

HENRY

INSIGHT

EDITION 2018



20 YEARS' EXPERIENCE

HENSEL RECYCLING IS CELEBRATING ITS ANNIVERSARY

INTERVIEW

Michael Berhard, Member of the Executive Management Team

FOCUS

Loyal for the past 20 years:
Customer from the outset

MARKET

SiC diesel particulate filters:
How we are rising to the challenge



20 YEARS' HENSEL RECYCLING

A reason to celebrate and above all the motivation to constantly improve our processes and services

2018 is particularly auspicious for Hensel Recycling because we have a number of reasons to celebrate. Firstly, we are delighted that our head office in Aschaffenburg is celebrating its 20th anniversary, but also that our site in France is celebrating its 10th birthday. Everything started with a single company which has since grown to be a global service provider with more than 200 employees.

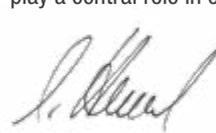
It is with gratitude that we look back over 20 successful years which the founder Alexandra Duesmann, with her foresight and her courage, set in motion all those years ago. In the years that followed, which were marked by the expansion of the value chain and internationalisation, Ralf Duesmann and Clemens Hensel joined her as partners. Clemens and Thomas Hensel now run the company, together with Oliver Krestin.

Looking back today on how different the world was in 1998 when we set up our company, an infinite amount of things could be listed. And yet there are many things that have simply remained the same: we are happy to be there for you both during collection, customer visit and on the phone. Our goal is to provide the best recycling solution for your material, always with the focus on achieving maximum reimbursement.

So the continuous improvement has been our motivation from the first day and the guiding principle for our daily activities.

There is indeed much to report, how we have set the benchmark in precious metal recycling over the past few years: a patented system for the economic recycling of metal foil converters, an e-scrap processing that is also good for small lots, the first catalytic converter library of the industry and an app which is used to identify the different converter types and provide an evaluation, and so much more. We always keep ahead of the game.

We would really like to keep up the dialogue and we would like you to tell us where we can make improvements so that working with us is as enjoyable for you as it possibly can be. Your honest feedback and a good dialogue create an atmosphere of trust and partnership – values which play a central role in our organisation.



Clemens Hensel



Thomas L. Hensel



Oliver Krestin

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Twice the excitement because there is yet another anniversary to celebrate: whilst we celebrate our company's 20th anniversary, the Triathlon will be held for the 10th time.

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HAGL RECYCLING: CUSTOMER FROM THE OUTSET

We say “Thank you for your loyalty over the 20 years”

Long-term partnerships that are based on trust with customers, suppliers and business partners - that's what Hensel Recycling has represented, for 20 years. Ultimately, for nothing beats the security of knowing that you can rely on your partner at all times. We have a very special partnership with Hagl Recycling. The company, which is based in the Upper Bavarian town of Rudelzhausen, has remained loyal to us from our inception - 1998. The first collection all those years ago was from Hagl Recycling. And, of course, that has to be celebrated. That's why we visited the company at their facility and enjoyed a conversation with Martin Hagl, the owner of the company and

Edwin Lambert, managing director, over a traditional Bavarian sausage breakfast.

Traditional and modern

Hagl, a long-established company, can look back on more than 50 years of experience in the field of car dismantling / scrap metal trade and container service. The brainchild of Adolf Hagl, the father of the current owner Martin Hagl, a small car dismantling or scrap metal business was founded on his farm in 1966. “The first car that my father had on the yard was his uncle's old vehicle - that's what started it all”, remembers Martin Hagl. In the years that followed, Adolf

Hagl gradually expanded the business, moving to his own company premises before handing over the business to his son Martin in 1990. He too brought his own ideas to life and gradually expanded the range of services. Scrap was followed by bulk waste, paper and plastic. The investment in a container service in particular has continued to pay dividends right up to the present day. The company now has more than 800 containers in circulation – and this is on the increase. “By expanding our offering, we also needed more staff. We currently have 14 employees who make sure everything runs smoothly”, explained managing director Edwin Lambert.





