



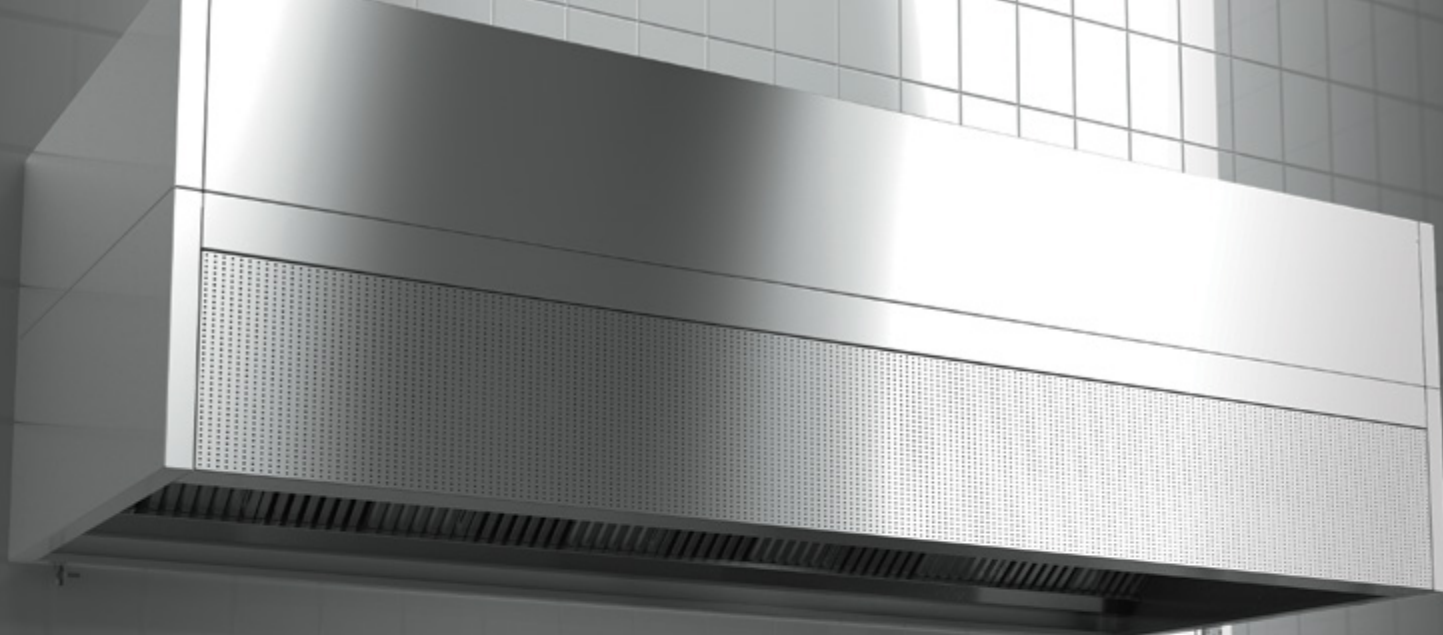
COMMERCIAL KITCHEN VENTILATION

TESTED AND DEVELOPED
IN COOPERATION WITH



kaunas
university of
technology





NOVAMETA COMMERCIAL KITCHEN VENTILATION SOLUTIONS

Novameta have been developing and producing kitchen ventilation solutions for more than 10 years! The extensive experience and solid know-how enable us to provide precisely crafted, highly efficient and energy saving solutions at an exceptional value. The focus on research and development of our ventilation range allows us to employ latest technologies and provide credible technical support to our partners worldwide.

Our comprehensive exhaust hood range, flexibility in bespoke solutions, combined with our short delivery times are the key ingredients to timely delivering comfortable and efficient kitchen environments for your clients!



2-3 week lead time



Deliveries arranged by
Novameta!



Orders made on time!



Experience with biggest distributors in **17** countries!

