# Thermal spraying

## Runout table- / looper roll for the steel industry

Originally established in 1944, we have established an enviable reputation as a supplier and service partner for industrial components and surface treatment.
In addition to six decades of experience in metal cutting, machine building and reconditioning large machine components, we also have over 40 years of experience with thermal spraying processes for extending the usable life of industrial components. Last but not least, we have been active for many years as a leading producer and service partner for customer-specific process rollers such as conveyor belt rollers, transport rollers and guide rollers. Based on our extensive track record and specific expertise, we can make a difference for you as well!

During the production of steel, your production components are subjected to enormous loads and high temperatures. These conditions can significantly impact upon your production capacity unless your components are in the best possible condition. This is also true of your transport rollers, which must always be able to withstand these heavy load factors. In addition, the rolls must be corrosion resistant and the friction between the rollers and the steel strips must be at a maximum in order to effectively guide the strip on its way to the coiler.

To meet these demanding requirements, we developed the Habets High Grip (HHG) roller, which has excellent performance characteristics in terms of wear resistance, corrosion resistance and grip between roll and steel strip. Depending upon the specific external environmental factors, the HHG roll looses only a minimal fraction of its extremely tough outer layer and can, on average, continue performing effectively for up to 50 million tonnes of steel. As a result, you benefit from significant savings on maintenance costs and can also increase production speed, making a significant expansion of capacity possible.

If you wish, we will provide you with expert advice regarding your transport rollers and consult with you to calculate the savings you can achieve by working with Habets High Grip rollers.

Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

# Thermal spraying

## Metal coating

| | |
|---|---|
| **Product** | Looper roll and runout table roll |
| **Basic material** | Steel |
| **Process** | Autogenic powder spraying |
| **Type of coating** | HHG (High grip, wear resistant) |
| **Surface to be coated** | In accordance with client specifications |
| **Comment** | Previously steel/stainless steel |

The most modern hot rolling mill in Europe has recognised the importance of working with a roller table that is always in the best possible condition and has therefore provided it with Habets' High Grip (HHG) rollers.

**Advantages of the HHG roll:**
- It becomes possible to roll thinner material, and thus expanding your "product window" and increasing your delivery options for your clients.
- Reducing the number of cobbles by using HHG rolls can save you large amounts of money.
- You can increase production speed and so raise your output.
- Improved tracking on the way to coiler
- Based on years of hands-on experience in various hot rolling mills

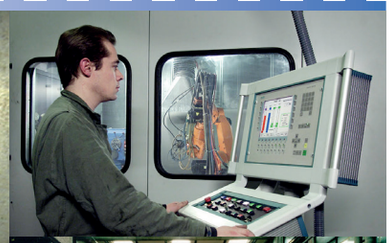
**Typical characteristics of HHG Roll:**
- Excellent wear resistance results in extended tool life.
- "High Grip" provides improved tracking on the way to coiler.
- "Out off passline" indication
- Robust and reliable construction

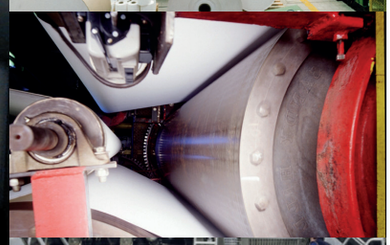
Habets bv
Hunnecum 33
6361 EE Nuth
The Netherlands

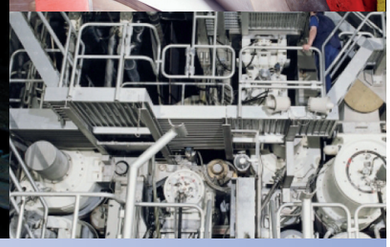
T +31 (0)45 5656300
F +31 (0)45 5243030
E info@habets.nl
I www.habets.nl

Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

# Thermal spraying







## Seeve guiding roll

Originally established in 1944, we have established an enviable reputation as a supplier and service partner for industrial components and surface treatment.
In addition to six decades of experience in metal cutting, machine building and reconditioning large machine components, we also have over 40 years of experience with thermal spraying processes for extending the usable life of industrial components. Last but not least, we have been active for many years as a leading producer and service partner for customer-specific process rollers such as conveyor belt rollers, transport rollers and guide rollers. Based on our extensive track record and specific expertise, we can make a difference for you as well!