Growing market demands

The recycling business has changed for the entire industry over the last few years. Whilst there were some gaps in knowledge about the market and the individual material groups 20 years ago, today all market participants are much better informed and have a deeper knowledge. “Nowadays, our customers, such as car workshops, have much more state of the art equipment and have become much more discerning. It’s not just our own technical equipment that has to be kept in perfect condition, our vehicles and containers do too,” reflected Hagl. From all sides, new demands are being placed on the recycling

processes and particularly on having comprehensive documentation. “That’s why it is important for us to work with partners who we can rely on at all times. With Hensel Recycling we just know that everything works perfectly – from placing the order, to collecting the goods, right up to processing and comprehensive documentation”, said Martin Hagl. “Documentation is a particularly crucial issue in our business at the moment. We undergo constant checks and controls because it is essential that everything is 100 percent transparent and trackable, and that people can rely on their business partners”, continued Hagl.



United by values

Honesty, fairness and stability are central values that unite both companies and are the ingredients for a successful recipe together. Along with the conditions, personal contact and communication on equal terms make all the difference - they're the icing on the cake if you like. "The chemistry just has to be right!", Hagl and Lambert were keen to stress. Hagl has a clear vision for the future: "We will continue to invest and expand our recycling business over the next few years." As well as various enhancements to its technology and machinery, the company will also work on promoting its marketing. "We are facing the

future with confidence and arming ourselves specifically for the challenges to come", explained Hagl. "The next generation is already in the starting blocks and ready to run the family business by the 3rd generation. Then nothing stands in the way of the next 20 years".





THANK YOU FOR YOUR LOYALTY!

For the past 20 years, we at Hensel Recycling have made a contribution to the sustainable supply of precious metals and continually demonstrate why we are the first choice in the conservation of precious metals.

INTERVIEW WITH MICHAEL BERHARD



Authorised Officer / Member of the Executive Management Team

Mr Berhard, at the beginning of the year you were appointed to the executive management team and authorised officer. First of all, congratulations.

Thank you, I am looking forward to the new challenge and I am pleased that the shareholders have placed their trust in me.

Can you still remember your first days and weeks at Hensel Recycling?

When I started here in summer 2008 I was given a very warm welcome. It was particularly valuable for me to be able to get to know the operational side of all the departments at the beginning so that I was able to understand the processes. It was also positive that they had faith in me straight away to organise myself. Even though that year was not an easy one due to the financial crisis (e.g. Lehman Brothers), it was the right decision for me to move from a multinational corporation to a medium-sized enterprise. That's because the company management remained calm and gave us employees a feeling of security and confidence.

What has changed since you've been at Hensel Recycling?

A lot. The company has grown from around 60 employees

to a good 200. We now have subsidiaries and we have had to learn not just to understand the different markets, but more importantly, to understand the people and the cultures. Constant changes in market conditions regularly force us to think about our processes, but also to demonstrate our team spirit: After all, it's only because we all pull together that we are able to overcome shifts in the raw materials markets or technological changes with such effectiveness.

What new responsibilities will you take over?

I have been very well prepared for my new responsibilities as a member of the executive management team. For some time now, I have had regular intensive exchanges with the directors and been involved in strategic decisions. IT Administration, which I have now taken over, isn't completely new to me either: I was head of IT Administration some years ago. Now the important thing is to familiarise myself with it all again, because in IT in particular everything changes extremely quickly.

The whole world is talking about digital transformation.

What role do you think this plays at Hensel Recycling?

It was always our aspiration to be right at the forefront

of it. That's why we have used a document management system for more than ten years. Our digital capabilities, such as the catalytic converter library, enable us to offer our customers real added value. There is, of course, always room for improvement. Our future ERP software will provide new options which we need to make the most of once it's been introduced.

What do you like so much about Controlling?

Controlling is more than just putting numbers together. It's about understanding processes, collecting the most important information, interpreting it correctly and drawing the right conclusions. I am then able to make valuable recommendations to the decision-makers. That's what excites me about my role.