NOVAMETA EXHAUST HOODS AT A GLANCE

- All canopy and island hoods come equipped with **Novameta** cyclonic filters, which are up to 95% efficient. Filters are made exclusively from AISI 304 stainless steel, at least 0,8 mm thick
- All **Novameta** exhaust hoods come with full technical and pressure drop characteristics!
- Flexible exhaust hood lengths and widths – available in 10 mm increments!
- Longer hoods can be built in any length by assembling multiple modules
- Material flexibility – standard hoods are made from AISI 304, however, an economy version is also available in AISI 430
- Lighting options – exhaust hoods may be equipped with external/recessed fluorescent or energy efficient recessed LED luminaires. All luminaires are IP65 rated
- Flexible exhaust and supply collar installation – the diameter, position and the collar quantity may be adjusted. Exhaust hoods may come without collars on request
- Finished back of wall canopy hoods – hoods can be designed to have an aesthetic finishing on all 4 sides upon request
- Optional exhaust hood covers – hood matching covering panels are available to cover the top of the hood for aesthetic looks
- Optional dampers – allows to balance exhaust airflow between multiple ducts or hoods on a single duct line
- Air jet and air supply systems are available
- Custom exhaust hoods are available. Each non-standard solution comes with detailed 3D drawings!

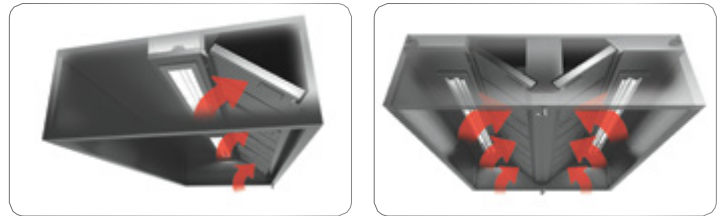


FULL TECHNICAL CHARACTERISTICS!

WALL CANOPY AND ISLAND EXHAUST HOODS, AIR SUPPLY UNITS

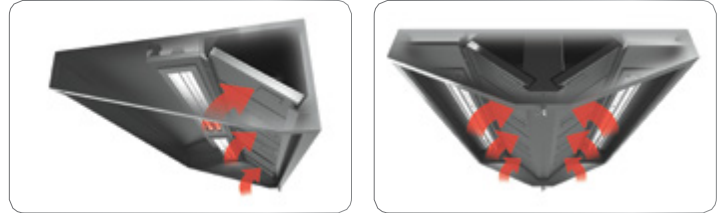
EXHAUST ONLY HOODS

Novameta hoods are equipped with **Novameta** high efficiency cyclonic filters. Large hood volume allows to have a perfect balance between capture and containment performance and price. It is the most common type of a hood and is available with a large number of optional features.



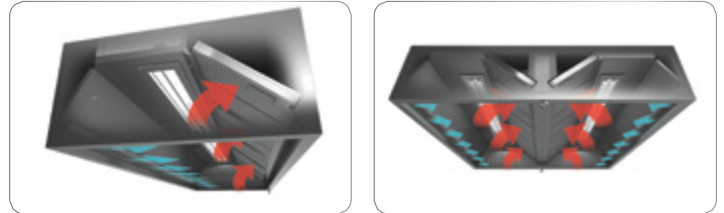
EXHAUST ONLY HOODS, FOR LOW CEILING

The special tapered shape of these hoods allows them to be installed in kitchens with low ceiling. Typically, these hoods are installed in snack bars, cafeterias, etc., where cooking loads are moderate.



EXHAUST HOODS WITH AIR JET

Air jet system allows to increase the capture and containment efficiency of the hood. The air jets provide a dual effect: they stabilize and propel the rising thermal plume towards the filter bank and also help to confine effluents inside the hood volume.



EXHAUST HOODS WITH AIR JET AND AIR SUPPLY

The top-of-the-line exhaust hoods boast with increased capture and containment efficiency and an air supply feature, which allows to introduce fresh air directly under the exhaust hood and help to establish comfortable working environment.



HEAT AND CONDENSATE HOODS

It is the ultimate choice for dishwashing areas. Instead of filters, this exhaust hood is equipped with condensate plates, which effectively capture steam and turn it into liquid. This helps to dramatically reduce the humidity levels in the ventilation system.



HEAT AND FUME HOODS

The hood is designed to extract heat and fumes only. It does not have filters or condensing plates, thus it is not recommended for kitchen environments with excessive amounts of grease particles and steam.



AIR SUPPLY PLENUMS

Air supply plenums introduce low velocity make-up air through a perforated front panel. The unit provides all the advantages of displacement ventilation and allows the kitchen to avoid draughts. The plenums are designed to be installed in front or along a side of an exhaust hood, however, they may well be used as a standalone unit.



