



**Nederman**

# Machining

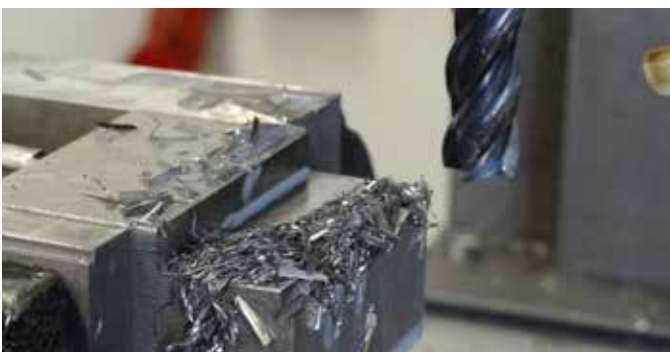
Chip management, oil and coolant mist collection and coolant recycling



# Proven solutions

Metal-working using highly productive machinery with high cutting speeds requires large flows of coolant, and also produces a lot of metal chip by products. Metal-working also generates oil or coolant mist which is a health risk to employees and a burden on the environment. Microscopic liquid drops can affect sensitive electronics that govern machinery, which can result in sudden operational stoppages. Solving these problems by using Nederman effective chip management, coolant filtering and air filtration systems opens up major opportunities for reduced costs and increased revenues.

The Nederman Machining concept has been developed to provide metal-working companies with products and systems that cover their current and future needs. We are the only company in the world to take an overall grasp of the problem seen in the metal-working industry. Our solutions help to improve the environment and increase profits.



## Chip and coolant management

- Better price for refined metals
- Less need for storage space, handling and storage of voluminous turnings
- Recycling of coolants that are filtered and returned to production

## Oil/coolant mist collection/filtration

- Less sick leave due to contained oil mist
- Less risk of affecting electronics

## Coolant recycling

- Improved productivity and product quality through effective coolant handling. Constant filtration reduces stoppages for changes
- Reusing coolants = improved profitability, less environmental constraint





## Nederman Machining Concept

- Clean air
- Clean workplace
- Clean coolant
- Profitable recovery

### Profitable chip handling

Many companies produce more turnings than products from their incoming material. CNC lathes usually produce around 40-60 per cent of turnings, which also contain large amounts of coolant. Consequently there is a lot to be gained from effective waste chip management. Clean turnings have a higher scrap value. Centrifugation of the turnings can help to extract, filter and return more than 90 per cent of the coolant back into production. By pressing the turnings into solid briquettes, companies can achieve further financial benefits through improved smelting and simpler waste management.

### Cut costs for coolants - ensure productivity

Clean coolants ensure highly effective machining with fine tolerances, while dirty coolant wears spindles, pumps and cutting tools. Coolants polluted by tramp oil, are broken down by bacteria, lose their original properties and start smelling. There are high costs involved in changing coolant, operational stoppages, removal and disposal.

### Effective coolant filtration systems

Nederman's solution for the constant filtration of coolants in full flow is the "Presto" program. The coolant is cleared of sediment, particles and tramp oil. Nederman has solutions for coolant filtration for many machines working in groups. Investing in a coolant filtration system pays off very quickly.

### Clean air in the workshop and a safe working environment

Oil mist can directly affect machine operators' health and disrupt production. It also settles everywhere in the premises and causes floors and work surfaces to be dangerously slippery. A Nederman oil mist collector reduces the risk of work related injuries, and results in fewer operational stoppages with a reduction in maintenance and cleaning requirements.

### Clean workplaces

Cleaning a workplace or object with compressed air can damage machinery and people's health and only moves the problem to another place. Nederman's mobile and central vacuum and filtration systems keep objects, machinery and workplaces clean and collect turnings and dust that may have been deposited.

