Honda Transmission Manufacturing Saves Hundreds of Thousands Annually Through Grinding Oil Recovery



RUF
BRIQUETTING SYSTEMS

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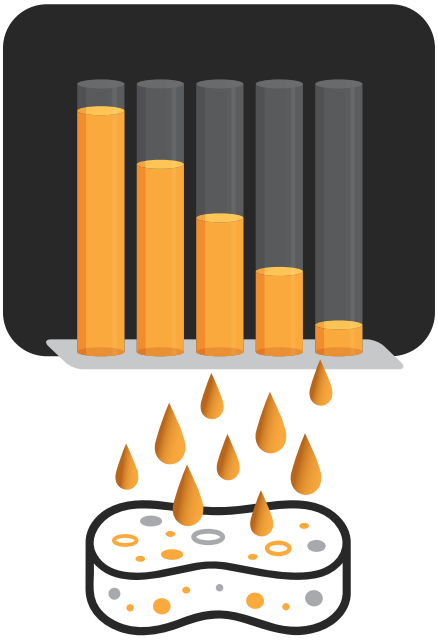
TWO RUF BRIQUETTING SYSTEMS HELP HONDA:

- Recover up to $350K in grinding oil annually
- Achieve payback in less than one year
- Generate long-term savings from a previously overlooked waste stream



THE CHALLENGE:

Oil Trapped Inside the Swarf



THE GRINDING SWARF RECOVERY CHALLENGE:
It held grinding oil "like a sponge"

At Honda Transmission Manufacturing's Russells Point, Ohio facility, the Gear Department generates a range of metal byproducts during daily production. Larger chips come from machining processes such as hobbing, skiving and chamfering, while finishing operations such as hard turning, cylinder grinding and gear grinding produce finer swarf.

That grinding swarf presented a significant recovery challenge.

According to Joseph Pietrykowski, Engineering Staff, Gear Department, Honda Transmission Manufacturing, the material held grinding oil "like a sponge," trapping valuable oil inside a waste stream that was already being collected and removed from production.

Before briquetting, the swarf was collected in large bins, moved by forklift and sent for disposal or recycling. While the metal retained recyclable value, the oil contained within the material was effectively lost along the way.

Honda recognized an opportunity to recover that oil before the swarf entered the recycling stream. Any solution would need to process abrasive grinding swarf, integrate with the plant's existing filtration system and deliver a return strong enough to justify the investment.



THE SOLUTION:

Separating Oil Before It Became Waste

HOW THE SYSTEM WORKS:

Honda installed two RUF briquetting systems in the Gear Department to recover oil from grinding swarf before the material moved farther into the scrap and recycling process.



As material enters the RUF systems, it is compressed into briquettes while oil is extracted and collected. The recovered oil is then pumped directly back into Honda's filtration system, allowing it to be reused in production.

According to Pietrykowski, Honda uses the two-machine configuration primarily to keep two classes of grinding oil separate rather than because swarf volume alone requires two units.

By integrating oil recovery directly into the production process, Honda created a way to reclaim value before it left the facility.



> Since installing the RUF system, we've been able to save money while also saving the environment and saving some time.
>
> *Joseph Pietrykowski*

THE RESULTS:

Payback in Less Than One Year

The results validated the investment quickly.

According to Honda, the two RUF briquetting systems recover an estimated $250,000 to $350,000 in grinding oil annually, helping the project pay for itself in less than one year.

Over approximately a decade of operation, Honda estimates the systems have helped save millions of dollars in oil costs.

Oil recovery drove the business case, but the benefits extended beyond direct savings. Because nearly all recovered oil is returned to the system, employees no longer need to check filtration oil levels daily. Pietrykowski says the process saves roughly a half hour each week that would otherwise be spent replenishing oil, along with two to three hours per week in reduced forklift-driver time.

The success of the application extended beyond the Russells Point installation. Honda management shared information about the project with Honda's Anna Engine facility, where another team explored similar oil-recovery opportunities.

Continued reliability and performance

Millions of dollars in estimated savings

More than 10 years of operation

$350,000
saved annually*

Less than one-year payback

Initial install

**Estimated $250,000-$350,000 annual grinding oil recovery savings*



LONG-TERM PERFORMANCE:
Built Into the Operation

The investment delivered quick financial returns. The question was whether those results would hold up in the long run.

More than a decade after installation, Honda continues to operate the systems in a demanding environment where abrasive grinding swarf creates predictable wear over time. Replacement components such as the briquetting ram and chamber are managed proactively, with spare parts kept in local inventory and maintenance planned around production requirements.

Pietrykowski summed up the system's long-term performance simply:

"The machine keeps on working even though it lives in a dirty environment and gets neglected."

That reliability is particularly noteworthy given one of the team's concerns before installation. Honda questioned whether fine swarf particles could accumulate in the oil system and eventually require extensive flushing or oil replacement.

> "The machine keeps on working even though it lives in a dirty environment and gets neglected."
>
> *Joseph Pietrykowski*

"We were worried initially that smaller swarf particles would build up in the oil system and we would have to do a complete system flush or oil replacement every few years, but 10 years of running and we haven't changed the filtration side of the system since installation."

Over the years, Honda has also made practical modifications including adding windows, modifying hopper feed guides, improving maintenance access and incorporating a check valve into the pump-out system. Those adjustments reflect equipment that has become a fully integrated part of the operation.



CUSTOMER PERSPECTIVE:

A Decade Later

For Pietrykowski, the value proposition remains straightforward:

“For oil recycling, great machine.”

The installation has delivered benefits beyond oil recovery alone. Less time is spent replenishing oil levels. Material-handling requirements have been reduced, and recovering oil before the material enters disposal or recycling also reduces environmental waste.

When asked to summarize the impact of the installation after years of operation, Pietrykowski put it simply:

“Since installing the RUF system, we’ve been able to save money while also saving the environment and saving some time.”

> “For oil recycling, great machine.”
>
> *Joseph Pietrykowski*

BENEFITS BEYOND OIL RECOVERY:

- **REDUCED** Oil Replenishment Requirements
- **REDUCED** Forklift-Driver Time
- **LESS** Material Handling
- Environmental **BENEFITS**
- Operational Efficiency **IMPROVEMENTS**

About RUF Briquetting Systems

RUF delivers tailored briquetting solutions that reclaim floor space, save resources, and pay for themselves quickly.

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