FEATURES AND ACCESSORIES



AISI 304

AISI 304 steel



Cyclonic grease filters



LED/fluorescent luminaires



Airflow adjustment dampers



Pressure ports



Cover panels



Integrated air jet fans



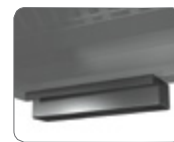
Integrated exhaust fans



Multiple hood assembly



Grease outlet valve



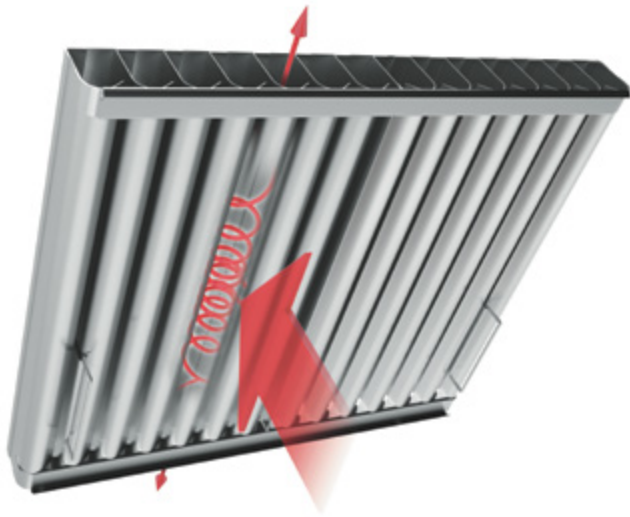
Removable grease tray



ECO STEEL

AISI 430 steel

HIGH EFFICIENCY CYCLONIC FILTERS



CYCLONIC WORKING PRINCIPLE

Novameta cyclonic filters exploit centrifugal force to extract grease particles with efficiency of up to 95%. When grease-laden air enters **Novameta** cyclonic filter, it is forced to transform its path into a series of cyclones. The grease particles in the rotating streams have too much inertia to follow a cyclonic curve of the stream. As a result, the particles strike inner walls of filter channels and permanently stick to it.

VALIDATED HIGH EFFICIENCY

Comparative study has been carried out at Kaunas University of Technology, where **Novameta** cyclonic and industry standard baffle (labyrinth) filters have been tested. It has been found, that **Novameta** cyclonic filters are over two times more effective than the common baffle (labyrinth) filters at the same exhaust air flow rate!

High extraction efficiency results in more hygienic kitchen environment, reduced fire risks and translates into direct savings to the customer by requiring less frequent duct and exhaust fan cleaning and maintenance.

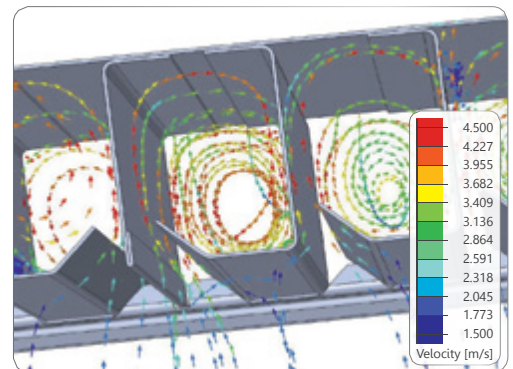
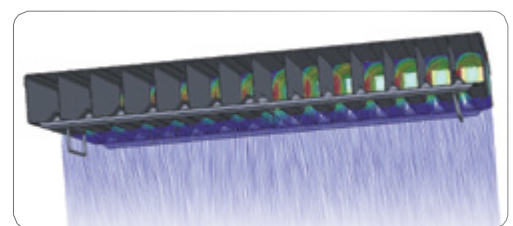
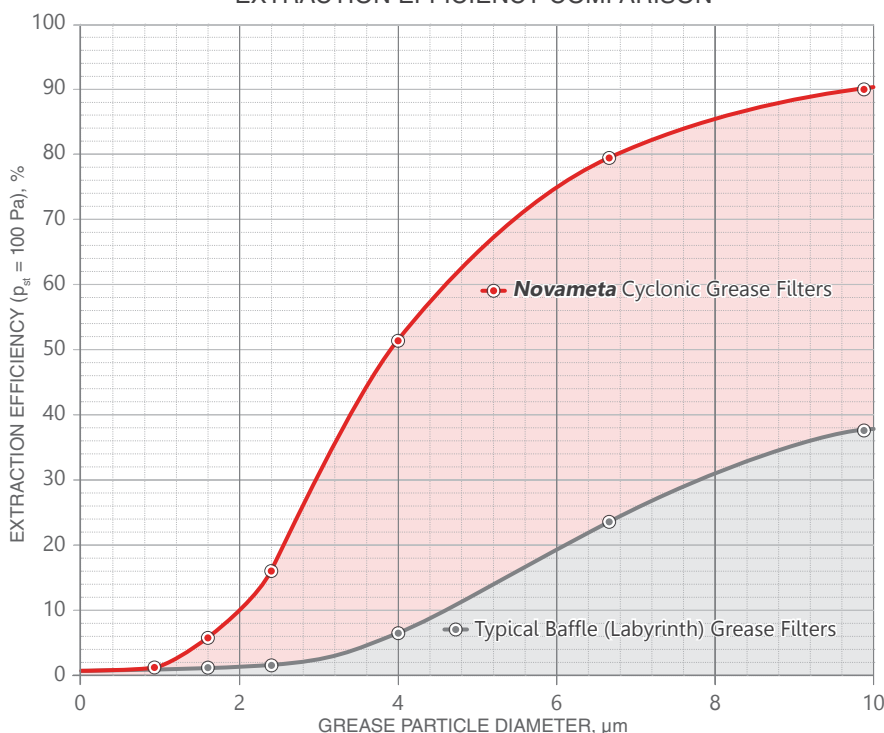
FLAME-PROOF DESIGN