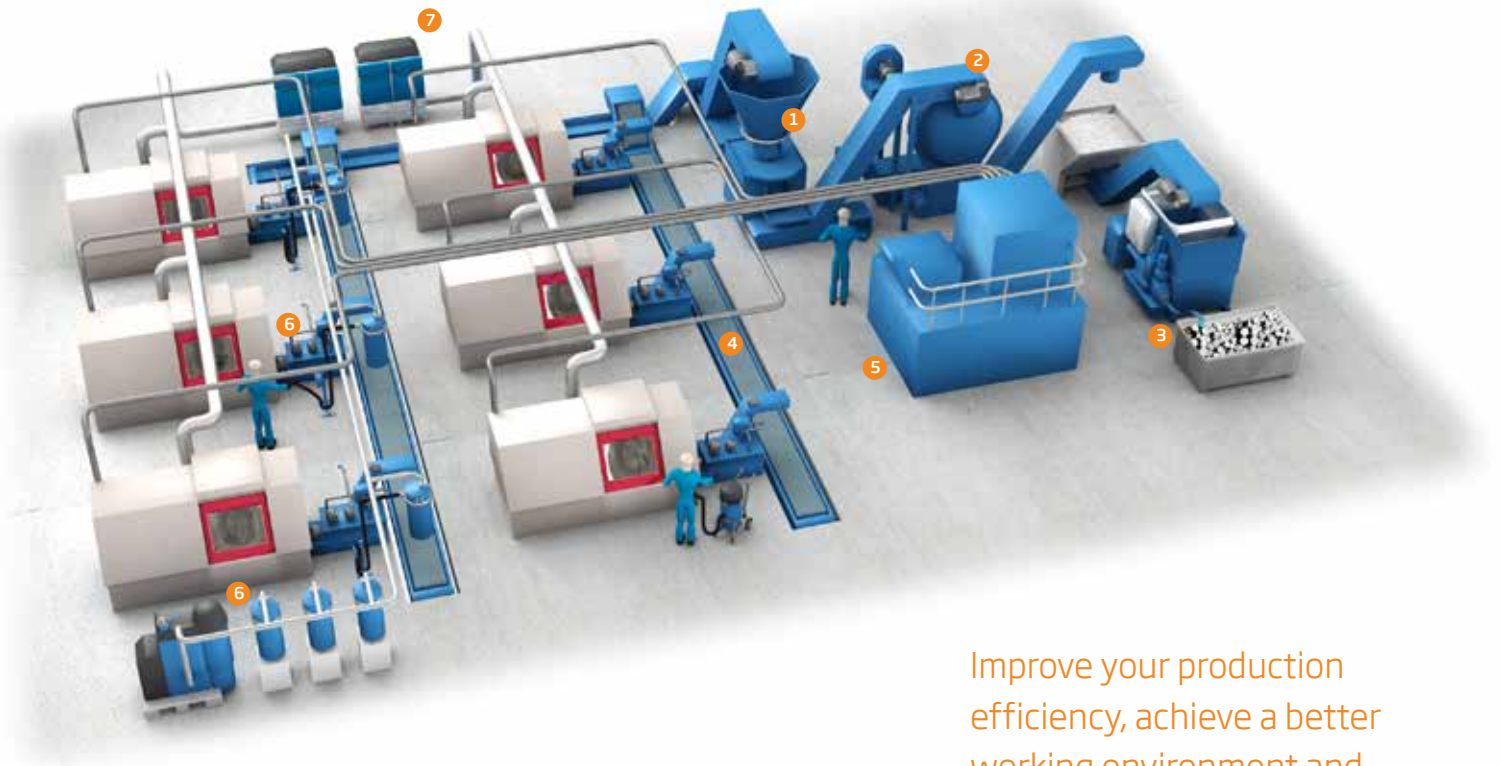


# Keep premises free from hazardous oil and coolant mist

Nederman solutions include systems for chip handling and processing, coolant filtration and oil/water separation. The effects are prolonged life of coolant, decreased costs for chip handling, and higher prices for scrap material. Nederman products and systems also keep machines and premises free from scraps and our oil mist collectors purify the air.

