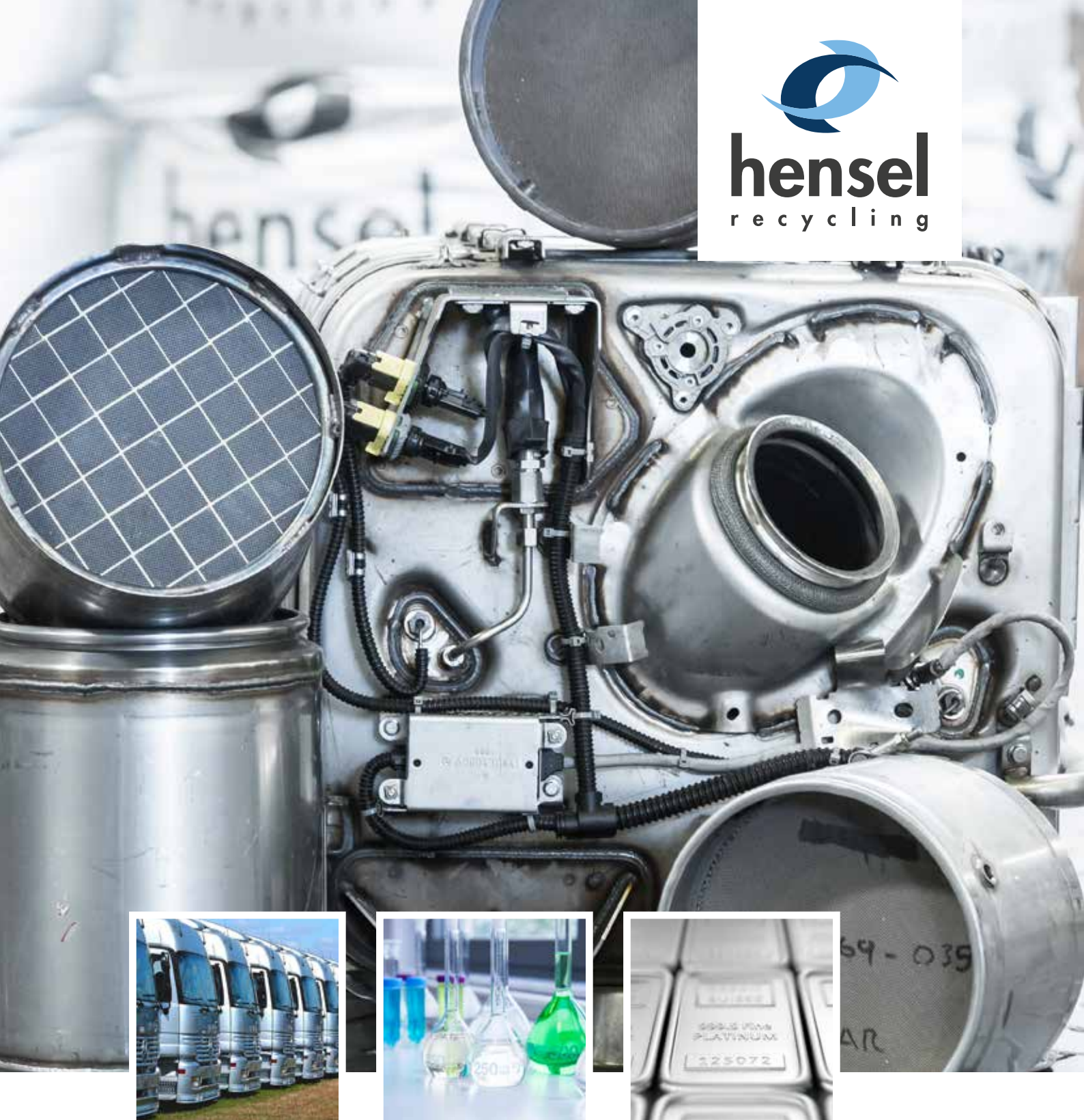




hensel
recycling



your first choice

RAW MATERIAL RECOVERY **FROM TRUCK CATALYTIC CONVERTERS**



PASSIONATE ABOUT PRECIOUS METAL RECYCLING

Hensel Recycling - Your first choice.

Our roads would look completely different without commercial vehicles such as trucks. However, along with fast, reliable transport, low CO₂ emissions are vital for sustainable logistics.

An increasing number of Euro IV or V and even Euro VI exhaust aftertreatment systems are ending up in scrap yards due not least to the truck scrapping premium. At the end of their useful life, the valuable raw materials must be recovered. Recycling the heavy, bulky systems in an efficient, environmentally sound manner requires extensive experience and profound technical know-how.

TODAY STILL ON THE ROAD – TOMORROW ALREADY PRECIOUS METAL

Truck catalytic converters in precious metal recycling

Euro IV or V exhaust aftertreatment systems for trucks do not contain, as a rule, a precious metal coating. Nevertheless, in the wake of the scarcity of raw materials they should be recycled in an environmentally sound manner. Newer Euro VI systems, in use since 2014, are coated with precious metals such as platinum or palladium.