The design of **Novameta** filters reduces fire hazard and ensures that highest fire-safety standards are met. The filter has a fully closed backside, which works as a barrier to stop flame penetrating into the hood plenum and the ductwork. Thanks to inclined position of the filters inside the hood, flammable grease does not accumulate inside the filter – gravity causes grease particles drip down to the grease collection trough. **Novameta** cyclonic filters are completely made of 0,8-1,0 mm AISI 304 steel and designed to be washed in any commercial dishwasher.

TECHNICAL CHARACTERISTICS FROM KTU AND FORCE TECHNOLOGY

Novameta filters, as well as hoods, have been developed and tested using the cutting edge CFD (Computational Fluid Dynamics) analysis. CFD analysis is being applied to the design and optimization of Formula 1 cars, space shuttle R&D and in numerous of other advanced mechanical and industrial engineering applications. The CFD tests along with a number of experimental investigations at Kaunas University of Technology (Lithuania) and laboratories of FORCE TECHNOLOGY (Denmark) have been made in order to determine the characteristics and behaviour of **Novameta** exhaust hoods. **Novameta** hoods are provided with recommended air flow rates and full pressure drop characteristics required to select the most appropriate exhaust fan for the kitchen ventilation system, as well as to conveniently set-up the exhaust hood according to the required exhaust flow rate.

EXTRACTION EFFICIENCY COMPARISON



TESTED AND DEVELOPED IN COOPERATION WITH



AIR JET SYSTEM INCREASES CAPTURE EFFICIENCY

Exhaust hoods with integrated air jet system contribute to substantial energy savings of the kitchen ventilation system. The system takes advantage of the induction effect which considerably increases capture and containment efficiency of the hood. In other words – by supplying around 7% of required exhaust flow rate to the air jet system, it allows to have the exhaust flow rates as much as 20% lower and maintain the same capture and containment efficiency.

The air jet system helps to increase the efficiency by introducing conditioned or unconditioned air through a series of nozzles located at the opposite side of the filter bank. The jets induce multiple low velocity air streams towards the filters and provide a dual effect: firstly, it stabilizes the rising thermal plume by forming a vortex within the hood and propels it towards the filters. Secondly, the jets create an air „curtain”, which helps to confine the hot plume inside the hood chamber and minimizes the chances of escaping before it gets exhausted. The induction air jet system is recommended by German VDI 2052 regulation.

AIR SUPPLY SYSTEM CONTRIBUTES TO INCREASING KITCHEN COMFORT

The air supply system allows to introduce fresh make-up air to the most critical space in the kitchen – next to the cooking equipment. The feature increases comfort levels for the staff, since the fresh air is supplied directly to the most occupied zone with the highest heat loads in the kitchen. The air is supplied through a large perforated panel at low velocity, which allows to avoid drafts, minimize mixing and ensure that the capture and containment efficiency of the exhaust hood is not compromised.