## **Nederman systems and solutions:**

- Chip handling, transportation/conveying
- Chip processing and briquetting
- Oil and coolant mist collection
- Cutting oil and coolant filtration/purification
- Machine and general cleaning



Improve your production efficiency, achieve a better working environment and reduce environmental impact.

**1 Handling and processing of chips and turnings**



*The integrated system crushes the chips, de-oils the chips and recovers coolant.*



*Shredding of turnings minimize the volume of materials and lower costs of transportation and handling.*

**2 Chip centrifuge**



*Separates effectively coolant from chips via a high speed centrifuge.*

**3 Coolant filtration systems**



*Our coolant cleaning solutions cover most operational requirements. This includes the Presto System that delivers coolant to two or more machine tools of the same type.*

**4 Conveyors**



*We have a conveyor for every need: Belt Conveyors, Magnetic Conveyors, Drag Conveyors, and Vacuum Conveying Systems.*

**5 Briquetting**



*Presses chips from machining into cylindrical briquettes and recovers coolant.*

**6 Integrated vacuum systems**



*The high vacuum suction system can be used for automatic and manual chip handling and machine cleaning. Chips are removed directly from the machines avoiding unnecessary stops. Premises and machines can also be manually cleaned, improving productivity and preventing accidents.*



**7 Oil and coolant mist collectors**



*The NOM filters are designed for applications with low to medium high air flow capacities. Suitable for oil and coolant mist filtration in workshops with one-shift operation.*



*The Nederman FibreDrain® oil and coolant mist filters are designed to handle large amounts of oil and emulsion mist during continuous operation.*

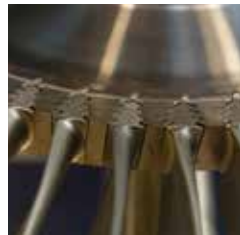




# Complete solutions that protect your environment

## Helping metal working companies all over the world

Chips and coolant can be hidden treasures for every company working in metal processing. Nederman has helped many companies to uncover these treasures by designing solutions that recover and prolong the life of coolant, and decrease the handling costs of chips while increasing its value. We also have an extensive experience in solving air contamination problems created by oils and coolants. Our solutions cover all types of workshop machinery, from conventional machines to the latest high-speed CNC equipment. We offer highly efficient filter solutions for numerous operations, including grinding, turning, machining, drilling and hobbing.



## Sectors

- Automotive
- Aerospace
- Railway
- Bearings production
- Precision parts manufacturers
- Medical / Dental
- Oil / Gas / Power
- Rolling mills
- Metals manufacturers
- Metal recycling companies

## Applications

- Lathes
- Machine centers / Mills
- Grinding
- Polishing
- Rolling
- Stamping
- Wire drawing
- Surface treatment



### Extensive experience

For more than 70 years, Nederman has developed products and solutions to reduce the strain on the environment and protect people from harmful particles, fibers, dust, gas, smoke and oil mist. We have extensive experience of how to create a safe working environment. Our accumulated know-how is easily accessible when you plan a new facility or need to modernize existing operations.



### Worldwide presence

Nederman has a strong global presence in both sales and production. We have our own sales companies in 25 countries and distributors in more than 30 countries. Production is performed in 12 countries on five continents. In many countries, we also have a well-established service organization. By offering advanced service with high availability, Nederman helps customers to secure continuous, optimized production.

The image features a large background photograph of a calm lake reflecting a clear blue sky and a dense forest of green trees. In the top-left corner, there is a white, angular graphic element containing the company name.

**Nederman**

Nederman is a world-leading environmental technology company. We filter, clean and recycle to create eco-efficient production in demanding industrial surroundings.

For more than 70 years, Nederman has developed, manufactured, and installed products and solutions to reduce the strain on the environment and improve working conditions in numerous industries.

Our products and systems have been ground-breaking in industries such as machining, metal fabrication, mining, automotive, composite manufacturing, food, pharmaceuticals, wood-working, and many others.