Different catalytic converters and filters are fitted in the various exhaust treatment systems depending on the manufacturer and exhaust gas standard, Euro IV, V and VI, for instance Diesel Particulate Filter (carrier material silicon carbide, aluminium titanate or cordierite), Oxidation Catalyst, SCR Catalytic Converter (Selective Catalytic Reduction) or ASC (Ammonia Slip Catalyst).



PURCHASING SERVICE

Transparent and fair

We purchase truck catalytic converters in a straightforward manner and easily. Our experts evaluate your material based on our catalytic converter database. Because complete catalytic converter systems have additional logistical requirements due to their volume and weight, collection must be arranged in advance. In this way we can assure you the process will be smooth.



Your advantages at a glance

- » Collection by our experts as agreed
- » Evaluation based on the Hensel Recycling catalytic converter library
- » Waste management legislation documentation
- » Prompt settlement and payment



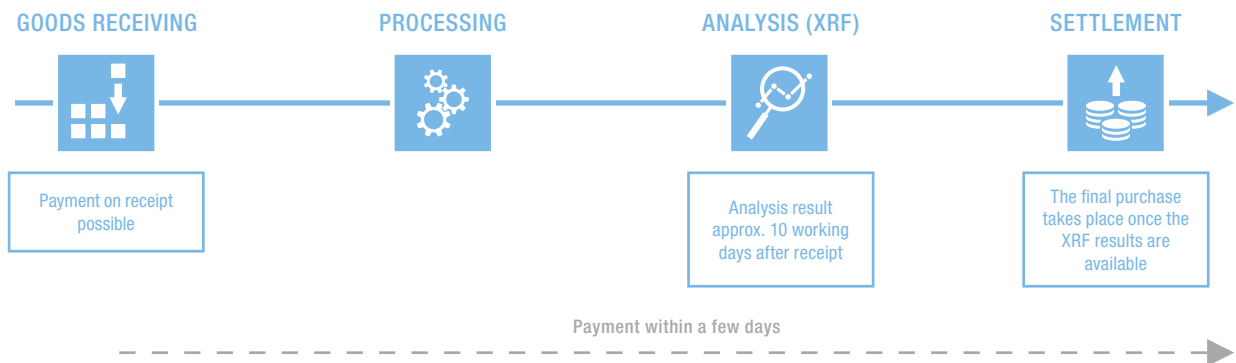
The online catalogue – up-to-date and transparent

The complete systems from trucks are added to our online catalytic converter database with numerous images as well as detailed descriptions. The precious metal content is determined based on exact precious metal analysis. Our online catalogue offers you a transparent overview and is continually updated with new systems.

FAST SETTLEMENT

Ideal recycling method for individual components

You want to dismantle the truck exhaust system yourself and send the filters and catalytic converters you remove for recycling? No problem. We can process these sustainably and will pay you based on fair conditions with fast settlement. Only a few days after the receipt of your material, the value of your goods is set by means of a quickly available X-ray fluorescence analysis (XRF) and your contract can be settled.



Your advantages at a glance

- » Collection by our experts as agreed
- » Thanks to small sampling system, specially developed, even smaller quantities from 500 kg are profitable
- » Waste management legislation documentation
- » Settlement based on a readily available X-ray fluorescence analysis (XRF)

X-ray fluorescence analysis (XRF)

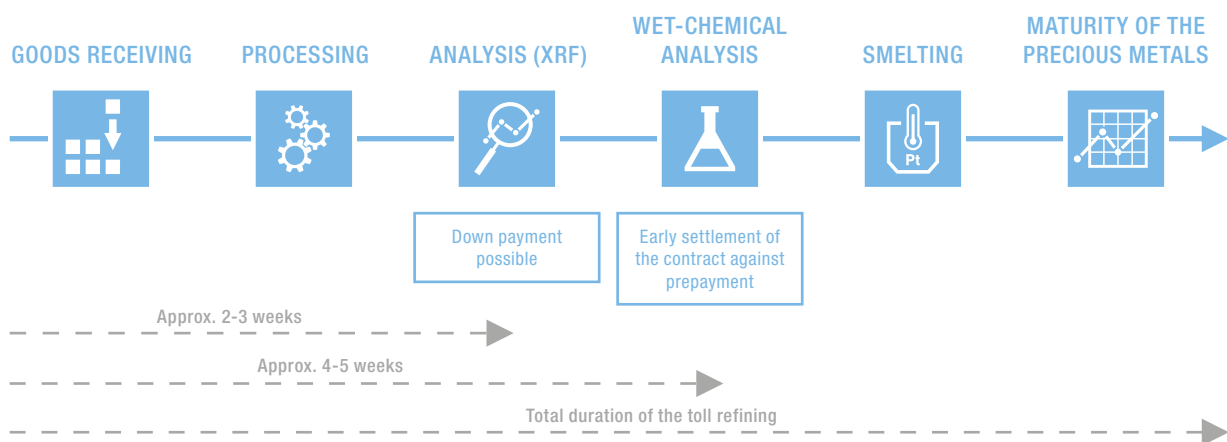
X-ray fluorescence analysis is one of the most frequently used methods for determining the composition of a material sample. After processing, the finely ground, homogeneous powder is pressed into tablet form with a binding agent. The composition of the sample is determined quantitatively and qualitatively using X-rays. This means that reliable results are available for the precious metal content in a very short time.