During the production of paper, guiding rolls are subjected to extreme loads and chemical influences. Unless the rolls are in optimum condition and highly resistant, these conditions can significantly impact upon your production capacity and result in heightened wear and tear and the accelerated need for replacement of the rolls.

Habets Wear Resist (HWR) Carbidur or Ceramic offers you a high-quality coating which can withstand very heavy loads, high temperatures and other external influences. Treating your new or used rolls with HWR results in extended tool life, longer total lifespan, and significant reduction of maintenance costs.

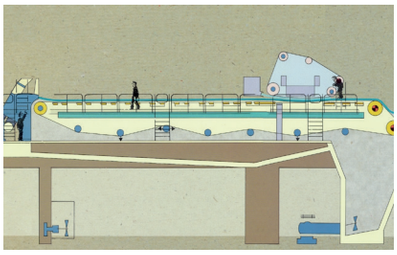
If you wish, we would be happy to provide you with expert advice regarding your guiding rolls in order to determine how we can further improve the quality of your production processes.

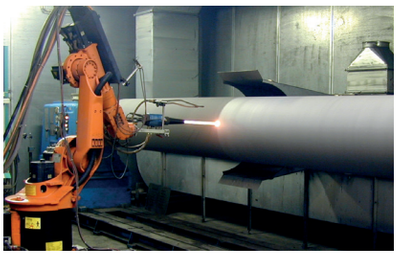
Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

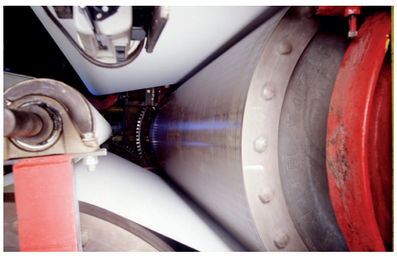
# Thermal spraying

## Carbide or Ceramic coating

| | |
|---|---|
| **Product** | Seeve guiding roll |
| **Basic material** | Steel |
| **Process** | HP-HVOF (high-speed spraying) |
| **Type of coating** | HWR Carbidur or Ceramic |
| **Surface to be coated** | In accordance with client specifications |
| **Comment** | Previously chromium plated |







Most paper manufacturers in Europe realise how important it is to work with paper guiding rolls in their machines which continue to turn reliably and constantly for as long as possible. The Habets Wear Resist coating was developed specifically with this purpose in mind. Leading paper manufacturers in Europe have recognised this and are using the Habets HWR coating on their paper guiding rolls.

**Advantages of working with rolls treated with HWR Carbidur coating:**
- Extended tool life
- Lower maintenance costs
- Constant quality of roller surface
- Based on years of hands-on experience in various paper manufacturing facilities