How do you think the business will change over the next few years?

The experience of the last few years has taught me that inevitably a lot will change. We have already been through a lot, highs and lows in the precious metal markets, phases of strong growth, decline in sales, new players in the market and their disappearance. Nobody can say what exactly is going to happen, but we are well equipped for any changes.

PROFILE

Where do you see the greatest challenges?

That's easy. It is the issue of diesel particulate filters. It's a challenge for us in the areas of recycling processes, communication, and settlements. In my area of responsibility, for example, we are dealing with statements having to be structured somewhat differently in the future to meet the change in procedures and to be transparent for customers, refiners and, not least, for ourselves. This is the only way to ensure internal success monitoring. The ERP project is certainly going to be fascinating. Our current system is reaching its limits. This is due on the one hand to the increasing number of users and datasets, but also to the fact that the development of new business areas means that we have to map new processes in IT. Due to the increasing complexity of the business, we are well advised to reassess, streamline and simplify existing processes. And perhaps we must also be prepared to throw some of the functions we've become comfortable with overboard in the future. What that means is that we also have to work on the new system being accepted.

Securing new talent and skilled employees is currently a big issue in all companies. What strategies are you using to get young professionals interested in Hensel Recycling?

We like to work closely with the region's universities. We have had particularly good experience with students in Controlling and in Technology. The good thing is that students look at our processes with an unbiased perspective and are ideal for working on special projects to bring fresh ideas into the company. We also have a sophisticated training plan and a trainee programme that make us more attractive to the next generation.

What do you value in your employees?

At the risk of sounding somewhat trite: Loyalty, creative drive and reliability. Loyalty, to me, means standing by your employer even when the company faces huge challenges from the market, as it was the case in 2015 for example. I look for creative drive. That means making constructive contributions to bringing about improvements and standing by your opinion even when you are met with resistance, because not everything that we always did is still the right way today. And as for reliability, it doesn't just mean that appointments are kept, it means that employees openly and proactively communicate (interim) results. We can only achieve success if we are honest with one another.

Many thanks for the candid conversation. Continued success in the future.

DATE OF BIRTH

01/09/1972

PROFESSIONAL BACKGROUND

Apprenticeship as a banker with

Raiffeisenbank

Degree in Business Administration

Various roles in Controlling at DB Cargo

Since 2008: with Hensel Recycling (as it is now called)

ROLE AT HENSEL RECYCLING

Commercial Manager / Authorised Officer

I LIKE

When my / a plan works

I DON'T LIKE

Lateness, unreliability, arrogance

I RELAX BY

Going to football matches, barbecuing, cooking, and building Lego

I LIKE TO READ

Books by Clive Cussler, reports about current issues, news

MY STRENGTHS

Determination (according to my wife), creative drive, reliability, team spirit

MY MOTTO FOR LIFE

Just do it, it could all work out

THAT'S TYPICAL ME

Easily irritated, but quickly calm down again

I WISH FOR

Health, continuing to expand the company with super colleagues, wins for Eintracht Frankfurt

I'M A FAN OF

Eintracht Frankfurt

I LIKE TO LISTEN TO

Anything from Abba to Zappa

I LIKE TO WATCH

All types of sport, crime dramas, action films and comedies

JOB TEST

Specialized employees are valuable to the company. But they don't grow on trees. That's why a structured apprenticeship is the basis for success when everyone pulls together. Hensel Recycling trains management assistants

in wholesale and foreign trade. We have three apprentices at the moment who are in different training years, and they tell us about their experience and expectations. As well as this, two young people, one who completed a

degree whilst he was working and one who completed a trainee programme at Hensel Recycling, share their experiences with us.