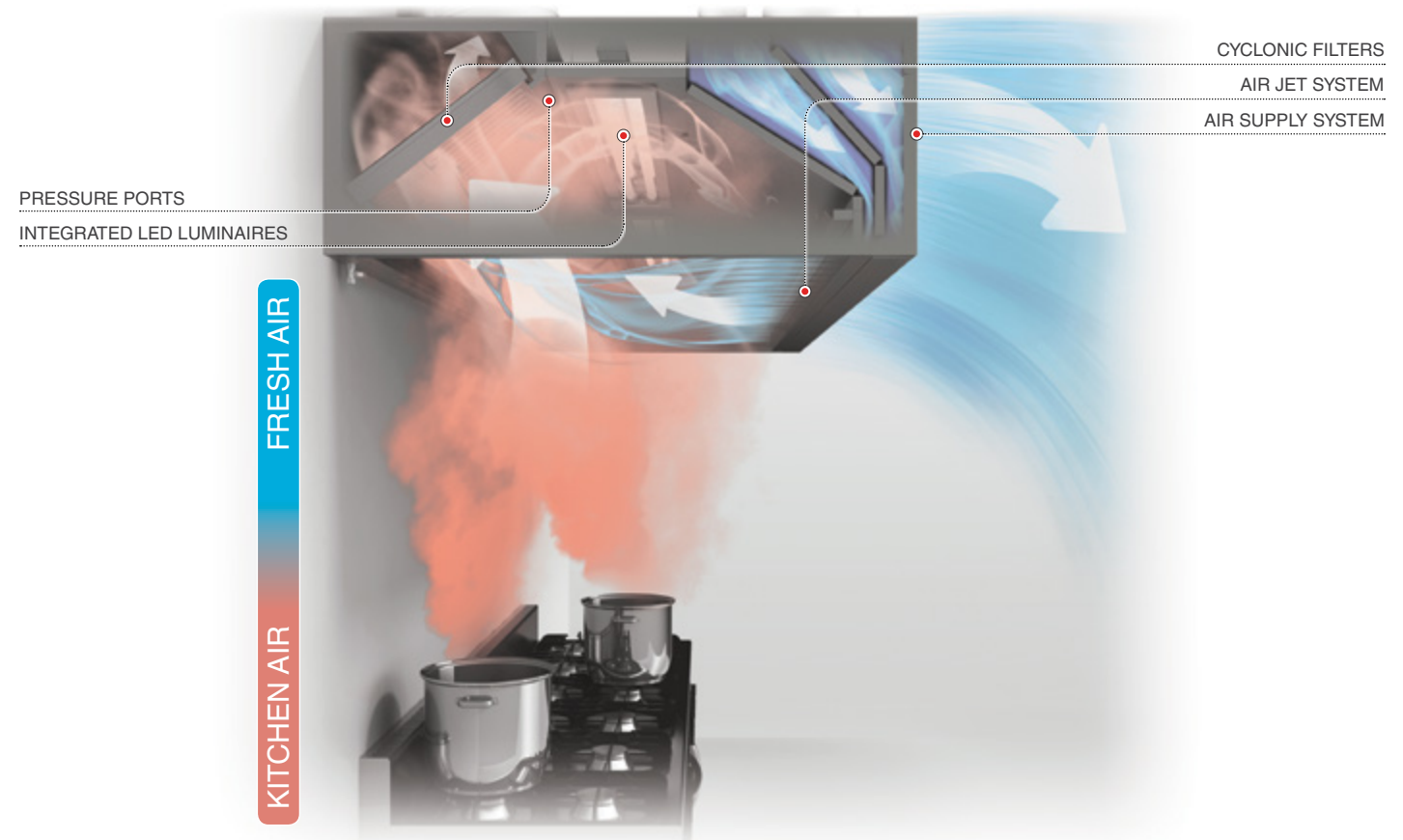
PRESSURE PORTS FOR EASY ADJUSTMENT AND BALANCING

Novameta exhaust hoods come with full technical specifications – pressure drop characteristics, k-factors and recommended air flow rates. Each hood is supplied with pressure ports, which allow to determine the actual exhaust and supply air flow rates by using a simple manometer and referring to pressure drop characteristics. The feature allows to easily adjust and balance exhaust hoods according to the calculated exhaust and supply flow rates.