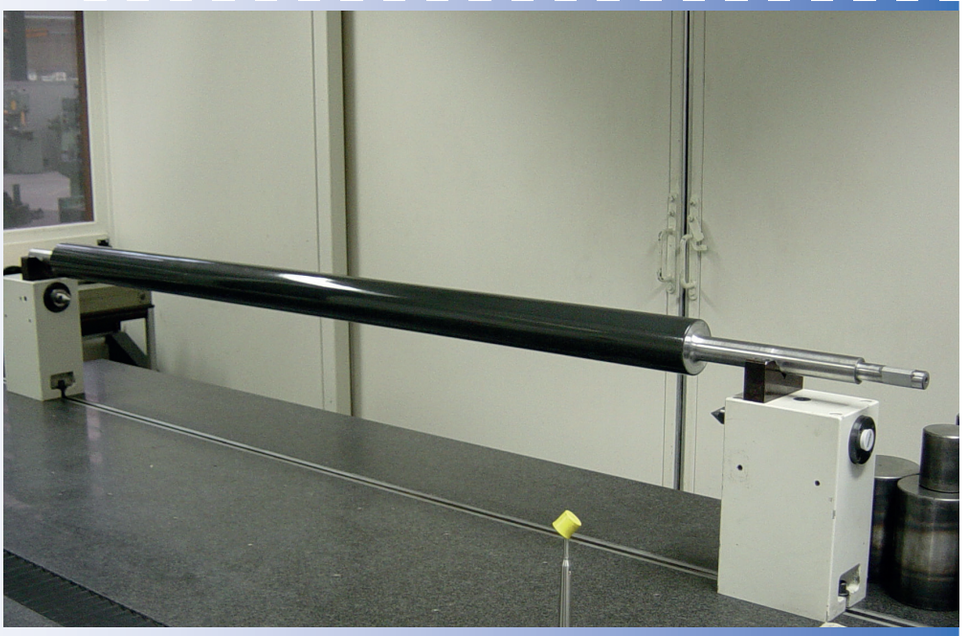
**Typical characteristics of HWR Carbidur and Ceramics coating:**
- Excellent wear resistance resulting in longer tool life
- Excellent corrosion resistance
- Technology already proven in practice
- Applicable on used as well as new rolls

Habets bv
Hunnecum 33
6361 EE Nuth
The Netherlands

T +31 (0)45 5656300
F +31 (0)45 5243030
E info@habets.nl
I www.habets.nl

Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

# Thermal spraying



## Screen-bed rolls for pellets

Originally established in 1944, we have established an enviable reputation as a supplier and service partner for industrial components and surface treatment.
In addition to six decades of experience in metal cutting, machine building and reconditioning large machine components, we also have over 40 years of experience with thermal spraying processes for extending the usable life of industrial components. Last but not least, we have been active for many years as a leading producer and service partner for customer-specific process rollers such as conveyor belt rollers, transport rollers and guide rollers. Based on our extensive track record and specific expertise, we can make a difference for you as well!

As a pellet manufacturer, you are expected to produce pellets that fall within a specified diameter range. To realise this, the distance between the individual pellet rolls must remain as constant as possible for as long as possible. This, in turn, demands a great deal from the wear resistance characteristics of your pellet rolls.

The Habets Wear Resist roll (HWR) with ceramic coating was developed especially to be able to withstand the enormous wear and tear that accompanies the production of pellets. Thanks to the HWR coating, "regapping" is no longer necessary to deal with wear and tear or product that becomes stuck, and you end up with a more constant pellet diameter over longer periods of time. The result is a much longer tool life (> factor 3 compared to uncoated rolls) and therefore significantly increased production capacity.

If you wish, we will be happy to provide you with expert advice on your pellet rolls and consult with you to determine how much you can save by using Habets Wear Resist rolls.

Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

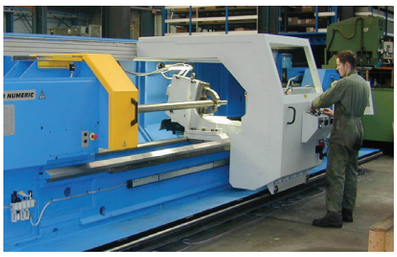
# Thermal spraying

## Metal coating

| | |
|---|---|
| **Product** | Screen-bed roll for pellets |
| **Basic material** | Steel |
| **Process** | Atmospheric Plasma spraying |
| **Type of coating** | HWR Ceramic |
| **Surface to be coated** | In accordance with client specifications |
| **Comment** | Previously chromium plated |

Steel manufacturers in Europe realise how important it is to be able to produce pellets with a constant diameter. Habets has developed a solution for this in the form of their "HWR ceramic" coating. The rigorous requirements which must be met when it comes to wear and tear and "non-stick" are important reasons for choosing "HWR ceramic" as a solution.
Re-gapping is no longer necessary, and a very substantial extension of the tool life is achieved.