Francesco Wengerter
Bachelor of Arts, Junior Controller

AT HENSEL RECYCLING SINCE: 09/2011

After my apprenticeship as management assistant in wholesale and foreign trade, I soon began my Bachelor degree in Business Administration alongside work at the Provadis School of International Management and Technology in Frankfurt. For three and a half years I attended lectures on one afternoon a week and on Saturdays. In April 2018 I successfully completed my Bachelor of Arts degree. A long journey which required a lot of perseverance on my part and which will certainly pay off in the medium to long-term future.



Steffen Graetsch
Master of Science, Director of Finance at
Hensel Recycling North America Inc.

AT HENSEL RECYCLING SINCE: 05/2013

Straight after completing my Business Administration degree in 2012, I successfully applied for a trainee programme which gave me the opportunity to start my career with Hensel Recycling. As well as having positions in different foreign subsidiaries, I spent time in all the relevant departments at the head office which allowed me to best learn the interdisciplinary relationships. After completing an 18-month trainee programme, I was ideally equipped for my new job in Controlling and Finance and I am now director of finance in the USA facility.

TRAINING START

01/09/ 2017

HOBBIES

Travelling, reading



Stefanie Hartmann
First year of apprenticeship

WHAT WERE YOUR EXPECTATIONS WHEN YOU STARTED HERE?

A positive working environment, a good relationship with my colleagues, and that I would get to know all the areas of the profession and the company. These expectations have been met: It doesn't matter which department or which topic I deal with, I always have helpful, friendly people around me.

TRAINING START:

01/09/2015

HOBBIES:

Doing things with friends, playing football



Hannah Stenger
Finished in spring 2018

WHAT DID YOU PARTICULARLY LIKE?

I really like the fact that I was allowed to contribute at a very early stage of my apprenticeship. You weren't just seen as an apprentice, you were often treated as if you were a normal employee. The way everyone interacts and the atmosphere within the department were excellent. If you had a problem or didn't quite understand something, it was always explained so that you could understand it.

TRAINING START:

01/09/2016

HOBBIES:

Tennis, listening to music, playing guitar, reading



Yannick Kügler
second year of apprenticeship

WHAT HAVE YOU LEARNT PROFESSIONALLY?

Everything is interconnected: The recycling process, the different analytical processes, different business models, distinguishing features of catalytic converters, procedures with new customers, etc. The contexts have become clear to me and I can now use the experience I've gained in the respective departments.



20 YEARS OF HENSEL RECYCLING

Figures, Dates, Facts



30 MILLION CERAMIC
CATALYTIC CONVERTERS

Since 1998, we have recycled approx. 30 million ceramic catalytic converters. The ground monolith is transported to refineries in so-called 'big bags' for further processing. The amount would fill around 7 football fields!

20 YEARS

1st JUNE 1998 TO 31st MAY 2018
7,304 days
175,296 hours
10,517,760 minutes
631,065,600 seconds



1,000 KILOMETRES

If you were to put all of the oxygen sensors (approx. 10 cm in length) that we've recycled in a line, it would stretch from Aschaffenburg to Northern Spain or to the south of Sweden.



20 TONNES

We have been able to recover 20 tonnes of platinum group metals from metal foil converters alone. That corresponds to the weight of two elephant families with two children each!



MORE AND MORE SiC DIESEL PARTICULATE FILTERS

How we are rising to this challenge

For some time now there has been movement in the market for the recycling of exhaust gas treatment systems. This is because the number of diesel particulate filters containing SiC has risen enormously and that requires new recycling processes.

More and more diesel particulate filters containing SiC in the recycling loop

Since their introduction between 2006 and 2009, diesel particulate filters (DPF) have helped to filter out the harmful particulate matter, i.e. the fine soot particles, from diesel exhaust fumes. In this process, the carbon soot deposited in the filter is burnt at regular intervals at higher exhaust gas temperatures. Precious metals are used to generate the necessary temperature increases and to convert harmful emissions. There are two types of diesel particulate filters: some with an aluminium titanate base (ATI) and some with a silicon carbide base (SiC). Now, 10 years later, diesel particulate filters are entering the recycling circle in ever increasing numbers. This means that with almost 50 % of all vehicles in Europe being diesel vehicles, soon every second catalytic converter that goes to be recycled will be a diesel particulate filter. The proportion of diesel particulate filters containing SiC is already at approx. 15 %.

