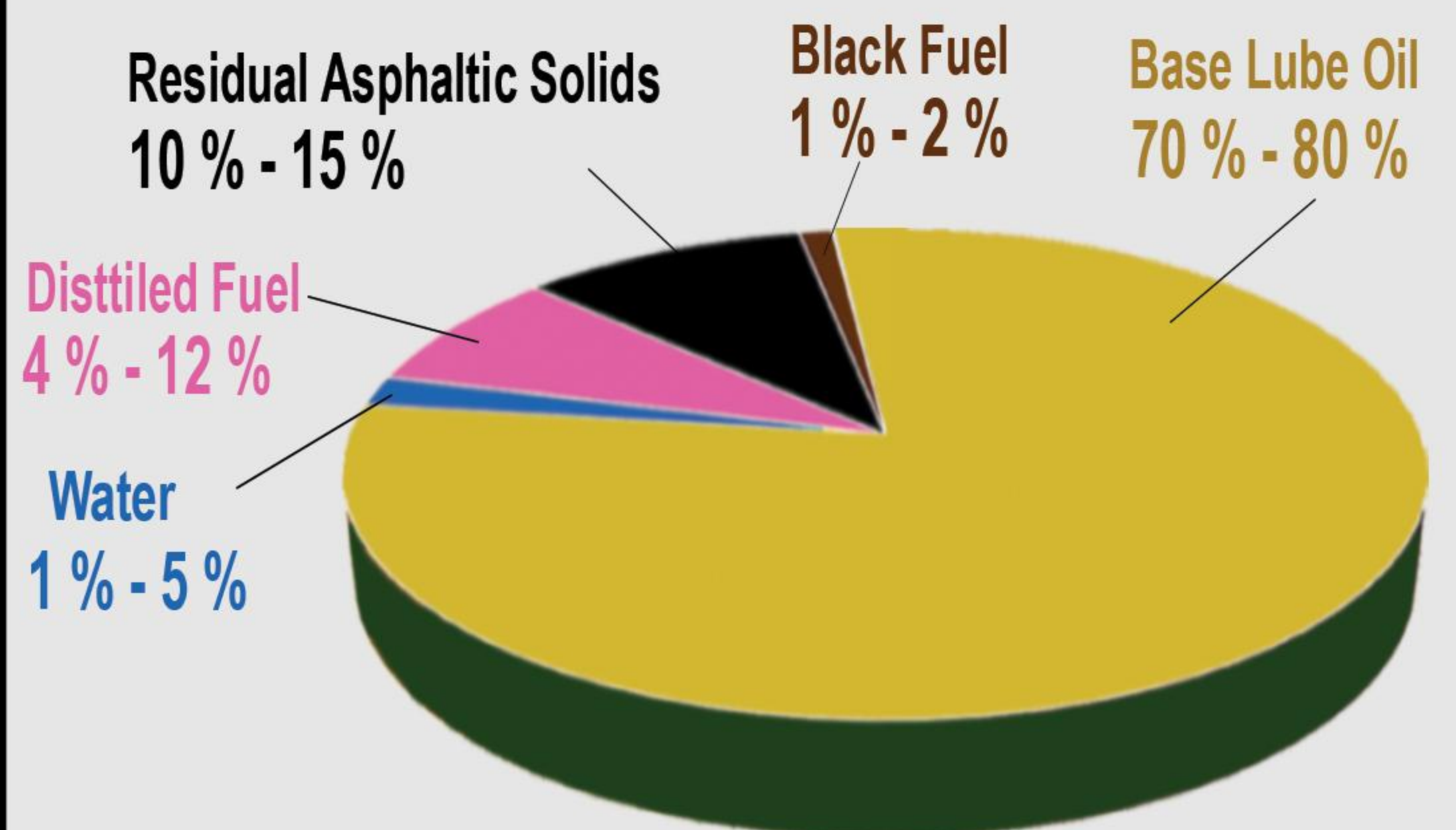
**Specifications / Capacities**

- \* Max process temperature  $\leq 305\text{ }^{\circ}\text{C}$ ; short-path WFE prevents cracking
- \* Deep vacuum up to **0.2–0.3 mbar(a)**
- \* Multi-fraction base oil by adjusting vacuum & temperature per distillation stage
- \* Typical quality: **Sulfur < 300 ppm; TAN < 0.05 mg KOH/g; Color < 1.0; CCS @  $-25\text{ }^{\circ}\text{C}$  < 3500 mPa·s**
- \* Plant feed capacities **1–100 t/day**
- \* Closed-loop emissions control – environment-friendly, zero discharge

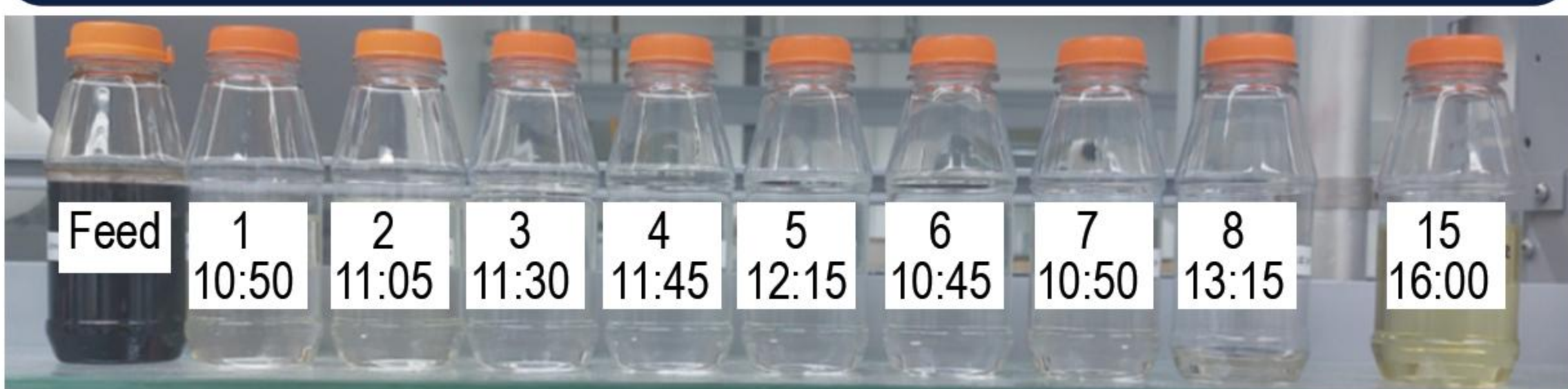
**Environment Friendly Process - Zero Discharge**



**Typical percentage of extracted products of used lube oil Re-refining project**



**Economically Feasible Project**  
 Short Investment Payback Period (1-3 years)  
 High Internal Rate of Return



Re-refined base oil samples recovered from used lubricant



# Flow Diagram of Used Lubricant Re-refinery - 30 ton/day Feed (35 kL/day)

## Base Oil as per API Group II & I+