**Advantages of working with screen-bed rolls treated with HWR Ceramic coating:**
- Regapping no longer necessary
- More constant pellet sizes for longer periods of time
- Longer tool life resulting in less downtime and higher output
- Lower maintenance costs
- Based on years of hands-on experience in various steel plants



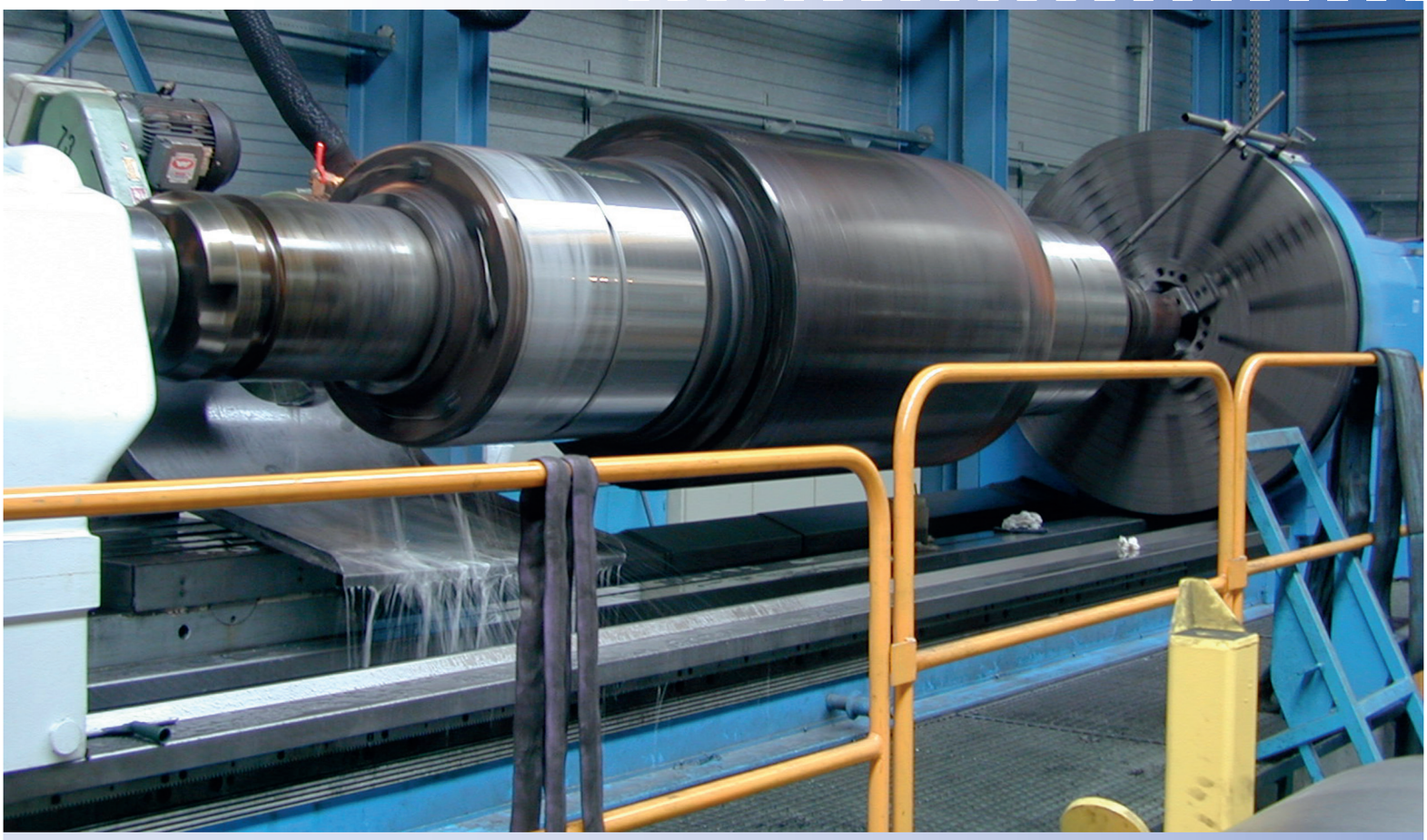
**Typical characteristics of HWR Ceramic coating:**
- Excellent wear resistance resulting in extended tool life
- Excellent corrosion resistance
- Technology already proven in practice
- Constant quality of roll surface
- No "stick-on" resulting in a constant screen space
- Surface roughness value of the coating < 0.8 Ra