”

We have been working with our partner network for some time now to develop recycling solutions that ensure sustainability for the increasing demand placed on the processing capacities of SiC-bearing material.

Oliver Krestin, Managing Director

Different melting behaviours

The carrier materials of diesel particulate filters and of standard exhaust gas catalysts differ considerably in their composition. Conventional automotive catalytic converters, which have been installed since the early nineties, comprise approx. one kilogram of cordierite. This ceramic consisting of aluminium, magnesium and silicon oxide can be very easily melted in electric high-temperature furnaces. The precious metals are separated off from the ceramic in this process and bound in a so-called collector metal. The melt runs off under reducing conditions – oxygen is released in the process – and ensures

high yields of precious metals. This also applies to diesel particulate filters with an aluminium titanate (ATI) base. With SiC-bearing diesel particulate filters, the carrier material usually comprises approx. three kilograms of silicon carbide (SiC). This material requires an oxidising melt – meaning that oxygen has to be added – to convert the carbon (carbide) into carbon dioxide. Only then is efficient precious metal recovery possible.

Separate processing required

If the types of material are mixed, precious metal recovery becomes more difficult with increasing SiC concentration.

This can lead to lower metal yields. A separate processing is not a problem, since separate, economical processes are available for both types of material, although the recycling process of SiC-bearing material requires special energy management. The energy required for the higher melting point must be balanced with the energy output during the oxidation. This additional process step is associated with higher processing costs. Mixed deliveries of catalytic converters and SiC diesel particulate filters are expediently separated before processing, which also means an additional expense. That is why it is important to separate the materials at an early stage of the recycling loop to ensure economic processing.

Tips: Spot the difference and separate the materials!

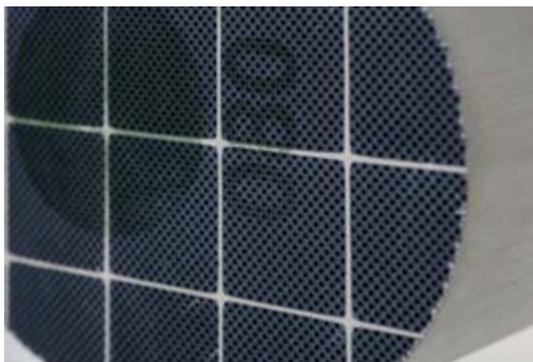
From the outside, the AAK and DPF are largely the same. Then only a look inside the steel shell shows the clear difference. The dark grey colour and a grid pattern are

characteristic of the DPF as that's where cuboids are glued; by comparison, cordierite and aluminium titanate are made from one piece and are light brown. The SiC ceramic is also considerably heavier than cordierite or aluminium titanate. It is better to recognise the difference before dismantling. That's why we provide information in our mobile database <https://kabimobile.henselrecycling.com/frontend/> to identify and evaluate diesel particulate filters.

Ultimately, the carbon analyses carried out in our in-house laboratory in accordance with DIN EN ISO 21068-2:2008 decide which smelting process is suitable for the material.

Reaction!

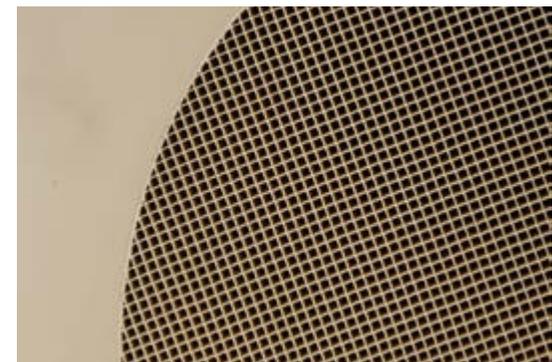
Look what happens here when SiC is smelted with the addition of an oxidising agent.