TOLL REFINING

Settlement with numerous payment options

Different options for when payment for the precious metals is due offer you a high degree of flexibility in the payment models. During processing, the settlement for your material is based on an exact wet-chemical ICP-OES analysis.



Your advantages at a glance

- » Collection as agreed
- » Settlement based on the highly precise wet-chemical analysis (ICP-OES)
- » Payment after the results of the quick X-ray fluorescence analysis (XRF) are available possible for ceramic material
- » Flexible payment models



Wet-chemical analysis

The precious metal content can be accurately determined using wet-chemical analysis methods, e.g. ICP-OES (inductively coupled plasma with optical emission spectrometer). To this end, the homogeneous powder is converted to a liquid sample. The elements contained within it are then separated and a plasma flame can be used to make them visible. The relevant precious metal contents can then be picked out.

Toll refining - extra services	All systems
Transport	We take over the planning, correct customs clearance as well as the organisation of transport in accordance with waste management legislation
Re-Use	Diesel particulate filters are carefully dismantled and returned after a visual inspection
Separation	We separate components that do not contain precious metals and can send them for recycling for a fee
Empties management	We take over the management and the return of empties

COMPARE FOR YOURSELF

Our services at a glance

We offer you flexible, tailor-made solutions. The overview of our services shows all information quickly and straightforwardly at a glance. We always find a suitable solution even for special wishes and requirements. We would be pleased to advise you as to which model is best for you.

Range of services Purchasing and fast settlement	Euro IV / V (complete system)	Euro VI (complete system)	Removed filters and catalytic converters
Collection service	✓	✓	✓
Delivery possible	-	✓	-
Categorisation	depending on your national waste legislation (waste code 160801 / 160807)		
Charge	0.50 euro per kg net weight	-	-
Payment	-	Based on the online catalogue, unknown systems 0.50 euro per kg net weight	Based on the XRF analysis
Systems contaminated with oil	Excluded from acceptance*		
Minimum quantity	From 1 piece	From 1 piece	500 kg

We would be pleased to prepare a specific recycling concept with you.

* Truck exhaust aftertreatment systems / individual components contaminated with oil are excluded from acceptance. There is a visual inspection before dismantling. If contaminated systems are included, we charge a flat rate of 150 euros per exhaust aftertreatment system. There is no payment for such systems.

OUR EXPERIENCE – YOUR PEACE OF MIND

See for yourself how reliable we are

Precious metals are our passion. Our day-to-day work is characterised by long-term partnership, personal care and the highest level of precision in processing your materials – and we've been doing that since 1998. We use our comprehensive expertise in the dismantling, separation, sampling and analysis of materials containing precious metals in a targeted manner for the recycling of truck exhaust systems.

With us – your material is in expert hands: all our processes are certified in accordance with the most up-to-date quality, environmental and safety standards, such as ISO 9001, 14001 and 45001, and continuously optimised. We are there for you wherever you need us – at our headquarter in Aschaffenburg or through our numerous international locations.

Germany

Hensel Recycling GmbH
Mühlweg 10
63743 Aschaffenburg

Phone +49 6028 12 09 0

E-Mail info@hensel-recycling.com

France

Hensel Recycling France SARL
10 rue Plucharde
21110 Bretenière

Phone +33 380 66 8445

E-Mail france@hensel-recycling.com

United States of America

Hensel Recycling North America, Inc.
1003 Industrial Drive
West Berlin, NJ 08091

Phone +1 856 753 7614

E-Mail usa@hensel-recycling.com

Malaysia

Hensel Recycling Malaysia Sdn. Bhd.
52200 Kuala Lumpur

Phone +60 3 626 322 78

E-Mail malaysia@hensel-recycling.com

United Kingdom

Hensel Recycling (UK) Ltd.
12 Maydwell Avenue
Slinfold, West Sussex
RH13 0SH

Phone +44 1403 792 500

E-Mail uk@hensel-recycling.com

Australia

Hensel Recycling Australia Pty. Ltd.
17 Industry Boulevard
Carrum Downs, Victoria 3201

Phone +61 3 9775 0943

E-Mail australia@hensel-recycling.com

Austria

Hensel Recycling Austria GmbH
Teichweg 9
5400 Hallein

Phone +43 6245 204 60

E-Mail austria@hensel-recycling.com

Korea

Hensel Recycling Korea Ltd.
599-6, Baekbong-ri, Baegam-myeon,
Cheoin-gu, Yongin-si, Gyeonggi-do

Phone +82 31 323 1005

E-Mail korea@hensel-recycling.com

your first choice