Habets bv
Hunnecum 33
6361 EE Nuth
The Netherlands

T +31 (0)45 5656300
F +31 (0)45 5243030
E info@habets.nl
I www.habets.nl

Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

# Thermal spraying



## Repair of rolls for the steel industry

Originally established in 1944, we have established an enviable reputation as a supplier and service partner for industrial components and surface treatment.
In addition to six decades of experience in metal cutting, machine building and reconditioning large machine components, we also have over 40 years of experience with thermal spraying processes for extending the usable life of industrial components. Last but not least, we have been active for many years as a leading producer and service partner for customer-specific process rollers such as conveyor belt rollers, transport rollers and guide rollers. Based on our extensive track record and specific expertise, we can make a difference for you as well!

Replacing rolls before they have reached the end of their original usable lifespan is a very expensive affair. In addition, such rolls can often be reconditioned for a fraction of the replacement price.

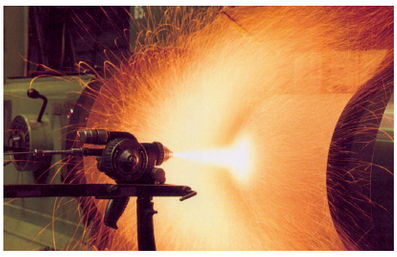
Decades of hands-on experience with large-scale machining processes as well as a variety of thermal spraying technologies enables us to give your used rolls a new lease on life by reconditioning expensive components via thermal spraying. In addition to restoring components to their original dimensions, we can also recondition worn-out shaft journals and at the same time carry out modifications and/or add new components. The end result is a roll that comes back to you quickly with a new lease of life for a fraction of the replacement cost.

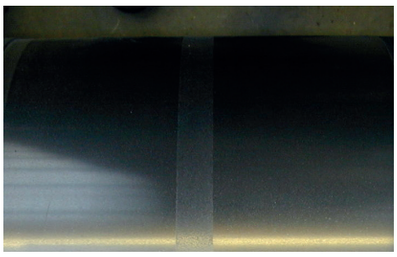
Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

# Thermal spraying

## Metal coating

| | |
|---|---|
| **Product** | Roll for the steel industry |
| **Basic material** | Alloy steel |
| **Process** | Autogenic spraying |
| **Type of coating** | Metallic |
| **Surface to be coated** | In accordance with client specifications |
| **Comment** | Previously via welding |





Several factors can play a role when it comes to deciding whether to repair a roll/roll neck or not. The cost of replacing the damaged unit and availability/long delivery times are the most important factors. Repairing the unit via the "as good as new" method developed by Habets ensures that the roll reaches the end of its originally expected lifespan at a fraction of the cost of a new roll. We will be happy to examine any specific case of damage that may occur and advise you accordingly. Our method has been successfully applied in rolling mills throughout Europe.