Carrier material SiC



Carrier material ATI



Carrier material cordierite

COLLECTING LEAD BATTERIES

Hensel Recycling Austria is at the forefront of this business



Lead is one of the most important non-ferrous metals in the industrialised world. The heavy metal can be found in lead-acid batteries, amongst others. The worldwide market for these batteries is extremely big. In particular, they are indispensable in many mobile applications. They can be found in starter batteries in combustion engines.

The recycling of lead batteries is subject to stringent statutory regulations. Even the collection and storage is regulated. Hensel Recycling Austria has met all the requirements in this respect and has obtained the relevant authorisation. "This is a comprehensive process which looks at the qualification of our employees, as well as evidence that transport conditions and storage areas are suitable", explained Robert Pölzleitner, Managing Director at Hensel Recycling Austria.

In the first quarter of 2018 a separate battery storage facility with liquid-tight shelf systems was set up. All employees in Acquisition have had training to become authorised ADR agents and another employee has trained to become a hazardous materials officer.

"Our customers appreciate the fact that we now accept lead batteries, as well as catalytic converters", added Pölzleitner.

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Within a very short time, we have created all the conditions necessary for this new business area.

Robert Pölzleitner, Managing Director at Hensel Recycling Austria



HENSEL RECYCLING CHURFRANKEN TRIATHLON

Double anniversary – double the joy

The Hensel Recycling Churfranken Triathlon will be held for the tenth time this year. With our company's 20th anniversary this year as well, we've got yet another reason to celebrate.

“Churfranken is looking for its iron people”

This headline in a regional daily newspaper announced the first Churfranken Triathlon in 2009. The event has been established in the region for many years now and

is known well beyond Untermain. Numerous teams and individual competitors take part. The event organisers reckon there are more than 600 participants, corporate teams and associations.





Taking part every year: Clemens Hensel

Leading by example, the managing partner Clemens Hensel is there at the start of the triathlon: “For me, sport provides an important balance to everyday working life. Triathlon is a varied discipline, which challenges body and mind at the same time, and it’s a sporting challenge that’s just right for me. That’s why I am particularly looking forward to this great event and hope that our employees will actively take part this year.” Over the past few years, many employees have enthusiastically followed Mr Hensel’s appeal to participate. There are sure to be lots of colleagues taking part again this year.

Anniversary

The Hensel Recycling Churfranken Triathlon is being held for the tenth time this year. And it’s set to be an extra special occasion: All participants will receive a small surprise. At the finish line, the popular party band Honey Ground will be playing disco, funk and soul music to create the perfect atmosphere.



NEWS TICKER

CONTINUING COMMITMENT TO CHILDREN

For the fourth time in a row, our Christmas donation went to the friend's association of the Aschaffenburg children's hospital. The music therapy project at the children's hospital is for the little ones in our region who have either had a difficult start in life or who need different types of active support, including music therapy, to return to a 'normal' life after suffering health or social problems (neglect, abuse, etc.). "The continuity of our donation is important to us", stressed Clemens Hensel.



HENSEL RECYCLING SUPPORTS CLINGENBURG FESTIVALS

The Clingenburg in nearby Klingenberg is an idyllic location for castle festivals. As well as a wonderful view across the Main valley, the ancient walls with their terraced stage offer a unique backdrop for open-air theatre shows and musicals. This year the 25th festival will be taking place from 4th June to 12th August – another anniversary in the rounds of our activities. The Broadway classic "West Side Story" will be the highlight, Hensel Recycling is involved as festival sponsor.

TV GROSSWALLSTADT CONFIDENT AT THE TOP

The traditional club, which has been German handball champion several times and European Cup winner, has been through some bad times. The team was in the third division in the 2015/2016 to 2017/2018 seasons. Despite this, Hensel Recycling maintained its commitment to the handball wizards and is delighted that the TV Großwallstadt has won the championship with confidence and style. We congratulate the team.



HENRY INSIGHT IS A FLIP-OVER MAGAZINE.

Bitte wenden, um die deutsche Version zu lesen.

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