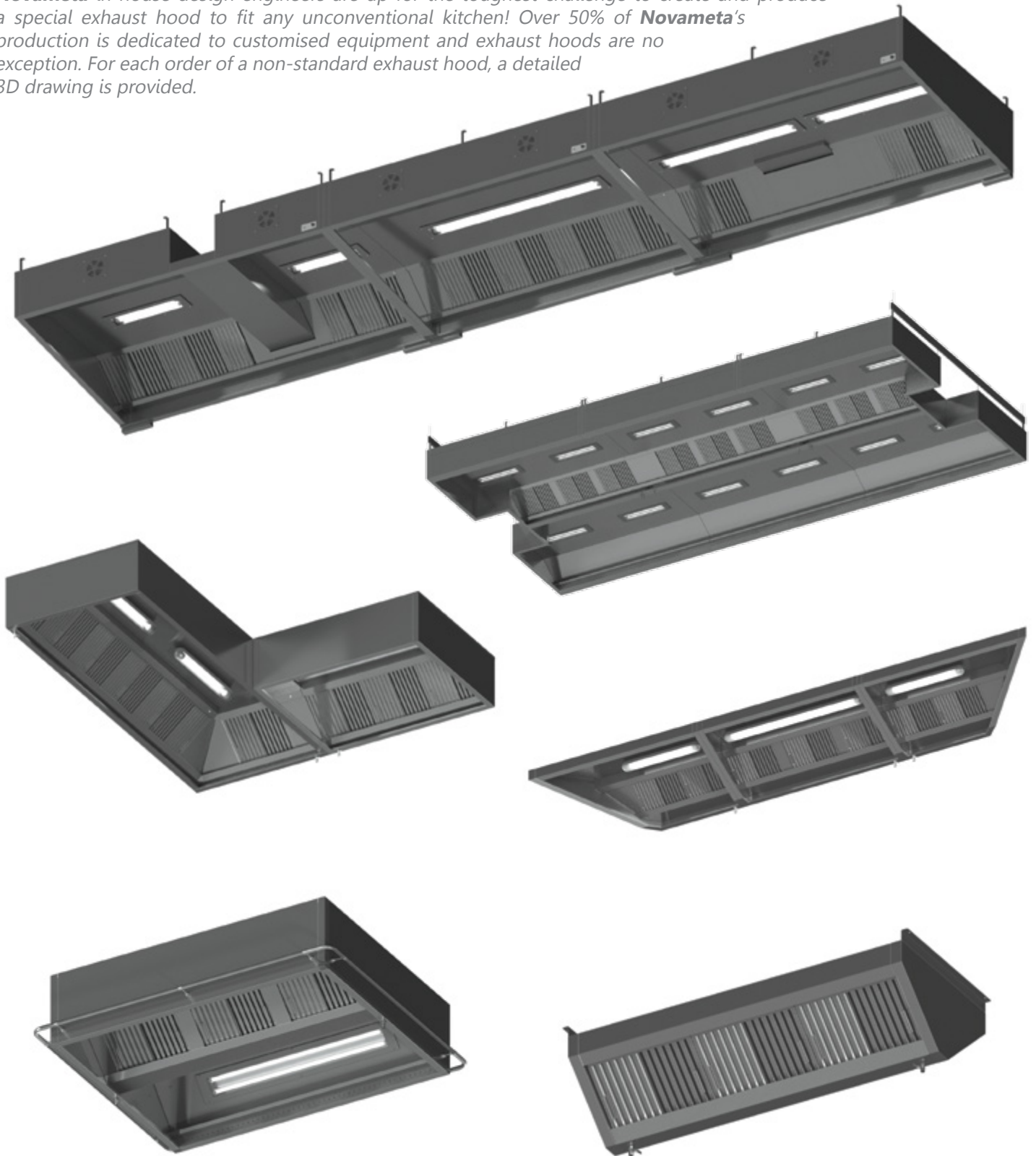
INTEGRATED LED LUMINAIRES PROVIDE ENERGY SAVINGS

The ultimate choice for illumination is recessed LED luminaires which offer energy savings of up to 60%! The luminaires smoothly blend into the design of each hood and provide a pleasant and uniform warm white colour light. The recessed lighting fixture is easy to clean, heat resistant and IP65 rated. The LED tubes used in luminaires come from OSRAM – they are designed for high operating hours and offer up to 50,000 h lifetime.