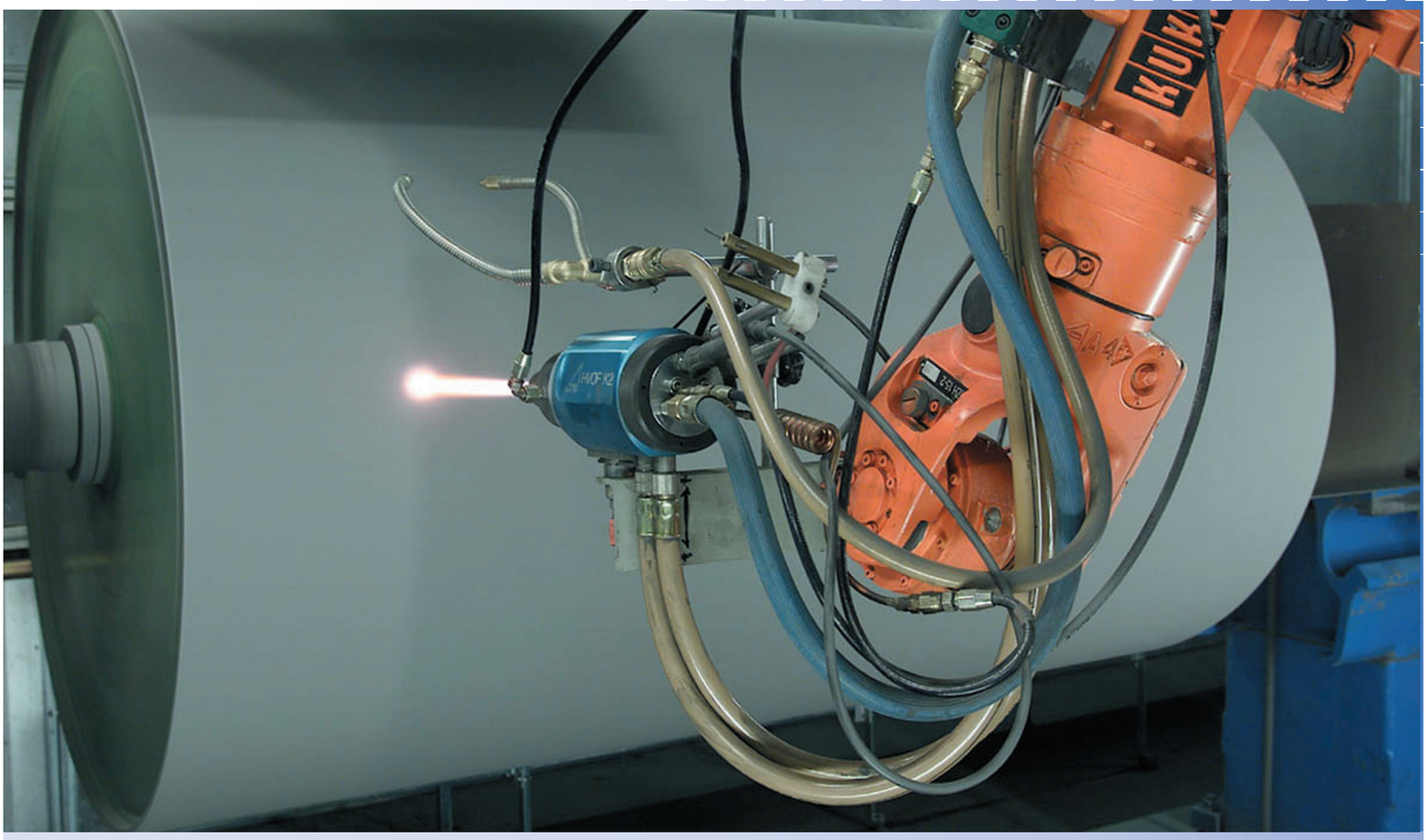
**Advantages of our unique repair method:**
- Much shorter delivery time compared to purchasing a new roll
- A fraction of the price of a new roll
- No heat treatment necessary before or after repairs are made
- The repair process does not influence the characteristics of the roll
- Remaining value of the roll is fully utilised
- Based on years of hands-on experience in various hot/cold rolling mills

Habets bv
Hunnecum 33
6361 EE Nuth
The Netherlands

T +31 (0)45 5656300
F +31 (0)45 5243030
E info@habets.nl
I www.habets.nl

Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

# Thermal spraying



## Durable industrial coatings

Originally established in 1944, we have established an enviable reputation as a supplier and service partner for industrial components and surface treatment.
In addition to six decades of experience in metal cutting, machine building and reconditioning large machine components, we also have over 40 years of experience with thermal spraying processes for extending the usable life of industrial components. Last but not least, we have been active for many years as a leading producer and service partner for customer-specific process rollers such as conveyor belt rollers, transport rollers and guide rollers. Based on our extensive track record and specific expertise, we can make a difference for you as well!

Within the industry, a great many demands are made of your process rollers. For example, they are subjected to heat, wear and tear, corrosion, chemicals etc. As a specialist in the production and reconditioning of machine components, Habets offers an extremely durable and long lasting solution in the form of unrivalled wear-resistant coatings.

The technology we use to realise this – thermal spraying – greatly extends the usable lifespan of production components that are sensitive to external loads and pressures. In addition, coatings applied via thermal spraying can be used for dimensional corrections, in which case the component can be restored to its original specifications. Last but not least, thermal spraying also results in a significant improvement of surface quality for the component treated, thereby minimising the risk of damage to your products. The techniques we use to implement dimensional corrections and improve surface quality reduce the cost of your production equipment and increase your output, both in the short as well as long term.

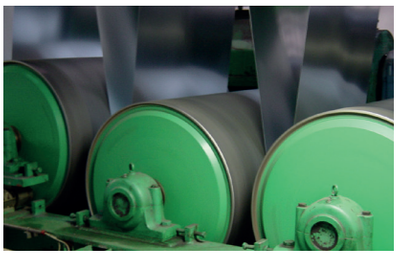
We would be happy to consider your production process and consult with you to determine the cost savings which we can help you realise.

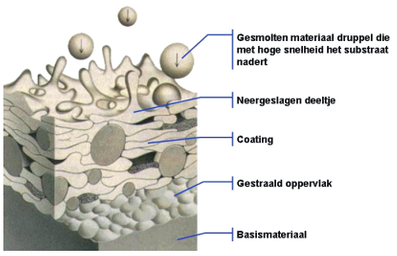
Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY

# Thermal spraying

## Thermal spraying

| | |
|---|---|
| **Product** | All locations in the basic industry where damage, wear and tear and corrosion play a role |
| **Basic material** | (Mild) Steel |
| **Processes** | Autogenic, electric arc spray, atmospheric plasma, HP-HVOF spraying |
| **Type of coating** | Depending on the specific problem |
| **Surface to be coated** | In accordance with client specifications |
| **Comment** | Practically unlimited in terms of possibilities |






Various factors can play a role in deciding to apply a corrective, wear resistant or corrosion resistant coating to your product. Increased resistance to wear and tear and to corrosion, cost, delivery time and availability are the most important. Carrying out repairs and improving surface quality with the help of the technologies utilised by Habets, in particular thermal spraying, has gained a prominent place within the basic industries. When it comes to increased wear resistance, fast delivery times and lower cost, our hands-on experience in combination with our R&D activities in this field often allow us to offer you a very effective and cost-effective solution. We would be happy to evaluate your specific "problem or case of damage" and to advise you accordingly.

**The benefits of treating components via thermal spraying include:**

- Compared to purchasing a new component, thermal spray treatment is generally more economical (price and lifespan) and delivery times are much shorter.
- There is usually no extra heat treatment or other treatment needed before or after thermal spraying.
- The process does not affect the characteristics of the product material.
- A worn-out product becomes a high-quality and valuable component once again.
- Thermal spraying technology has been successfully applied for decades within the various basic industries around the world.
- Years of successful practical experience in various sectors within a wide range of basic industries.

Habets bv
Hunnecum 33
6361 EE Nuth
The Netherlands

T +31 (0)45 5656300
F +31 (0)45 5243030
E info@habets.nl
I www.habets.nl

Habets
INDUSTRIAL COMPONENTS & SURFACE TECHNOLOGY