i EXAMPLES OF CUSTOMISED EXHAUST HOODS

Novameta in-house design engineers are up for the toughest challenge to create and produce a special exhaust hood to fit any unconventional kitchen! Over 50% of **Novameta's** production is dedicated to customised equipment and exhaust hoods are no exception. For each order of a non-standard exhaust hood, a detailed 3D drawing is provided.



i REFERENCES

LARGE VENUES

Tele2 Arena, Stockholm, Sweden
Žalgiris Arena, Kaunas, Lithuania
Aust-Agder museum, Arendal, Norway
Telenor Arena, Oslo, Norway
Dzintaru koncertzāle, Jurmala, Latvia
Åhléns, Stockholm, Sweden

COMPANY CANTEENS

Microsoft HQ, Copenhagen, Denmark
IKEA store, Vilnius, Lithuania
ISS, Tromsø, Norway
Riks TV, Oslo, Norway
DSV, Copenhagen, Denmark
Maersk Drilling, Copenhagen, Denmark
Zealand Business College, Næstved, Denmark
DSV, Kolbotn, Norway

HOTELS AND RESTAURANTS

Kempinski Hotel Cathedral Square, Vilnius, Lithuania
Copenhagen Towers, Copenhagen, Denmark
Olympen Restaurant, Oslo, Norway
Glostrup Park Hotel, Copenhagen, Denmark
IDW Esperanza Resort, Trakai, Lithuania
Himmerland Golf and Spa Resort, Farsø, Denmark
Popino Restaurant, Hämeenlinna, Finland
Radisson Blu Hotel, Vilnius, Lithuania
Rockabilly House, Riga, Latvia

Novameta is the largest and fastest growing manufacturer of stainless steel commercial kitchen equipment in Baltic and Scandinavian countries. Extensive 15-year experience, attention to details along with an innovative mindset are the key factors which have enabled **Novameta** to establish trust in 17 markets throughout Europe.

A wide range of hot, cold and neutral standard equipment, precisely engineered and crafted non-standard products combined with a short, typically 2-3 week lead time is what makes us stand out of the crowd. What is more, our experienced team is all set to provide professional support and technical advice, enabling our clients to turn their ideas to tailor made turnkey solutions.






All of our products are marketed through a professional network of distributors throughout Europe. We are proud to provide an all-round assistance to our dealers, helping them to excel in the things they do best – planning, taking care of supply, installation and service to fulfil the needs of catering, bakery and retail industries.

Our main objectives are to maintain solid positions in Europe through sustaining partnership relationships with our clients, whilst at the same time expanding into new markets worldwide. Experienced and ambitious sales team, application of up-to-date 3D CAD software in our in-house design department, employment of latest production technologies and LEAN quality management based on ISO 9001:2000 standard, have determined the rapid expansion of our sales markets and therefore the consequent quick growth of the company.

Currently, over 140 employees work in the enterprise and the production area covers 3700 m². **Novameta** manufactures over 180 different items every day!



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Technical specifications and prices are subject to change.

DISHWASHING EQUIPMENT

Wide range of inlet and outlet tables to dishwasher and various customised solutions for sorting lines

PROFESSIONAL KITCHEN WORKTABLES

Huge variety of standard and customised worktables for creating an ergonomic and functional workspace for every chef

EXHAUST HOODS

Many different configurations of highly efficient hoods featuring cutting-edge technologies of cyclonic filtration, induction jets and laminar flow air supply

SHELVES AND CUPBOARDS

Numerous types of wall and upper shelves, wall cabinets, cupboards and shelving systems

TROLLEYS

More than 60 types of standard trolleys as well as many more customised variations

COOLING COUNTERS AND HEATED EQUIPMENT

More than 1000 models of standard cooling counters, different heated cupboards and upper shelves

BAR EQUIPMENT

Unlimited flexibility in unique coffee-station and bar solutions

OTHER TABLES AND STANDS

Different stands for all kinds of equipment, hand-wash basins and bakery or food processing tables with cutting boards

SERVING LINE EQUIPMENT

Various types of heating and cooling drop-in units, dispensers and shelving together with robust and elegant buffets and counters